
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER
Pursuant to Rule 13a-16 or 15d-16
under the Securities Exchange Act of 1934

For the Month of June 2023

Commission File Number: 001-37668

FERROGLOBE PLC
(Name of Registrant)

13 Chesterfield Street,
London W1J 5JN, United Kingdom
(Address of Principal Executive Office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F

Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

2023 Annual General Meeting of Ferroglobe PLC

On June 2, 2023, Ferroglobe PLC ("Ferroglobe" or the "Company") released its Notice of 2023 Annual General Meeting ("2023 AGM") and Annual Report and Accounts for the fiscal year ended December 31, 2022. The 2023 AGM will be held at 14:00 British Summer Time (BST) on Tuesday, June 27, 2023 at Ferroglobe PLC, 13 Chesterfield Street, London, W1J 5JN, United Kingdom.

Exhibits

Reference is made to the Exhibit Index included hereto.

EXHIBIT INDEX

Exhibit No.	Description
99.1	Notice of Annual General Meeting
99.2	Ferroglobe PLC Annual Report and Accounts for the fiscal year ended December 31, 2022
99.3	Extracts from the 2022 Form 20-F
99.4	Form of Proxy Card for 2023 Annual General Meeting

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: June 2, 2023
FERROGLOBE PLC

by /s/ Marco Levi
Name: Marco Levi
Title: Chief Executive Officer (Principal Executive Officer)

**FERROGLOBE PLC**

(a public limited company having its registered office at 5 Fleet Place, London, EC4M 7RD, United Kingdom and incorporated in England and Wales with company number 9425113)

30 May 2023

Dear Shareholder

2023 Annual General Meeting of Shareholders of Ferroglobe Plc (“Ferroglobe” or the “Company”)

I am pleased to invite you to attend Ferroglobe’s annual general meeting of its shareholders (the “**Annual General Meeting**” or “**AGM**”), to be held at 14:00 (British Summer Time) on Tuesday, 27 June 2023 at the Company’s offices at 13 Chesterfield Street, London, W1J 5JN, United Kingdom. The accompanying notice of Annual General Meeting (“**Notice**”) describes the meeting, the resolutions you will be asked to consider and vote upon and related matters.

Your vote is important, regardless of the number of shares you own. Whether or not you intend to attend the Annual General Meeting, please vote as soon as possible to make sure that your shares are represented. You may vote via the internet, by phone or by mail by signing, dating and returning your proxy card in the envelope provided. To ensure your vote is counted, please ensure that your proxy vote is submitted through the relevant channels by not later than 00:01 BST on Monday, 26 June 2023.

Recommendation

We consider all resolutions proposed to shareholders at the Annual General Meeting to be standard business. You will find an explanation of each resolution within the Explanatory Notes on pages 3 to 10 of this pack. The Company’s board of directors (the “**Board**”) considers that all the resolutions to be put to the Annual General Meeting are in the best interests of the Company and its shareholders as a whole and are most likely to promote the success of the Company. The Board unanimously recommends that you vote in favour of each of the proposed resolutions, as the members of the Board intend to do in respect of their beneficial holdings.

Thank you for your continued support of Ferroglobe.

Yours sincerely,

Javier López Madrid
Executive Chairman



Ferroglobe

FERROGLOBE PLC

(a public limited company having its registered office at 5 Fleet Place, London, EC4M 7RD, United Kingdom and incorporated in England and Wales with company number 9425113)

NOTICE OF 2023 ANNUAL GENERAL MEETING OF SHAREHOLDERS

To the holders of ordinary shares of Ferroglobe Plc (“**Ferroglobe**” or the “**Company**”):

Notice is hereby given that Ferroglobe’s Annual General Meeting of shareholders will be held on Tuesday, 27 June 2023 at 14:00 (British Summer Time), at the offices of the Company at 13 Chesterfield Street, London, W1J 5JN, United Kingdom (“**U.K.**”).

The business of the Annual General Meeting will be to consider and, if thought fit, pass the resolutions below. All resolutions will be proposed as ordinary resolutions. Explanations of the resolutions are given in the explanatory notes on pages 3 to 10 of this Annual General Meeting notice and additional information on voting at the Annual General Meeting can be found on pages 9 to 10. All resolutions will be put to vote on a poll, where each shareholder has one vote for each share held.

Certain of the resolutions that shareholders of the Company will be asked to consider may not be familiar to them because, unlike many companies with shares traded on the Nasdaq Capital Market (“**Nasdaq**”), the Company is incorporated under the laws of England and Wales and is therefore subject to the U.K. Companies Act 2006 (the “**Companies Act**”). The Companies Act obliges the Company to propose certain matters to shareholders for approval that would generally not be subject to periodic approval by shareholders of companies incorporated in the United States but would be considered routine items for approval by shareholders of companies incorporated in England and Wales.

ORDINARY RESOLUTIONS:

U.K. Annual Report and Accounts 2022

- 1 THAT the directors’ and auditor’s reports and the accounts of the Company for the financial year ended 31 December 2022 (the “**U.K. Annual Report and Accounts**”) be received.

Directors’ 2022 Remuneration Report

- 2 THAT the directors’ annual report on remuneration for the year ended 31 December 2022 (excluding, for the avoidance of doubt, any part of the Directors’ remuneration report containing the directors’ remuneration policy), as set out on pages 32 to 33 and 46 to 60 of the U.K. Annual Report and Accounts be approved.

Directors' Re-election

- 3 THAT Javier López Madrid be re-elected as a director.
- 4 THAT Marco Levi be re-elected as a director.
- 5 THAT Marta Amusatogui be re-elected as a director
- 6 THAT Bruce L. Crockett be re-elected as a director.
- 7 THAT Stuart E. Eizenstat be re-elected as a director.
- 8 THAT Manuel Garrido y Ruano be re-elected as a director.
- 9 THAT Juan Villar-Mir de Fuentes be re-elected as a director.
- 10 THAT Belen Villalonga be re-elected as a director.
- 11 THAT Silvia Villar-Mir de Fuentes be re-elected as a director.
- 12 THAT Nicolas De Santis be re-elected as a director.
- 13 THAT Rafael Barrilero Yarnoz be re-elected as a director.

Appointment of Auditor

- 14 THAT KPMG Auditores, S.L. be appointed as auditor of the Company to hold office from the conclusion of the Annual General Meeting until the conclusion of the next general meeting at which accounts are laid before the Company.

Remuneration of Auditor

- 15 THAT the Audit Committee of the Board be authorised to determine the auditor's remuneration.

Thomas Wiesner
Company Secretary

30 May 2023

Explanatory notes to the resolutions

Resolution 1 (U.K. Annual Report and Accounts 2022)

The Board is required to present at the Annual General Meeting the U.K. Annual Report and Accounts for the financial year ended 31 December 2022, including the Directors' Report and the Auditor's Report on the U.K. Annual Report and Accounts and on those parts of the Directors' Remuneration Report which have been audited.

Resolution 1 is an advisory vote and in accordance with its obligations under English law, the Company will provide shareholders at the Annual General Meeting with the opportunity to receive the U.K. Annual Report and Accounts and ask any relevant and appropriate questions on the U.K. Annual Report and Accounts of the Board and or auditors in attendance at the Annual General Meeting.

Resolution 2 (directors' annual remuneration report)

Resolution 2 is an advisory vote to approve the directors' annual remuneration report for the year ended 31 December 2022. The directors' remuneration report is set out on pages 32 to 33 and 46 to 60 of the U.K. Annual Report and Accounts. It provides information on the remuneration of the directors for 2022 and that proposed for 2023; it includes a statement by the Chairman of the Compensation Committee but excludes the Remuneration Policy which was approved by shareholders at the AGM in 2022.

Resolutions 3 to 13 (directors seeking election or re-election)

In line with best practice in corporate governance, all our directors retire annually and, if agreed with them that they will continue in office, they offer themselves for re-election by the shareholders. Any director appointed by the Board since the last Annual General Meeting must stand for election at the next Annual General Meeting.

The biographies of the directors standing for re-election at the Annual General Meeting are set out below to enable shareholders to make an informed decision on their re-election. The biographies give the date of appointment of each director to the Board or Committees of Ferroglobe. Certain of our directors have also held roles at Grupo FerroAtlántica S.A.U. ("FerroAtlántica") or Globe Speciality Metals, Inc. ("Globe"). On 23 December 2015 FerroAtlántica merged with Globe through corporate transactions (the "Business Combination") to form the Ferroglobe group of companies under Ferroglobe's ownership.

Javier López Madrid

Javier López Madrid has been Executive Chairman of the Company since December 31, 2016 and was Chairman of our Nominations Committee from January 1, 2018 until May 29, 2023. He was first appointed to the Board on February 5, 2015 and was the Company's Executive Vice-Chairman from December 23, 2015 until December 31, 2016.

He has been Chief Executive Officer of Grupo VM since 2008, is member of the Board of several non profit organizations. He is the founder and largest shareholder of Financiera Siacapital and founded Tressis, Spain's largest independent private bank. Mr. López Madrid holds a Masters in law and business from ICADE University.

Marco Levi

Marco Levi was appointed Chief Executive Officer of the Company on January 10, 2020 and appointed to its Board of Directors on January 15, 2020. Dr Levi previously served as President and CEO of Alhstrom-Munksjö Oyj, a global fiber materials company listed in Finland, where he led a successful transformation of the business by refocusing its product portfolio towards value-added specialty products. Prior to that, Dr. Levi was Senior Vice President and Business President of the \$3 billion emulsion polymers division of chemicals manufacturer Styron, including during the period in which Styron division was acquired by Bain Capital from Dow Chemical Company. Dr. Levi previously had spent over twenty-two years at Dow in various departments and roles, ultimately serving as general manager of the emulsion polymers business.

Dr Levi is also a Non-Executive Director of Mativ Holdings, Inc, the leading global performance materials company, listed on the New York Stock Exchange. Dr Levi holds a doctorate in industrial chemistry from the Università degli Studi di Milano, Statale, in Italy.

Marta de Amusatogui y Vergara

Marta de Amusatogui y Vergara was appointed to our Board of Directors as a Non-Executive Director on June 12, 2020. She has been a member of our Audit Committee from that date and a member of the Compensation Committee since June 23, 2021.

Ms. Amusatogui has substantial experience in executive and non-executive roles, with a background in business strategy, banking and finance. She is founder and partner of Abrego Capital S.L, providing strategic and financial advisory services, and co-founder of Observatorio Industria 4.0, the professional forum leveraging knowledge and experience to assist businesses, specifically those in the secondary sector, in their digital transformation. She began her career in management consulting and investment banking, serving as Country Executive Officer and General Manager with Bank of America in Spain from 2003 to 2008.

Ms. Amusatogui has been a member of the Board of Eland Private Equity, S.G.E.I.C., S.A., a private equity management company specializing in renewable energies, since 2009. Since 2020, she has been a member of the board of directors of Eccocar Sharing S.L. She has also held other Board positions in the past, including that of Telvent GIT S.A. (NASDAQ TLVT), the global IT solutions and business information services provider, where she became an independent director from early 2010 until its de-listing following acquisition in December 2011. She is currently a member of the McKinsey Alumni Council in Spain.

Ms. Amusatogui holds an Industrial Engineering degree (MSc equivalent) from Universidad Pontificia de Comillas, Madrid, Spain, and an MBA from INSEAD, Fontainebleau, France. She has held a number of academic appointments, lecturing in Financing at the Three Points Digital Business School, Grupo Planeta, in Barcelona, in Managerial Competencies in CUNEF, in Madrid, and in Risk Management on the Non-Executive Directors Program at ICADE Business School, also in Madrid.

Bruce L. Crockett

Bruce L. Crockett was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015. He has been a member of our Audit Committee from that date and was Chair of the Audit Committee since June 4, 2020 and served on our Compensation Committee from January 1, 2018 until June 23, 2021. Mr. Crockett was appointed on May 13, 2021 as our Senior Independent Director and on June 23, 2021 as Chair of the Corporate Governance Committee until May 29, 2023, on which date he was appointed as a member of the Nominations and Governance Committee.

Mr. Crockett holds a number of other Board and governance roles. He has been Chairman of the Invesco Mutual Funds Group Board of Directors and a member of its Audit, Investment and Governance Committees, serving on the board since 1991, as Chair since 2003 and on the Board of predecessor companies from 1978. Since 2013, he has been a member of the Board of Directors and, since 2014, Chair of the Audit Committee and since 2021 member of the Governance Committee of ALPS Property & Casualty Insurance Company. He has been Chairman of, and a private investor in, Crockett Technologies Associates since 1996. He is a life trustee of the University of Rochester.

Mr. Crockett was a member of the Board of Directors of Globe from April 2014 until the closing of the Business Combination, as well as a member of Globe's Audit Committee. He was formerly President and Chief Executive Officer of COMSAT Corporation from 1992 until 1996 and its President and Chief Operating Officer from 1991 to 1992, holding a number of other operational and financial positions at COMSAT from 1980, including that of Vice President and Chief Financial Officer. He was a member of the Board of Directors of Ace Limited from 1995 until 2012 and of Captaris, Inc. from 2001 until its acquisition in 2008 and its Chairman from 2003 to 2008.

Mr. Crockett holds an A.B. degree from the University of Rochester, B.S. degree from the University of Maryland, an MBA from Columbia University and an Honorary Doctor of Law degree from the University of Maryland.

In 2021 he was appointed as a member of the Board of Advisors of the Western Colorado University Graduate Business School.

Stuart E. Eizenstat

Stuart E. Eizenstat was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015. He

was a member of the Company's Corporate Governance Committee from January 1, 2018 until May 29, 2023 and served on our Nominations Committee from May 16, 2018 until May 29, 2023, on which date he was appointed as a member of the Compensation Committee.

Mr. Eizenstat has been a Senior Counsel at Covington & Burling LLP in Washington, D.C. and headed its international practice for many years after joining the firm in 2001. He has served as a member of the Advisory Boards of GML Ltd. since 2003 and of the Office of Cherifien de Phosphates since 2010. He was a trustee of BlackRock Funds from 2001 until 2018.

Mr. Eizenstat was a member of Board of Directors of Globe from 2008 until the closing of the Business Combination and Chair of its Nominating Committee. He was a member of the Board of Directors of Alcatel-Lucent from 2008 to 2016 and of United Parcel Service from 2005 to 2015. He has had an illustrious political and advisory career, including serving as Special Adviser to Secretary of State Kerry on Holocaust-Era Issues from 2009 to 2017 and Special Representative of the President and Secretary of State on Holocaust Issues during the Clinton administration from 1993 to 2001. He was Deputy Secretary of the United States Department of the Treasury from July 1999 to January 2001, Under Secretary of State for Economic, Business and Agricultural Affairs from 1997 to 1999, Under Secretary of Commerce for International Trade from 1996 to 1997, U.S. Ambassador to the European Union from 1993 to 1996 and Chief Domestic Policy Advisor in the White House to President Carter from 1977 to 1981. He is the author of "Imperfect Justice: Looted Assets, Slave Labor, and the Unfinished Business of World War II"; "The Future of the Jews: How Global Forces are Impacting the Jewish People, Israel, and its Relationship with the United States" and "President Carter: The White House Years."

Mr. Eizenstat holds a B.A. in Political Science, cum laude and Phi Beta Kappa, from the University of North Carolina at Chapel Hill, a J.D. from Harvard Law School and nine honorary doctorate degrees from colleges and universities, high honors from the United States, French (Legion of Honor), German, Austrian, Belgian and Israeli governments, and over 75 awards from various organizations.

Manuel Garrido y Ruano

Manuel Garrido y Ruano was appointed to our Board of Directors as a Non-Executive Director on May 30, 2017. He was a member of our Nominating and Corporate Governance Committee from May 30, 2017 until December 31, 2017, and served on our Corporate Governance Committee from December 31, 2017 until May 29, 2023.

Mr. Garrido y Ruano has been Chief Financial Officer of Grupo Villar Mir since 2003 and he is currently member of the Board of its subsidiary in the energy sector, and member of the steering Committee of its real estate subsidiary. In June 2021 he was appointed non executive Chairman of Fertial SPA the Algerian fertilizers subsidiary of the Group.

He is Professor of Corporate Finance of one Graduate Management Program at the Universidad de Navarra, and has also been Professor of Communication and Leadership of the Graduate Management Program at CUNEF in Spain.

Mr. Garrido y Ruano was a member of the steering committee of FerroAtlántica until 2015, having previously served as its Chief Financial Officer from 1996 to 2003. He worked with McKinsey & Company from 1991 to 1996, specializing in restructuring, business development and turnaround and cost efficiency projects globally.

Mr. Garrido y Ruano holds a Masters in Civil Engineering with honors from the Universidad Politécnica de Madrid and an MBA from INSEAD, Fontainebleau, France.

Juan Villar-Mir de Fuentes

Juan Villar-Mir de Fuentes was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015.

Mr. Villar-Mir de Fuentes is currently Chairman of Inmobiliaria Espacio, S.A and Grupo Villar Mir, S.A.U. In both companies he served as Vice Chairman since 1996 and since 1999 respectively. He is currently Second Vice Chairman of Obrascón Huarte Lain, S.A and has been serving as a member of the Board of Directors since 1996, first as a member of the Audit Committee and, later, as a member of its Compensation Committee. He was a Board Director and member of the Compensation Committee of Inmobiliaria Colonial, S.A from June 2014 to May 2017. He also was a member of the Board of

Directors and of the Compensation Committee of Abertis Infraestructuras, S.A. between 2013 and 2016.

Mr. Villar-Mir de Fuentes is Patron and member of the Patronage Council of Fundación Nantik Lum and of Fundación Santa María del Camino.

Mr. Villar-Mir holds a Bachelor's Degree in Business Administration and Economics and Business Management from the Universidad Autónoma de Madrid.

Belen Villalonga Morenés

Belen Villalonga Morenés was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. She has been a member of the Audit Committee from that date and served as a member of the Corporate Governance Committee from June 23, 2021 until May 29, 2023, on which date she was appointed to the Nominations and Governance Committee.

Ms. Villalonga is a Professor of Management and Organizations, a Yamaichi Faculty Fellow, and a Professor of Finance (by courtesy) at New York University's Stern School of Business. Between 2001 and 2012 she was a faculty member at the Harvard Business School. During 2018-2019 she was a Visiting Professor at Oxford University's Said Business School. Her teaching, research, and consulting activities are in the areas of corporate governance, strategy, and finance, with a special focus on family-controlled companies. Her award-winning research has been cited over 17,000 times in scholarly articles and international media outlets.

Professor Villalonga is an independent director at Banco Santander International (Santander group's private banking subsidiary in the United States), as well as at Mapfre USA (insurance). She was also an independent director for many years at three global companies publicly listed in Spain: Acciona (renewable energy and infrastructure), Grifols (biopharma), and Talgo (high-speed trains).

Ms. Villalonga holds a Ph.D. in Management and an M.A. in Economics from the University of California at Los Angeles, where she was a Fulbright Scholar. She also holds a Ph.D. in Business Economics from the Complutense University of Madrid.

Silvia Villar-Mir de Fuentes

Silvia Villar-Mir de Fuentes was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. She served as a member of the Compensation Committee from June 23, 2021 until May 29, 2023. Ms. Villar-Mir de Fuentes currently serves on the board of directors of Grupo Villar Mir, a privately held Spanish group with investments across a broad range of diversified industries, which is the beneficial owner of approximately 40% of the Company's share capital.

Mrs. Villar-Mir de Fuentes is a summa cum laude graduate in Economics and Business Studies, with concentration in finance and accounting, from The American College in London, United Kingdom.

Nicolas De Santis

Nicolas De Santis was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. He has been a member of the Compensation Committee since June 23, 2021 and served as a member of the Nominations Committee from June 23, 2021 until May 29, 2023, on which date he was appointed as Chair of the Nominations and Governance Committee. Mr. De Santis is a technology entrepreneur, strategist and author with substantial experience in executive and non-executive roles. Mr. De Santis is currently the Chief Executive Officer of De Santis Corporate Vision Strategists Ltd, a strategy and innovation consultancy and incubator. De Santis advises multinational corporations and start-ups on digital business transformation (including artificial intelligence and machine learning), business strategy, branding, business model innovation, sustainability strategies and corporate culture change.

Previously Mr. De Santis served on the board of publicly traded Lyris Technologies (acquired by AUREA Software in 2015). He began his management career at Landor Associates (now WPP Group). As a technology entrepreneur, he co-founded several high-profile start-ups, including opodo.com, one of Europe's most successful start-ups, reaching \$1.5 billion in gross sales.

Mr. De Santis is a regular lecturer at business schools and universities on business strategy, global branding, business model innovation and culture transformation, including IE Business School, Madrid and the University of Wyoming. He is the author of *Futurising Companies®* - A systematic approach to win the future by managing culture as the operating system of organisations.

Rafael Barrilero Yarnoz

Rafael Barrilero Yarnoz was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. He was appointed Chair of the Compensation Committee and served as a member of the Nominations Committee from June 23, 2021 until May 29, 2023.

Mr. Barrilero Yarnoz is a senior advisor at Mercer Consulting. Mr. Barrilero Yarnoz has developed his career as a partner of the firm and as a member of the executive committee, leading the advisory talent and reward service for the boards of the main companies and multinationals. He has also led the business throughout the EMEA. Previously, he led the Watson Wyatt consulting firm in Madrid. He began his career as a lawyer at Ebro Agrícolas focused on labour law, before serving as Ebro's head of human resources. In January 2022 he joined the board of directors of AltamarCAM and Grupo Hedima, as a permanent Senior Advisor. He collaborates with the HAZ foundation, whose mission is to ensure transparency and good corporate governance.

Mr. Barrilero Yarnoz has a law degree from Deusto and a Masters in Financial Economics from ICADE, as well as a masters in human resources by Euroforum-INSEAD.

Resolution 14 (appointment of auditor)

At each general meeting at which accounts are laid before the shareholders, the Company is required to appoint an auditor to serve until the next such meeting. On May 29, 2023, the Board resolved to submit to the next annual general meeting of the shareholders the appointment of KPMG Auditores, S.L. as external auditors of the Company and its subsidiaries for the 2023 financial year. The Audit Committee selected KPMG to be the auditors of Ferroglobe PLC and its subsidiaries, at its meeting held the same day, pursuant to the authority granted by the Board in the Committee's Terms of Reference and following a tender process.

If this resolution does not receive the affirmative vote of a majority of the shares entitled to vote and represented by proxy or, where appropriate, present in person at the Annual General Meeting, the Board may appoint an auditor to fill the vacancy.

Resolution 15 (remuneration of auditor)

Under the Companies Act, the remuneration of the Company's U.K. statutory auditor must be fixed in a general meeting or in such manner as may be determined in a general meeting. The Company asks its shareholders to authorise the Audit Committee to determine the remuneration of KPMG Auditores, S.L. in its capacity as the Company's U.K. statutory auditor under the Companies Act.

Further notes:

1. Some of the resolutions are items that are required to be approved by shareholders periodically under the Companies Act and generally do not have an analogous requirement under United States laws and regulations. As such, while these resolutions may be familiar and routine to shareholders accustomed to being shareholders of companies incorporated in England and Wales, other shareholders may be less familiar with these routine resolutions and should review and consider each resolution carefully.
2. In accordance with the Articles, all resolutions will be taken on a poll. Voting on a poll will mean that each Ordinary Share represented in person or by proxy will be counted in the vote.
3. All resolutions will be proposed as ordinary resolutions, which means that such resolutions must be passed by a simple majority of the total voting rights of shareholders who vote on such resolutions, whether in person or by proxy. The results of the shareholders' vote on resolutions 1 and 2 regarding receipt of the U.K. Annual Report and Accounts and approval of the Directors' Annual Remuneration Report will not require the Board or any Committee

thereof to take (or refrain from taking) any action. The Board values the opinion of shareholders as expressed through such resolutions and will carefully consider the outcome of the votes on these resolutions.

4. **“Shareholders of record”** are those persons registered in the register of members of the Company in respect of Ordinary Shares at 23:59 (British Summer Time) on 10 May 2023. If, however, Ordinary Shares are held for you in a stock brokerage account or by a broker, bank or other nominee, you are considered the **“beneficial owner”** of those Ordinary Shares.
 5. Beneficial owners of Ordinary Shares as at 23:59 (British Summer Time) on 10 May 2023 have the right to direct their broker or other agent on how to vote the Ordinary Shares in their account and are also invited to attend the Annual General Meeting. However, as beneficial owners are not Shareholders of record of the relevant Ordinary Shares, they may not vote their Ordinary Shares at the Annual General Meeting unless they request and obtain a legal proxy from their broker or agent.
 6. Any Shareholder of record attending the Annual General Meeting has the right to ask questions. The Company must cause to be answered any questions put by a Shareholder of record attending the meeting relating to the business being dealt with at the Annual General Meeting unless to do so would interfere unduly with the business of the meeting, be undesirable in the interests of the Company or the good order of the meeting, involve the disclosure of confidential information or if the information has already been given on the Company’s website.
 7. In accordance with the provisions of the Companies Act, and in accordance with the Articles, a Shareholder of record who is entitled to attend and vote at the Annual General Meeting is entitled to appoint another person as his or her proxy to exercise all or any of his or her rights to attend and to speak and vote at the Annual General Meeting and to appoint more than one proxy in relation to the Annual General Meeting (provided that each proxy is appointed to exercise the rights attached to different Ordinary Shares). Such proxies need not be Shareholders of record, but must attend the Annual General Meeting and vote as the Shareholder of record instructs. Further details regarding the process to appoint a proxy, voting and the deadlines therefor are set out in the “Voting Process and Revocation of Proxies” section below.
 8. Pursuant to section 527 of the Companies Act 2006, shareholders meeting the threshold requirements set out in that section have the right to require the Company to publish on a website a statement setting out any matter relating to:
 - (a) the audit of the Company’s accounts (including the auditor’s report and the conduct of the audit) that are to be laid before the AGM; or
 - (b) any circumstance connected with an auditor of the Company ceasing to hold office since the previous meeting at which annual accounts and reports were laid in accordance with section 437 of the Companies Act 2006.
- The Company may not require the shareholders requesting any such website publication to pay its expenses in complying with sections 527 or 528 of the Companies Act 2006. Where the Company is required to place a statement on a website under section 527 of the Companies Act 2006, it must forward the statement to the Company’s auditor no later than the time when it makes the statement available on the website. The business which may be dealt with at the AGM includes any statement that the Company has been required under section 527 of the Companies Act 2006 to publish on a website.
9. The results of the polls taken on the resolutions at the Annual General Meeting and any other information required by the Companies Act will be made available on the Company’s website as soon as reasonably practicable following the AGM and for a period of two years thereafter.
 10. A copy of this Annual General Meeting notice can be found at the Company’s website, www.ferroglobe.com.
 11. Recipients of this notice and the accompanying materials may not use any electronic address provided in this notice or such materials to communicate with the Company for any purposes other than those expressly stated.
 12. To be admitted to the Annual General Meeting, please bring the Admission Ticket that you will have received through the post. You will need to be able to provide your photo identification at the registration desk.

13. On arrival at the Annual General Meeting venue, all those entitled to vote will be required to register and collect a poll card. In order to facilitate these arrangements, please arrive at the Annual General Meeting venue in good time. You will be given instructions on how to complete your poll card at the Annual General Meeting.

VOTING PROCESS AND REVOCATION OF PROXIES

If you are a Shareholder of record, there are three ways to vote by proxy:

- By Internet – You can vote over the Internet at www.envisionreports.com/GSM by following the instructions at such web address. You will need to enter your control number, which is a 15-digit number located in a box on your proxy card. We encourage you to vote by Internet even if you received this Annual General Meeting notice in the mail.
- By Telephone – You may vote and submit your proxy by calling toll-free 1-800-652-8683 in the United States and providing your control number, which is a 15-digit number located in a box on your proxy card.
- By Mail – If you received this Annual General Meeting notice by mail or if you requested paper copies of the Annual General Meeting notice, you can vote by mail by marking, dating, signing and returning the proxy card in the postage-paid envelope.

Telephone and Internet voting facilities for Shareholders of record will be available 24 hours a day and will close at 00:01 (British Summer Time) on Monday, 26 June 2023. Submitting your proxy by any of these methods will not affect your ability to attend the Annual General Meeting in-person and vote at the Annual General Meeting.

If your shares are held in “street name”, meaning you are a beneficial owner with your shares held through a bank or brokerage firm, you will receive instructions from your bank or brokerage firm, which is the Shareholder of record of your shares. You must follow the instructions of the Shareholder of record in order for your shares to be voted. Telephone and Internet voting may also be offered to shareholders owning shares through certain banks and brokers, according to their individual policies.

The Company has retained Computershare to receive and tabulate the proxies.

If you submit proxy voting instructions and direct how your shares will be voted, the individuals named as proxies must vote your shares in the manner you indicate.

A shareholder who has given a proxy may revoke it at any time before it is exercised at the Annual General Meeting by:

- attending the Annual General Meeting and voting in person;
- voting again by Internet or Telephone (only the last vote cast by each Shareholder of record will be counted), provided that the shareholder does so before 00:01 (British Summer Time) on Monday, 26 June 2023.
- delivering a written notice, at the address given below, bearing a date later than that indicated on the proxy card or the date you voted by Internet or Telephone, but prior to the date of the Annual General Meeting, stating that the proxy is revoked; or
- signing and delivering a subsequently dated proxy card prior to the vote at the Annual General Meeting.

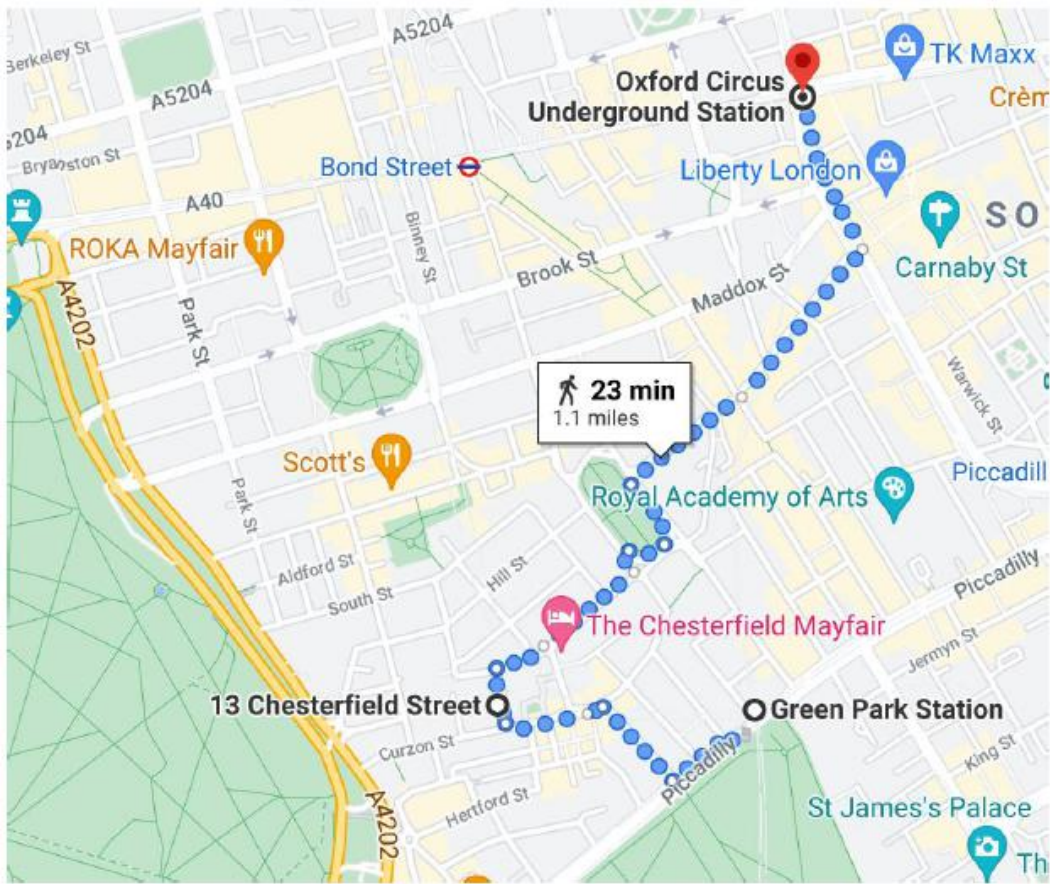
You should send any written notice or new proxy card to Proxy Services, c/o Computershare Investor Services, PO Box 30202 College Station, TX 77842-9909, USA.

If you are a registered shareholder you may request a new proxy card by calling Computershare at 1-866-490-6057 if calling from the United States, or +1-781-575-2780 from outside the United States, or you may also send a request via email to web.queries@computershare.com.

ANY SHAREHOLDER OWNING SHARES IN STREET NAME MAY CHANGE OR REVOKE PREVIOUSLY GIVEN VOTING INSTRUCTIONS BY CONTACTING THE BANK OR BROKERAGE FIRM HOLDING THE SHARES OR BY OBTAINING A LEGAL PROXY FROM SUCH BANK OR BROKERAGE FIRM

AND VOTING IN PERSON AT THE ANNUAL GENERAL MEETING. YOUR LAST VOTE, PRIOR TO OR AT THE ANNUAL GENERAL MEETING, IS THE VOTE THAT WILL BE COUNTED.

Location of Annual General Meeting:



DOCUMENTS AVAILABLE FOR INSPECTION

Forms of appointment of the Non-Executive Directors, as well as a memorandum setting out the terms of the Executive Director's contracts, will be available for inspection at the Company's registered office during normal business hours and at the place of the Annual General Meeting from at least 15 minutes prior to the start of the meeting until the end of the Annual General Meeting.

By order of the Board,

Thomas Wiesner
Company Secretary

30 May 2023



Ferrosglobe

Ferrosglobe PLC

Annual Report and Accounts 2022

Company Registration No. 09425113

Ferroglobe PLC

Annual Report and Accounts

Year ended 31 December 2022

Ferroglobe PLC
Annual Report and Accounts 2022

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Ferroglobe PLC

GLOSSARY AND DEFINITIONS

Unless the context requires otherwise, the following definitions apply throughout this U.K. Annual Report and Accounts (including the Appendix, save as set out below):

“2022”	the financial year ended 31 December 2022;
“2021”	the financial year ended 31 December 2021;
“2023 AGM”	the Annual General Meeting of the Company, to be held in 2023;
“2022 Form 20-F”	the Company’s Form 20-F for the fiscal year ended 31 December 2022;
“ABL RCF”	the Credit and Security Agreement for a new \$100 million North American asset-based revolving credit facility dated as of 30 June 2022, entered into between Globe and QSIP Canada ULC, as borrowers, and Bank of Montreal, as lender;
“ABL Revolver”	credit available under the ABL RCF;
“Adjusted EBITDA”	earnings before interest, tax, depreciation and amortisation, adjusted in accordance with Company’s adjustments announced as part of its earnings reports. Alternative Performance Measures are reconciled at Appendix 1;
“Alternative Performance Measures”	the non-IFRS financial metrics reconciled at Appendix 1;
“Aon”	Aon Plc;
“ARA”	this annual report and accounts for the financial year ended 31 December 2022;
“Articles”	the Articles of Association of the Company, from time to time;
“Auditor”	Deloitte LLP, the Company’s independent U.K. statutory auditor;
“Aurinka”	Aurinka Photovoltaic Group, S.L.;
“Blue Power”	Blue Power Corporation, S.L.;
“Board”	the Company’s board of directors;
“Business Combination”	the business combination of Globe and FerroAtlántica as the Company’s wholly owned subsidiaries on 23 December 2015;
“Business Combination Agreement”	the definitive transaction agreement entered into on 23 February 2015 (as amended and restated on 5 May 2015) by, among others, the Company, Grupo VM, FerroAtlántica and Globe;
“Capital”	net debt plus total equity. Alternative Performance Measures are reconciled at Appendix 1;
“CEO”, “Chief Executive Officer” or “Chief Executive”	the Chief Executive Officer of the Company, or where the context requires, of the relevant company or organization;

“Companies Act”	the U.K. Companies Act 2006;
“Company” or “Ferroglobe”	Ferroglobe PLC, a company incorporated in England and Wales with registered number 09425113 and whose registered office is at 5 Fleet Place, London EC4M 7RD, United Kingdom or, where the context requires, the Group;
“Consolidated Financial Statements”	(save in the supplemental attachment when it will have the meaning given below) these consolidated financial statements for the year ended 31 December 2022;
“Compensation Committee”	the compensation committee of the Company;
“EBITDA”	earnings before interest, tax, depreciation and amortisation;
“EIP”	the Ferroglobe PLC Equity Incentive Plan, adopted by the Board on 29 May 2016 and approved by shareholders on 29 June 2016;
“EU”	the European Union;
“Exchange Act”	the U.S. Securities Exchange Act of 1934 (as amended);
“Executive Chairman”	the executive chairman of the Company;
“Executive Directors” or “Executives”	the executive directors of the Company;
“FerroAtlántica” or “Grupo FerroAtlántica” or “Predecessor”	Grupo FerroAtlántica, S.A.U. a joint stock company organised under the laws of Spain, including (where the context so requires), its subsidiaries and subsidiary undertakings;
“Free cash-flow”	operating cash-flow less property, plant and equipment cash flows. Alternative Performance Measures are reconciled at Appendix 1;
“Globe” or “GSM”	Globe Specialty Metals, Inc., a Delaware corporation, including (whether the context requires) its subsidiaries and subsidiary undertakings;
“Group”	the Company and its subsidiaries;
“Grupo VM”	Grupo Villar Mir, S.A.U.;
“IASB”	International Accounting Standards Board;
“IFRS”	International Financial Reporting Standards;
“KPI”	key performance indicator;
“NASDAQ”	the NASDAQ Global Select Market;
“NASDAQ Rules”	the NASDAQ Stock Market Rules;
“Net debt”	bank borrowings, debt instruments, obligations under finance leases, and other financial liabilities, less cash and cash equivalents. Alternative Performance Measures are reconciled at Appendix 1;
“Non-Executive Directors” or “NEDs”	the non-executive directors of the Company;

“Reinstated Senior Notes”	refer to the notes issued in exchange of 98.588% of the 9.375% Senior Notes due 2022 issued by Ferroglobe Finance Company PLC and Globe due December 2025;
“Super Senior Notes”	refer to the 9% senior secured notes due 2025 issued by Ferroglobe Finance Company, PLC and redeemed in July 2022;
“Ordinary Shares”	the ordinary shares of \$0.01 each in the capital of the Company;
“Policy”	the directors’ remuneration policy in force from time to time;
“SHA”	the amended and restated shareholders agreement between Group VM and the Company dated 22 November 2017, as amended on 23 January 2018, 13 May 2021 and 29 July 2021;
“SEC”	the U.S. Securities and Exchange Commission;
“SOX”	the U.S. Sarbanes-Oxley Act of 2002;
“U.K.”	the United Kingdom of Great Britain and Northern Ireland;
“U.S.”	the United States of America;
“Working capital”	inventories and trade and other receivables, less trade and other payables. Alternative Performance Measures are reconciled at Appendix 1;
“\$”	U.S. dollars.

In the separate attachment hereto only (and for the avoidance of doubt, not in the remainder of this U.K. Annual Report and Accounts), the following phrase has the meaning given below:

“Consolidated Financial Statements”	the audited consolidated financial statements of Ferroglobe and its subsidiaries as of 31 December 2022, 2021 and 2020 and for each of the years ended 31 December 2022, 2021 and 2020, including the related notes thereto, prepared in accordance with IFRS, as filed on SEC Form 20-F.
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Ferroglobe PLC

**U.K Annual Report and Accounts 2022
Officers and professional advisers**

Directors

Javier López Madrid
Marta Amusatogui
Rafael Barrilero Yarnoz
Bruce Crockett
Stuart Eizenstat
Marco Levi
Nicolas de Santis
Manuel Garrido y Ruano
Belén Villalonga
Juan Villar-Mir de Fuentes
Silvia Villar-Mir de Fuentes

Company Secretary

Thomas Wiesner

Registered Address

5 Fleet Place
London
EC4M 7RD

Auditor

Deloitte LLP
Statutory Auditor
1 New St. Square
EC4A 3HQ London

Ferroglobe PLC

Introduction

Ferroglobe PLC is a public limited company incorporated under the laws of England and Wales under Company Number: 09425113. Ferroglobe PLC and subsidiaries (the “Company” or “Ferroglobe”) is among the world’s largest producers of silicon metal and silicon-based alloys, important ingredients in a variety of industrial and consumer products. The Company’s customers include major silicone chemical, aluminum and steel manufacturers, auto companies and their suppliers, ductile iron foundries, manufacturers of photovoltaic solar cells and computer chips, and concrete producers. Additionally, the Company was operating hydroelectric plants (hereinafter “energy business”) in Spain until 2019 and is still operating in France.

The Company was incorporated in 2015 and its Ordinary Shares are listed for trading on the NASDAQ in U.S. dollars under the symbol “GSM”.

The Company is subject to disclosure obligations in the U.S. and the U.K. While some of these disclosure requirements overlap or are otherwise similar, some differ and require distinct disclosures. Pursuant to the requirements of the Companies Act, this document includes our directors’ strategic report, directors’ report, remuneration report and required financial information (including our statutory accounts and statutory auditor’s report for the reporting period commencing 1 January 2022 and ending 31 December 2022), which together comprise our U.K. annual reports and accounts for the period ended 31 December 2022 (the “**U.K. Annual Report and Accounts**”).

We are also subject to the information and reporting requirements of the Exchange Act, regulations and other guidance issued by the SEC and the NASDAQ listing standards applicable to foreign private issuers. In accordance with the Exchange Act, we are required to file annual and periodic reports and other information with the SEC, including, without limitation, our 2022 Form 20-F. Certain other announcements made by the Company are furnished to the SEC on Form 6-K. Our status as a foreign private issuer requires the Company to comply with various corporate governance practices under SOX, as well as related rules implemented by the SEC. In addition, NASDAQ Rules permit foreign private issuers to follow home country practice in lieu of the NASDAQ corporate governance standards, subject to certain exemptions and except to the extent that such exemptions would be contrary to U.S. federal securities law.

We have provided as a separate attachment to the U.K. Annual Report and Accounts extracts from the 2022 Form 20-F to assist shareholders in assessing the Group’s performance and results. Investors may obtain the full 2022 Form 20-F, without charge, from the SEC at the SEC’s website at www.sec.gov or from our website at www.ferroglobe.com. Unless expressly stated otherwise, the information on our website is not part of this U.K. Annual Report and is not incorporated by reference herein.

The capitalised terms used throughout the U.K. Annual Report and Accounts are defined in the Glossary and Definitions section of this U.K. Annual Report unless otherwise indicated. In the following text, the terms “we,” “our,” “the Company”, “our Company” and “us” may refer, as the context requires, to Ferroglobe or collectively to Ferroglobe and its subsidiaries. Throughout the U.K. Annual Report, rounding has been applied and numbers given and totals aggregated may differ in consequence.

Chairman's Letter to Shareholders

Dear Fellow Shareholders,

I want to start this year's letter by thanking our employees for their hard work and dedication during the year. 2022 was a year of significant challenges across the globe, with the war in Ukraine, high inflation and other economic uncertainty, volatile markets and the lingering impact of COVID-19. Our people have shown resilience, demonstrated our values and have embodied what makes Ferroglobe the company we are today, one that delivers for our customers, our communities and of course you, our shareholders.

In spite of the global volatility and uncertainty around us, we continue to make progress on a number of fronts, refining our knowledge and expertise in areas crucial for our green transition. During the year we added low-cost production capacity for silicon metal, generated additional cost savings for our value creation plan and continue to position the company to capitalize on trends that will drive additional and sustainable growth for silicon metal, more of which I will cover later in this letter.

2022 PERFORMANCE

The first half of 2022 saw unprecedented pricing levels across our portfolio and through a combination of price, operational agility, commercial excellence, and cost discipline, we delivered the strongest set of results in our 100-year history.

For the full year, consolidated revenue increased 46%, from \$1,779 million in 2021 to \$2,598 million in 2022, adjusted EBITDA increased from \$179 million in 2021 to \$860 million in 2022 and consolidated operating profit of \$31 million in 2021 improved to a consolidated operating profit of \$660m in 2022.

Alongside the structural improvements from the value creation plan we started in 2020, we showed how our flexible asset footprint can optimize profitability. Against a backdrop of high energy costs in Europe, we moved some of our production to low-cost plants outside of Europe. This played a key part in helping us achieve a record consolidated operating cashflow of \$405 million for 2022, which represents a significant improvement over 2021, when consolidated operating cashflow was negative \$1 million.

During the year we were able to leverage our operational footprint to capitalize on the increasing demand for silicon metal, by successfully adding 22,000 tons of capacity at our Selma plant and a further 55,000 tons at our plant in Polokwane, South Africa with minimal capital investment. These efforts also demonstrate our ability to meet the increasing demand for silicon metal in a sustainable and low-cost manner. There is more on the Company's performance in respect of its key performance indicators in 2022 at page 181.

STRENGTHENING OUR BALANCE SHEET

Ferroglobe's underlying business and fundamentals are strong, and we have the strategy and the structure to capitalize on the exciting growth opportunities which lie ahead. A key component is our balance sheet wherein 2022 we made good progress with reducing our gross debt levels. During the second quarter we purchased \$19 million of our senior secured notes in the open market. Furthermore, in the third quarter we redeemed all \$60 million of the 9% super senior secured notes due in 2025.

Meanwhile, in June 2022 the Group signed a new \$100 million asset-based revolving credit facility with Bank of Montreal. The new ABL helps bolster our balance sheet and liquidity position and its covenant-light nature provides the flexibility we need to execute our plan.

DELIVERING ON ESG

This year our people have impressed me, navigating the impact of the war in Ukraine on our industry, supply chain disruption and ongoing challenges from the pandemic. Alongside these challenges we are gaining real momentum on

environmental, social and governance (ESG) issues. In July we achieved a significant milestone by publishing our first global ESG report. The report outlines our ESG strategy which is built upon four fundamental pillars:

- Strengthening our governance framework;
- Promoting solid and honest engagement with our people and the communities where we operate;
- Reinforcing the role of sustainability through our value chain; and
- Improving our environmental footprint to enable sustainable development.

Our teams are currently working across many critical initiatives which contribute not only to Ferroglobe building a sustainable future, but also for our customers – as we are seeing ever-increasing demand for products that help our customers reduce their own environmental impacts throughout their supply chains, particularly in carbon.

CORPORATE GOVERNANCE IMPROVEMENTS

On 26 May 2023, the Board of Directors made important improvements to our corporate governance by eliminating the prior structure of the separate Nominations and Corporate Governance Committees, replacing them with a new combined Nominations and Governance Committee. This new committee consists of three independent directors: Nicolas De Santis (Chair), Belen Villalonga and Bruce Crockett. In addition, Silvia Villar-Mir de Fuentes resigned from the Compensation Committee, with Stuart Eizenstat joining that committee. As a result of these changes, all three standing committees of the Board are comprised exclusively of independent directors, reflecting best industry practices. We believe that these changes will strengthen our corporate governance framework and contribute to the long-term success of our company.

LOOKING AHEAD

Macroeconomic conditions remain challenging, with subdued levels of demand in some of our markets in early 2023. We are confident that our markets will recover, and therefore we will continue with the implementation of our strategy. Fundamentally, we have a strong, global business platform in attractive end markets with excellent long-term growth prospects.

Our growth prospects are underpinned by megatrends that are impacting the entire globe, none more so than the green transition and society's need to increase energy efficiency. We are already seeing the impact of government-led initiatives in North America and Europe on the solar and battery value chains, by accelerating the rate at which countries are onshoring key industries. Coupled with the increased focus on local sourcing and production, Ferroglobe's ability to develop high purity silicon metal provides numerous value-added opportunities in high-demand end markets that are expected to drive high margins and strong growth for the foreseeable future.

As I look back on what was an extraordinary year for the company, I would like to thank our board, our customers and our shareholders for their continued support.

Javier López Madrid
Executive Chairman

Strategic report

This strategic report for the financial year to 31 December 2022 has been prepared in compliance with Section 414C of the Companies Act to provide an overview of the Group's business and strategy. It contains certain forward-looking statements. These statements are made by the directors in good faith based on the information available to them up to the time of their approval of this report and such statements should be treated with caution due to the inherent uncertainties, including both economic and business risk factors, underlying any such forward-looking information.

For a supplementary description of our business (including our model, strategy and competitive strengths), risks associated with our business and our results of operations, see the following sections of the 2022 Form 20-F: Part I, Item 3, Section D, Risk factors; Item 4, Information on the Company; Item 5, Operating and Financial Review and Prospects; Item 7, Major Shareholders and Related Party Transactions and Item 11, Quantitative and Qualitative Disclosures About Market Risk. These sections are set out in a separate attachment to this U.K. Annual Report.

Nature of the business

Through its operating subsidiaries, Ferroglobe is one of the world's largest producers of silicon metal, silicon-based alloys and manganese-based alloys. Additionally, Ferroglobe currently has quartz mining activities in Spain, the United States, Canada, and South Africa, low-ash metallurgical quality coal mining activities in the United States, and interests in hydroelectric power in France. Ferroglobe controls a meaningful portion of many of its raw materials and captures, recycles and sells most of the by-products generated in its production processes.

We sell our products to a diverse base of customers worldwide, in a varied range of industries. These industries include aluminum, silicone compounds used in the chemical industry, ductile iron, automotive parts, renewable energy, photovoltaic (solar) cells, electronic semiconductors and steel, all of which are key elements in the manufacturing of a wide range of industrial and consumer products.

We are able to supply our customers with the broadest range of specialty metals and alloys in the industry from our production centers in North America, Europe, South America, Africa and Asia. Our broad manufacturing platform and flexible capabilities allow us to optimize production and focus on products most likely to enhance profitability, including the production of customized solutions and high purity metals to meet specific customer requirements. We also benefit from low operating costs, resulting from our ownership of sources of critical raw materials and the flexibility derived from our ability to alternate production at certain of our furnaces between silicon metal and silicon-based alloy products.

Business model and strategy

As part of the strategy for delivering the objectives of the Company, the Group develops new products or new specifications on a continual basis. As a consequence of these efforts, investments may be made in facilities that allow the production of new products, such as higher-grade silicon metal, solar grade silicon metal or new foundry products.

In 2020 we conducted a deep and broad evaluation of our Company with the goal of designing a strategic plan focused on bolstering the long term competitiveness of the business and returning the Company to profitability by fundamentally changing the way we operate, both operationally and financially. The multi-year turnaround plan we developed essentially impacts all the functional areas of our Company as we seek to drive changes that ensure competitiveness throughout the cycle. In the last 2 years, the Company set a target of achieving \$225 million in EBITDA improvement. We achieved \$188 million in cost savings and met our commercial excellence target of \$50 million. The key value drivers of our strategic plan were the following:

- **Footprint optimization:** One of the Company's core advantages is our large and diverse production platform. While our asset footprint provides flexibility, at times we are restricted in our ability to quickly adapt to changing market conditions due to inherent constraints in curtailing capacity, particularly for shorter durations. Going forward, our goal is to ensure that the operating platform is more flexible and modular so shifts in production, based on needs and relative costs, are incorporated swiftly. Through this value creation driver we aim to shift our capacity footprint by optimizing production to the most competitive assets.

- **Continuous plant efficiency:** We will continue to build on the success of our existing key technical metrics (KTM) program, which consists of specific initiatives aimed at enhancing our process, minimizing waste, and improving the overall efficiency to drive down costs. The Company maintains a pipeline of initiatives developed through the sharing of best practices amongst our numerous sites and through new improvements identified by our research and development team. Moreover, we have implemented developing tools to track our key performance indicators in an ongoing effort to improve furnace level performance.
- **Commercial excellence:** We have implemented commercial best practices to maximize profitable revenue, aiming at improving and reinforcing our pricing, account management, salesforce effectiveness, and product portfolio and customer focus. We have strengthened our customer relationships by developing a target portfolio prioritization, re-designing our commercial coverage and operating model, and structuring our account planning, with the definition of clear objectives for each of our customers and a sustained focus on long-term partnership building. We have implemented a range of digitally-enabled tools and processes across the entire commercial function, bringing our team's performance to the next level. Through our new customer relationship management tool, we have reinforced our account management and front-line effectiveness, as well as our customer service and quality management. On pricing, we have redesigned our governance process and introduced new tools to maximize profitability and provide margin transparency for every sale. Furthermore, we have re-designed our product management function, empowering this role to create customer value and act as a consistent source of information and cross-functional coordination.
- **Centralized purchasing:** We have adapted our operating model such that the purchase of our key inputs is done centrally and to support a purchase culture centered on buying better and spending better. This will enable us to improve its tracking of needs, enhance our ability to schedule purchases and enable us to benefit from bulk purchases. Buying better is a supply-led effort that focuses on price and volume allocation, negotiating prices and terms, managing price risks, pooling volumes and contracts, shifting volumes to best-price suppliers and leveraging procurement networks. Spending better is an operation-led effort to control demand, enforce compliance, reduce complexity, and perform value engineering to foster efficient spending. Through the principles of buying better and spending better, we aim to attain more than just cost reduction. Through the new organization, we seek to reduce supply chain risk, supporting continuous quality and service improvement, fostering better decision-making about suppliers and optimizing resource allocation.
- **Selling, general and administration & corporate overhead reduction:** During our corporate review, we identified significant opportunities for further cost improvement through permanent cost cutting at our plants, as well as the corporate centers. By tracking these costs vigorously and increasing accountability, we aim to bolster the overall cost structure at various levels. Through this, we aim to create a culture focused on cost control and disciplines for deploying best practices to drive sound spending decisions without compromising our overall performance.
- **Working capital improvement:** We have improved substantially our net working capital by establishing targets and improving our Supply Chain processes. This will allow us to sustain competitive levels of working capital throughout the cycle – and while we have recently witnessed a peak, due to slowdown of demand and margin compression, we are taking measures to correct it and return to previous values.

There is more information on the Group's business, risks, key financials and organizational structure in Part I, Item 3, Item 4, Item 5 Information on the Company of the 2022 Form 20-F (as set out in the separate attachment to this U.K. Annual Report and not forming part of our financial statements). This, together with the information in this Strategic Report, and the Operating and Financial Review and Prospects section of the 2022 Form 20-F included in the separate attachment provides a fair review of the Company's business and its development and performance during 2022.

Principal risks and uncertainties

Key Risks

We operate in a highly competitive industry.

The silicon metal market and the silicon-based and manganese-based alloys markets are global, capital intensive and highly competitive. Our competitors may have greater financial resources, as well as other strategic advantages, to maintain, improve and possibly expand their facilities, and, as a result, they may be better positioned than we are to adapt to changes in the industry or the global economy. Advantages that our competitors have over us from time to time, new entrants that increase competition in our industry, and increases in the use of substitutes for certain of our products could have a material adverse effect on our business, results of operations and financial condition.

Our business is particularly sensitive to increases in energy costs, which could materially increase our cost of production.

Electricity is one of our largest production components. The price of electricity is determined in the applicable domestic jurisdiction and is influenced both by supply and demand dynamics and by domestic regulations. Changes in local energy policy, increased costs due to scarcity of energy supply, climate conditions, the termination or non-renewal of any of our power purchase contracts and other factors may affect the price of electricity supplied to our plants and adversely affect our results of operations and financial conditions.

Because electricity is indispensable to our operations and accounts for a high percentage of our production costs, we are particularly vulnerable to supply limitations and cost fluctuations in energy markets.

Our business benefits from antidumping and countervailing duty orders and laws that protect our products by imposing special duties on unfairly traded imports from certain countries. If these duties or laws change, certain foreign competitors might be able to compete more effectively.

The current antidumping and countervailing duty orders may not remain in effect and continue to be enforced from year to year, the products and countries now covered by orders may no longer be covered, and duties may not continue to be assessed at the same rates.

Similarly, export duties imposed by foreign governments that are currently in place may change. For example, duties on Chinese exports of types of ferroalloys produced by Ferroglobe could be reduced.

Changes in any of these factors could adversely affect our business and profitability. Finally, at times, in filing trade actions, we arguably act against the interests of our customers. Certain of our customers may not continue to do business with us as a result.

Our business operations may be impacted by various types of claims, lawsuits, and other contingent obligations.

We are involved in various legal and regulatory proceedings including those that arise in the ordinary course of our business. We estimate such potential claims and contingent liabilities and, where appropriate, record provisions to address these contingent liabilities. The ultimate outcome of the legal matters currently pending against our Company is uncertain, and although such claims, lawsuits and other legal matters are not expected individually to have a material adverse effect, such matters in the aggregate could have a material adverse effect on our business, results of operations and financial condition. Furthermore, we could, in the future, be subject to judgments or enter into settlements of lawsuits and claims that could have a material adverse effect on our results of operations in any particular period. While we maintain insurance coverage in respect of certain risks and liabilities, we may not be able to obtain such insurance on acceptable terms in the future, if at all, and any such insurance may not provide adequate coverage against such claims.

Other risks and uncertainties

In addition to the key risks above, the Company is exposed to a number of risks which are monitored on an ongoing basis and which are 12 summarized in the supplementary attachment. There is more information on the Group's, risks, in Part I, Item 3 Key Information on the Company of the 2022 Form 20F (as set out in the separate attachment to this U.K. Annual Report).

Internal control environment

We did not maintain an effective control environment to enable the identification and mitigation of the risk of the existence of potential material accounting errors. We have identified deficiencies in the principles associated with the control environment component of the COSO framework. There is more information on the Group's controls and procedures in Part I, Item 15 Controls and Procedures of the 2022 Form 20F (as set out in the separate attachment to this U.K. Annual Report)

Key Performance Indicators ("KPIs")

The Board considered that the most important KPIs during 2022 were those set out below. Certain of these KPIs will also be a core area of focus during 2023.

At the corporate level, the principal KPIs that we use for measuring the overall performance of our business are:

- EBITDA
- Adjusted EBITDA
- Adjusted EBITDA margin
- Working capital improvement
- Free cash-flow
- Net Debt to Total Assets
- Net Debt to Capital; and
- Net Income.

Some of these measures are also part of our compensation structure for the key executives, as follows:

- Adjusted EBITDA: EBITDA, adjusted in accordance with Company's adjustments announced as part of its earnings reports.
- Free cash-flow, which represents net cash provided by operating activities less payments for property, plant and equipment.

The following table sets out the Company's performance in respect of these financial and non-IFRS measures in 2022. Refer to Appendix 1 for reconciliations of these non-IFRS measures.

Adjusted EBITDA (\$m) 860.0 (2021: 179.3)	Adjusted EBITDA Margin 33.1% (2021: 10.1%)	Working Capital (\$m) 705.9 (2021: 464.9)	Free Cash- Flow (\$m) 352.9 (2021: (28.9))
Reported EBITDA (\$m) 742.1 (2021: 128.7)	Net Income (\$m) 443.8 (2021: (115.4))	Net Debt to Total Assets 11.2% (2021: 33.3%)	Net Debt to Capital 22.4% (2021: 61.3%)

In addition to these financial KPIs, there are a number of non-financial performance measures which the Company uses to gauge its success such as customer attrition, inventory rotation /obsolescence, benchmark against competitors and others. Some of these are reflected in the annual bonus and equity plan objectives for senior management and are reviewed each year to ensure their continued relevance. In the financial year ended 31 December 2022, the annual bonus was subject to meeting certain financial conditions related to net cash flow and EBITDA. Further information on performance in respect of these performance measures is in the Directors Remuneration Report at page 32.

Details of the Group's anti-bribery and corruption and environmental policies are below and details of its employment policies and greenhouse gas emissions are set out below and in the Directors' Report.

Employees

As of 31 December 2022, the Group had:

- 9 directors, of whom 6 are male and 3 are female;
- 288 senior managers, of whom 222 are male and 66 are female; and
- 3,173 employees, of whom 2,846 are male and 327 are female.

Environment and other social matters

Ferroglobe is committed to conducting its business in compliance with all applicable laws and regulations in a manner that has the highest regard for human rights, the environment and the health and safety and well-being of employees and the general public. During the year under review the Group's employees were each asked to re-confirm in writing their commitment to the Company's Code of Conduct which emphasizes the Group's commitment to the highest standards of integrity, ethical behavior, transparency, safety and corporate citizenship. The Code of Conduct incorporates the Group's key policies on matters including whistleblowing, anti-bribery and corruption, environmental impacts, health and safety and respect in the workplace and the conduct of national and international trade.

Section 172 (1) Statement

This section of the U.K. Companies Act sets out a number of matters to which directors of a U.K. company must have regard in discharging their duty to promote the success of the Company. The strategic report must include a statement which describes how the directors have had regard to those matters when performing their duties. The Board welcomes this opportunity to throw more light on its governance structures and on how input from its stakeholders has informed and shaped its decision-making. In 2022 the Board exercised all their duties with regard to these and other factors as they reviewed and considered proposals from senior management and governed the Company through the Board and its Committees.

The factors which the directors must take account of can be summarised as:

- the likely consequences of any decision in the long term
- taking account of the interests of the Company's employees and fostering business relationships with customers, suppliers and other relevant stakeholders, such as regulatory bodies, governments and local authorities
- the impact of operations on the community and the environment
- maintaining a high standard of business conduct
- acting fairly between its members

In order to take account of these factors, the Board must be informed of them. This takes place directly and indirectly, through collaborative working with management and direct and indirect feedback, as illustrated below. The Company's internal control framework, including the Company's Sarbanes Oxley controls, and the work of the Internal Audit team assists in providing assurance to the Board on the information made available to it.

The likely consequences of any decision in the long-term

The governance structures of the Company include delegation of certain responsibilities of the Board to its key Committees and delegation of the Board's authority for the executive management of the Company to its executive team, subject to clearly defined limits and regular monitoring by the Board and subject also to the reservation to the Board of any matter not expressly delegated in this way.

The management team bring their annual budget to the Board for approval each year. This includes forecasts, expected revenues, costs and major expenditure and projects for the year ahead. Each year the Board typically also takes a day out of its board calendar to consider, with the majority of the management team, the Company's strategic plan. The Board held an extensive strategy day in June 2022 and subsequently approved the Company's medium-term strategy in September 2022.

Throughout the year, the Board has received a number of reports on the Company's capital structure and financing arrangements. Reports were made regularly to the Board by the management team members responsible for each function and region on their area of responsibility, their performance, priorities and key decisions and risks for the immediate future and medium term, giving assurance that proper consideration is made to the longer-term in decision making throughout the business.

Staying informed on employee, customer, supplier, investor and other key stakeholders' views

Our relationships with those who work for the Company and with the Company are key to our success. The Board stays up to date with views of our employees through a number of means: key members of the management team, usually attend the management presentation made at each Board meeting when their input is regularly solicited. They are also consulted in less formal settings. Prior to the Covid-19 pandemic, Directors had an annual schedule of visits to our facilities which enable them to spend time with our people on the ground and receive their direct feedback. One output of these pre-Covid site visits led to an increased focus at Board level on the importance of driving a unified brand and culture for Ferroglobe. There are other channels through which the Board or its Committees receives reports on employee views; these include the Chief People & Culture Officer's normal attendance at Compensation Committee meetings; and the confidential whistleblowing hotline, reports to which are in turn reported to the Audit Committee at its scheduled meetings. In 2022 the CEO continued with town hall meetings, face to face and virtually, with employees across the Group to keep them updated on our financial and operational performance; employees are encouraged to raise questions as part of those sessions.

We build strong relationships with our customers and suppliers, including our joint venture partners, spending a lot of time with them to best understand their goals and how to develop our business in our respective interests. The Board is aware that many of our relationships are long-term and depend on mutual trust and collaboration. The Board gets feedback on customer and supplier issues on a regular basis: through the input of the Chief Commercial Officer and Marketing and VP Supply Chain Management who normally attend management presentations in the scheduled Board meetings and through presentations each has made to the Board on their areas of responsibility, priorities and challenges.

The Board is aware that the Company relies on the support of its shareholders and their views are important to it. The Board's interactions with these stakeholders take place through a variety of channels. The Company's major shareholder, Grupo VM, had during 2022 four representative directors on the Board through whom views and input can

be provided or sought. The Board receives feedback from other shareholders and the investment community through the Company's quarterly results presentations. The VP Investor Relations is a regular attendee at Board meetings and shares themes or commentary made to the Executives and management by the Company's investors and certain other stakeholders. Shareholders typically have the opportunity to attend the general meetings of the Company, including the AGM, and put questions to directors formally at the meeting and in a more relaxed environment before and afterwards. The Company also maintains an investor relations email address on its corporate website, questions posed to which are directed to its VP Investor Relations and, where relevant, would then be raised by them with the other management team members or the Board.

Engaging with community and the environment

We engage with communities, government and regulators in the areas and countries in which we operate through a range of industry consultations, membership in several trade and industry associations, participation in conferences, forums and meetings. We have engaged with local charities and community groups. We also routinely consult with the local, regional and central governments and their agencies on the proposed changes in conditions of operations of our production facilities. These matters are reported to the Board, which is kept updated on the status of these discussions and their progress.

We identify and assess the potential impacts that our business has on the environment and work with relevant authorities and industry experts to manage and minimise these impacts. The Audit Committee of the Board receives regular updates on any allegations of non-compliance by the business with environmental laws and regulations. There is more on this in Note 25 of our financial statements.

Sustainability has been identified by management as a top priority. First and foremost, we recognize the criticality of the company to take an active role in leading and driving change for the betterment of society. Furthermore, given the growing focus on sustainability amongst our stakeholders we need to create more transparency around our performance and the action plan to drive the changes required to meet our goals. In 2022 we issued the first ESG report on the 2021 financial year as the commencement of our new approach to sustainability disclosure.

In 2022 we approved Ferroglobe's ESG Strategy 2022-2026 which sets the roadmap that makes sustainability a strategic pillar for the organization at the global level.

The ESG Strategy is aimed at being progressively implemented from 2022 to 2026, and has been defined based on four Strategic lines:

1. Strengthening our governance framework
2. Promoting a solid & honest engagement with our people and local communities where we operate
3. Reinforcing the role of sustainability through our value chain
4. Improving our environmental footprint to enable materials which are vital for sustainable development.

A specific ESG Committee has been designated to adopt and implement the ESG Strategy through 5 specific working groups to engage all business and corporate leaders to adopt and implement the ESG responsibilities set forth in the strategy.

The ESG Committee reports to the Management Team and The Board of Directors, which is ultimately responsible for the Company's ESG performance.



The ESG working groups are responsible for monitoring and coordinating the development of the 40 measures that have been established within the strategy, as well as establishing and tracking targets to measure the degree of implementation of each of them.

We have defined our ESG Strategy 2022-2026 in alignment with the United Nations Sustainable Development Goals (SDGs), identifying for each of the defined measures the specific targets to which it contributes to. In this sense, we have determined 8 out of the 17 SDGs, which are the most relevant in our activities and on which we shall focus our efforts.



The measures set for each strategic line are summarized as follows:

- Strengthening our governance framework: Measures aimed at integrating sustainability into the Group's strategy, governance tools and organizational structure and also starting reporting through an annual ESG report.
- Promoting a solid & honest engagement with our people and local communities where we operate: Measures aimed at achieving a corporate culture by harmonizing procedures for people management, guided by the fundamental values of collaboration, leading change, respect and ownership. Focusing on Health & Safety as a top priority and guiding principle in all our operations and promoting diversity, equality and inclusion as part of Ferroglobe's core value of respect by setting a "DEI Roadmap".
- Reinforcing the role of sustainability throughout our value chain: Measures to promote the integration of sustainability among Ferroglobe's value chain, both upstream and downstream by assessing our suppliers according to the ESG approach and coordinating the procedures to respond to customer's needs in terms of ESG performance. The environmental footprint of our products will also be assessed developing specific Life Cycle Assessment studies.
- Improving our environmental footprint to enable materials which are vital for sustainable development: Measures focused at reducing the environmental impacts of products and processes and integrate the environmental risks management approach to strengthen our resiliency and sustainability. Extending the environmental and energy management systems certification according to ISO standards in our production sites. Boosting energy efficiency through technological and processes improvement. Setting a Corporate Climate Change Framework and setting specific emission reduction targets. Promoting circularity principles for waste and water management through specific programs in the plants to reduce the global environmental footprint.

ESG Risk Management Approach

Under the Governance strategic line, ESG risks have been integrated in the Company's risk management system, and we have started the Climate Change Risks & Opportunities Assessment aligned with the TCFD recommendations.

Maintaining a high standard of business conduct

On behalf of the Company, the Board has adopted a number of policies which articulate the Company and the Board's commitment to the highest standards of integrity, ethical behaviour, transparency, safety and corporate citizenship. These include, as their mainstay, the Company's code of conduct which sets out the Company's policies on bribery and corruption, whistleblowing, conflicts of interest and political and charitable contributions, as well as the importance of safeguarding the wellbeing of its employees and protecting its resources. The Code of Conduct is supported by further policies on whistleblowing, data protection and statements on trade compliance, tax and modern slavery. The Board has also adopted a corporate governance policy statement to protect the interests of minority shareholders (on which there is more on "Acting fairly between members" sections that follows).

The Code of Conduct is reviewed regularly and every employee of the Company and all of its Board members are asked to confirm their personal commitment to the Code on joining the Company and to re-confirm it each year thereafter. Employees have the opportunity to report suspected breaches of the Code, for which purpose a secure and confidential hotline has been established, administered by an independent third party. Allegations of breaches of the Code are normally reported to the Audit Committee at each of its scheduled meetings and regular updates on the status of follow-up actions and outcomes given.

Acting fairly between members

A significant number of the Company's shares are held by Grupo VM, its major shareholder. The Company has a number of checks and balances in place throughout the Company's governance framework to ensure that the interests of the majority and the minority shareholders are respected and the Board is very cognisant of its duties in this regard. These checks and balances include:

- the Company's shareholders agreement with Grupo VM which regulates Board appointments, including those nominated by Grupo VM, Grupo VM's rights to transfer and pledge its shares, its pre-emption rights and standstill obligations and the confidentiality agreement with Grupo VM which regulates the use, disclosure and security of confidential information shared with Grupo VM or its representatives;

- the Company's Articles of Association which, among other things, require the approval of a majority of independent directors to any agreement or arrangement between the Company and Grupo VM;
- the Board's corporate governance policy first adopted in October 2017 under which the Board commits to maintain a majority of independent directors on the Board. This policy was most recently renewed in November 2021 for a period of 24 months;
- the workings and functions of the Board's key fully independent Audit and majority independent Compensation Committees;
- the Company's related parties' policy which stipulates how and in what way proposed related party transactions are to be submitted for consideration and approval by the Audit Committee of the Board and the Company's register of related party transactions which is submitted to each scheduled meeting of the Audit Committee;
- the presence of directors on the Board who were nominated by Grupo VM.

The Chief Legal Officer and Group Company Secretary has primary responsibility for advising the Board on its duties and on the Company's governance framework and normally attends all meetings of the Board and its Committees.

The Strategic Report for the financial period ended 31 December 2022 has been reviewed and approved by the Board on 30 May 2023.

Javier Lopez Madrid

Director

Directors' report

The Directors present their report and the audited financial statements of the Group and Company for the year ended 31 December 2022. The Directors do not need to comply with Corporate Governance requirements.

The Directors' Report comprises these pages (19 to 25) and the other sections and pages of the Annual Report cross-referred below which are incorporated by reference.

The financial statements have been prepared under the going concern basis of accounting, with additional details provided in note 3.1 of the financial statements

As permitted by legislation, certain disclosures normally included in the Directors' Report have instead been integrated into the Strategic Report (pages 9 to 19). These disclosures include information relating to the Group's principal risks and uncertainties.

Directors

The directors of the Company, who held office at any time during the year to 31 December 2022, were as follows:

Javier López Madrid	Director and Executive Chairman
Marco Levi	Director and Chief Executive Officer
Rafael Barrilero Yarnoz	Non-Executive Director
Bruce L. Crockett	Non-Executive Director
Stuart E. Eizenstat	Non-Executive Director
Manuel Garrido y Ruano	Non-Executive Director
Nicolas de Santis	Non-Executive Director
Marta Amusatogui Vergara	Non-Executive Director
Juan Villar-Mir de Fuentes	Non-Executive Director
Silvia Villar-Mir de Fuentes	Non-Executive Director
Belén Villalonga Morenés	Non-Executive Director

The biographies of our directors as at the date of this report are set out on pages 26 to 30. Details of the directors standing for election or re-election at our 2023 AGM will be set out in the notice of that meeting.

Directors' indemnities

As required by the Articles, each director is indemnified in connection with his role as a director, to the extent permitted by law. As permitted by the Articles, the Company has purchased and maintained throughout the year under review directors' and officers' liability insurance.

Share repurchases

During 2022 and 2021 the company did not perform any share repurchase.

Dividends

The Company has not declared any dividends during the year under review.

Political donations

During the year under review the Company has not made any political donations, incurred any political expenditure or made any contributions to an EU or non-EU political party.

Employee policies

Ferroglobe has a culture of continuous improvement through investment in people at all levels within the organisation. Its Code of Conduct (“**Code**”), which applies to all directors and employees of the Group, sets out Ferroglobe’s commitment to protecting, respecting and supporting its workforce. The Code was revised in 2017 to bring together Ferroglobe’s policies on key ethical, behavioral and compliance matters. Its roll-out across the Group globally was initiated in 2017, supported by mandatory training for all employees. Subsequently and on an annual basis, Group personnel have been requested to re-certify their knowledge of and continued compliance with the Code. The adoption of and training provided on the Code is consistent with our evolution to an organization with an integrated approach to human relations policies across the five continents in which the Group operates.

Those key policies include:

- Health and safety, where Ferroglobe places high value on the well-being of all personnel and is committed to providing a healthy and safe working environment;
- Respect in the workplace, promoting equality and diversity, rejecting harassment and bullying and supporting work-life balance;
- Striving to conduct operations in a way that respects the human rights of personnel, suppliers and others with whom Ferroglobe works, including local communities;
- Encouraging the reporting of wrongdoing or of any suspicions or concerns as to wrongdoing, any of which can be raised in confidence through the whistleblowing hotline which Ferroglobe has established in all countries in which it operates where it is lawful to do so.

Ferroglobe is committed to providing equal opportunities for all Group personnel and to creating an inclusive workforce by promoting employment equality. This includes pursuing equality and diversity in all its employment activities, including recruitment, training, career development and promotion and ensuring there is no bias or discrimination in the treatment of people. Ferroglobe opposes all forms of unlawful or unfair discrimination on the grounds of race, age, nationality, religion, ethnic or national origin, sexual orientation, gender or gender reassignment, marital status or disability. Wherever possible, vacancies are filled from within Ferroglobe and efforts are made to create opportunities for internal promotion.

Greenhouse gas emissions

The UK Companies Act 2006 (Strategic Report and Directors’ Reports) Regulations 2013 requires UK-based quoted companies to report global greenhouse gas (“GHG”) emissions data in the Annual Report and Accounts. Comparison year data for 2017, 2018, 2019, 2020, 2021 and 2022 is included in Table 2 in this report. As in the period 2017-2021, the 2022 GHG inventory was prepared in accordance with the Ferroglobe PLC Greenhouse Gas Inventory Management Plan (2017), prepared in consultation with ERM Group, Inc. and its UK affiliate (the “IMP”).

The Company has selected the Operational Control approach and criteria as the basis for reporting GHG emissions data, defining “Operational Control” to encompass facilities the Group owns and operates, facilities it leases and operates, and joint venture facilities it operates. All facilities within Ferroglobe’s Operational Control that are material to its Group-wide GHG emission inventory are included in reported figures. This approach means that the operations for which emissions are reported are substantially coextensive with operations comprised by Ferroglobe’s consolidated financial reporting. The Company does not have responsibility for any emission sources that are not included in its financial reporting.

Table 1 sets forth the Company’s consolidated greenhouse gas emissions expressed in metric tonnes of carbon dioxide equivalent (CO₂e). The figures reported below include all material direct (Scope 1) and indirect (Scope 2) emission sources for facilities within the Company’s Operational Control. Principal sources of Scope 1 emissions from operations at, or Scope 2 emissions imputed to, Ferroglobe-controlled facilities include:

- Electricity purchased or produced by Ferroglobe facilities
- Fuels purchased for consumption in stationary sources on-site at Ferroglobe facilities (e.g., natural gas, diesel, LPG)
- Fuels purchased for consumption in mobile sources owned and operated by Ferroglobe
- Process emissions associated with electric arc furnaces used for the production of silicon metal and ferroalloys.

Table 1. Company-wide Scope 1 and Scope 2 Emissions for 2022

Global GHG emissions data for period 1 January 2022 to 31 December 2022	
Emissions From:	Tonnes of CO ₂ e
Combustion of fuel and operation of facilities	2,028,556*
Electricity, heat, steam and cooling purchased for own use	1,184,366
Total Scope 1 & Scope 2 emissions	3,212,922
Company's chosen intensity measurement: Emissions reported above normalized to per tonne of product output	4.50

*In line with DEFRA Guidance, 924,028 tonnes of CO₂e are not included in the above table, due to being biogenic in nature.

Table 2. Company-wide Scope 1 and Scope 2 Emissions Comparison for 2020-2021-2022

Global GHG emissions data for period 1 January to 31 December 2020-2022			
Emissions From:	2020 Tonnes of CO ₂ e	2021 Tonnes of CO ₂ e	2022 Tonnes of CO ₂ e
Combustion of fuel and operation of facilities (Scope 1)	1,701,763 *	2,197,734 **	2,028,556 ***
Electricity, heat, steam and cooling purchased for own use (Scope 2)	1,282,333	1,228,600	1,184,366
Total gross Scope 1 & Scope 2 emissions	2,984,096	3,426,334	3,212,922
Energy Consumption (MWh)	5,365,791	6,854,806	6,479,769
Company's chosen intensity measurement: Emissions reported above normalized to per tonne of product output	4.92	4.42	4.50

* In line with DEFRA Guidance, 788,321 tonnes of CO₂e are not included in the above table, due to being biogenic in nature.

** In line with DEFRA Guidance, 977,204 tonnes of CO₂e are not included in the above table, due to being biogenic in nature.

*** In line with DEFRA Guidance, 924,028 tonnes of CO₂e are not included in the above table, due to being biogenic in nature

Since 2020 the company has launched a specific project on energy efficiency called the “KTM project”, focused on increasing both energy efficiency and raw materials yields in our furnaces and operations. The implementation of the Key Technical Metrics methodology is based on our technical know-how, expertise, comprehensive assessment of processes, operational rigor and continuous improvement, therefore implementing both operational and organizational measures. It includes a detailed on-site performance monitoring plan, especially on the energy specific consumption.

Methodology

In preparing the IMP and this report, the Company has adhered to the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard – Revised Edition (2004) (the “GHG Protocol”) and the UK DEFRA’s Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance (June 2013) (“DEFRA Guidance”). The Company reports material emissions of three out of the six Kyoto GHGs, viz. carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). A fourth, sulfur hexafluoride (SF₆), is present in electrical breakers at some Company facilities, but no emission of SF₆ of have been observed. The two remaining Kyoto gases, perfluorocarbons (PFCs) and hydrofluorocarbons (HFCs), are not reported since Company facilities do not emit or use materials containing them.

Post year-end events

REINDUS Loan

On January 19, 2023, a new resolution was signed by the Ministry terminating the total reimbursement procedure initiated in January 2022. Once that procedure was definitively closed, the company decided to proceed with the foreseen partial early repayment of €16.3 million on February 10, 2023.

Grupo Villar Mir

On February 28, 2023 Grupo Villar Mir has reduced the number of shares owned from 81,924,822 to 76,265,434 shares, representing approximately 40.72% of the capital of the company.

Reinstated Senior Notes

On March 1, 2023, Globe Specialty Metals, Inc. repurchased \$25.7 million of the Reinstated Senior Notes and the corresponding accrued interest coupon amounting to \$207 thousand as of the purchase date. The fair value of the Notes at the purchase date was \$26.1 million and the purchase price was \$1.01 per bond.

Corporate Governance Improvements

On 26 May 2023, the Board of Directors made important improvements to our corporate governance by eliminating the prior structure of the separate Nominations and Corporate Governance Committees, replacing them with a new combined Nominations and Governance Committee. This new committee consists of three independent directors: Nicolas De Santis (Chair), Belen Villalonga and Bruce Crockett. In addition, Silvia Villar-Mir de Fuentes resigned from the Compensation Committee, with Stuart Eizenstat joining that committee.

Future developments

As part of its strategy to serve customers better, the Group develops new products or new specifications on a continuous basis. As a consequence of these efforts, investments have been made in facilities that allow the production of new products, such as higher-grade silicon metal, solar grade silicon metal, electrodes for use in silicon metals furnaces, high-value powders for use in Li-on batteries or new foundry products. Please see Part I, Item 4, Information on the Company of the 2022 Form 20-F by way of example of how the Group has developed proprietary technologies and has pursued innovation in the development of new products.

Research and development

Ferroglobe focuses on developing new products, production processes and continuous improvement to create further value for our stakeholders and to follow global megatrends, including the green energy transition. Ferroglobe has dedicated teams for R&D and continuous improvement, but it also has cooperation agreements in place with various universities and research institutes in Spain, France and other countries around the world.

Please refer to Part I, Item 4, Information on the Company of the 2022 Form 20-F (as set out in the separate attachment to this U.K. Annual Report) for information on Ferroglobe's research and development activities and opportunities.

Overseas branches

The Company has no overseas branches.

Share capital structure and change of control provisions

The Company's share capital comprises ordinary shares of \$0.01 each, all of which bear the same rights and obligations. The Company's issued share capital at 31 December 2022 is set out at Note 13 to the Consolidated Financial Statements.

The rights attaching to the Ordinary Shares are set out in the Articles, a copy of which can be obtained from the Company Secretary on request. Each Ordinary Share has one vote attaching to it for voting purposes and all holders of Ordinary Shares are entitled to receive notice of and attend and vote at the Company's general meetings. The Articles vest power in the directors to refuse to register transfers of Ordinary Shares in certain circumstances including where the instrument of transfer is not stamped or is in favor of more than 4 transferees. There are also restrictions in the Articles affecting the terms of tender offers and any scheme of arrangement, consolidation, merger or business combination designed to protect minority shareholders while Grupo VM and its associates hold ten percent or more of the Ordinary Shares.

Significant agreements affected by a takeover

There are no agreements between the Group and any of its employees or any director of the Company that provide for compensation to be paid to the employee or director for termination of employment or for loss of office as a consequence of a takeover of the Company, other than provisions that would apply on any termination of employment.

Reinstated Notes

In 2021, Ferroglobe PLC, the UK Issuer and Globe offered to eligible holders of the Old Notes the opportunity to exchange any and all of the Old Notes for new 9 $\frac{3}{8}$ % senior secured notes due 2025 issued by the UK Issuer and Globe.

The Reinstated Notes are governed by an indenture (the "Reinstated Notes Indenture") entered into by, among others, Ferroglobe and Globe, as issuers, GLAS Trustees Limited, as trustee, Global Loan Agency Services Limited, as paying agent, GLAS Trust Corporation Limited, as security agent, and the guarantors named therein. The Reinstated Notes are guaranteed on a senior basis by Ferroglobe and each subsidiary of Ferroglobe that guarantees the UK Issuer's obligations under the Super Senior Notes (other than Globe) (the "Reinstated Notes Guarantors").

The Reinstated Notes Indenture require us to offer to repurchase all or any part of each holder's Reinstated Notes upon the occurrence of a change of control, as defined in the Reinstated Notes Indenture, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase. A change of control will occur upon the acquisition of 35% or more of the total voting power of our shares by persons other than certain permitted holders including Grupo VM and such permitted holders "beneficially own" directly or indirectly in the aggregate the same or a lesser percentage of the total voting power of our shares than such other "person" or "group" of related persons. However, the Reinstated Notes Indenture states that no change of control shall occur or be deemed to occur by reason of:

1. any enforcement of rights or exercise of remedies under the GVM Share Pledge, including any sale, transfer or other disposal or disposition of the shares in Ferroglobe in connection there with;

2. any disposal by Grupo VM of its shares in Ferroglobe where the purpose of that transaction is to facilitate the repayment or discharge (in full or in part) of the GVM Loan and the proceeds of sale are promptly applied towards such repayment or discharge; or

3. any mandatory offer (or analogous offer) required under the City Code on Takeovers and Mergers or any analogous regulation applied in any jurisdiction as a consequence of a transaction under limb (1) or (2) above,

provided that, if any transaction under paragraphs (1) to (3) above occurs which, but for such paragraph(s), would be a “Change of Control” as a consequence of any person or persons (other than Tyrus) (x) acquiring any voting stock of Ferroglobe PLC (or any other successor company) or (y) being or becoming the “beneficial owner” of the voting power of any voting stock of Ferroglobe PLC (or any other successor company) (such person(s), the “Controlling Shareholder”):

· the Controlling Shareholder has within 60 days of that transaction and at its election:

o paid to the Holders, on a pro rata basis, a fee in an aggregate amount equal to the product of (i) the aggregate principal amount outstanding of the Reinstated Notes, (ii) 0.02 and (iii) the number of years (or part thereof, with any part of a year calculated on the basis of the number of days divided by 360) from the payment date of such fee to December 31, 2025; or

o made an offer to all Holders to purchase one-third of the Notes on a pro rata basis at a price equal to 101% of the principal amount of such Notes plus accrued and unpaid interest; or

· either or both of the Issuers within 60 days of that transaction has made an offer to all Holders to repurchase or purchase (as applicable), or has otherwise redeemed, one-third of the Note son a pro rata basis at a price equal to 101% of the principal amount of such Notes plus accrued and unpaid interest, resulting in such repurchased, purchased or redeemed Notes being cancelled, and provided further that the Controlling Shareholder is not a Restricted Person.

Where:

“GVM Loan” means any financing provided by Tyrus to Grupo VM or owing by Grupo VM to Tyrus, from time to time.

“GVM Share Pledge” means any share pledge or charge or other similar security over the shares in Ferroglobe PLC held by Grupo VM granted by Grupo VM in support of or as collateral for its obligations under any Grupo VM Loan from time to time.

“Restricted Person” means any person that: (a) is listed on the United States Specifically Designated Nationals and Blocked Persons List; the European Union Consolidated List of Persons, Groups and Entities subject to EU Financial Sanctions; or the United Kingdom Consolidated List of Financial Sanctions Targets (each a “Sanctions List”); (b) is owned or controlled by a person identified on a Sanctions List, to the extent that such ownership or control results in such person being subject to the same restrictions as if such person were themselves identified on the corresponding Sanctions List; (c) is located in or incorporated under the laws of a country or territory that is the target of comprehensive sanctions imposed by the United States, which for the purposes of this Agreement, as at the date of signature of this Agreement by the last of its signatories are Iran, Syria, Cuba, the Crimea Region, and North Korea; (d) has, within the last five years, been prosecuted by a relevant authority in the United States, the United Kingdom or any member state of the European Union, in relation to a breach of securities laws (in so far as such prosecution relates to insider dealing, unlawful disclosure, market manipulation or prospectus liability) or criminal laws relating to fraud or anti-corruption, save for instances where the prosecution has concluded and did not result in any criminal or civil settlement or penalty being imposed in relation to such breaches; or (e) is a Subsidiary of a person described in (d) above.

Statement of disclosure to the Company's U.K. statutory auditor

In accordance with section 418 of the Companies Act, each director at the date of this Directors' Report confirms that:

- so far as he is aware, there is no relevant audit information of which the Auditor is unaware; and
- he has taken all the steps he ought to have taken as a director to make himself aware of any relevant audit information and to establish that the Auditor is aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of section 418 of the Companies Act 2006.

By order of the Board on 30 May 2023

Javier Lopez Madrid

Director

The Board of Directors

Details of the members of the Board as at the date of this ARA are below.

Javier López Madrid

Javier López Madrid has been Executive Chairman of the Company since December 31, 2016 and was Chairman of our Nominations Committee from January 1, 2018 until May 26, 2023. He was first appointed to the Board on February 5, 2015 and was the Company's Executive Vice-Chairman from December 23, 2015 until December 31, 2016.

He has been Chief Executive Officer of Grupo VM since 2008, is member of the Board of several non profit organizations. He is the founder and largest shareholder of Financiera Siacapital and founded Tressis, Spain's largest independent private bank. Mr. López Madrid holds a Masters in law and business from ICADE University.

Marco Levi

Marco Levi was appointed Chief Executive Officer of the Company on January 10, 2020 and appointed to its Board of Directors on January 15, 2020. Dr Levi previously served as President and CEO of Alhstrom-Munksjö Oyj, a global fiber materials company listed in Finland, where he led a successful transformation of the business by refocusing its product portfolio towards value-added specialty products. Prior to that, Dr. Levi was Senior Vice President and Business President of the \$3 billion emulsion polymers division of chemicals manufacturer Styron, including during the period in which Styron division was acquired by Bain Capital from Dow Chemical Company. Dr. Levi previously had spent over twenty-two years at Dow in various departments and roles, ultimately serving as general manager of the emulsion polymers business.

Dr Levi is also a Non-Executive Director of Mativ Holdings, Inc, the leading global performance materials company, listed on the New York Stock Exchange. Dr Levi holds a doctorate in industrial chemistry from the Università degli Studi di Milano, Statale, in Italy.

Bruce L. Crockett

Bruce L. Crockett was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015. He has been a member of our Audit Committee from that date and was Chair of the Audit Committee since June 4, 2020 and served on our Compensation Committee from January 1, 2018 until June 23, 2021. Mr. Crockett was appointed on May 13, 2021 as our Senior Independent Director and on June 23, 2021 as Chair of the Corporate Governance Committee until May 26, 2023, on which date he was appointed as a member of the Nominations and Governance Committee.

Mr. Crockett holds a number of other Board and governance roles. He has been Chairman of the Invesco Mutual Funds Group Board of Directors and a member of its Audit, Investment and Governance Committees, serving on the board since 1991, as Chair since 2003 and on the Board of predecessor companies from 1978. Since 2013, he has been a member of the Board of Directors and, since 2014, Chair of the Audit Committee and since 2021 member of the Governance Committee of ALPS Property & Casualty Insurance Company. He has been Chairman of, and a private investor in, Crockett Technologies Associates since 1996. He is a life trustee of the University of Rochester.

Mr. Crockett was a member of the Board of Directors of Globe from April 2014 until the closing of the Business Combination, as well as a member of Globe's Audit Committee. He was formerly President and Chief Executive Officer of COMSAT Corporation from 1992 until 1996 and its President and Chief Operating Officer from 1991 to 1992, holding a number of other operational and financial positions at COMSAT from 1980, including that of Vice President and Chief Financial Officer. He was a member of the Board of Directors of Ace Limited from 1995 until 2012 and of Captaris, Inc. from 2001 until its acquisition in 2008 and its Chairman from 2003 to 2008.

Mr. Crockett holds an A.B. degree from the University of Rochester, B.S. degree from the University of Maryland, an MBA from Columbia University and an Honorary Doctor of Law degree from the University of Maryland.

In 2021 he was appointed as a member of the Board of Advisors of the Western Colorado University Graduate Business School.

Stuart E. Eizenstat

Stuart E. Eizenstat was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015. He was a member of the Company's Corporate Governance Committee from January 1, 2018 until May 26, 2023 and served on our Nominations Committee from May 16, 2018 until May 26, 2023, on which date he was appointed as a member of the Compensation Committee.

Mr. Eizenstat has been a Senior Counsel at Covington & Burling LLP in Washington, D.C. and headed its international practice for many years after joining the firm in 2001. He has served as a member of the Advisory Boards of GML Ltd. since 2003 and of the Office of Cherifien de Phosphates since 2010. He was a trustee of BlackRock Funds from 2001 until 2018.

Mr. Eizenstat was a member of Board of Directors of Globe from 2008 until the closing of the Business Combination and Chair of its Nominating Committee. He was a member of the Board of Directors of Alcatel-Lucent from 2008 to 2016 and of United Parcel Service from 2005 to 2015. He has had an illustrious political and advisory career, including serving as Special Adviser to Secretary of State Kerry on Holocaust-Era Issues from 2009 to 2017 and Special Representative of the President and Secretary of State on Holocaust Issues during the Clinton administration from 1993 to 2001. He was Deputy Secretary of the United States Department of the Treasury from July 1999 to January 2001, Under Secretary of State for Economic, Business and Agricultural Affairs from 1997 to 1999, Under Secretary of Commerce for International Trade from 1996 to 1997, U.S. Ambassador to the European Union from 1993 to 1996 and Chief Domestic Policy Advisor in the White House to President Carter from 1977 to 1981. He is the author of "Imperfect Justice: Looted Assets, Slave Labor, and the Unfinished Business of World War II"; "The Future of the Jews: How Global Forces are Impacting the Jewish People, Israel, and its Relationship with the United States" and "President Carter: The White House Years."

Mr. Eizenstat holds a B.A. in Political Science, cum laude and Phi Beta Kappa, from the University of North Carolina at Chapel Hill, a J.D. from Harvard Law School and nine honorary doctorate degrees from colleges and universities, high honors from the United States, French (Legion of Honor), German, Austrian, Belgian and Israeli governments, and over 75 awards from various organizations..

Manuel Garrido y Ruano

Manuel Garrido y Ruano was appointed to our Board of Directors as a Non-Executive Director on May 30, 2017. He was a member of our Nominating and Corporate Governance Committee from May 30, 2017 until December 31, 2017, and served on our Corporate Governance Committee from December 31, 2017 until May 26, 2023.

Mr. Garrido y Ruano has been Chief Financial Officer of Grupo Villar Mir since 2003 and he is currently member of the Board of its subsidiary in the energy sector, and member of the steering Committee of its real estate subsidiary. In June 2021 he was appointed non executive Chairman of Fertial SPA the Algerian fertilizers subsidiary of the Group.

He is Professor of Corporate Finance of one Graduate Management Program at the Universidad de Navarra, and has also been Professor of Communication and Leadership of the Graduate Management Program at CUNEF in Spain.

Mr. Garrido y Ruano was a member of the steering committee of FerroAtlántica until 2015, having previously served as its Chief Financial Officer from 1996 to 2003. He worked with McKinsey & Company from 1991 to 1996, specializing in restructuring, business development and turnaround and cost efficiency projects globally.

Mr. Garrido y Ruano holds a Masters in Civil Engineering with honors from the Universidad Politécnica de Madrid and an MBA from INSEAD, Fontainebleau, France.

Marta de Amusatogui y Vergara

Marta de Amusatogui y Vergara was appointed to our Board of Directors as a Non-Executive Director on June 12, 2020. She has been a member of our Audit Committee from that date and a member of the Compensation Committee since June 23, 2021.

Ms. Amusatogui has substantial experience in executive and non-executive roles, with a background in business strategy, banking and finance. She is founder and partner of Abrego Capital S.L, providing strategic and financial advisory services, and co-founder of Observatorio Industria 4.0, the professional forum leveraging knowledge and experience to assist businesses, specifically those in the secondary sector, in their digital transformation. She began her career in management consulting and investment banking, serving as Country Executive Officer and General Manager with Bank of America in Spain from 2003 to 2008.

Ms. Amusatogui has been a member of the Board of Eland Private Equity, S.G.E.I.C., S.A., a private equity management company specializing in renewable energies, since 2009. Since 2020, she has been a member of the board of directors of Eccocar Sharing S.L. She has also held other Board positions in the past, including that of Telvent GIT S.A. (NASDAQ TLVT), the global IT solutions and business information services provider, where she became an independent director from early 2010 until its de-listing following acquisition in December 2011. She is currently a member of the McKinsey Alumni Council in Spain.

Ms. Amusatogui holds an Industrial Engineering degree (MSc equivalent) from Universidad Pontificia de Comillas, Madrid, Spain, and an MBA from INSEAD, Fontainebleau, France. She has held a number of academic appointments, lecturing in Financing at the Three Points Digital Business School, Grupo Planeta, in Barcelona, in Managerial Competencies in CUNEF, in Madrid, and in Risk Management on the Non-Executive Directors Program at ICADE Business School, also in Madrid.

Juan Villar-Mir de Fuentes

Juan Villar-Mir de Fuentes was appointed to our Board of Directors as a Non-Executive Director on December 23, 2015.

Mr. Villar-Mir de Fuentes is currently Chairman of Inmobiliaria Espacio, S.A and Grupo Villar Mir, S.A.U. In both companies he served as Vice Chairman since 1996 and since 1999 respectively. He is currently Second Vice Chairman of Obrascón Huarte Lain, S.A and has been serving as a member of the Board of Directors since 1996, first as a member of the Audit Committee and, later, as a member of its Compensation Committee. He was a Board Director and member of the Compensation Committee of Inmobiliaria Colonial, S.A from June 2014 to May 2017. He also was a member of the Board of Directors and of the Compensation Committee of Abertis Infraestructuras, S.A. between 2013 and 2016.

Mr. Villar-Mir de Fuentes is Patron and member of the Patronage Council of Fundación Nantik Lum and of Fundación Santa María del Camino.

Mr. Villar-Mir holds a Bachelor's Degree in Business Administration and Economics and Business Management from the Universidad Autónoma de Madrid.

Belen Villalonga Morenés

Belen Villalonga Morenés was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. She has been a member of the Audit Committee from that date and served as a member of the Corporate Governance Committee from June 23, 2021 until May 26, 2023, on which date she was appointed to the Nominations and Governance Committee.

Ms. Villalonga is a Professor of Management and Organizations, a Yamaichi Faculty Fellow, and a Professor of Finance (by courtesy) at New York University's Stern School of Business. Between 2001 and 2012 she was a faculty member at the Harvard Business School. During 2018-2019 she was a Visiting Professor at Oxford University's Said Business School. Her teaching, research, and consulting activities are in the areas of corporate governance, strategy, and

finance, with a special focus on family-controlled companies. Her award-winning research has been cited over 17,000 times in scholarly articles and international media outlets.

Professor Villalonga is an independent director at Banco Santander International (Santander group's private banking subsidiary in the United States), as well as at Mapfre USA (insurance). She was also an independent director for many years at three global companies publicly listed in Spain: Acciona (renewable energy and infrastructure), Grifols (biopharma), and Talgo (high-speed trains).

Ms. Villalonga holds a Ph.D. in Management and an M.A. in Economics from the University of California at Los Angeles, where she was a Fulbright Scholar. She also holds a Ph.D. in Business Economics from the Complutense University of Madrid.

Silvia Villar-Mir de Fuentes

Silvia Villar-Mir de Fuentes was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. She served as a member of the Compensation Committee from June 23, 2021 until May 26, 2023. Ms. Villar-Mir de Fuentes currently serves on the board of directors of Grupo Villar Mir, a privately held Spanish group with investments across a broad range of diversified industries, which is the beneficial owner of approximately 40% of the Company's share capital.

Mrs. Villar-Mir de Fuentes is a summa cum laude graduate in Economics and Business Studies, with concentration in finance and accounting, from The American College in London, United Kingdom.

Nicolas De Santis

Nicolas De Santis was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. He has been a member of the Compensation Committee since June 23, 2021 and served as a member of the Nominations Committee from June 23, 2021 until May 26, 2023, on which date he was appointed as Chair of the Nominations and Governance Committee. Mr. De Santis is a technology entrepreneur, strategist and author with substantial experience in executive and non-executive roles. Mr. De Santis is currently the Chief Executive Officer of De Santis Corporate Vision Strategists Ltd, a strategy and innovation consultancy and incubator. De Santis advises multinational corporations and start-ups on digital business transformation (including artificial intelligence and machine learning), business strategy, branding, business model innovation, sustainability strategies and corporate culture change.

Previously Mr. De Santis served on the board of publicly traded Lyris Technologies (acquired by AUREA Software in 2015). He began his management career at Landor Associates (now WPP Group). As a technology entrepreneur, he co-founded several high-profile start-ups, including opodo.com, one of Europe's most successful start-ups, reaching \$1.5 billion in gross sales.

Mr. De Santis is a regular lecturer at business schools and universities on business strategy, global branding, business model innovation and culture transformation, including IE Business School, Madrid and the University of Wyoming. He is the author of Futurising Companies® - A systematic approach to win the future by managing culture as the operating system of organisations.

Rafael Barrilero Yarnoz

Rafael Barrilero Yarnoz was appointed to our Board of Directors as a Non-Executive Director on May 13, 2021. He was appointed Chair of the Compensation Committee and served as a member of the Nominations Committee from June 23, 2021 until May 26, 2023.

Mr. Barrilero Yarnoz is a senior advisor at Mercer Consulting. Mr. Barrilero Yarnoz has developed his career as a partner of the firm and as a member of the executive committee, leading the advisory talent and reward service for the boards of the main companies and multinationals. He has also led the business throughout the EMEA. Previously, he led the Watson Wyatt consulting firm in Madrid. He began his career as a lawyer at Ebro Agrícolas focused on labour law, before serving as Ebro's head of human resources. In January 2022 he joined the board of directors of AltamarCAM and

Grupo Hedima, as a permanent Senior Advisor. He collaborates with the HAZ foundation, whose mission is to ensure transparency and good corporate governance.

Mr. Barrilero Yarnoz has a law degree from Deusto and a Masters in Financial Economics from ICADE, as well as a masters in human resources by Euroforum-INSEAD.

Directors' responsibilities

The directors are responsible for preparing the Company's annual reports and financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors are required to prepare the group financial statements in accordance with United Kingdom adopted international accounting standards in conformity with the requirements of the Companies Act 2006. The financial statements also comply with International Financial Reporting Standards as issued by the IASB. Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the profit or loss of the Group for that period. In preparing these financial statements, International Accounting Standard 1 requires that directors:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in IFRS is insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance; and
- make an assessment of the entity's ability to continue as a going concern.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Group and Company and enable them to ensure that the financial statements comply with Companies Act 2006. They are also responsible for safeguarding the assets of the Group and Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website.

Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Directors' responsibility statement

To the best of each directors' knowledge:

- the financial statements, prepared in accordance with the applicable accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and its undertakings included in the consolidation taken as a whole;
- this directors' report and the strategic report include a fair review of the development or performance of the business and the position of the Company and its subsidiary undertakings taken as a whole, together with a description of the principal risks and uncertainties that they face;

- the annual report and financial statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the Company's position, performance, business model and strategy.

The responsibility statement was approved by the Board and signed on its behalf.

By order of the Board on 30 May 2023

Javier Lopez Madrid

Director

Directors' Remuneration Report

Introduction

Dear Shareholder

As Chairman of the Compensation Committee (the **Committee**), and on behalf of the Board, I present the Directors' Remuneration Report for the period ended 31 December 2022. It has been prepared in accordance with Schedule 8 of The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008, as amended.

This includes the following three sections:

- This Annual Statement which summarises the work of the Committee during the year;
 - The Annual Report on Remuneration (the **ARR**) which provides details of the remuneration earned by directors for the period ended 31 December 2022;
- and
- The Directors' Remuneration Policy approved at the 2022 AGM.

This report sets out both the Company's annual report on remuneration (the **ARR**) for 2022 and the directors' remuneration policy (the **2022 Policy** or the **Policy**), which was put to shareholders at the 2022 AGM on 30 June 2022 and approved by over 90% of the shareholders who voted on it. Thank you for your support. The 2022 Policy is included on pages 34 to 60 for your information and ease of reference.

The Companies Act 2006 requires the auditors to report to the shareholders on certain parts of the Directors' Remuneration Report and to state whether, in their opinion, those parts of the report have been properly prepared in accordance with the Accounting Regulations. The parts of the annual report on remuneration that are subject to audit are indicated in that report. The statement by the chair of the Compensation Committee and the policy report are not subject to audit.

The Policy

Under English law, a directors' remuneration policy requires shareholder approval not less than once in every three years. The Committee last concluded its review of the policy in 2021 and determined that the then current remuneration framework achieved an appropriate balance of performance and reward, and 2022 Policy was duly approved at the 2022 AGM.

Shareholder Engagement in 2022

During 2022, the Company consulted extensively with a large number of shareholders and other stakeholders. During the year we held over 100 meetings with shareholders and other stakeholders including labor unions representing our employees. In addition, we engaged with proxy advisors.

Annual Bonus awards for 2022 and 2021

The annual bonus objectives for the Executive Chairman and CEO in 2022 were EBITDA in relation to 35% of the award, net cash-flow in relation to 35% and an indicator related to the long term strategy plan in relation to 30%. The Executive Directors achieved performance of (143.58%) of their target bonus opportunities. We believe these outcomes are justified by the exceptional performance of the Company, which had the strongest results since its formation. Moreover, the targets were already ambitious at the time they were approved by the Committee and Board, and were nonetheless significantly exceeded thanks to both prudent management and market conditions. See the ARR for more on the 2022 annual bonus outturn.

LTIPs vesting in 2022

Awards granted to our Executive Directors in 2019 under the EIP came to the end of their performance period on 31 December 2021 and vested in 2022. The Committee assessed their performance at 16.083% of target (32.170% of

maximum), and the awards vested and became exercisable. To date, the award to our Executive Chairman has not been exercised; the award to our former CEO was exercised in 2022.

Non-Executive Directors and their remuneration

In 2022, the Corporate Governance Committee reviewed the structure of NED fees and decided to propose an additional payment for extraordinary meetings in the amount of £2,500 for in-person meetings and £1,250 for meetings held by video conference or telephonically. Such changes were approved by the Board. Other than these two changes, they chose not to recommend any other adjustment to the level or principles underlying NED fees, which otherwise remain unchanged in quantum since 2016.

Looking forward to 2023

We care deeply about our workforce and continue to prioritize their safety and well-being. Throughout the year the Committee has carefully considered the wider economic climate and fairness of our remuneration policies. In addition, we instituted an ESG-related performance measure to the long term incentive plan grant for the first time in 2022. While that indicator was tied to the lost time injury frequency rate in our Group, the 2023 ESG indicator is tied to execution of the broader ESG strategy that was previously approved by the Board in 2022. Moreover, maximum achievement of this measure would require significantly speeding up this ESG plan, completing all 2026 initiatives by the end of 2025. In this way, the Committee seeks to align the interests of our Executive Directors and others in management with sustainability and related goals.

The Committee faces certain fundamental tensions in making remuneration determinations. In particular, we acknowledge that the Company's practice is at times not fully aligned with market standards in the United Kingdom, where we are incorporated. As a company incorporated in the UK, with significant operations in both Europe and the United States, as well as listing on the Nasdaq stock market in the US, we must remain competitive in order to retain top talent to deliver the best results for our shareholders. As such, at times we design our remuneration features more in line with the US market, which tends to pay more than in the United Kingdom. Moreover, we note that while the Policy tends to provide limits significantly in excess of grants actually made. For example, the Policy provides that short term incentive awards cannot be more than 500% of salary, the Committee has applied a maximum limit of 150% to all awards in recent years.

In 2023, the Committee and the Board approved an increase in the base salary of the Executive Chairman, Javier Lopez Madrid, in the amount of £44,400 annually, and an increase in the base salary of the CEO, Marco Levi, in the amount of €16,000 annually effective as of 1 April 2023.

In the case of the Executive Chairman, his base salary had been unchanged since his executive appointment, and both of these modest increases were implemented by the Committee and Board in light of both the Executive Chairman and CEO's excellent work in leading the Company through its transformation over the last three years.

While the CEO's increase in 2023 is modest, it is acknowledged that the 33% increase in his base salary in 2022 was significant. In 2022 the Company engaged external consultants to undertake a thorough benchmarking of salaries of all roles throughout the Group against a group of peer companies in the metals and mining industry in Europe and the United States. As a result of this exercise, it was determined that the CEO's base salary was significantly below the median of the selected peers. The increase in 2022 was designed to bring his compensation in line with the market.

While the Committee was pleased to have received over 90% approval of the Policy at the 2022 AGM, we received 86% approval of the Directors' Remuneration Report. The Company significantly increased engagement during 2022 with both shareholders and other stakeholders, including labor unions and proxy advisory services. This year, shareholders will continue to have an advisory vote on the Directors' Remuneration Report. I hope we will again receive your support for the resolutions relating to remuneration at the 2023 AGM.

Signed on behalf of the Board.

Chairman of the Compensation Committee

30 May 2023

The Policy

This section of the Directors' Remuneration Report on pages 34 to 60 sets out the Directors' Remuneration Policy which will be put forward for shareholder approval at the 2022 AGM on 30 June 2022. The approved Policy can be found in the Company's U.K. Annual Report and Accounts for the period ended 31 December 2021 and on the Company's website. The Policy is set out below for information only.

Aim of the Policy

The overall aim of the Policy is to provide appropriate incentives that reflect the Company's high-performance culture and values to maximize returns for shareholders.

In summary, our aim as regards Executive Directors is to provide remuneration which:

- attracts, retains and motivates high caliber, high performing employees;
- encourages strong performance and engagement, both in the short and the long term, to enable the Company to achieve its strategic objectives;
- link a very significant proportion of pay to performance conditions measured over the short term and longer term;
- set fixed pay levels at or around market norms to allow for a greater proportion of total remuneration opportunity to be in variable pay; and
- create strong alignment between the interests of shareholders and executives through both the use of equity in variable incentive plans and the setting of shareholding guidelines for Executive Directors.

There are no material differences in the Policy for Executive Directors compared to that of senior management other than in terms of quantum and levels of participation in incentive plans reflecting the higher weighting to variable pay and ability to influence performance outcomes. For the wider employee population, the Company aims to provide remuneration structures and levels that reflect market norms for the location at which they are based.

Operation of the Policy

Throughout the Policy, reference is made to the authority, powers and discretions vested in the Committee. It is the Committee's practice that, in relation to any significant decision in relation to the compensation of the Company's Executive Directors or the second tier of executive management below them, the Committee makes recommendations to the Board which determines the final decision of the Company on such matters.

The following table summarizes the Policy as applied to Executive Director remuneration:

Components of remuneration for Executive Directors

<u>Element</u>	<u>Purpose and link to strategy</u>	<u>Operation and maximum opportunity</u>	<u>Performance framework and recovery</u>
Salary	A fixed salary commensurate with the individual's role, responsibilities and experience, having regard to broader market rates.	Reviewed annually, taking account of Group performance, individual performance, changes in responsibility, levels of increase for the broader employee population and market salary levels.	Not applicable.
Pension and retirement benefits	Attraction and retention of top talent; providing mechanism for the accumulation of retirement benefits.	Executive Directors may be paid a cash allowance in lieu of pension. The maximum cash allowance is 20% of base salary. This includes contributions to the U.S. tax-qualified defined contribution 401(k) plan.	Not applicable.
Benefits	Attraction and retention of top talent.	Benefits may include but are not limited to medical cover, life assurance and income protection insurance. Relocation allowances may take into account a housing allowance, school fees, adviser fees for assistance with tax affairs and an expatriate allowance to cover additional expenditure incurred as a result of the relocation. Payment of such relocation allowances will be reviewed by the Committee on an annual basis Benefits may include tax equalization provisions applicable if an Executive moves between jurisdictions with differing tax regimes at the Company's request. If the Executive moves to an area of higher taxation, the Company may agree to make an annual or other regular payment in cash to compensate him or her for any additional tax burden. Where the Executive moves to a jurisdiction where his or her effective tax burden is lower than that to which he or she was subject prior to such move, the Executive's compensation may be commensurately reduced to ensure that his or her net pay remains unaffected.	Not applicable.

Purpose and link to strategy

Operation and maximum opportunity

Performance framework and recovery

Annual and other bonuses

Short-term performance-based incentive to reward achievement of annual performance objectives.

Benefits will be provided as the Committee deems necessary including to take into account perquisites or benefits received from a prior employer or as is customary in the country in which an executive resides or is relocated from.

Benefits provided by the Company are subject to market rates and therefore there is no prescribed monetary maximum. The Company and the Committee keep the cost of the benefits under review.

The Company provides all Executive Directors with directors' and officers' liability insurance and will provide an indemnity to the fullest extent permitted by the Companies Act.

The annual bonus plan and all payments and awards under it are at the discretion of the Committee. Subject as aforesaid, the Committee will determine an Executive Director's actual bonus amount, subject to the achievement of quantitative and qualitative performance criteria.

At least two-thirds of the bonus will be based on financial metrics with any balance based on non-financial metrics.

The maximum annual bonus opportunity that may be awarded to an Executive Director is normally 200% of salary. If the Committee provides higher annual bonus opportunities in any year its rationale will be clearly explained in the Annual Report on Remuneration for the relevant year. In these and other exceptional circumstances the limit will be 500% of salary.

No more than 25% of the maximum annual bonus payable for each performance condition will be payable for threshold performance.

The Committee will select the most appropriate performance measures for the annual bonus for each performance period and will set appropriately demanding targets.

Normally any bonus earned in excess of the target amount will be deferred for three years into shares in the Company. An Executive Director may be granted an additional long-term incentive award as described below of equal value (at maximum) to the amount of annual bonus deferred.

Recovery and recoupment will apply to all bonus awards for misstatement, error or gross misconduct.

Purpose and link to strategy

Operation and maximum opportunity

Performance framework and recovery

Long-term incentive awards

Focus Executive Directors' efforts on sustainable strong long-term performance of the Company as a whole, and to aid in retention with multi-year vesting provision. Improves alignment of Executive Directors' interests with those of the Company and shareholders.

In addition or in place of an annual bonus, the Company may pay a retention bonus where it considers it necessary to retain key Executives in situations where the relevant Executive would otherwise leave the Company and his or her retention is critical to the Company's performance and/or the achievement of strategic goals or key projects. The grant, terms and payment of any retention bonus are at the discretion of the Committee.

A retention bonus may be payable in cash or in shares and subject to such conditions as the Committee sees fit, including the Executive remaining with the Company for a defined period of time and/or meeting set performance criteria. The Committee would normally count any retention bonus awarded towards the 500% of salary limit.

Executive Directors are eligible for awards to be granted as decided by the Committee under the Company's long-term incentive plan. All awards are subject to performance targets as determined by the Committee for each grant, performance against which is normally measured over a three-year period. Awards usually vest three years from the date of their grant.

The annual target award limit will not normally be higher than 300% of salary (based on the face value of shares at date of grant).

Maximum vesting is normally 200% of target (based on the face value of shares at date of grant).

There is an exceptional annual target award limit in recruitment, appointment and retention situations of 500% of salary.

The Committee will select the most appropriate performance measures for long-term incentive awards for each performance period and will set appropriately demanding targets.

Recovery and recoupment will apply to all long-term incentive awards for misstatement, error or gross misconduct.

	Purpose and link to strategy	Operation and maximum opportunity	Performance framework and recovery
Share ownership guidelines	Increases alignment between the Executive Directors and shareholders.	Executive Directors are strongly encouraged to hold a percentage of their salary in shares. This holding guideline could be achieved through the retention of shares on vesting/exercise of share awards and may also (but is not required to) be through the direct purchase of shares by the Executive Directors.	Not applicable.

Performance Criteria and Discretions

Selection of Criteria

The Committee annually assesses at the beginning of the relevant performance period which corporate performance measures, or combination and weighting of performance measures, are most appropriate for both annual bonus and long-term incentive awards to reflect the Company's strategic initiatives for the performance period. The Committee has the discretion to change the performance measures for awards granted in future years based upon the strategic plans of the Company. The Committee sets demanding targets for variable pay in the context of the Company's trading environment and strategic objectives and taking into account the Company's internal financial planning and market forecasts. Any non-financial goals will be well defined and measurable.

Discretions retained by the Committee in operating its incentive plans

The Committee operates the Group's various plans according to their respective rules. In administering these plans, the Committee may apply certain operational discretions. These include the following:

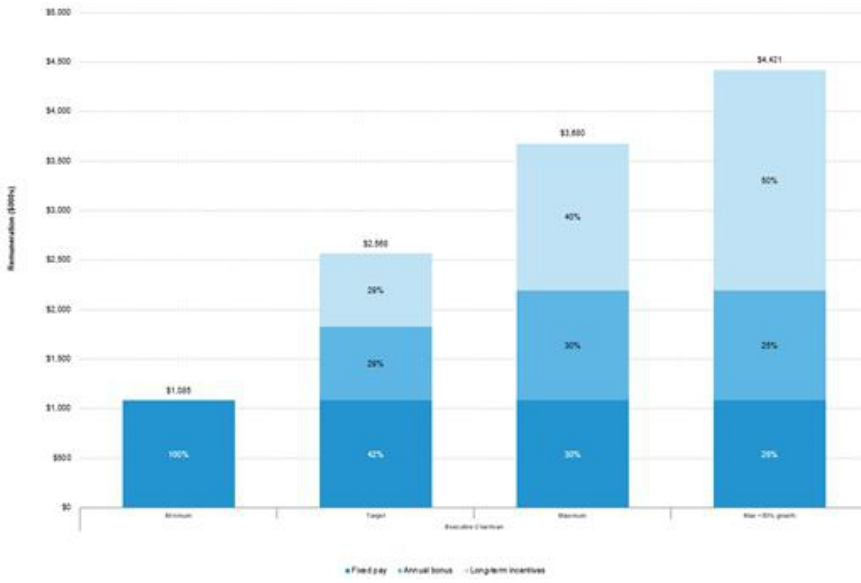
- determine the extent of vesting based on the assessment of performance, including exercising its discretion to reduce payout as and where appropriate;
- determine "good leaver" status (as described below) and where relevant extent of vesting;
- where relevant determine the extent of vesting in the case of share-based plans in the event of a change of control in accordance with the rules of the various plans; and
- make the appropriate adjustments required in certain circumstances (e.g. rights issues, corporate restructuring events, variation of capital and special dividends).

The Committee, acting fairly and reasonably, and after consulting plan participants, may adjust the targets and/or set different measures and alter weightings for the variable pay awards already granted (in a way that the alterations are intended to create an equivalent outcome for plan participants) only if (i) an unexpected event (whether a corporate or outside event) occurs which causes the Committee to reasonably consider that the performance conditions would not achieve their original purpose without alteration and (ii) the varied conditions are materially no more or less difficult to satisfy than the original conditions. Any changes and the rationale for those changes will be set out clearly in the Annual Report on Remuneration in respect of the year in which they are made.

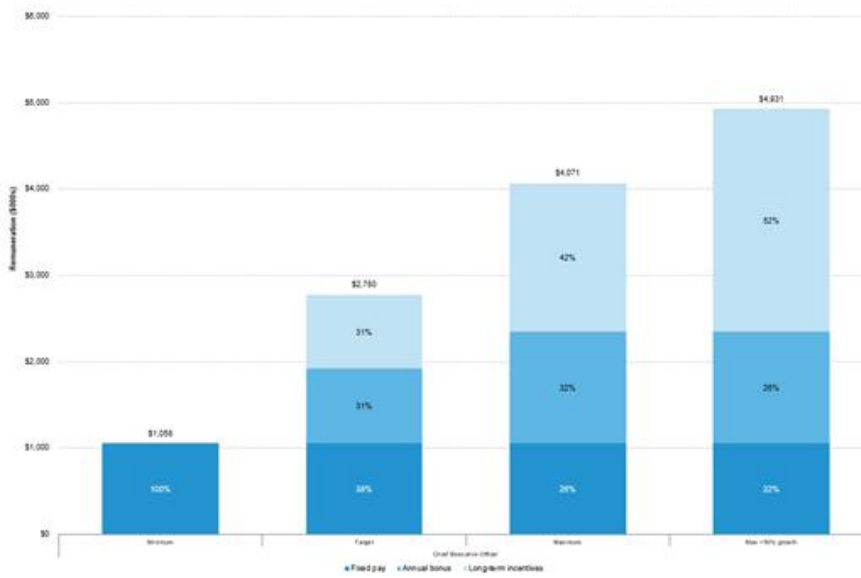
Remuneration scenarios for the Executive Directors

The charts below show the level of remuneration potentially payable to each of Javier López Madrid as Executive Chairman and Marco Levi as CEO under different performance scenarios for the 2023 financial year.

In respect of the remuneration of the Executive Chairman:



In respect of the remuneration of the CEO:



Assumptions

1. Fixed pay comprises base salary for 2023, benefits and a pension contribution of 20% of base salary for each of Javier Lopez Madrid and Marco Levi. Benefits comprise private health, income protection and life insurance arrangements at an estimated level of 5.46% of base salary for Javier Lopez Madrid and 4.52% of base salary for Marco Levi salary and an expatriate allowance of 20% of base salary in the case of Javier López Madrid.
2. On-target performance comprises fixed pay plus annual bonus of 100% of base salary and long-term incentives of 133% of base salary for the Executive Chairman and the CEO.
3. Maximum performance comprises fixed pay plus annual bonus of 150% of base salary for the Executive Chairman and the CEO and long-term incentives of 200% of base salary for each.
4. Maximum performance plus share price growth comprises the maximum performance scenario described above plus an assumed 50% share price growth over the performance period of the LTIP.
5. As described in the Policy, an additional long-term incentive award may be granted if part of the annual bonus is deferred, with the maximum value of such award equal to the amount of bonus deferred. As at 31 December 2022 no such awards have been made to the Executive Directors and none is to be made in respect of 2022.

Approach to Recruitment Remuneration

The Committee expects any new Executive Directors to be engaged on terms that are consistent with the Policy as set out above.

The Committee recognizes that it cannot always predict accurately the circumstances in which any new directors may be recruited. The Committee may determine that it is in the interests of the Company and shareholders to secure the services of a particular individual which may require the Committee to take account of the terms of that individual's existing employment and/or their personal circumstances. Examples of circumstances in which the Committee expects it might need to do this are:

- where an existing employee is promoted to the Board, in which case the Company will honour all existing contractual commitments including any outstanding annual bonus or long-term incentive awards or pension entitlements and will provide other benefits consistent with those provided to senior leaders in that employee's home country or place of residence prior to appointment to the Board;
- where an individual is relocating in order to take up the role, in which case the Company may provide certain one-off benefits in addition to benefits set out in the policy table such as reasonable relocation expenses, assistance with visa applications or other immigration issues and ongoing arrangements such as flights home and cost of education; and
- where an individual would be forfeiting fixed or valuable variable remuneration in order to join the Company, in which case the Committee may award appropriate additional compensation in addition to the limit set out in the policy table. The Committee would look to replicate the arrangements being forfeited as closely as possible taking into account the nature of the remuneration, performance conditions, attributed expected value and the time over which any variable pay would have vested or been paid.

In making any decision on any aspect of the remuneration package for a new recruit, the Committee would balance shareholder expectations, current best practice and the requirements of any new recruit and would strive not to pay more than is necessary to achieve the recruitment. The Committee would give full details of the terms of the package of any new recruit in the next remuneration report. Award levels under the Company's variable incentive plans would not exceed those set out in the policy table, but their proportions can be altered for the first three years of employment.

Executive Directors' Service Contracts and Policy on Cessation

In order to motivate and retain the Executive Directors and other senior executives, most of whose backgrounds are in the United States and Europe, the Committee has taken account of market practices in those countries in formulating the Policy, including (a) determining the treatment of annual and retention bonuses and long-term incentive awards in case of termination of their employment by the Company without cause, (b) referencing past annual bonuses in calculating the amount of payment in lieu of notice, (c) determining the extent of vesting of long-term incentive awards in the event of a takeover or change of control and (d) determining that all long-term incentive awards granted to an executive in any financial year will be subject to achievement of performance targets.

Service contracts

Subject to the *Approach to Recruitment Remuneration* above, Executive Directors have rolling service contracts for an indefinite term but a fixed period of notice of termination which would normally be 12 months. With respect to newly appointed directors, the Committee may, if it considers it necessary, agree a notice period in excess of 12 months (but not exceeding 24 months), provided it reduces to 12 months within a specified transition period of not exceeding 36 months. The service contract for Javier López Madrid is in accordance with this policy and his fixed period of notice of termination is 12 months. See below for more on Marco Levi's service contract.

The Executive Chairman's service contract may be terminated for cause without notice and without further payment or compensation, except for sums accrued to the date of termination. In other circumstances, the Company may terminate his employment with immediate effect and make a payment in lieu of notice in the amount equivalent to the aggregate of (i) base salary, (ii) the average of annual bonuses in the last three years prior to termination, (iii) pension allowance plus (iv) cost of benefits, for the notice period (or if a notice has been served, for the unserved notice period). He would be entitled to an equivalent payment in the event of his resignation for good reason (as defined in the service contract). Similar provisions may apply in the event that he leaves following a change of control of the Company, but no additional entitlements would be expected to be set out in the Executive Director's service contract beyond those described above. An Executive Director may also be entitled to certain amounts with respect to annual or retention bonuses and long-term incentive awards, as described below.

Marco Levi is employed under a service contract made under Spanish law (and in particular, the provisions of the Royal Decree 1382/1985 1st of August regarding senior management ("Alta Dirección")). Spanish employment law imposes a number of mandatory requirements, including in relation to termination. The CEO's service contract may be terminated for cause (as defined in the service contract by reference to Spanish statutory law) without notice and without further payment or compensation, except for sums accrued to the date of termination. If the dismissal is declared null or unfair by a definitive court or labour tribunal ruling, the CEO is entitled to receive a severance payment equal to six months' salary plus a payment equal to the Company's costs in such six month period corresponding to the insurance and pension benefits in force at the time of termination. This severance compensation includes and absorbs the compensation and any statutory notice to which the Executive may otherwise be entitled by operation of law. In the event that the CEO is dismissed without cause, the CEO will similarly be entitled to receive a severance payment equal to six months' salary plus an amount equal to the costs the Company would have incurred in providing pension, health insurance, income protection and life assurance benefits for the period of notice, in lieu of any statutory notice to which the CEO would otherwise be entitled. In addition, in accordance with Spanish law and as contemplated in the section *Generally* below, the CEO has enhanced post termination restrictive covenants. Under these provisions, the Company may be required to make an additional payment to ensure the enforceability of certain post-employment restrictions on competition for a period of six months from termination on terms which are customary in senior management employment relationships. The amount payable is 30% of the CEO's salary at the date of termination and is deemed discharged at the rate of 15% of salary per annum throughout the employment relationship, such that on termination no further sums will be payable if an amount equal to 30% of salary has already been paid. The total amount payable on termination of the CEO's service contract other than for cause is therefore less than 12 months' salary and benefits.

Where an Executive Director's service contract is terminated for "without cause" or for "good reason" as defined in the relevant director's service contract, the provisions outlined below in relation to annual bonus awards and long-term incentive awards as described below will apply. Executive Directors' service contracts (or a memorandum of the terms where the contract is unwritten) are available for inspection at the Group's office at 13 Chesterfield Street, London, W1J 5JN during normal business hours and at the Annual General Meeting.

Generally

As circumstances may require, the Committee may approve compensation payments in consideration of statutory entitlements, for a release of claims, enhanced post-termination restrictive covenants (for example, as outlined above) or transitional assistance, such as outplacement services and payment of legal fees in connection with termination, the costs of short term accommodation or leasing arrangements, home relocation expenses including tax related expenses and other ancillary payments thereto.

Annual bonus awards (including retention awards)

In the event that an Executive Director's employment is terminated without cause, by resignation by the Executive Director for good reason, or by reason of death, injury, disability or his employing company or the business for which he works being sold out of the Group, the Company will pay an annual bonus amount in respect of the financial year in which termination occurs subject to performance conditions being met at the end of the period and with pro-rating of the award determined on the basis of the period of time served in employment during the normal vesting period but with the Committee retaining the discretion in exceptional circumstances to increase the level of vesting within the maximum annual bonus amount as determined by the performance conditions. The Committee may, if it considers it appropriate in exceptional circumstances, measure performance to the date of cessation. In other circumstances, payment will be at the Committee's discretion. The Committee will consider the period of the year worked and the performance of the Executive Director during that period when considering how to exercise its discretion.

The terms of any retention bonus agreed to be paid to an Executive Director may provide for such bonus to be payable on that Executive Director's employment being terminated without cause, by resignation by the Executive Director for good reason, or by reason of death, injury, disability or his employing company or the business for which he works being sold out of the Group. In any such case, the retention bonus will become payable in such circumstances.

Long-term incentive awards

As a general rule, any unvested long-term incentive award (except deferred bonus awards *see below*) will lapse upon an Executive Director ceasing to be an employee or director in the case of voluntary resignation or dismissal for cause. However, if the cessation is without cause, by resignation by the Executive Director for good reason, or because of his death, injury, disability or his employing company or the business for which he works being sold out of the Group or in other circumstances at the discretion of the Committee, and generally for any award granted in 2022 and beyond, then the award will normally vest in full on the date when it would have ordinarily vested subject to the performance conditions being met. Where an award vests at the discretion of the Committee that award may be pro-rated taking into account the period of time served in employment during the normal vesting period of the award. The Committee can for any cessation measure performance up to the date of cessation and permit awards to vest early in respect of which the same pro-ration principles noted above remain applicable. For awards granted in 2022 and beyond, good leaver treatment in relation to cessation without cause and/or by resignation of an Executive Director for good reason will be at the discretion of the Committee.

Deferred bonus awards vest in full upon cessation, other than in case of voluntary resignation by an Executive Director without good reason or dismissal for cause. Vested but unexercised awards held on cessation will remain capable of exercise for a limited period save in the case of dismissal for cause.

In the event of a takeover all awards will vest early to the extent that the performance conditions are determined as satisfied at that time on such basis as the Committee considers appropriate. In respect of awards granted in 2022 and beyond, in the event of a takeover awards may also be pro-rated at the discretion of the Committee.

External appointments

Executive Directors may retain fees paid for external director appointments. These appointments are subject to disclosure to and approval by the Board and must be compatible with their duties as Executive Directors.

Matters taken into consideration in determining policy and differences in the remuneration policy of the Executive Directors and employees

It is not the Committee's practice to consult with employees on matters relating to executive pay. However, the Committee will consider pay structures, practices and principles across the Group on a regular basis and take these into account in any review of the Executive Directors' current Policy or implementation thereof.

The Committee will consider feedback from shareholders and take into account the results of both advisory and binding votes concerning executive pay at the Annual General Meeting as well as ensuring it engages with shareholders on executive pay matters. The 2021 Policy has been formulated taking into account the Company's understanding of current shareholder views on the Company's remuneration policy and practices.

Directors' Remuneration Policy for Non-Executive Directors

The following table summarizes the 2022 Policy as applied to Non-Executive Director remuneration

<u>Element</u>	<u>Purpose and link to strategy</u>	<u>Operation and maximum opportunity</u>	<u>Performance framework and recovery</u>
Non-Executive Directors fees including any Non-Executive Chairman	To appropriately remunerate the Non-Executive Directors	<p>The Non-Executive Directors are paid a basic fee. Supplemental fees may be paid for additional responsibilities and activities, such as for the committee chairmen and other members of the main Board committees (e.g. audit, compensation, nominations and corporate governance) and the Senior Independent Director, to reflect the additional responsibilities as well as travel fees to reflect additional time incurred in travelling to meetings.</p> <p>These fee levels are reviewed periodically, with reference to time commitment, knowledge, experience and responsibilities of the role as well as market levels in comparable companies both in terms of size and sector.</p>	Not applicable

Element	Purpose and link to strategy	Operation and maximum opportunity	Performance framework and recovery
Payment of expenses and benefits	To support the Non-Executive Directors in the fulfilment of their duties	<p>The Company does not currently have a Non-Executive Chairman. If one were appointed his or her fee would be set at a level with reference to time commitment, knowledge, experience and responsibilities of the role as well as market levels in comparable companies both in terms of size and sector.</p> <p>There is no maximum fee level or prescribed annual increase.</p> <p>Reasonable expenses incurred by the Non-Executive Directors in carrying out their duties may be reimbursed by the Company including any personal tax payable by the Non-Executive Directors as a result of reimbursement of those expenses. The Company may also pay an allowance in lieu of expenses and may arrange and pay for the provision of advice or assistance in relation to personal taxes for which the Non-Executive Director may be liable in connection with his or her appointment to the Board, if it deems this appropriate.</p> <p>The Company provides Non-Executive Directors with directors' and officers' liability insurance and an indemnity to the fullest extent permitted by the Companies Act.</p>	Not applicable

Legacy Arrangements with Certain Non-Executive Directors

Prior to the Business Combination, in keeping with many other NASDAQ listed companies, Globe granted restricted stock units and share appreciation rights to its Non-Executive directors. Outstanding awards as at 31 December 2022 held by the Non-Executive Directors, who were previously Globe's Non-Executive directors, are set out in the ARR.

It is noted that those Non-Executive Directors with restricted stock units and share appreciation rights may be regarded as not being independent by U.K. based proxy voting agencies although the Board considers them to be fully independent. It is a provision of this Policy that the Company may accelerate the vesting of or repurchase of these awards based on an independent valuation, if it deems it to be appropriate.

Letters of Appointment with Non-Executive Directors

The Company does not enter into service contracts with its Non-Executive Directors, rather the Company enters into letters of appointment for a rolling period of 12 months with each annual renewal being subject to re-election at each annual general meeting of the Company. No compensation for loss of office is payable in the event a Non-Executive Director is not re-elected. The Company may request that Non-Executive Directors resign with immediate effect in certain circumstances (including material breach of their obligations) in which case their appointment would terminate without compensation to the Non-Executive Director for such termination but with accrued fees and expenses payable up to the date of termination.

Appointment of Non-Executive Directors

For the appointment of a Non-Executive Chairman or other Non-Executive Directors, the fee arrangement would be in accordance with the approved Directors' Remuneration Policy in place at that time.

Minor amendments

The Committee may make minor changes to the Policy, which do not have a material advantage or disadvantage overall to directors, to aid in its operation or implementation (including to take account of any change in legislative or regulatory requirements applicable to the Company) without seeking shareholder approval for a revised version of the Policy.

Annual Report on Remuneration

Implementation of the Directors' Remuneration Policy for the year ending 31 December 2022

This section sets out how the Committee intends to implement the Policy for the year ending 31 December 2022.

Base salary

Javier López Madrid was appointed as Executive Chairman with effect from 31 December 2016. Javier López Madrid's salary was reviewed in 2023 and was increased from £555,000 (\$685,289) to £599,400 (\$740,112) per annum effective 1st April 2023.

Marco Levi's base salary as CEO was reviewed in 2023 and was increased from EUR800,000 (\$842,400) per annum to EUR816,000 (\$859,248) per annum effective April 1, 2023.

Neither Javier Lopez Madrid nor Marco Levi received any additional fees or compensation for their respective roles on the Board. See "Looking forward to 2023" in the Compensation Committee Chairman's letter above for more information.

Pension and benefits

In accordance with the Policy, both Executive Directors receive a pension contribution at the rate of 20% of base salary, payable as a cash allowance, and health insurance, income protection and life assurance benefits to the value of approximately 6.5% of salary for the Executive Chairman and 3.3% for the CEO.

The Company provides directors' and officers' liability insurance and an indemnity to the fullest extent permitted by the Companies Act.

Variable Remuneration

Short Term Incentives

The objectives for the 2023 annual short-term incentives were determined by the Compensation Committee and the Board on 26 and 27 April 2023. For each of the Executive Directors, target is at 100% of base salary, with a maximum opportunity of 150% of base salary. As in past years and consistent with the Committee's approach to incentive awards, the maximum opportunity has been set below limits in the Policy. The performance indicators for the Executive Directors are 2023 adjusted EBITDA, accounting for 50% weighting, and 2023 net cash flow, accounting for 50% weighting.

Long-term incentives

The 2023 long-term incentive grant was approved by the Compensation Committee and the Board on 30 May 2023. The awards are structured as performance share awards with awards vesting three years from grant subject to continued service and the achievement of performance conditions. The award levels are 100% of base salary as target and 200% of base salary as maximum in the case of the Executive Directors. Performance conditions comprise EBIT with a weighting of 40%, operational cash flow with a weighting of 40% and relative total shareholder return relative to a comparator group with a weighting of 20%. All performance conditions are measured over the January 1, 2023 to December 31, 2025 period. In addition, the grants are subject to a multiplier for completion of the Company's ESG action plan initiatives by December 31, 2025, which multiplier can both reduce or increase the total amount of payouts.

Like in 2022, the relative TSR performance condition is based on a bespoke comparator group comprising Outokumpu, Imerys, Eramet, Jacquet Metals, Evonik Industries, Wacker, Thyssenkrupp, SGL Carbon SE, Amg Advanced Metallurgical Group, Elkem, Acerinox, Materion Corp., Minerals Technologies Inc., Schnitzer Steel Industries, Kaiser Aluminum, Ati Inc., Steel Dynamics Inc., Timkensteel, Century Aluminum Co. and Cleveland-Cliffs.

The inclusion of earnings and cash flow measures in both the short term incentive and long term incentive grants for 2023 is designed by the Compensation Committee and the Board to ensure strong support of the Board's strategy for the Company. The short-term incentive measures will continue to provide focus on in-year delivery, while the long term incentive measures will focus on cumulative and sustained performance over a three-year period. In all cases, measures are stretch targets based on the consensus view as it was determined at the beginning of 2023.

Non-Executive Director share ownership guidelines

In 2018, the Non-Executive Directors reviewed the guidelines under which they had voluntarily agreed to apply on a cumulative basis at least a quarter of their normal annual gross fees to acquire shares under arrangements designed to ensure that shares can be purchased on a regular basis over a period of eight years and agreed several points of clarification, including that:

- Where more or fewer shares are acquired in any year, the value of shares to be acquired in subsequent years may be reduced or increased respectively such that on a cumulative basis the 25% test is satisfied;
- Each Non-Executive Director agrees to retain his or her shares until the earlier of achieving a holding equal to twice his or her annual base fees being achieved or that director leaving the Board;
- Where a director holds outstanding and exercisable share-based or phantom restricted stock awards, the shares or notional shares under award are to be taken into account in determining the relevant director's holding and may be exercised and disposed of at any time (with consequent effect on the director's holding).

Fees for the Non-Executive Directors

Fees are set and payable in Pounds sterling. The fees for 2023 are the same as those for 2022, with the exception of the new Nominations and Governance Committee. On 26 May 2023, Board of Directors canceled both the Nominations Committee and the Corporate Governance Committee, replacing them with a new combined Nominations and Governance Committee and populating the new committee exclusively with independent Directors. Compensation to Non-Executive Directors for service on such committee was set in line with fees for the Compensation Committee.

Non-Executive Director base fee	£70,000 (\$86,583)
Senior Independent Director	£35,000 (\$43,291)
Member of Audit Committee	£17,500 (\$21,645)
Member of Compensation Committee	£15,500 (\$19,172)
Member of Corporate Governance Committee ¹	£12,000 (\$14,843)
Member of Nominations Committee	£1,500 (\$1,855 per meeting, subject to an annual cap of £10,000 (\$12,369)) ¹
Member of Nominations and Governance Committee	£15,500 (\$19,172)
<i>Extraordinary meetings (per meeting)</i>	
In person meetings	£2,500 (\$3,092)
Meetings by videoconference/telephone	£1,250 (\$1,546)
Committee Chairman	Two times committee membership fee
<i>Travel fee (per meeting)</i>	
Intercontinental travel	£3,500 (\$4,329)
Continental travel	£1,500 (\$1,855)

Notes:

1. No fees are payable to the Chair of the Nominations Committee while the individual in that role is also an Executive Director

Remuneration paid in respect of the year to 31 December 2022

Single Figure of Remuneration for the period – Audited

The table below shows the aggregate emoluments earned by the Executive Directors of the Company who served at any time during either of the years ended 31 December 2022 and 31 December 2021. The emoluments shown for 2022 have been converted to USD at the Group's average rate for year to 31 December 2022 of GBP1:USD1.2369. Those for 2021 were converted at the rate of GBP1:USD1.3757 in accordance with the 2021 U.K. Annual Report. Numbers given in Euros in any part of the Directors Remuneration Report are converted to USD at the Group's rate of €1:USD1.0530 and to GBP at the Group's rate of €1:GBP0.8528.

Executive Director	Salary ¹ (USD 000s)		Benefits ² (USD 000s)		Pension ³ (USD 000s)		Annual Bonus (USD 000s)		Long-term incentives ⁴ (USD 000s)		Total (USD 000s)	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Javier López Madrid	685	764	181	200	137	153	986	1,121	0	3,397	1,989	5,635
Marco Levi	842	710	27	47	168	141	1,209	1,009	0	2,455	2,246	4,362
	Total Fixed Remuneration		Total Variable Remuneration		Total Variable Remuneration		Total Variable Remuneration		Total Remuneration		Total Remuneration	
Executive Director	2022		2021		2022		2021		2022		2021	
Javier López Madrid	1,003		1,117		986		4,518		1,989		5,635	
Marco Levi	1,037		898		1,209		3,464		2,246		4,362	

- (1) For Javier López-Madrid, no change in salary has been made year on year, any difference resulting in changes in the GBP: USD exchange rate.
- (2) For Javier López Madrid, benefits include an expatriate allowance of 20% of salary (£111,000 (\$137,057 in 2022), and medical insurance and life assurance coverage as benefits. For Marco Levi, benefits include medical and life assurance coverage as benefits.
- (3) For 2022 the pension for Javier López Madrid is 20% of base salary payable as a cash supplement.
- (4) The performance period of the 2019 long-term incentive awards ended on 31 December 2021. As outlined below, the 2019 awards vested at 32.17% out of a maximum of 200%. The value of the 2019 LTIP, which forms part of the 2021 column, is calculated using the share price of \$6.91 on 28 April 2022, the date of vesting. The performance period of the 2021 long-term incentive awards ended on 31 December 2021 and the awards are expected to vest on 1 January 2024 as to 100%. The value of the 2021 LTIP, which forms part of the 2021 column, is an estimate using the average share price over the last three months of 2021. The 2020 Long-term incentives column has been restated from the 2020 U.K. Annual Report to report awards during the year in which the performance period for the award was concluded.

The table below shows the aggregate emoluments earned by the Non-Executive Directors of the Company who served at any time during the years ended 31 December 2022 and 31 December 2021.

Non-Executive Directors	Fees (\$'000)		Benefits (\$'000) ¹		Total (\$'000)	
	2022	2021	2022	2021	2022	2021
José María Alapont ²	-	92	-	4	-	96
Bruce L. Crockett	204	203	22	14	226	217
Stuart E. Eizenstat	107	119	9	-	115	119
Manuel Garrido y Ruano	103	113	5	-	108	113
Rafael Barrilero	128	86	9	4	137	90
Nicolas de Santis	111	74	-	-	111	74
Juan Villar Mir de Fuentes	88	96	4	-	92	96
Marta Amusatogui	129	132	9	-	138	132
Silvia Villar-Mir de Fuentes	107	72	7	-	114	72
Belén Villalonga Morenes	124	85	22	5	146	90

- (1) Benefits exclusively comprise travel allowances.
(2) Mr. Alapont resigned from the Board on April 30, 2021.

Annual bonus for the financial year to 31 December 2022 for the Executive Directors – audited

The target annual bonus opportunity for each of the Executive Directors was 100% of salary, with a maximum opportunity of 150%, and the performance measures for 2022 for each are detailed in the tables below. Final bonuses were approved by the Compensation Committee and Board on 26 and 27 April 2023 and paid at 143.58% of target for the Executive Chairman and CEO.

Performance targets and performance for the Executive Directors in 2022 were as follows:

Measure	Weighting (target % of award)	Threshold performance (0% of target paid)	Target performance (100% of target paid)	Stretch performance (150% of target paid)	Actual Performance	Bonus outcome
EBITDA	35%	\$502,402 thousand	\$717,717 thousand	\$933,032 thousand	\$858,981 thousand	133.3%
Net cash-flow ¹	35%	\$111,384 thousand	\$159,120 thousand	\$206,856 thousand	\$206,000 thousand	148.3%
Long Term strategy	30%	Board endorsement of strategy options by end of June 2022		Board approval of strategy by end of September 2022	Board approval of strategy on 22 September 2022	150.0%

Long term incentive awards for the financial year ended 31 December 2022 – Audited

Awards vesting/performance period ending in financial year 2022

There were no long term incentive awards with performance periods ending in the year ended 31 December 2022.

2019 LTIP awards

The three-year performance period of the 2019 LTIP awards began on 1 January 2019 and ended on 31 December 2021. 60% of each award was determined by Ferroglobe's Total Shareholder Return (**TSR**) performance. 50% of the TSR part of the award was calculated relative to a bespoke group of peers, and the other 50% relative to the S&P Global 1200 Metals and Mining Index in line with the prior year's award. Vesting of the remaining 40% of each award related to the Company's return on invested capital (**ROIC**) over the performance period as compared with the bespoke comparator group of the Company's peers and the Company's net operating profit after tax (**NOPAT**) growth as compared to the same bespoke comparator group of the Company's peers. Vesting of these awards was calculated as follows:

	Weighting	Threshold (0%)	Target (100%)	Maximum (200%)	Actual	Vesting %
Total shareholder return relative to a bespoke group ¹	30%	Less than median (50 th percentile)	50 th percentile	90 th percentile	45.2%	107.22%
TSR relative to the S&P 1200 Metals and Mining Index ²	30%	Less than Index TSR	Equal to Index TSR	Equal to Index TSR + 25 percentage points	57.2%	0%
Relative return on invested capital ("ROIC") ³	20%	Below percentile 25 (-79.9%)	Median (-68.1%)	Percentile 75 (-30.6%) and above	-150.2%	0%
Relative net operating profit after tax ("NOPAT") growth ³	20%	Below percentile 25 (-99.3%)	Median (-88.6%)	Percentile 75 (-74.9%) and above	-73.5%	0%
Weighted average (max 200%)						32.17% (out of max 200%)

1 Between the 50th and 75th percentile, proportionate vesting of between target (100%) and 150% of target. Between 75th percentile and 90th percentile, proportionate vesting of between 150% and 200% of target

2 Equal to Index TSR + 15 percentage points, vesting of 150% of target. Straight line vesting between Index TSR and Index TSR +15 percentage points and between Index TSR+15 percentage points and Index TSR +25 percentage points

3 Percentile 25, vesting of 50% of target

As a result, the following awards vested during 2022:

	Type of award	Grant date	Vesting date	Number of shares awarded at target	Percentage of target award vesting (0% - 200%)	Number of shares to vest ¹	Estimated value to of award to vest (USD) ²
Javier López Madrid	LTIP Nil-cost option	13 March 2019	28 April 2022	342,329	32.17% out of 200%	110,113	760,881
Pedro Larrea Paguaga ³	LTIP Nil-cost option	13 March 2019	28 April 2022	254,769	32.17% out of 200%	81,948	566,261

- 1 The number of shares shown excludes dividend equivalents to be awarded in the form of shares.
- 2 The value shown in the table is calculated using the share value upon vesting on 28 April 2022 of \$6.91.
- 3 Pedro Larrea Paguaga is a 'good leaver' under the rules of the Equity Incentive Plan.

Awards granted in financial year 2022

2022 LTIP awards

On 21 September 2022 Javier López Madrid and Marco Levi were granted long-term incentive awards as set out in the table below.

	Type of award ¹	Basis of award (at max) ²	Share value at grant ³	Number of shares at target	Number of shares at max	Face value of shares at max ⁴	Vesting date	Performance period ⁵
Javier López Madrid	Nil-cost option	200% of salary of \$632,700	\$ 6.68	126,287	189,431	\$ 1,265,399	22 September 2025	1 January 2022 through 31 December 2024
Marco Levi	Nil-cost option	200% of salary of \$800,000	\$ 6.68	159,681	239,521	\$ 1,600,000	22 September 2025	1 January 2022 through 31 December 2024

1. No price is normally payable on the exercise of the nil-cost option although the Company reserves the right to require the payment of the nominal cost of the shares as a condition of exercise if required to enable the issue or transfer of the shares.
2. Converted at GBP1:USD1.14 and EUR1:USD1.00, being the exchange rate on the date of grant.
3. The share value at grant was determined based on the average of the closing prices of the 20 trading days prior to grant.
4. The value shown in this column has been calculated by multiplying the number of shares that would vest at max by the share value at grant.
5. See below for details of the performance conditions applicable to the awards.

The 2022 long term incentive awards are structured as performance share awards with awards vesting three years from grant subject to continued service and the achievement of performance conditions. The award levels are 100% of base salary at target and 200% of base salary at maximum in the case of the Executive Directors. The performance conditions are as follows:

- EBIT accounts for 40% weighting, with performance measured over a straight-line sliding scale with \$887 million representing minimum and 60% payout, \$1,267 million representing target and

100% payout, and \$1,647 million representing maximum and 150% payout. Results below \$887 million are below minimum and have no associated payout.

- Operational cash flow accounts for 40% weighting, with performance measured over a straight-line sliding scale with \$778 million representing minimum and 60% payout, \$1,112 million representing target and 100% payout, and \$1,446 representing maximum and 150% payout. Results below \$778 million are below minimum and have no associated payout.
- Relative TSR accounts for 20% weighting, with performance measured over a straight-line sliding scale with median (50th percentile) representing minimum and target, and 75th percentile or greater representing maximum and 150% payout. Results below median are below minimum and have no associated payout.

The relative TSR performance condition is based on a bespoke comparator group comprising Outokumpu, Imerys, Eramet, Jacquet Metals, Evonik Industries, Wacker, Thyssenkrupp, SGL Carbon SE, Amg Advanced Metallurgical Group, Elkem, Acerinox, Materion Corp., Minerals Technologies Inc., Schnitzer Steel Industries, Kaiser Aluminum, Ati Inc., Steel Dynamics Inc., Timkensteel, Century Aluminum Co. and Cleveland-Cliffs.

In addition, the grants are subject to a multiplier for a health and safety measure which can both reduce or increase the total amount of payouts. If the lost time frequency rate for full year 2024 is 4.82 or more, awards will be subject to a multiplier of 90%. If the lost time frequency rate is 3.78, awards will be subject to a multiplier of 100%. If the lost time frequency rate is 3.42 or less, awards will be subject to a multiplier of 120%. Values falling between such points will be measured on a straight line basis.

Directors' shareholding and share interests – Audited

The table below sets out the number of shares held or potentially held by directors (including their connected persons where relevant) as at 31 December 2022. The Company has share ownership guidelines in place under which it recommends that non-executive directors hold up to a number of shares in the Company equivalent to 200% of base salary.

Director	Beneficially owned shares	Number of shares under long term incentive awards without performance conditions ¹	Number of shares under long term incentive awards with performance conditions ²	Target shareholding guideline (as a % of salary or average gross annual fees as applicable)	Percentage of Executive Director's salary held as shares as at 31 December 2022 ³
Javier López Madrid	278,538	1,096,919	189,431	-	156%
Marco Levi	100,000	767,500	239,521	-	46%
Bruce L. Crockett	46,000	2,527	-	200%	
Stuart E. Eizenstat	61,845	-	-	200%	
Manuel Garrido y Ruano	870	-	-	200%	
Marta de Amusatogui y Vergara	78,220	-	-	200%	
Juan Villar Mir de Fuentes	-	-	-	200%	

Belen Villalonga	-	-	-	200%
Nicolas De Santis	-	-	-	200%
Silvia Villar Mir de Fuentes	49,400	-	-	200%
Rafael Barrilero	-	-	-	200%

1. Where performance conditions have already been tested by the Board, such amounts are reflected in the “without performance conditions” column with their expected vesting values.
2. Refers to the maximum number of shares to potentially vest under the 2022 LTIP grant.
3. Measured by reference to beneficially owned shares only and using the closing share price at 31 December 2022 of \$3.85 and the annual salaries of the Executive Directors in USD as disclosed in this U.K. Annual Report and Accounts.

The Directors’ outstanding share awards as at 31 December 2022 were as detailed below:

Director	Award type	Grant date	Outstanding ¹	Subject to performance conditions ²	Exercisable as of 31 December 2022	Exercised during the year to 31 December 2022	Future vesting ³	Vesting date
Javier López Madrid	LTIP Nil cost option	24.11.16	28,117	Yes	Yes	-	-	24.11.19
	LTIP Nil cost option	01.06.17	70,464	Yes	Yes	-	-	01.06.20
	LTIP Nil cost option	21.03.18	46,777	Yes	Yes	-	-	21.03.21
	Deferred Bonus Award: Nil cost option	14.06.18	23,066	No	Yes	-	-	14.06.21
	LTIP Nil cost option	13.03.19	110,113	Yes	No	-	-	28.04.22
	LTIP Nil cost option	16.12.20	432,771	Yes	No	-	432,771	16.12.24
	LTIP Nil cost option	09.09.21	385,611	Yes	No	-	385,611	01.01.24
	LTIP Nil cost option	21.09.22	189,431	Yes	No	-	189,431	22.09.25
Marco Levi	LTIP Nil cost option	16.12.20	408,395	Yes	No	-	408,395	16.12.24
	LTIP Nil cost option	09.09.21	359,105	Yes	No	-	359,105	01.01.24
	LTIP Nil cost option	21.09.22	239,521	Yes	No	-	239,521	22.09.25

Pedro Larrea Paguaga	LTIP Nil cost option	13.03.19	81,948	Yes	No	81,948	-	28.04.22
Donald G. Barger ³	RSU/C	Various	23,741	No	Yes	-	-	-
Bruce L. Crockett ³	RSU/C	Various	2,527	No	Yes	-	-	-

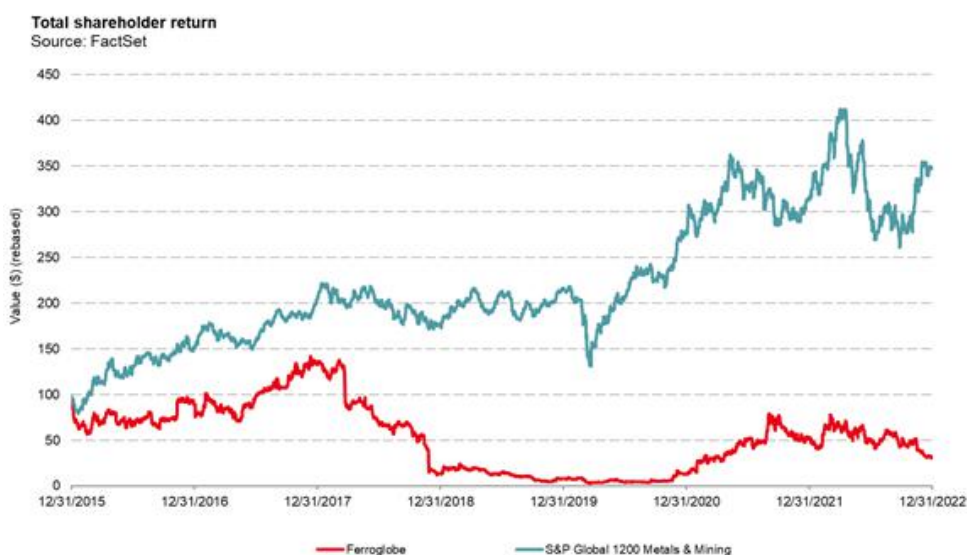
1. Deferred share bonus awards granted to the Executive Directors only. Vested awards are shown with dividend equivalents. Where performance conditions have already been tested by the Board, the number of shares vested or expected to vest in the future are reflected as “outstanding”. Where performance conditions have been tested but the related awards have not yet vested, such amounts are also reflected in the “future vesting” column.
2. Subject to performance conditions and continued employment in the case of awards to the Executive Directors. See page 51 for performance conditions applicable to the awards granted in 2022.
3. These incentive awards are legacy awards which the Company is authorized to honor following shareholder approval of the Policy.

Total pension entitlements – Audited

Details of the value of pension contributions are provided in the *Pensions* column of the *Single Figure of Remuneration* table. Pension contributions are by way of a cash allowance or contribution to a 401(k) plan. There are therefore no specified retirement ages to disclose or consequences of early retirement.

Performance Graph

The graph below illustrates the Company’s TSR performance relative to the constituents of the S&P 1200 Metals & Mining index from the start of the first day of listing of Ferroglobe’s shares on 24th December 2015 to 31 December 2022. The graph shows the performance of a hypothetical \$ 100 invested and its performance over that period. The index has been chosen for this table as the most appropriate comparator for the Company in this period as the Company is a constituent of this index and uses the constituents of this index for one of the TSR comparator groups for the long-term incentive awards.



This graph shows the value, by 31 December 2022, of \$100 invested in Ferroglobe on 24 December 2015, compared with the value of \$100 invested in the S&P Global 1200 Metals & Mining Index on a daily basis.

Payments for loss of office

There were no payments made to any director for loss of office in the year ended December 31, 2022.

Executive Chairman remuneration table (in thousands)

	2022 Javier López Madrid ¹	2021 Javier López Madrid ²	2020 Javier López Madrid ³	2019 Javier López Madrid ⁴
Executive Chairman's remuneration ⁵	\$1,989	\$5,635	\$2,007	\$1,078
Annual variable pay (including as a % of maximum) ⁶	\$989 (50%)	\$4,518 (80%)	\$972 (48%)	\$0 (0%)
LTIP awards where vesting is determined by performance in the relevant year ⁷	N/A	§	31.92%	19.40%

1 At the exchange rate of 1 GBP: 1.2369 USD used in the FY22 Report

2 At the exchange rate of 1 GBP: 1.3757 USD used in the FY21 Report

3 At the exchange rate of 1 GBP: 1.2838 USD used in the FY20 Report

4 At the exchange rate of 1 GBP: 1.2772 USD used in the FY19 Report

5 Remuneration comprises total remuneration

6 Annual variable pay is the bonus amounts in respect of 2019 and the percentage of maximum award it represents. Figures elsewhere in this report show bonus as a percentage of target.

7 The number of shares subject to long term incentive awards where final vesting is determined by reference to performance ending in the year under review is shown as a percentage of maximum opportunity.

§ The performance period of the 2019 LTIP award ended on 31 December 2021 and vested at 32.17% out of a maximum opportunity of 200% of target. The performance period of the 2021 LTIP awards ended on 31 December 2021, was tested by the Committee and is expected to vest at 100% of maximum.

Percentage increase or reduction in the remuneration of the Executive Directors

The following table shows the percentage change in remuneration of each director and European employees have been chosen as an appropriate group against to make the comparison, from financial year 2017 to 2022.

	Javier López Madrid	Marco Levi (1)	Pedro Larrea Paguaga (2)	José María Alapont (3)	Bruce L Crockett	Stuart E Eizenstat	Manuel Garrido y Ruano	Rafael Barrilero (4)	Nicolas de Santis (4)	Juan Villar Mir de Fuentes	Marta Amusategui (5)	Silvia Villar- Mir de Fuentes (4)	Belén Villalonga Morenes (4)	Greger Hamilton (6)	Donald G Barger Jr (7)	Average employee pay
2022																
Salary and fees (USD 000s)	-10%	19%			1%	-10%	-9%	50%	49%	-9%	-2%	48%	46%			
All taxable benefits (USD 000s)	-10%	4%			53%	100%	100%	120%		100%	100%	100%	358%			
Annual bonuses	-12%	20%														
Total	-32%	43%			54%	90%	91%	170%	49%	91%	98%	148%	404%			61%
2021																
Salary and fees (USD 000s)	7%	6%		-56%	39%	-1%	7%			7%	112%					
All taxable benefits (USD 000s)	9%	14%		-28%	220%	-100%	-100%									
Annual bonuses	258%	233%														
Total	274%	253%		-84%	259%	-101%	-93%			7%	112%					0%

2020	Javier López Madrid	Marco Levi (1)	Pedro Larrea Paguaga (2)	José María Alapont (3)	Bruce L. Crockett	Stuart E. Eizenstat	Manuel Garrido y Ruano	Rafael Barrilero (4)	Nicolas de Santis (4)	Juan Villar Mir de Fuentes	Marta Amusatogui (5)	Silvia Villar-Mir de Fuentes (4)	Belén Villalonga Morenes (4)	Greger Hamilton (6)	Donald G. Barger Jr. (7)	Average employee pay	
Salary and fees (USD 000s)	0%			-3%	10%	12%	1%			1%					-61%	-47%	
All taxable benefits (USD 000s)	2%			-41%	-86%	-75%	-86%			-100%					-100%	-83%	
Annual bonuses	100%																
Total	102%			-44%	-76%	-63%	-85%			-99%					-161%	-130%	0%

1 Marco Levi was appointed as CEO in January 2020.

2 Pedro Larrea Paguaga stepped down on 10 January 2020.

3 José María Alapont was appointed as Senior Independent Director and Chairman of the Corporate Governance Committee in January 2019. He resigned from the Board on 30 April 2021.

4 Belén Villalonga, Silvia Villar-Mir de Fuentes, Nicolas De Santis, and Rafael Barrilero Yarnoz joined the board of directors effective 13 May 2021.

5 Marta Amusatogui was appointed as Non-Executive Director of the Company, effective 12 June 2020.

6 Greger Hamilton joined the Board in December 2015 and decided to step down effective 31 May 2020.

7 Donald G. Barger Jr. resigned from the Board after the Company's 2020 annual general meeting 2020.

Relative importance of the spend on pay

The following table shows the Company's actual spend on pay for all employees compared to distributions to shareholders in the financial year. No share dividends or buybacks have occurred in the referenced years.

	<u>1 January 2022 to 31 December 2022</u>	<u>1 January 2021 to 31 December 2021</u>	<u>1 January 2020 to 31 December 2020</u>
Employee costs	\$ 314,810,000	\$ 280,917,000	\$ 214,782,000
Average number of employees	3,509	3,434	3,317

External directorships during financial year 2021

Javier López Madrid

- Chief Executive Officer of Grupo VM.
- Non-Executive Chairman and investor of Siacapital S.L.

Marco Levi

- Non-executive director of Schweitzer-Mauduit International, Inc and of its successor corporation, Mativ Holdings Inc

The Board was satisfied that under these arrangements the Executive Chairman and CEO had the necessary time to carry out his duties effectively during 2022.

Under the Policy, Executive Directors may retain fees paid for external director appointments. These appointments are subject to approval by the Board and must be compatible with their duties as Executive Directors.

Membership of the Committee

During 2022, our Compensation Committee consisted of four directors: Mses. Amusatogui and Villar-Mir de Fuentes and Messrs. Barrilero (Chair) and De Santis.

On 26 May 2023, Silvia Villar-Mir de Fuentes resigned from the Committee, and Stuart Eizenstat was appointed to the Committee. As a result of these changes, the Committee is now comprised exclusively of independent directors.

The Executive Chairman, Chief Executive Officer, Chief People & Culture Officer and other members of the management team may be invited to attend meetings to assist the Committee. Other Non-Executive Directors are normally invited to attend meetings to assist the Committee in its deliberations as appropriate. No Executive, however, is present during any decision making in relation to their own remuneration. In addition, Ms Villar-Mir de Fuentes did not participate in discussions, or vote, regarding, the remuneration of Javier López-Madrid

External advisors

Aon provides independent advice to the Committee and was appointed by the Committee in early 2016. The Committee seeks advice relating to Executive remuneration and Non-Executive Director remuneration and the wider senior management population from Aon. Aon also provided advice to management, to enable their support of the Committee, primarily in relation to remuneration reporting and the operation of incentive plans but does not provide any other services to the Company except for insurance broking services.

The Committee is satisfied that the advice received from Aon in relation to executive remuneration matters is objective and independent. Aon is a member of the UK Remuneration Consultants Group and abides by the Remuneration Consultants Group Code of Conduct, which requires its advice to be objective and impartial. The fees paid to Aon for advice provided directly to the Committee in 2022 were £9,700 (\$11,998) (excluding VAT), with such fees paid on a per-service basis.

Statement of shareholder voting

The following table shows the results of the advisory vote on the 2021 Remuneration Report at the Annual General Meeting of 30 June 2022.

	For	% of votes cast	Against	% of votes cast	Withheld
Remuneration Report	114,177,899	86.12	16,154,608	12.19	2,238,311

The following table shows the results of the binding vote on the 2022 Remuneration Policy at the Annual General Meeting of 30 June 2022.

	For	% of votes cast	Against	% of votes cast	Withheld
Remuneration Policy	121,189,203	91.41	9,144,234	6.90	2,237,381

Approval

This Directors' Remuneration Report, including both the Policy and Annual Report on Remuneration has been approved by the Board.

Signed on behalf of the Board.

Chairman of the Compensation Committee
30 May 2023

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF FERROGLOBE PLC

Report on the audit of the financial statements

1. Opinion

In our opinion the financial statements of Ferroglobe plc (the 'parent company') and its subsidiaries (the 'group'):

- give a true and fair view of the state of the group's and of the parent company's affairs as of 31 December 2022 and of the group's profit and parent company's loss for the year then ended;
- have been properly prepared in accordance with United Kingdom adopted international accounting standards and International Financial Reporting Standards (IFRSs) as issued by the International Accounting Standards Board (IASB); and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements which comprise:

- the consolidated income statement;
- the consolidated and parent company statements of comprehensive income;
- the consolidated statement of financial position;
- the consolidated and parent company statements of changes in equity;
- the consolidated and parent company cash flow statement;
- the parent company balance sheet;
- the related notes 1 to 32 in respect of the group financial statements; and
- the related notes 1 to 15 in respect of the parent company financial statements.

The financial reporting framework that has been applied in their preparation is applicable law, United Kingdom adopted international accounting standards and IFRSs as issued by the IASB.

2. Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the group and the parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard as applied to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

3. Summary of our audit approach

Key audit matters	<p>The key audit matters that we identified in the current year were:</p> <ul style="list-style-type: none">· System of internal control;· Impairment of property, plant and equipment ('PP&E'); and· Inventory valuation.
Materiality	<p>The materiality that we used for the group financial statements was \$20.7m (2021: \$14.2m), determined by reference to revenue. The assessed materiality represents approximately 0.8% of revenue (2021: 0.8%)</p>
Scoping	<p>As in the prior year, we focused our group audit scope primarily on the components in the following countries:</p> <ul style="list-style-type: none">· United States of America ('USA');· Canada;· France; and· Spain. <p>The components subject either to full scope audits or audits of specified balances represent 93% of the group's revenue. FerroPem SAS in France, Grupo Ferroatlantica SAU in Spain and the parent company in the UK were all subject to full scope audit.</p> <p>Lower materialities were applied to the procedures performed on components, ranging from \$3.7m to \$6.4m (2021: \$1.4m to \$4.3m).</p>
Significant changes in our approach	<p>Last year we included liquidity and going concern, refinancing and goodwill as part of the key audit matters. These are no longer key audit matters in the current year, given the improvement on the results of the Group and its cash position, as well as the completion of refinancing in the prior year.</p> <p>Additionally, new key audit matters in respect to internal controls and inventory valuation have been identified in the current year.</p>

4. Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Our evaluation of the directors' assessment of the Group's and parent company's ability to continue to adopt the going concern basis of accounting included:

- o We assessed the information about management's plans in respect of the Group's ability to continue as a going concern.
- o We assessed the adequacy of support regarding the availability of financing, including existing arrangements for factoring receivables and the possible effects on management's borrowing plans of existing restrictions on additional borrowing or the sufficiency of available collateral.
- o We considered external analyst reports, industry data and other external information to determine if it provided corroborative or contradictory evidence in relation to management's assumptions.
- o We assessed the reasonableness of management's key assumptions for preparing prospective cash flow information, including projected results and forecasted future cash flows, with particular attention to assumptions that are especially sensitive or inconsistent with historical trends.
- o We inquired as to management's knowledge of events or conditions beyond the period of management's assessment that may cast significant doubt on the entity's ability to continue as a going concern.
- o We evaluated the appropriateness of the disclosures in the financial statement.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the group's and parent company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

5. Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

5.1. System of Internal Control

Key audit matter description	The directors are responsible for maintaining an effective system of internal control. The Group has equity listed on the NASDAQ in the United States, and as such is also subject to SEC regulations including complying with Sarbanes Oxley ("SOX") requirements.
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The Company's system of internal control is subject to audit testing by us and our component auditors. The effectiveness of the system of internal control has a significant impact on our audit strategy, nature, extent and timing of our audit procedures. Reliance (or not) on the group's internal controls, significantly influences the nature and extent of substantive audit procedures performed.

Material weaknesses in internal controls were identified from the results of our audit testing, specifically relating to:

- Control environment: The Company identified deficiencies in the principles associated with the control environment component of the COSO framework. Specifically, these control deficiencies constitute material weaknesses, either individually or in the aggregate, relating to the following principles: (i) the organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives, and (ii) the organization holds individuals accountable for their internal control related responsibilities in the pursuit of objectives.
- Control Activities: The Company identified deficiencies in the principles associated with the control activities component of the COSO framework. Specifically, these control deficiencies constitute material weaknesses, either individually or in the aggregate, relating to the following principles: (i) the organization selects and develops control activities that contribute to the mitigation of risks to acceptable levels and (ii) the organization deploys control activities through policies that establish what is expected and procedures that put policies into action.

In addition, the COSO component material weaknesses described above contributed to the following material weaknesses within the Company's system of internal control over financial reporting at the control activity level:

- Financial Closing and Reporting process: The Company did not design and operate effectively controls over the oversight of the financial closing and reporting process, and controls over the review of manual journal entries, due

to limited resources within its accounting and reporting team.

- Impairment of Long-Life Assets: controls over the assumptions and external valuations used in our impairment evaluation of long-lived assets, which were not designed and/or did not operate effectively.

How the scope of our audit responded to the key audit matter

Group and component audit teams evaluated the design, implementation and operating effectiveness of internal controls over the Group's key business process cycles, as well as evaluating entity-level controls and components of the COSO framework.

Our conclusions in respect of internal controls were a key input in our determination of performance materiality, which governs the scope of our audit testing. See materiality in section 6.

In addition, the results of our testing of internal controls informed the nature and extent of substantive audit procedures over account balances and disclosures, which increased as a result.

See also our Key Audit Matter in respect of Impairment of property, plant and equipment below.

Key observations

We refer to the directors' statement in the Strategic Report on the Internal control environment, which notes that the Company did not maintain an effective control environment to enable the identification and mitigation of the risk of the existence of potential material accounting errors. They identified deficiencies in the principles associated with the control environment component of the COSO framework.

5.2. Impairment of property, plant and equipment ('PP&E')

Key audit matter description

As described in Notes 3.5, 4.4 and 9 to the financial statements, the Group's consolidated PP&E balance was \$486 million as of December 31, 2022 (2021: \$555 million). As mentioned in Note 9, impairments amounting to approximately \$57 million were recorded during 2022 (2021: \$2 million reversals) relating to certain assets in the Europe - Manganese segment and other assets in Spain that are affected by increased energy costs.

The Group's evaluation of PP&E for impairment involves the identification of any impairment triggers and where triggers are identified, a comparison of the carrying amount of assets with their recoverable amount. The determination of the recoverable amount involves both fair valuation of assets less costs to dispose and value in use. The determination of the value in use of an asset requires significant judgement in selecting and applying key underlying assumptions concerning future market conditions (volumes, sale prices, cost structure, operating margins and capital expenditure - "capex") for the periods projected, as well as the determination of an appropriate discount rate and terminal value. For certain assets, the recoverable amount has been determined at fair value less cost of disposal, which also involves judgement.

We identified impairment of PP&E relating to certain assets in the Europe - Manganese segment and other assets in Spain as a key audit matter because of the significant judgements involved in the assessment and the heightened risk of impairment due to high energy costs. This involved a high degree of auditor judgement and an increased extent of audit effort as a result of the significant deficiencies over controls related to the impairment assessment, and our response included the involvement of fair value specialists and an increase in

the nature and extent of our audit procedures.

How the scope of our audit responded to the key audit matter

Our audit procedures related to management's assessment of PP&E for impairment included the following, among others:

- We considered the accuracy of past forecasts developed by management to assess the reliability of the forecasting process.
- We considered key assumptions applied in the development of the discounted future cash flows for the periods projected.
- We evaluated the volumes and prices projected for the period 2023-2027 using historical data and independent sources of information (such as analyst and industry reports or prices reports, when available) and considered information that could be potentially contradictory to management's forecasts.
- With the assistance of our fair value specialists, we evaluated the discount rates (WACC), the long-term growth rates, the appropriate methodology for determination of terminal values and the underlying source information. Our fair value specialists also assisted in testing the mathematical accuracy of the calculations and developing a range of independent estimates and comparing those to management's estimates.
- We have performed sensitivity analysis over PP&E impairment test by comparing the results of the impairment test with significant changes and modifications to the underlying inputs such as the net cash flows and the terminal value, the discount rates (WACC) and the long-term growth rate.
- For those assets for which recoverable amount was determined at fair value less cost of disposal, we evaluated the main assumptions used by the Company with the assistance of our fair value specialists.

Key observations

The deficiencies identified in internal controls over the assessment of impairment of PP&E assets related to instances of controls that were not designed effectively over the assumptions and inputs used in the impairment evaluation as well as ineffective controls. We re-evaluated the nature and extent of substantive audit procedures performed as a result of the deficiencies identified.

From our audit procedures performed, including our evaluation of the methodology, valuation and accuracy of the impairment test performed, we are satisfied that the Group's PP&E assets at 31 December 2022 are recoverable.

5.3. Inventory valuation

Key audit matter description

As discussed in Notes 4.8 and 11 to the consolidated financial statements, the Group's consolidated inventory balance was \$500 million of December 31, 2022

(2021: \$ 290 million).

As disclosed in Note 3.5, inventories are stated at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale. The decreasing market prices and demand for the Group's products experienced in the second half of the year exposes the Group's inventory to valuation risk, and write-downs amounting to approximately \$29 million were recorded at year end (2021: \$xx million).

We identified the estimate of net realizable value of inventories as a key audit matter because of the judgements involved. This required an increased extent of audit effort when performing audit procedures to evaluate the reasonableness of management's estimation.

How the scope of our audit responded to the key audit matter

Our audit procedures related to the estimated net realizable value of inventories included the following, among others:

- We evaluated the reasonableness of the valuation methodologies and assumptions applied by management in their estimate;
- We tested the accuracy and completeness of the underlying data that served as the basis for the calculation of inventory valuation allowance;
- We performed inquiries with relevant finance and operations personnel, and reviewed the sales subsequent to December 31, 2022 to assess whether the selling price, net of selling costs, was greater than the carrying amount of the inventory sold.

Key observations

From our audit procedures performed, including our evaluation of the accounting judgements, we are satisfied that the carrying amount of inventories as at 31 December 2022 is appropriate.

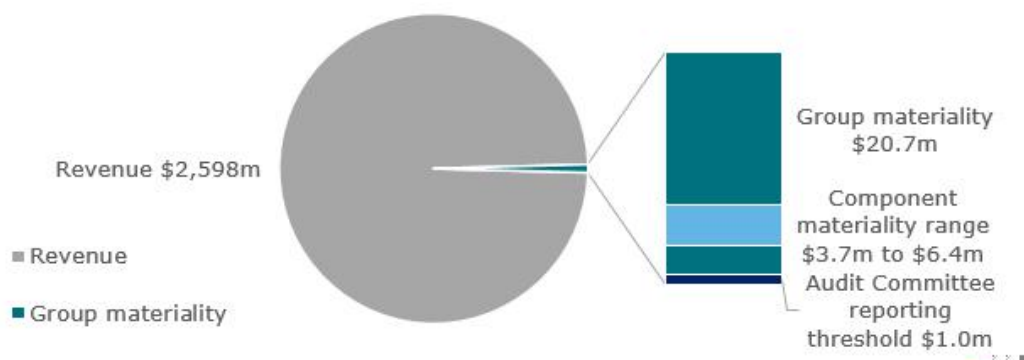
6. Our application of materiality

6.1. Materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Parent company financial statements
Materiality	\$20.7m (2021: \$14.2m)	\$10.1m (2021: \$9.8m)
Basis for determining materiality	0.8% of Revenue (2021: 0.8%)	1% of Total assets, (2021: 1% of Total assets)
Rationale for the benchmark applied	Revenue is considered to be the most appropriate and stable benchmark as the Group was loss making in the current year and prior years.	As the parent company is a non-trading entity, we considered it appropriate to use total assets for determining materiality.



6.2. Performance materiality

We set performance materiality at a level lower than materiality to reduce the probability that, in aggregate, uncorrected and undetected misstatements exceed the materiality for the financial statements as a whole.

Group performance materiality was set at \$10.6m for the 2022 audit (2021: \$7.1m), representing 51% of group materiality (2021: 50%). Parent company performance materiality was set at \$7.1m (2021: \$6.9m), representing 70% (2021: 70%) of parent company materiality.

In determining performance materiality, we considered the following factors:

- trading performance of the Group in the current year and in previous year;
- scale and complexity of the Group's and the Parent company's financial operations;
- the quality of the control environment and the control deficiencies identified;
- the nature, volume and size of misstatements (corrected and/or uncorrected) identified in the previous audit; and
- the complexity of financial reporting matters and one-off transactions.

6.3. Error reporting threshold

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of \$1m (2021: \$0.71m), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

7. An overview of the scope of our audit

7.1. Identification and scoping of components

The group comprises ten reportable segments as described in note 6 to the financial statements, which are based upon the Group's management structure and how the Chief Operating Decision Maker ('CODM') is currently managing the business. .

Our audit scope was consistent with the prior year, with component audit teams in the following countries:

- United States of America ('USA');
- Canada
- France; and
- Spain.

Full scope audits were performed on Grupo Ferroatlantica SAU by Deloitte Spain, FerroPem SAS by Deloitte France and by Deloitte UK for the parent company in the UK.

Specified audit procedures were performed on the Group's businesses in USA by Deloitte US and Canada by Deloitte Canada.

Analytical procedures were performed over the Group's residual businesses and components by Deloitte Spain, with oversight performed by Deloitte UK. Additionally, audit procedures over internal controls and assessments of climate-related risks relevant to each component audit were performed each component audit team with additional assessment and procedures performed, including the oversight of component audit teams, by both Deloitte Spain and Deloitte UK. The materialities applied to component audits ranged from \$3.7 million to \$6.4 million (2021: \$1.4 million to \$4.2 million).

7.2. Our consideration of climate-related risks

As set out in the Strategic Report, the Company has published its first global ESG report in July 2022, where it outlined its ESG strategy, focused on four fundamental pillars:

- Strengthening our governance framework;
- Promoting solid and honest engagement with our people and the communities where we operate;
- Reinforcing the role of sustainability through our value chain; and
- Improving our environmental footprint to enable sustainable development.

The report sets out the roadmap for sustainability over the period 2022-2026. In addition, the directors have established an ESG Committee to implement the strategy, who report to the directors. ESG risks have been integrated into the Company's risk management system and the director's have started to consider climate change risks and opportunities assessment. Further information can be found in the Strategic Report.

We applied these considerations in the performance of our audit procedures on impairment as set out in section 5.3 above.

We evaluated management’s disclosures, particularly those regarding impairment and accounting judgements and estimates, in the context of our audit work related to climate change. We also involved ESG specialists in the review of managements ESG disclosures. We considered whether there were any omissions that were material to the the financial statements as a whole, and communicated our findings to management.

We obtained specific written representations from management that their latest plans, intentions and expectations related to climate change were appropriately reflected in estimates of useful economic lives and impairment assessments.

7.3. Working with other auditors

The UK group audit team worked on an integrated basis with Deloitte Spain, directing and overseeing audit work performed by component teams and audit work performed directly by Deloitte Spain.

The integrated UK and Spanish audit teams planned, supervised and reviewed work performed by component auditors in France, USA and Canada. The level of direct involvement varied by location and included, attendance to key meetings with local engagement teams, including audit close meetings, and a detailed review of their reporting deliverables and underlying audit work documentation.

The coverage of our audit work across the group is shown below:



8. Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information contained within the annual report.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

9. Responsibilities of directors

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group's and the parent company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

10. Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

11. Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

11.1. Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, we considered the following:

- the nature of the industry and sector, control environment and business performance including the design of the group's remuneration policies, key drivers for directors' remuneration, bonus levels and performance targets;
- results of our enquiries of management, internal audit, and the audit committee about their own identification and assessment of the risks of irregularities;
- any matters we identified having obtained and reviewed the group's documentation of their policies and procedures relating to:
 - o identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
 - o detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud;
 - o the internal controls established to mitigate risks of fraud or non-compliance with laws and regulations;
- the matters discussed among the audit engagement team including component audit teams and relevant internal specialists, including tax, valuations and IT specialists regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

As a result of these procedures, we considered the opportunities and incentives that may exist within the organisation for fraud and identified the greatest potential for fraud in the revenue recognition process at the end of the year. In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory frameworks that the group operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included the UK Companies Act 2006 and tax regulations applicable in the key jurisdictions where the group operates.

In addition, we considered provisions of other laws and regulations, that do not have a direct effect on the financial statements but compliance with which may be fundamental to the group's ability to operate or to avoid a material penalty. The key laws and regulations we considered in this context included employment law and environmental regulations.

11.2. Audit response to risks identified

As a result of performing the above, we did not identify any key audit matters related to the potential risk of fraud or non-compliance with laws and regulations.

Our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- enquiring of management, the audit committee and in-house legal counsel concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;

- reading minutes of meetings of those charged with governance and reviewing internal audit reports;
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business; and
- in addressing the risk of fraud in revenue recognition identified as a risk of cut-off, testing sales recorded in the last month of the year and in January 2023, by inspecting a sample of transactions and agreeing those to supporting documentation, in order to evaluate whether sales were recorded in the correct period in accordance with the agreed shipping terms.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members, including internal specialists, and component audit teams, and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Report on other legal and regulatory requirements

12. Opinions on other matters prescribed by the Companies Act 2006

In our opinion the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the group and the parent company and their environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or the directors' report.

13. Matters on which we are required to report by exception

13.1. Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

13.2. Directors' remuneration

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of directors' remuneration have not been made or the part of the directors' remuneration report to be audited is not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

14. Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Nicola Barker, FCA (Senior statutory auditor)

For and on behalf of Deloitte LLP

Statutory Auditor

London, UK

30 May 2023

FERROGLOBE PLC

AUDITED CONSOLIDATED FINANCIAL STATEMENTS

Consolidated Financial Statements as of December 31, 2022 and 2021 and for each of the three years ended December 31, 2022, 2021 and 2020

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FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION AS OF DECEMBER 31, 2022 AND 2021

Thousands of U.S. Dollars

	Notes	2022 US\$'000	2021 US\$'000
ASSETS			
Non-current assets			
Goodwill	Note 7	29,702	29,702
Other intangible assets	Note 8	111,797	100,642
Property, plant and equipment	Note 9	486,247	554,914
Other non-current financial assets	Note 10	14,186	4,091
Deferred tax assets	Note 23	7,136	7,010
Non-current receivables from related parties	Note 24	1,600	1,699
Other non-current assets	Note 12	18,218	18,734
Non-current restricted cash and cash equivalents	Note 10	2,133	2,272
Total non-current assets		671,019	719,064
Current assets			
Inventories	Note 11	500,080	289,797
Trade and other receivables	Note 10	425,474	381,073
Current receivables from related parties	Note 24	2,675	2,841
Current income tax assets	Note 23	6,104	7,660
Other current financial assets	Note 10	3	104
Other current assets	Note 12	30,608	8,408
Assets and disposal groups classified as held for sale	Note 30	1,067	—
Current restricted cash and cash equivalents	Note 10	2,875	—
Cash and cash equivalents	Note 10	317,935	114,391
Total current assets		1,286,821	804,274
Total assets		1,957,840	1,523,338
EQUITY AND LIABILITIES			
Equity			
Share capital		1,962	1,962
Reserves		439,674	544,433
Translation differences		(242,623)	(227,318)
Valuation adjustments		10,735	5,525
Result attributable to the Parent		440,314	(110,624)
Non-controlling interests		106,751	106,053
Total equity	Note 13	756,813	320,031
Non-current liabilities			
Deferred income		3,842	895
Provisions	Note 15	47,670	60,958
Bank borrowings	Note 16	15,774	3,670
Lease liabilities	Note 17	12,942	9,968
Debt instruments	Note 18	330,655	404,938
Other financial liabilities	Note 19	38,279	4,549
Other obligations	Note 21	37,502	38,082
Other non-current liabilities	Note 22	12	1,476
Deferred tax liabilities	Note 23	35,854	25,145
Total non-current liabilities		522,530	549,681
Current liabilities			
Provisions	Note 15	145,507	137,625
Bank borrowings	Note 16	62,059	95,297
Lease liabilities	Note 17	8,929	8,390
Debt instruments	Note 18	12,787	35,359
Other financial liabilities	Note 19	60,382	62,464
Payables to related parties	Note 24	1,790	9,545
Trade and other payables	Note 20	219,666	206,000
Current income tax liabilities	Note 23	53,234	1,775
Other obligations	Note 21	9,580	22,843
Other current liabilities	Note 22	104,563	74,328
Total current liabilities		678,497	653,626
Total equity and liabilities		1,957,840	1,523,338

Notes 1 to 32 are an integral part of the consolidated financial statements

The financial statements were approved by the Board of Directors and authorized for issue on May 30, 2023

Signed on its behalf by:

Dr. Marco Levi
Director

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED INCOME STATEMENTS FOR THE YEARS 2022, 2021 AND 2020

Thousands of U.S. Dollars

	Notes	2022 US\$'000	2021 US\$'000	2020 US\$'000
Sales	Note 26.1	2,597,916	1,778,908	1,144,434
Raw materials and energy consumption for production	Note 26.2	(1,285,086)	(1,184,896)	(835,486)
Other operating income	Note 26.3	147,356	110,085	33,627
Staff costs	Note 26.4	(314,810)	(280,917)	(214,782)
Other operating expense		(346,252)	(296,809)	(132,059)
Depreciation and amortization charges, operating allowances and write-downs	Note 26.5	(81,559)	(97,328)	(108,189)
Impairment (loss) gain	Note 26.7	(56,999)	137	(73,344)
Net gain due to changes in the value of assets	Note 26.5	349	758	158
(Loss) gain on disposal of non-current assets	Note 26.8	(459)	1,386	1,292
Other (loss) gain		91	62	(1)
Operating (loss) profit		660,547	31,386	(184,350)
Finance income	Note 26.6	2,274	253	177
Finance costs	Note 26.6	(61,015)	(149,189)	(66,968)
Financial derivative gain	Note 19	—	—	3,168
Exchange differences		(9,995)	(2,386)	25,553
(Loss) Profit before tax		591,811	(119,936)	(222,420)
Income tax benefit (expense)	Note 23	(147,983)	4,562	(21,939)
(Loss) Profit for the year from continuing operations		443,828	(115,374)	(244,359)
(Loss) profit for the year from discontinued operations	Note 30	—	—	(5,399)
Total (Loss) Profit for the year		443,828	(115,374)	(249,758)
Attributable to the Parent		440,314	(110,624)	(246,339)
Attributable to non-controlling interests	Note 13	3,514	(4,750)	(3,419)

Earnings per share

		2022	2021	2020
(Loss) Profit attributable to the Parent (US\$'000)		440,314	(110,624)	(246,339)
Weighted average basic shares outstanding		187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding		189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US\$)	Note 14	2.34	(0.63)	(1.46)
Diluted profit (loss) earnings per ordinary share (US\$)	Note 14	2.32	(0.63)	(1.46)
(Loss) Profit for the year from continuing operations attributable to the Parent (US\$'000)		440,314	(110,624)	(240,940)
Weighted average basic shares outstanding		187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding		189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US\$)	Note 14	2.34	(0.63)	(1.42)
Diluted profit (loss) earnings per ordinary share (US\$)	Note 14	2.32	(0.63)	(1.42)
(Loss) Profit for the year from discontinued operations (US\$'000)		—	—	(5,399)
Weighted average basic shares outstanding		187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding		189,625,195	176,508,144	169,269,281
Basic (loss) earnings per ordinary share (US\$)	Note 14	—	—	(0.03)
Diluted (loss) earnings per ordinary share (US\$)	Note 14	—	—	(0.03)

Notes 1 to 32 are an integral part of the consolidated financial statements

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) FOR 2022, 2021 AND 2020

Thousands of U.S. Dollars

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Net (loss) gain	443,828	(115,374)	(249,758)
Items that will not be reclassified subsequently to income or loss:			
Defined benefit obligation	9,779	2,566	3,630
Tax effect	(2,082)	139	(45)
Total income and expense that will not be reclassified subsequently to income or loss	7,697	2,705	3,585
Items that may be reclassified subsequently to income or loss:			
Arising from cash flow hedges	—	—	(3,752)
Translation differences	(17,178)	(20,393)	3,239
Total income and expense that may be reclassified subsequently to income or loss	(17,178)	(20,393)	(513)
Items that have been reclassified to income or loss in the period:			
Arising from cash flow hedges	—	(922)	8,091
Total transfers to income or loss	—	(922)	8,091
Other comprehensive income (loss) for the year, net of income tax	(9,481)	(18,610)	11,163
Total comprehensive (loss) for the year	434,347	(133,984)	(238,595)
Attributable to the Parent	430,219	(131,413)	(235,022)
Attributable to non-controlling interests	4,128	(2,571)	(3,573)

Notes 1 to 32 are an integral part of the consolidated financial statements

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY FOR 2022, 2021 AND 2020

Thousands of U.S. Dollars

	Total Amounts Attributable to Owners								
	Issued Shares (Thousands)	Share Capital US\$'000	Share Premium US\$'000	Reserves US\$'000	Translation Differences US\$'000	Valuation Adjustments US\$'000	Result for the Year US\$'000	Non-controlling Interests US\$'000	Total US\$'000
Balance at January 1, 2021	170,864	1,784	—	696,774	(206,759)	5,755	(246,339)	114,504	365,719
Comprehensive (loss) income for the year 2021	—	—	—	—	(20,559)	(230)	(110,624)	(2,571)	(133,984)
Issue of share capital	18,019	178	86,220	—	—	—	—	—	86,398
Share-based compensation	—	—	—	3,627	—	—	—	—	3,627
Distribution of 2020 (loss)	—	—	—	(246,339)	—	—	246,339	—	—
Dividends paid non-controlling interests	—	—	—	—	—	—	—	(5,880)	(5,880)
Other changes	—	—	—	4,151	—	—	—	—	4,151
Balance at December 31, 2021	188,883	1,962	86,220	458,213	(227,318)	5,525	(110,624)	106,053	320,031
Comprehensive (loss) income for the year 2022	—	—	—	—	(15,305)	5,210	440,314	4,128	434,347
Cash settlement of equity awards	—	—	—	—	—	—	—	—	—
Share-based compensation	—	—	—	5,825	—	—	—	—	5,825
Distribution of 2021 (loss)	—	—	—	(110,624)	—	—	110,624	—	—
Dividends paid non-controlling interests	—	—	—	—	—	—	—	(3,430)	(3,430)
Other changes	—	—	—	40	—	—	—	—	40
Balance at December 31, 2022	188,883	1,962	86,220	353,454	(242,623)	10,735	440,314	106,751	756,813

Notes 1 to 32 are an integral part of the consolidated financial statements

FERROGLOBE PLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR 2022, 2021 AND 2020

Thousands of U.S. Dollars

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Cash flows from operating activities:			
Profit (Loss) for the year	443,828	(115,374)	(249,758)
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:			
Income tax expense (benefit)	147,983	(4,562)	21,939
Depreciation and amortization charges, operating allowances and write-downs	81,559	97,328	108,189
Finance income (loss)	(2,274)	(253)	(177)
Finance costs	61,015	149,189	66,968
Financial derivative (gain) loss	—	—	(3,168)
Exchange differences	9,995	2,386	(25,553)
Impairment (gain) loss	56,999	(137)	73,344
Loss (gain) on disposal of discontinued operations	—	—	5,399
Loss (gain) due to changes in the value of assets	(349)	(758)	(158)
Loss (gain) on disposal of non-current assets	459	(1,386)	(1,292)
Share-based compensation	5,836	3,627	2,017
Other loss (gain)	(91)	(62)	—
Changes in operating assets and liabilities:			
(Increase) decrease in inventories	(220,823)	(60,296)	114,585
(Increase) decrease in trade and other receivables	(72,558)	(161,434)	71,034
Increase (decrease) in trade and other payables	30,640	64,382	(55,405)
Other changes in operating assets and liabilities	(56,677)	29,803	14,473
Income tax paid	(80,524)	(3,794)	11,831
Net used cash provided (used) by operating activities	405,018	(1,341)	154,268
Cash flows from investing activities:			
Interest and finance income received	1,520	207	630
Payments due to investments:			
Other intangible assets	(1,147)	—	(2,654)
Property, plant and equipment	(52,153)	(27,597)	(30,257)
Other	6	—	—
Disposals:			
Other non-current assets	—	1,919	341
Other	—	1,623	—
Net cash provided (used) by investing activities	(51,774)	(23,848)	(31,940)
Cash flows from financing activities:			
Payment for debt and equity issuance costs	(853)	(43,755)	(4,540)
Proceeds from equity issuance	—	40,000	—
Proceed from debt issuance	—	60,000	—
Repayment of debt instruments	(84,823)	—	—
Increase (decrease) in bank borrowings:			
Borrowings	898,586	659,083	177,593
Payments	(919,932)	(671,467)	(235,296)
Amounts paid due to leases	(11,590)	(11,232)	(10,315)
Proceeds from other financing liabilities	38,298	—	—
Other amounts (paid) due to financing activities	678	—	(2,863)
Interest paid	(60,822)	(22,177)	(37,912)
Net cash provided (used) by financing activities	(140,458)	10,452	(113,333)
Total net cash flows for the year	212,786	(14,737)	8,995
Beginning balance of cash and cash equivalents	116,663	131,557	123,175
Exchange differences on cash and cash equivalents in foreign currencies	(6,506)	(157)	(613)
Ending balance of cash and cash equivalents	322,943	116,663	131,557

Notes 1 to 32 are an integral part of the consolidated financial statements

Ferroglobe PLC and Subsidiaries

Notes to the Consolidated Financial Statements for the years ended December 31, 2022, 2021 and 2020 (U.S. Dollars in thousands, except share and per share data)

1. General information

Ferroglobe PLC and subsidiaries (the “Company” or “Ferroglobe”) is among the world’s largest producers of silicon metal and silicon-based alloys, important ingredients in a variety of industrial and consumer products. The Company’s customers include major silicone chemical, aluminum and steel manufacturers, auto companies and their suppliers, ductile iron foundries, manufacturers of photovoltaic solar cells and computer chips, and concrete producers. Additionally, the Company was operating hydroelectric plants (hereinafter “energy business”) in Spain until August 30, 2019 and is still operating hydroelectric plants in France.

Ferroglobe PLC (the “Parent Company” or “the Parent”) is a public limited company that was incorporated in the United Kingdom on February 5, 2015 (formerly named ‘Velonewco Limited’). The Parent’s registered office is 5 Fleet Place, London EC4M 7RD (United Kingdom).

On December 23, 2015, Ferroglobe PLC consummated the acquisition (“Business Combination”) of Globe Specialty Metals, Inc. and subsidiaries (“GSM” or “Globe”) and Grupo FerroAtlántica, S.A.U. (“FerroAtlántica”).

For the year ending 31 December 2022 the following subsidiaries of Ferroglobe PLC were entitled to exemption from audit under s479A of the Companies Act 2006 relating to subsidiary companies:

<i>Subsidiary Name</i>	<i>Companies House Registration Number</i>
Ferroglobe Finance Company PLC	13353128
Ferroglobe Holding Company Ltd	13347942

Ferroglobe PLC has provided parental guarantee for the debts and liabilities of the UK subsidiaries described above at the balance sheet date in accordance with section 479C of the Companies Act 2006. The Company has assessed the probability of loss under these guarantees as remote.

2. Organization and Subsidiaries

Ferroglobe has a diversified production base consisting of production facilities across North America, Europe, South America, South Africa and Asia.

The subsidiaries of Ferroglobe PLC as of December 31, 2022 and 2021, classified by reporting segments, were as follows:

	Percentage of Ownership		Reporting Segment	Registered
	Direct	Total		
Alabama Sand and Gravel, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Alden Resources, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Alden Sales Corporation, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
ARL Resources, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
ARL Services, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Core Metals Group Holdings, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
Core Metals Group, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
ECPI, Inc.	—	100.0	North America – Silicon Alloys	Delaware - USA
Gatliff Services, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe BG, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GBG Financial LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GBG Holdings, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe Metallurgical Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe Metals Enterprises, Inc.	—	100.0	North America – Silicon Alloys	Delaware - USA
GSM Alloys I, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
GSM Alloys II, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
GSM Enterprises Holdings, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GSM Enterprises, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GSM Sales, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
Laurel Ford Resources, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
LF Resources, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Metallurgical Process Materials, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
Norchem, Inc.	—	100.0	North America – Silicon Metal and Alloys	Florida - USA
QSIP Canada ULC	—	100.0	North America – Silicon Metal	Canada
Quebec Silicon General Partner	—	51.0	North America – Silicon Metal	Canada
Quebec Silicon Limited Partnership	—	51.0	North America – Silicon Metal	Canada
Tennessee Alloys Company, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
West Virginia Alloys, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
WVA Manufacturing, LLC	—	51.0	North America – Silicon Metal	Delaware - USA
Cuarzos Industriales, S.A.U.	—	100.0	Europe – Silicon Metal and Alloys	A Coruña - Spain
Ferroatlántica del Cinca, S.L.	—	99.9	Europe – Manganese	Madrid - Spain
Ferroglobe Mangan Norge A.S.	—	100.0	Europe – Manganese	Norway
Ferroglobe Manganese France S.A.S.	—	100.0	Europe – Manganese	France
FerroPem, S.A.S.	—	100.0	Europe – Silicon Metal and Alloys	France
Grupo FerroAtlántica, S.A.U.	—	100.0	Europe – Manganese and Silicon Metal	Madrid - Spain
Grupo FerroAtlántica de Servicios, S.L.U.	—	100.0	Other segments	Madrid - Spain
Kintuck (France) S.A.S.	—	100.0	Europe – Manganese	France
Kintuck A.S.	—	100.0	Europe – Manganese	Norway
Rocas, Arcillas y Minerales, S.A.	—	100.0	Europe – Silicon Metal and Alloys	A Coruña - Spain
Rebone Mining (Pty.), Ltd.	—	74.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Silicon Smelters (Pty.), Ltd.	—	100.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Silicon Technology (Pty.), Ltd.	—	100.0	South Africa – Silicon Metal and Alloys	South Africa
Thaba Chueu Mining (Pty.), Ltd.	—	74.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Cuarzos Industriales de Venezuela, S.A.	—	100.0	Other segments	Venezuela
Emix, S.A.S.	—	100.0	Other segments	France
Ferroatlántica de México, S.A. de C.V.	—	100.0	Other segments	Nueva León - Mexico
Ferroatlántica de Venezuela (FerroVen), S.A.	—	99.9	Other segments	Venezuela
Ferroatlántica Deutschland, GmbH	—	100.0	Other segments	Germany
Ferroatlántica do Brasil Mineração Ltda.	—	70.0	Other segments	Brazil
Ferroglobe Holding Company, LTD	100	100.0	Other segments	United Kingdom
Ferroglobe Finance Company, PLC	—	100.0	Other segments	United Kingdom
FerroManganese Mauritania S.A.R.L.	—	90.0	Other segments	Mauritania
Ferroquartz Holdings, Ltd. (Hong Kong)	—	100.0	Other segments	Hong Kong
FerroQuartz Mauritania S.A.R.L.	—	90.0	Other segments	Mauritania
Ferrosolar OPCO Group S.L.	—	100.0	Other segments	Spain
Ferrosolar R&D S.L.	—	50.0	Other segments	Spain
FerroTambao, S.A.R.L.	—	90.0	Other segments	Burkina Faso
Globe Metales S.R.L.	—	100.0	Other segments	Argentina
Globe Specialty Metals, Inc.	—	100.0	Other segments	Delaware - USA
GSM Financial, Inc.	—	100.0	Other segments	Delaware - USA
GSM Netherlands, B.V.	—	100.0	Other segments	Netherlands
Hidroelectricité de Saint Beron, S.A.S.	—	100.0	Other segments	France
Mangshi FerroAtlántica Mining Industry Service Company Limited	—	100.0	Other segments	Mangshi, Dehong -Yunnan -China
Ningxia Yonvey Coal Industrial Co., Ltd.	—	98.0	Other segments	China
Photosil Industries, S.A.S.	—	100.0	Other segments	France
Ferroglobe Innovation, S.L.U	—	100.0	Other segments	Spain
Solsil, Inc.	—	92.4	Other segments	Delaware - USA
Ultracore Energy S.A.	—	100.0	Other segments	Argentina

2021 Subsidiaries

	Percentage of Ownership		Reporting Segment	Registered
	Direct	Total		
Alabama Sand and Gravel, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Alden Resources, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Alden Sales Corporation, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
ARL Resources, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
ARL Services, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Core Metals Group Holdings, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
Core Metals Group, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
ECPI, Inc.	—	100.0	North America – Silicon Alloys	Delaware - USA
Gatliff Services, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe BG, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GBG Financial LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GBG Holdings, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe Metallurgical Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Globe Metals Enterprises, Inc.	—	100.0	North America – Silicon Alloys	Delaware - USA
GSM Alloys I, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
GSM Alloys II, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
GSM Enterprises Holdings, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GSM Enterprises, LLC	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
GSM Sales, Inc.	—	100.0	North America – Silicon Metal	Delaware - USA
Laurel Ford Resources, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
LF Resources, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
Metallurgical Process Materials, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
Norchem, Inc.	—	100.0	North America – Silicon Metal and Alloys	Florida - USA
QSIP Canada ULC	—	100.0	North America – Silicon Metal	Canada
Quebec Silicon General Partner	—	51.0	North America – Silicon Metal	Canada
Quebec Silicon Limited Partnership	—	51.0	North America – Silicon Metal	Canada
Tennessee Alloys Company, LLC	—	100.0	North America – Silicon Alloys	Delaware - USA
West Virginia Alloys, Inc.	—	100.0	North America – Silicon Metal and Alloys	Delaware - USA
WVA Manufacturing, LLC	—	51.0	North America – Silicon Metal	Delaware - USA
Cuarzos Industriales, S.A.U.	—	100.0	Europe – Silicon Metal and Alloys	A Coruña - Spain
Ferroatlántica del Cinca, S.L.	—	99.9	Europe – Manganese	Madrid - Spain
Ferroatlántica Participaciones, S.L.U.	—	100.0	Other segments	Madrid - Spain
Ferroglobe Mangan Norge A.S.	—	100.0	Europe – Manganese	Norway
Ferroglobe Manganese France S.A.S.	—	100.0	Europe – Manganese	France
FerroPem, S.A.S.	—	100.0	Europe – Silicon Metal and Alloys	France
Grupo FerroAtlántica, S.A.U.	—	100.0	Europe – Manganese and Silicon Metal	Madrid - Spain
Grupo FerroAtlántica de Servicios, S.L.U.	—	100.0	Other segments	Madrid - Spain
Kintuck (France) S.A.S.	—	100.0	Europe – Manganese	France
Kintuck A.S.	—	100.0	Europe – Manganese	Norway
Rocas, Arcillas y Minerales, S.A.	—	100.0	Europe – Silicon Metal and Alloys	A Coruña - Spain
Rebone Mining (Pty.), Ltd.	—	74.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Silicon Smelters (Pty.), Ltd.	—	100.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Silicon Technology (Pty.), Ltd.	—	100.0	South Africa – Silicon Metal and Alloys	South Africa
Thaba Chueu Mining (Pty.), Ltd.	—	74.0	South Africa – Silicon Metal and Alloys	Polokwane - South Africa
Cuarzos Indus. de Venezuela (Cuarzoven), S.A.	—	100.0	Other segments	Venezuela
Emix, S.A.S.	—	100.0	Other segments	France
Ferroatlántica de México, S.A. de C.V.	—	100.0	Other segments	Nueva León - Mexico
Ferroatlántica de Venezuela (FerroVen), S.A.	—	99.9	Other segments	Venezuela
Ferroatlántica Deutschland, GmbH	—	100.0	Other segments	Germany
Ferroatlántica do Brasil Mineração Ltda.	—	70.0	Other segments	Brazil
Ferroglobe Holding Company, LTD	100	100.0	Other segments	United Kingdom
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FerroQuartz Mauritania S.A.R.L.	—	90.0	Other segments	Mauritania
Ferrosolar OPCO Group S.L.	—	100.0	Other segments	Spain
Ferrosolar R&D S.L.	—	50.0	Other segments	Spain
FerroTambao, S.A.R.L.	—	90.0	Other segments	Burkina Faso
Globe Argentina Holdco, LLC	—	100.0	Other segments	Delaware - USA
Globe Metales S.R.L.	—	100.0	Other segments	Argentina
Globe Specialty Metals, Inc.	100	100.0	Other segments	Delaware - USA
GSM Financial, Inc.	—	100.0	Other segments	Delaware - USA
GSM Netherlands, B.V.	—	100.0	Other segments	Netherlands
Hidroelectricité de Saint Beron, S.A.S.	—	100.0	Other segments	France
Mangshi FerroAtlántica Mining Industry Service Company Limited	—	100.0	Other segments	Mangshi, Dehong -Yunnan -China
Ningxia Yonvey Coal Industrial Co., Ltd.	—	98.0	Other segments	China
Photosil Industries, S.A.S.	—	100.0	Other segments	France
Ferroglobe Innovation, S.L.U	—	100.0	Other segments	Spain
Solsil, Inc.	—	92.4	Other segments	Delaware - USA
Ultracore Energy S.A.	—	100.0	Other segments	Argentina

Subsidiaries are all companies over which Ferroglobe has control.

Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power over the investee to affect the amount of the investor's returns.

The Company has power over the investee when the voting rights are sufficient to give it the practical ability to direct the relevant activities of the investee unilaterally. The Company considers all relevant facts and circumstances in assessing whether or not the Company's voting rights in an investee are sufficient to give it power, including:

- the total voting rights held by the Company relative to the size and dispersion of holdings of the other vote holders;
- potential voting rights held by the Company, other vote holders or other parties;
- rights arising from other contractual arrangements; and
- any additional facts and circumstances that indicate that the Company has, or does not have, the current ability to direct the relevant activities at the time these decisions need to be made, including voting patterns at previous shareholders' meetings.

Consolidation of a subsidiary begins when the Company obtains control over the subsidiary and ceases when the Company loses control of the subsidiary.

The Company uses the acquisition method to account for the acquisition of subsidiaries. According to this method, the consideration transferred for the acquisition of a subsidiary corresponds to the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Company. The consideration transferred also includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Any contingent consideration transferred by the Company is recognized at fair value at the date of acquisition. Subsequent changes in the fair value of the contingent consideration classified as an asset or a liability are recognized in accordance with IFRS 9 in the income statement. The costs related to the acquisition are recognized as expenses in the years incurred. The identifiable assets acquired and the liabilities and contingent liabilities assumed in a business combination are initially recognized at their fair value at the date of acquisition.

Profit or loss for the period and each component of other comprehensive (loss) income are attributed to the owners of the Company and to the non-controlling interests. The Company attributes total comprehensive (loss) income to the owners of the Company and to the non-controlling interests even if the profit or loss of the non-controlling interests gives rise to a balance receivable.

All assets and liabilities, equity, income, expenses and cash flows relating to transactions between subsidiaries are eliminated in full in consolidation.

3. Basis of presentation and basis of consolidation

3.1 *Basis of presentation*

These consolidated financial statements have been issued in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and interpretations issued by the International Financial Reporting Interpretations Committee (collectively "IFRS").

The consolidated financial statements have been authorized for issuance on May 1, 2023.

All accounting policies and measurement bases with effect on the consolidated financial statements were applied in their preparation.

The consolidated financial statements were prepared on a historical cost basis, with the exceptions disclosed in the notes to the consolidated financial statements, where applicable, and in those situations where IFRS requires that financial assets and financial liabilities are valued at fair value.

For the year ended December 31, 2022, the Company reported a net profit of \$462,414 thousand and for the years ended 2021 and 2020, the Company reported net losses of \$115,374 thousand, \$249,758 respectively. Our business has historically been subject to fluctuations in the price of the products and market demand for them, caused by general and regional economic cycles, raw material and energy price fluctuations, competition and other factors.

To support its assessment of the going concern basis of accounting, management has prepared a financial model which considers the revenues, expenditures, cash flows, net tax payments and capital expenditures for a period of at least one year from the date of approval of these financial statements. The financial projections to determine these future cash flows are modelled considering the principal variables that determine the historic flows at a Group level including prices, volumes, costs, capital expenditures and net working capital. These projections are based on the 2023 annual budget and management's five-year financial model. Key assumptions include estimates on sale prices based on the order book and indexes. It has to be considered that sale prices are the variable to which the Company's cash flows are more sensitive to. Sensitivities have been run, including stressed scenarios with reductions on the base case sale prices for the coming months, to reflect the key risks and uncertainties impacting the cash flow projections.

Ferroglobe's primary short-term liquidity needs are to fund its capital expenditure commitments, fund specific initiatives underlying the strategic plan, service its existing debt, fund working capital and comply with other contractual obligations. Ferroglobe's long-term liquidity needs primarily relate to debt servicing and repayment. Ferroglobe's core objective with respect to capital management is to maintain a balanced and sustainable capital structure through the economic cycles, while keeping the cost of capital at competitive levels. We believe our working capital is sufficient for our present requirements, and we anticipate generating sufficient cash from operations to satisfy our short and long-term liquidity needs.

As a result of all the analysis performed, the Company has concluded that there is no substantial doubt about its ability to continue as a going concern.

3.2 International financial reporting standards

Application of new accounting standards

New and amended standards and interpretations adopted by the Company

No new standards effective on January 1, 2022 have had a material impact on the consolidated financial statements. The Company has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

New and amended standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatory for the reporting period ended December 31, 2022 and have not been early adopted by the Company. Standards, interpretations and amendments published by the IASB that will be effective for periods beginning on or after January 1, 2023:

- IFRS 17 Insurance Contracts (issued on 18 May 2017); including Amendments to IFRS 17 (issued on June 2020 and effective from annual period beginning on January 1, 2023)
- Amendments to IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current and Classification of Liabilities as Current or Non-current - Deferral of Effective Date (issued on January 2020 and July 2020 respectively and effective from annual period beginning on January 1, 2023)
- Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of Accounting policies (issued on February 2021 and effective from annual period beginning on January 1, 2023)
- Amendments to IAS 8 Accounting policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates (issued on February 2021 and effective from annual period beginning on January 1, 2023)
- Amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction (issued on May 2021 and effective from annual period beginning on January 1, 2023)

- Amendments to initial application of IFRS 17 and IFRS 9: Comparative information (issued on December 2021 and effective from annual period beginning on January 1, 2023)
- Amendments to IFRS 16: Lease Liability in a sale and Leaseback (issued on September 2022 and effective from annual period beginning on January 1, 2024)
- Amendments to IAS 1: Non-current liabilities with Covenants (issued on October 2022 and effective from annual period beginning on January 1, 2024)

The Company is continuously assessing the impact of the application of these standards or interpretations that are not yet effective, and it is not expected that the application of these standards will have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

3.3 Currency

Until September 30, 2021, the Parent's functional currency was the Euro. Due to an occurrence of events and conditions that reduce the number of transactions in Euros, and in accordance with International Financial Reporting Standards, management conducted a review of the functional currency of Ferroglobe PLC and they concluded that there has been a change in its functional currency from Euro to U.S. Dollars, effective since October 1, 2021.

Ferroglobe PLC is the parent company of Ferroglobe Group and its main assets and liabilities relate to intercompany transactions. Due to the new group structure, PLC has signed an agreement in which they agreed to convert all intercompany receivables and payables outstanding into US Dollars. Additionally, PLC financing instruments (debt and equity instruments) are U.S. Dollars denominated.

The change in functional currency was implemented prospectively starting October 1, 2021. To give effect to this change, balances of the parent company as of October, 1, 2021 have been translated to USD in accordance with IAS 21 "The effect of changes in foreign exchange rates". The functional currencies of subsidiaries are determined by the primary economic environment in which each subsidiary operates.

The reporting currency of the Company is U.S. Dollars and as such the accompanying results and financial position have been translated pursuant to the provisions indicated in IAS 21.

All differences arising from the aforementioned translation are recognized in equity under "Translation differences."

Upon the disposal of a foreign operation, the translation differences relating to that operation deferred as a separate component of consolidated equity are recognized in the consolidated income statement when the gain or loss on disposal is recognized.

3.4 Responsibility for the information and use of estimates

The information in these consolidated financial statements is the responsibility of Ferroglobe's Management.

Certain assumptions and estimates were made by management in the preparation of these consolidated financial statements, including:

- The impairment analysis on goodwill, see *Note 7*;
- the useful life of property, plant and equipment and intangible assets, see *Note 4.3*;
- the impairment analysis on property, plant and equipment and valuations, determined by value in use or by fair value less cost of disposal methods, see *Note 9*;
- the fair value of financial instruments, see *Note 29*;
- the assumptions used in the actuarial calculation of pension liabilities, see *Note 15*;
- the discount rate used to calculate the present value of certain collection rights and payment obligations, see *Note 15*;

- provisions for contingencies and environmental liabilities, see *Note 25*;
- the net realizable value of inventory, see *Note 11*;
- income taxes, including the recoverability of the deferred tax asset; see *Note 23*;

The Company based its estimates and judgments on historical experience, known or expected trends and other factors that are believed to be reasonable under the circumstances. Actual results may differ materially from these estimates. Changes in accounting estimates are applied in accordance with IAS 8.

At the date of preparation of these consolidated financial statements no events had taken place that might constitute a significant source of uncertainty regarding the accounting effect that such events might have in future reporting periods.

3.5 Critical accounting judgements and key sources of estimation uncertainty

In the application of the Company's accounting policies, the directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Company's accounting policies

The following are the critical judgements, apart from those involving estimations (which are dealt with separately below), that the directors have made in the process of applying the Company's accounting policies and that have the most significant effect on the amounts recognized in financial statements.

Fair value measurement of financial instruments

Certain of the Company's financial instruments are classified as Level 3 as they include unobservable inputs. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either: in the principal market for the asset or liability; or in the absence of a principal market, in the most advantageous market for the asset or liability.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

For those assets and liabilities measured at fair value at the balance sheet date, further information on fair value measurement is provided in Note 29.

Going concern

As required by the accounting rules, the Company performs an analysis to assess the Company's ability to continue as a going concern. In this analysis, management makes certain estimates. To assess the liquidity risk the Company has defined a financial model which considers the revenues, expenditures, cash flows, net tax payments, capital expenditures and net working capital requirements. The financial projections to determine future cash flows are modelled considering the principal variables that determine the historic flows at a Group level including prices, volumes, costs, capital expenditures and net working capital. These projections are based on the 2023 annual budget and management's five-year financial model.

Impairment of long-lived assets

The Company's evaluation of goodwill and PP&E for impairment involves the comparison of the carrying amounts of assets with their recoverable amount. The determination of the recoverable amount requires significant judgement in developing and applying underlying assumptions concerning future market and conditions (operating costs and working capital requirements) for the periods projected, as well as the determination of an

appropriate discount rate and terminal value. The key assumptions used for estimating cash flow projections in the Group's impairment testing are those relating to discount rate, revenue, operating cost and operating margin. For certain assets, recoverable amount has been determined at fair value less cost of disposal, which determination is subject to significant judgement.

Inventories

Cost of inventories is determined by the average cost method. Inventories are valued at the lower of cost or Net Realizable Value. Circumstances may arise (e.g., reductions in market pricing, obsolete, slow moving or defective inventory) that require the carrying amount of our inventory to be written down to net realizable value. We estimate market and net realizable value based on current and future expected selling prices, as well as expected costs to complete, including utilization of parts and supplies in our manufacturing process. We believe that these estimates are reasonable; however, future market price decreases caused by changing economic conditions, customer demand, or other factors could result in future inventory write-downs that could be material.

Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimating uncertainty at the reporting period that may have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities within the next financial year, are discussed below.

Impairment of assets

The Company reviews the carrying value of assets on a periodic basis, and whenever events or changes in circumstances indicate that the related carrying amounts may not be recoverable.

Such circumstances or events could include: a pattern of losses involving the asset; a decline in the market value for the asset; and an adverse change in the business or market in which the asset is involved. Determining whether an impairment has occurred typically requires various estimates and assumptions, including determining which cash flows are directly related to the potentially impaired asset, the useful life over which cash flows will occur, their amount and the asset's residual value, if any. Estimates of future cash flows and the selection of appropriate discount rates relating to particular assets or groups of assets involve the exercise of a significant amount of judgement.

The key assumptions for the value in use calculation are those regarding the discount rate, growth rate, and cash flows. Cash flow projections are based on the Company's five year internal forecast. Estimates of selling prices and direct costs are based on past experience, expectations of future changes in the market and historic trends. Sensitivities are disclosed in Note 7 of the Consolidated Financial Statements.

3.6 Basis of consolidation

The financial statements of the subsidiaries are fully consolidated with those of the Parent. Accordingly, intercompany balances and transactions, including income, expenses and dividends, are eliminated in the consolidated financial statements. Gains and losses resulting from intercompany transactions are also eliminated.

Non-controlling interests are presented in "Equity – Non-controlling interests" in the consolidated statement of financial position, separately from the consolidated equity attributable to the Parent. The share of non-controlling interests in the profit or loss for the year is presented under "Loss/Profit attributable to non-controlling interests" in the consolidated income statement.

When necessary, adjustments are made to the financial statements of subsidiaries to align the accounting policies used to the accounting policies of the Company.

4. Accounting policies

The principal IFRS accounting policies applied in preparing these consolidated financial statements were in effect at the date of preparation are described below.

4.1 Goodwill

Goodwill arising on consolidation represents the excess of the cost of acquisition over the Company's interest in the fair value of the identifiable assets and liabilities of a subsidiary at the date of acquisition.

On disposal of a subsidiary, the attributable amount of goodwill is included in the determination of the gain or loss on disposal.

4.2 Other intangible assets

Other intangible assets are assets without physical substance which can be individually identified either because they are separable or because they arise as a result of a legal or contractual right or of a legal transaction or were developed by the consolidated companies. Only intangible assets whose value can be measured reliably and from which the Company expects to obtain future economic benefits are recognized in the consolidated statement of financial position.

Intangible assets are recognized initially at acquisition cost. The aforementioned cost is amortized systematically over each asset's useful life. At each reporting date, these assets are measured at acquisition cost less accumulated amortization and any accumulated impairment losses, if any. The Company reviews amortization periods and amortization methods for finite-lived intangible assets at the end of each fiscal year.

The Company's main intangible assets are as follows:

Development expenditures

Development expenditures are capitalized if they meet the requirements of identifiability, reliability in cost measurement and high probability that the assets created will generate economic benefits. Developmental expenditures are amortized on a straight-line basis over the useful lives of the assets, which are between four and ten years.

Expenditures on research activities are recognized as expenses in the years in which they are incurred.

Power supply agreements

Power supply agreements at rates below market acquired in business combinations are amortized on a straight-line basis over the term in which the agreement is effective.

Rights of use

Rights of use granted are amortized on a straight-line basis over the term in which the right of use was granted from the date it is considered that use commenced. Rights of use are generally amortized over a period ranging from 10 to 20 years.

Computer software

Computer software includes the costs incurred in acquiring or developing computer software, including the related installation. Computer software is amortized on a straight-line basis over two to five years.

Computer system maintenance costs are recognized as expenses in the years in which they are incurred.

Other intangible assets

Other intangible assets include:

- Supply agreements which are amortized in accordance with their estimated useful lives (see *Note 8*).
- CO₂ emissions allowances ("rights held emit greenhouse gasses") which are not amortized, but rather are expensed when used (see *Note 4.22*).

4.3 Property, plant and equipment

Cost

Property, plant and equipment for our own use are initially recognized at acquisition or production cost and are subsequently measured at acquisition or production cost less accumulated depreciation and any accumulated impairment losses.

When the construction and start-up of non-current assets require a substantial period of time, the borrowing costs incurred over that period are capitalized. In 2022, 2021 and 2020 no material borrowing cost were capitalized.

The costs of expansion, modernization or improvements leading to increased productivity, capacity or efficiency or to a lengthening of the useful lives of the assets are capitalized. Repair, upkeep and maintenance expenses are recognized in the consolidated income statement for the year in which they are incurred.

Mineral reserves are recorded at fair value at the date of acquisition. Depletion of mineral reserves is computed using the units-of-production method utilizing only proven and probable reserves (as adjusted for recoverability factors) in the depletion base.

Property, plant and equipment in the course of construction are transferred to property, plant and equipment in use at the end of the related development period.

Depreciation

The Company depreciates property, plant and equipment using the straight-line method at annual rates based on the following years of estimated useful life:

	Years of Estimated Useful Life
Properties for own use	25-50
Plant and machinery	8-20
Tools	12.5-15
Furniture and fixtures	10-15
Computer hardware	4-8
Transport equipment	10-15

Land included within property, plant and equipment is considered to be an asset with an indefinite useful life and, as such, is not depreciated, but rather it is tested for impairment annually. The Company reviews residual value, useful lives, and the depreciation method for property, plant and equipment annually.

Environment

The costs arising from the activities aimed at protecting and improving the environment are accounted for as an expense for the year in which they are incurred. When they represent additions to property, plant and equipment aimed at minimizing the environmental impact and protecting and enhancing the environment, they are capitalized to non-current assets.

4.4 Impairment of property, plant and equipment, intangible assets, right-of-use assets and goodwill

In order to ascertain whether its assets have become impaired, the Company compares their carrying amount with their recoverable amount; goodwill - the CGUs are tested for impairment annually, and whenever there is an indication of impairment and property, plant and equipment. Where the asset itself does not generate cash flows that are independent from other assets, the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of:

- Fair value less costs of disposal: the price that would be agreed upon by two independent parties, less estimated costs to sell, and

- Value in use: the present value of the future cash flows that are expected to be derived from continuing use of the asset and from its ultimate disposal at the end of its useful life, discounted at a rate which reflects the time value of money and the risks specific to the business to which the asset belongs.

If the recoverable amount of an asset (or cash-generating unit) is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount, and an impairment loss is recognized as an expense under "Impairment losses" in the consolidated income statement.

Where an impairment loss subsequently reverses (not permitted in the case of goodwill), the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years. A reversal of an impairment loss is recognized as "Impairment (loss)/gain" in the consolidated income statement.

The basis for depreciation is the carrying amount of the assets, deemed to be the acquisition cost less any accumulated impairment losses.

4.5 Financial instruments

Financial assets and financial liabilities are recognized in the Company's statement of financial position when the Company becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

Financial assets

The Company classifies its financial assets into the following categories: those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss) and those to be measured at amortized cost. The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows.

Financial assets measured at amortized cost

Financial assets are classified as measured at amortized cost when they are held in a business model whose objective is to collect contractual cash flows and the contractual terms of the financial asset give rise on specific dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. Such assets are carried at amortized cost using the effective interest method if the time value of money is significant. Gains and losses are recognized in profit or loss when the assets are derecognized or impaired and when interest is recognized using the effective interest method. This category of financial assets includes trade receivables, receivables from related parties and cash and cash equivalents.

Financial assets measured at fair value through other comprehensive income

Debt instruments are classified as measured at fair value through other comprehensive income when they are held in a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets, and the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. All movements in the fair value of these financial assets are taken through other comprehensive income, except for the recognition of impairment gains or losses, interest income calculated using the effective interest method and foreign exchange gains and losses. When the financial asset is derecognized, the cumulative fair value gain or loss previously recognized in other comprehensive income is reclassified to the income statement.

Equity instruments are classified as measured at fair value through other comprehensive income if, on initial recognition, the Company makes an irrevocable election to designate the instrument as at fair value through other comprehensive income. The election is made on an instrument-by-instrument basis and is not permitted if the equity investment is held for trading. Fair value gains or losses on revaluation of such equity investments are recognized in other comprehensive income and accumulated in the valuation adjustments reserve. When the equity

investment is derecognized, there is no reclassification of fair value gains or losses previously recognized in other comprehensive income to the income statement. Dividends are recognized in the income statement when the right to receive payment is established.

Financial assets measured at fair value through profit or loss.

Financial assets are classified as measured at fair value through profit or loss when the asset does not meet the criteria to be measured at amortized cost or at fair value through other comprehensive income. Such assets are carried on the balance sheet at fair value with gains or losses recognized in the income statement.

Derecognition of financial assets

The Company derecognizes a financial asset when:

- the rights to receive cash flows from the asset have expired; or
- the Company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

On derecognition of a financial asset in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss.

If the Company retains substantially all of the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

Impairment of financial assets

The expected credit loss model is applied for recognition and measurement of impairments in financial assets measured at amortized cost and debt instruments held at fair value through other comprehensive income. The loss allowance for the financial asset is measured at an amount equal to the 12-month expected credit losses. If the credit risk on the financial asset has increased significantly since initial recognition, the loss allowance for the financial asset is measured at an amount equal to the lifetime expected credit losses. Changes in loss allowances are recognized in profit and loss. For trade receivables, a simplified impairment approach is applied recognizing expected lifetime losses from initial recognition. For this purpose, the Company has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Company writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Company's recovery procedures, considering legal advice where appropriate. Any recoveries made are recognized in profit or loss.

Financial liabilities

The subsequent measurement of financial liabilities depends on their classification, as described below:

Financial liabilities measured at fair value through profit or loss

Financial liabilities that meet the definition of held for trading are classified as measured at fair value through profit or loss. Such liabilities are carried on the balance sheet at fair value with gains or losses recognized in the income statement. This category includes contingent consideration and derivatives, other than those designated as hedging instruments in an effective hedge.

Financial liabilities measured at amortized cost

This is the category most relevant to the Company and comprises all other financial liabilities, including bank borrowings, debt instruments, financial loans from government agencies, payables to related parties and trade and other payables.

After initial recognition, other financial liabilities are subsequently measured at amortized cost using the effective interest method. Amortized cost is calculated by considering any issue costs and any discount or premium on settlement.

Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, the Company's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss. When the Company exchanges with the existing lender one debt instrument into another one with substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Company accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective rate is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between the carrying amount of the liability before the modification and the present value of the cash flows after modification are recognized in profit or loss as a modification gain or loss.

4.6 Derivative financial instruments and hedging activities

In order to mitigate the economic effects of exchange rate and interest rate fluctuations to which it is exposed as a result of its business activities, the Company uses derivative financial instruments, such as cross currency swaps and interest rate swaps.

The Company's derivative financial instruments are set out in Note 19 to these consolidated financial statements and the Company's financial risk management policies are set out in Note 28.

Derivatives are initially recognized at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each balance sheet date. The resulting gain or loss is recognized in profit or loss immediately unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition of profit or loss depends on the nature of the hedge relationship. The gain or loss recognized in respect of derivatives that are not designated and effective as a hedging instrument is recognized in the consolidated income statement in the line item financial derivative gain (loss).

A derivative with a positive fair value is recognized as a financial asset within the line item other financial assets whereas a derivative with a negative fair value is recognized as a financial liability within the line item other financial liabilities. A derivative is presented as a non-current asset or non-current liability if the remaining maturity of the instrument is more than 12 months and it is not expected to be realized or settled within 12 months.

Hedge accounting

The Company designates certain derivatives as cash flow hedges. For further details, see *Note 19* of the consolidated financial statements.

At the inception of the hedge relationship, the Company documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking the hedge transaction. Furthermore, at the inception of the hedge and on an ongoing basis, the Company documents

whether the hedging instrument is effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk.

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to any ineffective portion is recognized immediately in profit or loss and is included in the financial derivative gain (loss) line item.

Amounts previously recognized in other comprehensive income and accumulated in equity in the valuation adjustments reserve are reclassified to profit or loss in the periods when the hedged item is recognized in profit or loss, in the same line of the income statement as the recognized hedged item.

Hedge accounting is discontinued when the Company revokes the hedging relationship, the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. Any gain or loss recognized in other comprehensive income at that time is accumulated in equity and is recognized when the forecast transaction is ultimately recognized in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss.

4.7 Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either: in the principal market for the asset or liability; or in the absence of a principal market, in the most advantageous market for the asset or liability.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

The Company uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 — Quoted (unadjusted) market prices in active markets for identical assets or liabilities.
- Level 2 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
- Level 3 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For those assets and liabilities measured at fair value at the balance sheet date, further information on fair value measurement is provided in Note 29.

4.8 Inventories

Inventories comprise assets (goods) which:

- Are held for sale in the ordinary course of business (finished goods); or
- Are in the process of production for such sale (work in progress); or
- Will be consumed in the production process or in the rendering of services (raw materials and spare parts).

Inventories are stated at the lower of acquisition or production cost and net realizable value. The cost of each inventory item is generally calculated as follows:

- Raw materials, spare parts and other consumables and replacement parts: the lower of weighted average acquisition cost and net realizable value.

- Work in progress, finished goods and semi-finished goods: the lower of production cost (which includes the cost of materials, labor costs, direct and indirect manufacturing expenses) or net realizable value in the market.

Obsolete, defective or slow-moving inventories have been reduced to net realizable value.

Net realizable value is the estimated selling price less all the estimated costs of selling and distribution.

The amount of any write-down of inventories (as a result of damage, obsolescence or decrease in the selling price) to their net realizable value and all losses of inventories are recognized as expenses in the year in which the write-down or loss occurs. Any subsequent reversals are recognized as income in the year in which they arise.

The consumption of inventories is recognized as an expense in “Raw Materials and energy consumption for production” in the consolidated income statement in the period in which the revenue from their sale is recognized.

4.9 Raw materials and energy consumption for production

Raw materials and energy consumption for production comprise raw materials, energy, other direct costs, inventory write-downs and changes in inventory.

4.10 Cash and cash equivalents

The Company classifies under “Cash and cash equivalents” any liquid financial assets, such as for example cash on hand and at banks, deposits and liquid investments, that can be converted into known amounts of cash within three months and are subject to an insignificant risk of changes in value.

4.11 Restricted cash and cash equivalents

The Company classifies under “restricted cash and cash equivalents” any liquid financial assets, which meet the definition of cash and cash equivalents but the use or withdrawal is restricted by financial agreements.

Restrictions may include legally restricted deposits held as compensating balances against short-term borrowing arrangements and/or contracts entered into with others; however, time deposits and short-term certificates of deposit are not included in legally restricted deposits. In cases where compensating balance arrangements exist but are not agreements which legally restrict the use of cash amounts shown on the balance sheet, those arrangements and the amount involved are disclosed in the notes. Compensating balances that are maintained under an agreement to assure future credit availability are also disclosed in the notes.

As discussed in Note 31, certain of the Company’s credit agreements restrict the transfer of assets in the form of loans or dividends to other affiliates. The amount of cash and cash equivalents in subsidiaries subject to such restrictions amounted to \$253,085 as of December 31, 2022, and is not presented as Restricted cash and equivalents in the balance sheet because it can be withdrawn or used except for transfers to affiliates.

4.12 Provisions and contingencies

When preparing the consolidated financial statements, the Parent’s directors made a distinction between:

- Provisions: present obligations, either legal, contractual, constructive or assumed by the Company, arising from past events, the settlement of which is expected to give rise to an outflow of economic benefits the amount or timing of which are uncertain; and
- Contingent liabilities: possible obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more future events not wholly within the control of the Company, or present obligations arising from past events the amount of which cannot be estimated reliably or whose settlement is not likely to give rise to an outflow of economic benefits.
- Contingent assets: possible assets that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.

The consolidated financial statements include all the material provisions with respect to which it is considered that it is probable that the obligation will have to be settled. Contingent liabilities are not recognized in the consolidated financial statements, but rather are disclosed, as required by IAS 37 (see *Note 25*).

Provisions are classified as current or non-current based on the estimated period of time in which the obligations covered by them will have to be met. They are recognized when the liability or obligation giving rise to the indemnity or payment arises, to the extent that its amount can be estimated reliably.

“Provisions” includes the provisions for pension and similar obligations assumed; provisions for contingencies and charges, such as for example those of an environmental nature and those arising from litigation in progress or from outstanding indemnity payments or obligations, and collateral and other similar guarantees provided by the Company; and provisions for medium- and long- term employee incentives.

Contingent assets are not recognized, but are disclosed where an inflow of economic benefits is probable. If it has become virtually certain that an inflow of economic benefits will arise, the asset and the related income are recognized in the financial statements in the period in which the change occurs.

Defined contribution plans

Certain employees have defined contribution plans which conform to the Spanish Pension Plans and Funds Law. The main features of these plans are as follows:

- They are mixed plans covering the benefits for retirement, disability and death of the participants.
- The sponsor undertakes to make monthly contributions of certain percentages of current employees' salaries to external pension funds.

The annual cost of these plans is recognized under Staff costs in the consolidated income statement.

Defined benefit plans

IAS 19, Employee Benefits requires defined benefit plans to be accounted for:

- Using actuarial techniques to make a reliable estimate of the amount of benefits that employees have earned in return for their service in the current and prior periods.
- Discounting those benefits in order to determine the present value of the obligation.
- Determining the fair value of any plan assets.
- Determining the total amount of actuarial gains and losses and the amount of those actuarial gains and losses that must be recognized.

The amount recognized as a benefit liability arising from a defined benefit plan is the total net sum of:

- The present value of the obligations.
- Minus the fair value of plan assets (if any) out of which the obligations are to be settled directly.

The Company recognizes provisions for these benefits as the related rights vest and on the basis of actuarial studies. These amounts are recognized under “Provisions” in the consolidated statement of financial position, on the basis of their expected due payment dates.

Environmental provisions

Provisions for environmental obligations are estimated by analyzing each case separately and observing the relevant legal provisions. The best possible estimate is made on the basis of the information available and a provision is recognized provided that the aforementioned information suggests that it is probable that the loss or expense will arise and it can be estimated in a sufficiently reliable manner.

The balance of provisions and disclosures disclosed in Notes 15 and 24 reflects management's best estimation of the potential exposure as of the date of preparation of these financial statements.

4.13 Leases

The Company assesses if a contract is or contains a lease at inception of the contract. A contract is or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company recognizes a right-of-use asset and a lease liability at the commencement date.

The lease liability is initially measured at the present value of the minimum future lease payments, discounted using the interest rate implicit in the lease, or, if not readily determinable, the incremental borrowing rate. Lease payments include fixed payments, variable payments that depend on an index or rate, as well as any extension or purchase options, if the Company is reasonably certain to exercise these options. The lease liability is subsequently measured at amortized cost using the effective interest method and remeasured with a corresponding adjustment to the related right-of-use asset when there is a change in future lease payments.

The right-of-use asset comprises, at inception, the initial lease liability, any initial direct costs and, when applicable, the obligations to refurbish the asset, less any incentives granted by the lessors. The right-of-use asset is subsequently depreciated, on a straight-line basis, over the lease term or, if the lease transfers the ownership of the underlying asset to the Company at the end of the lease term or, if the cost of the right-of-use asset reflects that the lessee will exercise a purchase option, over the estimated useful life of the underlying asset. Right-of-use assets are also subject to testing for impairment if there is an indicator for impairment.

Variable lease payments not included in the measurement of the lease liabilities are expensed to the consolidated income statement in the period in which the events or conditions which trigger those payments occur.

In the statement of financial position, right-of-use assets and lease liabilities are classified, respectively, as part of property, plant and equipment and current and non-current lease liabilities.

4.14 Current assets and liabilities

In general, assets and liabilities are classified as current or non-current based on the Company's operating cycle. However, in view of the diverse nature of the activities carried on by the Company, in which the duration of the operating cycle differs from one activity to the next, in general assets and liabilities expected to be settled or fall due within twelve months from the end of the reporting period are classified as current items and those which fall due or will be settled within more than twelve months are classified as non-current items.

4.15 Income taxes

Income tax expense represents the sum of current tax and deferred tax. Income tax is recognized in the income statement except to the extent that it relates to items recognized in other comprehensive income or directly in equity, in which case the related tax is recognized in other comprehensive income or directly in equity.

The current income tax expense is based on domestic and international statutory income tax rates in the tax jurisdictions where the Company operates related to taxable profit for the period. The taxable profit differs from net profit as reported in the income statement because it is determined in accordance with the rules established by the applicable tax authorities which includes temporary differences, permanent differences, and available credits and incentives.

The Company's deferred tax assets and liabilities are provided on temporary differences at the balance sheet date between financial reporting and the tax basis of assets and liabilities, then applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. Deferred tax assets are recognized for deductible temporary differences, carry-forward of unused tax credits and losses, to the extent that it is probable, that taxable profit will be available against which the deductible temporary difference and carryforwards of unused tax credits and losses can be utilized. The deferred tax assets and liabilities that have been recognized are reassessed at the end of each closing period in order to ascertain whether they still exist, and adjustments are made on the basis of the findings of the analyses performed.

Income tax payable is the result of applying the relevant tax rate in force to each tax-paying entity, in accordance with the tax laws in force in the country in which the entity is registered. Additionally, tax deductions and credits

are available to certain entities, primarily relating to inter-company trades and tax treaties between various countries to prevent double taxation.

Income tax expense is recognized in the consolidated income statement, except to the extent that it arises from a transaction which is recognized directly to “consolidated equity”, in which case the tax is recognized directly to “consolidated equity.”

Deferred tax assets and liabilities are offset only when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority or either the same taxable entity or different taxable entities where there is an intention to settle the current tax assets and liabilities on a net basis or to realize the assets and settle the liabilities simultaneously.

4.16 Foreign currency transactions

Foreign currency transactions are initially recognized in the functional currency of the subsidiary by applying the exchange rates prevailing at the date of the transaction.

Subsequently, at each reporting date, monetary assets and liabilities denominated in foreign currencies are translated to dollars at the rates prevailing on that date.

Any exchange differences arising on settlement or translation at the closing rates of monetary items are recognized in the consolidated income statement for the year.

Note 4.6 details the Company’s accounting policies for derivative financial instruments. Also, Note 28 to these consolidated financial statements details the financial risk policies of Ferroglobe.

4.17 Revenue recognition

The Company recognizes sales revenue related to the transfer of promised goods or services when control of the goods or services passes to the customer. The amount of revenue recognized reflects the consideration to which the Company is or expects to be entitled in exchange for those goods or services.

In the Company’s electrometallurgy business, revenue is principally generated from the sale of goods, including silicon metal and silicon- and manganese-based specialty alloys. The Company mainly satisfies its performance obligations at a point in time; the amounts of revenue recognized relating to performance obligations satisfied over time are not significant. The point in time at which control is transferred to the buyer is determined based on the agreed delivery terms, which follow Incoterms 2022 issued by International Chamber of Commerce.

In most instances, control passes and sales revenue is recognized when the product is delivered to the vessel or vehicle on which it will be transported, the destination port or the customer’s premises. There may be circumstances when judgment is required based on the five indicators of control below.

- The customer has the significant risks and rewards of ownership and has the ability to direct the use of, and obtain substantially all of the remaining benefits from, the goods or service.
- The customer has a present obligation to pay in accordance with the terms of the sales contract.
- The customer has accepted the asset. Sales revenue may be subject to adjustment if the product specification does not conform to the terms specified in the sales contract, but this does not impact the passing of control. Specification adjustments have been immaterial historically.
- The customer has legal title to the asset. The Company may retain legal title until payment is received but this is for credit risk purposes only.
- The customer has physical possession of the asset. This indicator may be less important as the customer may obtain control of an asset prior to obtaining physical possession, which may be the case for goods in transit.

Where the Company sells on ‘C’ terms (e.g., CIF, CIP, CFR and CPT), the Company is responsible (acts as principal) for providing shipping services and, in some instances, insurance after the date at which control of goods passes to the customer at the loading point. The Company therefore has separate performance obligations

for freight and insurance services that are provided solely to facilitate sale of the commodities it produces. Revenue attributable to freight and insurance services is not usually material.

Where the Company sells on 'D' terms (e.g., DDP, DAP and DAT), the Company arranges and pays for the carriage and retains the risk of the goods until delivery at an agreed destination, where ownership and control is transferred.

Where the Company sells on 'F' terms (e.g., FCA and FOB), the customer arranges and pays for the main transportation. Risk and control are transferred to the customer when the goods are handed to the carrier engaged by the customer.

The Company's products are sold to customers under contracts which vary in tenure and pricing mechanisms. The majority of pricing terms are either fixed or index-based for monthly, quarterly or annual periods, with a smaller proportion of volumes being sold on the spot market.

Within each sales contract, each unit of product shipped is a separate performance obligation. Revenue is generally recognized at the contracted price as this reflects the stand-alone selling price. Sales revenue excludes any applicable sales taxes.

Physical exchanges with counterparties in the same line of business in order to facilitate sales to customers are reported net, as are sales and purchases made with a common counterparty, as part of an arrangement similar to a physical exchange.

Revenue from the energy business is based on the power generated and put on the market at regulated prices and is recognized when the energy produced is transferred to the power network.

Interest income is recognized as the interest accrues using the effective interest rate, the rate that exactly discounts estimated future cash receipts through the expected life of the financial instrument to the net carrying amount of the financial asset.

Dividend income from investments is recognized when the shareholders' right to receive the payment is established.

4.18 Expense recognition

Expenses are recognized on an accrual basis, i.e. when the actual flow of the related goods and services occurs, regardless of when the resulting monetary or financial flow arises.

An expense is recognized in the consolidated income statement when there is a decrease in the future economic benefits related to a reduction of an asset, or an increase in a liability, which can be measured reliably. This means that an expense is recognized simultaneously with the recognition of the increase in a liability or the reduction of an asset. Additionally, an expense is recognized immediately in the consolidated income statement when a disbursement does not give rise to future economic benefits or when the requirements for recognition as an asset are not met. Also, an expense is recognized when a liability is incurred and no asset is recognized, as in the case of a liability relating to a guarantee.

4.19 Grants

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as income on a systematic basis over the periods that the related costs, for which it is intended to compensate, are expensed. When the grant relates to an asset, it is recognized as income in equal amounts over the expected useful life of the related asset.

4.20 Termination benefits

Under current labour legislation, the Company is required to pay termination benefits to employees whose employment relationship is terminated under certain conditions. The cost of providing employee benefits is recognized in the period in which the benefit is earned by the employee, rather than when it is paid or payable.

4.21 CO2 emission allowances

The Company recognizes emission rights (allowances) received, whether allocated by government or purchased, as intangible assets. The intangible asset recognized is initially measured at fair value, being the consideration paid (if purchased on the open market) or the current market value (if granted for less than fair value).

When allowances are granted for less than fair value, the difference between the fair value and the nominal amount paid is recognized as a government grant. The grant is initially recognized as deferred income in the statement of financial position and subsequently recognized as "other operating income" on a systematic basis on the proportion of the CO2 emitted over total CO2 expected to be emitted for the compliance period. In the case that a better estimate of the expected CO2 emissions for the compliance period is available, the deferred income to be recognized in the statement of financial position is adjusted prospectively.

As the Company emits CO2, it recognizes a provision for its obligation to deliver the CO2 allowances at the end of the compliance period. The provision is remeasured and recorded as an expense at the end of each reporting period at historical cost for the emission rights (allowances) received and at acquisition cost for the CO2 purchased and at fair value for the CO2 pending to be purchased.

Intangible assets recognized for emissions allowances are not amortized and remain valued at historical cost until either sold or surrendered in satisfaction of the Company's obligation to deliver the allowances to the relevant authority.

Sale of emission rights

In those cases that it is decided to sell some or even all of its rights in the expectation of later buying rights equal to its actual emissions, the accounting will be as follows.

The emission rights sold would be derecognized from the balance sheet against the cash received. In those cases, where the price per emission right is different to the fair value per emission right at the time they were granted, a gain or a loss on the disposal of assets will be recognized. The deferred income originally recognized for the free emission rights granted at the beginning of the compliance period that still remain in the balance sheet at the time of sale, will continue to be amortized over the remaining compliance period.

4.22 Share-based compensation

The Company recognizes share-based compensation expense based on the estimated grant date fair value of share-based awards using a Black-Scholes option pricing model. Prior to vesting, cumulative compensation cost equals the proportionate amount of the award earned to date. The Company has elected to treat each award as a single award and recognize compensation cost on a straight-line basis over the requisite service period of the entire award. If the terms of an award are modified in a manner that affects both the fair value and vesting of the award, the total amount of remaining unrecognized compensation cost (based on the grant-date fair value) and the incremental fair value of the modified award are recognized over the amended vesting period.

4.23 Assets and disposal groups classified as held for sale, liabilities associated with assets held for sale and discontinued operations

Assets and disposal groups classified as held for sale include the carrying amount of individual items, disposal groups or items forming part of a business unit earmarked for disposal (discontinued operations), whose sale in their present condition is highly likely to be completed within one year from the reporting date. Therefore, the carrying amount of these items, which may or may not be of a financial nature, will likely be recovered through the proceeds from their disposal.

Liabilities associated with non-current assets held for sale include the balances payable arising from the assets held for sale or disposal groups and from discontinued operations.

Assets and disposal groups classified as held for sale are measured at the lower of fair value less costs to sell and their carrying amount at the date of classification in this category. Non-Current assets held for sale are not depreciated as long as they remain in this category.

4.24 Consolidated statement of cash flows

The following terms are used in the consolidated statement of cash flows, prepared using the indirect method, with the meanings specified as follows:

1. Cash flows: inflows and outflows of cash and cash equivalents, which are short-term, highly liquid investments that are subject to an insignificant risk of changes in value.
2. Operating activities: activities constituting the object of the subsidiaries forming part of the consolidated Company and other activities that are not investing or financing activities.
3. Investing activities: the acquisition and disposal of long-term assets and other investments not included in cash and cash equivalents.
4. Financing activities: activities that result in changes in the size and composition of the equity and borrowings of the Company that are not operating or investing activities. Interest payments and principal payments are presented separately.

5. **Business Combinations**

Business combinations are accounted for using the acquisition method. The identifiable assets acquired and liabilities assumed are recognized at their fair values at the acquisition date. Acquisition costs are recognized in profit or loss as incurred.

Goodwill is initially measured as the excess of the aggregate of the consideration transferred, the amount recognized for any non-controlling interest and the acquisition-date fair values of any previously held interest in the acquiree over the fair value of the identifiable assets acquired and liabilities assumed at the acquisition date. If, after reassessment, the net of the acquisition date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the excess is recognized immediately in profit or loss as a bargain purchase gain.

When the consideration transferred by the Company in a business combination includes an asset or liability resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination.

Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates at fair value with the corresponding gain or loss being recognized in profit or loss. Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the ‘measurement period’ (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

Ferroglobe has not recorded any business combination in 2022 and 2021.

6. **Segment reporting**

Operating segments are based upon the Company’s management reporting structure. During 2022, the Company has revised its operating segments to reflect the way its Chief Operating Decision Maker (“CODM”) is currently managing the business. Our revised organizational structure includes the following ten operating segments:

- Canada – Silicon Metals
- Canada – Silicon Alloys
- US – Silicon Metals
- US - Silicon Alloys
- Europe – Manganese Alloys
- Europe – Silicon Metals
- Europe - Silicon Alloys
- South Africa – Silicon Metals
- South Africa – Silicon Alloys; and
- Other segments

The operating segments described above are those components whose operating results are regularly reviewed by the entity’s Chief Operating Decision Maker to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available. This is due to the integrated operations within each region and product family and the ability to reallocate production based on the individual capacity of each plant. Additionally, economic factors that may impact our results of operations, such as currency fluctuations and energy costs, are also assessed at a region and product level.

The Company’s North America- Silicon Metal and North America – Silicon Alloys reportable segments are the result of the aggregation of the operating segments of the United States and Canada Silicon Metals and the operating

segments of the United States and Canada Silicon Alloys. These operating segments have been aggregated as they have similar long-term economic characteristics and there is similarity of competitive and operating risks and the political environment in the United States and Canada. The Europe-Silicon Metals, the Europe-Silicon Alloys, the Europe -Manganese, the South Africa – Silicon Metals and South Africa – Silicon Alloys reportable segments are equal to each related Operating segment.

All other segments that do not meet the quantitative threshold for separate reporting have been grouped as “Other segments”, mainly includes holding entities in United Kingdom and subsidiary OPCO in Spain.

The consolidated income statements as of December 31, 2022, 2021 and 2020, by reportable segment, are as follows:

	2022									Total US\$'000
	North America Silicon Metal US\$'000	North America Silicon Alloys US\$'000	Europe Manganese US\$'000	Europe Silicon Metal US\$'000	Europe Silicon Alloys US\$'000	South Africa Silicon Metal US\$'000	South Africa Silicon Alloys US\$'000	Other segments US\$'000	Adjustments/ Eliminations (**) US\$'000	
Sales	671,290	339,414	701,140	536,753	259,419	17,337	122,262	81,560	(131,259)	2,597,916
Raw materials and energy consumption for production	(305,545)	(68,490)	(541,034)	(241,936)	(139,687)	(9,270)	(65,373)	(46,759)	133,008	(1,285,086)
Other operating income	6,464	122	42,882	76,255	23,622	156	66	59,840	(62,051)	147,356
Staff costs	(61,378)	(41,923)	(28,996)	(81,175)	(50,467)	(1,736)	(11,652)	(37,483)	—	(314,810)
Other operating expense	(33,708)	(37,859)	(111,741)	(99,513)	(33,265)	(2,649)	(13,193)	(74,626)	60,302	(346,252)
Depreciation and amortization charges, operating allowances and write-downs	(33,708)	(15,135)	(13,005)	(4,605)	(8,086)	(748)	(5,278)	(994)	—	(81,559)
Impairment (loss) gain	—	—	(33,222)	—	(26,028)	5,357	2,408	(5,514)	—	(56,999)
Net gain due to changes in the value of assets	—	—	—	—	—	—	—	349	—	349
(Loss) gain on disposal of non-current assets	(522)	(126)	(189)	230	82	—	—	66	—	(459)
Other (loss)	—	—	11	—	—	—	—	80	—	91
Operating Profit	242,893	176,003	15,846	186,009	25,590	8,447	29,240	(23,481)	—	660,547

(**) The amounts correspond to transactions between segments that are eliminated in the consolidation process.

2021(*)										
	North America Silicon Metal US\$'000	North America Silicon Alloys US\$'000	Europe Manganese US\$'000	Europe Silicon Metal US\$'000	Europe Silicon Alloys US\$'000	South Africa Silicon Metal US\$'000	South Africa Silicon Alloys US\$'000	Other segments US\$'000	Adjustments/ Eliminations (**) US\$'000	Total US\$'000
Sales	370,109	154,699	476,287	437,533	227,804	12,604	104,591	43,568	(48,287)	1,778,908
Raw materials and energy consumption for production	(265,653)	(57,663)	(326,257)	(303,811)	(170,073)	(8,240)	(68,377)	(33,445)	48,623	(1,184,896)
Other operating income	5,089	296	34,142	48,828	16,924	278	485	49,901	(45,858)	110,085
Staff costs	(51,163)	(31,300)	(33,696)	(77,608)	(42,679)	(1,542)	(11,726)	(31,203)	—	(280,917)
Other operating expense	(22,222)	(20,848)	(105,290)	(105,712)	(23,043)	(1,904)	(11,352)	(51,960)	45,522	(296,809)
Depreciation and amortization charges, operating allowances and write-downs	(40,489)	(15,281)	(18,634)	(7,330)	(9,522)	(546)	(4,535)	(991)	—	(97,328)
Impairment (loss) gain	—	—	(376)	14	(455)	288	2,396	(1,730)	—	137
Net gain due to changes in the value of assets	—	—	—	—	—	—	—	758	—	758
(Loss) gain on disposal of non-current assets	(347)	741	—	733	296	—	—	(37)	—	1,386
Other (loss)	—	—	—	—	—	—	—	—	—	—
Operating (loss) profit	(4,676)	30,644	26,176	(7,353)	(749)	938	11,482	(25,076)	—	31,386

(*) Our operating segments have been revised in 2022 to reflect the way its chief operating decision maker (“CODM”) is currently managing and viewing the business. Accordingly, the results of 2021 and 2020 have been restated to report results according to the operating segments revised in 2022.

(**) The amounts correspond to transactions between segments that are eliminated in the consolidation process.

2020(*)										
	North America Silicon Metal US\$'000	North America Silicon Alloys US\$'000	Europe Manganese US\$'000	Europe Silicon Metal US\$'000	Europe Silicon Alloys US\$'000	South Africa Silicon Metal US\$'000	South Africa Silicon Alloys US\$'000	Other segments US\$'000	Adjustments/ Eliminations (**) US\$'000	Total US\$'000
Sales	289,485	135,792	240,142	321,632	146,096	17,631	62,941	25,334	(94,619)	1,144,434
Raw materials and energy consumption for production	(205,260)	(75,597)	(204,063)	(255,798)	(113,332)	(12,267)	(43,796)	(19,518)	94,145	(835,486)
Other operating income	2,804	113	9,199	19,971	5,078	127	3	24,587	(28,255)	33,627
Staff costs	(48,219)	(25,769)	(28,337)	(52,236)	(32,064)	(2,497)	(8,516)	(17,144)	—	(214,782)
Other operating expense	(18,990)	(15,325)	(33,884)	(35,415)	(16,397)	(3,515)	(10,583)	(26,679)	28,729	(132,059)
Depreciation and amortization charges, operating allowances and write-downs	(48,691)	(12,973)	(19,086)	(8,900)	(10,352)	(1,563)	(5,578)	(1,046)	—	(108,189)
Impairment (loss) gain	(26,861)	(8,824)	305	—	(17,942)	(1,899)	(6,777)	(11,346)	—	(73,344)
Net gain due to changes in the value of assets	—	—	—	—	—	—	—	158	—	158
(Loss) gain on disposal of non-current assets	(641)	(227)	1,154	682	319	—	—	5	—	1,292
Other (loss) gain	—	—	4	—	—	—	—	(5)	—	(1)
Operating (loss)	(56,373)	(2,810)	(34,566)	(10,064)	(38,594)	(3,983)	(12,306)	(25,654)	—	(184,350)

(*) Our operating segments have been revised in 2022 to reflect the way its chief operating decision maker (“CODM”) is currently managing and viewing the business. Accordingly, the results of 2021 and 2020 have been restated to report results according to the operating segments revised in 2022.

(**) The amounts correspond to transactions between segments that are eliminated in the consolidation process.

Other disclosures

Sales by product line

Sales by product line are as follows:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Silicon metal	1,116,193	637,695	463,217
Manganese-based alloys	525,483	469,138	267,469
Ferrosilicon	561,539	337,833	176,447
Other silicon-based alloys	192,409	161,750	126,817
Silica fume	32,290	32,409	25,888
Other	170,002	140,083	84,596
Total	2,597,916	1,778,908	1,144,434

Information about major customers

Total sales of \$1,322,724 thousand, \$870,039 thousand, and \$580,570 thousand were attributable to the Company's top ten customers in 2022, 2021, and 2020 respectively. During 2022, 2021, and 2020 sales corresponding to Dow Silicones Corporation represented 16.8%, 12.2% and 13.2%, respectively of the Company's sales. Sales to Dow Silicones Corporation are included partially in the North America – Silicon Metal segment and partially in the Europe - Silicon Metal segment.

Non current assets by geographical area

The non-current assets by geographical area are as follows:

	Year ended December 31,	
	2022 US\$'000	2021 US\$'000
United States of America	231,565	230,356
Europe		
Spain	109,759	146,405
France	133,684	138,842
Other EU Countries	55,835	71,612
Total non-current assets in Europe	299,278	356,859
Rest of the World	133,040	124,839
Total	663,883	712,054

7. Goodwill

Changes in the carrying amount of goodwill during the years ended December 31, are as follows:

	January 1, 2021 US\$'000	Impairment (Note 26.5) US\$'000	Exchange differences US\$'000	December 31, 2021 US\$'000	Impairment (Note 26.5) US\$'000	Exchange differences US\$'000	December 31, 2022 US\$'000
U.S. Silicon Metal cash generating unit	17,230	—	—	17,230	—	—	17,230
U.S. Silicon Based Alloys cash generating unit	12,472	—	—	12,472	—	—	12,472
Total	29,702	—	—	29,702	—	—	29,702

On December 23, 2015, Ferroglobe PLC consummated the acquisition of 100% of the equity interests of Globe Specialty Metals, Inc. (GSM) and subsidiaries and FerroAtlántica. This Business Combination was accounted for using the acquisition method of accounting for business combinations under IFRS 3 Business Combinations, with FerroAtlántica treated as the accounting acquirer and GSM as the acquiree. The excess of the cost of acquisition over the Company's interest in the fair value of the identifiable assets and liabilities assumed at the date of acquisition was recorded as goodwill.

During the years ended December 31, 2022 and December 31, 2021, in connection with our annual goodwill impairment test, the Company did not recognize an impairment charge.

Ferroglobe operates in a cyclical market, and silicon and silicon-based alloy index pricing and foreign import pressure into the U.S. markets impact the future projected cash flows used in our impairment analysis. Recoverable value was estimated based on discounted cash flows. Estimates under the Company's discounted income based approach involve

numerous variables including anticipated sales price and volumes, cost structure, discount rates and long term growth, and therefore could impact fair values in the future. As of December 31, 2022, and 2021 the remaining goodwill for the U.S Silicon Metal and U.S Silicon Alloys cash-generating units is \$29,702 thousand.

Key assumptions used in the determination of recoverable value

In determining the asset recoverability through value in use, management makes estimates, judgments and assumptions on uncertain matters. For each cash-generating units to which goodwill has been allocated, the value in use is determined based on economic assumptions and forecasted operating conditions as follows:

	2022 U.S.	2021 U.S.	2020 U.S.
Weighted average cost of capital (pre-tax)	14.6%	13.2%	10.3%
Long-term growth rate	2.0%	2.3%	2.0%
Normalized tax rate	21.0%	21.0%	21.0%

These assumptions have been used in the impairment test for the two Cash Generating Units

Our approach in determining the recoverable amount utilises a discounted cash flow methodology, which necessarily involves making numerous estimates and assumptions regarding, operating costs, appropriate discount rates and working capital requirements. The key assumptions used for estimating cash flow projections in the Group's impairment testing are those relating to discount rate, revenue, operating cost, operating margin and carrying amount. Carrying amount for the cash-generating units is determined by allocating individual balances to each of the cash-generating units, when a balance split is not possible an allocation key is applied based on the estimated production for the following 5 year period. The key assumptions take account of the business's expectations for the projection period. These expectations consider the macroeconomic environment, industry and market conditions, the CGU's historical performance and any other circumstances particular to the unit, such as business strategy and product mix. In particular in the case of sales prices assumptions the Company has used the latest forward prices published by a reputable industry analyst.

These estimates will likely differ from future actual results of operations and cash flows, and it is possible that these differences could be material. In addition, judgements are applied in determining the level of CGU identified for impairment testing and the criteria used to determine which assets should be aggregated. Changes in our business activities or structure may also result in additional changes to the level of testing in future periods. Further, future events could cause the Group to conclude that impairment indicators exist and that the asset values associated with a given operation have become impaired.

The Company has defined a financial model which considers the revenues, expenditures, cash flows, pre tax payments and capital expenditures on a five year period (2023-2027), and perpetuity beyond this period. The financial projections to determine the net present value of future cash flows are modeled considering the principal variables that determine the historic flows of each group of cash-generating units including prices, volumes, costs, CAPEX and net working capital. The Company has assumed that the average Operating profit margin for the five year period is 23.8 % and a Compound Annual Growth Rate of (11.0) %.

8. Other intangible assets

Changes in the carrying amount of other intangible assets during the years ended December 31 are as follows:

	Development Expenditure US\$'000	Power Supply Agreements US\$'000	Rights of Use US\$'000	Computer Software US\$'000	Other Intangible Assets US\$'000	Accumulated Depreciation (Note 26.3) US\$'000	Impairment (Note 26.5) US\$'000	Total US\$'000
Balance at January 1, 2021	54,874	37,836	17,049	5,249	18,872	(93,042)	(20,082)	20,756
Additions	1,040	—	10	—	139,180	(7,241)	(1,153)	131,836
Disposals	—	—	(3,558)	(72)	(51,796)	563	3,072	(51,791)
Exchange differences	(4,216)	—	(132)	(87)	(540)	3,580	1,236	(159)
Business disposal	—	—	—	—	—	—	—	—
Balance at December 31, 2021	51,698	37,836	13,369	5,090	105,716	(96,140)	(16,927)	100,642
Additions	910	—	23	522	113,159	(725)	—	113,889
Disposals	—	—	—	(20)	(96,869)	20	—	(96,869)
Exchange differences	(2,914)	—	(153)	(62)	(6,102)	2,536	830	(5,865)
Business disposal	—	—	—	—	—	—	—	—
Balance at December 31, 2022	49,694	37,836	13,239	5,530	115,904	(94,309)	(16,097)	111,797

Additions and disposals in other intangible assets in 2022 and 2021 primarily relate to the acquisition, use and expiration of rights held to emit greenhouse gasses by certain Spanish, French, Norwegian and Canadian subsidiaries (see *Note 4.21*).

During 2021 the Company recognized an impairment of \$1,153 thousand in relation to our quartz mine located in Mauritania.

During 2022 and 2021 the company has purchased rights to emit greenhouse gasses amounting \$25,035 thousand and \$44,138 thousand respectively.

As a result of the Business Combination, the Company acquired a power supply agreement which provides favorable below-market power rates to the Alloy, West Virginia facility, which terminates in December 2025.

At December 31, 2022 and 2021, the Company has certain intangible assets related to rights held to emit greenhouse gasses pledged as collateral for debt instruments in Canada (see *Note 18*).

9. Property, plant and equipment

The detail of property, plant and equipment, net of the related accumulated depreciation and impairment in 2022 and 2021 is as follows:

	Land and Buildings US\$'000	Plant and Machinery US\$'000	Other Fixtures, Tools and Furniture US\$'000	Advances and Property, Plant and Equipment in the Course of Construction US\$'000	Mineral Reserves US\$'000	Other Items of Property, Plant and Equipment US\$'000	Other Items of Leased Land and Buildings US\$'000	Other Items of Leased Plant and machinery US\$'000	Accumulated Depreciation (Note 26.3) US\$'000	Impairment (Note 26.5) US\$'000	Total US\$'000
Balance at January 1, 2021	208,025	1,331,585	8,422	124,029	59,325	33,188	17,588	24,446	(995,507)	(191,066)	620,034
Additions	166	6,054	199	33,409	—	—	576	4,113	(90,087)	1,663	(43,907)
Disposals and other	(1,131)	(106,295)	(618)	(9,374)	—	(55)	—	—	73,601	39,972	(3,900)
Transfers from/(to) other accounts	65	21,883	112	(23,621)	—	(20)	—	730	867	(17)	(1)
Exchange differences	(9,911)	(50,603)	(636)	(10,481)	(306)	476	(1,008)	(1,527)	49,048	7,636	(17,312)
Balance at December 31, 2021	197,214	1,202,624	7,479	113,962	59,019	33,589	17,156	27,762	(962,078)	(141,811)	554,914
Additions	3,170	15,329	2,883	59,532	—	131	4,714	4,624	(80,834)	(56,999)	(47,450)
Disposals and other	—	(18,544)	(122)	(595)	—	—	—	—	17,685	(90)	(1,666)
Transfers from/(to) other accounts	505	28,295	(349)	(33,485)	—	1,212	—	—	3,822	—	—
Exchange differences	(7,291)	(48,278)	(731)	(6,021)	(215)	(725)	(625)	(1,028)	42,157	4,273	(18,484)
Transfer to assets and disposal groups classified as held for sale (see Note 30)	(18,108)	(56,571)	(470)	(320)	—	—	—	—	56,297	18,105	(1,067)
Balance at December 31, 2022	175,490	1,122,855	8,690	133,073	58,804	34,207	21,245	31,358	(922,951)	(176,522)	486,247

In order to ascertain whether its assets have become impaired, Ferroglobe compares their carrying amount with their recoverable amount if there are indications that the assets might have become impaired. Where the asset itself does not generate cash flows that are independent from other assets, Ferroglobe estimates the recoverable amount of the cash generating unit to which the asset belongs. Recoverable amount is the higher of fair value less cost of disposal and value in use, which is the present value of the future cash flows that are expected to be derived from continuing use of the asset and from its ultimate disposal at the end of its useful life, discounted at a rate which reflects the time value of money and the risks specific to the business to which the asset belongs.

If the recoverable amount of an asset or segments unit is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount, and an impairment loss is recognized as an expense under “net impairment losses” in the consolidated income statement. The increased carrying amount of an asset due to a reversal of an impairment loss should not exceed the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognized for the asset in prior years. A reversal of an impairment is recognized as “impairment (loss) gain” in the consolidated income statement. The basis for depreciation or amortization is the carrying amount of the assets, deemed to be the acquisition cost less any accumulated impairment losses.

As of December 31, 2022 the Company tested property, plant and equipment for impairment related to our solar-grade silicon metal project based in Puertollano, Spain, as the plant was shutdown at the end of 2022, the recoverable value was determined at fair value and the key assumptions used in the measurement of fair value measurements has been categorized within level “3”. Therefore, OPCO recorded an impairment of \$5,515 thousand in 2022.

During 2022, the Company identified indicators of impairment for some plants within the Manganese and European Silicon Alloys segments (reduction of the spread as inferred from the forward prices and increase in the energy prices). As of December 31, 2022 the Company tested property, plant and equipment for impairment, estimating the recoverable value of the cash-generating units requires significant judgment in developing and applying key underlying assumptions concerning future market and conditions (volumes, sale prices, cost structure and capital expenditure - “capex” and operating margins) for the periods projected, as well as the determination of an appropriate discount rate and terminal value assumptions (including terminal value growth rate) based on management’s business plans. An impairment was recorded according to the analysis performed. Therefore, the plant and machinery for Cee, Boo, Moi Rana and Monzon facilities were fully impaired by \$20,034 thousand, \$11,559 thousand, \$15,749 thousand and \$5,915 thousand respectively.

As of December 31, 2022 the Company tested property, plant and equipment for impairment related to our silicon metal plant in Polokwane, South Africa, which has restarted in October 2022, for which the recoverable value was estimated by determining the value in use for its assets. Therefore, the company recorded an impairment reversal of \$5,017 thousand for the plant in Polokwane, South Africa.

As of December 31, 2022, assets related to Chateau Feuillet facility in France have been transferred to asset held for sale. The asset has been measured at the lower of carrying amount and fair value less costs to sell, and is presented separately as an asset held for sale in the current position of the financial statements. As fair value is lower than the carrying amount, the company recognized an impairment of \$5,994 thousand (see Note 30).

The investments in property plant and equipment in 2022 and 2021 amounted to \$59,532 thousand and \$33,409 thousand, respectively. The investments were in connection with productivity and efficiency improvements. In addition to the impairments indicated in the paragraphs above, the Company recorded at South Africa mines an impairment reversal of \$2,750 thousand in 2022.

As of December 31, 2021 the Company tested property, plant and equipment for impairment related to our solar-grade silicon metal project based in Puertollano, Spain, Château-Feuillet plants in France and our silicon metal plant in Polokwane, South Africa for which the recoverable value was determined at fair value less cost of disposal.

During year ended December 31, 2021 the Company recognized an impairment reversal of \$2,681 thousand in relation to our Polokwane facility in South Africa, an impairment at Château Feuillet facility in Europe \$441 thousand and an impairment related to our quartz mine located in Mauritania amounting \$573 thousand.

Fair value for Polokwane facility as of December 31, 2021 was \$7,130 thousand. As this amount is higher than the carrying amount (\$4,449 thousand), the company recognized an impairment reversal of \$2,681 thousand.

Fair value for Chateau Feuillet facility as of December 31, 2021 was \$7,285 thousand. As this amount is lower than the carrying amount (\$7,726 thousand), the company recognized an impairment of \$441 thousand.

During 2021, as a consequence of the sale of the Niagara facility, which had a net book value of nil (an impairment had been recognized in previous periods amounting to \$34,229) the Company wrote off these amounts

During year ended December 31, 2020 the Company recognized an impairment of \$71,929 thousand in relation to our idled capacity at the Niagara facilities in the United States \$34,270 thousand, at the Polokwane facility in South Africa \$8,677 thousand, at Château Feuillet facility in Europe \$17,941 thousand and an impairment of \$11,041 thousand in relation to our solar-grade silicon metal project in Puertollano, Spain.

At December 31, 2022 and 2021, the Company has property, plant and equipment (\$278,796 thousand in 2022 and \$305,298 thousand in 2021) pledged as security for debt instruments in Canada, France, Norway, Spain and USA (see Note 18).

Commitments

At December 31, 2022 and 2021, the Company has capital expenditure commitments totaling \$16,607 thousand and \$3,834 thousand, respectively, primarily related to improvement works at plants.

10. Financial assets and other receivables

The company's financial assets and their classification under IFRS 9 are as follows:

	Note	Amortized cost US\$'000	2022 classification		Total US\$'000
			Fair value through profit or loss - mandatorily measured US\$'000	Fair value through other comprehensive income - designated US\$'000	
Other financial assets	10.1	13,253	936	—	14,189
Receivables from related parties	24	4,275	—	—	4,275
Trade receivables	10.2	294,491	—	—	294,491
Other receivables	10.2	6,039	—	—	6,039
Cash and cash equivalents		317,935	—	—	317,935

Restricted cash	5,008	—	—	5,008
Total financial assets	641,001	936	—	641,937

2021 classification					
	Note	Amortized cost US\$'000	Fair value through profit or loss - mandatorily measured US\$'000	Fair value through other comprehensive income - designated US\$'000	Total US\$'000
Other financial assets	10.1	3,348	847	—	4,195
Receivables from related parties	24	4,540	—	—	4,540
Trade receivables	10.2	321,929	—	—	321,929
Other receivables	10.2	6,199	—	—	6,199
Cash and cash equivalents		114,391	—	—	114,391
Restricted cash		2,272	—	—	2,272
Total financial assets		452,679	847	—	453,526

Restrictions on the use of group assets

As of year ended December 31, 2022 and 2021, Cash and cash equivalents and restricted cash comprise the following:

	2022 US\$'000	2021 US\$'000
Cash and cash equivalents	317,935	114,391
Non Current restricted cash presented as Cash	2,133	2,272
Current restricted cash presented as Cash	2,875	—
Escrow: Hydro sale	2,133	2,272
NMTC Program	2,875	—
Total	322,943	116,663

As of December 31, 2022, non-current restricted cash comprises cash in relation to the guarantees taken over escrow amounting \$2,133 thousand (\$2,272 thousand in 2021). The escrow was constituted in August 30, 2019, in consideration of previous FerroAtlántica; under agreement terms, the Purchaser and the Seller deposited in a restricted bank account a part of the share purchase price, guaranteeing any compensation to the purchaser for any claim under the contract. On October 30, 2021, both parties agreed the release of an amount of \$3,494 thousand (€3,000 thousand) out of the Escrow funds in order to offset part of the amount that the Company owes to the buyer derived the new tolling agreement.

As of December 31, 2022, current restricted cash comprises cash in relation to the NMTC program. The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. The net grant received by Globe Metallurgical, Inc. from the NMTC program amounts to \$2,875 thousand and it will be invested in CAPEX at the Selma plant throughout fiscal year 2023 as per the investment plan of the group.

The Company also has restrictions for the disposal of cash in the joint ventures with Dow Silicones Corporation. When the Company wants to access excess cash available in the joint ventures, it is necessary to organize a board meeting and approve a dividend payment.

10.1 Other financial assets

As of December 31, 2022, other financial assets comprise the following:

	2022		
	Non-Current US\$'000	Current US\$'000	Total US\$'000
Other financial assets held with third parties:			
Other financial assets at amortised cost	3,344	—	3,344
Other financial assets	9,909	—	9,909
Equity securities	933	3	936
Total	14,186	3	14,189

At December 31, 2021, other financial assets comprise the following:

	2021		
	Non-Current US\$'000	Current US\$'000	Total US\$'000
Other financial assets held with third parties:			
Other financial assets at amortised cost	3,348	—	3,348
Equity securities	743	104	847
Total	4,091	104	4,195

Other financial assets at amortized cost mainly comprises deposits given to French government by Ferropem (\$2,770 thousand in 2022 and \$2,718 thousand in 2021), a Ferroglobe subsidiary, in respect of *effort de construction*. The law in France requires employers and companies to provide a certain size to invest a portion of their budget in the construction or renovation of housing (including through direct investment, providing mortgages, and other). In this case, the mandatory contribution has been made in the form of a loan, to be returned by the French government in twenty years.

The carrying amount of other financial assets at amortised cost is considered to approximate their fair value.

Other financial assets comprise the investment fund of \$9,909 thousand in Selma Globe Investment Fund, LLC as a result of the NMTC Program. The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. Investments made through the NMTC Program are used to finance businesses, breathing new life into neglected, underserved low-income communities. The reactivation of the plant in Selma, Alabama, has been granted with a \$13,230 thousand allocation by the end of fiscal year 2022 under the NMTC Program (See Note 16). This allocation has been subscribed by Globe Metallurgical, Inc. (GMI) as owner of the plant and United Bank as investor and beneficiary of the tax credit resulting from this grant. As a result of the structure implemented for the NMTC, (i) Globe Specialty Metals, Inc. (GSM) has granted a loan to a special purpose vehicle (SPV I) (Leveraged Loan) and (ii) GMI has received two qualify low-income community investment loans (QLICI Loans) from another special purposes vehicle (SPV II) wholly owned by SPV I. Leverage loan is in the amount of \$9,909 thousand, a 26 years term and an interest rate of 4.27%. QLICI Loan A is in the amount of \$9,909 thousand, with a 30 year term and 3.57% interest rate. QLICI Loan B is in the amount of \$3.3 million, with a 30 year term and 3.57% interest rate. Out of this investment-funding structure, GMI receives a federal grant of approximately \$2,875 thousand, out of which, all the expenses related to the investment-funding structure are to be deducted. This subsidy must be invested in in CAPEX in the Selma plant throughout fiscal year 2023 as per the investment plan of the group. After seven years, the NMTC structure set up will be wound up, as a result of which (ii) SPV II will cancel the QLICI B loan, resulting in cancellation of debt income (CODI) for GMI; (ii) GSM will become the owner of SPV I and SPV II. Upon liquidation and dissolution of these two entities, the Leverage loan will void by confusion. QLICI A loan will be capitalized by GSM into GMI.

The loan was granted on December, 2022 therefore its carrying amount equals to its fair value as of December 31, 2022.

Listed equity securities comprises investments held by Globe Argentina Metales in Pampa Energía.

For those assets measured at fair value at the balance sheet date, further information on fair value measurement is provided in Note 29.

10.2 Trade and other receivables

Trade and other receivables comprise the following at December 31:

	2022 US\$'000	2021 US\$'000
Trade receivables	295,678	322,935
Less – allowance for doubtful debts	(1,187)	(1,006)
	294,491	321,929
Tax receivables ⁽¹⁾	36,852	25,244
Government grant receivables	88,092	27,701
Other receivables	6,039	6,199
Total	425,474	381,073

(1) “Tax receivables” is primarily related to VAT receivables, which are recovered either by offsetting against VAT payables or are expected to be refunded by the tax authorities in the relevant jurisdictions.

The trade and other receivables disclosed above are short-term in nature and therefore their carrying amount is considered to approximate their fair value.

The changes in the allowance for doubtful debts during 2022 and 2021 were as follows:

	Allowance US\$'000
Balance at January 1, 2021	1,697
Impairment losses/(reversal) recognized	(580)
Exchange differences	(111)
Balance at December 31, 2021	1,006
Impairment losses/(reversal) recognized	361
Amounts used credited to income	(124)
Exchange differences	(56)
Balance at December 31, 2022	1,187

Factoring of trade receivables

On October 2, 2020, the Company signed a factoring agreement with a financial institution, to anticipate the collection of receivables issued by the Company’s European entities (Grupo FerroAtlántica, S.A. and FerroPem S.A.S).

The main characteristics of the factoring agreement are the following:

- the maximum cash consideration advanced for the financing facility is up to €60,000 thousand;
- over collateralization of 10% of accounts receivable as guarantee provided to the Agent until payment has been satisfied;
- a 0.18% to 0.25% fee charged on the total of invoices and credit notes sold to the factor;
- a financing commission set at Euribor 3-month +1% charged on the drawdowns;

Other conditions are set in relation to credit insurance policy which has been structured in an excess of loss policy where the first €5,000 thousand of bad debt losses are not covered by the insurance provider. The Company has assumed the cash collateralization for the entire excess of loss, as agreed in contractual terms.

On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with an additional Spanish Bank. This program offers the possibility to sell the receivables corresponding to nine customers pre-approved by the bank and its credit insurer. Receivables are pre-financed at 100% of their face value.

The main characteristics of this program are the following:

- the maximum cash consideration advanced for the financing facility is up to €30,000 thousand;
- a service fee set at 0.25% of the receivable face value;

- a cost of financing set at Euribor 12-month +1%;
- a closing fee set at 0.25% of the financing;
- an annual renewal fee set at 0.25% of the financing;
- invoices that remain unpaid by the customers to the factor at due date are subject to a late payment interest charge set at Euribor 12-month +15%, with a grace period during the first 30 days.

During 2022, factoring agreements provided upfront cash consideration of approximately \$895,264 thousand (\$659,083 thousand in 2021). The Company has repaid \$ 918,070 thousand (\$640,168 thousand in 2021), showing at December 31, 2022, an on-balance sheet bank borrowing debt of \$60,976 thousand (2021: \$\$93,090 thousand), see Note 16.

At December 31, 2022, the Company held \$80,112 thousand of accounts receivables recognized in consolidated balance sheet in respect of factoring agreements (\$115,684 thousand at December 31, 2021). Finance costs incurred during the year ended December 31, 2022, amounts \$3,426 thousand (\$3,202 thousand at December 31, 2021) recognized in finance costs in the consolidated income statement.

Judgements relating to the accounting for the factoring agreement

The Company has assessed whether it has transferred substantially all risks and rewards, continuing to be exposed to the variable returns from its involvement in the factoring agreements as it is exposed to credit risk and late-payment risk, so the conclusion is that the derecognition criteria is not met and therefore, the account receivables sold are not derecognized from the balance sheet and an obligation is recognized as bank borrowings for the amount of cash advanced by the Leasing and Factoring Agent and by Bankinter. The amount repayable under the factoring agreements is presented as on-balance sheet factoring and the debt assigned to factoring is showed as bank borrowings. See Note 16.

Government grants receivables

The Company has been awarded a compensation for the indirect CO₂ emissions costs included in the energy bills in France, Spain and Norway.

During the year ended December 31, 2022, the Company recognized \$72,251 thousand of income related to these compensations. The amount was deducted against the related expense in Raw Materials and energy consumption for production (2021: \$31,588 thousand of income). The Company has no unfulfilled conditions in relation to government grants, but certain grants would be repayable if the Company were to substantially curtail production or employment at certain plants.

11. Inventories

Inventories comprise the following at December 31:

	2022	2021
	US\$'000	US\$'000
Finished goods	169,956	118,080
Raw materials in progress and industrial supplies	266,348	110,965
Other inventories	44,257	42,815
Advances to suppliers	19,519	17,937
Total	500,080	289,797

During 2022 the Company recognized an expense of \$29,865 thousand, of which \$17,523 related to finished goods (2021: \$1,095 thousand) and \$12,342 to raw material (nil in 2021) in respect of write-downs of inventory to net realizable value. The Company records expense for the write-down of inventories to Raw Materials and energy consumption for production in the consolidated income statement, see Note 4.8.

As of December 31, 2022 and 2021, inventories in the Company's subsidiaries in the United States, Canada, Norway, France and Spain (\$435,347 thousand in 2022 and \$180,575 thousand in 2021) were pledged forming part of the collateral for debt instruments, see Note 18.

12. Other assets

Other assets comprise the following at December 31:

	2022			2021		
	Non-Current US\$'000	Current US\$'000	Total US\$'000	Non-Current US\$'000	Current US\$'000	Total US\$'000
Guarantees and deposits given	17,492	293	17,785	18,020	299	18,319
Prepayments and accrued income	37	5,925	5,962	27	3,213	3,240
Other assets	689	24,390	25,079	687	4,896	5,583
Total	18,218	30,608	48,826	18,734	8,408	27,142

As of December 31, 2022, the figure in Prepayments and accrued income increased due to prepayments recorded in "Grupo FerroAtlántica S.A.U".

In 2022, a provision of \$18,000 thousand was recognized at Globe Metallurgical Inc. (see Note 15) with respect to civil lawsuits arising out of a 2018 incident at Globe Metallurgical Inc.'s Selma, Alabama, facility in which two employees were injured and one of whom later died. At the time, Globe Metallurgical Inc. also recorded an expected reimbursement from the Company's insurer as other assets for the same amount. In the first quarter of 2023, the Company reached full and final settlements of the lawsuits and all amounts were paid directly by the insurer.

During 2022 and 2021, the amount in Guarantees and deposits is mainly due to a cash deposit made during 2021 with TAC (*Tennessee Valley Authority*) which supplies power to "Core Metals Group Holdings, LLC", the letter of credits related to the insurance company in "Global Specialty Metals, Inc" and deposits linked to factoring agreements.

13. Equity

Share capital

Ferroglobe PLC was incorporated on February 5, 2015 and issued one ordinary share with a face value of \$1.00. The share was issued but uncalled. On October 13, 2015, the Company increased its share capital by £50,000 by issuing 50,000 sterling non-voting redeemable preference shares (the "Non-voting Shares") as well as 14 ordinary shares with a par value of \$1.00. Subsequently on October 13, 2015, the Company consolidated the 15 ordinary shares at a par value of \$1.00 to two ordinary shares with a par value of \$7.50, for a total amount of \$15.00.

On December 23, 2015, the Company acquired all of the issued and outstanding ordinary shares from Grupo Villar Mir, S.A.U., par value €1,000 per share, of Grupo FerroAtlántica, S.A.U. in exchange for 98,078,161 newly-issued Ferroglobe Class A ordinary shares, nominal value \$7.50 per share, making Grupo FerroAtlántica, S.A.U. a wholly-owned subsidiary of the Company. The company subsequently redeemed all Non-voting Shares.

Subsequently on December 23, 2015, Gordon Merger Sub, Inc., a wholly owned subsidiary of the Company, merged with Globe Specialty Metals, Inc., and all outstanding shares of GSM common stock, par value \$0.0001 per share were converted to the right to receive one newly-issued Ferroglobe ordinary share, nominal value \$7.50 per share. The ordinary shares were registered by the Company pursuant to a registration statement on Form F-4, which was declared effective by the SEC on August 11, 2015, and trade on the NASDAQ Global Select Market under the ticker symbol "GSM."

On June 22, 2016 the Company completed a reduction of the share capital and as such the nominal value of each share has been reduced from \$7.50 to \$0.01, with the amount of the capital reduction being credited to a distributable reserve.

On November 18, 2016, Class A Ordinary Shares were converted into ordinary shares of Ferroglobe as a result of the distribution of beneficial interest units in the Ferroglobe Representation and Warranty Insurance Trust to certain Ferroglobe shareholders.

During the years ended December 31, 2019 and December 31, 2020, the Company did not issue new ordinary shares of any class.

Upon the closing of the financing transaction at July 29, 2021, the company issued 8,918,618 new ordinary shares to Rubric Capital Management LP on behalf of certain managed or sub-managed funds and accounts and Grupo Villar Mir, S.A.U for a total issued share capital of \$40 million, and 1,900,000 shares and 7,013,872 shares par value \$0.01 amounting to \$51,522 thousand as equity work fee and bondholder equity stake related to the financing transactions.

The transaction fees incurred in the issuance of the share capital of \$40 million amounting to \$6,647 thousand were accounted for as a deduction from equity.

On October 6, 2021, the Company has entered into an equity distribution agreement (the “Equity Distribution Agreement”) with B. Riley Securities, Inc. and Cantor Fitzgerald & Co. relating to the ordinary shares, par value \$0.01 per share, of Ferroglobe PLC, by which the Company may offer and sell ordinary shares having an aggregate offering price of up to \$100,000,000 from time to time through B. Riley Securities, Inc. and Cantor Fitzgerald & Co. as our sales agents. The company sold 186,053 ordinary shares with net proceeds of \$1.4 million in 2021 (no sales were made in 2022).

At December 31, 2022, there were 188,882,316 ordinary shares in issue with a par value of \$0.01, for a total issued share capital of \$1,962 thousand, (2021: 188,882,316 ordinary shares in issue with a par value of \$0.01, for a total issued share capital of \$1,784 thousand). The Company held 1,448,773 ordinary shares in treasury.

At December 31, 2022, the Company’s largest shareholders are as follows:

Name	Number of Shares Beneficially Owned	Percentage of Outstanding Shares (*)
Grupo Villar Mir, S.A.U.	81,924,822	43.7%
Cooper Creek Partners Management LLC	11,144,337	5.9%

(*) 187,433,543 ordinary shares were outstanding at 31 December 2022, comprising 188,882,316 shares in issue less 1,448,773 shares held in treasury

Valuation adjustments

Valuation adjustments comprise the following at December 31:

	2022 US\$'000	2021 US\$'000
Actuarial gains and losses	12,817	5,525
Deferred Tax Income (See Note 23)	(2,082)	—
Total	10,735	5,525

Changes in actuarial gain and losses are due to remeasurements of the net defined benefit liability, see Note 15.

Capital management

The Company’s primary objective is to maintain a balanced and sustainable capital structure through the industry’s economic cycles, while keeping the cost of capital at competitive levels so as to fund the Company’s growth. The main sources of financing are as follows:

1. cash flow from operations;
2. bank borrowings,
3. debt instruments, including the Reinstated Senior Notes due 2025.
4. factoring and forfaiting of receivables
5. Asset-Based Lending facility

Capital Raising and Extension of the Maturity of the Notes

On March 27, 2021, Ferroglobe and Globe and certain other members of our group entered into the Lock-Up Agreement with the Ad Hoc Group Noteholders, Grupo VM and affiliates of Tyrus Capital that set forth a plan to refinance the Notes and restructure our balance sheet. On July 30, 2021 the company announced the occurrence of the “Transaction Effective Date” under the lock-up agreement dated March 27, 2021 (the “Lock-Up Agreement”) between the Parent and the financial stakeholders. The Transaction Effective Date marked the completion of the financing proposal.

The principal elements of the restructuring, are set forth below:

- Issuance of \$60 million of new senior secured notes
- Issuance of \$40 million in new equity of Ferroglobe
- Extension of the maturity date of the Notes from March 31, 2022 to December 31, 2025 and amendment of certain other terms.

On July 21, 2022, the \$60 million of the new Senior secured Notes maturing on June 30, 2025 were redeemed at 100% of the principal amount thereof plus accrued interest.

The Company manages its capital structure and makes adjustments in light of changes in economic conditions. To maintain or adjust the capital structure, the Company may restructure or issue new borrowings or debt, make dividend payments, return capital to shareholders or issue new shares. Management's review of the Company's capital structure includes monitoring of the leverage ratio.

Dividends

There have not been dividends paid or proposed by the Company during the year ended December 31, 2022 neither during the year ended December 31, 2021.

There were earnings distributed by a Joint Venture participated by a Globe Speciality Metals, Inc subsidiary to non-controlling interests, classified as cash from operating activities, during the years ended December 31, 2022 and 2021.

Non-controlling interests

The changes in non-controlling interests in the consolidated statements of financial position in 2022 and 2021 were as follows:

	Balance US\$'000
Balance at January 1, 2021	114,504
(Loss) Profit for the year	(4,750)
Dividends paid to joint venture partner	(5,880)
Translation differences	166
Other	2,013
Balance at December 31, 2021	106,053
(Loss) Profit for the year	3,514
Dividends paid to joint venture partner	(3,430)
Translation differences	(1,873)
Other	2,487
Balance at December 31, 2022	106,751

The stand-alone statutory information regarding the largest non-controlling interests, in accordance with IFRS 12 Disclosure of Interests in Other Entities, is as follows:

The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. Investments made through the NMTC Program are used to finance businesses, breathing new life into neglected, underserved low-income communities. The reactivation of the plant in Selma, Alabama, has been granted with a \$13.5 million allocation by the end of fiscal year 2022 under the NMTC Program. This allocation has been subscribed by Globe Metallurgical, Inc. (GMI) as owner of the plant and United Bank as investor and beneficiary of the tax credit resulting from this grant. As a result of the structure implemented for the NMTC, (i) Globe Specialty Metals, Inc. (GSM) has granted a loan to a special purpose vehicle (SPV I) (Leveraged Loan) and (ii) GMI has received two qualify low-income community investment loans (QLICI Loans) from another special purposes vehicle (SPV II) wholly owned by SPV I.

The lender to structure this program created the two SPVs described above. The Company has no exposure, risk, commitment, or obligation with these SPVs. The Company neither has any share in the equity of these vehicles (SPV I and SPV II). Accordingly, the Company has concluded that it does not control the SPV I and SPV II and does not include the special purposes vehicles in the Company's consolidation.

WVA Manufacturing, LLC (WVA) was formed on October 28, 2009 as a wholly-owned subsidiary of Globe. On November 5, 2009, Globe sold a 49% membership interest in WVA to Dow Corning Corporation (currently named

“Dow”), an unrelated third party. As part of the sale of the 49% membership interest to Dow, an operating agreement and an output and supply agreement were established. The output and supply agreement states that of the silicon metal produced by WVA, 49% will be sold to Dow and 51% to Globe, which represents each member’s ownership interest, at a price equal to WVA’s actual production cost plus \$100 per metric ton. The agreement will automatically terminate upon the dissolution or liquidation of WVA in accordance with the joint venture agreement between Globe and Dow. As of December 31, 2022 and 2021, the balance of Non-controlling interest related to WVA was \$62,630 thousand and \$61,912 thousand, respectively.

Quebec Silicon Limited Partnership (QSLP), formed under the laws of the Province of Québec on August 20, 2010 is managed by its general partner, Quebec Silicon General Partner Inc., which is 51% property of Globe. QSLP owns and operates the silicon metal operations in Bécancour, Québec. QSLP’s production output is subject to a supply agreement, which sells 51% of the production output to Globe and 49% to Dow, which represents each member’s ownership interest, at a price equal to QSLP’s actual production cost plus 250 Canadian dollars per metric ton. As of December 31, 2022 and 2021, the balance of non-controlling interest related to QSLP was \$39,023 thousand and \$37,682 thousand, respectively.

	2022		2021		2020	
	WVA US\$'000	QSLP US\$'000	WVA US\$'000	QSLP US\$'000	WVA US\$'000	QSLP US\$'000
Statements of Financial Position						
Non-current assets	78,992	64,291	83,176	63,088	99,235	67,806
Current assets	86,847	53,830	73,883	46,186	65,703	37,095
Non-current liabilities	7,108	18,719	8,654	19,005	8,982	18,529
Current liabilities	53,680	21,201	43,577	14,671	33,378	16,320
Income Statements						
Sales	187,854	102,865	165,660	89,446	156,995	70,637
Operating profit	8,306	2,897	(4,871)	2,093	(7,503)	3,113
Profit before taxes	8,155	2,195	(5,062)	1,237	(7,503)	2,898
Net (loss) income	3,075	1,015	(3,362)	613	(2,970)	1,666
Cash Flow Statements						
Cash flows from operating activities	(5,934)	(10,037)	11,981	8,997	28,683	15,387
Cash flows from investing activities	(8,304)	(1,525)	(3,893)	(4,956)	(7,977)	(5,227)
Cash flows from financing activities	—	905	—	—	—	—
Exchange differences on cash and cash equivalents in foreign currencies	—	10	—	31	—	45
Beginning balance of cash and cash equivalents	35,360	16,596	27,272	12,524	6,566	2,319
Ending balance of cash and cash equivalents	21,122	5,949	35,360	16,596	27,272	12,524

14. Earnings (loss) per ordinary share

Basic earnings (loss) per ordinary share are calculated by dividing the consolidated profit (loss) for the year attributable to the Parent by the weighted average number of ordinary shares outstanding during the year, excluding the average number of treasury shares held in the year, if any. Dilutive earnings (loss) per share assumes the exercise of stock options, provided that the effect is dilutive.

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Profit (Loss) for the year from continuing operations	443,828	(115,374)	(244,359)
(Loss) for the year from discontinued operations	—	—	(5,399)
Total Profit (Loss) for the year	443,828	(115,374)	(249,758)
Attributable to the Parent	440,314	(110,624)	(246,339)
Attributable to non-controlling interests	3,514	(4,750)	(3,419)

Earnings per share

	2022	2021	2020
Numerator:			
(Loss) attributable to the Parent (US\$'000)	440,314	(110,624)	(246,339)
Denominator:			
Weighted average basic shares outstanding	187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding	189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US\$)	2.34	(0.63)	(1.46)
Diluted profit (loss) earnings per ordinary share (US\$)	2.32	(0.63)	(1.46)

Numerator:			
(Loss) for the year from continuing operations attributable to the Parent (US\$'000)	440,314	(110,624)	(240,940)
Denominator:			
Weighted average basic shares outstanding	187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding	189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US\$)	2.34	(0.63)	(1.42)
Diluted profit (loss) earnings per ordinary share (US\$)	2.32	(0.63)	(1.42)

Numerator:			
(Loss) profit for the year from discontinued operations (US\$'000)	—	—	(5,399)
Denominator:			
Weighted average basic shares outstanding	187,815,672	176,508,144	169,269,281
Weighted average dilutive shares outstanding	189,625,195	176,508,144	169,269,281
Basic profit (loss) earnings per ordinary share (US\$)	—	—	(0.03)
Diluted (loss) earnings per ordinary share (US\$)	—	—	(0.03)

No potential ordinary shares were excluded from the calculation of diluted earnings (loss) per ordinary share because their effect would be anti-dilutive. Potential ordinary shares of 4,359,436 and of 3,411,974 were excluded from the calculation in 2021 and 2020 respectively for this reason.

15. Provisions

Provisions comprise the following as of December 31:

	2022			2021		
	Non- Current US\$'000	Current US\$'000	Total US\$'000	Non- Current US\$'000	Current US\$'000	Total US\$'000
Provision for pensions	25,546	180	25,726	41,238	180	41,418
Environmental provision	168	1,396	1,564	2,562	1,133	3,695
Provisions for litigation	—	23,142	23,142	—	1,952	1,952
Provisions for third-party liability	5,960	—	5,960	8,905	—	8,905
Provisions for CO2 emissions allowances	7,956	94,800	102,756	3,033	107,213	110,246
Provision for restructuring cost	—	21,539	21,539	—	22,350	22,350
Other provisions	8,040	4,450	12,490	5,220	4,797	10,017
Total	47,670	145,507	193,177	60,958	137,625	198,583

As of December 31, 2022 the restructuring provision corresponds to the restructuring process in Château-Feuillet facility in France amounting \$21,539 thousand (\$21,717 thousand as of December, 2021) and Monzon facility in Spain reversed with a credit to income amounting \$591 thousand as of December 31, 2022.

The changes in the various line items of provisions in 2022 and 2021 were as follows:

	Provision for Pensions US\$'000	Environmental Provision US\$'000	Provisions for Litigation in Progress US\$'000	Provisions for Third Party Liability US\$'000	Provisions for CO2 Emissions Allowances US\$'000	Provisions for Restructuring Cost US\$'000	Other Provisions US\$'000	Total US\$'000
Balance at January 1, 2021	56,586	4,166	1,355	10,759	40,161	2	50,754	163,783
Charges for the year	5,990	28	934	588	97,982	31,838	(12)	137,348
Provisions reversed with a credit to income	(1,419)	(189)	—	—	(7,830)	—	(9,419)	(18,857)
Amounts used	(9,911)	(1)	(233)	(535)	(18,420)	(9,534)	(269)	(38,903)
Provision against equity	(6,847)	—	—	(1,081)	—	—	—	(7,928)
Transfers from/(to) other accounts	—	(33)	—	—	—	44	(28,437)	(28,426)
Exchange differences and others	(2,981)	(276)	(104)	(826)	(1,647)	—	(2,600)	(8,434)
Balance at December 31, 2021	41,418	3,695	1,952	8,905	110,246	22,350	10,017	198,583
Charges for the year	1,405	13	22,134	454	114,185	9,092	7,022	154,305
Provisions reversed with a credit to income	(3,417)	—	(48)	—	(2,435)	(591)	(890)	(7,381)
Amounts used	(1,181)	(345)	(798)	(2,863)	(112,485)	(8,012)	(2,516)	(128,200)
Provision against equity	(9,394)	—	—	—	—	—	—	(9,394)
Transfers from/(to) other accounts	—	(1,510)	—	—	—	—	(666)	(2,176)
Exchange differences and others	(3,105)	(289)	(98)	(536)	(6,755)	(1,300)	(477)	(12,560)
Balance at December 31, 2022	25,726	1,564	23,142	5,960	102,756	21,539	12,490	193,177

The main provisions relating to employee pensions are as follows:

France

These relate to various obligations assumed by FerroPem, SAS with various groups of employees relate to long-service benefits, medical insurance supplements and retirement obligations, all of which are defined unfunded benefit obligations, whose changes in 2022 and 2021 were as follows:

	2022 US\$'000	2021 US\$'000
Obligations at the beginning of year	25,950	34,496
Current service cost	(1,159)	1,082
Borrowing costs	310	212
Actuarial differences	(4,821)	(3,003)
Benefits paid	(1,181)	(995)
Exchange differences	(1,253)	(2,412)
Others	(1,508)	(3,430)
Obligations at the end of year	16,338	25,950

At December 31, 2022 and 2021 the effect of a 1% change in discount rate would have resulted in a change to the provision of approximately \$1,695 thousand and \$3,288 thousand, respectively.

The following table reflects the gross benefit payments that are expected to be paid for the benefit plans for the year ended December 31, 2021:

	2022 US\$'000
2023	1,087
2024	1,279
2025	1,339
2026	1,316
2027	1,349
Years 2028-2032	7,237

The subsidiary recognized provisions in this connection based on an actuarial study performed by an independent expert.

South Africa

Defined benefit plans relate to Retirement medical aid obligations and Retirement benefits. Actuarial valuations are performed periodically by independent third parties and in the actuary's opinion the fund was in a sound financial position. The valuation was based upon the amounts as per the latest valuation report received from third party experts.

Retirement medical aid obligations

The Company provides post-retirement benefits by way of medical aid contributions for employees and dependents.

Retirement benefits

It is the policy of the Company to provide retirement benefits to all its employees and therefore membership of the retirement fund is compulsory. The Company has both defined contribution and defined benefit plans. The pension fund obligation is recognized in current provisions as the Company will contribute the difference to the plan assets within the next 12 months.

In this regard, the changes of this provision in 2022 and 2021 were as follows:

	2022 US\$'000	2021 US\$'000
Obligations at beginning of year	3,779	3,461
Current service cost	34	32
Borrowing costs	411	390
Actuarial differences	(861)	526
Benefits paid	(219)	(232)
Exchange differences	(132)	(398)
	3,012	3,779

At December 31, 2022 and 2021, the effect of a 1% change in the cost of the medical aid would have resulted in a change to the provision of approximately \$352 thousand and \$481 thousand, respectively.

The breakdown, in percentage, of the plan assets are as follows:

	2022	2021
Cash	56.37%	2.85%
Equity	—%	47.21%
Bond	43.63%	17.32%
Property	—%	2.79%
International	—%	28.42%
Others	—%	1.41%
Total	100.00%	100.00%

As of December 31, 2022 and 2021 the Plan assets amounted to \$94 thousand and \$1,706 thousand, respectively. Changes in the fair value of plan assets linked to the defined benefit plans in South Africa were as set forth in the following table:

	2022 US\$'000	2021 US\$'000
Fair value of plan assets at the beginning of the year	1,706	2,204
Interest income on assets	93	172
Benefits paid	(1,619)	(775)
Actuarial differences	(84)	223
Other	(2)	(118)
Fair value of plan assets at the end of the year	94	1,706
Actual return on assets	9	395

Venezuela

Benefit Plan

The company FerroVen has pension obligations to all of its employees who, once reaching retirement age, have accumulated at least 15 years of service to the company and receive a Venezuelan Social Security Institute (IVSS) pension. In addition to the pension paid by the IVSS, 80% of the basic salary accrued when the pension benefit is awarded is guaranteed and paid by means of a lifelong monthly pension.

The most recent of the present value of the defined benefit obligation actuarial valuation was determined as of December 31, 2022 by independent actuaries. The present value of the obligation for defined unfunded benefit cost, the current service cost and past service cost were determined using the projected unit credit method.

In this regards, the changes of this provision in 2022 and 2021 were as follows:

	2022 US\$'000	2021 US\$'000
Obligations at the beginning of year	190	22
Current service cost	66	102
Borrowing costs	748	115
Benefits paid	(24)	(2)
Exchange differences	(578)	(47)
Obligations at the end of year	402	190

The summary of the main actuarial assumptions used to calculate the aforementioned obligations is as follows:

	France		South Africa		Venezuela				
	2022	2021	2022	2021	2022	2021			
Salary increase	1.60%-6.10%	1.60%-6.10%	N/A	N/A	%	180	%	500	%
Discount rate	3.84%	0.75%	8.2-12.8%	10.60-11.60%	%	202.4	%	536	%
Expected inflation rate	2.20%	1.60%	4.0-7.30%	5.80-7.10%	%	200	%	550	%
Mortality	TGH05/TGF05	TGH05/TGF05	SA 85-90 / PA (90)	SA 85-90 / PA (90)		GAM 83		GAM 83	
Retirement age	65	65	63	63		63-64		63-64	

High percentages are driven by hyperinflationary economy in Venezuela.

North America

a. Defined Benefit Retirement and Post-retirement Plans

Globe Metallurgical Inc. ("GMI") sponsored three non-contributory defined benefit pension plans covering certain employees, which were all frozen in 2003. Core Metals sponsored a non-contributory defined benefit pension plan covering certain employees, which was closed to new participants in April 2009. The Plan's liabilities were completely settled as a result of the amendment terminating the plan. There are no remaining participants due to the plan termination effective September 30, 2021. All obligations were satisfied due to the plan termination. The total settlement payment was \$2,784 thousand and resulted in a net income of \$1,027 thousand recognized in 2021.

Quebec Silicon Limited partnership ("QSLP") sponsors a contributory defined benefit pension plan and postretirement benefit plan for certain employees, based on length of service and remuneration. Post-retirement benefits consist of a group insurance plan covering plan members for life insurance, disability, hospital, medical, and dental benefits. The contributory defined benefit pension plan was closed to new participants in December 2013. On December 27, 2013, the Communications, Energy and Paper Workers Union of Canada ("CEP") ratified a new collective bargaining agreement, which resulted in a curtailment pertaining to the closure of the postretirement benefit plan for union employees retiring after January 31, 2016. The Company's funding policy has been to contribute, as necessary, an amount in excess of the minimum requirements in order to achieve the Company's long-term funding targets.

Benefit Obligations and Funded Status – The following provides a reconciliation of the benefit obligations, plan assets and funded status of the North American plans as of December 31, 2022 and 2021:

	2022				2021			
	USA	Canada		Total	USA	Canada		Total
	Pension Plans US\$'000	Pension Plans US\$'000	Post- retirement Plans US\$'000	US\$'000	Pension Plans US\$'000	Pension Plans US\$'000	Post- retirement Plans US\$'000	US\$'000
Benefit obligation	—	18,266	5,497	23,763	—	25,349	8,569	33,918
Fair value of plan assets	—	(17,777)	—	(17,777)	(14)	(22,417)	—	(22,431)
Provision for pensions	—	489	5,497	5,986	(14)	2,932	8,569	11,487

All North American pension and post-retirement plans are underfunded. At December 31, 2022 and 2021, the accumulated benefit obligation was \$18,266 thousand and \$25,349 thousand for the defined pension plan and \$5,497 thousand and \$8,569 thousand for the post-retirement plans, respectively.

The assumptions used to determine benefit obligations as of December 31, 2022 and 2021 for the North American plans are as follows:

	North America – 2022			North America – 2021		
	USA	Canada		USA	Canada	
	Pension Plan	Pension Plan	Postretirement Plan	Pension Plan	Pension Plan	Postretirement Plan
Salary increase	N/A	2.75% - 3.00%	N/A	N/A	2.75% - 3.00%	N/A
Discount rate	N/A	5.25%	5.25%	N/A	3.21%	3.30%
Expected inflation rate	N/A	N/A	N/A	N/A	N/A	N/A
Mortality	N/A	CPM2014-Private Scale CPM-B	CPM2014-Private Scale CPM-B	N/A	CPM2014-Private Scale CPM-B	CPM2014-Private Scale CPM-B
Retirement age	N/A	58-60	58-60	N/A	58-60	58-60

The discount rate used in calculating the present value of our pension plan obligations is developed based on the BPS&M Pension Discount Curve for 2022 and 2021 and the Mercer Proprietary Yield Curve for 2022 and 2021 for QSLP Pension and post-retirement benefit plans and the expected cash flows of the benefit payments.

The Company expects to make discretionary contributions of approximately \$648 thousand to the defined benefit pension and post-retirement plans for the year ending December 31, 2022.

The pension plan exposes the Company to the following risks:

- (i) Investment risk: The defined benefit obligation is calculated using a discount rate. If the return on plan assets is below this rate, a plan deficit occurs.
- (ii) Interest rate risk: Variation in bond rates will affect the value of the defined benefit obligation.
- (iii) Inflation risk: The defined benefit obligation is calculated assuming a certain level of inflation. An actual inflation higher than expected will have the effect of increasing the value of the defined benefit obligation.

The following reflects the gross benefit payments that are expected to be paid in future years for the benefit plans for the year ended December 31:

	Pension Plans US\$'000	Non-pension Postretirement Plans US\$'000
2023	985	180
2024	1,027	186
2025	1,110	207
2026	1,154	227
2027	1,203	247
Years 2027-2031	6,212	1,535

The accumulated non-pension post-retirement benefit obligation has been determined by application of the provisions of the Company's health care and life insurance plans including established maximums, relevant actuarial assumptions and health care cost trend rates projected at 5.0% for 2022 and decreasing to an ultimate rate of 4.0% in fiscal 2040. At December, 31 2022 and 2021, the effect of a 1% increase in health care cost trend rate on the non-pension post-retirement benefit obligation is \$848 thousand and \$1,735 thousand, respectively. At December, 31 2022 and 2021 the effect of a 1% decrease in health care cost trend rate on the non-pension post-retirement benefit obligation is (\$689) thousand and (\$1,327) thousand.

The changes to these obligations in the current year ended December 31, 2022 were as follows:

	2022			Total US\$'000
	USA	Canada		
	Pension Plans US\$'000	Pension Plans US\$'000	Post-retirement Plans US\$'000	
Obligations at the beginning of year	—	25,349	8,569	33,918

Service cost	—	162	301	463
Borrowing cost	—	773	271	1,044
Actuarial differences	—	(5,774)	(3,040)	(8,814)
Benefits paid	—	(870)	(162)	(1,032)
Exchange differences	—	(1,374)	(442)	(1,816)
Expenses	—	—	—	—
Plan settlement	—	—	—	—
Obligations at the end of year	—	18,266	5,497	23,763

The plan assets of the defined benefit and retirement and post-retirement plans in North America are comprised of assets that have quoted market prices in an active market. The breakdown as of December 31, 2022 and 2021 of the assets by class are:

	2022	2021
Cash	—%	—%
Equity Mutual Funds	31%	31%
Fixed Income Securities	14%	14%
Assets held by insurance company	55%	55%
Total	100%	100%

For the year ended December 31, 2022, the changes in plan assets were as follows:

	2022		
	USA	Canada	
	Pension Plans US\$'000	Pension Plans US\$'000	Total US\$'000
Fair value of plan assets at the beginning of the year	—	22,417	22,417
Interest income on assets		690	690
Benefits paid		(870)	(870)
Actuarial return on plan assets		(3,496)	(3,496)
Exchange differences		(1,269)	(1,269)
Other		305	305
Plan Settlement		—	—
Fair value of plan assets at the end of the year	—	17,777	17,777

b. Other Benefit Plans

The Company administers healthcare benefits for certain retired employees through a separate welfare plan requiring reimbursement from the retirees.

Environmental provision

Environmental provisions related to \$168 thousand of non-current environmental rehabilitation obligations as of December 31, 2022 (2021: \$2,562 thousand) and \$1,396 thousand of current environmental rehabilitation obligations as of December 31, 2022 (2021: \$1,133 thousand). A significant part of these provisions is related to residues disposal, such as the remediation costs required to comply with government regulations.

Provisions for litigation

Certain employees of FerroPem, SAS, then known as Pechiney Electrometallurgie, S.A., may have been exposed to asbestos at its plants in France in the decades prior to FerroAtlántica's purchase of that business in December 2004. The Company has recognized a provision of \$955 thousand during the year ended December 31, 2022 as part of the current portion of Provisions for litigation (2021: \$1,143 thousand). See Note 25 for further information.

The timing and amounts potential liabilities arising from such exposures is uncertain. The provision reflects the Company's best estimate of the expenditure required to meet resulting obligations.

In 2022, a provision of \$18,000 thousand was recognized at Globe Metallurgical Inc. with respect to civil lawsuits arising out of a 2018 incident at Globe Metallurgical Inc.'s Selma, Alabama, facility in which two employees were injured and one of whom later died. At the time, Globe Metallurgical Inc. also recorded an expected reimbursement from the Company's insurer as other assets for the same amount (see Note 12). In the first quarter of 2023, the Company reached full and final settlements of the lawsuits and all amounts were paid directly by the insurer.

Provisions for third-party liability

Provisions for third-party liability presented as non-current obligations \$5,960 thousand relate to health costs for retired employees (2021: \$8,905 thousand) in the Company's subsidiary, FerroPem, SAS.

The following table reflects the gross benefit payments that are expected to be paid for the benefit plans for the year ended December 31, 2022:

	2022 US\$'000
2023	-
2024	529
2025	270
2026	275
2027	282
Years 2028-2032	1458

The recognized provisions are based on an actuarial study performed by an independent expert.

Other provisions

Included in other provisions are current obligations arising from past actions that involve a probable outflow of resources that can be reliably estimated. Other provisions include taxes of \$1,998 thousand (2021: \$2,506 thousand) and \$7,551 thousand are related to the accrued estimated costs of reclaiming the land after it has been mined for gravel or coal (\$6,422 thousand as of December 31, 2021).

16. Bank borrowings

Bank borrowings comprise the following at December 31:

	2022			Total US\$'000
	Limit US\$'000	Non-Current Amount US\$'000	Current Amount US\$'000	
Borrowings carried at amortised cost:				
Credit facilities	100,000	—	—	—
Borrowings from receivable factoring facility	95,994	—	60,976	60,976
Other loans	—	15,774	1,083	16,857
Total		15,774	62,059	77,833
	2021			Total US\$'000
	Limit US\$'000	Non-Current Amount US\$'000	Current Amount US\$'000	
Borrowings carried at amortised cost:				
Credit facilities	—	—	—	—
Borrowings from receivable factoring facility	67,956	—	93,090	93,090
Other loans	—	3,670	2,207	5,877
Total		3,670	95,297	98,967

Credit facilities

On October, 11, 2019, Ferroglobe subsidiaries Globe Specialty Metals, Inc., and QSIP Canada ULC, as borrowers, entered into a Credit and Security Agreement for a new \$100 million north American asset-based revolving credit facility (the "ABL Revolver"), with PNC Bank, N.A., as lender. On March 16, 2021, the Company repaid in its entirety the remaining balance at the date for an amount equal to \$39,476 thousand, cancelling its obligations derived from the contract.

On June 30, 2022, The Company closed a new, five-year \$100 million North American asset-based revolving credit facility (the "ABL Revolver"), involving Ferroglobe's subsidiary, Globe Specialty Metals, Inc. ("Globe"), and its wholly owned North American subsidiaries, as borrowers, and Bank of Montreal ("BMO"), as lender and agent.

At closing, there was no drawing under the ABL Revolver. Going forward, potential drawings under the ABL Revolver will be used for general corporate purposes.

The ABL Revolver is subject to a borrowing base comprising North American inventory and accounts receivable of Globe (and certain of its subsidiaries) and bears interest of SOFR plus a spread of 150-175 basis points depending on the level of utilization.

Under the ABL credit agreement, the borrowers commit to respect usual affirmative covenants, among others communicating any default or event of default, a change of control, the creation of acquisition of subsidiaries, a casualty or damage to any material used as a collateral, maintenance of the insurance, the compliance with ERISA and the Canadian Pension Laws, the compliance with environmental laws. The borrowers commit not to create or incur any indebtedness, capital leases in excess of a \$7.5m, create liens, merge, dissolve, divide any borrowers, change the nature of the business, pay dividends, repay indebtedness for the account of holder of Equity Interests of any Loan Party or its affiliates, maintain a financial covenant consolidated fixed charge coverage ratio to be less than 1.00 to 1.00.

Borrowings from receivable factoring facility

On October 2, 2020, the Company signed a factoring agreement with a financial institution, to anticipate the collection of receivables issued by the Company's European entities (See *Note 10*).

The main characteristics of the agreement are the following:

- the maximum cash consideration advanced for the financing facility is up to €60,000 thousand;
- over collateralization of 10% of accounts receivable as guarantee provided to the Agent until payment has been satisfied;
- a 0.18% to 0.25% fee charged on the total of invoices and credit notes sold to the factor;
- a financing commission set at Euribor 3-month +1% charged on the drawdowns;

Other conditions are set in relation to credit insurance policy which has been structured in an excess of loss policy where the first EUR 5,000 thousand of bad debt losses are not covered by the insurance provider. The Company has assumed the cash collateralization for the entire excess of loss, as agreed in contractual terms.

On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with an additional Spanish Bank. This program offers the possibility to sell the receivables corresponding to nine customers pre-approved by the bank and its credit insurer. Receivables are pre-financed at 100% of their face value.

The main characteristics of this program are the following:

- the maximum cash consideration advanced for the financing facility is up to €30,000 thousand;
- a service fee set at 0.25% of the receivable face value;
- a cost of financing set at Euribor 12-month +1%;
- a closing fee set at 0.25% of the financing;
- an annual renewal fee set at 0.25% of the financing;
- invoices that remain unpaid by the customers to the factor at due date are subject to a late payment interest charge set at Euribor 12-month +15%, with a grace period during the first 30 days.

Judgements relating to the accounting for the factoring agreement

The Company has assessed whether it has transferred substantially all risks and rewards, continuing to be exposed to the variable returns from its involvement in the factoring agreement as it is exposed to credit risk, so the conclusion is that the derecognition criteria is not met and therefore, the account receivables sold are not derecognized from the balance sheet and an obligation is recognized as bank borrowings for the amount of cash advanced.

The borrowings from receivable factoring facility disclosed above are short-term in nature and therefore their carrying amount is considered to approximate their fair value.

Other Loans

Include loans held by the Company to finance their current activities in France and in the United States. The loan related to France was signed in July 2020 for an amount of \$5,277 thousand. The balance as of December 31, 2022 is \$2,544 thousand (\$3,670 thousand as of December 31, 2021). The loan is zero interest rate, guaranteed by French government, and the initial period is one year duration, with repayment of up to five years. The fair value of this loan as of December 31, 2022, based on discounted cash flows at a market interest rate (Level 2), amounts to \$2,959 thousand.

The loan related to the United States relates to the NMTC program, which has been signed in December by Globe Metallurgical, Inc, as owner of the Selma plant, for an amount of \$13.230 thousand. The New Markets Tax Credit Program (NMTC Program) helps economically distressed communities attract private capital by providing investors with a federal tax credit. Investments made through the NMTC Program are used to finance businesses, breathing new life into neglected, underserved low-income communities. The reactivation of the plant in Selma, Alabama, has been granted with a \$13,230 thousand allocation by the end of fiscal year 2022 under the NMTC Program. This allocation has been subscribed by Globe Metallurgical, Inc. (GMI) as owner of the plant and United Bank as investor and beneficiary of the tax credit resulting from this grant. As a result of the structure implemented for the NMTC, (i) Globe Specialty Metals, Inc. (GSM) has granted a loan to a special purpose vehicle (SPV I) (Leveraged Loan) and (ii) GMI has received two qualify low-income community investment loans (QLICI Loans) from another special purposes vehicle (SPV II) wholly owned by SPV I. Leverage loan is in the amount of \$9,909 thousand, a 26 years term and an interest rate of 4.27% (See *Note 10*). QLICI Loan A is in the amount of \$9,909 thousand, with a 30 years term and 3.57% interest rate. QLICI Loan B is in the amount of \$3.3 million, with a 30 years term and 3.57% interest rate. Out of this investment-funding structure, GMI receives a federal grant of approximately \$2,875 thousand, out of which, all the expenses related to the investment-funding structure are to be deducted. This subsidy must be invested in in CAPEX in the Selma plant throughout fiscal year 2023 as per the investment plan of the group. After seven years, the NMTC structure set up will be wound up, as a result of which (ii) SPV II will cancel the QLICI B loan, resulting in cancellation of debt income (CODI) for GMI; (ii) GSM will become the owner of SPV I and SPV II. Upon liquidation and dissolution of these two entities, the Leverage loan will void by confusion. QLICI A loan will be capitalized by GSM into GMI. The loan was granted on December, 2022 therefore its carrying amount equals to its fair value as of December 31, 2022.

Since December 2019, the Company entered into a forfaiting program where some of the Company's French and Spanish entities may assign their rights to receive payments under the Contracts with the customer "ArcelorMittal Sourcing s.c.a." in accordance with a forfaiting scheme.

Foreign currency exposure of bank borrowings

The breakdown by currency of bank borrowings at December 31, is as follows:

	2022		Total US\$'000
	Non-Current Principal Amount US\$'000	Current Principal Amount US\$'000	
Borrowings in US Dollars	13,230	170	13,400
Borrowings in Euros	2,544	61,889	64,433
Total	15,774	62,059	77,833

	2021		Total US\$'000
	Non-Current Principal Amount US\$'000	Current Principal Amount US\$'000	
Borrowings in US Dollars	—	1,245	1,245
Borrowings in other currencies	3,670	94,052	97,722
Total	3,670	95,297	98,967

Contractual maturity of non-current bank borrowings

The contractual maturity of bank borrowings at December 31, 2022, was as follows:

	2022			Total US\$'000
	2023 US\$'000	2026 US\$'000	2029 US\$'000	
Borrowings from supplier factoring facility	60,976	—	—	60,976
Other loans	1,083	2,544	13,230	16,857
Total	62,059	2,544	13,230	77,833

17. Leases

Lease obligations

Lease obligations as at December 31 are as follows:

	2022			2021		
	Non-Current US\$'000	Current US\$'000	Total US\$'000	Non-Current US\$'000	Current US\$'000	Total US\$'000
Other leases	12,942	8,929	21,871	9,968	8,390	18,358
Total	12,942	8,929	21,871	9,968	8,390	18,358

As of December 31, 2022 and 2021 Ferroglobe holds short-term leases and low-value leases for which it has elected to recognize right of use assets and lease liabilities. Each lease is reflected in the statement of financial position as a right of use asset and a lease liability.

As of December 31, 2022 and 2021 Ferroglobe has not recorded any expense relating to variable lease payments.

As of December 31, 2022 and 2021 the company has not identified any indicator for impairment in relation to the right-of-use assets.

The detail, by maturity, of the non-current payment obligations under leases as of December 31, 2022 is as follows:

	2024 US\$'000	2025 US\$'000	2026 US\$'000	2027 US\$'000	2028 and after US\$'000	Total US\$'000
Other leases	4,420	2,930	1,739	1,506	3,643	14,238
Total	4,420	2,930	1,739	1,506	3,643	14,238

IFRS 16 has had the following effect on components of the consolidated financial statements:

	2022 US\$'000	2021 US\$'000
Balance at January 1,	(18,358)	(22,536)
Additions	(14,979)	(7,761)
Disposals and other	713	517
Interest	(1,587)	(1,100)
Lease payments	11,590	11,285
Exchange differences	750	1,237
Balance at December 31,	(21,871)	(18,358)

Lease liabilities were discounted at the average incremental borrowing rate of 5.3%.

Leases are presented as follows in the Statement of financial position:

	2022 US\$'000	2021 US\$'000
Non-current assets		
Leased land and buildings	21,245	17,156
Leased plant and machinery	31,358	27,762
Accumulated depreciation	(34,622)	(29,855)

Non-current liabilities		
Lease liabilities	(12,942)	(9,968)
Current liabilities		
Lease liabilities	(8,929)	(8,390)

Leases are presented as follows in the Consolidated income statement:

	2022 US\$'000	2021 US\$'000
Depreciation and amortization charges, operating allowances and write-downs		
Depreciation of right of use assets	4,767	7,357
Finance costs		
Interest expense on lease liabilities	1,587	1,100
Exchange differences		
Currency translation losses on lease liabilities	750	1,237
Currency translation gains on right of use assets	(812)	(1,838)

Leases are presented as follows in the Statement of cash flows:

	2022 US\$'000	2021 US\$'000
Payments for:		
Principal	10,003	10,185
Interest	1,587	1,100

18. Debt instruments

Debt instruments comprise the following at December 31:

	2022 US\$'000	2021 US\$'000
Notes carried at amortised cost (financial liability)		
Secured Super Senior Notes	—	60,000
Secured Reinstated Senior Notes	349,704	351,003
Unsecured Stub Notes	—	4,942
Unamortised issuance costs	—	(6,064)
Accrued coupon interest	13,569	30,416
Notes carried at amortised cost (financial asset)		
Secured Reinstated Senior Notes	19,048	—
Accrued coupon interest	783	—
Total net debt instruments	343,442	440,297
Amount due for settlement within 12 months	12,787	35,359
Amount due for settlement after 12 months	330,655	404,938
Total	343,442	440,297

On February 15, 2017, Ferroglobe and Globe (together, the “Issuers”) co-issued \$350,000 thousand aggregate principal amount of 9.375% senior unsecured notes due March 1, 2022 (the “Notes”). The proceeds were used primarily to repay existing indebtedness, including borrowings, certain credit facilities and other loans. Interest on the Notes is payable semi-annually on March 1 and September 1 of each year, commencing on September 1, 2017.

On March 27, 2021, Ferroglobe and Globe and certain other members of our group entered into the Lock-Up Agreement with the Ad Hoc Group Noteholders, Grupo VM and affiliates of Tyrus Capital that set forth a plan to implement a debt restructuring plan.

On July 30, 2021 the company announced the occurrence of the “Transaction Effective Date” under the lock-up agreement dated March 27, 2021 (the “Lock-Up Agreement”) between the Parent and the financial stakeholders. The Transaction Effective Date marks the completion of the financing process.

As part of the transaction:

- The Company completed the exchange of 98.588% of the 9¾% Senior Notes due 2022 (the “Stub Notes”) issued by the Ferroglobe and Globe for a total consideration per \$1,000 principal amount of Old Notes comprising (i) \$1,000 aggregate principal amount of new 9¾% senior secured notes due 2025 issued by Ferroglobe Finance Company, PLC and Globe (“the Issuers”) (the “Reinstated Senior Notes”) plus (ii) a fee amounting to \$51,611 thousand. Notes not exchanged (the “Stub Notes”) were repaid on March 1, 2022.
- Ferroglobe Finance Company, PLC (a new, subsidiary of the Company) issued \$60 million in aggregate proceeds of new 9% senior secured notes due 2025 (the “Super Senior Notes”).

At the completion of the comprehensive refinancing, we recognized a charge of \$90.8 million. This related to all the advisory fees and expenses, including equity granted to the noteholders, incurred during the refinancing of the prior 9.375% Senior Notes due 2022, which were deemed to be extinguished at closing and replaced with new 9.375% million Senior Notes due 2025.

For accounting purposes the refinancing of the Senior Notes was considered a debt extinguishment. As a consequence:

- (i) We recognized a finance expense amounting to \$31.7 million related to the advisory fees incurred in the exchange of the notes,
- (ii) Similarly to the transaction fees, the shares issued to the bondholders and the work fee were recognized as a one-off expense, amounting \$51.6 million at market value.
- (iii) In the case of an extinguishment, any outstanding upfront fees that had been capitalized at the issuance of the original notes needs to be recycled through profit and loss, this amounted \$1 million. Additionally, as a result of the refinancing, the gross carrying amount of the amortized cost of the Reinstated Notes was adjusted to reflect actual and revised estimated contractual cash flows. The gross carrying amount of the Reinstated Notes was recalculated as the present value of the estimated future contractual cash flows that are discounted at the effective interest rate of 9.096%. The adjustment amounted to \$6,462 and it was recognized as an expense in the income statement. After the exchange the Senior notes were accounted under the amortized cost method.

On June, 2022 Globe repurchased \$19.05 million of the Reinstated Senior Notes and the corresponding accrued interest coupon amounting to \$641 thousand as of the purchase date. The fair value of the Notes at the purchase date was \$19.12 million and the purchase price was \$1.01 per bond. Since the Company has a legally enforceable right to offset the financial liability and the financial asset, and has the intention to settle these financial instruments on a net basis, the Company has elected to offset these financial instruments and presents the net amount on the balance sheet.

On July 21, 2022, the Super Senior Notes maturing on June 30, 2025 were redeemed at 100% of the principal amount thereof plus accrued interest. The remaining unamortised issuance cost amounting to \$6 million have been recognized as a finance expense.

The fair value of the Reinstated Senior Notes maturing on December 31, 2025, determined by reference to the closing market price on the last trading day of the year (Level 1), was \$349,609 thousand.

Super Senior Notes

On May 17, 2021, Ferroglobe Finance Company, PLC (a new, subsidiary of the Company, “The UK issuer”) issued a tranche of the Super Senior Notes, comprising an initial \$40 million of an aggregate of \$60 million 9.0% senior secured notes due 2025. Additional Super Senior Notes were issued on July 29, 2021 such that a total of \$60 million in aggregate principal amount was outstanding on such date.

The Super Senior Notes are governed by an indenture (the “Super Senior Notes Indenture”) entered into by, among others, the UK Issuer, GLAS Trustees Limited, as trustee, Global Loan Agency Services Limited, as paying agent, GLAS Trust Corporation Limited, as security agent, and the guarantors named therein (the “Super Senior Notes Guarantors”). The Super Senior Notes mature on June 30, 2025 and are secured by certain share pledges, bank account pledges, intercompany receivables pledges, inventory pledges and security over certain mine concessions, real property, leases and other assets.

The Super Senior Notes, and the guarantees thereof, are general secured, senior obligations of the UK Issuer and the Super Senior Notes Guarantors, as applicable, and rank senior in right of payment to any and all of the existing and future indebtedness of the UK Issuer and the Super Senior Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Super Senior Notes and such guarantees, as applicable.

The Super Senior Notes Indenture require us to offer to repurchase all or any part of each holder's Super Senior Notes upon the occurrence of a change of control, as defined in the Super Senior Notes Indenture, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase.

The Super Senior Notes Indenture restricts, among other things, the ability of Ferroglobe and its restricted subsidiaries to:

- o borrow or guarantee additional indebtedness;
- o pay dividends, repurchase shares and make distributions of certain other payments;
- o make certain investments;
- o create certain liens;
- o merge or consolidate with other entities;
- o enter into certain transactions with affiliates;
- o sell, lease or transfer certain assets, including shares of any restricted subsidiary of Ferroglobe; and
- o guarantee certain types of other indebtedness of Ferroglobe and its restricted subsidiaries without also guaranteeing the Super Senior Notes.

On July 21, 2022, the Super Senior Notes maturing on June 30, 2025 were redeemed at 100% of the principal amount thereof plus accrued interest.

Reinstated Senior Notes

Pursuant to the Exchange Offer, Ferroglobe PLC, the UK Issuer and Globe offered to eligible holders of the Old Notes the opportunity to exchange any and all of the Old Notes for new 9¾% senior secured notes due 2025 issued by the UK Issuer and Globe.

The Reinstated Notes are governed by an indenture (the "Reinstated Notes Indenture") entered into by, among others, Ferroglobe Finance Company PLC and Globe, as issuers, GLAS Trustees Limited, as trustee, Global Loan Agency Services Limited, as paying agent, GLAS Trust Corporation Limited, as security agent, and the guarantors named therein. The Reinstated Notes are guaranteed on a senior basis by Ferroglobe and each subsidiary of Ferroglobe that guarantees the UK Issuer's obligations under the Super Senior Notes (other than Globe) (the "Reinstated Notes Guarantors"). The Reinstated Notes mature on December 31, 2025 and are secured by the same collateral that secures the Super Senior Notes.

The Reinstated Notes, and the guarantees thereof, are general secured, senior obligations of Ferroglobe Finance Company PLC and Globe and the Reinstated Notes Guarantors, as applicable, and will rank senior in right of payment to any and all of the existing and future indebtedness of Ferroglobe, Globe and the Reinstated Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Reinstated Notes and such guarantees, as applicable.

The Reinstated Notes Indenture require us to offer to repurchase all or any part of each holder's Reinstated Notes upon the occurrence of a change of control, as defined in the Reinstated Notes Indenture, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase.

The Reinstated Notes Indenture restricts, among other things, the ability of Ferroglobe and its restricted subsidiaries to:

- o borrow or guarantee additional indebtedness;
- o pay dividends, repurchase shares and make distributions of certain other payments;
- o make certain investments;
- o create certain liens;
- o merge or consolidate with other entities;
- o enter into certain transactions with affiliates;
- o sell, lease or transfer certain assets, including shares of any restricted subsidiary of Ferroglobe; and
- o guarantee certain types of other indebtedness of Ferroglobe and its restricted subsidiaries without also guaranteeing the Reinstated Notes.

Compared to the Old Notes Indenture (prior to certain amendments on July 29, 2021) the Reinstated Notes Indenture have generally more stringent restrictive covenants. Some of these differences include, among others, the following:

- o the elimination of baskets or a reduction of basket sizes in the debt covenant, restricted payment covenant, permitted investments,
- o permitted liens and asset disposition;
- o the addition of a net leverage test in the debt covenant and reduced flexibility in financial calculations;
- o requirement to apply certain excess proceeds to repay debt in accordance with the applicable intercreditor agreement;
- o lower event of default thresholds; and
- o a 90% guarantor coverage test.

Stub Notes

The Stub Notes are senior unsecured obligations of the Issuers and are guaranteed on a senior basis by certain subsidiaries of Ferroglobe. The Notes are listed on the Irish Stock Exchange. As of December 31, 2021 \$4.9 million in aggregate principal amount of the Old Notes was outstanding. This balance was settled on March 1, 2022.

The Old Notes are governed by the Old Notes Indenture entered into by, among others, Ferroglobe and Globe, as issuers, Wilmington Trust, National Association, as trustee, registrar and paying agent, and the guarantors named therein (the “Old Notes Guarantors”).

The Old Notes and the guarantees thereof are general unsecured, senior obligations of Ferroglobe and Globe and the Old Notes Guarantors, as applicable, and rank senior in right of payment to any and all of the existing and future indebtedness of Ferroglobe, Globe and the Old Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Old Notes and such guarantees, as applicable.

Ferroglobe and Globe may redeem all or, from time to time, part of the Old Notes at a redemption price of 100% of the principal amount of the Old Notes being redeemed plus accrued and unpaid interest and additional amounts, if any, to, but not including, the applicable redemption date.

19. Other financial liabilities

Other financial liabilities comprise the following at December 31:

	2022			2021		
	Non-Current US\$'000	Current US\$'000	Total US\$'000	Non-Current US\$'000	Current US\$'000	Total US\$'000
Financial loans from government agencies	38,279	60,382	98,661	4,549	62,464	67,013
Total	38,279	60,382	98,661	4,549	62,464	67,013

Financial loans from government agencies

On September 8, 2016, FerroAtlántica, S.A.U (“FAU”), as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the “Ministry”), as lender, entered into a loan agreement under which the Ministry made available to the borrower a loan in aggregate principal amount of €44,999 thousand and €26,909 thousand in connection with industrial development projects relating silicon purification project. FAU transferred the loan to OPCO before its sale. The loan is contractually due to be repaid in seven installments over a 10-year period with the first three years as a grace period. Interest on outstanding amounts under the loan accrues at an annual rate of 3.55%. Default interests are calculated at an annual rate of 3.75%. As of December 31, 2022, the amortized cost of the loan was €54,989 thousand (equivalent to \$58,651 thousand) (2021: €54,578 thousand and \$61,815 thousand). In November 2018, FAU agreed to transfer to OpCo certain assets which had been acquired with the proceeds of the REINDUS Loan and used exclusively by OpCo in connection with the joint venture in consideration of OPCO assuming liability for the REINDUS Loan. Reindus loan fair value as of December 31, 2022 and 2021, based on discounted cash flows at a market interest rate (Level 2), amounts to \$48,066 thousand and \$44,200 thousand respectively.

The agreement governing the loan contain the following limitations on the use of the proceeds of the outstanding loan: (1) the investment of the proceeds must occur between January 1, 2016 and February 24, 2019; (2) the allocation of the proceeds must adhere to certain approved budget categories; (3) if the final investment cost is lower than the budgeted amount, the borrower must reimburse the Ministry proportionally; and (4) the borrower must comply with certain statutory restrictions regarding related party transactions and the procurement of goods and services. On May 24, 2019, a report on uses of the loan was presented to the Ministry. On January 26, 2021, the Company received a

decision from the Administration under which it was agreed to extend the grace period and the term of loan, and it will be completed by 2030.

In January 25, 2022, the Ministry opened a procedure to decide about the potential reimbursement of the loan. The company presented its allegations on February 15, 2022. Based on those allegations, in January 19, 2023, a new resolution was signed by the Ministry terminating the total reimbursement procedure initiated in January 2022. Once that procedure was definitively closed, the company decided to proceed with the foreseen partial early repayment of €16.3 million in February 10, 2023.

In March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the “Beneficiaries”) and the Sociedad Estatal de Participaciones Industriales (“SEPI”), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic.

The €34.5M was funded using a dual-tranche loan, with €17.25M maturing in February 2025 and €17.25M maturing in June 2025. €16.9M of the loan carries a fixed interest rate of 2% per annum, and interest on the remaining €17.6M is calculated as IBOR plus a spread of 2.5% in the first year, 3.5% in the second and third years and 5.0% in the fourth year, plus an additional 1.0% payable if the result before taxes of the Beneficiaries is positive. The loans are secured by corporate joint guarantees from Ferroglobe, Ferroglobe Holding Company and Ferroglobe Finance Company and certain share pledges, bank account pledges, intercompany receivables pledges, inventory pledges and security over certain real property, and other assets from Grupo FerroAtlántica and certain of its subsidiaries. These loans are granted at rates that are considered to be below-market rates. The company has calculated the fair value of the loans liability, based on discounted cash flows at a market interest rate (Level 2), resulting in €30,693 thousand (\$34,149 thousand) as of the grant date. The difference between the fair value and the proceeds received, amounting to €3,807 thousand (\$4,236 thousand), was recorded as a government grant. As of December 31, 2022, the amortized cost of the SEPI loans was \$34,675 thousand.

SEPI loan fair value as of December 31, 2022 based on discounted cash flows at a market interest rate (Level 2), amounts to \$48,066 thousand.

Until the loans have been fully repaid, the Beneficiaries are subject to several restrictions, including the following prohibited payments: (1) payment of dividends; (2) payment of management fee; (3) repayment of intra-group loans; (4) payment of intercompany net commercial balances as of June 30, 2021 (denominated “legacy”), with the exception of \$20M of those balances. (Intercompany commercial balances generated after Jun-21 are permitted); and (5) payment of interest on intercompany loans corresponding to the years 2021 and 2022.

If GFAT fails to make the payments to which it is obliged, FASEE shall have the option (but never the obligation) to convert all or part of the Participating Loan into share capital of GFAT.

The loan contains a change of control clause stating that it will be considered change of control and therefore will suppose an early repayment event of the loan: with respect to GFAT, (a) if Ferroglobe Plc ceases to hold, directly or indirectly, an interest of at least 51% of the voting share capital or, (b) if Grupo Villar Mir, S.A.U. ceases to hold a stake of at least 35% of the voting share capital of Ferroglobe Plc, or loses the rights to which it is entitled as holder of such stake or more by virtue of the shareholders' agreement of Ferroglobe Plc or (c) if GFAT ceases to be the holder, directly or indirectly, of hundred percent (100%) shareholding in Grupo FerroAtlántica de Servicios.

Finally, the loan contains a cross-default clause meaning that (A) If any of GFAT or GFAT de Servicios: (a) defaults on any payment obligation arising from Indebtedness contracted with any other entity for amounts exceeding, during a fiscal year, €2,500,000; or (b) defaults on due and payable payment obligations of a commercial (non-financial) nature assumed with third parties for an individual or cumulative amount exceeding €2,500,000 unless such defaults are below the average of the customary commercial defaults that the Beneficiaries or Guarantors have had between fiscal years 2016 to 2019 or (B) If any creditor that has granted Indebtedness to GFAT or GFAT de Servicios for an amount equal to or greater than €5,000,000, is entitled to declare it liquid, due and payable before its ordinary maturity date upon a default of its obligations by GFAT or GFAT de Servicios.

The remaining non-current and current balances are related to loans granted mainly by Canadian and Spanish government agencies.

20. Trade and other payables

Trade and other payables comprise the following at December 31:

	2022 US\$'000	2021 US\$'000
Payable to suppliers	219,020	200,999
Trade notes and bills payable	646	5,001
Total	219,666	206,000

21. Other Obligations

Other obligations comprise the following at December 31:

	2022			2021		
	Non-Current US\$'000	Current US\$'000	Total US\$'000	Non-Current US\$'000	Current US\$'000	Total US\$'000
Payable to non-current asset suppliers	183	4,149	4,332	135	2,677	2,812
Guarantees and deposits	12	235	247	14	4,554	4,568
Contingent consideration	3,893	1,945	5,838	13,504	13,023	26,527
Tolling agreement liability	33,414	3,251	36,665	24,429	2,589	27,018
Total	37,502	9,580	47,082	38,082	22,843	60,925

In 2021 we disaggregated “Other liabilities” into an additional line to the balance sheet “Other obligations” to separately present certain contractual obligations whose nature and function differs from other items presented in the “Other liabilities line”, so as to allow a better understanding of the Company’s financial position.

Contingent consideration

On February 1, 2018 the Company acquired 100% of the outstanding ordinary shares of Kintuck (France) SAS and Kintuck AS from a wholly-owned subsidiary of Glencore International AG (“Glencore”) and obtained control of both entities. The new subsidiaries were renamed as Ferroglobe Mangan Norge AS and Ferroglobe Manganèse France SAS. The Company completed the acquisition through its wholly-owned subsidiary Ferroatlántica., see Note 5. Consideration included both cash and contingent consideration.

The contingent consideration arrangement requires the Company to pay the former owners of Kintuck (France) SAS and Kintuck AS a sliding scale commission based on the silicomanganese and ferromanganese sales spreads of Ferroglobe Mangan Norge and Ferroglobe Manganèse France, up to a maximum amount of \$60,000 thousand (undiscounted). The contingent consideration applies to sales made up to eight and a half years from the date of acquisition and if it applies, the payment is on annual basis. During 2022, the total payment made amounts to \$18,931 thousand.

The potential undiscounted amount of all future payments that the Company could be required to make under the contingent consideration arrangement is between \$nil thousand and \$60,000 thousand.

The fair value of the contingent consideration arrangement as at December, 31, 2022 of \$5,838 thousand (2021: \$26,527 thousand) was estimated by applying the income approach based on a Monte Carlo simulation considering various scenarios of fluctuation of future manganese alloy spreads as well as the cyclicality of manganese alloy pricing. The fair value measurement is based on significant inputs that are not observable in the market, which IFRS 13 Fair Value Measurement refers to as Level 3 inputs. Key assumptions include discount rates of 10.7 percent and 11.5 percent for Ferroglobe Mangan Norge and Ferroglobe Manganèse France respectively (2021: 10.7 percent and 10.9 percent), volumes and manganese spread. Average simulated revenues in Ferroglobe Mangan Norge and Ferroglobe Manganèse France are between \$137,871 thousand and \$124,999 thousand per year (2021: between \$245,292 thousand and \$311,050 thousand). The liability has decreased primarily driven by a reduction in the manganese spread driven by higher manganese ore costs and lower selling prices combined with higher operational costs and impact of FX and inflation forecasts. Changes in the value of contingent consideration are presented in the income statement - other operating expense.

Sensitivity to changes in assumptions

Changing assumptions, could significantly affect the evaluation of the fair value of the contingent consideration. The following changes to the assumptions used in the Monte Carlo simulation could lead to the following changes in the fair value:

	Contingent consideration December 31, 2022	Sensitivity on discount rate		Sensitivity on volumes		Sensitivity on Mn Spread	
		Decrease by 10%	Increase by 10%	Decrease by 10%	Increase by 10%	40% percentil	60% percentil
Fair value contingent consideration	5,838	5,880	5,672	4,398	7,209	1,856	12,795

Tolling agreement liability

On August 30, 2019, Grupo FerroAtlántica, S.A.U. sold its 100% interest in the remainder of FerroAtlántica, S.A.U. to Kehlen Industries Management, S.L.U., an affiliate of U.S.-based TPG Sixth Street Partners. The FerroAtlántica, S.A.U. assets transferred by means of this transaction included ten hydroelectric power plants and the Cee-Dumbría ferroalloys manufacturing plant, all located in the province of A Coruña, Spain. Under the terms of the transaction, the Group will become exclusive off taker of finished products produced at the smelting plant at Cee and supplier of key raw materials to that facility pursuant to a tolling agreement expiring in 2060.

In November 2020, the Tribunal Superior de Justicia de Galicia dismissed the request of separation of the Cee-Dumbria's hydroelectric plants and the ferroalloys plants. Grupo FerroAtlántica, S.A.U. appealed to the Supreme Court, in 2021 the appeal was dismissed. As of December 31, 2022, the liability recognized amounts to \$36,665 thousand (€34,375 thousand). The liability recognized is considered the fair value of the tolling agreement liability as of December 31, 2022 since is approximately the amount to pay by the contract as penalty fee for an early termination of the agreement.

22. Other liabilities

Other liabilities comprise the following at December 31:

	2022			2021		
	Non-Current US\$'000	Current US\$'000	Total US\$'000	Non-Current US\$'000	Current US\$'000	Total US\$'000
Remuneration payable	—	55,791	55,791	—	36,046	36,046
Tax payables	—	37,628	37,628	—	17,613	17,613
Other liabilities	12	11,113	11,125	1,476	20,669	22,145
Total	12	104,532	104,544	1,476	74,328	75,804

Tax payables

Tax payables comprise the following at December 31:

	2022		2021	
	Current US\$'000	Total US\$'000	Current US\$'000	Total US\$'000
VAT	20,905	20,905	4,839	4,839
Accrued social security taxes payable	6,195	6,195	6,251	6,251
Personal income tax withholding payable	896	896	820	820
Other	9,632	9,632	5,703	5,703
Total	37,628	37,628	17,613	17,613

23. Tax matters

The components of current and deferred income tax expense (benefit) are as follows:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Consolidated income statement			
Current income tax			
Current income tax charge	144,246	5,284	4,307
Adjustments in current income tax in respect of prior years	(5,681)	—	901
Total	138,565	5,284	5,208
Deferred tax			
Origination and reversal of temporary differences	15,032	(9,954)	(20,961)
Impact of tax rate changes	460	—	—
Write-down of deferred tax assets	(1,448)	—	37,660
Adjustments in deferred tax in respect of prior years	(4,626)	108	32
Total	9,418	(9,846)	16,731
Income tax expense (benefit)	147,983	(4,562)	21,939

As the Company has significant business operations in Spain, France, South Africa and the United States, a weighted blended statutory tax rate is considered to be appropriate in estimating the Company's expected tax rate. The following is a reconciliation of tax expense based on a weighted blended statutory income tax rate to our effective income tax expense for the years ended December 31, 2022, 2021, and 2020:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Accounting profit/(loss) before income tax	602,660	(119,936)	(222,420)
Adjustment for discontinued operations	—	—	(5,399)
Accounting profit/(loss) before income tax	602,660	(119,936)	(227,819)
At weighted statutory tax rate of 26% (2021: 19% and 2020: 24%)	157,620	(22,650)	(54,294)
Non-deductible income/ (expenses)	(5,920)	(11,399)	6,779
Differing territorial tax rates	591	2,603	3,064
Adjustments in respect of prior periods	1,368	—	(50)
Other items	7,539	27,884	70,123
Elimination of effect of interest in joint ventures	(913)	(782)	899
Other permanent differences	159	(673)	(389)
Incentives and deductions	(11,740)	88	(2,456)
US State taxes	(721)	367	(1,737)
Income tax expense (benefit)	147,983	(4,562)	21,939

Other items mainly comprise unrecognized temporary differences for tax losses.

Deferred tax assets and liabilities

For the year ended December 31, 2022:

	Opening Balance US\$'000	Recognized in		Write-down of Deferred Tax Assets US\$'000	Exchange Differences US\$'000	Closing Balance US\$'000
		P&L US\$'000	OCI US\$'000			
Intangible assets	(451)	(14,014)	—	496	(9)	(13,978)
Provisions	21,672	9,090	(1,416)	9,347	(682)	38,011
Property, plant & equipment	(52,231)	3,920	—	(8,089)	1,670	(54,730)
Inventories	—	480	—	708	(2)	1,186
Tax losses	6,353	(5,894)	—	2,595	205	3,259
Incentives & credits	9,333	(254)	—	(8,542)	(505)	32
Partnership interest	(8,514)	—	—	8,514	—	—
Other	5,703	(2,746)	(666)	(4,425)	(364)	(2,498)
Total	(18,135)	(9,418)	(2,082)	604	313	(28,718)

For the year ended December 31, 2021:

	Opening Balance US\$'000	Prior Year Charge US\$'000	Recognized in P&L US\$'000	Reclassifications US\$'000	Exchange Differences US\$'000	Closing Balance US\$'000
Intangible assets	(458)	21	(34)	—	20	(451)
Biological assets	(1)	—	1	—	—	—
Provisions	14,235	(7)	8,503	(986)	(73)	21,672
Property, plant & equipment	(48,263)	(585)	(7,481)	3,238	860	(52,231)
Inventories	64	—	(64)	—	—	—
Tax losses	9,525	—	1,491	(3,959)	(704)	6,353
Incentives & credits	1,426	—	7,906	—	1	9,333
Partnership interest	(8,983)	—	469	—	—	(8,514)
Other	4,674	—	(266)	1,256	39	5,703
Total	(27,781)	(571)	10,524	(451)	143	(18,135)

Presented in the statement of financial position as follows:

	2022 US\$'000	2021 US\$'000
Deferred tax assets	44,644	45,246
Deferred tax liabilities	(73,362)	(63,381)
Offset between deferred tax assets and deferred tax liabilities	37,508	38,236
Total deferred tax assets due to temporary differences recognized in the statement of financial position	7,136	7,010
Total deferred tax liabilities due to temporary differences recognized in the statement of financial position	(35,854)	(25,145)

Unrecognized deductible temporary differences, unused tax losses and unused tax credits

	2022 US\$'000	2021 US\$'000
Unused tax losses	587,495	624,635
Unused tax credits	6,761	8,487
Unrecognized deductible temporary differences	208,011	135,174
Total	802,267	768,296

In general terms, neither the NOLs nor the tax credits have an expiration date in the jurisdictions where they derive from.

Unused tax losses and unused tax credits have decreased in 2022 compared to 2021 because of the significant positive results obtained in all jurisdictions. Unrecognized deductible temporary differences have increased in 2022 compared to 2021 due to ordinary liquidation of the tax. Management has decided to book the respective deferred tax assets corresponding to the jurisdictions where taxable profit is expected to be generated in the short and mid-term.

Management of tax risks

The Company is committed to conducting its tax affairs consistent with the following objectives:

- (i) to comply with relevant laws, rules, regulations, and reporting and disclosure requirements in whichever jurisdiction it operates;
- (ii) to maintain mutual trust, transparency, and respect in its dealings with all tax authorities; and
- (iii) to adhere with best practice and comply with the Company's internal corporate governance procedures, including but not limited to its Code of Conduct

For further details please refer to the group's tax strategy which can be found here: <http://investor.ferroglobe.com/corporate-governance>.

The Group's tax department maintains a tax risk register on a jurisdictional basis.

In the jurisdictions in which the Company operates, tax returns cannot be deemed final until they have been audited by the tax authorities or until the statute-of-limitations has expired. The number of open tax years subject to examination varies depending on the tax jurisdiction. In general, the Company has the last four years open to review.

The criteria that the tax authorities might adopt in relation to the years open for review could give rise to tax liabilities which cannot be quantified.

24. Related party transactions and balances

Balances with related parties at December 31 are as follows:

	2022			
	Receivables		Payables	
	Non-Current US\$'000	Current US\$'000	Non-Current US\$'000	Current US\$'000
Inmobiliaria Espacio, S.A.	—	2,675	—	—
Villar Mir Energía, S.L.U.	1,600	—	—	(10)
Enérgya VM Gestión de la Energía, S.L.	—	—	—	1,800
Total	1,600	2,675	—	1,790

	2021			
	Receivables		Payables	
	Non-Current US\$'000	Current US\$'000	Non-Current US\$'000	Current US\$'000
Inmobiliaria Espacio, S.A.	—	2,841	—	—
Villar Mir Energía, S.L.U.	1,699	—	—	8,808
Espacio Information Technology, S.A.U.	—	—	—	737
Total	1,699	2,841	—	9,545

The loan granted to Inmobiliaria Espacio, S.A. accrues a market interest (EURIBOR three-month rate plus 2.75%) and has a maturity in the short-term that is renewed tacitly upon maturity. Unless the parties agree the repayment, the loan is extended it automatically for one year.

The balance with the other related parties arose as a result of the commercial transactions performed with them (see explanation of main transactions below).

Additionally in 2022, as a result of a tax audit of the IESA tax group, a reassessment of its net operating losses (NOLs) was made within the members of the tax group with respect to fiscal years 2008 through 2012. In particular, additional NOLs were attributed to Grupo Ferroatlántica, S.A.U. (GFAT) and Ferroatlántica, S.A.U. (FAT). GFAT, as top parent company of a tax group to which FAT belonged to until fiscal year 2019, filed an amending corporate income tax (CIT) return of fiscal years 2016 and 2017. By way of this amending returns, the reassigned NOLs of FAT have been partially applied and consequently partial refund of the CIT paid in such fiscal years has been in the amount of \$592,378. To the extent that the negative results obtained by GFAT and FAT when forming part of the IESA tax group were duly paid each year, this refund corresponds to IESA. GFAT has granted to IESA a loan in the amount of the CIT refund requested (the CIT loan). Therefore, upon receiving the CIT refund, the CIT loan will be canceled under an assignment and offsetting agreement between GFAT and IESA. The CIT loan bears interest annually at 5.25% fix rate for one-year loan under Ferroglobe transfer pricing policy. The Company shows a tax receivable amounting in its balance for this concept.

Transactions with related parties in 2022, 2021 and 2020 are as follows:

	2022			
	Sales and Operating Income US\$'000	Raw materials and energy consumption for production US\$'000	Other Operating Expenses US\$'000	Finance Income (Note 26.4) US\$'000
Inmobiliaria Espacio, S.A.	—	—	—	—
Villar Mir Energía, S.L.U.	—	128,211	1,612	—
Espacio Information Technology, S.A.U.	—	—	1,008	—
Enérgya VM Gestión, S.L	—	4,506	646	—
Other related parties	—	—	101	—
Total	—	132,717	3,367	—

	2021			
	Sales and Operating Income	Raw materials and energy consumption for production	Other Operating Expenses	Finance Income (Note 26.4)
	US\$'000	US\$'000	US\$'000	US\$'000
Inmobiliaria Espacio, S.A.	—	—	—	—
Villar Mir Energía, S.L.U.	—	132,566	1,365	—
Espacio Information Technology, S.A.U.	—	—	3,266	—
Enérgya VM Gestión, S.L	—	—	120	—
Aurinka	—	—	111	—
Other related parties	—	—	68	—
Total	—	132,566	4,930	—

	2020			
	Sales and Operating Income	Raw materials and energy consumption for production	Other Operating Expenses	Finance Income (Note 26.4)
	US\$'000	US\$'000	US\$'000	US\$'000
Inmobiliaria Espacio, S.A.	—	—	—	16
Villar Mir Energía, S.L.U.	—	39,900	647	—
Espacio Information Technology, S.A.U.	—	—	3,171	—
Enérgya VM Gestión, S.L	—	—	79	—
Aurinka	—	1	308	—
Other related parties	—	—	3	—
Total	—	39,901	4,208	16

“Raw Materials and energy consumption for production” of the related parties vis-à-vis Villar Mir Energía, S.L.U. relates to the purchase of energy from the latter by the Company’s Europe – Manganese Alloys and Europe – Silicon Metals & Silicon Alloys segment. FerroAtlántica pays VM Energía a service charge in addition to paying for the cost of energy purchase from the market. Under contracts entered into with FAU on June 22, 2010 and December 29, 2010 (assigned to FerroAtlántica de Boo, S.L.U. (“FAU Boo”) and to FerroAtlántica de Sabon, S.L.U. (“FAU Sabon”) in August 2019 in anticipation of the FAU Disposal), and with Hidro Nitro Española on December 27, 2012 (assigned to FerroAtlántica del Cinca when Hidro Nitro Española was sold in December 2018), VM Energía supplies the energy needs of the Boo, Sabón and Monzón electrometallurgy facilities, as a broker for FAU BOO or FAU Sabon (now Grupo FerroAtlántica) and Hidro Nitro Española (now FerroAtlántica del Cinca) in the wholesale power market. The contracts allow FAU Boo or FAU Sabon (now Grupo FerroAtlántica) and Hidro Nitro Española (now FerroAtlántica del Cinca) to buy energy from the grid at market conditions without incurring costs normally associated with operating in the complex wholesale power market, as well as to apply for fixed price arrangements in advance from VM Energía, based on the energy markets for the power, period and profile applied for. For the fiscal year ended December 31, 2021, Grupo FerroAtlántica and FerroAtlántica del Cinca’s obligations to make payments to VM Energía under their respective agreements for the purchase of energy plus the service charge amounted to \$102,066 thousand and \$30,501 thousand, respectively. The contracts have a term of one year, which can be extended by the mutual consent of the parties to the contract. The contracts were renewed in January 2019 and will renew annually for up to three years unless terminated. The contracts were again renewed in January 2020. In January 2021, the contracts were renewed for two years with the possibility to extend it for additional one-year periods unless terminated with thirty days’ notice. On September 30, 2021 Grupo FerroAtlántica, S.A.U absorbed its subsidiaries FAU Boo and FAU Sabón assuming all the rights and obligations derived from those contracts. Those contracts were assigned from Villar Mir Energía SLU to Energya VM Gestión de Energía, SLU (“Energya VM”) on October 15, 2022. Therefore, since the assignment the payments for the service charge was done to Energya VM, amounting \$4,506 thousand in 2022.

On December 22, 2022, Grupo FerroAtlántica and VM Energía entered into a Power Purchase Agreement (PPA). Under this PPA, VM Energía would supply to Sabón plant 65 GW on a *pay as produced* basis during 10 years from the commencement of operation of the Plants. This PPA would cover 10% of the total power consumption of the Sabón plant. The agreement has been cancelled in February 2023.

“Other operating expenses” corresponds to the payment to Espacio Information Technology, S.A. (“Espacio I.T.”), provides information technology and data processing services to Ferroglobe PLC and certain of its direct and indirect subsidiaries: FAU (until shortly prior to the FAU Disposal when such services were assigned to Grupo FerroAtlántica de Servicios, S.L.U. (“Servicios”)), FerroAtlántica de Mexico, Silicon Smelters (Pty), Ltd. and FerroPem, SAS pursuant to several contracts. Additionally corresponds to the Payment to Villar Mir Energía, S.L.U that provides the energy needs of the mining facilities operated by RAMSA and CISA in the wholesale power market. On April 2022, Grupo VM sold its

interest in Espacio I.T. so those transactions do not involve a Grupo VM subsidiary and therefore as of that date should no longer be considered as related party transactions.

25. Guarantee commitments to third parties and contingent liabilities

Guarantee commitments to third parties

As of December 31, 2022 and 2021, the Company has provided bank guarantees commitments to third parties amounting \$7,905 thousand and \$11,948 thousand, respectively. Management believes that any unforeseen liabilities at December 31, 2022 and 2021 that might arise from the guarantees given would not be material.

Contingent liabilities

In the ordinary course of its business, Ferroglobe is subject to lawsuits, investigations, claims and proceedings, including, but not limited to, contractual disputes and employment, environmental, health and safety matters. Although we cannot predict with certainty the ultimate resolution of lawsuits, investigations, claims and proceedings asserted against it, we do not believe any currently pending legal proceeding to which it is a party will have a material adverse effect on its business, prospects, financial condition, cash flows, results of operations or liquidity.

Stamp Tax litigation procedure

On February 2021 the Central Economic-Administrative Court ruled against the interest of Ferroglobe in a stamp duty litigation procedure initiated in 2015, where the taxpayer is Abanca. Ferroglobe agreed with Abanca that it continues the litigation at the judiciary level by filing an appeal before the Audiencia Nacional. This filing was completed in April 2021. As a result of the continuation of this litigation process, with the appropriate granting of bank guarantee by the taxpayer (Abanca), neither payment of the tax reassessment (circa 1.4MM Euro plus delay interest) nor of the penalty proposed (circa 600K Euro) are due at this stage of the process. We anticipate this stage will take between two to four years to be resolved by the Audiencia Nacional. In case the Audiencia Nacional rules against the interests of Ferroglobe, the full amount of the tax reassessment and the penalty would be payable by Ferroglobe in applying a compensation agreement in place between Abanca and Ferroglobe.

Article I.Asbestos-related claims

Certain employees of FerroPem, SAS, then known as Pechiney Electrometallurgie, S.A. ("PEM"), may have been exposed to asbestos at its plants in France in the decades prior to FerroAtlántica Group's purchase of that business in December 2004. During the period in question, PEM was wholly-owned by Pechiney Bâtiments, S.A., which had certain indemnification obligations to FerroAtlántica pursuant to the 2004 Share Sale and Purchase Agreement under which our FerroAtlántica acquired PEM. As of December 31, 2022, approximately 100 such employees have "declared" asbestos-related injury to the French social security agencies. Approximately three quarters of these cases now have been closed. Of the remaining cases, approximately half include assertions of "inexcusable negligence" ("faute inexcusable") which, if upheld, may lead to material liability in the aggregate on the part of FerroPem. Other employees may declare further asbestos-related injuries in the future, and may likewise assert inexcusable negligence. Litigation against, and material liability on the part of, FerroPem will not necessarily arise in each case, and to date a majority of such declared injuries have been minor and have not led to significant liability on FerroPem's part. Whether liability for "inexcusable negligence" will be found is determined case-by-case, often over a period of years, depending on the evolution of the claimant's asbestos-related condition, the possibility that the claimant was exposed while working for other employers and, where asserted, the claimant's ability to prove inexcusable negligence on PEM's part. Because of these and other uncertainties, no reliable estimate can be made of FerroPem's eventual liability in these matters, with exception of three grave cases that were litigated through the appeal process and in which claimants' assertions of inexcusable negligence were upheld against FerroPem. Liabilities in respect to asbestos-related claims have been recorded at December 31, 2022 at an estimated amount of \$955 thousand in Provisions for litigation in progress (\$1,143 thousand in 2021).

Environmental matters

Since 2016, GMI has been negotiating with the U.S. Department of Justice (the "DOJ") and the U.S. Environmental Protection Agency (the "EPA") to resolve two Notices of Violation/Findings of Violation ("NOV/FOV") that the EPA issued to the Beverly facility. The first NOV/FOV was issued on July 1, 2015 and alleges certain violations of the Prevention of Significant Deterioration ("PSD") and New Source Performance Standards provisions of the Clean Air Act associated with a 2013 project performed at GMI's Beverly facility. Specifically, the July 2015 NOV/FOV alleges violations of the facility's existing operating and construction permits, including allegations related to opacity

emissions, sulfur dioxide and particulate matter emissions, and failure to keep necessary records and properly monitor certain equipment. The second NOV/FOV was issued on December 6, 2016, and arises from the same facts as the July 2015 NOV/FOV and subsequent EPA inspections. The second NOV/FOV alleges opacity exceedances at certain units, failure to prevent the release of particulate emissions through the use of furnace hoods at a certain unit, and the failure to install Reasonably Available Control Measures (as defined) at certain emission units at the Beverly facility. To resolve the NOV/FOVs, GMI likely will be required to install additional pollution control equipment, implement other measures to reduce emissions from the facility, as well as pay a civil penalty. Should the DOJ and GMI be unable to reach a negotiated resolution of the NOV/FOVs, the authorities could institute formal legal proceedings for injunctive relief and civil penalties. The statutory maximum penalty is \$93,750 per day per violation, from April 2013 to December 2021, and \$109,024 per day thereafter. Liabilities in respect these claims have been recorded at December 31, 2022 at an estimated amount of \$2,800 thousand in Provisions for litigation in progress.

Other legal procedures

In the first quarter of 2023, the Company reached full and final settlements of civil lawsuits arising out of 2018 incident at Globe Metallurgical Inc.'s Selma, Alabama, facility in which two employees were injured, one of whom later died. The Company's insurer settled those claims for \$18m and paid the amounts directly.

26. Income and expenses

26.1 Sales

Sales by geographical area for the years ended December 31 are as follows:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Spain	282,387	251,528	133,370
Germany	442,331	292,774	191,107
Italy	111,887	76,721	42,067
France	148,741	130,811	79,491
Other EU Countries	162,374	176,046	88,443
USA	966,161	515,095	404,633
Rest of World	484,035	335,933	205,323
Total	2,597,916	1,778,908	1,144,434

26.2 Raw materials and energy consumption for production

Raw materials and energy consumption for production are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Purchases of raw materials, supplies and goods	793,014	581,991	366,532
Variation in stocks of finished goods, raw materials, supplies and goods	(163,430)	(74,361)	61,827
Others	625,637	676,171	405,188
Write-down of raw materials	12,342	—	—
Write-down of finished goods	17,523	1,095	1,939
Total	1,285,086	1,184,896	835,486

26.3 Other operating income

Other operating income are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Energy	(53,802)	—	—
CO2	(88,952)	(103,044)	(25,702)
Others	(4,602)	(7,041)	(7,925)
Total	(147,356)	(110,085)	(33,627)

The Company recognizes emission rights (allowances) allocated by government as intangible assets. The intangible asset recognized is initially measured at fair value (current market value).

The allowances are granted for less than fair value, the difference between the fair value and the nominal amount paid is recognized as a government grant. The grant is initially recognized as deferred income in the statement of financial position and subsequently recognized as “other operating income” on a systematic basis on the proportion of the CO2 emitted over total CO2 expected to be emitted for the compliance period, during 2022 the Company has recorded an amount of \$88,952 thousand, \$103,044 thousand in 2021 and \$25,702 thousand in 2020.

As the Company emits CO2, it recognizes a provision for its obligation to deliver the CO2 emissions at the end of the compliance period. The provision is remeasured and recorded as an expense at the end of each reporting period at historical cost for the emission rights (allowances). Provision for its obligation to deliver the CO2 emissions is presented in the income statement - other operating expense.

26.4 Staff costs

The average monthly number of employees (including Executive Directors) was:

	2022	2021	2020
Directors	9	8	6
Senior Managers	288	289	291
Employees	3,173	2,997	3,020
Total	3,470	3,294	3,317

Staff costs are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Wages, salaries and similar expenses	232,880	214,374	161,957
Pension plan contributions	7,977	7,571	3,641
Employee benefit costs	73,953	58,972	49,184
Total	314,810	280,917	214,782

Share-based compensation

a. Equity Incentive Plan

On May 29, 2016, the board of Ferroglobe PLC adopted the Ferroglobe PLC Equity Incentive Plan (the “Plan”) and on June 29, 2016 the Plan was approved by the shareholders of the Company. The Plan is a discretionary benefit offered by Ferroglobe PLC for the benefit of selected senior employees of Ferroglobe PLC and its subsidiaries. The Plan’s main purpose is to reward and foster performance through share ownership. Awards under the plan may be structured either as conditional share awards or options with a \$nil exercise price (nil cost options), except the options granted in 2021 which have a strike of 0.01. The awards are subject to a service condition of three years from the date of grant in the case of the options granted in 2017, 2018, 2019 and 2022, and four years from the date of grant in the case of the options granted in 2020, in each case to the extent that performance conditions are satisfied, and subject to continued service with the Company, remain exercisable until the tenth anniversary of their grant date. In the case of the options granted in 2021 the options vest on January 1, 2024.

Details of the Plan awards during the current and prior years are as follows:

	Number of awards
Outstanding as of December 31, 2020	3,411,974
Granted during the period	1,307,934
Exercised during the period	(309,462)
Expired/forfeited during the period	(51,010)
Outstanding as of December 31, 2021	4,359,436
Granted during the period	848,710
Exercised during the period	(208,076)
Expired/forfeited during the period	(1,198,364)
Outstanding as of December 31, 2022	3,801,706
Exercisable as of December 31, 2022	344,385

The awards outstanding under the Plan at December 31, 2022 and December 31, 2021 were as follows:

Grant Date	Performance Period	Expiration Date	Exercise Price	Fair Value at		
				Grant Date	2022	2021
September 22, 2022	December 31, 2024	September 9, 2032	nil	8.53	848,710	—
September 9, 2021	December 31, 2021	September 9, 2031	nil \$	8.83	1,255,824	1,307,934
December 16, 2020	December 31, 2020	December 16, 2030	nil \$	1.23	1,352,788	1,411,271
March 13, 2019	December 31, 2021	March 13, 2029	nil \$	2.69	136,682	1,184,441
June 14, 2018	N/A	June 13, 2028	nil \$	9.34	44,650	70,774
March 21, 2018	December 31, 2020	March 20, 2028	nil \$	22.56	52,819	136,434
June 20, 2017	December 31, 2019	June 20, 2027	nil \$	15.90	—	—
June 1, 2017	N/A	June 1, 2027	nil \$	10.96	—	834
June 1, 2017	December 31, 2019	June 1, 2027	nil \$	16.77	77,712	168,469
November 24, 2016	December 31, 2018	November 24, 2026	nil \$	16.66	32,521	79,279
					3,801,706	4,359,436

The awards outstanding as of December 31, 2022 had a weighted average remaining contractual life of 8.33 years (2021: 8.37 years).

The weighted average share price at the date of exercise for stock options exercised in the year ended December 31, 2022 was \$6.46 (\$5.28 in 2021).

As of December 31, 2022, 3,757,056 of the of the outstanding awards were subject to performance conditions (2021: 4,287,828 awards). For those awards subject to performance conditions, upon completion of the three years service period, the recipient will receive a number of shares or nil cost options of between 0% and 200% of the above award numbers, depending on the financial performance of the Company during the performance period. The performance conditions for the shares granted in 2022 can be summarized as follows:

Vesting Conditions

40% based cumulative earnings before interest and tax (EBIT)

40% based on cumulative operational cash flow

20% based on total shareholder return (TSR) relative to a comparator group

There were no performance obligations linked to 44,650 of the outstanding awards at December 31, 2022 (2021: 71,608 awards). These awards were issued as deferred bonus awards and vested subject to remaining in employment for three years.

Fair Value

The weighted average fair value of the awards granted during the year ended December 31, 2022 was \$8.53 (2021: \$8.83). The Company estimates the fair value of the awards using Stochastic and Black-Scholes option pricing models (Level 3). Where relevant, the expected life used in the model has been adjusted for the remaining time from the date of valuation until options are expected to be received, exercise restrictions (including the probability of meeting market conditions attached to the option), and performance considerations. Expected volatility is calculated over the period commensurate with the remainder of the performance period immediately prior to the date of grant.

The following assumptions were used to estimate the fair value of the awards:

	Grant date	
	September 22, 2022	September 9, 2021
Fair value at grant date	\$ 8.53	\$ 8.83
Grant date share price	\$ 5.76	\$ 8.57
Exercise price	Nil	0.01
Expected volatility	94.28%	104.75%
Option life	3.00 years	2.31 years
Dividend yield	—	—
Risk-free interest rate	4.12%	0.28%
Remaining performance period at grant date (years)	3.00	2.31
Company TSR at grant date	(27.2)%	NA
Median comparator group TSR at grant date	10.5	NA

The Company's TSR relative to the median comparator group TSR and median index TSR at grant date may impact the grant date fair value; starting from an advantaged position increases the fair value and starting from a disadvantaged position decreases the fair value.

To model the impact of the TSR performance conditions, we have calculated the volatility of the comparator group using the same method used to calculate the Company's volatility, using historical data, where available, which matches the length of the remaining performance period grant date.

The Company's correlation with its comparator group was assessed on the basis of all comparator group correlations, regardless of the degree of correlation, have been incorporated into the valuation model.

For the year ended December 31, 2022, share-based compensation expense related to all non-vested awards amounted to \$5,836 thousand, which is recorded in staff costs (2021: \$3,627 thousand).

b. Executive bonus plan assumed under business combination with Globe

Prior to the business combination, shares of Globe Specialty Metals common stock were registered pursuant to Section 12(b) of the Exchange Act and listed on NASDAQ. As a result of the business combination between Ferroglobe and Globe, each share of Globe common stock was converted into the right to receive one Ferroglobe ordinary share. The shares of Globe common stock were suspended from trading on NASDAQ effective as of the opening of trading on December 24, 2015. Ferroglobe ordinary shares were approved for listing on The NASDAQ Global Market. At the effective time of the business combination, GSM stock and stock-based awards were replaced with stock and stock-based awards of Ferroglobe in a one to one exchange.

There were no options exercised or expired during the year ended December 31, 2022 and 2021.

A summary of options outstanding is as follows:

	Number of Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Outstanding as of December 31, 2020	26,268	\$ 16.70	0.16	\$ —
Expired/forfeited during the period				
Outstanding as of December 31, 2021	26,268	\$ 16.70	0.16	\$ —
Expired/forfeited during the period		—		
Outstanding as of December 31, 2022	26,268	\$ 16.70	0.16	\$ —
Exercisable as of December 31, 2022	26,268	\$ 16.70	0.16	\$ —

For the year ended December 31, 2022, share based compensation expense related to stock options under this plan was \$101 thousand (2021: \$120 thousand). The expense is reported within staff costs in the consolidated income statement.

Prior to the business combination, Globe also issued restricted stock units under the Company's Executive Bonus Plan. The fair value of restricted stock units is based on quoted market prices of the Company's stock at the end of each reporting period. These restricted stock units proportionally vest over three years, but are not delivered until the end of the third year. The Company will settle these awards by cash transfer, based on the Company's stock price on the date of transfer. For the year ended December 31, 2022 and 2021 no restricted options were exercised. As of December 31, 2022, and 2021, restricted stock units of 26,268 were outstanding.

26.5 Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Amortization of intangible assets (Note 8)	725	7,241	7,183
Depreciation of property, plant and equipment (Note 9)	80,834	90,087	101,006
Total	81,559	97,328	108,189

26.6 Finance income and finance costs

Finance income is comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Finance income of related parties (Note 24)	—	—	16
Other finance income	2,274	253	161
Total	2,274	253	177

Finance costs are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Interest on debt instruments	40,913	42,579	34,989
Interest on loans and credit facilities	9,482	12,584	8,404
Interest on note and bill discounting	125	88	363
Interest on leases	1,587	1,100	1,358
Trade receivables securitization expense (Note 10)	26	399	15,044
Other finance costs	8,882	92,439	6,810
Total	61,015	149,189	66,968

At the completion of the comprehensive refinancing, the Company recorded a finance cost of \$90.8 million as of December 31, 2021 (See Note 18).

26.7 Impairment losses and net (loss) gain due to changes in the value of assets

Impairment losses and net loss gain due to changes in the value of assets are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Impairment of intangible assets (Note 8)	—	(1,153)	—
Impairment of property, plant and equipment (Note 9)	(56,999)	1,663	(71,929)
Impairment of non-current financial assets	—	(373)	—
Impairment of other	—	—	(1,415)
Impairment reversal/(losses)	(56,999)	137	(73,344)
Other (loss) / profit	349	758	158
Net (loss) gain due to changes in the value of assets	349	758	158

26.8 (Loss) gain on disposal of non-current assets

Loss (gain) on disposal of non-current assets is comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Gain on disposal of intangible assets	—	—	1,692
Loss on disposal of intangible assets	(190)	—	—
Gain on disposal of property, plant and equipment	485	2,462	473
Loss on disposal of property, plant and equipment	(754)	(1,123)	(873)
Gain on disposal of other non-current assets	—	47	—
Total	(459)	1,386	1,292

During 2022, the French subsidiary FerroPem has sold property of Chateau-Feuillet facility, amounting to \$312 thousand fully depreciated (\$1,092 thousand as of December 31, 2021).

During 2021, Ferroglobe has sold the assets related to Niagara facility, the Company received net cash proceeds of \$1,370 thousand and recognized a gain on disposal for the same amount (zero was the net book value of Niagara assets as of December 31, 2020).

Loss on disposal during 2022 and 2021 is mainly due to asset disposals in American and Canadian subsidiaries.

During 2020, Ferroglobe sold CO2 emissions rights that were derecognized from the balance sheet against the cash received, as the carrying amount price per emission right was lower to the sales price per CO2 emission right, an income of \$1,692 thousand was recognized on the disposal of intangible assets.

26.9 Contractual assets and liabilities

Contractual assets and liabilities are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Contractual Liabilities	775	5,047	1,687
Total	6,708	10,832	6,839

Contractual liabilities are recorded within "Trade and other payable" and relate to advances from customers.

27. Remuneration of key management personnel

The remuneration of the key management personnel, which comprises the Company's management committee, during the years ended December 31 is as follows:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Fixed remuneration	5,404	5,244	5,086
Variable remuneration	5,199	1,209	756
Contributions to pension plans and insurance policies	315	373	319
Share-based compensation	5,937	3,627	2,017
Termination benefits	316	119	1,886
Other remuneration	16	17	9
Total	17,187	10,589	10,073

During 2022, 2021 and 2020, no loans and advances have been granted to key management personnel.

28. Financial risk management

Ferroglobe operates in an international and cyclical industry which exposes it to a variety of financial risks such as currency risk, liquidity risk, interest rate risk, credit risk and risks relating to the price of finished goods, raw materials and power.

The Company's management model aims to minimize the potential adverse impact of such risks upon the Company's financial performance. Risk is managed by the Company's executive management, supported by the Risk Management, Treasury and Finance functions. The risk management process includes identifying and evaluating financial risks in conjunction with the Company's operations and quantifying them by project, region and subsidiary. Management provides written policies for global risk management, as well as for specific areas such as foreign currency risk, credit risk, interest rate risk, liquidity risk, the use of hedging instruments and derivatives, and investment of surplus liquidity.

The financial risks to which the Company is exposed in carrying out its business activities are as follows:

a) Market risk

Market risk is the risk that the Company's future cash flows or the fair value of its financial instruments will fluctuate because of changes in market prices. The primary market risks to which the Company is exposed comprise foreign currency risk, interest rate risk and risks related to power.

Foreign currency risk

Ferroglobe generates sales revenue and incurs operating costs in various currencies. The prices of finished goods are to a large extent determined in international markets, primarily in US dollars and Euros. Foreign currency risk is partly mitigated by the generation of sales revenue, the purchase of raw materials and other operating costs being denominated in the same currencies. Although it has done so on occasions in the past, and may decide to do so in the future, the Company does not generally enter into foreign currency derivatives in relation to its operating cash flows. As of December 31, 2022 and December 31, 2021, the Company was not party to any foreign currency forward contracts.

In July 2021 the Company completed a restructuring of its \$350,000 thousand of senior unsecured Notes due 2022. This included the issue of additionally \$60,000 thousand (which have been fully repaid in June 2022) of super senior secured Notes due 2025 (see *Note 18*) and the repayment of certain existing indebtedness denominated in a number of currencies across its subsidiaries. The Company is exposed to foreign exchange risk as the interest and principal of the Notes is payable in US dollars, whereas its operations principally generate a combination of US dollar and Euro cash flows.

During the year ended December 31, 2022 and 2021 the Company did not enter into any cross currency swaps.

Foreign currency Sensitivity analysis

The Company's exposure to foreign currency risk arises from the translation of the foreign currency exchange gains and losses on cash and cash equivalents, accounts receivable, accounts payable and inventories that are denominated in foreign currency.

Depreciation or appreciation of the USD by 10% against EUR, CAD and ZAR at December 31, 2022, while all other variables were remained constant, would have increased or (decreased) the net profit before tax of \$62,764 thousand.

Interest rate risk

Ferroglobe is exposed to interest rate risk in respect of its financial liabilities that bear interest at floating rates. These primarily comprise credit facilities (see *Note 16*) and lease commitments (see *Note 17*).

During the year ended December 31, 2022 and 2021, the Company did not enter into any interest rate derivatives in relation to its interest bearing credit facilities.

Interest Rate Sensitivity analysis

At December 31, 2022, an increase of 1% in interest rates would have given rise to additional borrowing costs of \$812 thousand (2021: \$990 thousand).

Power risk

Power constitutes one of the single largest expenses for most of Ferroglobe's products. Ferroglobe focuses on minimizing energy prices and unit consumption throughout its operations by concentrating its silicon and manganese-based alloy production during periods when energy prices are lower. In 2022, Ferroglobe's total power consumption was 6,431 gigawatt-hours, with power contracts that vary across its operations.

b) Credit risk

Credit risk refers to the risk that a customer or counterparty will default on its contractual obligations resulting in financial loss. The Company's main credit risk exposure related to financial assets is set out in *Note 10* and includes trade receivables, other receivables and other financial assets.

Trade receivables consist of a large number of customers, spread across diverse industries and geographical areas. The Company has established policies, procedures and controls relating to customer credit risk management. Ongoing credit evaluation is performed on the financial condition of accounts receivable and, where appropriate, the Company insures its trade receivables with reputable credit insurance companies.

Since October 2020, the Company entered into a factoring program where the receivables of some of the Company's French and Spanish entities are prefinanced by a factor (see Note 10 and 16). On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter.

Since December 2019, the Company entered into a forfaiting program where some of the Company's French and Spanish entities may assign their rights to receive payments under the Contracts with the customer "ArcelorMittal Sourcing s.c.a." in accordance with a forfaiting scheme.

c) Liquidity risk

The purpose of the Company's liquidity and financing policy is to ensure that the Company keeps sufficient funds available to meet its financial obligations as they fall due. The Company's main sources of financing are as follows:

- \$345,058 thousand aggregate principal amount of 9.375% senior secured notes due December 31, 2025 (the "Reinstated Senior Notes"). Interest is payable semi-annually on January 31 and July 31 of each year.
- \$60,000 thousand aggregate principal amount of 9% super senior secured notes due June 30, 2025 (the "Super Senior Notes"). Interest is payable semi-annually on January 31 and July 31 of each year. On July 21, 2022, the Super Senior Notes were redeemed at 100% of the principal amount.
- On September 8, 2016, FerroAtlántica, S.A.U, as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the "Ministry"), as lender, entered into a loan agreement under which the Ministry made available to the borrower loans in aggregate principal amount of €44,999 thousand in connection with industrial development projects relating silicon purification project. FAU transferred the loan to OPCO before its sale. The loan is contractually due to be repaid in 7 instalments starting in 2023 and completing by 2030. Interest on outstanding amounts under the loan accrues at an annual rate of 3.55%. As of December 31, 2022, the amortized cost of the loan was €54,989 thousand (equivalent to \$58,651 thousand) (2021: €54,578 thousand and \$61,815 thousand), see Note 19.
- On October 2, 2020, the Company ended the receivables funding agreement and cancelled the securitization program, signing a new factoring agreement with a financial institution, for anticipating the collection of receivables of the Company's European entities (Grupo FerroAtlántica, S.A. and FerroPem S.A.S). On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter. This program offers the possibility to sell the receivables corresponding to ten customers pre-approved by the bank and its credit insurer. During 2022, the factoring agreements provided upfront cash consideration of approximately \$895,264 thousand (\$659,083 thousand in 2021). The Company has repaid \$ 918,070 thousand (\$640,168 thousand in 2021), showing at December 31, 2022, an on-balance sheet bank borrowing debt of \$60,976 thousand (2021: \$93,090 thousand) (see Note 10 and 16).
- On October 11, 2019, Ferroglobe subsidiaries Globe Specialty Metals, Inc., and QSIP Canada ULC, as borrowers, entered into a Credit and Security Agreement for a new \$100 million north American asset-based revolving credit facility (the "ABL Revolver"), with PNC Bank, N.A., as lender. On March 16, 2021, the Company repaid in its entirety the remaining balance at the date for an amount equal to \$39,476 thousand, cancelling its obligations derived from the contract. On June 30, 2022, The Company closed a new, five-year \$100 million North American asset-based revolving credit facility (the "ABL Revolver"), involving Ferroglobe's subsidiary, Globe Specialty Metals, Inc. ("Globe"), and its wholly owned North American subsidiaries, as borrowers, and Bank of Montreal ("BMO"), as lender and agent.
- On July 23, 2020, Ferroglobe subsidiary, Ferropem, S.A.S., as borrower, contracted a loan with BNP Paribas, as lender, amounting to €4,456 thousand, to finance Company's activities in France. The loan is guaranteed by the French government as part of the COVID-19 relief measures. Repayment of principal and payment of interest and accessories offer the possibility for the Borrower to extend the amortization of the amounts due at maturity for an additional period of 1 to 5 years. Interest rate is zero percent and the borrower is liable to pay a 0.50% fee calculated on the capital borrowed equivalent to an amount of €22 thousand.
- On June 2, 2020, Ferroglobe subsidiary, Silicium Québec, as borrower, contracted a \$7,000 thousand loan with Investissement Québec, a regional government loan & investment agency, as lender, to finance its capital expenditures activities in Canada. The loan is to be repaid in 84 installments over a 10 year period with the first three years as a grace period. Interest rate on outstanding amounts is zero percent.

On March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the “Beneficiaries”) and the Sociedad Estatal de Participaciones Industriales (“SEPI”), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic. The funds are subject to certain governance conditions that imply, among others, the prohibition of distributing dividends, paying non-mandatory coupons or acquiring own shares and the prohibition of the use of the funds for financing economic activities of the group subsidiaries that are not beneficiaries.

Quantitative information

i. Interest rate risk:

At December 31, the Company’s interest-bearing financial liabilities were as follows:

	2022		
	Fixed rate US\$'000	Floating rate US\$'000	Total US\$'000
Bank borrowings	16,857	60,976	77,833
Obligations under leases	—	21,872	21,872
Debt instruments	343,443	—	343,443
Other financial liabilities (*)	80,388	18,273	98,661
	440,688	101,121	541,809

(*) Other financial liabilities comprise loans from government agencies (see Note 19).

	2021		
	Fixed rate US\$'000	Floating rate US\$'000	Total US\$'000
Bank borrowings	—	98,967	98,967
Obligations under leases	—	18,358	18,358
Debt instruments	440,297	—	440,297
Other financial liabilities (*)	67,013	—	67,013
	507,310	117,325	624,635

(*) Other financial liabilities comprise loans from government agencies (see Note 19).

ii. Foreign currency risk:

Notes and cross currency swap

In 2021, due to an occurrence of events and conditions that reduce the number of transactions in euros, management conducted a review of the functional currency of the Parent Company and concluded that there has been a change in its functional currency from Euro to US Dollars, effective since October 1, 2021 (see Note 3.3). Therefore, The Parent Company is no longer exposed to exchange rate fluctuations.

Foreign currency swaps in relation to trade receivables and trade payables

At December 31, 2022 and 2021, the Company has no foreign currency swaps in place in respect of foreign currency accounts receivable and accounts payable.

iii. Liquidity risk:

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2022, based on contractual undiscounted payments. The table includes both interest and principal cash flows. The cash flows for debt instruments assume that principal of Reinstated Senior Notes is repaid at maturity in December 2025 (see Note 18).

	2022				
	Less than 1 year US\$'000	Between 1-2 years US\$'000	Between 2-5 years US\$'000	After 5 years US\$'000	Total US\$'000
Bank borrowings	61,888	—	2,544	13,230	77,662
Leases	8,928	7,349	6,888	—	23,166
Debt instruments	32,439	423,235	—	—	455,674
Financial loans from government agencies	61,796	4,336	41,239	2,792	110,163
Payables to related parties	1,790	—	—	—	1,790
Payable to non-current asset suppliers	4,149	183	—	—	4,332
Contingent consideration	1,945	3,930	1,257	—	7,132
Tolling agreement liability	3,555	7,110	10,665	113,759	135,089
Trade and other payables	219,666	—	—	—	219,666
	396,156	446,143	62,593	129,781	1,034,674

	2021				
	Less than 1 year US\$'000	Between 1-2 years US\$'000	Between 2-5 years US\$'000	After 5 years US\$'000	Total US\$'000
Bank borrowings	95,899	—	3,670	—	99,569
Leases	8,092	5,897	3,251	1,289	18,529
Debt instruments	57,440	37,749	493,585	—	588,774
Financial loans from government agencies	63,868	4,304	245	—	68,417
Payables to related parties	9,545	—	—	—	9,545
Payable to non-current asset suppliers	2,677	135	—	—	2,812
Contingent consideration	13,023	10,684	6,844	—	30,551
Tolling agreement liability	2,589	2,367	5,952	18,379	29,287
Trade and other payables	206,000	—	—	—	206,000
	459,133	61,136	513,547	19,668	1,053,484

Additionally, as of December 31, 2022, the Company has long-term power purchase commitments amounting to \$526,841 thousand (\$294,557 thousand in 2021), which represents minimum charges that are enforceable and legally binding, and do not represent total anticipated purchase.

Changes in liabilities arising from financing activities

The changes in liabilities arising from financing activities during the year ended December 31, 2022 and 2021 were as follows:

	January 1, 2022 US\$'000	Changes from financing cash flows US\$'000	Effect of changes in foreign exchange rates US\$'000	Changes in fair values US\$'000	Interest expenses US\$'000	Other changes US\$'000	December 31, 2022 US\$'000
Bank borrowings	98,967	(24,529)	(5,991)	—	3,185	6,201	77,833
Obligations under leases (Note 17)	18,358	(11,590)	(750)	—	1,587	14,266	21,871
Debt instruments	440,297	(136,260)	—	190	34,404	4,811	343,442
Financial loans from government agencies (Note 19)	67,013	35,924	(5,289)	—	5,239	(4,226)	98,661
Total liabilities from financing activities	624,635	(136,455)	(12,030)	190	44,415	21,052	541,807
Other amounts paid due to net financing activities		(4,003)					
Net cash (used) by financing activities		(140,458)					

	January 1, 2021 US\$'000	Changes from financing cash flows US\$'000	Effect of changes in foreign exchange rates US\$'000	Changes in fair values US\$'000	Interest expenses US\$'000	Other changes US\$'000	December 31, 2021 US\$'000
Bank borrowings	107,607	(15,604)	1,927	—	—	5,037	98,967

Obligations under leases (Note 17)	22,536	(11,232)	(1,188)	—	—	8,242	18,358
Debt instruments (*)	357,508	43,295	—	6,462	36,233	(3,201)	440,297
Financial loans from government agencies (Note 19)	63,896	(2,252)	(702)	—	6,071	—	67,013
Total liabilities from financing activities	551,547	14,207	37	6,462	42,304	10,078	624,635
Other amounts paid due to net financing activities (**)		(3,755)					
Net cash provided by financing activities		10,452					

(*) Changes from financing cash flows in debt instruments include payments due to interest amounting to \$16,705 thousand and proceeds from debt issuances of \$60,000 thousand.

(**) Other amounts paid due to financing activities include payments due to equity issuance costs amounting to \$43,755 thousand and proceeds from equity issuance of \$40,000 thousand.

29. Fair value measurement

Fair value of assets and liabilities that are measured at fair value on a recurring basis

The following table provides the fair value measurement hierarchy of the Company's assets and liabilities that are carried at fair value in the statement of financial position:

	December 31, 2022			
	Total US\$'000	Quoted prices in active markets (Level 1) US\$'000	Significant observable inputs (Level 2) US\$'000	Significant unobservable inputs (Level 3) US\$'000
Other financial assets (Note 10):				
Listed equity securities	936	936	—	—
Other obligations (Note 21)				
Contingent consideration in a business combination	(5,838)	—	—	(5,838)
	December 31, 2021			
	Total US\$'000	Quoted prices in active markets (Level 1) US\$'000	Significant observable inputs (Level 2) US\$'000	Significant unobservable inputs (Level 3) US\$'000
Other financial assets (Note 10):				
Listed equity securities	847	847	—	—
Other obligations (Note 21)				
Contingent consideration in a business combination	(26,527)	—	—	(26,527)

A reconciliation of the beginning and ending balances of all liabilities at fair value on recurring basis using significant unobservable inputs (Level 3) for the year ended December 31, 2022, presented as follows:

	Total US\$'000
Fair value at December 31, 2020	(16,632)
Changes in fair value through profit or loss	(13,168)
Payments	3,273
Fair value at December 31, 2021	(26,527)
Changes in fair value through profit or loss	1,758
Payments	18,931
Fair value at December 31, 2022	(5,838)

30. Assets and disposal groups classified as held for sale and discontinued operations

Assets and disposal groups classified as held for sale

At the end of 2022, the Company received two offers to sell the assets related to Chateau Feuillet facility in France, stopped operations since March 2022 and the Board approved the sale. Consequently, the assets were classified as held for sale in the balance sheet as of December 31, 2022. In accordance with IFRS 5, the Company ceased to recognize depreciation expense in relation to its assets in Chateau Feuillet while it is classified as held for sale.

The assets transferred to held for sale have been measured at the lower of carrying amount and fair value less costs to sell and are presented separately in the statement of financial position. The fair value, according to the offers received, as of December 31, 2022 was \$1,067 thousand and carrying value \$7,061 thousand, since fair value is lower than the carrying amount, the company recognized an impairment of \$5,994 thousand.

The Company expect to achieve a sale agreement during first half of 2023.

Discontinued operations

As of December, 31 2022 and 2021, there were no discontinued operations.

For the year ended December, 31 2020, the Company recorded \$5,399 thousand related to price adjustment on the sale of Group's hydro-electric assets in 2019. The amount was recognized in Discontinued operations in Consolidated Income Statement.

Analysis of the result for the period from the discontinued operations

The results of the discontinued operations included in the (loss) profit after taxes from discontinued operations are set out below.

The profit and loss statement from discontinued operations is as follows:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Sales	—	—	—
Raw materials and energy consumption for production	—	—	—
Other operating income	—	—	—
Staff costs	—	—	—
Other operating expense	—	—	—
Depreciation and amortization charges, operating allowances and write-downs	—	—	—
Impairment losses	—	—	—
Operating Profit (loss)	—	—	—
Net finance expense	—	—	—
(LOSS) PROFIT BEFORE TAXES FROM DISCONTINUED OPERATIONS	—	—	—
Income tax expense	—	—	—
Gain on sale of discontinued operation	—	—	(5,399)
(LOSS) PROFIT AFTER TAXES FROM DISCONTINUED OPERATIONS	—	—	(5,399)

Basic earnings (loss) per ordinary share are calculated by dividing the consolidated profit (loss) for the year attributable to the Discontinued Operations by the weighted average number of ordinary shares outstanding during the year, excluding the average number of treasury shares held in the year, if any. Dilutive earnings (loss) per share assumes the exercise of stock options, provided that the effect is dilutive. The Earnings per share is showed as follows:

	2022	2021	2020
Basic earnings (loss) per ordinary share computation			
Numerator:			
Profit (loss) attributable to Discontinued Operations (US\$'000)	—	—	(5,399)
Denominator:			
Weighted average basic shares outstanding	—	—	169,269,281
Basic earnings (loss) per ordinary share (US\$)	—	—	(0.03)
Diluted earnings (loss) per ordinary share computation			
Numerator:			
Profit (loss) attributable to Discontinued Operations (US\$'000)	—	—	(5,399)
Denominator:			
Weighted average basic shares outstanding	—	—	169,269,281
Effect of dilutive securities	—	—	—
Weighted average dilutive shares outstanding	—	—	169,269,281
Diluted earnings (loss) per ordinary share (US\$)	—	—	(0.03)

The statement of cash flows from discontinued operations is showed as follows:

	2022 US\$'000	2021 US\$'000	2020 US\$'000
Cash flows from operating activities:			
Profit for the period	—	—	(5,399)
Adjustments to reconcile net (loss) profit to net cash provided by operating activities:			
Income tax expense (benefit)	—	—	—
Depreciation and amortization charges, operating allowances and write-downs	—	—	—
Net Finance expense	—	—	—
Gains on disposals of non-current and financial assets	—	—	5,399
Changes in working capital			
Decrease / (increase) in accounts receivable	—	—	—
Decrease / (increase) in inventories	—	—	—
Increase / (Decrease) in accounts payable	—	—	—
Other changes in operating assets and liabilities			
Other, net	—	—	(24)
Income tax paid	—	—	—
Interest paid	—	—	—
Total cash flow from operating activities	<u>—</u>	<u>—</u>	<u>(24)</u>
Cash flows from investing activities:			
Payments due to investments:			
Property, plant and equipment	—	—	—
Disposals:			
Disposal of business, net of cash	—	—	—
Total cash flow from investing activities	<u>—</u>	<u>—</u>	<u>—</u>
Cash flows from financing activities:			
Other financing activities	—	—	—
Total cash flow from financing activities	<u>—</u>	<u>—</u>	<u>—</u>
INCREASE / (DECREASE) IN CASH	<u>—</u>	<u>—</u>	<u>(24)</u>
CASH AT BEGINNING OF PERIOD	<u>—</u>	<u>—</u>	<u>24</u>
CASH AT END OF PERIOD	<u>—</u>	<u>—</u>	<u>—</u>

31. Other disclosures

Restricted Net Assets

Certain of our entities are restricted from remitting certain funds to us in the form of cash dividends or loans by a variety of, contractual requirements. These restrictions are related to standard covenant requirements included in our bank borrowings and debt instruments, such as the SEPI loan and the ABL Revolver. Additionally, the Company has restrictions for the disposal of cash in the joint ventures. Consequently, net assets from Ferroglobe subsidiaries Globe Specialty Metals, Inc., and other subsidiaries in the USA, QSIP Canada ULC, Grupo Ferroatlántica and the Joint Ventures are restricted. Please refer to Notes 10, 16 and 19 for further details of these restrictions. As of December 31, 2022, the restricted net assets of the Ferroglobe Group's subsidiaries were approximately \$496,983 thousand.

32. Events after the reporting period

REINDUS loan

On January 19, 2023, a new resolution was signed by the Ministry terminating the total reimbursement procedure initiated in January 2022. Once that procedure was definitively closed, the company decided to proceed with the foreseen partial early repayment of €16.3 million on February 10, 2023.

Grupo Villar Mir

On February 28, 2023 Grupo Villar Mir has reduced the number of shares owned from 81,924,822 to 76,265,434 shares, representing approximately 40.72% of the capital of the company.

Reinstated Senior Notes

On March 1, 2023 Globe repurchased \$25.7 million of the Reinstated Senior Notes and the corresponding accrued interest coupon amounting to \$207 thousand as of the purchase date. The fair value of the Notes at the purchase date was \$26.1 million and the purchase price was \$1.01 per bond.

PARENT COMPANY BALANCE SHEET

Thousands of U.S. Dollars

	Notes	December 31, 2022 US\$'000	December 31, 2021 US\$'000	January 1, 2021 US\$'000
ASSETS				
Non-current assets				
Investment in subsidiaries	3	629,284	629,284	631,274
Intangible assets	8	522	—	—
Property, plant and equipment	9	449	105	2
Trade and other receivables from subsidiaries	4	263,058	227,865	221,878
Total non-current assets		893,313	857,254	853,154
Current assets				
Trade and other receivables	4	797	350	352
Trade and other receivables from subsidiaries		118,210	159,874	88,033
Other current assets		435	441	5,619
Cash and cash equivalents		605	1,311	1,065
Total current assets		120,047	161,976	95,069
Total assets		1,013,360	1,019,230	948,223
EQUITY AND LIABILITIES				
Equity				
Share capital		1,964	1,964	1,784
Other reserves	6	(158,958)	(164,783)	(280,036)
Translation differences		—	—	47,296
Valuation adjustments		—	—	922
Retained earnings		734,095	774,531	797,875
Total equity		577,101	611,712	567,841
Non-current liabilities				
Debt instruments				148,551
Lease liabilities	10	372	25	26
Trade and other payables from subsidiaries	5	183,721	—	—
Other liabilities		11	—	—
Total non-current liabilities		184,104	25	148,577
Current liabilities				
Debt instruments	7	—	2,181	4,605
Lease liabilities	10	550	568	492
Trade and other payables	5	10,634	11,221	7,637
Trade and other payable from subsidiaries		240,753	392,803	217,803
Current income tax liabilities		115	490	519
Other current liabilities		103	230	749
Total current liabilities		252,155	407,493	231,805
Total equity and liabilities		1,013,360	1,019,230	948,223

Notes 1 to 15 are an integral part of these financial statements.

The financial statements of Ferroglobe PLC with registration number 9425113 were approved by the Board and authorized for issue on May 30, 2023.

Signed on behalf of the Board.

Dr. Marco Levi
Director

PARENT COMPANY STATEMENT OF COMPREHENSIVE INCOME

PERIOD ENDED DECEMBER 31, 2022 AND 2021

Thousands of U.S. Dollars

	Notes	2022 US\$'000	2021 US\$'000
Other operating income	11.1	41,816	32,037
Staff costs	11.2	(5,864)	(4,983)
Other operating expenses		(51,864)	(36,859)
Depreciation and amortization charges, operating allowances and write-downs	9	(104)	(109)
Operating loss		(16,016)	(9,914)
Finance income	11.3	4,029	77,232
Finance cost	11.3	(26,444)	(96,581)
Exchange differences		(2,005)	(15,227)
(Loss)/profit on ordinary activities before taxation		(40,436)	(44,490)
Tax on (loss)/profit on ordinary activities	11.5	—	—
(Loss)/profit for the period		(40,436)	(44,490)
Other comprehensive income		—	—
Total comprehensive (loss)/income		(40,436)	(44,490)

Notes 1 to 15 are an integral part of these financial statements.

PARENT COMPANY STATEMENT OF CHANGES IN EQUITY FOR 2022 AND 2021
Thousands of U.S. Dollars

	Equity attributable to equity holders of the Company						Total US\$'000
	Share capital US\$'000	Other reserves US\$'000	Translation differences US\$'000	Valuation adjustments US\$'000	Result for the year US\$'000	Retained earnings US\$'000	
Balance at January 1, 2021	1,784	(280,036)	47,296	922	—	797,875	567,841
Issue share capital	178	84,786	—	—	—	—	84,964
Share-based compensation	—	2,161	—	—	—	—	2,161
Comprehensive (loss) income for the 9-month period	—	—	1,290	—	(108,164)	—	(106,874)
Net (loss)/gain on cash flow hedges	—	—	—	(922)	—	—	(922)
Balance at September 30, 2021	1,962	(193,089)	48,586	—	(108,164)	797,875	547,170
Effect of change in functional currency	—	25,402	(48,586)	—	2,041	21,146	3
Balance at October 01, 2021	1,962	(167,687)	—	—	(106,123)	819,021	547,173
Issue share capital	2	1,440	—	—	—	—	1,442
Share-based compensation	—	1,464	—	—	—	—	1,464
Comprehensive (loss) income for the 3-month period	—	—	—	—	61,633	—	61,633
Distribution of the year loss	—	—	—	—	44,490	(44,490)	—
Balance at December 31, 2021	1,964	(164,783)	—	—	—	774,531	611,712
Share-based compensation	—	5,825	—	—	—	—	5,825
Comprehensive (loss) income for the year	—	—	—	—	(40,436)	—	(40,436)
Distribution of the year loss	—	—	—	—	40,436	(40,436)	—
Balance at December 31, 2022	1,964	(158,958)	—	—	—	734,095	577,101

Notes 1 to 15 are an integral part of these financial statements.

STATEMENT OF CASH FLOW
PERIOD ENDED DECEMBER 31, 2022 AND 2021
Thousands of U.S. Dollars

	Notes	2022 US\$'000	2021 US\$'000
Cash flows from operating activities:			
(Loss) for the year		(40,436)	(44,490)
Adjustments to reconcile net profit (loss) to net cash provided by operating activities:			
Depreciation and amortization charges, operating allowances and write-downs	9	104	109
Finance income (loss)	11.2	(4,029)	(77,232)
Finance costs	11.2	26,444	96,581
Exchange differences		2,005	15,227
Share-based compensation	12	5,836	3,627
Changes in operating assets and liabilities:			
(Increase) decrease in trade and other receivables		7,138	1,431
Increase (decrease) in trade and other payables		5,205	(22,169)
Other changes in operating assets and liabilities		(492)	(548)
Net used cash provided (used) by operating activities		1,775	(27,464)
Cash flows from investing activities:			
Payments due to investments:			
Other intangible assets	8	(522)	—
Net cash provided (used) by investing activities		(522)	—
Cash flows from financing activities:			
Payment for equity issuance costs		—	(6,647)
Proceeds from equity issuance		—	41,440
Bank borrowings		—	218
Repayment of debt instruments	7	(2,181)	—
Amounts paid due to leases	10	(123)	(111)
Interest paid		—	(7,031)
Net cash provided (used) by financing activities		(2,304)	27,869
Total net cash flows for the year		(1,051)	405
Beginning balance of cash and cash equivalents		1,311	1,065
Exchange differences on cash and cash equivalents in foreign currencies		345	(159)
Ending balance of cash and cash equivalents		605	1,311

Notes 1 to 15 are an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

1. General information

Ferroglobe PLC is a public limited company incorporated in the United Kingdom on February 5, 2015. The Company's registered office is 5 Fleet Place, London EC4M 7RD (United Kingdom).

Ferroglobe PLC is the parent company of Ferroglobe group, which is among the world's largest producers of silicon metal and silicon-based alloys, important ingredients in a variety of industrial and consumer products. The Company's customers include major silicone chemical, aluminum and steel manufacturers, auto companies and their suppliers, ductile iron foundries, manufacturers of photovoltaic solar cells and computer chips, and concrete producers.

For the year ending 31 December 2022 the following subsidiaries of Ferroglobe PLC were entitled to exemption from audit under s479A of the Companies Act 2006 relating to subsidiary companies:

<i>Subsidiary Name</i>	<i>Companies House Registration Number</i>
Ferroglobe Finance Company PLC	13353128
Ferroglobe Holding Company Ltd	13347942

Ferroglobe PLC has provided parental guarantee for the debts and liabilities of the UK subsidiaries described above at the balance sheet date in accordance with section 479C of the Companies Act 2006. The Company has assessed the probability of loss under these guarantees as remote.

1.1 Basis of presentation

The separate financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and interpretations issued by the International Financial Reporting Interpretations Committee (collectively "IFRS"). These financial statements for the year ended December 31, 2022 are the first that the Company has prepared in accordance with IFRS. The Company previously prepared its financial statements, up to and including December 31, 2021, in accordance with FRS 101 as issued by the FRC. Accordingly, the financial statements were prepared in accordance with FRS 101 (Financial Reporting Standard 101) *Reduced Disclosure Framework* as issued by the FRC incorporating the Amendments to FRS 101 issued by the FRC in July 2015 and July 2016.

In the transition from FRS 101 to IFRS, the Company has applied IFRS 1 while ensuring that its assets and liabilities are measured in compliance with IFRS. Accordingly, the Company has prepared financial statements that comply with IFRS applicable for the year ended December 31, 2022, together with the comparative period data for the year ended December 31, 2021. In preparing the financial statements, the Company's opening statement of financial position was prepared as at January 1, 2021, the Company's date of transition to IFRS. On transition to IFRS no GAAP differences arose except for the additional disclosures provided in these financial statements, such as the presentation of a comprehensive income statement, a cash flow statement and additional disclosures in relation to share-based payment, financial instruments, related party transactions and income statement accounts.

The financial statements were prepared on a historical cost basis, with the exceptions disclosed in the notes to the financial statements, where applicable, and in those situations where IFRS requires that financial assets and financial liabilities are valued at fair value.

1.2 Currency

Until September 30, 2021, Ferroglobe PLC functional currency was the Euro. Due to changes in the Company's business activities and capital structure that reduced the extent and materiality of transactions in euros,

management conducted a review of the functional currency of the company in accordance with International Financial Reporting Standards and concluded that there has been a change in its functional currency from Euro to U.S. Dollars, effective since October 1, 2021.

Ferroglobe PLC is the parent company of Ferroglobe Group and its main assets and liabilities relate to intercompany transactions. Due to changes in the group structure following a refinancing program in 2021, PLC signed an agreement in which they agreed to convert all intercompany receivables and payables outstanding into US Dollars. Additionally, PLC financing instruments are U.S. Dollars denominated.

The change in functional currency was implemented prospectively starting October 1, 2021. To give effect to this change, balances of the parent company as of October 1, 2021 have been translated to USD in accordance with IAS 21 "The effect of changes in foreign exchange rates". The functional currencies of subsidiaries are determined by the primary economic environment in which each subsidiary operates.

1.3 Going concern

The financial statements for the period ended December 31, 2022 have been prepared assuming that the Company will continue as a going concern, which contemplates the realization of assets and the discharge of liabilities in the normal course of business for the foreseeable future.

The Company is supported by the Group, who has generated positive cash flows in fiscal year 2022 and anticipates generating sufficient cash from operations to satisfy its short and long-term liquidity needs. The Group has also confirmed its intention to continue supporting the Company, therefore the Company has concluded that there is no material uncertainty about its ability to continue as a going concern.

1.4 International financial reporting standards

Application of new accounting standards

New and amended standards and interpretations adopted by the Company

No new standards effective on January 1, 2022 have a material impact on the financial statements. The Company has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

New and amended standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatory for the reporting period ended December 31, 2022 and have not been early adopted by the Company. Standards, interpretations and amendments published by the IASB that will be effective for periods beginning on or after January 1, 2023:

- IFRS 17 Insurance Contracts (issued on 18 May 2017); including Amendments to IFRS 17 (issued on June 2020)
- Amendments to IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current and Classification of Liabilities as Current or Non-current - Deferral of Effective Date (issued on January 2020 and July 2020 respectively)
- Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2: Disclosure of Accounting policies (issued on February 2021)
- Amendments to IAS 8 Accounting policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates (issued on February 2021)

- Amendments to IAS 12 Income Taxes: Deferred Tax related to Assets and Liabilities arising from a Single Transaction (issued on May 2021)
- Amendments to initial application of IFRS 17 and IFRS 9: Comparative information (issued on December 2021)
- Amendments to IFRS 16: Lease Liability in a sale and Leaseback (issued on September 2022)
- Amendments to IAS 1: Non-current liabilities with Covenants (issued on October 2022)

None of these standards or interpretations that are not yet effective are expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

1.5 Critical accounting judgements and key sources of estimation uncertainty

In the application of the Company's accounting policies, the directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying the Company's accounting policies

The following are the critical judgements, apart from those involving estimations (which are dealt with separately below), that the directors have made in the process of applying the Company's accounting policies and that have the most significant effect on the amounts recognized in financial statements.

Change of functional currency

Until September 30, 2021, the Parent's functional currency was the Euro. Due to changes in the Company's business activities and capital structure that reduced the extent and materiality of transactions in euros, management conducted a review of the functional currency of Ferroglobe PLC and in accordance with International Financial Reporting Standards and concluded that there has been a change in its functional currency from Euro to U.S. Dollars, effective since October 1, 2021.

Ferroglobe PLC is the parent company of Ferroglobe Group and its main assets and liabilities relate to intercompany transactions. Due to the new group structure, PLC has signed an agreement in which they agreed to convert all intercompany receivables and payables outstanding into US Dollars. Additionally, PLC financing instruments are U.S. Dollars denominated.

The change in functional currency was implemented prospectively starting October 1, 2021. To give effect to this change, balances of the parent company as of October, 1, 2021 have been translated to USD in accordance with IAS 21 "The effect of changes in foreign exchange rates". The functional currencies of subsidiaries are determined by the primary economic environment in which each subsidiary operates.

Key sources of estimation of uncertainty

The key assumptions concerning the future, and other key sources of estimating uncertainty at the reporting period that may have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities within the next financial year, are discussed below.

Allowances against the carrying value of investment in subsidiaries

Investments in subsidiaries are stated at cost less provisions for impairment. Our approach in determining the recoverable amount utilizes a discounted cash flow methodology, which necessarily involves making numerous estimates and assumptions regarding, operating costs, appropriate discount rates and working capital requirements. The key assumptions used for estimating cash flow projections in the Group's impairment testing are those relating to discount rate, revenue, operating cost, operating margin and carrying amount. The key assumptions take account of the business's expectations for the projection period. These expectations consider the macroeconomic environment, industry and market conditions, the historical performance and any other circumstances particular to the unit, such as business strategy and product mix. In particular in the case of sales prices assumptions the Company has used the latest forward prices published by a reputable industry analyst.

These estimates will likely differ from future actual results of operations and cash flows, and it is possible that these differences could be material. Changes in our business activities or structure may also result in additional changes to the level of testing in future periods. Further, future events could cause the Group to conclude that impairment indicators exist and that the asset values associated with a given operation have become impaired. In the future, changes to internal and external indicators may change the recoverable value of the investment in subsidiaries, leading to an impairment assessment at the reporting date.

The Company has defined a financial model which considers the revenues, expenditures, cash flows, pre tax payments and capital expenditures on a five year period (2023-2027), and perpetuity beyond this period. The financial projections to determine the net present value of future cash flows are modeled considering the principal variables that determine the historic flows of each group of cash-generating units including prices, volumes, costs, CAPEX and net working capital.

2. Significant accounting policies

The principal IFRS accounting policies applied in preparing these financial statements that were in effect at the date of preparation are described below.

2.1 *Investment in subsidiaries and impairment*

Investment in subsidiaries is stated at cost less, where appropriate, provisions for impairment. At each balance sheet date, the Company reviews the carrying amount of its investments to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated to determine the extent of the impairment loss (if any).

Recoverable amount is the higher of the fair value less costs to sell and the value in use. In assessing value in use, the estimated future cash flows are discounted to the present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted. If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

2.2 *Other intangible assets*

Other intangible assets are assets without physical substance which can be individually identified either because they are separable or because they arise as a result of a legal or contractual right or of a legal transaction or were developed by the consolidated companies. Only intangible assets whose value can be

measured reliably and from which the Company expects to obtain future economic benefits are recognized in the consolidated statement of financial position.

Intangible assets are recognized initially at acquisition cost. The aforementioned cost is amortized systematically over each asset's useful life. At each reporting date, these assets are measured at acquisition cost less accumulated amortization and any accumulated impairment losses, if any. The Company reviews amortization periods and amortization methods for finite-lived intangible assets at the end of each fiscal year.

The Company's main intangible assets are as follows:

Computer software

Computer software includes the costs incurred in acquiring or developing computer software, including the related installation. Computer software is amortized on a straight-line basis over two to five years.

Computer system maintenance costs are recognized as expenses in the years in which they are incurred.

2.3 Property, plant and equipment

Cost

Property, plant and equipment for our own use are initially recognized at acquisition or production cost and are subsequently measured at acquisition or production cost less accumulated depreciation and any accumulated impairment losses.

Depreciation

The Company depreciates property, plant and equipment using the straight-line method at annual rates based on the estimated useful life.

2.4 Financial instruments

Financial assets and financial liabilities are recognized in the Company's balance sheet when the Company becomes a party to the contractual provisions of the instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

Financial assets

The Company classifies its financial assets into the following categories: those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss) and those to be measured at amortized cost. The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows.

Financial assets measured at amortized cost

Financial assets are classified as measured at amortized cost when they are held in a business model whose objective is to collect contractual cash flows and the contractual terms of the financial asset give rise on specific dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. Such assets are carried at amortized cost using the effective interest method if the

time value of money is significant. Gains and losses are recognized in profit or loss when the assets are derecognized or impaired and when interest is recognized using the effective interest method. This category of financial assets includes trade receivables, receivables from related parties and cash and cash equivalents.

Financial assets measured at fair value through other comprehensive income

Debt instruments are classified as measured at fair value through other comprehensive income when they are held in a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets, and the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. All movements in the fair value of these financial assets are taken through other comprehensive income, except for the recognition of impairment gains or losses, interest income calculated using the effective interest method and foreign exchange gains and losses. When the financial asset is derecognized, the cumulative fair value gain or loss previously recognized in other comprehensive income is reclassified to the income statement.

Equity instruments are classified as measured at fair value through other comprehensive income if, on initial recognition, the Company makes an irrevocable election to designate the instrument as at fair value through other comprehensive income. The election is made on an instrument-by-instrument basis and is not permitted if the equity investment is held for trading. Fair value gains or losses on revaluation of such equity investments are recognized in other comprehensive income and accumulated in the valuation adjustments reserve. When the equity investment is derecognized, there is no reclassification of fair value gains or losses previously recognized in other comprehensive income to the income statement. Dividends are recognized in the income statement when the right to receive payment is established.

Financial assets measured at fair value through profit or loss

Financial assets are classified as measured at fair value through profit or loss when the asset does not meet the criteria to be measured at amortized cost or at fair value through other comprehensive income. Such assets are carried on the balance sheet at fair value with gains or losses recognized in the income statement.

Derecognition of financial assets

The Company derecognizes a financial asset when:

- the rights to receive cash flows from the asset have expired; or
- the Company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

On derecognition of a financial asset in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss.

If the Company retains substantially all of the risks and rewards of ownership of a transferred financial asset, the Company continues to recognize the financial asset and also recognizes a collateralized borrowing for the proceeds received.

Impairment of financial assets

The expected credit loss model is applied for recognition and measurement of impairments in financial assets measured at amortized cost and debt instruments held at fair value through other comprehensive income. The loss allowance for the financial asset is measured at an amount equal to the 12-month expected credit losses. If the credit risk on the financial asset has increased significantly since initial recognition, the loss allowance for the financial asset is measured at an amount equal to the lifetime expected credit losses. Changes in loss allowances are recognized in profit and loss. For trade receivables,

a simplified impairment approach is applied recognizing expected lifetime losses from initial recognition. For this purpose, the Company has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Company writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Company's recovery procedures, considering legal advice where appropriate. Any recoveries made are recognized in profit or loss.

Financial liabilities

The subsequent measurement of financial liabilities depends on their classification, as described below:

Financial liabilities measured at fair value through profit or loss

Financial liabilities that meet the definition of held for trading are classified as measured at fair value through profit or loss. Such liabilities are carried on the balance sheet at fair value with gains or losses recognized in the income statement. This category includes contingent consideration and derivatives, other than those designated as hedging instruments in an effective hedge.

Financial liabilities measured at amortized cost

This is the category most relevant to the Company and comprises all other financial liabilities, including bank borrowings, debt instruments, financial loans from government agencies, payables to related parties and trade and other payables.

After initial recognition, other financial liabilities are subsequently measured at amortized cost using the effective interest method. Amortized cost is calculated by considering any issue costs and any discount or premium on settlement.

Derecognition of financial liabilities

The Company derecognizes financial liabilities when, and only when, the Company's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss. When the Company exchanges with the existing lender one debt instrument into another one with substantially different terms, such exchange is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. Similarly, the Company accounts for substantial modification of terms of an existing liability or part of it as an extinguishment of the original financial liability and the recognition of a new liability. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective rate is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability. If the modification is not substantial, the difference between the carrying amount of the liability before the modification and the present value of the cash flows after modification are recognized in profit or loss as a modification gain or loss.

2.5 Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either: in the principal market for the asset or liability; or in the absence of a principal market, in the most advantageous market for the asset or liability.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

The Company uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 — Quoted (unadjusted) market prices in active markets for identical assets or liabilities.
- Level 2 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
- Level 3 — Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For those assets and liabilities measured at fair value at the balance sheet date, further information on fair value measurement is provided in Note 29.

2.6 Cash and cash equivalents

The Company classifies under “Cash and cash equivalents” any liquid financial assets, such as for example cash on hand and at banks, deposits and liquid investments, that can be converted into known amounts of cash within three months and are subject to an insignificant risk of changes in value.

2.7 Restricted cash and cash equivalents

The Company classifies under “restricted cash and cash equivalents” any liquid financial assets, which meet the definition of cash and cash equivalents but the use is restricted by financial agreements.

2.8 Provisions and contingencies

When preparing the financial statements, the directors made a distinction between:

- Provisions: present obligations, either legal, contractual, constructive or assumed by the Company, arising from past events, the settlement of which is expected to give rise to an outflow of economic benefits the amount or timing of which are uncertain; and
- Contingent liabilities: possible obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more future events not wholly within the control of the Company, or present obligations arising from past events the amount of which cannot be estimated reliably or whose settlement is not likely to give rise to an outflow of economic benefits.
- Contingent assets: possible assets that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity.

The financial statements include all the material provisions with respect to which it is considered that it is probable that the obligation will have to be settled. Contingent liabilities are not recognized in the financial statements, but rather are disclosed, as required by IAS 37.

Provisions are classified as current or non-current based on the estimated period of time in which the obligations covered by them will have to be met. They are recognized when the liability or obligation giving rise to the indemnity or payment arises, to the extent that its amount can be estimated reliably.

“Provisions” includes the provisions for pension and similar obligations assumed; provisions for contingencies and charges, such as for example those of an environmental nature and those arising from litigation in progress or from outstanding indemnity payments or obligations, and collateral and other similar guarantees provided by the Company; and provisions for medium- and long- term employee incentives.

Contingent assets are not recognized, but are disclosed where an inflow of economic benefits is probable. If it has become virtually certain that an inflow of economic benefits will arise, the asset and the related income are recognized in the financial statements in the period in which the change occurs.

2.9 Leases

The Company assesses if a contract is or contains a lease at inception of the contract. A contract is or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company recognizes a right-of-use asset and a lease liability at the commencement date.

The lease liability is initially measured at the present value of the minimum future lease payments, discounted using the interest rate implicit in the lease, or, if not readily determinable, the incremental borrowing rate. Lease payments include fixed payments, variable payments that depend on an index or rate, as well as any extension or purchase options, if the Company is reasonably certain to exercise these options. The lease liability is subsequently measured at amortized cost using the effective interest method and remeasured with a corresponding adjustment to the related right-of-use asset when there is a change in future lease payments.

The right-of-use asset comprises, at inception, the initial lease liability, any initial direct costs and, when applicable, the obligations to refurbish the asset, less any incentives granted by the lessors. The right-of-use asset is subsequently depreciated, on a straight-line basis, over the lease term or, if the lease transfers the ownership of the underlying asset to the Company at the end of the lease term or, if the cost of the right-of-use asset reflects that the lessee will exercise a purchase option, over the estimated useful life of the underlying asset. Right-of-use assets are also subject to testing for impairment if there is an indicator for impairment.

Variable lease payments not included in the measurement of the lease liabilities are expensed to the income statement in the period in which the events or conditions which trigger those payments occur.

In the statement of financial position, right-of-use assets and lease liabilities are classified, respectively, as part of property, plant and equipment and current and non-current lease liabilities.

2.10 Current assets and liabilities

In general, assets and liabilities are classified as current or non-current based on the Company’s operating cycle. However, in view of the diverse nature of the activities carried on by the Company, in which the duration of the operating cycle differs from one activity to the next, in general assets and liabilities expected to be settled or fall due within twelve months from the end of the reporting period are classified as current items and those which fall due or will be settled within more than twelve months are classified as non-current items.

2.11 Income taxes

Income tax expense represents the sum of current tax and deferred tax. Income tax is recognized in the income statement except to the extent that it relates to items recognized in other comprehensive income

or directly in equity, in which case the related tax is recognized in other comprehensive income or directly in equity.

The current income tax expense is based on domestic and international statutory income tax rates in the tax jurisdictions where the Company operates related to taxable profit for the period. The taxable profit differs from net profit as reported in the income statement because it is determined in accordance with the rules established by the applicable tax authorities which includes temporary differences, permanent differences, and available credits and incentives.

The Company's deferred tax assets and liabilities are provided on temporary differences at the balance sheet date between financial reporting and the tax basis of assets and liabilities, then applying enacted tax rates expected to be in effect for the year in which the differences are expected to reverse. Deferred tax assets are recognized for deductible temporary differences, carry-forward of unused tax credits and losses, to the extent that it is probable, that taxable profit will be available against which the deductible temporary difference and carryforwards of unused tax credits and losses can be utilized. The deferred tax assets and liabilities that have been recognized are reassessed at the end of each closing period in order to ascertain whether they still exist, and adjustments are made on the basis of the findings of the analyses performed.

Income tax payable is the result of applying the applicable tax rate in force to each tax-paying entity, in accordance with the tax laws in force in the country in which the entity is registered. Additionally, tax deductions and credits are available to certain entities, primarily relating to inter-company trades and tax treaties between various countries to prevent double taxation.

Income tax expense is recognized in the income statement, except to the extent that it arises from a transaction which is recognized directly to "equity", in which case the tax is recognized directly to "equity."

Deferred tax assets and liabilities are offset only when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority or either the same taxable entity or different taxable entities where there is an intention to settle the current tax assets and liabilities on a net basis or to realize the assets and settle the liabilities simultaneously.

2.12 Foreign currency transactions

Foreign currency transactions are initially recognized in the functional currency of the subsidiary by applying the exchange rates prevailing at the date of the transaction.

Subsequently, at each reporting date, monetary assets and liabilities denominated in foreign currencies are translated to dollars at the rates prevailing on that date.

Any exchange differences arising on settlement or translation at the closing rates of monetary items are recognized in the income statement for the year.

2.13 Other operating income

Other operating income mainly includes revenue from management fees and reimbursements of costs incurred on behalf of the group.

Dividends received from subsidiaries are also recognized as other operating income. For the years ending December 31, 2022 and 2021 the Company did not receive cash dividend from its subsidiaries.

2.14 Expense recognition

Expenses are recognized on an accrual basis, i.e. when the actual flow of the related goods and services occurs, regardless of when the resulting monetary or financial flow arises.

An expense is recognized in the income statement when there is a decrease in the future economic benefits related to a reduction of an asset, or an increase in a liability, which can be measured reliably. This means that an expense is recognized simultaneously with the recognition of the increase in a liability or the reduction of an asset. Additionally, an expense is recognized immediately in the income statement when a disbursement does not give rise to future economic benefits or when the requirements for recognition as an asset are not met. Also, an expense is recognized when a liability is incurred and no asset is recognized, as in the case of a liability relating to a guarantee.

2.15 Share-based compensation

The Company recognizes share-based compensation expense based on the estimated grant date fair value of share-based awards using a Black-Scholes option pricing model. Prior to vesting, cumulative compensation cost equals the proportionate amount of the award earned to date. The Company has elected to treat each award as a single award and recognize compensation cost on a straight-line basis over the requisite service period of the entire award. If the terms of an award are modified in a manner that affects both the fair value and vesting of the award, the total amount of remaining unrecognized compensation cost (based on the grant-date fair value) and the incremental fair value of the modified award are recognized over the amended vesting period.

2.16 Statement of cash flows

The following terms are used in the statement of cash flows, prepared using the indirect method, with the meanings specified as follows:

5. Cash flows: inflows and outflows of cash and cash equivalents, which are short-term, highly liquid investments that are subject to an insignificant risk of changes in value.
6. Operating activities: activities constituting the object of the subsidiaries forming part of the Company and other activities that are not investing or financing activities.
7. Investing activities: the acquisition and disposal of long-term assets and other investments not included in cash and cash equivalents.
8. Financing activities: activities that result in changes in the size and composition of the equity and borrowings of the Company that are not operating or investing activities. Interest payments and principal payments are presented separately.

3. Investment in subsidiaries

The Company's investments at the balance sheet date in the share capital of its subsidiaries include the following:

Company	Country	Ownership	Currency	Purpose
Ferroglobe Holding Company, LTD	United Kingdom	100%	USD	Electrometallurgy

During 2021 the Company completed the refinancing of its debt instruments. As part of the refinancing process two new entities were incorporated Ferroglobe Finance Company PLC "FinCo" and Ferroglobe Holding Company LTD "HoldCo". A step of this refinancing process was for Ferroglobe PLC to transfer all of its investments to the new incorporated entity HoldCo. Therefore, Ferroglobe PLC transferred the shares of GSM and GFAT in exchange for shares in HoldCo. This transaction was accounted at their existing carrying values.

Investments in subsidiaries are stated at cost less provision for impairments and the Directors believe that the carrying value of the investments is supported by their underlying net assets recoverable value.

The change in carrying value of investments is as follows:

	2022 US\$'000	2021 US\$'000
Cost:		
At January 1	629,284	631,274
Translation differences	—	—
Effect of change in functional currency	—	(1,990)
At December 31	629,284	629,284
Provision for impairment:		
At January 1	—	—
Impairment	—	—
At December 31	—	—
Net book value:		
At December 31	629,284	629,284

The following are the main trading subsidiaries of the Company:

Name	Percentage of ownership		Country of incorporation	Nature of the business
	Direct	Indirect		
Grupo FerroAtlántica, S.A.U.	—	100.0	Spain (1)	Electrometallurgy
FerroPem, S.A.S. (*)	—	100.0	France (2)	Electrometallurgy
Silicon Smelters (Pty.), Ltd. (*)	—	100.0	South Africa (3)	Electrometallurgy
Globe Specialty Metals, Inc	—	100.0	United States of America (4)	Electrometallurgy
Globe Metallurgical, Inc. (**)	—	100.0	United States of America (4)	Electrometallurgy
WVA Manufacturing, LLC (**)	—	100.0	United States of America (5)	Electrometallurgy
Quebec Silicon LP (**)	—	100.0	Canada (6)	Electrometallurgy
Globe Metales, S.A. (**)	—	100.0	Argentina (7)	Electrometallurgy
Ferroglobe Mangan Norge AS (*)	—	100.0	Norway (8)	Electrometallurgy
Ferroglobe Manganese France SAS (*)	—	100.0	France (9)	Electrometallurgy
FerroAtlántica del Cinca, S.L. (*)	—	100.0	Spain (1)	Electrometallurgy
Ferroglobe Finance Company, PLC	—	100.0	United Kingdom (10)	Electrometallurgy
Ferroglobe Holding Company, LTD.	100.0	—	United Kingdom (10)	Electrometallurgy

(*) Investment held through GFAT
(**) Investment held through GSM

Registered Offices:

1. Pº Castellana, Nº 259-D Planta 49ª, 28046, Madrid, Spain
2. 517, Av. de la Boisse., Chambéry, France
3. Beyersnek Road Po Box 657, Polokwane, 0700 ZA, South Africa
4. 1595 Sparling Road, Waterford OH 45786, United States
5. Route 60 East, Alloy WV 25002, United States
6. 6500 Rue Yvon-Trudeau, Becancour Québec G9H 2V8, Canada
7. Pico 1641 - Floor 8th - Rooms A and C, Buenos Aires, Argentina
8. Mo Industripark, 8624 Mo-i-Rana, Norway
9. Route De L'Ecluse de Mardyck, 59792, Grande Synthe, France
10. The Scalpel, 18th Floor, 52 Lime Street, London, United Kingdom, EC3M 7AF

The following subsidiaries were dormant and subsequently were dissolved during 2021:

- Ferroatlantica International Ltd was subsequently dissolved on 23 March 2021; and
- Ferroglobe Services (UK) Ltd was subsequently dissolved on 4 May 2021.

Further information about subsidiaries, including disclosures about non-controlling interests, is provided in Note 2 to the consolidated financial statements.

4. Trade and other receivables

	2022			2021		
	Non-current US\$'000	Current US\$'000	Total US\$'000	Non-current US\$'000	Current US\$'000	Total US\$'000
Amounts receivable from subsidiaries (Note 13)	263,058	118,210	381,268	227,865	159,874	387,740
VAT recoverable	—	797	797	—	237	237
Other receivables	—	—	—	—	113	113
Total	263,058	119,007	382,065	227,865	160,224	388,090

Current amounts due from subsidiaries are repayable on demand and are non-interest bearing.

Non-current amounts receivable from related parties comprise loans receivable from subsidiaries. The loans bear interest at a rate of 9.32% per annum.

5. Trade and other payables

	2022			2021	
	Non-current US\$'000	Current US\$'000	Total US\$'000	Current US\$'000	Total US\$'000
Amounts payable to subsidiaries (Note 13)	183,721	240,753	424,474	392,803	392,803
Trade payables	—	10,634	10,634	11,221	11,221
Total	183,721	251,387	435,108	404,024	404,024

Amounts payable to subsidiaries comprise \$424,724 thousand payable to subsidiaries (2021: \$392,803 thousand). Amounts payable to subsidiaries include fixed rate interest of 9.32% per annum bearing loans of \$251,624 thousand (2021: \$251,411 thousand).

The non-current amounts payable to subsidiaries mainly relate to the intercompany agreement with Ferroglobe Finance Company PLC for the transfer of the Reinstated Notes.

The contractual maturity of intercompany loans at December 31, 2022, was as follows:

	2022			
	2025 US\$'000	2026 US\$'000	2031 US\$'000	Total US\$'000
Non-current intercompany loans	10,303	147,882	25,536	183,721
Total	10,303	147,882	25,536	183,721

6. Equity

Share capital

Ferroglobe PLC was incorporated on February 5, 2015 and issued one ordinary share with a face value of \$1.00. The share was issued but uncalled. On October 13, 2015, the Company increased its share capital by £50,000 by issuing 50,000 sterling non-voting redeemable preference shares (the "Non-voting Shares") as well as 14 ordinary shares with a par value of \$1.00. Subsequently on October 13, 2015, the Company consolidated the 15 ordinary shares at a par value of \$1.00 to two ordinary shares with a par value of \$7.50, for a total amount of \$15.00.

On December 23, 2015, the Company acquired all of the issued and outstanding ordinary shares from Grupo Villar Mir, S.A.U., par value €1,000 per share, of Grupo FerroAtlántica, S.A.U. in exchange for 98,078,161 newly-issued Ferroglobe Class A ordinary shares, nominal value \$7.50 per share, making Grupo FerroAtlántica, S.A.U. a wholly-owned subsidiary of the Company. The company subsequently redeemed all Non-voting Shares.

Subsequently on December 23, 2015, Gordon Merger Sub, Inc., a wholly owned subsidiary of the Company, merged with Globe Specialty Metals, Inc., and all outstanding shares of GSM common stock, par value \$0.0001 per share were converted to the right to receive one newly-issued Ferroglobe ordinary share, nominal value \$7.50 per share. The ordinary shares were registered by the Company pursuant to a registration statement on Form F 4, which was declared effective by the SEC on August 11, 2015, and trade on the NASDAQ Global Select Market under the ticker symbol “GSM.”

On June 22, 2016 the Company completed a reduction of the share capital and as such the nominal value of each share has been reduced from \$7.50 to \$0.01, with the amount of the capital reduction being credited to a distributable reserve.

On November 18, 2016, Class A Ordinary Shares were converted into ordinary shares of Ferroglobe as a result of the distribution of beneficial interest units in the Ferroglobe Representation and Warranty Insurance Trust to certain Ferroglobe shareholders.

During the years ended December 31, 2019 and December 31, 2020, the Company did not issue new ordinary shares of any class.

On July 29, 2021, the company issued 8,918,618 new ordinary shares to Rubric Capital Management LP on behalf of certain managed or sub-managed funds and accounts and Grupo Villar Mir, S.A.U for a total issued share capital of \$40 million, and 1,900,000 shares and 7,013,872 shares par value \$0.01 amounting to \$51,522 thousand as equity work fee and bondholder equity stake related to the financing transactions. The transaction fees incurred in the issuance of the share capital of \$40 million amounting to \$6,647 thousand have been accounted for as a deduction from equity.

On October 6, 2021, the Company entered into an equity distribution agreement (the “Equity Distribution Agreement”) with B. Riley Securities, Inc. and Cantor Fitzgerald & Co. relating to the ordinary shares, par value \$0.01 per share, of Ferroglobe PLC, by which the Company may offer and sell ordinary shares having an aggregate offering price of up to \$100,000,000 from time to time through B. Riley Securities, Inc. and Cantor Fitzgerald & Co. as our sales agents. The company has sold 186,053 ordinary shares with net proceeds of \$1.4 million.

During the year ended December 31, 2022, the Company did not issue new ordinary shares of any class.

At December 31, 2022, there were 188,882,316 ordinary shares in issue with a par value of \$0.01, for a total issued share capital of \$1,964 thousand, (2021: 188,882,316 ordinary shares in issue with a par value of \$0.01, for a total issued share capital of \$1,964 thousand). The Company held 1,448,771 ordinary shares in treasury.

At December 31, 2022, the Company’s largest shareholders are as follows:

Name	Number of Shares Beneficially Owned	Percentage of Outstanding Shares (*)
Grupo Villar Mir, S.A.U.	81,924,822	43.7%

(*) 187,433,543 ordinary shares were outstanding at 31 December 2022, comprising 188,882,314 shares in issue less 1,448,771 shares held in treasury

Other Reserves

The change in other reserves is as follows:

	Other reserves				
	Merger reserve US\$'000	Share premium US\$'000	Share-based payment US\$'000	Own shares US\$'000	Total US\$'000
Balance at December 31, 2020	(280,023)	420	11,499	(11,932)	(280,036)
Issued share capital	—	86,226	—	—	86,226
Share-based compensation	—	—	3,625	—	3,625
Effect of change in functional currency	37,403	(11,573)	(2,020)	1,593	25,402
Balance at December 31, 2021	(242,620)	75,073	13,104	(10,339)	(164,782)
Share-based compensation	—	—	5,825	—	5,825
Balance at December 31, 2022	(242,620)	75,073	18,929	(10,339)	(158,957)

7. Debt instruments

Debt instruments comprise the following at December 31:

	2022 US\$'000	2021 US\$'000
Unsecured notes carried at amortised cost		
Principal amount	—	2,116
Unamortised issuance costs	—	—
Accrued coupon interest	—	65
Total	—	2,181
Amount due for settlement within 12 months	—	2,181
Amount due for settlement after 12 months	—	—
Total	—	2,181

On February 15, 2017, Ferroglobe issued \$150,000 thousand aggregate principal amount of 9.375% Senior Notes due March 1, 2022 (the "Notes"). Issuance costs of \$5,193 thousand were incurred. Interest on the Notes is payable semi-annually on March 1 and September 1 of each year, commencing on September 1, 2017.

On March 27, 2021, Ferroglobe and Globe and certain other members of our group entered into the Lock-Up Agreement with the Ad Hoc Group Noteholders, Grupo VM and affiliates of Tyrus Capital that set forth a plan to implement the restructuring.

On July 30, 2021 the company announced the occurrence of the "Transaction Effective Date" under the lock-up agreement dated March 27, 2021 (the "Lock-Up Agreement") between the Company and the financial stakeholders. The Issuers completed the exchange of 98.588% of the 9¾% Senior Notes due 2022 (the "Old Notes") issued by the Company and Globe for a total consideration per \$1,000 principal amount of Old Notes comprising (i) \$1,000 aggregate principal amount of new 9¾% senior secured notes due 2025 issued by the Issuers (the "New Notes") plus (ii) a cash fee amounting to \$51,611 thousand, which the Parent, at the direction of the qualifying noteholders, applied as cash consideration for a subscription of new ordinary shares of the Company. In addition, the Company issued new ordinary shares for total gross proceeds of \$40 million.

As part of the refinancing process, Ferroglobe PLC cancelled 98.588% of the Old Notes and FinCo issued the New Notes amounting \$345 million.

The Old Notes are governed by the Old Notes Indenture entered into by, among others, Ferroglobe and Globe, as issuers, Wilmington Trust, National Association, as trustee, registrar and paying agent, and the guarantors named therein (the "Old Notes Guarantors").

The Old Notes and the guarantees thereof are general unsecured, senior obligations of Ferroglobe and Globe and the Old Notes Guarantors, as applicable, and rank senior in right of payment to any and all of the existing and future indebtedness of Ferroglobe, Globe and the Old Notes Guarantors, as applicable, that is expressly subordinated in right of payment to the Old Notes and such guarantees, as applicable.

As of December 31, 2021 \$4.9 million in aggregate principal amount of the Old Notes was outstanding. This balance was settled on March 1, 2022.

The fair value of the Note maturing on March 1, 2022, determined by reference to the closing market price on the last trading day of the year, was \$5,082 thousand and has been fully settled.

Restrictions

The Reinstated Notes Indenture restricts, among other things, the ability of Ferroglobe and its restricted subsidiaries to:

- o borrow or guarantee additional indebtedness;
- o pay dividends, repurchase shares and make distributions of certain other payments;
- o make certain investments;
- o create certain liens;
- o merge or consolidate with other entities;
- o enter into certain transactions with affiliates;
- o sell, lease or transfer certain assets, including shares of any restricted subsidiary of Ferroglobe; and
- o guarantee certain types of other indebtedness of Ferroglobe and its restricted subsidiaries without also guaranteeing the Reinstated Notes.

8. Intangible assets

The detail of intangible assets, net of the related accumulated depreciation and impairment in 2022 and 2021 is as follows:

	Software US\$'000	Accumulated Depreciation US\$'000	Impairment US\$'000	Total US\$'000
Balance at December 31, 2020	—	—	—	—
Additions	—	—	—	—
Disposals	—	—	—	—
Depreciation charge for the year	—	—	—	—
Balance at December 31, 2021	—	—	—	—
Additions	522	—	—	522
Disposals	—	—	—	—
Depreciation charge for the year	—	—	—	—
Balance at December 31, 2022	522	—	—	522

The additions are related to the development of a cybersecurity software. The project is ongoing, therefore no amortization has been recognized.

9. Property, plant and equipment

The detail of property, plant and equipment, net of the related accumulated depreciation and impairment in 2022 and 2021 is as follows:

	Leased Land and Buildings US\$'000	Leased Plant and Machinery US\$'000	Accumulated Depreciation US\$'000	Impairment US\$'000	Total US\$'000
Balance at December 31, 2020	2,193	4	(865)	(1,330)	2
Additions	215	—	(109)	—	106

Disposals	(107)	—	107	—	—
Impairment	—	—	—	—	—
Exchange differences	(108)	—	42	63	(3)
Balance at December 31, 2021	2,192	4	(824)	(1,267)	105
Additions	334	—	(104)	—	230
Disposals	—	—	94	—	94
Impairment	—	—	—	—	—
Exchange differences	—	—	9	11	20
Balance at December 31, 2022	2,526	4	(825)	(1,256)	449

During 2022 the Company recognised an addition of \$334 thousand in relation to the new lease for the London office.

During 2021 the Company recognised an addition of \$215 thousand in relation to the new lease for the London office.

10. Leases

Lease obligations comprise the following at December 31:

	2022 US\$'000	2021 US\$'000
Balance as at January, 1	524	519
Additions	334	215
Interest	4	3
Lease payments	(123)	(111)
Exchange differences	183	(102)
Balance as at December, 31	922	524
Analysed as:		
Current	550	539
Non-current	372	(15)

Lease liabilities were discounted at the average incremental borrowing rate of 5.3%.

Leases are presented as follows in the Statement of financial position:

	2022 US\$'000	2021 US\$'000
Non-current assets		
Leased land and buildings	2,526	2,192
Leased plant and machinery	4	4
Accumulated depreciation	(825)	(824)
Impairment	(1,256)	(1,267)
Non-current liabilities		
Lease liabilities	372	25
Current liabilities		
Lease liabilities	550	568

Leases are presented as follows in the income statement:

	2022 US\$'000	2021 US\$'000
Depreciation and amortization charges, operating allowances and write-downs		
Depreciation of right of use assets	104	109
Finance costs		

Interest expense on lease liabilities	4	4
---------------------------------------	---	---

Exchange differences

Currency translation losses on lease liabilities

Currency translation gains on right of use assets

Leases are presented as follows in the Statement of cash flows:

	2022 US\$'000	2021 US\$'000
Payments for:		
Principal	123	111
Interest	4	4

As of December 31, 2022 and 2021 Ferroglobe holds short-term leases and low-value leases for which it has recognized right of use assets and lease liabilities. Each lease is reflected in the balance sheet as a right of use asset and a lease liability.

As of December 31, 2022 and 2021 Ferroglobe has not recorded any expense relating to variable lease payments.

The detail, by maturity, of the non-current payment obligations under leases as of December 31, 2022 is as follows:

	2024 US\$'000	2025 US\$'000	2026 US\$'000	2027 and after US\$'000	Total US\$'000
Other leases	100	95	91	86	372
Total	100	95	91	86	372

11. Income and expenses

11.1 Other operating income

	2022 US\$'000	2021 US\$'000
Operating income from subsidiaries (Note 13)	41,661	31,561
Other operating income	155	476
Total	41,816	32,037

Other operating income from subsidiaries mainly includes reimbursements of costs incurred on behalf of the group and revenue from management fees. Corporate services are allocated to the group subsidiaries and recharged with an arm's length mark-up,

11.2 Staff costs

Staff costs are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000
Share-based payments		
Wages, salaries and similar expenses	28	1,265
Equity-settled share-based payments (Note 12)	5,836	3,566
Total	5,864	4,831

11.3 Finance income and finance costs

Finance income is comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000
Finance income of subsidiaries (Note 4)	4,029	36,622
Other finance income	—	40,610
Total	4,029	77,232

Finance costs are comprised of the following for the years ended December 31:

	2022 US\$'000	2021 US\$'000
Finance cost of subsidiaries (Note 5)	26,439	12,514
Interest on debt instruments	—	2,206
Interest on leases	4	3
Other finance costs	—	81,858
Total	26,444	96,581

11.4 Auditor's remuneration

Fee's payable to the Company's auditor for the audit of the Company's annual financial statements was £403,956 (2021: £391,692).

11.5 Tax matters

The company has \$102.8 million of unrecognized tax losses in 2022 (2021: \$84.1 million).

Management of tax risks

The Company is committed to conducting its tax affairs consistent with the following objectives:

- (i) to comply with relevant laws, rules, regulations, and reporting and disclosure requirements in the jurisdiction it operates;
- (ii) to maintain mutual trust, transparency, and respect in its dealings with all tax authorities; and
- (iii) to adhere with best practice and comply with the Company's internal corporate governance procedures, including but not limited to its Code of Conduct

Tax returns cannot be deemed final until they have been audited by the tax authorities or until the statute-of-limitations has expired. The Company has the last four years open to review. The criteria that the tax authorities might adopt in relation to the years open for review could give rise to tax liabilities which cannot be quantified.

12. Share-based payments

a. Equity Incentive Plan

On May 29, 2016, the board of Ferroglobe PLC adopted the Ferroglobe PLC Equity Incentive Plan (the “Plan”) and on June 29, 2016 the Plan was approved by the shareholders of the Company. The Plan is a discretionary benefit offered by Ferroglobe PLC for the benefit of selected senior employees of Ferroglobe PLC and its subsidiaries. The Plan’s main purpose is to reward and foster performance through share ownership. Awards under the plan may be structured either as conditional share awards or options with a \$nil exercise price (nil cost options), except the options granted in 2021 which have a strike of 0.01. The awards are subject to a service condition of three years from the date of grant in the case of the options granted in 2017, 2018, 2019 and 2022, and four years from the date of grant in the case of the options granted in 2020, in each case to the extent that performance conditions are satisfied, and subject to continued service with the Company, remain exercisable until the tenth anniversary of their grant date. In the case of the options granted in 2021 the options vest on January 1, 2024.

Details of the Plan awards during the current and prior years are as follows:

	Number of awards
Outstanding as of December 31, 2020	3,411,974
Granted during the period	1,307,934
Exercised during the period	(309,462)
Expired/forfeited during the period	(51,010)
Outstanding as of December 31, 2021	4,359,436
Granted during the period	848,710
Exercised during the period	(208,076)
Expired/forfeited during the period	(1,198,364)
Outstanding as of December 31, 2022	3,801,706
Exercisable as of December 31, 2022	344,385

The awards outstanding under the Plan at December 31, 2022 and December 31, 2021 were as follows:

Grant Date	Performance Period	Expiration Date	Exercise Price	Fair Value at		
				Grant Date		
				2022	2021	
September 22, 2022	December 31, 2024	September 9, 2032	nil	8.53	848,710	—
September 9, 2021	December 31, 2021	September 9, 2031	nil	\$ 8.83	1,255,824	1,307,934
December 16, 2020	December 31, 2020	December 16, 2030	nil	\$ 1.23	1,352,788	1,411,271
March 13, 2019	December 31, 2021	March 13, 2029	nil	\$ 2.69	136,682	1,184,441
June 14, 2018	N/A	June 13, 2028	nil	\$ 9.34	44,650	70,774
March 21, 2018	December 31, 2020	March 20, 2028	nil	\$ 22.56	52,819	136,434
June 20, 2017	December 31, 2019	June 20, 2027	nil	\$ 15.90	—	—
June 1, 2017	N/A	June 1, 2027	nil	\$ 10.96	—	834
June 1, 2017	December 31, 2019	June 1, 2027	nil	\$ 16.77	77,712	168,469
November 24, 2016	December 31, 2018	November 24, 2026	nil	\$ 16.66	32,522	79,279
					3,801,706	4,359,436

Fair Value at

The awards outstanding as of December 31, 2022 had a weighted average remaining contractual life of 8.33 years (2021: 8.37 years).

The weighted average share price at the date of exercise for stock options exercised in the year ended December 31, 2022 was \$6.46 (\$5.28 in 2021).

As of December 31, 2022, 3,757,056 of the of the outstanding awards were subject to performance conditions (2021: 4,287,828 awards). For those awards subject to performance conditions, upon completion of the three years service period, the recipient will receive a number of shares or nil cost options of between 0% and 200% of the above award numbers, depending on the financial performance of the Company during the performance period. The performance conditions for the shares granted in 2022 can be summarized as follows:

Vesting Conditions

40% based cumulative earnings before interest and tax (EBIT)

40% based on cumulative operational cash flow

20% based on total shareholder return (TSR) relative to a comparator group

There were no performance obligations linked to 44,650 of the outstanding awards at December 31, 2022 (2021: 71,608 awards). These awards were issued as deferred bonus awards and vested subject to remaining in employment for three years.

Fair Value

The weighted average fair value of the awards granted during the year ended December 31, 2022 was \$8.53 (2021: \$8.83). The Company estimates the fair value of the awards using Stochastic and Black-Scholes option pricing models. Where relevant, the expected life used in the model has been adjusted for the remaining time from the date of valuation until options are expected to be received, exercise restrictions (including the probability of meeting market conditions attached to the option), and performance considerations. Expected volatility is calculated over the period commensurate with the remainder of the performance period immediately prior to the date of grant.

The following assumptions were used to estimate the fair value of the awards:

	Grant date	
	September 22, 2022	September 9, 2021
Fair value at grant date	\$ 8.53	\$ 8.83
Grant date share price	\$ 5.76	\$ 8.57
Exercise price	Nil	0.01
Expected volatility	94.28%	104.75%
Option life	3.00 years	2.31 years
Dividend yield	—	—
Risk-free interest rate	4.12%	0.28%
Remaining performance period at grant date (years)	3.00	2.31
Company TSR at grant date	(27.2)%	NA
Median comparator group TSR at grant date	10.5	NA

The Company's TSR relative to the median comparator group TSR and median index TSR at grant date may impact the grant date fair value; starting from an advantaged position increases the fair value and starting from a disadvantaged position decreases the fair value.

To model the impact of the TSR performance conditions, we have calculated the volatility of the comparator group using the same method used to calculate the Company's volatility, using historical data, where available, which matches the length of the remaining performance period grant date.

The Company's correlation with its comparator group was assessed on the basis of all comparator group correlations, regardless of the degree of correlation, have been incorporated into the valuation model.

For the year ended December 31, 2022, share-based compensation expense related to this stock plan amounted to \$5,836 thousand, which is recorded in staff costs (2021: \$3,627 thousand).

13. Related party transactions and balances

Balances with related parties as of December 31 are as follows:

	2022			
	Non-Current receivables (Note 4) US\$'000	Current receivables (Note 4) US\$'000	Non- Current Payables (Note 5) US\$'000	Current Payables (Note 5) US\$'000
	Ferroglobe Holding Company Ltd	254,908	64,705	35,839
Ferroglobe Finance Company PLC	—	26,251	147,882	20,026
Silicon Smelters (Pty.); Ltd	—	9,995	—	—
Globe Specialty Metals, Inc	—	—	—	76,823
Ferropem, S.A.S	—	8,351	—	—
Grupo FerroAtlántica, S.A.U	8,150	—	—	—
Other group entities	—	8,908	—	8,779
Total	263,058	118,210	183,721	240,753

	2021			
	Non-Current receivables (Note 4) US\$'000	Current receivables (Note 4) US\$'000	Non- Current Payables (Note 5) US\$'000	Current Payables (Note 5) US\$'000
	Ferroglobe Holding Company Ltd	227,865	57,888	—
Ferroglobe Finance Company PLC	—	6,607	—	153,851
Silicon Smelters (Pty.); Ltd	—	9,573	—	—
Globe Specialty Metals, Inc	—	45,689	—	73,782
Ferropem, S.A.S	—	5,046	—	—
Grupo FerroAtlántica, S.A.U	—	18,336	—	—
Globe Metallurgical, Inc.	—	3,496	—	—
Ferroglobe Manganese France	—	2,065	—	—
Other group entities	—	11,174	—	3,878
Total	227,865	159,874	—	392,803

Transactions with related parties in 2022 and 2021 are as follows:

	2022			
	Other Operating Income US\$'000	Other Operating Expenses US\$'000	Other Finance Income	Other Finance Expense
Ferroglobe Holding Company Ltd	34,134	343	1,583	6,442
Ferroglobe Finance Company PLC	—	—	—	13,745
Globe Specialty Metals, Inc	487	—	—	5,996
Grupo FerroAtlántica de Servicios SLU	1,010	4,607	—	—
Silicon Smelters, Ltd	82	—	2,446	—
Grupo FerroAtlántica, S.A.U	1,039	—	—	—
Ferropem, S.A.S	3,277	—	—	—
Other group entities	1,632	27	—	217
Total	41,661	4,977	4,029	26,400

	2021			
	Other Operating Income US\$'000	Other Operating Expenses US\$'000	Other Finance Income	Other Finance Expense
Ferroglobe Holding Company Ltd	3,073	—	8,566	2,327
Ferroglobe Finance Company PLC	—	—	—	5,969
Globe Specialty Metals, Inc	701	—	41,205	2,990
Grupo FerroAtlántica de Servicios SLU	1,100	—	—	—
Silicon Smelters, Ltd	1,096	—	7,899	—
Grupo FerroAtlántica, S.A.U	9,670	—	12,452	1,048
Ferropem, S.A.S	6,797	—	6,959	—
Globe Metallurgical, Inc	1,847	—	—	—
Ferroglobe Manganese France	1,338	—	—	—
Other group entities	5,939	—	151	180
Total	31,561	—	77,232	12,514

“Other operating expenses” corresponds to the payment to Espacio Information Technology, S.A. (“Espacio I.T.”), who provides information technology and data processing services to Ferroglobe PLC and certain of its direct and indirect subsidiaries. On April 2022, Grupo VM sold its interest in Espacio I.T. so those transactions do not involve a Grupo VM subsidiary and therefore as of that date should no longer be considered as related party transactions.

14. Remuneration of key management personnel

The remuneration of the key management personnel, which comprises the Company’s management committee (two Executive Directors, six Chief Officers and five Vice Presidents), during the years ended December 31 is as follows:

	2022 US\$'000	2021 US\$'000
Fixed remuneration	—	643
Variable remuneration	—	407
Contributions to pension plans and insurance policies	—	81
Share-based compensation	5,825	3,627
Termination benefits	—	—
Other remuneration	—	—
Total	5,825	4,758

15. Events after the reporting period

Grupo Villar Mir

On February 28, 2023 Grupo Villar Mir has reduced the number of shares owned from 81,924,822 to 76,265,434 shares, representing approximately 40.72% of the capital of the company.

Corporate Governance Improvements

On 26 May 2023, the Board of Directors made important improvements to our corporate governance by eliminating the prior structure of the separate Nominations and Corporate Governance Committees, replacing them with a new combined Nominations and Governance Committee. This new committee consists of three independent directors: Nicolas De Santis (Chair), Belen Villalonga and Bruce Crockett. In addition, Silvia Villar-Mir de Fuentes resigned from the Compensation Committee, with Stuart Eizenstat joining that committee.

Appendix 1 - Non-IFRS financial metrics (unaudited)

Adjusted EBITDA, Adjusted EBITDA margin, Adjusted Net Profit, Working Capital, Free Cash Flow, Net Debt, Net Debt to total assets and Net Debt to Capital are non-IFRS financial metrics that Ferroglobe utilizes to measure its success. The Company has included these financial metrics to provide supplemental measures of its performance. We believe these metrics are important because they eliminate items that have less bearing on the Company's current and future operating performance and highlight trends in its core business that may not otherwise be apparent when relying solely on IFRS financial measures.

Adjusted EBITDA

	2022 US\$'000	2021 US\$'000
(Loss) profit attributable to the parent	440,314	(110,624)
(Loss) profit from discontinued operations	—	—
Loss attributable to non-controlling interest	3,514	(4,750)
Income tax (benefit) expense	147,983	(4,562)
Net finance expense	58,741	148,936
Exchange differences	9,995	2,386
Depreciation and amortization charges, operating allowances and write-downs	81,559	97,328
EBITDA	742,106	128,714
Impairment loss	56,999	(137)
Restructuring and termination costs	9,315	27,368
New strategy implementation	29,032	22,700
Pension Plan buyout	—	685
Subactivity	9,449	—
Prior period (loss)	13,105	—
Adjusted EBITDA	860,006	179,330

Adjusted EBITDA Margin

	2022 US\$'000	2021 US\$'000
Adjusted EBITDA	860,006	179,330
Sales	2,597,916	1,778,908
Adjusted EBITDA Margin	33.1%	10.1%

Adjusted Net Profit

	2022 US\$'000	2021 US\$'000
(Loss) profit attributable to the parent	440,314	(110,624)
Tax rate adjustment	36,604	33,818
Impairment loss	46,272	(93)
Restructuring and termination costs	7,562	18,610
New strategy implementation	23,568	15,426
Pension Plan buyout	—	466
Subactivity	7,671	—
Prior Period (loss)	10,639	—
Adjusted (loss)/profit attributable to the parent	572,630	(42,387)

Working Capital

	2022 US\$'000	2021 US\$'000
Inventories	500,080	289,797
Trade and other receivables	425,474	381,073
Trade and other payables	(219,666)	(206,000)
Working Capital	<u>705,888</u>	<u>464,870</u>

Free Cash Flow

	2022 US\$'000	2021 US\$'000
Net cash provided by operating activities	405,018	(1,341)
Payments for property, plant and equipment	(52,153)	(27,597)
Free Cash Flow	<u>352,865</u>	<u>(28,938)</u>

Net Debt

	2022 US\$'000	2021 US\$'000
Bank borrowings	77,833	98,967
Debt instruments	343,442	440,297
Lease obligations	21,871	18,358
Other financial liabilities	98,661	67,013
Cash and cash equivalents	(317,935)	(114,391)
Non-current restricted cash and cash equivalents	(2,133)	(2,272)
Current restricted cash and cash equivalents	(2,875)	—
Net Debt	<u>218,864</u>	<u>507,972</u>

Capital

	2022 US\$'000	2021 US\$'000
Net Debt	218,864	507,972
Equity	756,813	320,031
Capital	<u>975,677</u>	<u>828,003</u>



Ferroglobe

Ferroglobe PLC
Extracts from the 2022 Form 20-F

To accompany the PLC Annual Report and Accounts 2022

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ITEM 3. KEY INFORMATION

D. Risk factors.

An investment in our ordinary shares carries a significant degree of risk. You should carefully consider the following risks and all other information in this annual report, including our Consolidated Financial Statements elsewhere in the 20-F. Additional risks and uncertainties we are not presently aware of, or that we currently deem immaterial, could also affect our business operations and financial condition. If any of these risks are realized, our business, results of operations and financial condition could be adversely affected to a material degree. As a result, the trading price of our ordinary shares could decline and you could lose part or all of your investment.

Risks Related to Our Business and Industry

Our operations depend on industries including the aluminum, steel, polysilicon, silicone and photovoltaic/solar industries, which, in turn, rely on several end-markets. A downturn or change in these industries or end-markets could adversely affect our business, results of operations and financial condition.

Because we primarily sell silicon metal, silicon based alloys, manganese based alloys and other specialty alloys we produce to manufacturers of aluminum, steel, polysilicon, silicones, and photovoltaic products, our results are significantly affected by the economic trends in the steel, aluminum, polysilicon, silicone and photovoltaic industries. Primary end users that drive demand for steel and aluminum include construction companies, shipbuilders, electric appliance, car manufacturers, and companies operating in the rail and maritime industries. The primary end users that drive demand for polysilicon and silicones include the automotive, chemical, photovoltaic, pharmaceutical, construction and consumer products industries. Demand for steel, aluminum, polysilicon and silicones from such companies is strongly correlated with changes in gross domestic product and is affected by global economic conditions. Fluctuations in steel and aluminum prices may occur due to sustained price shifts reflecting underlying global economic and geopolitical factors, changes in industry supply-demand balances, the substitution of one product for another in times of scarcity, and changes in national tariffs. Lower demand for steel and aluminum can quickly cause a substantial build-up of steel and aluminum stocks, resulting in a decline in demand for silicon metal, silicon-based alloys, manganese-based alloys, and other specialty alloys. Polysilicon and silicone producers are subject to fluctuations in crude oil, platinum, methanol and natural gas prices, which could adversely affect their businesses. Changes in power regulations in different countries, fluctuations in the relative costs of different sources of energy, and supply-demand balances in the different parts of the value chain, among other factors, may significantly affect the growth prospects of the photovoltaic industry. A significant and prolonged downturn in the end markets for steel, aluminum, polysilicon, silicone and photovoltaic products, could adversely affect these industries and, in turn, our business, results of operations and financial condition.

COVID-19 has had a material detrimental impact on our business and financial results, and such impact could continue for an unknown period of time.

COVID-19 has been and continues to be a complex and evolving situation, with governments, public institutions and other organizations imposing or recommending, and businesses and individuals implementing, at various times and to varying degrees, restrictions on various activities or other actions to combat its spread, such as restrictions and bans on travel or transportation; limitations on the size of in-person gatherings, restrictions on freight transportations, closures of, or occupancy or other operating limitations on work facilities, and quarantines and lock-downs. COVID-19 and its consequences significantly impacted our business, operations, and financial results. The extent to which COVID-19 impacts our business, operations, and financial results going forward will depend on the factors described above and numerous other evolving factors that we may not be able to accurately predict or assess, including the duration and scope of the COVID-19 pandemic; the effectiveness of vaccines or treatments; COVID-19's impact on global and regional economies and economic activity, including the duration and magnitude of its impact on unemployment rates; its short and longer-term impact on the demand for our products, group business, and levels of customer confidence; the ability of our owners to successfully navigate the impacts of COVID-19; and how quickly economies, and demand recovers after the pandemic subsides.

COVID-19 has negatively impacted, and in the future may negatively impact to an extent we are unable to predict, our revenues. In addition, COVID-19 and its impact on global and regional economies, and the specialty chemical industry, made it difficult to obtain financing during the height of the pandemic. If a significant number of our sales volumes are terminated as a result of bankruptcies, sales or foreclosures, our results of operations could be materially

adversely affected. Also, testing our intangible assets or goodwill for impairments could result in additional charges, which could be material. For the reasons set forth above, COVID-19 has had and may in the future will have a material adverse effect on our business, operations, and financial condition.

The metals industry is cyclical and has been subject in the past to swings in market price and demand which could lead to volatility in our revenues.

Our business has historically been subject to fluctuations in the price of our products and market demand for them, caused by general and regional economic cycles, raw material and energy price fluctuations, competition and other factors. The timing, magnitude and duration of these cycles and the resulting price fluctuations are difficult to predict. For example, we experienced a weakened economic environment in national and international metals markets, including a sharp decrease in silicon metal prices in all major markets, from late 2014 to late 2017. During the second half of 2018 and throughout 2019, we experienced the most dramatic decline in prevailing prices of our products, which adversely affected our results. In 2020, the business experienced a reduction in sales volumes as a result of lower customer demand and a decrease in prices variance.

Historically, Ferroglobe's indirect subsidiary Globe Metallurgical Inc., has been affected by recessionary conditions in the end markets for its products, such as the automotive and construction industries. In April 2003, Globe Metallurgical Inc. sought protection under Chapter 11 of the U.S. Bankruptcy Code following its inability to restructure or refinance its indebtedness amidst a confluence of several negative economic and other factors, including an influx of low priced, dumped imports, which caused it to default on then outstanding indebtedness. A recurrence of such economic factors could have a material adverse effect on our business, results of operations and financial condition.

Additionally, as a result of unfavorable conditions in the end markets for its products, Globe Metales S.R.L. ("Globe Metales") went through reorganization proceedings ("concurso preventivo") in 1999, which ended in February 2019. While such reorganization proceedings were ongoing (until February 2019), Globe Metales could not dispose of or encumber its registered assets (including its real estate) or perform any action outside its ordinary course of business without prior court approval.

In addition to the deterioration of market conditions for several of our products in the second half of 2018 and the whole of 2019, we also saw a contraction in sales volumes during 2020 which was primarily driven by the COVID-19 pandemic. Throughout 2021, COVID -19 and its consequences continue to impact our business, operations, and financial results. Such conditions, and any future decline in the global silicon metal, manganese-based alloys and silicon-based alloys industries could have a material adverse effect on our business, results of operations and financial condition. Moreover, our business is directly related to the production levels of our customers, whose businesses are dependent on highly cyclical markets, such as the automotive, residential and non-residential construction, consumer durables, polysilicon, steel, and chemical industries. In response to unfavourable market conditions, customers may request delays in contract shipment dates or other contract modifications. If we grant modifications, these could adversely affect our anticipated revenues and results of operations. Also, many of our products are traded internationally at prices that are significantly affected by worldwide supply and demand. Consequently, our financial performance will fluctuate with the general economic cycle, which could have a material adverse effect on our business, results of operations and financial condition.

Our business is particularly sensitive to increases in energy costs, which could materially increase our cost of production.

Electricity is one of our largest production components. The price of electricity is determined in the applicable domestic jurisdiction and is influenced both by supply and demand dynamics and by domestic regulations. Changes in local energy policy, increased costs due to scarcity of energy supply, climate conditions, the termination or non-renewal of any of our power purchase contracts and other factors may affect the price of electricity supplied to our plants and adversely affect our results of operations and financial conditions.

Because electricity is indispensable to our operations and accounts for a high percentage of our production costs, we are particularly vulnerable to supply limitations and cost fluctuations in energy markets. For example, at certain of our plants, production must be modulated to reduce consumption of energy in peak hours or in seasons with higher energy prices, in order for us to maintain profitability. Generation of electricity in France by our own hydroelectric power operations partially mitigates our exposure to price increases in that market. However, in the past we have pursued

possibilities of disposing of those operations, and may do so in the future. Such a divestiture, if completed, may result in a greater exposure to increases in electricity prices. In 2021 the cost of electricity in Spain experienced extremely high volatility due to the fluctuations of natural gas in the European markets. Natural gas experienced a progressive increase in price since April 2021, due to the low level of stocks in gas storages in Europe, and the reduction of supply from Russia, following the growing demand for Natural Gas from China. The risk of natural gas shortages due to a possible cold winter in Europe, caused in December 2021 an unprecedented increase in the price of gas reaching record prices in the market, which led to record prices in the Spanish electricity market of up to 400 €/Mwh. Our Spanish plants have tried to mitigate price rises by reducing the furnace capacity during peak hours and increasing production in more competitive furnaces. In the immediate aftermath of Russia's invasion of Ukraine, European energy markets saw continued levels of volatility and the prices increased in line with those seen in late 2021.

The electrical power for our U.S. and Canadian facilities is supplied mostly by American Electric Power Co., Alabama Power Co., Brookfield Renewable Partners L.P. and Hydro-Québec, and the Tennessee Valley Authority through dedicated lines. Our Alloy, West Virginia facility obtains approximately 45% of its power needs under a fixed price power purchase agreement with a nearby hydroelectric facility owned by a Brookfield affiliate. This facility is over 70 years old and any breakdown could result in the Alloy facility having to purchase more grid power at higher rates. The hydropower contract with Brookfield for the Alloy plant was renewed in 2021 for a period of four years. The energy supply for our Mendoza, Argentina facility is supplied by the national network administrator Cammesa under a power agreement expiring in December 2024 with a special rate specifically approved for ultra electro intensive industries.

Energy supply to our facilities in South Africa is provided by Eskom (State-owned power utility) through rates that are approved annually by the national power regulator (NERSA). These rates have had an upward trend in the past years, due to the instability of available supply and are likely to continue increasing. Also, NERSA applies certain revisions to rates based on cost variances for Eskom that are not within our control.

In Spain, power is purchased in a competitive wholesale market. Our facilities have to pay access tariffs to the national grid and get a small compensation for having been recognized as electro-intensive consumers. The volatile nature of the wholesale market in Spain results in price uncertainty that can be only partially offset by long term power purchase agreements. Also, the payment we receive for the services provided to the grid are a major component of our power supply arrangements in Spain, and regulation for such services has been altered several times during the past years and the economic benefits of such services vary significantly from one year to the next, affecting our production cost and results from our operations.

Additionally, our energy purchase arrangements depend to a certain extent on rebates or revenues that we get for providing different services to the grid (interruptibility, load shaving, off-peak consumption, etc.). These rebates may be significant, but such arrangements with relevant grid operators and/or regulators may vary over time, which may affect our production costs and results from our operations.

Losses caused by disruptions in the supply of power would reduce our profitability.

Large amounts of electricity are used to produce silicon metal, manganese and silicon-based alloys and other specialty alloys, and our operations are heavily dependent upon a reliable supply of electrical power. We may incur losses due to a temporary or prolonged interruption of the supply of electrical power to our facilities, which can be caused by unusually high demand, blackouts, equipment failure, natural disasters or other catastrophic events, including failure of the hydroelectric facilities that currently provide power under contract to our West Virginia, Québec and Argentina facilities. Additionally, on occasion, we have been instructed to suspend operations for several hours by the sole energy supplier in South Africa due to a general power shortage in the country. It is possible that this supplier may instruct us to suspend our operations for a similar or longer period in the future. Such interruptions or reductions in the supply of electrical power adversely affect production levels and may result in reduced profitability. Our insurance coverage does not cover all interruption events and may not be sufficient to cover losses incurred as a result.

In addition, investments in Argentina's electricity generation and transmission systems have been lower than the increase in demand in recent years. If this trend is not reversed, there could be electricity supply shortages as the result of inadequate generation and transmission capacity. Given the heavy dependence on electricity of our manufacturing operations, any electricity shortages could adversely affect our financial results.

Government regulations of electricity in Argentina give priority of use of hydroelectric power to residential users and subject violators of these restrictions to significant penalties. This preference is particularly acute during Argentina's winter months due to a lack of natural gas. We have previously successfully petitioned the government to exempt us from these restrictions given the demands of our business for continuous supply of electric power. If we are unsuccessful in our petitions or in any action we take to ensure a stable supply of electricity, our production levels may be adversely affected and our profitability reduced.

Any decrease in the availability, or increase in the cost, of raw materials or transportation could materially increase our costs.

Principal components in the production of silicon metal, silicon based alloys and manganese based alloys include coal, charcoal, graphite and carbon electrodes, manganese ore, quartzite, wood chips, steel scrap, and other metals. While we own certain sources of raw materials, we also buy raw materials on a spot or contracted basis. The availability of these raw materials and the prices at which we purchase them from third party suppliers depend on market supply and demand and may be volatile such as due to the COVID-19 pandemic or the Ukraine-Russia conflicts. Our ability to obtain these materials in a cost efficient and timely manner is dependent on certain suppliers, their labor union relationships, mining and lumbering regulations and output, pandemic, geopolitical and general local economic conditions.

Over the previous years, certain raw materials (particularly graphite electrodes, coal, manganese ore, and other electrode components) have experienced significant price increases and quick price moves in relatively short periods of time, and the recent conflict in Ukraine and resulting sanctions on Russia have led to supply limitations and interruptions. In some cases, this has been combined with certain shortage in the availability of such raw materials. While we try to anticipate potential shortages in the supply of critical raw materials with longer term contracts and other purchasing strategies, these price swings and supply shortages may affect our cost of production or even cause interruptions in our operations, which may have a material adverse effect on our business, results of operations and financial condition.

We make extensive use of shipping by sea, rail and truck to obtain the raw materials used in our production and deliver our products to customers, depending on the geographic region and product or input. Raw materials and products often must be transported over long distances between mines and other production sites and the plants where raw materials are consumed, and between those sites and our customers. Any severe delay, interruption or other disruption in such transportation, any material damage to raw materials utilized by us or to our products while being transported, or a sharp rise in transportation prices, either relating to COVID-19, the Ukraine-Russia conflict or otherwise, could have a material adverse effect on our business, results of operations and financial condition. In addition, because we may not be able to obtain adequate supplies of raw materials from alternative sources on terms as favorable as our current arrangements, or at all, any disruption or shortfall in the production and delivery of raw materials could result in higher raw materials costs and likewise materially adversely affect our business, results of operations and financial condition.

Cost increases in raw material inputs may not be passed on to our customers, which could negatively impact our profitability.

The prices of our raw material inputs are determined by supply and demand, which may be influenced by, inter alia, economic growth and recession, changes in world politics, unstable governments in exporting nations, and inflation. The market prices of raw material inputs will thus fluctuate over time, and we may not be able to pass significant price increases on to our customers. If we do try to pass them on, we may lose sales and thereby revenue, in addition to having the higher costs. Additionally, decreases in the market prices of our products will not necessarily enable us to obtain lower prices from our suppliers.

Metallurgical manufacturing and mining are inherently dangerous activities and any accident resulting in injury or death of personnel or prolonged production shutdowns could adversely affect our business and operations.

Metallurgical manufacturing generally, and smelting in particular, is inherently dangerous and subject to risks of fire, explosion and sudden major equipment failure. Quartz and coal mining are also inherently dangerous and subject to numerous hazards, including collisions, equipment failure, accidents arising from the operation of large mining and rock transportation equipment, dust inhalation, flooding, collapse, blasting operations and operating in extreme climatic conditions. These hazards have led to accidents resulting in the serious injury and death of production

personnel and prolonged production shutdowns in the past. We may experience fatal accidents or equipment malfunctions in the future, which could have a material adverse effect on our business and operations.

We are heavily dependent on our mining operations, which are subject to certain risks that are beyond our control and which could result in materially increased expenses and decreased production levels.

We mine quartz and quartzite at open pit mining operations and coal at underground and surface mining operations. We are heavily dependent on these mining operations for our quartz and coal supplies. Certain risks beyond our control could disrupt our mining operations, adversely affect production and shipments, and increase our operating costs, such as: the closure of operations as a result of the COVID-19 pandemic; a major incident at a mining site that causes all or part of the operations of the mine to cease for some period of time; mining, processing and plant equipment failures and unexpected maintenance problems; disruptions in the supply of fuel, power and/or water at the mine site; adverse changes in reclamation costs; the inability to renew mining concessions upon their expiration; the expropriation of territory subject to a valid concession without sufficient compensation; and adverse weather and natural disasters, such as heavy rains or snow, flooding and other natural events affecting operations, transportation or customers.

Regulatory agencies have the authority under certain circumstances following significant health and safety violations or incidents to order a mine to be temporarily or even permanently closed. If this occurs, we may be required to incur significant legal and capital expenditures to re-open the affected mine. In addition, environmental regulations and enforcement could impose unexpected costs on our mining operations, and future regulations could increase those costs or limit our ability to produce quartz and sell coal. A failure to obtain and renew permits necessary for our mining operations could limit our production and negatively affect our business. It is also possible that we have extracted or may in the future extract quartz from territory beyond the boundary of our mining concession or mining right, which could result in penalties or other regulatory action or liabilities.

We are subject to environmental, health and safety regulations, including laws that impose substantial costs and the risk of material liabilities.

Our operations are subject to extensive foreign, federal, national, state, provincial and local environmental, health and safety laws and regulations governing, among other things, the generation, discharge, emission, storage, handling, transportation, use, treatment and disposal of hazardous substances; land use, reclamation and remediation; waste management and pollution prevention measures; greenhouse gas emissions; and the health and safety of our employees. We are also required to obtain permits from governmental authorities for certain operations, and to comply with related laws and regulations. We may not have been and may not be at all times in full compliance with such permits and related laws and regulations. If we violate or fail to comply with these permits and related laws and regulations, we could be subject to penalties, restrictions on operations or other sanctions, obligations to install or upgrade pollution control equipment and legal claims, including for alleged personal injury or property or environmental damages. Such liability could adversely affect our reputation, business, results of operations and financial condition. In addition, in the context of an investigation, the government may impose obligations to make technology upgrades to our facilities that could result in our incurring material capital expenses. For example, in addition to notices received with respect to other plants, we have received two Notices and Findings of Violation (“NOV/FOV”) from the U.S. federal government, alleging numerous violations of the Clean Air Act relating to the Company’s Beverly, Ohio facility. Should the Company and the federal government be unable to reach a negotiated resolution of the NOV/FOVs, the U.S. government could file a formal lawsuit in U.S. federal court for injunctive relief, potentially requiring the Company to implement emission reduction measures, and for civil penalties. The statutory maximum penalty is \$93,750 per day per violation, from April, 2013 to December 2021, and \$109,024 per day thereafter. See “Item 8.A.—Financial Information—Consolidated Financial Statements and Other Financial Information—Legal proceedings” for additional information. The Beverly facility also is located in an area currently designated as Non-Attainment for the one hour SO₂ National Ambient Air Quality Standards (“NAAQS”). The Company has entered into an order with the Ohio Environmental Protection Agency (“OEPA”) to accept facility-wide SO₂ emission limits to ensure that the facility is not causing exceedances of the one-hour NAAQS standard for SO₂. The Company is working with OEPA to develop a model that demonstrates compliance with the SO₂ NAAQS that will then require approval from the United States Environmental Protection Agency (“EPA”).

The metals and mining industry is generally subject to risks and hazards, including fire, explosion, toxic gas leaks, releases of other hazardous materials, rockfalls, and incidents involving mobile equipment, vehicles or machinery. These could occur by accident or by breach of operating and maintenance standards, and could result in personal

injury, illness or death of employees or contractors, or in environmental damage, delays in production, monetary losses and possible legal liability.

Under certain environmental laws, we could be required to remediate or be held responsible for the costs relating to contamination at our or our antecessors' past or present facilities and at third party waste disposal sites. We could also be held liable under these environmental laws for sending or arranging for hazardous substances to be sent to third party disposal or treatment facilities if such facilities are found to be contaminated. Under these laws we could be held liable even if we did not know of, or did not cause, such contamination, or even if we never owned or operated the contaminated disposal or treatment facility.

There are a variety of laws and regulations in place or being considered at the international, federal, regional, state and local levels of government that restrict or propose to restrict and impose costs on emissions of carbon dioxide and other greenhouse gases. These legislative and regulatory developments may cause us to incur material costs if we are required to reduce or offset greenhouse gas emissions, or to purchase emission credits or allowances, and may result in a material increase in our energy costs due to additional regulation of power generators. Environmental laws are complex, change frequently and are likely to become more stringent in the future. Because environmental laws and regulations are becoming more stringent and new environmental laws and regulations are continuously being enacted or proposed, such as those relating to greenhouse gas emissions and climate change, the level of expenditures required for environmental matters could increase in the future. Future legislative action and regulatory initiatives could result in changes to operating permits, additional remedial actions, material changes in operations, increased capital expenditures and operating costs, increased costs of the goods we sell, and decreased demand for our products that cannot be assessed with certainty at this time.

Therefore, our costs of complying with current and future environmental laws, and our liabilities arising from past or future releases of, or exposure to, hazardous substances may adversely affect our business, results of operations and financial condition.

Compliance with existing and proposed climate change laws and regulations could adversely affect our performance.

Under current European Union legislation, all industrial sites are subject to cap and trade programs, by which every facility with carbon emissions is required to purchase in the market emission rights for volumes of emission that exceed a certain allocated level. Until 2021, the allocated level of emissions had been practically sufficient for our business so the emissions rights purchases had a limited impact on our business. From 2022, new regulations reducing the allocation of free allowances require us to make significant purchases of emissions rights in the market. Also, certain Canadian provinces have implemented cap and trade programs. As a result, our facilities in Canada may be required to purchase emission credits in the future. The requirement to purchase emissions rights in the market could result in material costs to the Company, in addition to increased compliance costs, additional operating restrictions for our business, and an increase in the cost of the products we produce, which could have a material adverse effect on our financial position, results of operations, and liquidity.

In the United States, it is likely that the current administration will place a greater emphasis on regulating greenhouse gas emissions, although no proposed regulations have been outlined to date. However, carbon taxes, clean energy standards, carbon offsets, and/or the requirement to participate in a cap-and-trade program are being explored by the administration and US Congress. Although it is impossible to predict what form such action will take, any action may result in material increased compliance costs additional operating restrictions for our business, and an increase in the cost of the products we produce, which could have a material adverse effect on our financial position, results of operations and liquidity.

In 2022 Ferroglobe commenced work on assessing Climate Change Risks & Opportunities and its related financial impact across our operations. The evaluation is ongoing and will follow the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

We make a significant portion of our sales to a limited number of customers, and the loss of a portion of the sales to these customers could have a material adverse effect on our revenues and profits.

In the year ended December 31, 2022, our ten largest customers accounted for approximately 50.1% of Ferroglobe’s consolidated revenue. We expect that we will continue to derive a significant portion of our business from sales to these customers.

Some contracts with our customers do not entail commitments from the customer to purchase specified or minimum volumes of products over time. Accordingly, we face a risk of unexpected reduced demand for our products from such customers as a result of, for instance, downturns in the industries in which they operate or any other factor affecting their business, which could have a material adverse effect on our revenues and profits.

If we were to experience a significant reduction in the amount of sales we make to some or all of such customers and could not replace these sales with sales to other customers, this could have a material adverse effect on our revenues and profits.

Our business benefits from antidumping and countervailing duty orders and laws that protect our products by imposing special duties on unfairly traded imports from certain countries. If these duties or laws change, certain foreign competitors might be able to compete more effectively.

Ferroglobe benefits from antidumping and countervailing duty orders and laws that protect its business and products by imposing special duties on unfairly traded imports from certain countries. See “Item 4.B.—Information on the Company—Business Overview—Regulatory Matters—Trade” for additional information.

These orders may be subject to revision, revocation or rescission at any time, including through periodic governmental reviews and proceedings. Current antidumping and countervailing duty orders thus may not remain in effect and continue to be enforced from year to year, the products and countries now covered by orders may no longer be covered, and duties may not continue to be assessed at the same rates.

Similarly, export duties imposed by foreign governments that are currently in place may change. For example, duties on Chinese exports of types of ferroalloys produced by Ferroglobe could be reduced.

Changes in any of these factors could adversely affect our business and profitability. Finally, at times, in filing trade actions, we arguably act against the interests of our customers. Certain of our customers may not continue to do business with us as a result.

Products we manufacture may be subject to unfair import competition that may affect our profitability.

A number of the products we manufacture, including silicon metal and ferrosilicon, are globally-traded commodities that are sold primarily on the basis of price. As a result, our sales volumes and prices may be adversely affected by influxes of imports of these products that are dumped or are subsidized by foreign governments. Our silicon metal and ferrosilicon operations have been injured by such unfair import competition in the past. Applicable antidumping and countervailing duty laws and regulations may provide a remedy for unfairly traded imports in the form of special duties imposed to offset the unfairly low pricing or subsidization. However, the process for obtaining such relief is complex and uncertain. As a result, while we have sought and obtained such relief in the past, in some cases we have not been successful. Thus, there is no assurance that such relief will be obtained, and if it is not, unfair import competition could have a material adverse effect on our business, results of operations and financial condition.

Competitive pressure from Chinese steel, aluminum, polysilicon and silicone producers may adversely affect the business of our customers, reducing demand for our products. Our customers may relocate to China, where they may not continue purchasing from us.

China’s aluminum, polysilicon and steel producing capacity exceeds local demand and has made China an increasingly large net exporter of aluminum and steel, and the Chinese silicone manufacturing industry is growing. Chinese aluminum, polysilicon, steel and silicone producers — who are unlikely to purchase silicon metal, manganese and silicon based alloys and other specialty metals from our subsidiaries outside of China due to the ample availability of domestic Chinese production — may gain global market share at the expense of our customers. An increase in Chinese

aluminum, steel, polysilicon and silicone industry market share could adversely affect the production volumes, revenue and profits of our customers, resulting in reduced purchases of our products.

Moreover, our customers might seek to relocate or refocus their operations to China or other countries with lower labor costs and higher growth rates. Any that do so might thereafter choose to purchase from other suppliers of silicon metal, manganese- and silicon-based alloys and other specialty metals which in turn could have a material adverse effect on our business, results of operations and financial condition.

We are subject to the risk of union disputes and work stoppages at our facilities, which could have a material adverse effect on our business.

A majority of our employees are members of labor unions. We experience protracted negotiations with labor unions, strikes, work stoppages or other industrial actions from time to time. Strikes called by employees or unions have in the past and could in the future materially disrupt our operations, including production schedules and delivery times. We have experienced strikes by our employees at several of our facilities from time to time and a certain number of these strikes have been protracted and have resulted in protracted amounts of business. Any such work stoppage could have a material adverse effect on our business, results of operations and financial condition.

New labor contracts have to be negotiated to replace expiring contracts from time to time. It is possible that future collective bargaining agreements will contain terms less favorable than the current agreements. Any failure to negotiate renewals of labor contracts on terms acceptable to us, with or without work stoppages, could have a material adverse effect on our business, results of operations and financial condition.

Many of our key customers or suppliers are similarly subject to union disputes and work stoppages, which may reduce their demand for our products or interrupt the supply of critical raw materials and impede their ability to fulfil their commitments under existing contracts, which could have a material adverse effect on our business, results of operations and financial condition.

We are dependent on key personnel.

Our success depends in part upon the retention of key employees. Competition for qualified personnel can be intense. Current and prospective employees may experience uncertainty about our business or industry, which may impair our ability to attract, retain and motivate key management, sales, technical and other personnel.

If key employees depart our overall business may be harmed. We also may have to incur significant costs in identifying, hiring and retaining replacements for departing employees, may lose significant expertise and talent relating to our business and our ability to further realize the anticipated benefits of the Business Combination may be adversely affected. In addition, the departure of key employees could cause disruption or distractions for management and other personnel. Furthermore, we cannot be certain that we will be able to attract and retain replacements of a similar caliber as departing key employees.

The long term success of our operations depends to a significant degree on the continued employment of our core senior management team. In particular, we are dependent on the skills, knowledge and experience of Javier López Madrid, our Executive Chairman, Marco Levi, our Chief Executive Officer, and Beatriz García-Cos, our Chief Financial Officer. If these employees are unable to continue in their respective roles, or if we are unable to attract and retain other skilled employees, our business, results of operations and financial condition could be adversely affected. We currently have employment agreements with Mr. López Madrid, Dr. Levi and Ms. García-Cos. These agreements contain certain non-compete provisions, which may not be fully enforceable by us. Additionally, we are substantially dependent upon key personnel among our legal, financial and information technology staff, who enable us to meet our regulatory, contractual and financial reporting obligations, including reporting requirements under our credit facilities.

Shortages of skilled labor could adversely affect our operations.

We depend on skilled labor for the operation of our submerged arc furnaces and other facilities. Some of our facilities are located in areas where demand for skilled personnel often exceeds supply. Shortages of skilled furnace technicians and other skilled workers, including as a result of deaths, work stoppages or quarantines resulting from the COVID-19 pandemic, could restrict our ability to maintain or increase production rates, lead to production inefficiencies and increase our labor costs.

In certain circumstances, the members of our Board may have interests that may conflict with yours as a holder of ordinary shares.

Our directors have no duty to us with respect to any information such directors may obtain (i) otherwise than as our directors and (ii) in respect of which directors owe a duty of confidentiality to another person, provided that where a director's relationship with such other person gives rise to a conflict, such conflict has been authorized by our Board in accordance with our articles of association ("Articles"). Our Articles provide that a director shall not be in breach of the general duties directors owe to us pursuant to the UK Companies Act 2006 because such director:

- fails to disclose any such information to our Board, directors or officers; or
- fails to use or apply any such information in performing such director's duties as a director.

In such circumstances, certain interests of the members of our Board may not be aligned with your interests as a holder of ordinary shares and the members of our Board may engage in certain business and other transactions without any accountability or obligation to us.

We may not realize the cost savings and other benefits that we expect to achieve.

We are continuously looking for opportunities to improve our operations through changes in processes, technology, information systems, and management of best practices. These initiatives are complex and require skilled management and the support of our workforce to implement them.

In our efforts to improve our business fully and successfully, we may encounter material unanticipated problems, expenses, liabilities, competitive responses, loss of client relationships, and a resulting diversion of management's attention. The challenges include, among others:

- managing change throughout the company;
- coordinating geographically separate organizations;
- potential diversion of management focus and resources from ordinary operational matters and future strategic opportunities;
- retaining existing customers and attracting new customers;
- maintaining employee morale and retaining key management and other employees;
- integrating two unique business cultures that are not necessarily compatible;
- issues in achieving anticipated operating efficiencies, business opportunities and growth prospects;
- issues in integrating information technology, communications and other systems;
- changes in applicable laws and regulations;
- changes in tax laws (including under applicable tax treaties) and regulations or to the interpretation of such tax laws or regulations by the governmental authorities; and

- managing tax costs or inefficiencies associated with integrating our operations.

Many of these factors are outside of our control and any one of them could result in increased costs, decreased revenues and diversion of management's time and energy, which could materially impact our business, results of operations and financial condition.

Any failure to integrate acquired businesses successfully or to complete future acquisitions successfully could be disruptive of our business and limit our future growth.

From time to time, we have pursued acquisitions in support of our strategic goals. In connection with any such acquisition, we could face significant challenges in managing and integrating our expanded or combined operations, including acquired assets, operations and personnel. For example, we have faced challenges in integrating Globe and Ferroatlantica following the merger in 2015, and with the acquisitions of the Mo i Rana and Dunkirk plants. There can be no assurance that acquisition opportunities will be available on acceptable terms or at all or that we will be able to obtain necessary financing or regulatory approvals to complete potential acquisitions. Our ability to succeed in implementing our strategy will depend to some degree upon the ability of our management to identify, complete and successfully integrate commercially viable acquisitions. Acquisition transactions may disrupt our ongoing business and distract management from other responsibilities.

Grupo VM, our principal shareholder, has significant voting power with respect to corporate matters considered by our shareholders.

Our principal shareholder, Grupo VM, owns shares representing approximately 43.7% of the aggregate voting power of our capital stock. By virtue of Grupo VM's voting power, as well as Grupo VM's representation on the Board, Grupo VM will have significant influence over the outcome of any corporate transaction or other matters submitted to our shareholders for approval. Grupo VM is likely to be able to block any such matter, including ordinary resolutions, which, under English law, require approval by a majority of outstanding shares cast in the vote. Grupo VM will also be able to block special resolutions, which, under English law, require approval by the holders of at least 75% of the outstanding shares entitled to vote and voting on the resolution, such as an amendment of the Articles or the exclusion of preemptive rights. Our principal shareholder has, and will continue to have, directly or indirectly, the power, among other things, to affect our legal and capital structure and our day-to-day operations, as well as the ability to elect and change our management and to approve other changes to our operations.

Grupo VM has pledged most of its shares in our company to secure a loan from Tyrus Capital.

Grupo VM has guaranteed its obligations pursuant to a credit agreement (the "GVM Credit Agreement") with respect to a loan granted to GVM by Tyrus Capital ("GVM Loan"). In addition, Grupo VM has entered into a security and pledge agreement (the "GVM Pledge Agreement"), with Tyrus pursuant to which Grupo VM agreed to pledge most of its shares to Tyrus to secure the outstanding GVM Loan.

In the event Grupo VM defaults under the GVM Credit Agreement, Tyrus may foreclose on the shares subject to the pledge. The Reinstated Notes contains change of control definitions with significant exceptions compared with that contained in the indenture for the Old Notes. Under the revised change of control definitions, no change of control shall occur or be deemed to occur by reason of, among other matters, any enforcement or exercise of remedies under the GVM Pledge Agreement or any disposal by Grupo VM of the Grupo VM shares for the purpose of repaying Grupo VM's debt to Tyrus, provided that certain other conditions, as described below, are met.

A change of control will occur upon the acquisition of 35% or more of the total voting power of our shares by persons other than certain permitted holders including Grupo VM and such permitted holders "beneficially own" directly or indirectly in the aggregate the same or a lesser percentage of the total voting power of our shares than such other "person" or "group" of related persons. However, the Reinstated Notes Indenture states that no change of control shall occur or be deemed to occur by reason of:

- any enforcement of rights or exercise of remedies under the GVM Share Pledge, including any sale, transfer or other disposal or disposition of the shares in Ferroglobe in connection therewith;

- any disposal by Grupo VM of its shares in Ferroglobe where the purpose of that transaction is to facilitate the repayment or discharge (in full or in part) of the GVM Loan and the proceeds of sale are promptly applied towards such repayment or discharge; or
- any mandatory offer (or analogous offer) required under the City Code on Takeovers and Mergers or any analogous regulation applied in any jurisdiction as a consequence of a transaction under limbs (1) or (2) above.

Provided that, if any transaction under paragraphs (1) to (3) above occurs which, but for such paragraph(s), would be a “Change of Control” as a consequence of any person or persons (other than Tyrus) (x) acquiring any voting stock of Ferroglobe PLC (or any other successor company) or (y) being or becoming the “beneficial owner” of the voting power of any voting stock of Ferroglobe PLC (or any other successor company) (such person(s), the “Controlling Shareholder”):

- the Controlling Shareholder has within 60 days of that transaction and at its election:
 - o paid to the Holders, on a pro rata basis, a fee in an aggregate amount equal to the product of (i) the aggregate principal amount outstanding of the Notes, (ii) 0.02 and (iii) the number of years (or part thereof, with any part of a year calculated on the basis of the number of days divided by 360) from the payment date of such fee to June 30, 2025; or
 - o made an offer to all Holders to purchase one-third of the Notes on a pro rata basis at a price equal to (A) in the first fifteen months after the Issue Date, 100% of the principal amount of such Notes plus accrued and unpaid interest or (B) at any time after the first fifteen months following the Issue Date, 101% of the principal amount of such Notes plus accrued and unpaid interest; or
- either or both of the Issuers within 60 days of that transaction has made an offer to all Holders to repurchase or purchase (as applicable), or has otherwise redeemed, one-third of the Notes on a pro rata basis at a price equal to (A) in the first fifteen months after the Issue Date, 100% of the principal amount of such Notes plus accrued and unpaid interest or (B) at anytime after the fifteen months following the Issue Date, 101% of the principal amount of such Notes plus accrued and unpaid interest, resulting in such repurchased, purchased or redeemed Notes being cancelled, and provided further that the Controlling Shareholder is not a Restricted Person.

Where:

“GVM Loan” means any financing provided by Tyrus to Grupo VM or owing by Grupo VM to Tyrus, from time to time.

“GVM Share Pledge” means any share pledge or charge or other similar security over the shares in Ferroglobe PLC held by Grupo VM granted by Grupo VM in support of or as collateral for its obligations under any Grupo VM Loan from time to time.

“Restricted Person” means any person that: (a) is listed on the United States Specifically Designated Nationals and Blocked Persons List; the European Union Consolidated List of Persons, Groups and Entities subject to EU Financial Sanctions; or the United Kingdom Consolidated List of Financial Sanctions Targets (each a “Sanctions List”); (b) is owned or controlled by a person identified on a Sanctions List, to the extent that such ownership or control results in such person being subject to the same restrictions as if such person were themselves identified on the corresponding Sanctions List; (c) is located in or incorporated under the laws of a country or territory that is the target of comprehensive sanctions imposed by the United States, which for the purposes of this Agreement, as at the date of signature of this Agreement by the last of its signatories are Iran, Syria, Cuba, the Crimea Region, and North Korea; (d) has, within the last five years, been prosecuted by a relevant authority in the United States, the United Kingdom or any member state of the European Union, in relation to a breach of securities laws (in so far as such prosecution relates to insider dealing, unlawful disclosure, market manipulation or prospectus liability) or criminal laws relating to fraud or anti-corruption, save for instances where the prosecution has concluded and did not result in any criminal or civil settlement or penalty being imposed in relation to such breaches; or (e) is a Subsidiary of a person described in (d) above.

If upon a change of control, we do not have sufficient funds available to repurchase the notes with our available cash, third party financing would be needed, yet may be impermissible under our other debt agreements. In addition, certain other contracts we are party to from time to time may contain change of control provisions. Upon a change in control, such provisions may be triggered, which could cause our contracts to be terminated or give rise to other obligations, each of which could have a material adverse effect on our business, results of operations and financial condition.

We engage in related party transactions with affiliates of Grupo VM, our principal shareholder.

Conflicts of interest may arise between our principal shareholder and your interests as a shareholder. Our principal shareholder has, and will continue to have, directly or indirectly, the power, among other things, to affect our day-to-day operations, including the pursuit of related party transactions. We have entered, and may in the future enter, into agreements with companies who are affiliates of Grupo VM, our principal shareholder. Such agreements have been approved by, or would be subject to the approval of, the Board or the Audit Committee, as its delegate. The terms of such agreements may present material risks to our business and results of operations. For example, we have entered into a number of agreements with affiliates of Grupo VM with respect to, among other things, the provision of information technology and data processing services and energy-related services. See “Item 7.B.—Major Shareholders and Related Party Transactions—Related Party Transactions.”

We are exposed to significant risks in relation to compliance with anti-bribery and corruption laws, anti-money laundering laws and regulations, and economic sanctions programs.

Doing business on a worldwide basis requires us to comply with the laws and regulations of various jurisdictions. In particular, our international operations are subject to anti-corruption laws, most notably the U.S. Foreign Corrupt Practices Act of 1977 (“FCPA”) and the UK Bribery Act of 2010 (the “Bribery Act”), international trade sanctions programs, most notably those administered by the U.N., U.S. and European Union, anti-money laundering laws and regulations, and laws against human trafficking and slavery, most notably the UK Modern Slavery Act 2015 (“Modern Slavery Act”).

The FCPA and Bribery Act prohibit offering or providing anything of value to foreign officials for the purposes of obtaining or retaining business or securing any improper business advantage. We may deal from time to time with both governments and state-owned business enterprises, the employees of which are considered foreign officials for purposes of these laws. International trade sanctions programs restrict our business dealings with or relating to certain sanctioned countries and certain sanctioned entities and persons no matter where located.

As a result of doing business internationally, we are exposed to a risk of violating applicable anti-bribery and corruption (“ABC”) laws, international trade sanctions, and anti-money laundering (“AML”) laws and regulations. Some of our operations are located in developing countries that lack well-functioning legal systems and have high levels of corruption. Our worldwide operations and any expansion, including in developing countries, our development of joint venture relationships worldwide, and the engagement of local agents in the countries in which we operate tend to increase the risk of violations of such laws and regulations. Violations of ABC laws, AML laws and regulations, and trade sanctions are punishable by civil penalties, including fines, denial of export privileges, injunctions, asset seizures, debarment from government contracts (and termination of existing contracts) and revocations or restrictions of licenses, as well as criminal penalties including possible imprisonment. Moreover, any major violations could have a significant impact on our reputation and consequently on our ability to win future business.

For its part, the Modern Slavery Act requires any commercial organization that carries on a business or part of a business in the United Kingdom which (i) supplies goods or services and (ii) has an annual global turnover of £36 million to prepare a slavery and human trafficking statement for each financial year ending on or after March 31, 2016. In this statement, the commercial organization must set out the steps it has taken to ensure there is no modern slavery in its own business and its supply chain, or provide an appropriate negative statement. The UK Secretary of State may enforce this duty by means of civil proceedings. The nature of our operations and the regions in which we operate may make it difficult or impossible for us to detect all incidents of modern slavery in certain of our supply chains. Any failure in this regard would not violate the Modern Slavery Act *per se*, but could have a significant impact on our reputation and consequently on our ability to win future business.

We seek to build and continuously improve our systems of internal controls and to remedy any weaknesses identified. As part of our efforts to comply with all applicable law and regulation, we have introduced a global ethics and compliance program. We believe we are devoting appropriate time and resources to its implementation, related

training, and to monitoring compliance. Despite these efforts, we cannot be certain that our policies and procedures will be followed at all times or that we will prevent or timely detect violations of applicable laws, regulations or policies by our personnel, partners or suppliers. Any actual or alleged failure to comply with applicable laws or regulations could lead to material liabilities not covered by insurance or other significant losses, which in turn could have a material adverse effect on our business, results of operations, and financial condition.

We operate in a highly competitive industry.

The silicon metal market and the silicon-based and manganese-based alloys markets are global, capital intensive and highly competitive. Our competitors may have greater financial resources, as well as other strategic advantages, to maintain, improve and possibly expand their facilities, and, as a result, they may be better positioned than we are to adapt to changes in the industry or the global economy. Advantages that our competitors have over us from time to time, new entrants that increase competition in our industry, and increases in the use of substitutes for certain of our products could have a material adverse effect on our business, results of operations and financial condition.

Though we are not currently operating at full capacity, we have historically operated at near the maximum capacity of our operating facilities. Because the cost of increasing capacity may be prohibitively expensive, we may have difficulty increasing our production and profits.

Our facilities are able to manufacture, collectively, approximately 350,000 tons of silicon metal (including Dow's portion of the capacity of our Alloy, West Virginia and Bécancour, Québec plants and the restarts at Selma and Polokwane, and excluding currently idled plants), 343,000 tons of silicon-based alloys and 562,000 tons of manganese-based alloys on an annual basis. Our ability to increase production and revenues will depend on expanding existing facilities, acquiring facilities or building new ones. Increasing capacity is difficult because:

- adding 30,000 tons of new production capacity to an existing silicon manufacturing plant would cost approximately \$120 million and take at least 12 to 18 months to complete once permits are obtained;
- a greenfield development project would take at least three to five years to complete and would require significant capital expenditure and, regulatory compliance costs; and
- obtaining sufficient and dependable electric power at competitive rates in areas near the required natural resources is extremely difficult.

We may not have sufficient funds to expand existing facilities, acquire new facilities, or open new ones and may be required to incur significant debt to do so, which could have a material adverse effect on our business and financial condition.

We are subject to restrictive covenants under our credit facilities and other financing agreements. These covenants could significantly affect the way in which we conduct our business. Our failure to comply with these covenants could lead to an acceleration of our debt.

Our ability to comply with applicable debt covenants may be affected by events beyond our control, potentially leading to future breaches. The breach of any of the covenants contained in our credit facilities, unless waived, would constitute an event of default, in turn permitting the lenders to terminate their commitments to extend credit under, and accelerate the maturity of, the credit facilities in question. If in such circumstances we were unable to repay lenders and holders, or obtain waivers from them on acceptable terms or at all, the lenders and holders could foreclose upon the collateral securing the credit facilities and exercise other rights. Such events, should they occur, could have a material adverse effect on our business, results of operations and financial condition. See “—Risks Related to Our Capital Structure—We are subject to restrictive covenants under our financing agreements, which could impair our ability to run our business” below.

Our insurance costs may increase materially, and insurance coverages may not be adequate to protect us against all risks and potential losses to which we may be subject.

We maintain various forms of insurance covering a number of specified and consequential risks and losses arising from insured events under the policies, including securities claims, certain business interruptions and claims for damage and loss caused by certain natural disasters, such as earthquakes, floods and windstorms. Our existing property

and liability insurance coverage contains various exclusions and limitations on coverage. In some previous insurance policy renewals, we have acceded to larger premiums, self-insured retentions and deductibles. For example, as a result of the explosion at our facility in Chateau Feuillet, France, the applicable property insurance premium increased. We may also be subject to additional exclusions and limitations on coverage in future insurance policy renewals. There can be no assurance that the insurance policies we have in place are or will be sufficient to cover all potential losses we may incur. In addition, due to changes in our circumstances and in the global insurance market, insurance coverage may not continue to be available to us on terms we consider commercially reasonable or be sufficient to cover multiple large claims.

We have operations and assets in the United States, Spain, France, Canada, China, South Africa, Norway, Venezuela, Argentina and may have operations and assets in other countries in the future. Our international operations and assets may be subject to various economic, social and governmental risks.

Our international operations and sales may expose us to risks that are more significant in developing markets than in developed markets and which could negatively impact future revenue and profitability. Operations in developing countries may not operate or develop in the same way or at the same rate as might be expected in a country with an economy, government and legal system similar to western countries. The additional risks that we may be exposed to in such cases include, but are not limited to:

- tariffs and trade barriers;
- sanctions and other restrictions in our ability to conduct business with certain countries, companies or individuals;
- recessionary trends, inflation or instability of financial markets;
- regulations related to customs and import/export matters;
- tax issues, such as tax law changes, changes in tax treaties and variations in tax laws;
- absence of a reliable legal or court system;
- changes in regulations that affect our business, such as new or more stringent environmental requirements or sudden and unexpected raises in power rates;
- limited access to qualified staff;
- inadequate infrastructure;
- cultural and language differences;
- inadequate banking systems;
- restrictions on the repatriation of profits or payment of dividends;
- crime, strikes, riots, civil disturbances, terrorist attacks or wars;
- nationalization or expropriation of property;
- less access to urgent medical care for employees and key personnel in the case of severe illness;
- law enforcement authorities and courts that are weak or inexperienced in commercial matters; and
- deterioration of political relations among countries.

In addition to the foregoing, exchange controls and restrictions on transfers abroad and capital inflow restrictions have limited, and can be expected to continue to limit, the availability of international credit.

The critical social, political and economic conditions in Venezuela have adversely affected, and may continue to adversely affect, our results of operations.

Among other policies in recent years, the Venezuelan government has continuously devalued the Bolívar. The resulting inflation has devastated the country, which is experiencing all manner of shortages of basic materials and other goods and difficulties in importing raw materials. In 2016, we idled our Venezuelan operations and sought to determine the recoverable value of the long lived assets there. We concluded that the costs to dispose of the facility exceeded the fair value of the assets, primarily due to political and financial instability in Venezuela. Accordingly, we wrote down the full value of our Venezuelan facilities. However, our inability to generate cash in that market may cause us to default on some of our obligations there in the future, which may result in administrative intervention or other consequences. In addition, in the recent past the Venezuelan government has threatened to nationalize certain businesses and industries, which could result in a loss of our Venezuelan facilities for no consideration. If the social, political and economic conditions in Venezuela continue as they are, or worsen, our business, results of operations and financial condition could be adversely affected. Venezuela net assets value as of December 31, 2022 was negative \$10 thousand (positive \$708 thousand as of December 31, 2021). Revenues during 2022 amounted to \$18 thousand (\$11 thousand during 2021).

We are exposed to foreign currency exchange risk and our business and results of operations may be negatively affected by the fluctuation of different currencies.

We transact business in numerous countries around the world and a significant portion of our business entails cross border purchasing and sales. Our sales made in a particular currency do not exactly match the amount of our purchases in such currency. We prepare our consolidated financial statements in U.S. Dollars, while the financial statements of each of our subsidiaries are prepared in the entities functional currency. Accordingly, our revenues and earnings are continuously affected by fluctuations in foreign currency exchange rates. For example, our sales made in U.S. Dollars exceed the amount of our purchases made in U.S. Dollars, such that the appreciation of certain currencies (like the Euro or the South African Rand) against the U.S. Dollar would tend to have an adverse effect on our costs. Such adverse movements in relevant exchange rates could have a material adverse effect on our business, results of operations and financial condition.

We depend on a limited number of suppliers for certain key raw materials. The loss of one of these suppliers or the failure of one of any of them to meet contractual obligations to us could have a material adverse effect on our business.

Colombia and the United States are among the preferred sources for the coal consumed in the production of silicon metal and silicon-based alloys, and the vast majority of producers source coal from these two countries. In the year ended December 31, 2022, approximately 65% of our coal was purchased from third parties. Of our third-party purchases, approximately 59% came from a single mine in Colombia.

Additionally, nearly all of the manganese ore we purchase comes from suppliers located in South Africa and Gabon. We do not control these third-party suppliers and must rely on them to perform in accordance with the terms of their contracts. If these suppliers fail to provide us with the required raw materials in a timely manner, or at all, or if the quantity or quality of the materials they provide is lower than that contractually agreed, we may not be able to procure adequate supplies of raw materials from alternative sources on comparable terms, or at all, which could have a material adverse effect on our business, results of operations and financial condition. In addition, since many suppliers of these raw materials are located in the same region, if a natural disaster or event affected one of these regions it is likely alternative sources would also be similarly affected.

We are impacted by the ongoing military conflict between Russia and Ukraine. Our business may be materially adversely affected by any negative impact on the global economy and capital markets resulting from the conflict in Ukraine or any other geopolitical tensions.

Global markets are experiencing volatility and disruption following the escalation of geopolitical tensions and the start of the military conflict between Russia and Ukraine. On February 24, 2022, a full-scale military invasion of Ukraine by Russian troops was reported. Although the length and impact of the ongoing military conflict is highly unpredictable, the conflict in Ukraine could lead to market disruptions, including significant volatility in commodity prices, credit and capital markets, as well as supply chain interruptions.

Russia and Ukraine are meaningful producers of silicon metal, ferroalloys and manganese based alloys, and are also significant suppliers of raw materials for our business and industry. The inability of Russian and Ukrainian producers to meet their customer obligations could potentially create tightness in the market. Likewise, we rely on a number of inputs from Russia and the CIS region, including metallurgical coke, anthracite and carbon and graphite electrodes. Our inability to procure these material can adversely impact our operations.

Additionally, Russia's prior annexation of Crimea, recent recognition of two separatist republics in the Donetsk and Luhansk regions of Ukraine and subsequent military interventions in Ukraine have led to sanctions and other penalties being levied by the United States, European Union and other countries against Russia, Belarus, the Crimea Region of Ukraine, the so-called Donetsk People's Republic, and the so-called Luhansk People's Republic, including agreement to remove certain Russian financial institutions from the Society for Worldwide Interbank Financial Telecommunication ("SWIFT") payment system, expansive ban on imports and exports of products to and from Russia and ban on exportation of U.S denominated banknotes to Russia or persons located there. Additional potential sanctions and penalties have also been proposed and/or threatened. Russian military actions and the resulting sanctions could adversely affect the global economy and financial markets and lead to instability and lack of liquidity in capital markets, potentially making it more difficult for us to obtain additional funds. The extent and duration of the military action, sanctions and resulting market disruptions are impossible to predict, but could be substantial.

Management continually tracks developments in the nascent conflict in Ukraine and is committed to actively managing our response to potential distributions to the business, but can provide no assurance that the conflict in Ukraine or other ongoing headwinds will not have a material adverse effect on our business, operations and financial results.

Planned investments in the expansion and improvement of existing facilities and in the construction of new facilities may not be successful.

We may engage in significant capital improvements to our existing facilities to upgrade and add capacity to those facilities. We also may engage in the development and construction of new facilities. Should any such efforts not be completed in a timely manner and within budget, or be unsuccessful otherwise, we may incur additional costs or impairments which could have a material adverse effect on our business, results of operations and financial condition.

Any delay or failure to procure, renew or maintain necessary governmental permits, including environmental permits and concessions to operate our hydropower plants would adversely affect our results of operations.

The operation of our hydropower plants is highly regulated, requires various governmental permits, including environmental permits and concessions, and may be subject to the imposition of conditions by government authorities. We cannot predict whether the conditions prescribed in such permits and concessions will be achievable. The denial of a permit essential to a hydropower plant or the imposition of impractical conditions would impair our ability to operate the plant. If we fail to satisfy the conditions or comply with the restrictions imposed by governmental permits or concessions, or restrictions imposed by other applicable statutory or regulatory requirements, we may face enforcement action and be subject to fines, penalties or additional costs or revocation of such permits or concessions. Any failure to procure, renew or abide by necessary permits and concessions would adversely affect the operation of our hydropower plants.

Equipment failures may lead to production curtailments or shutdowns and repairing any failure could require us to incur capital expenditures and other costs.

Many of our business activities are characterized by substantial investments in complex production facilities and manufacturing equipment. Because of the complex nature of our production facilities, any interruption in manufacturing resulting from fire, explosion, industrial accidents, natural disaster, equipment failures or otherwise could cause significant losses in operational capacity and could materially and adversely affect our business, results of operations and financial condition.

Other equipment may not continue to perform as they have in the past or as they are expected. A major equipment failure due to wear and tear, latent defect, design error or operator error, early obsolescence, natural disaster or other force majeure event could cause significant losses in operational capacity. Repairs following such failures could require us to incur capital expenditures and other costs. Such major failures also could result in damage to the environment or damages and harm to third parties or the public, which could expose us to significant liability. Such costs and liabilities could adversely affect our business, results of operations and financial condition.

We depend on proprietary manufacturing processes and software. These processes may not yield the cost savings that we anticipate and our proprietary technology may be challenged.

We rely on proprietary technologies and technical capabilities in order to compete effectively and produce high quality silicon metal and silicon-based alloys, including:

- computerized technology that monitors and controls production furnaces;
- electrode technology and operational know-how;
- metallurgical processes for the production of solar-grade silicon metal;
- production software that monitors the introduction of additives to alloys, allowing the precise formulation of the chemical composition of products; and
- flowcaster equipment, which maintains certain characteristics of silicon-based alloys as they are cast.

We are subject to a risk that:

- we may not have sufficient funds to develop new technology and to implement effectively our technologies as competitors improve their processes;
- if implemented, our technologies may not work as planned; and
- our proprietary technologies may be challenged and we may not be able to protect our rights to these technologies.

Patent or other intellectual property infringement claims may be asserted against us by a competitor or others. Our intellectual property rights may not be enforceable and may not enable us to prevent others from developing and marketing competitive products or methods. An infringement action against us may require the diversion of substantial funds from our operations and may require management to expend efforts that might otherwise be devoted to operations. A successful challenge to the validity of any of our patents may subject us to a significant award of damages, and may oblige us to secure licenses of others' intellectual property, which could have a material adverse effect on our business, results of operations and financial condition.

We also rely on trade secrets, know-how and continuing technological advancement to maintain our competitive position. We may not be able to effectively protect our rights to unpatented trade secrets and know-how.

Ferroglobe PLC is a holding company whose principal source of revenue is the income received from its subsidiaries.

Ferroglobe PLC is dependent on the income generated by its subsidiaries in order to earn distributable profits and pay dividends to shareholders. The amounts of distributions and dividends, if any, to be paid to us by any operating subsidiary will depend on many factors, including such subsidiary's results of operations and financial condition, limits on dividends under applicable law, its constitutional documents, documents governing any indebtedness, applicability of tax treaties and other factors which may be outside our control. If our operating subsidiaries do not generate sufficient cash flow, we may be unable to earn distributable profits and pay dividends on our shares.

Our business operations may be impacted by various types of claims, lawsuits, and other contingent obligations.

We are involved in various legal and regulatory proceedings including those that arise in the ordinary course of our business. We estimate such potential claims and contingent liabilities and, where appropriate, record provisions to address these contingent liabilities. The ultimate outcome of the legal matters currently pending against our Company is uncertain, and although such claims, lawsuits and other legal matters are not expected individually to have a material adverse effect, such matters in the aggregate could have a material adverse effect on our business, results of operations and financial condition. Furthermore, we could, in the future, be subject to judgments or enter into settlements of lawsuits and claims that could have a material adverse effect on our results of operations in any particular period.

While we maintain insurance coverage in respect of certain risks and liabilities, we may not be able to obtain such insurance on acceptable terms in the future, if at all, and any such insurance may not provide adequate coverage against such claims. See “Item 8.A.—Financial Information—Consolidated Statements and Other Financial Information—Legal proceedings” for additional information regarding legal proceedings to which we are party.

We are exposed to changes in economic and political conditions where we operate and globally that are beyond our control.

Our industry is affected by changing economic conditions, including changes in national, regional and local unemployment levels, changes in national, regional and local economic development plans and budgets, shifts in business investment and consumer spending patterns, credit availability, and business and consumer confidence. Disruptions in national economies and volatility in the financial markets may and often will reduce consumer confidence, negatively affecting business investment and consumer spending. The outlook for the global economy in the near to medium term is negative due to several factors, including the COVID-19 pandemic, geopolitical risks and concerns about global growth and stability.

Following the United Kingdom’s exit from the European Union, we may face risks associated with the current uncertainty and the consequences that may result from such exit, in particular with respect to tax, customs and duty laws and regulations, volatility in exchange rates and interest rates and our ability to sell and transport products from manufacturing facilities on the continent to our customers in the United Kingdom.

We are not able to predict the timing or duration of periods economic growth in the countries where we operate or sell products, nor are we able to predict the timing or duration of any economic downturn or recession that may occur in the future.

Cybersecurity breaches and threats could disrupt our business operations and result in the loss of critical and confidential information.

We rely on the effective functioning and availability of our information technology and communication systems and the security of such systems for the secure processing, storage and transmission of confidential information. The sophistication and magnitude of cybersecurity incidents are increasing and include, among other things, unauthorized access, computer viruses, deceptive communications and malware. We have experienced minor incidents in the past, and information technology security processes may not effectively detect or prevent cybersecurity breaches or threats and the measures we have taken to protect against such incidents may not be sufficient to anticipate or prevent rapidly evolving types of cyber-attacks. Breaches of the security of our information technology and communication systems could result in destruction or corruption of data, the misappropriation, corruption or loss of critical or confidential information, business disruption, reputational damage, litigation and remediation costs.

Possible new tariffs and duties that might be imposed by certain governments, including the United States, the European Union and others, could have a material adverse effect on our results of operations.

In March, 2018, the United States imposed import tariffs of 25 percent on steel and 10 percent on aluminum. Exemptions from these tariffs were allowed for steel from Argentina, Australia, Brazil, Canada, Mexico, and South Korea, and aluminum from Argentina, Australia, Canada, and Mexico. These tariffs were expanded to apply to steel and aluminum derivatives from most countries. China, the EU, and other countries imposed retaliatory duties on products from the United States.

In January, 2022, the tariffs on steel and aluminum from the EU were replaced by “tariff-rate quotas”, which allow a certain volume of imports to enter without the additional tariffs, but impose a 25% tariff on steel imports and a 10% tariff on aluminum imports exceeding the quota amount. Similar arrangements to replace the steel and aluminum tariffs are being negotiated with Japan and the UK.

Beginning in July 2018, the United States also imposed 25 percent tariffs on a wide array of Chinese products, including products produced and consumed by Ferroglobe, and 7.5 percent on a smaller range of products. In January 2020, the United States and China entered an initial “Phase 1” agreement to resolve the trade dispute between the two countries. The agreement resulted in the suspension of Chinese retaliatory duties on certain U.S. products and the commitment by China to purchase products from the United States. It is unclear whether and, if so, when the two countries will reach a Phase 2 agreement that would resolve the dispute more broadly.

There are indications that China has not fully complied with its Phase 1 commitments. If China were found to be in noncompliance, the United States could reimpose tariffs on Chinese products that are currently suspended or increase the existing tariffs.

Any “trade war” resulting from the imposition of tariffs could have a significant adverse effect on world trade and the world economy. To date, tariffs have not affected our business to a material degree.

Our suppliers, customers, agents or business partners may be subject to or affected by export controls or trade sanctions imposed by government authorities from time to time, which may restrict our ability to conduct business with them and potentially disrupt our production or our sales.

The United States, European Union, United Nations and other authorities have variously imposed export controls and trade sanctions on certain countries, companies, individuals and products, restricting our ability to trade normally with or in them. At present, compliance with such trade regulation is not affecting our business to a material degree. However, new trade regulations may be imposed at any time that target or otherwise affect our customers, suppliers, agents or business partners or their products. In particular, trade sanctions could be imposed that restrict our ability to do business with one or more critical suppliers and require special licenses to do so. Such events could potentially disrupt our production or sales and have a material adverse effect on our business, results of operations and financial condition.

We make significant investments in the development of new technologies and new products. The success of such technologies or products is inherently uncertain and the investments made may fail to render the desired increased in profitability.

In order to improve our processes and increase the margins in our products we have constantly invested significant amounts in the development of new technologies and in the development of new value added products. However, these developments are inherently uncertain, since they may fail to render the desired results when implemented at an industrial scale.

Specifically, we have invested in the construction of a factory to produce high purity silicon metal through a technology developed and patented by the Company. We believe the technology presents several advantages when compared to competitor’s processes. This high purity silicon could be used for several applications, including advanced ceramics, fillers for semiconductors, special alloys or li-ion batteries. The most promising market is the silicon for the anode of batteries, whose development depends on the validation of the Si/C composites in the new generation of battery cells for EVs. This is a long process and silicon might not deliver the expected results in terms of capacity, cyclability, fast-charging or safety. There could also be new emerging technologies such as solid-state batteries with lithium metal anode that could phase out the use of silicon in the anode.

Risks Related to Our Capital Structure

Our leverage may make it difficult for us to service our debt and operate our business.

We have significant outstanding indebtedness and debt service requirements. Our leverage has and in the future could have important consequences, including:

- making it more difficult for us to satisfy our obligations to all creditors;
- requiring us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thus reducing the availability of our cash flow to fund internal growth through working capital and capital expenditures and for other general corporate purposes;
- increasing our vulnerability to a downturn in our business or economic or industry conditions;
- placing us at a competitive disadvantage compared to our competitors that have less indebtedness in relation to cash flow;
- limiting our flexibility in planning for or reacting to changes in our business and our industry;

- restricting us from investing in growing our business, pursuing strategic acquisitions and exploiting certain business opportunities; and
- limiting, among other things, our and our subsidiaries' ability to incur additional indebtedness, including refinancing, or raise equity capital in the future and increasing the costs of such additional financings.

Our ability to service our indebtedness will depend on our future performance, including an improvement on recent financial performance, and liquidity, which will be affected by prevailing economic conditions and financial, business, regulatory and other factors, including the COVID-19 pandemic and the military conflict between Russia and Ukraine. Many of these factors are beyond our control. We may not be able to generate enough cash flow from operations or obtain enough capital to service our indebtedness or fund our planned capital expenditures. If we cannot service our indebtedness and meet our other obligations and commitments, we might be required to refinance our indebtedness, obtain additional financing, delay planned capital expenditures or to dispose of assets to obtain funds for such purpose. We cannot assure you that any refinancing or asset dispositions could be effected on a timely basis or on satisfactory terms, if at all, or would be permitted by the terms of our outstanding debt instruments.

We have in the past experienced losses and cannot assure you that we will be profitable.

Our business has historically been subject to fluctuations in the prices of our products and the market demand for them, caused by general and regional economic cycles, raw material and energy price fluctuations, competition and other factors. Throughout 2019 and 2020 we experienced a significant decline in prevailing prices of our products, which adversely affected our results. In early 2020, the outbreak of coronavirus disease ("COVID-19") has been and continues to be a complex and evolving situation, with governments, public institutions and other organizations imposing or recommending, and businesses and individuals implementing, at various times and to varying degrees, restrictions on various activities or other actions to combat its spread, such as restrictions and bans on travel or transportation; limitations on the size of in-person gatherings, restrictions on freight transportations, closures of, or occupancy or other operating limitations on work facilities, and quarantines and lock-downs.

As a result of this pandemic and the strict confinement and other public health measures taken around the world, the demand for our products in the second and third quarters of 2020 was reduced significantly compared with the first and fourth quarters of the year. During the fourth quarter of 2020, demand level for our products increased to levels similar to those prior to the outbreak. During 2021, demand for our products has increased even further than in the fourth quarter of 2020. However, COVID-19 has negatively impacted, and will in the future negatively impact to an extent we are unable to predict, our revenues.

As a result, in part due to this pandemic and the strict confinement and other public health measures taken around the world, our sales decreased \$470.8 million, or 29.1%, from \$1,615.2 million for the year ended December 31, 2019 to \$1,144.4 million for the year ended December 31 2020, resulting in a loss of \$249.8 million for the year ended December 31, 2020. During 2021, our sales increased \$634.5 million, or 55.4%, from \$1,144.4 million for the year ended December 31, 2020 to \$1,778.9 million for the year ended December 31 2021, resulting in a loss of \$106.4 million for the year ended December 31, 2021.

We are subject to restrictive covenants under our financing agreements, which could impair our ability to run our business.

Restrictive covenants under our financing agreements, including relating to our outstanding notes and the agreements for our SEPI financing, may restrict our ability to operate our business. Our failure to comply with these covenants, including as a result of events beyond our control, could result in an event of default that could materially and adversely affect our business, results of operations and financial condition.

The restrictions contained in our financing agreements could affect our ability to operate our business and may limit our ability to react to market conditions or take advantage of potential business opportunities as they arise. For example, such restrictions could adversely affect our ability to finance our operations, make strategic acquisitions, investments or alliances, restructure our organization or finance our capital needs. Additionally, our ability to comply with these covenants and restrictions may be affected by events beyond our control. These include prevailing economic, financial and industry conditions. If we breach any of these covenants or restrictions, we could be in default under our financing agreements.

If there were an event of default under any of our debt instruments that is not cured or waived, the holders of the defaulted debt could terminate their commitments thereunder and declare all amounts outstanding with respect to such indebtedness due and payable immediately, which, in turn, could result in cross-defaults under our other outstanding debt instruments. Any such actions could force us into bankruptcy or liquidation.

To service our indebtedness, we require a significant amount of cash, and our ability to generate cash will depend on many factors beyond our control.

Our ability to make payments on and to refinance our indebtedness, and to fund capital expenditures, depends in part on our ability to generate cash in the future, and increased cash flow than we have generated in recent periods. Debt service requirements due to increased debt and increased interest rates will increase our cash flow requirements. This depends on the success of our business strategy and on general economic, financial, competitive, legislative, regulatory and other factors, many of which are beyond our control.

The Restructuring has increased our leverage and so we will need to maintain our profitability and/or sustain positive cash flows in order to be able to service our indebtedness. There can be no assurance that we will generate sufficient cash flow from operations, that we will realize operating improvements on schedule or that future borrowings will be available to us in an amount sufficient to enable us to service and repay our indebtedness or to fund our other liquidity needs. Furthermore, applicable law and future contractual arrangements may impose restrictions on certain of our subsidiaries' ability to make payments to Ferroglobe and other entities within the Group, which could impact our ability to service and pay our obligations as they mature or to fund our liquidity needs.

The Reinstated Notes mature in December 2025. Other debt instruments mature at various other dates. There can be no assurance that we will have the available liquidity or the ability to raise financing in order to repay these instruments at or ahead of their maturity.

If we are unable to satisfy our debt obligations, we may have to undertake alternative financing plans, such as refinancing or further restructuring our indebtedness, selling assets, reducing or delaying capital investments or seeking to raise additional capital. There can be no assurance that any refinancing or debt restructuring would be possible, or if possible, that it would be on similar terms to those of our debt instruments existing at that time, that any assets could be sold or that, if sold, the timing of the sales and the amount of proceeds realized from those sales would be favorable to us or that additional financing could be obtained on acceptable terms. As the Reinstated Notes will be secured by a significant portion of our assets that can be granted as collateral, our ability to refinance our existing debt or raise new debt may be limited to unsecured or lesser-secured debt. Disruptions in the capital and credit markets, as have been seen in recent years, could adversely affect our ability to meet our liquidity needs or to refinance our indebtedness.

We may not be able to repurchase the Notes upon a Change of Control.

The Reinstated Notes requires us to offer to repurchase all or any part of each holder's notes upon the occurrence of a change of control, as defined in the respective indentures, at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest thereon, to the date of purchase. If such an event were to occur, we may not have sufficient financial resources available to satisfy all of those obligations.

Risks Related to Our Ordinary Shares

The market price of our ordinary shares may be volatile and may decline.

Our ordinary shares are admitted for trading on the Nasdaq Capital Market under the symbol "GSM". The market price of our ordinary shares is subject to wide fluctuations in response to numerous factors, some of which are beyond our control. These factors include, among other things, actual or anticipated variations in our costs of doing business, operating results and cash flow, the nature and content of our earnings releases and our competitors' earnings releases, changes in financial estimates by securities analysts, business conditions in our markets and the general state of the securities markets and the market for other financial stocks, changes in capital markets that affect the perceived availability of capital to companies in our industry, and governmental legislation or regulation, as well as general economic and market conditions, such as downturns in our economy and recessions.

In recent years, the stock market in general has experienced extreme price fluctuations that have often times been unrelated to the operating performance of the affected companies. Similarly, the market price of our ordinary shares may fluctuate significantly based upon factors unrelated or disproportionate to our operating performance.

These market fluctuations, as well as general economic, political and market conditions, such as recessions, interest rates or international currency fluctuations may adversely affect the market price of our ordinary shares.

Significant sales of our ordinary shares, or the perception that significant sales thereof may occur in the future, could adversely affect the market price for our ordinary shares.

The sale of substantial amounts of our ordinary shares could adversely affect the price of these securities. Sales of substantial amounts of our ordinary shares in the public market, and the availability of shares for future sale could adversely affect the prevailing market price of our ordinary shares and could cause the market price of our ordinary shares to remain low for a substantial amount of time.

We do not anticipate paying cash dividends in the foreseeable future.

We currently intend to retain future earnings, if any, for use in our business and, therefore, do not anticipate paying any cash dividends in the foreseeable future. In addition, we are subject to financial covenants restriction the payment of dividends or repurchase of our shares. The payment of future dividends, if any, will depend, among other things, on our results of operations and financial condition and on such other factors as our Board of Directors may, in their discretion, consider relevant.

If securities or industry analysts do not publish or cease publishing research reports about us, if they adversely change their recommendations regarding our ordinary shares, or if our operating results do not meet their expectations, the price of our ordinary shares could decline.

The trading market for our ordinary shares will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If there is limited or no securities or industry analyst coverage of us, the market price and trading volume of our ordinary shares would likely be negatively impacted. Moreover, if any of the analysts who may cover us downgrade our ordinary shares or provide relatively more favorable recommendations concerning our competitors, or as we experienced in 2019 and 2020, if our operating results or prospects do not meet their expectations, the market price of our ordinary shares could decline. If any of the analysts who may cover us were to cease coverage or fail regularly to publish reports about our Company, we could lose visibility in the financial markets, which, in turn, could cause our share price or trading volume to decline.

As a foreign private issuer within the meaning of the rules of NASDAQ, we are subject to different U.S. securities laws and NASDAQ governance standards than domestic U.S. issuers of securities. These may afford relatively less protection to holders of our ordinary shares, who may not receive all corporate and company information and disclosures they are accustomed to receiving or in a manner to which they are accustomed.

As a foreign private issuer, the rules governing the information that we are required to disclose differ from those governing U.S. corporations pursuant to the U.S. Exchange Act. Although we intend to report periodic financial results and certain material events, we are not required to file quarterly reports on Form 10-Q or provide current reports on Form 8-K disclosing significant events within four days of their occurrence. In addition, we are exempt from the SEC's proxy rules, and proxy statements that we distribute will not be subject to review by the SEC. Our exemption from Section 16 rules requiring the reporting of beneficial ownership and sales of shares by insiders means that you will have less data in this regard than shareholders of U.S. companies that are subject to this part of the U.S. Exchange Act and that our insiders are not subject to short-swing profit rules. As a result, in deciding whether to purchase our shares, you may not have all the data that you are accustomed to having when making investment decisions with respect to domestic U.S. public companies.

Furthermore, NASDAQ Rule 5615(a)(3) provides that a foreign private issuer, such as our Company, may rely on home country corporate governance practices in lieu of certain of the rules in the NASDAQ Rule 5600 Series and Rule 5250(d), provided that we nevertheless comply with NASDAQ's Notification of Noncompliance requirement (Rule 5625), the Voting Rights requirement (Rule 5640) and that we have an audit committee that satisfies Rule 5605(c)(3), consisting of committee members that meet the independence requirements of Rule 5605(c)(2)(A)(ii). We are permitted to follow certain corporate governance rules that conform to U.K.

requirements in lieu of many of the NASDAQ corporate governance rules, and we intend to comply with the NASDAQ corporate governance rules applicable to foreign private issuers. Accordingly, our shareholders will not have the same protections afforded to stockholders of U.S. companies that are subject to all of the corporate governance requirements of NASDAQ.

We may lose our foreign private issuer status in the future, which could result in significant additional costs and expenses.

We could cease to be a foreign private issuer if a majority of our outstanding voting securities are directly or indirectly held of record by U.S. residents and we fail to meet additional requirements necessary to avoid loss of foreign private issuer status. In that event, the regulatory and compliance costs we would incur as a domestic registrant may be significantly higher than we incur as a foreign private issuer, which could have a material adverse effect on our business, operating results and financial condition.

As an English public limited company, certain capital structure decisions require shareholder approval, which may limit our flexibility to manage our capital structure.

English law provides that a board of directors may only allot shares (or rights or convertible into shares) with the prior authorization of shareholders, such authorization being up to the aggregate nominal amount of shares and for a maximum period of five years, each as specified in the articles of association or relevant shareholder resolution. The Articles authorize the allotment of additional shares for a period of five years from October 26, 2017 (being the date of the adoption of the Articles), which authorization will need to be renewed upon expiration (*i.e.*, at least every five years) but may be sought more frequently for additional five-year terms (or any shorter period). This authorization was renewed by the 2022 AGM for an additional five years.

English law also generally provides shareholders with preemptive rights when new shares are issued for cash. However, it is possible for the articles of association, or for shareholders acting in a general meeting, to exclude preemptive rights. Such an exclusion of preemptive rights may be for a maximum period of up to five years from the date of adoption of the articles of association, if the exclusion is contained in the articles of association, or from the date of the shareholder resolution, if the exclusion is by shareholder resolution. In either case, this exclusion would need to be renewed by our shareholders upon its expiration (*i.e.*, at least every five years). The Articles exclude preemptive rights for a period of five years from October 26, 2017, which exclusion will need to be renewed upon expiration (*i.e.*, at least every five years) to remain effective, but may be sought more frequently for additional five-year terms (or any shorter period). This exclusion was renewed by the 2022 AGM for an additional five years.

English law also generally prohibits a public company from repurchasing its own shares without the prior approval of shareholders by ordinary resolution, such being a resolution passed by a simple majority of votes cast, and other formalities. As an English company listed on NASDAQ, we may not make on-market purchases of our shares and may make off-market purchases only for the purposes of or pursuant to an employees' share scheme where our shareholders have approved our doing so by ordinary resolution (and with a maximum duration of such approval of five years) or with the prior consent of our shareholders by ordinary resolution to the proposed contract for the purchase of our shares.

English law requires that we meet certain financial requirements before we declare dividends or repurchases.

Under English law, we may only declare dividends, make distributions or repurchase shares out of distributable reserves of the Company or distributable profits. "Distributable profits" are a company's accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously written off in a reduction or reorganization of capital duly made, as reported to the Companies House. In addition, as a public company, we may only make a distribution if the amount of our net assets is not less than the aggregate amount of our called-up share capital and undistributable reserves and if, and to the extent that, the distribution does not reduce the amount of those assets to less than that aggregate amount. The Articles permit declaration of dividends by ordinary resolution of the shareholders, provided that the directors have made a recommendation as to its amount. The dividend shall not exceed the amount recommended by the directors. The directors may also decide to pay interim dividends if it appears to them that the profits available for distribution justify the payment. When recommending or declaring the payment of a dividend, the directors will be required under English law to comply with their duties, including considering our future financial requirements.

The enforcement of shareholder judgments against us or certain of our directors may be more difficult.

Because we are a public limited company incorporated under English law, and because most of our directors and executive officers are non-residents of the United States and substantially all of the assets of such directors and executive officers are located outside of the United States, our shareholders could experience more difficulty enforcing judgments obtained against our Company or our directors in U.S. courts than would currently be the case for U.S. judgments obtained against a U.S. public company or U.S. resident directors. In addition, it may be more difficult (or impossible) to assert some types of claims against our Company or its directors in courts in England, or against certain of our directors in courts in Spain, than it would be to bring similar claims against a U.S. company or its directors in a U.S. court.

The United States is not currently bound by a treaty with Spain or the United Kingdom providing for reciprocal recognition and enforcement of judgments rendered in civil and commercial matters with Spain or the United Kingdom, other than arbitral awards. There is, therefore, doubt as to the enforceability of civil liabilities based upon U.S. federal securities laws in an action to enforce a U.S. judgment in Spain or the United Kingdom. In addition, the enforcement in Spain or the United Kingdom of any judgment obtained in a U.S. court based on civil liabilities, whether or not predicated solely upon U.S. federal securities laws, will be subject to certain conditions. There is also doubt that a court in Spain or the United Kingdom would have the requisite power or authority to grant remedies in an original action brought in Spain or the United Kingdom on the basis of U.S. federal securities laws violations.

Risks Related to Tax Matters

The application of Section 7874 of the Code, including under IRS guidance, and changes in law could affect our status as a foreign corporation for U.S. federal income tax purposes.

We believe that, under current law, we should be treated as a foreign corporation for U.S. federal income tax purposes. However, the U.S. Internal Revenue Service (the “IRS”) may assert that we should be treated as a U.S. corporation for U.S. federal income tax purposes pursuant to Section 7874 of the Internal Revenue Code of 1986, as amended (the “Code”). Under Section 7874 of the Code, we would be treated as a U.S. corporation for U.S. federal income tax purposes if, after the Business Combination, (i) at least 80% of our ordinary shares (by vote or value) were considered to be held by former holders of common stock of Globe by reason of holding such common stock, as calculated for Section 7874 purposes, and (ii) our expanded affiliated group did not have substantial business activities in the United Kingdom (the “80% Test”). The percentage (by vote and value) of our ordinary shares considered to be held by former holders of common stock of Globe immediately after the Business Combination by reason of their holding common stock of Globe is referred to in this disclosure as the “Section 7874 Percentage.”

Determining the Section 7874 Percentage is complex and, with respect to the Business Combination, subject to legal uncertainties. In that regard, the IRS and U.S. Department of the Treasury (“U.S. Treasury”) issued temporary Regulations in April 2016 and finalized Regulations in July 2018 (collectively, the “Section 7874 Regulations”), which include a rule that applies to certain transactions in which the Section 7874 Percentage is at least 60% and the parent company is organized in a jurisdiction different from that of the foreign target corporation (the “Third Country Rule”). This rule applies to transactions occurring on or after November 19, 2015, which date is prior to the closing of the Business Combination. If the Third Country Rule were to apply to the Business Combination, the 80% Test would be deemed met and we would be treated as a U.S. corporation for U.S. federal income tax purposes. While we believe the Section 7874 Percentage is less than 60% such that the Third Country Rule does not apply to us, we cannot assure you that the IRS will agree with this position and would not successfully challenge our status as a foreign corporation. If the IRS successfully challenged our status as a foreign corporation, significant adverse tax consequences would result for us and could apply to our shareholders.

In addition, changes to Section 7874 of the Code, the U.S. Treasury Regulations promulgated thereunder, or to other relevant tax laws (including under applicable tax treaties) could adversely affect our status or treatment as a foreign corporation, and the tax consequences to our affiliates, for U.S. federal income tax purposes, and any such changes could have prospective or retroactive application. Recent legislative proposals have aimed to expand the scope of U.S. corporate tax residence, including by potentially causing us to be treated as a U.S. corporation if the management and control of us and our affiliates were determined to be located primarily in the United States, or by reducing the Section 7874 Percentage at or above which we would be treated as a U.S. corporation such that it would be lower than the threshold imposed under the 80% Test.

IRS guidance and changes in law could affect our ability to engage in certain acquisition strategies and certain internal restructurings.

Even if we are treated as a foreign corporation for U.S. federal income tax purposes, the Section 7874 Regulations materially changed the manner in which the Section 7874 Percentage will be calculated in certain future acquisitions of U.S. businesses in exchange for our equity, which may affect the tax efficiencies that otherwise might be achieved in transactions with third parties. For example, the Section 7874 Regulations would impact certain acquisitions of U.S. companies for our Ordinary Shares (or other stock) in the 36-month period beginning December 23, 2015, by excluding from the Section 7874 Percentage the portion of Ordinary Shares that are allocable to former holders of common stock of Globe. This rule would generally have the effect of increasing the otherwise applicable Section 7874 Percentage with respect to our future acquisition of a U.S. business. The Section 7874 Regulations also may more generally limit the ability to restructure the non-U.S. members of our Company to achieve tax efficiencies, unless an exception applies. However, no such acquisition of a U.S. business was made during the 36 months period.

IRS proposed regulations and changes in laws or treaties could affect the expected financial synergies of the Business Combination.

The IRS and the U.S. Treasury also issued rules that provide that certain intercompany debt instruments issued on or after April 5, 2016, will be treated as equity for U.S. federal income tax purposes, therefore limiting U.S. tax benefits and resulting in possible U.S. withholding taxes. As a result of these rules, we may not be able to realize a portion of the financial synergies that were anticipated in connection with the Business Combination, and such rules may materially affect our future effective tax rate. While these new rules are not retroactive, they could impact our ability to engage in future restructurings if such transactions cause an existing debt instrument to be treated as reissued. Furthermore, under certain circumstances, recent treaty proposals by the U.S. Treasury, if ultimately adopted by the United States and relevant foreign jurisdictions, could reduce the potential tax benefits for us and our affiliates by imposing U.S. withholding taxes on certain payments from our U.S. affiliates to related and unrelated foreign persons.

We are subject to tax laws of numerous jurisdictions and our interpretation of those laws is subject to challenge by the relevant governmental authorities.

We and our subsidiaries are subject to tax laws and regulations in the United Kingdom, the United States, France, Spain, South Africa and the other jurisdictions in which we operate. These laws and regulations are inherently complex, and we and our subsidiaries are (and have been) obligated to make judgments and interpretations about the application of these laws and regulations to us and our subsidiaries and their operations and businesses. The interpretation and application of these laws and regulations could be challenged by the relevant governmental authority, which could result in administrative or judicial procedures, actions or sanctions, which could be material an effect our effective tax rate.

We intend to operate so as to be treated exclusively as a resident of the United Kingdom for tax purposes, but the relevant tax authorities may treat us as also being a resident of another jurisdiction for tax purposes.

We are a company incorporated in the United Kingdom. Current U.K. tax law provides that we will be regarded as being a U.K. resident for tax purposes from incorporation and shall remain so unless (i) we were concurrently resident of another jurisdiction (applying the tax residence rules of that jurisdiction) that has a double tax treaty with the United Kingdom and (ii) there is a tiebreaker provision in that tax treaty which allocates exclusive residence to that other jurisdiction.

Based upon our management and organizational structure, we believe that we should be regarded solely as resident in the United Kingdom from our incorporation for tax purposes. However, because this analysis is highly factual and may depend on changes in our management and organizational structure, there can be no assurance regarding the final determination of our tax residence. Should we be treated as resident in a country or jurisdiction other than the United Kingdom, we could be subject to taxation in that country or jurisdiction on our worldwide income and may be required to comply with a number of material and formal tax obligations, including withholding tax and reporting obligations provided under the relevant tax law, which could result in additional costs and expenses and an increase of our effective tax rate.

We may not qualify for benefits under the tax treaties entered into between the United Kingdom and other countries.

We intend to operate in a manner such that, when relevant, we are eligible for benefits under tax treaties entered into between the United Kingdom and other countries. However, our ability to qualify and continue to qualify for such benefits will depend upon the requirements contained within each treaty and the applicable domestic laws, as the case may be, on the facts and circumstances surrounding our operations and management, and on the relevant interpretation of the tax authorities and courts.

Our or our subsidiaries' failure to qualify for benefits under the tax treaties could result in adverse tax consequences to us and our subsidiaries and could result in certain tax consequences of owning or disposing of our ordinary shares differing from those discussed below.

Future changes to domestic or international tax laws or to the interpretation of these laws by the governmental authorities could adversely affect us and our subsidiaries.

The U.S. Congress, the U.K. Government, the European Union and the Organization for Economic Co-operation and Development and other government agencies in jurisdictions where we and our affiliates do business have had an extended focus on issues related to the taxation of multinational corporations. One example is in the area of "base erosion and profit shifting" (or "BEPS"), in which payments are made between affiliates from a jurisdiction with high tax rates to a jurisdiction with lower tax rates. Thus, the tax laws in the United States, the United Kingdom, the European Union or other countries in which we and our affiliates do business are changing and any such changes could adversely affect us, mostly those related to interest limitation rules. Furthermore, the interpretation and application of domestic or international tax laws made by us and our subsidiaries could differ from that of the relevant governmental authority, which could result in administrative or judicial procedures, actions or sanctions, which could be material. On July 1, 2018, OECD's so-called "Multi-Lateral Instrument" entered into force covering 87 jurisdictions and impacting over 1,200 double tax treaties. The adoption and transposition into domestic legislations of the Anti-Tax Avoidance Directives (known as "ATAD 1 and 2") by the European Union is another key development that is impacting us, mostly when it comes to interest deduction limitation. On December 2021, the European Commission published a proposal for a Directive "laying down rules to prevent the misuse of shell entities for improper tax purposes and amending Directive 2011/16/EU." This Directive is also referred to as the ATAD 3 Directive. The implementation of this directive could affect us.

Further developments are to be seen in areas such as the "making tax digital - initiatives" allowing authorities to monitor multinationals' tax position on a more real time basis and the contemplated introduction of new taxes, such as revenue-based digital services taxes aimed at technology companies, but which may impact traditional businesses as well in the sense of allocating a portion of the profitability of the given company to jurisdictions where it has significant sales even though it is not physically present. The latest developments by the OECD in this field are the so-called Pillar One and Pillar Two. Under Pillar One, the OECD intends to set up the foundations for allocating to the market jurisdiction (i) non-routine profit; (ii) a fixed remuneration based on the Arm's length Principle for baseline distribution and marketing functions; and (iii) an additional profit where in-country functions exceed the base-line activity already compensated. In principle, our business is not in scope of this measure as it refers to raw materials and commodities and this kind of business is excluded under the current drafting of the paper. Additionally, the measure would apply to multinational entities with revenues exceeding EUR20 billion and a profitability greater than 10%, what would exclude our company from its application. Then, Pillar Two, also called the GloBE (Global Anti-Base Erosion proposal) consists of setting a minimum taxation, giving the countries the right to "tax back" profit that is currently taxed below the minimum 15% rate. This goal is reached through several avenues, that is, (i) the inclusion of foreign income when taxed below the minimum rate; (ii) an undertaxed payment rule to related parties to deny deduction or impose taxation when payment was not subject to tax; (iii) switch over rule in the double tax treaties to allow the residence jurisdiction to switch from exemption to credit method when profit of permanent establishment is taxed below the minimum rate; and (iv) a subject to tax rule to allow withholding tax or other taxation or adjust eligibility to treaty benefits on payments not subject to the minimum rate. GloBE could affect our effective tax rate when implemented. In December 2021 the OECD released a report containing further details about the implementation of Pillar I. Likewise, also in December 2021 the European Union released a proposed Directive on minimum taxation in line with the OECD report and in July 2022 the UK Government released a draft legislation in line with the OECD report. In all three cases, it is proposed a minimum taxation of 15% that, when implemented, most likely should not impact our organization since we are already based in high tax jurisdictions without significant tax exemptions or credits or permanent adjustments to reduce our effective tax rate. Additionally, the minimum taxation under the GloBE rules is increased by parameters like number of employees on the ground and fixed assets to conduct the relevant

business activity. This kick out provision should apply to Ferroglobe due to its large workforce and significant tangible footprint in each jurisdiction where it is present.

We may become subject to income or other taxes in jurisdictions which would adversely affect our financial results.

We and our subsidiaries are subject to the income tax laws of the United Kingdom, the United States, France, Spain, South Africa and the other jurisdictions in which we operate. Our effective tax rate in any period is impacted by the source and the amount of earnings among our different tax jurisdictions. A change in the division of our earnings among our tax jurisdictions could have a material impact on our effective tax rate and our financial results. In addition, we or our subsidiaries may be subject to additional income or other taxes in these and other jurisdictions by reason of the management and control of our subsidiaries, our activities and operations, where our production facilities are located or changes in tax laws, regulations or accounting principles. Changes in tax treaties, the introduction of new legislation, updates to existing legislation, or changes to regulatory interpretations of existing legislation as a result of these or similar proposals could impose additional taxes on businesses and increase the complexity, burden and cost of tax compliance in countries where we operate.

Although we have adopted guidelines and operating procedures to ensure our subsidiaries are appropriately managed and controlled, we may be subject to such taxes in the future and such taxes may be substantial. The imposition of such taxes could have a material adverse effect on our financial results.

We may incur current tax liabilities in our primary operating jurisdictions in the future.

We expect to make current tax payments in some of the jurisdictions where we do business in the normal course of our operations. Our ability to defer the payment of some level of income taxes to future periods is dependent upon the continued benefit of accelerated tax depreciation on our plant and equipment in some jurisdictions, the continued deductibility of external and intercompany financing arrangements, the application of tax losses prior to their expiration in certain tax jurisdictions and the application of tax credits including R&D credits, among other factors. The level of current tax payments we make in any of our primary operating jurisdictions could adversely affect our cash flows and have a material adverse effect on our financial results.

Changes in tax laws may result in additional taxes for us.

We cannot assure you that tax laws in the jurisdictions in which we reside or in which we conduct activities or operations will not be changed in the future. Such changes in tax law could result in additional taxes for us. As mentioned above, changes in tax treaties, the introduction of new legislation, updates to existing legislation, or changes to regulatory interpretations of existing legislation as a result of future tax law changes could impose additional taxes on businesses and increase the complexity, burden and cost of tax compliance in countries where we operate.

U.S. federal income tax reform could adversely affect us.

Legislation commonly known as the Tax Cuts and Jobs Act (the "TCJA") was enacted on December 22, 2017 in the United States. The TCJA made significant changes to the U.S. federal tax code, including a reduction in the U.S. federal corporate statutory tax rate from 35% to 21% as well as the introduction of a base erosion minimum tax (BEAT). The TCJA also made changes to the U.S. federal taxation of foreign earnings and to the timing of recognition of certain revenue and expenses and the deductibility of certain business expenses. We examined the impact the TCJA may have on our business in detail since enactment. Although further guidance continues to be released by the IRS, so far we have concluded that tax reform should not have a material adverse impact on the taxation of our U.S. business, as of December 31, 2022. This annual report does not discuss in detail the TCJA or the manner in which it might affect us or our stockholders. We urge you to consult with your own legal and tax advisors with respect to the Tax Reform Act and the potential tax consequences of investing in our shares.

Our transfer pricing policies are open to challenge from taxation authorities internationally.

Tax authorities have become increasingly focused on transfer pricing in recent years. Due to our international operations and an increasing number of inter-company cross-border transactions, we are open to challenge from tax authorities with regards to the pricing of such transactions. A successful challenge by tax authorities may lead to a reallocation of taxable income to a different tax jurisdiction and may potentially lead to an increase of our effective tax rate.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Ferroglobe PLC

Ferroglobe PLC, initially named VeloNewco Limited, was incorporated under the U.K. Companies Act 2006 as a private limited liability company in the United Kingdom on February 5, 2015, as a wholly-owned subsidiary of Grupo VM. On October 16, 2015, VeloNewco Limited re-registered as a public limited company. As a result of the Business Combination, which was completed on December 23, 2015, FerroAtlántica and Globe merged through corporate transactions to create Ferroglobe PLC, one of the largest producers worldwide of silicon metal and silicon and manganese-based alloys. To effect the Business Combination, Ferroglobe acquired from Grupo VM all of the issued and outstanding ordinary shares, par value €1,000 per share, of Grupo FerroAtlántica, SAU in exchange for 98,078,161 newly issued Class A Ordinary Shares, nominal value \$7.50 per share, of Ferroglobe, after which FerroAtlántica became a wholly-owned subsidiary of Ferroglobe. Immediately thereafter, Gordon Merger Sub, Inc., a wholly-owned subsidiary of Ferroglobe, merged with and into Globe Specialty Metals, Inc., and each outstanding share of common stock, par value \$0.0001 per share, was converted into the right to receive one newly-issued ordinary share, nominal value \$7.50 per share, of Ferroglobe. After these steps, Ferroglobe issued, in total, 171,838,153 shares, out of which 98,078,161 shares were issued to Grupo VM and 73,759,992 were issued to the former Globe shareholders. Our ordinary shares are currently traded on the NASDAQ under the symbol “GSM.”

On June 22, 2016, we completed a reduction of our share capital, as a result of which the nominal value of each share was reduced from \$7.50 to \$0.01, with the amount of the capital reduction being credited to distributable reserves.

On August 21, 2018, we announced a share repurchase program, which provided authorization to purchase up to \$20 million of our ordinary shares in the period ending December 31, 2018. On November 7, 2018, we completed the repurchase program, resulting in the acquisition of a total of 2,894,049 ordinary shares for total consideration of \$20,100 thousand, including applicable stamp duty. The average price paid per share was \$6.89. The share repurchase program resulted in 1,152,958 ordinary shares purchased and cancelled and 1,741,091 ordinary shares purchased into treasury, all of which remained held in treasury at December 31, 2018. See “Item 16.E.— Purchases of Equity Securities by the Issuer and Affiliated Purchasers.”

On July 29, 2021, upon the closing of the Refinancing, the company issued 8,918,618 new ordinary shares to Rubric Capital Management LP on behalf of certain managed or sub-managed funds and accounts and Grupo Villar Mir, S.A.U for a total issued share capital of \$40 million, 1,900,000 shares as a work fee and 7,013,872 shares to bondholder’s related to the financing transactions.

On October 6, 2021, the Company entered into an equity distribution agreement (the “Equity Distribution Agreement”) with B. Riley Securities, Inc. and Cantor Fitzgerald & Co. relating to the ordinary shares of Ferroglobe PLC. The Company may offer and sell ordinary shares having an aggregate offering price of up to \$100,000,000 from time to time through B. Riley Securities, Inc. and Cantor Fitzgerald & Co. as our sales agents. In 2021 The Company sold 186,053 ordinary shares under the Equity Distribution Agreement, for net proceeds of \$1.4 million.

During the year under review, a small number of the ordinary shares held in treasury have been used to satisfy share awards made by the Company to its management team under the Ferroglobe PLC Equity Incentive Plan 2016. The number of ordinary shares held in Treasury as at December 31, 2022 was 1,448,771. See Note 13.

Significant milestones in our history are as follows:

- **1996:** acquisition of the Spanish company Hidro Nitro Española, S.A. (“Hidro Nitro Española”), operating in the ferroalloys and hydroelectric power businesses, and start of the quartz mining operations through the acquisition of Cuarzos Industriales S.A. from Portuguese cement manufacturer Cimpor;
- **1998:** expansion of our manganese- and silicon-based alloy operations through the acquisition of 80% of the share capital of FerroAtlántica de Venezuela (currently FerroVen, S.A.) from the Government of Venezuela in a public auction;

- **2000:** acquisition of 67% of the share capital of quartz mining company Rocas, Arcillas y Minerales, S.A. from Elkem, a Norwegian silicon metal and manganese- and silicon-based alloy producer;
- **2005:** acquisition of Pechiney Electrométallurgie, S.A., now renamed FerroPem, S.A.S., a silicon metal and silicon-based alloys producer with operations in France, along with its affiliate Silicon Smelters (Pty) Ltd. in South Africa;
- **2005:** acquisition of the metallurgical manufacturing plant in Alloy, West Virginia, and Alabama Sand and Gravel, Inc. in Billingsly, Alabama, both in the U.S.;
- **2006:** acquisition of Globe Metallurgical Inc., the largest merchant manufacturer of silicon metal in North America and largest specialty ferroalloy manufacturer in the United States;
- **2006:** acquisition of Stein Ferroaleaciones S.A., an Argentine producer of silicon-based specialty alloys, and its Polish affiliate, Ultracore Polska;
- **2007:** creation of Grupo FerroAtlántica, S.A.U., the holding company of our FerroAtlántica Group;
- **2007:** acquisition of Camargo Correa Metais S.A., a major Brazilian silicon metal manufacturer;
- **2008:** acquisition of Rand Carbide PLC, a ferrosilicon plant in South Africa, from South African mining and steel company Evraz Highveld Steel and Vanadium Limited, and creation of Silicio FerroSolar, S.L., which conducts research and development activities in the solar grade silicon sector;
- **2008:** acquisition of 81% of Solsil, Inc., a producer of high-purity silicon for use in photovoltaic solar cells;
- **2008:** acquisition of a majority stake in Ningxia Yonvey Coal Industry Co., Ltd., a producer of carbon electrodes (the remaining stake subsequently purchased in 2012);
- **2009:** creation of French company Photosil Industries, S.A.S., which conducts research and development activities in the solar grade silicon sector;
- **2009:** sale of interest in Camargo Correa Metais S.A. in Brazil to Dow Corning Corporation and formation of a joint venture with Dow Corning at the Alloy, West Virginia facility;
- **2010:** acquisition of Core Metals Group LLC, one of North America's largest and most efficient producers and marketers of high-purity ferrosilicon and other specialty metals;
- **2010:** acquisition of Chinese silicon metal producer Mangshi Sinice Silicon Industry Company Limited;
- **2011:** acquisition of Alden Resources LLC, North America's leading miner, processor and supplier of specialty metallurgical coal to the silicon and silicon-based alloy industries;
- **2012:** acquisition of SamQuarz (Pty) Ltd, a South African producer of silica, with quartz mining operations;
- **2012:** acquisition of a majority stake (51%) in Bécancour Silicon, Inc., a silicon metal producer in Canada, operated as a joint venture with Dow Corning as the holder of the minority stake of 49%;
- **2014:** acquisition of Silicon Technology (Pty) Ltd. ("Siltech"), a ferrosilicon producer in South Africa;
- **2018:** acquisition from a subsidiary of Glencore PLC of a 100% interest in manganese alloys plants in Mo i Rana, Norway and Dunkirk, France, through newly-formed subsidiaries Ferroglobe Mangan Norge AS and Ferroglobe Manganèse France, SAS;
- **2018:** sale of the majority interest in Hidro Nitro Española to an entity sponsored by a Spanish renewable energies fund;

- **2019:** sale of 100% interest in FerroAtlántica, S.A.U. (“FAU”), to investment vehicles affiliated with TPG Sixth Street Partners;
- **2019:** sale of 100% interest in Ultra Core Polska, z.o.o, to Cedia, S.A;
- **2021:** Sale of Niagara Falls silicon metal facility.

Corporate and Other Information

Our registered office is located at 5 Fleet Place, London EC4M 7RD, our Board of Directors is based at our London Office at 13 Chesterfield Street, London W1J 5JN, United Kingdom and our management is based in London and also at Torre Emperador Castellana, Paseo de la Castellana, 259-D, P49, 28046 Madrid, Spain. The telephone number of our Spanish Office is +34 915 903 219. Our Internet address is <http://www.ferroglobe.com>. The information on our website is not a part of this document. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at <http://www.sec.gov>.

B. Business Overview

Through its operating subsidiaries, Ferroglobe is one of the world’s largest producers of silicon metal, silicon-based alloys and manganese-based alloys. Additionally, Ferroglobe currently has quartz mining activities in Spain, the United States, Canada, and South Africa, low-ash metallurgical quality coal mining activities in the United States, and interests in hydroelectric power in France. Ferroglobe controls a meaningful portion of most of its raw materials and captures, recycles and sells most of the by-products generated in its production processes.

We sell our products to a diverse base of customers worldwide, in a varied range of industries. These industries include aluminum, silicone compounds used in the chemical industry, ductile iron, automotive parts, renewable energy, photovoltaic (solar) cells, electronic semiconductors and steel, all of which are key elements in the manufacturing of a wide range of industrial and consumer products.

We are able to supply our customers with the broadest range of specialty metals and alloys in the industry from our production centers in North America, Europe, South America, Africa and Asia. Our broad manufacturing platform and flexible capabilities allow us to optimize production and focus on products most likely to enhance profitability, including the production of customized solutions and high purity metals to meet specific customer requirements. We also benefit from low operating costs, resulting from our ownership of sources of critical raw materials and the flexibility derived from our ability to alternate production at certain of our furnaces between silicon metal and silicon-based alloy products.

Industry and Market Data

The statements and other information contained below regarding Ferroglobe’s competitive position and market share are based on the reports periodically published by leading metals industry consultants and leading metals industry publications and information centers, as well as on the estimates of Ferroglobe’s management.

Competitive Strengths and Strategy of Ferroglobe

Competitive Strengths

Leading market positions in silicon metal, silicon-based alloys and manganese-based alloys

We are a leading global producer in our core products based on merchant production capacity and hold the leading market share in certain of our products. Specifically, in the case of silicon metal, with maximum global production capacity of approximately 328 thousand metric tons (which includes 51% of our attributable joint venture capacity, we have approximately 66% of the production capacity market share in North America and approximately 25% of the global market share (all of the world excluding China), according to management estimates for our industry. In the case of manganese-based alloys, following the acquisition of the Dunkirk, France and Mo i Rana, Norway plants in 2018, our market share is approximately 15% in Europe, and we are among the three largest global producers of manganese alloys excluding China.

Our scale and global presence across five continents allows us to offer a wide range of products to serve a variety of end-markets, including those which we consider to be dynamic, such as the solar, automotive, consumer electronic products, semiconductors, construction and energy industries. As a result of our market leadership and breadth of products, we possess critical insight into market demand allowing for more efficient use of our resources and operating capacity. Our ability to supply critical sources of high-quality raw materials from within our Company group promotes operational and financial stability and reduces the need for us to compete with our competitors for supply. We believe this also provides a competitive advantage, allowing us to deliver an enhanced product offering with consistent quality on a cost-efficient basis to our customers.

Global production footprint and reach

Our diversified production base consists of production facilities across North America, Europe, South America, South Africa and Asia. We have the capability to produce our core products at multiple facilities, providing a competitive advantage when reacting to changing global demand trends and customer requirements. Furthermore, this broad base ensures reliability to our customers that value timely delivery and consistent product quality. Our diverse production base also enables us to optimize our production plans and shift production to the lowest cost facilities. Most of our production facilities are located close to sources of principal raw materials, key customers or major transport hubs to facilitate delivery of raw materials and distribution of finished products. This enables us to service our customers globally, while optimizing our working capital, as well as enabling our customers to optimize their inventory levels.

Diverse base of high-quality customers across growing industries

We sell our products to customers in over 30 countries, with our largest customer concentration in North America and in Europe. Our products are used in end products spanning a broad range of industries, including solar, personal care and healthcare products, automobile parts, carbon and stainless steel, water pipe, solar, semiconductor, oil and gas, infrastructure and construction. Although some of these end-markets have growth drivers similar to our own, others are less correlated and offer the benefits of diversification. This wide range of products, customers and end-markets provides significant diversity and stability to our business.

Many of our customers, we believe, are leaders in their end-markets and fields. We have built long-lasting relationships with customers based on the breadth and quality of our product offerings and our ability to produce products that meet specific customer requirements. For the year ended December 31, 2022 and December 31, 2021, Ferroglobe's ten largest customers accounted for approximately 50.1% and 48.1%, respectively, of Ferroglobe's consolidated revenue. Our customer relationships provide us with stability and visibility into our future volumes and earnings, though we are not reliant on any individual customer or end-market. Our customer relationships, together with our diversified product portfolio, provide us with opportunities to cross sell new products; for example, by offering silicon-based or manganese-based alloys to existing steelmaking customers.

Flexible and low-cost structure

We believe we have an efficient cost structure, enhanced over time by vertical integration through strategic acquisitions. The largest components of our cost base are raw materials and power. Our relatively low operating costs are primarily a result of our ownership of, and proximity to, sources of raw materials, our access to attractively priced power supplies and skilled labor and our efficient production processes.

We believe our vertically integrated business model and ownership of sources of raw materials provides us with a cost advantage over our competitors. Moreover, such ownership and the fact that we are not reliant on any single supplier for the remainder of our raw materials needs generally ensures stable, long term supply of raw materials for our production processes, thereby enhancing operational and financial stability. Transportation costs can be significant in our business; our proximity to sources of raw materials and customers improves logistics and represents another cost advantage. The proximity of our facilities to our customers also allows us to provide just in time delivery of finished goods and reduces the need to store excess inventory, resulting in more efficient use of working capital.

We capture, recycle and sell most of the by-products generated in our production processes, which further reduces our costs.

We operate with a largely variable cost of production and our diversified production base allows us to shift our production and distribution between facilities and products in response to changes in market conditions over time.

Additionally, the diversity of our currency and commodity exposures provides, to a degree, a natural hedge against foreign exchange and raw materials pricing volatility. Our production costs are mostly dependent on local factors while our product prices are influenced more by global factors. Depreciation of local, functional currencies relative to the U.S. Dollar, when it occurs, reduces the costs of our operations, offering an increased competitive edge in the international market.

We believe our scale and global presence enables us to sustain our operations throughout periods of economic downturn, volatile commodity prices and demand fluctuations.

Stable supply of critical, high quality raw materials

In order to ensure reliable supplies of high-quality raw materials for the production of our metallurgical products, we have invested in strategic acquisitions of sources that supply a meaningful portion of the inputs our manufacturing operations consume. Specifically, we own and operate specialty, low ash, metallurgical quality coal mines in the United States, high purity quartz quarries in the United States, Spain and South Africa, charcoal production units in South Africa, and our Yonvey production facility for carbon electrodes in Ningxia, China. For raw materials needs our subsidiaries cannot meet, we have qualified multiple suppliers in each operating region for each raw material, helping to ensure reliable access to high quality raw materials.

Efficient and environmentally friendly by-product usage

We utilize or sell most of the by-products of our manufacturing process, which reduces cost and the environmental impact of our operations. We have developed markets for the by-products generated by our production processes and have transformed our manufacturing operations so that little solid waste disposal is required. By-products not recycled in the manufacturing process are generally sold to companies, which process them for use in a variety of other applications. These materials include: silica fume (also known as microsilica), used as a concrete additive, refractory material and oil well conditioner; fines - the fine material resulting from crushing lumps; and dross, which results from the purification process during smelting.

Pioneer in innovation with focus on technological advances and development of next generation products

Our talented workforce has historically developed proprietary technological capabilities and next generation products in-house, which we believe give us a competitive advantage. In addition to a dedicated R&D division, we have cooperation agreements in place with various universities and research institutes in Spain, France and other countries around the world. Our R&D achievements include:

- ELSA electrode — Ferroglobe has internally developed a patented technology for electrodes used in silicon metal furnaces, which it has been able to sell to several major silicon producers globally. This technology, known as the ELSA electrode, improves the energy efficiency in the production process of silicon metal and eliminates contamination from iron. Ferroglobe has granted these producers the right to use the ELSA electrode against payment to Ferroglobe of royalties. Continuous improvements are made to keep this invention state of the art.
- Solar Grade Silicon — Ferroglobe has sought to produce solar grade silicon metal with a purity above 99.9999% through a new, potentially cost effective, electrometallurgical process. The traditional chemical process tends to be costly and involves high energy consumption and potentially environmentally hazardous processes. The new technology entirely developed by Ferroglobe aims to reduce the costs, energy consumption and carbon footprint associated with the production of solar grade silicon. In connection with this project, FerroAtlántica obtained a loan, with a principal amount of approximately €45 million, from the Spanish Ministry of Industry and Energy for the purpose of building the UMG silicon plant. Due to the market environment for solar grade silicon (or polysilicon) worldwide, at the end of 2018 the Company suspended the investment in the project while preserving the technology and know-how in order to be able to finalize the construction of the factory when market circumstances change.
- Silicon for Advanced Technologies — Ferroglobe has launched the Silicon for Advanced Technologies project, which aims at producing silicon-based, tailor-made products for high end applications. In this project we leveraged the purification technologies developed for the Solar Grade silicon project and which are patented. These technologies are very industrial, cost effective and with low carbon footprint, which places

Ferroglobe in an excellent in this new market. . At the same time, new know-how linked to specific milling technologies has been developed in the last years, placing Ferroglobe in an excellent position in this new market. Among the various targeted applications, a specific project of Silicon for Li-ion batteries was launched. Currently, we have the first demonstration milling unit in our Innovation Centre in Sabón (Spain) and we have several industrial purification units in Montricher (France) and Puertollano (Spain).

- Li-ion batteries — The capacity of the anode in Li-ion batteries can be enhanced by adding silicon. This is a particularly attractive market because silicon not only can increase capacity of the Li-ion batteries but can contribute to reduce costs, to reduce carbon footprint and to ease fast charging. All these benefits will help to develop new mobility solutions. In this specific field, Ferroglobe has established several technical partnerships and collaborations in order to rapidly advance the research and development work that a market like this needs.

New R&D works are being carried out by the Ferroglobe Innovation team to develop new products that could fit in the requirements of next generations of batteries.

Experienced management team in the metals and mining industry

We have a seasoned and experienced management team with extensive knowledge of the global metals and mining industry, operational and financial expertise and a track record of developing and managing large-scale operations. Our management team is committed to responding quickly and effectively to macroeconomic and industry developments, to identifying and delivering growth opportunities and to improving our performance by way of a continuous focus on operational cost control and a disciplined, value-based approach to capital allocation. Our management team is complemented by a skilled operating team with solid technical knowledge of production processes and strong relationships with key customers.

Environmental, Social and Governance (ESG) Strategy

In 2021 we defined Ferroglobe's ESG Strategy 2022-2026, a roadmap that will enable us to benchmark and assess ourselves on ESG matters, in alignment with the demands of our stakeholders and our industry trends. The ESG Strategy brings us closer to our goal of becoming a relevant player in the development of a sustainable future.

It has been defined based on four strategic lines:

- (i) Strengthening our governance framework
- (ii) Promoting a solid & honest engagement with our people and local communities where we operate
- (iii) Reinforcing the role of sustainability through our value chain
- (iv) Improving our environmental footprint to enable materials which are vital for sustainable development.

The progress on ESG performance will be included in the ESG reports to be issued on a yearly basis. 2022 ESG report will be published in 2023.

Business Strategy

In 2020 we conducted a deep and broad evaluation of our Company with the goal of designing a strategic plan focused on bolstering the long term competitiveness of the business and returning the Company to profitability by fundamentally changing the way we operate, both operationally and financially. The multi-year turnaround plan we developed essentially impacts all the functional areas of our Company as we seek to drive changes that ensure competitiveness throughout the cycle. In the last 2 years, the Company set a target of achieving \$225 million in EBITDA improvement. We achieved \$188 million in cost savings and met our commercial excellence target of \$50M. The key value drivers of our strategic plan were the following:

- Footprint optimization: One of the Company's core advantages is our large and diverse production platform. While our asset footprint provides flexibility, at times we are restricted in our ability to quickly adapt to changing market conditions due to inherent constraints in curtailing capacity, particularly for shorter durations. Going forward, our goal is to ensure that the operating platform is more flexible and modular so

shifts in production, based on needs and relative costs, are incorporated swiftly. Through this value creation driver we aim to shift our capacity footprint by optimizing production to the most competitive assets.

- **Continuous plant efficiency:** We will continue to build on the success of our existing key technical metrics (KTM) program, which consists of specific initiatives aimed at enhancing our process, minimizing waste, and improving the overall efficiency to drive down costs. The Company maintains a pipeline of initiatives developed through the sharing of best practices amongst our numerous sites and through new improvements identified by our research and development team. Moreover, we have implemented developing tools to track our key performance indicators in an ongoing effort to improve furnace level performance.
- **Commercial excellence:** we have implemented commercial best practices to maximize profitable revenue, aiming at improving and reinforcing our pricing, account management, salesforce effectiveness, and product portfolio and customer focus. We have strengthened our customer relationships by developing a target portfolio prioritization, re-designing our commercial coverage and operating model, and structuring our account planning, with the definition of clear objectives for each of our customers and a sustained focus on long-term partnership building. We have implemented a range of digitally-enabled tools and processes across the entire commercial function, bringing our team's performance to the next level. Through our new customer relationship management tool, we have reinforced our account management and front-line effectiveness, as well as our customer service and quality management. On pricing, we have redesigned our governance process and introduced new tools to maximize profitability and provide margin transparency for every sale. Furthermore, we have re-designed our product management function, empowering this role to create customer value and act as a consistent source of information and cross-functional coordination.
- **Centralized purchasing:** we have adapted our operating model such that the purchase of our key inputs is done centrally and to support a purchase culture centered on buying better and spending better. This will enable us to improve its tracking of needs, enhance our ability to schedule purchases and enable us to benefit from bulk purchases. Buying better is a supply-led effort that focuses on price and volume allocation, negotiating prices and terms, managing price risks, pooling volumes and contracts, shifting volumes to best-price suppliers and leveraging procurement networks. Spending better is an operation-led effort to control demand, enforce compliance, reduce complexity, and perform value engineering to foster efficient spending. Through the principles of buying better and spending better, we aim to attain more than just cost reduction. Through the new organization, we seek to reduce supply chain risk, supporting continuous quality and service improvement, fostering better decision-making about suppliers and optimizing resource allocation.
- **Selling, general and administration & corporate overhead reduction:** during our corporate review, we identified significant opportunities for further cost improvement through permanent cost cutting at our plants, as well as the corporate centers. By tracking these costs vigorously and increasing accountability, we aim to bolster the overall cost structure at various levels. Through this, we aim to create a culture focused on cost control and disciplines for deploying best practices to drive sound spending decisions without compromising our overall performance.
- **Working capital improvement:** We have improved substantially our net working capital by establishing targets and improve our Supply Chain processes. This will allow us to sustain competitive levels of Working Capital throughout the cycle – and while we have recently witnessed a peak, given by slowdown of demand and margin compression, we are taking the measures to correct it and return to previous values.

With our strategic plan we aim to:

Maintain and leverage industry leading position in core businesses and pursue long-term growth

We intend to maintain and leverage our position as a leading global producer of silicon metal and one of the leading global producers of ferroalloys based on production capacity. We believe we will achieve our goals through the execution of our current strategic plan, which focuses on expanding our asset footprint in the regions that present attractive opportunities and continuing driving continuous improvements to increase competitiveness of our assets – including continue to secure competitive and clean sources of energy, extend our existing sources of Quartz, all while continuing our ESG journey.

We also plan to achieve organic growth by developing new products to further diversify our portfolio and expand our customer base (such as silicon-based anodic materials for Li-ion batteries). We intend to focus our production and sales efforts on high-margin products and end-markets that we consider to have the highest potential for profitability and growth. We will continue to capitalize on our global reach and the diversity of our production base to adapt to changes in market demands, shifting our production and distribution across facilities and between different products as necessary in order to remain competitive and maximize profitability. We aim to obtain further direct control of key raw materials to secure our long-term access to scarce reserves, which we believe will allow us to continue delivering enhanced products while maintaining our low-cost position. Additionally, we will continue regularly to review our customer contracts in an effort to improve their terms and to optimize the balance between selling under long-term agreements and retaining some exposure to spot markets. We intend to maintain pricing that appropriately reflects the value of our products and our level of customer service and, in light of commodity prices and demand fluctuations, may decide to change the weighting of our mix of contracts that are set at fixed prices versus index-based prices, to capitalize on market opportunities and to ensure a profit throughout the cycles.

Maintain low cost position while controlling inputs

We believe we have an efficient cost structure and, going forward, we will seek to further reduce costs and improve operational efficiency through a number of initiatives. We plan to focus on controlling the cost of our raw materials through our captive sources and long-term supply contracts and on lowering our fixed costs in order to reduce the unit costs of our silicon metal and ferroalloy production. We aim to improve our internal processes and further integrate our global footprint, such as benefits from value chain optimization, including enhancements in raw materials procurement and materials management; adoption of best practices and technical and operational know how across our platform; reduced freight costs from improved logistics as well as savings through the standardization of monitoring and reporting procedures, technology, systems and controls. We intend to enhance our production process through R&D and targeted capital expenditure and leverage our geographic footprint to shift production to the most cost effective and appropriate facilities and regions for such products. We will continue to regularly review our power supply contracts with a view to improving their terms and more competitive tariff structures. In addition, we will seek to maximize the value derived from the utilization and sale of by-products generated in our production processes and continue to focus on innovation to develop next generation products.

We believe we differentiate ourselves from our competitors on the basis of our technical expertise and innovation, which allow us to deliver new high-quality products to meet our customers' needs. We intend to keep using these capabilities in the future to retain existing customers and cultivate new business. We plan to leverage the expertise of our dedicated team of specialists to advance and to develop next generation products and technologies that fuel organic growth. In particular, we intend develop high value powders for high end applications, including silicon-based anodic materials for Li-ion batteries. We also aim to further pilot EV Battery Cathodes and Test process to produce construction materials with high-thermal insulation properties, through non-recycled slag.

Maintain financial discipline to facilitate ongoing operations and support growth

We believe maintaining financial discipline will provide us with the ability to manage the volatility in our business resulting from changes in commodity prices and demand fluctuations. We intend to preserve a strong and conservative balance sheet, with sufficient liquidity and financial flexibility to facilitate all of our ongoing operations, to support organic and strategic growth and to finance prudent capital expenditure programs aimed at placing us in a better position to generate increased revenues and cash flows by delivering a more comprehensive product mix and optimized production in response to market circumstances. We plan to become even more efficient in our working capital management through various initiatives aimed at optimizing inventory levels and accounts receivable. We will also seek to repay indebtedness from free cash flow and retain low leverage for maximum free cash flow generation.

Pursue strategic opportunities

We have a proven track record of disciplined acquisitions of complementary businesses and successfully integrating them into existing operations while retaining a targeted approach through appropriate asset divestitures. Our past acquisitions have increased the vertical integration of our activities, allowing us to deliver an enhanced product offering on a cost-efficient basis. We regularly consider and evaluate strategic opportunities for our business and will continue to do so in the future with the objective of expanding our capabilities and leveraging our products and operations. In particular, we intend to pursue complementary acquisitions and other investments at appropriate valuations for the purpose of increasing our capacity, increasing our access to raw materials and other inputs, further

refining existing products, broadening our product portfolio and entering new markets. We will consider such strategic opportunities in a disciplined fashion while maintaining a conservative leverage position and strong balance sheet.

We will also seek to evaluate our core business strategy on an ongoing basis and may divest certain non-core and lower margin businesses to improve our financial and operational results.

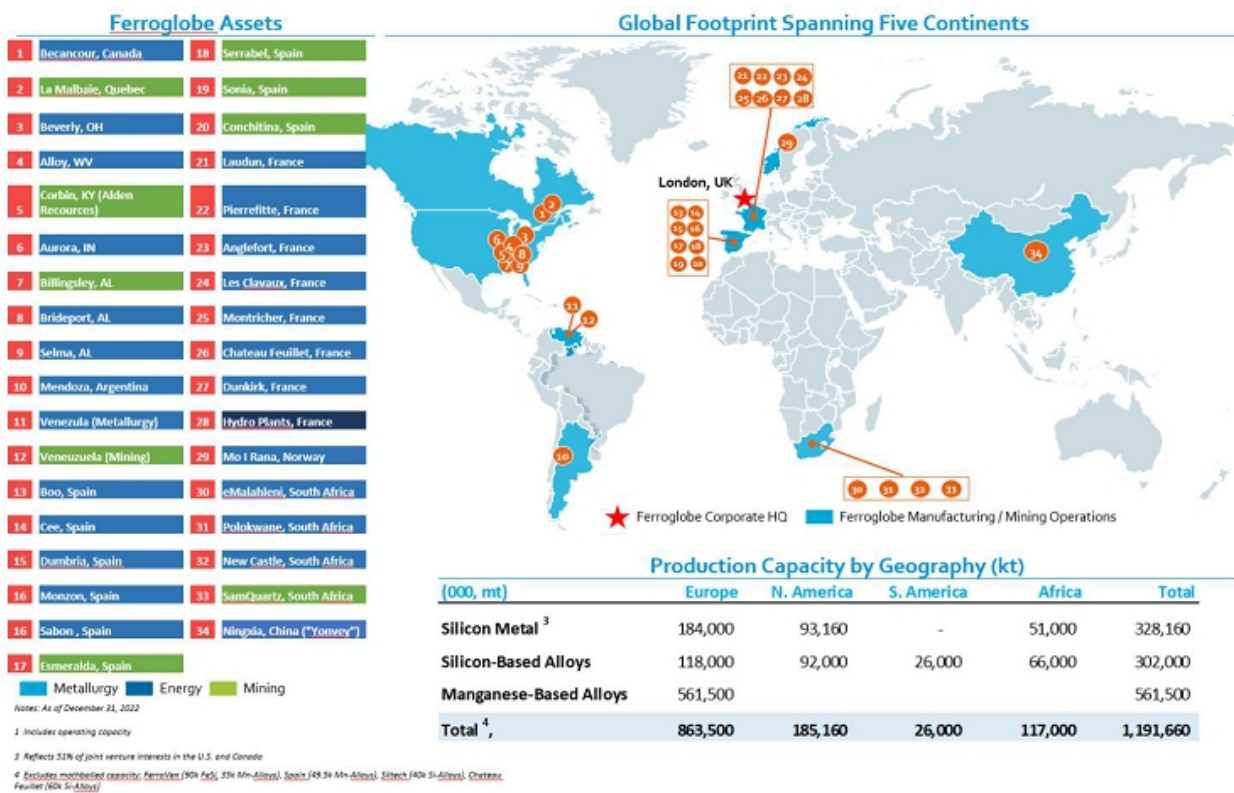
Facilities and Production Capacity

The following chart shows, as of December 31, 2022, the location of our assets and our production capacity, including 51% of the capacity of our joint ventures (of which we own 51%), by geography, of silicon, silicon-based alloys and manganese-based alloys. It is important to note that certain facilities may and do switch from time to time among different families of products (for instance, from silicon metal to silicon-based alloys and vice-versa) or among different products within the same family (for instance from ferromanganese to silicomanganese). Such switches change the production capacity at each plant.

Our production facilities are strategically located throughout the world. We operate quartz mines located in Spain, South Africa, Canada, and the United States, and charcoal production in South Africa. Additionally, we operate low-ash, metallurgical grade coal mines in the United States.

From time to time, in response to market conditions and to manage operating expenses, facilities are fully or partially idled. As of December 31, 2021, certain production facilities in the United States, Spain, Venezuela and South Africa are partially or fully idled, as a result of current market conditions. Ferroglobe subsidiaries own a total of 18.9 megawatts of hydro production capacity in France.

Products



Notes: As of December 31, 2022

¹ Includes operating capacity

² Reflects 51% of joint venture interests in the U.S. and Canada

³ Excludes mothballed capacity: Becancour (90k A/S), 23k Mn-Alloys; Spain (49.3k Mn-Alloys); Elberch (40k Si-Alloys); Chateau Feuillet (60k Si-Alloys)

For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's consolidated sales by product were as follows:

(\$ thousands)	Year ended December 31,		
	2022	2021	2020
Silicon metal	1,116,193	637,695	463,217
Manganese-based alloys	525,483	469,138	267,469
Ferrosilicon	561,539	337,833	176,447
Other silicon-based alloys	192,409	161,750	126,817
Silica fume	32,290	32,409	25,888
Other	170,002	140,083	84,596
Total Sales	2,597,916	1,778,908	1,144,434
Shipments in metric tons:			
Silicon metal	209,342	253,991	207,332
Manganese-based alloys	295,589	314,439	261,605
Ferrosilicon	154,972	166,268	134,849
Other silicon-based alloys	49,105	76,498	65,362
Average Selling price (\$/MT):			
Silicon metal	5,332	2,511	2,234
Manganese-based alloys	1,778	1,492	1,022
Ferrosilicon	3,623	2,032	1,308
Other silicon-based alloys	3,918	2,114	1,940

Silicon metal

Ferroglobe is a leading global silicon metal producer with a total production capacity of approximately 328,160 tons (including our 51% share of Ferroglobe's joint venture capacity). Ferroglobe's silicon metal production is spread across facilities located in the United States, France, South Africa, Canada and Spain. For the years ended December 31, 2022, 2021 and 2020, Silicon metal sales accounted for 43.0%, 35.8% and 40.5% of Ferroglobe's total consolidated revenues.

Silicon metal is used by primary and secondary aluminum producers, who require silicon metal with specific properties to produce aluminum alloys. The addition of silicon metal during production helps to reduce shrinkage and the hot cracking tendencies of cast aluminum and improves the castability, hardness, corrosion resistance, tensile strength, wear resistance and weldability of the aluminum end products. Aluminum is used to manufacture a variety of automotive components, including engine pistons, housings, and cast aluminum wheels and trim, as well as high tension electrical wire, aircraft parts, beverage containers and other products which require aluminum properties. For the year ended December 31, 2022, sales to aluminum producers represented approximately 29% of silicon metal revenues.

Silicon metal is also used by several major silicone chemical producers across a broad range of applications, including personal care items, construction-related products, healthcare and electronics. In construction and equipment applications, silicone chemicals promote adhesion, act as a sealer and provide insulating properties. In personal care and health care products, silicone chemicals add a smooth texture that protects against ultraviolet rays and provide moisturizing and cleansing properties. Silicon metal is an essential component in the production of silicone chemicals, accounting for approximately 20% of the cost of production. For the year ended December 31, 2022 sales to chemical producers represented approximately 66% of silicon metal revenues.

In addition, silicon metal is the primary ingredient in the production of polysilicon, which is most widely used to manufacture solar cells and semiconductors. Producers of polysilicon employ processes to further purify silicon metal and grow ingots from which wafers are cut. These wafers are the base material to produce solar cells, to convert sunlight to electricity. Individual solar cells are soldered together to make solar modules. For the year ended December 31, 2022 sales to polysilicon producers represented approximately 5% of silicon metal revenues.

Silicon-based alloys

Ferrosilicon

Ferroglobe is among the leading global ferrosilicon producers based on production output in recent years. During the year ended December 31, 2022, Ferroglobe sold 147,725 tons of ferrosilicon. For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's revenues generated by ferrosilicon sales accounted for 21.6%, 19.0% and 15.4%, of Ferroglobe's total consolidated revenues.

Ferrosilicon is an alloy of iron and silicon (normally approximately 75% silicon). Ferrosilicon products are used to produce stainless steel, carbon steel, and various other steel alloys and to manufacture electrodes and, to a lesser extent, in the production of aluminum. Approximately 88% of ferrosilicon produced is used in steel production.

Ferrosilicon is generally used to remove oxygen from the steel and as alloying element to improve the quality and strength of iron and steel products. Silicon increases steel's strength and wear resistance, elasticity and scale resistance, and lowers the electrical conductivity and magnetostriction of steel.

Other silicon-based alloys

During the year ended December 31, 2022, Ferroglobe sold 56,630 tons of silicon-based alloys (excluding ferrosilicon). For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's revenues generated by silicon-based alloys (excluding ferrosilicon) accounted for 7.4%, 9.1% and 11.1% of Ferroglobe's total consolidated revenues.

Ferroglobe produces various different silicon-based alloys, including calcium silicon and foundry products, which comprise inoculants and nodularizers. Ferroglobe produces more than 20 specialized varieties of foundry products, several of which are custom made for its customers. Demand for these specialty metals is increasing and, as such, they are becoming more important components of Ferroglobe's product offering.

The primary use for calcium silicon is the deoxidation and desulfurization of liquid steel. In addition, calcium silicon is used to control the shape, size and distribution of oxide and sulfide inclusions, improving fluidity, ductility, and the transverse mechanical and impact properties of the final product. Calcium silicon is also used in the production of coatings for cast iron pipes, in the welding process of powder metal and in pyrotechnics.

The foundry products that Ferroglobe manufactures include nodularizers and inoculants, which are used in the production of iron to improve its tensile strength, ductility and impact properties, and to refine the homogeneity of the cast iron structure.

Silica fume

For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's revenues generated by silica fume sales accounted for 1.2%, 1.8% and 2.3% respectively, of Ferroglobe's total consolidated sales.

Silica fume is a by-product of the electrometallurgical process of silicon metal and ferrosilicon. This dust-like material, collected through Ferroglobe factories' air filtration systems, is mainly used in the production of high-performance concrete and mortar. The controlled addition of silica fume to these products results in increased durability, improving their impermeability from external agents, such as water. These types of concrete and mortar are used in large-scale projects such as bridges, viaducts, ports, skyscrapers and offshore platforms.

Manganese-based alloys

Ferroglobe is among the leading global manganese-based alloys producers based on production capacity. As of December 31, 2022, Ferroglobe maintained approximately 289,500 tons of annual silicomanganese production capacity and approximately 272,000 tons of annual ferromanganese production capacity across our factories in Spain, Norway and France. During the year ended December 31, 2022, Ferroglobe sold 295,590 tons of manganese-based alloys. For the years ended December 31, 2022, 2021 and 2020, Ferroglobe's revenues generated by manganese-based alloys sales accounted for 20.2%, 26.4% and 23.4%, of Ferroglobe's total consolidated revenues. Over 90% of global

manganese based alloys production is used in steel production, and all steelmakers use manganese and manganese alloys in their production processes.

Silicomanganese is used as deoxidizing agent in the steel manufacturing process. Silicomanganese is also produced in the form of refined silicomanganese, or silicomanganese AF, super-refined silicomanganese, and silicomanganese LC.

Ferromanganese is used as a deoxidizing, desulphurizing and degassing agent in steel to remove nitrogen and other harmful elements that are present in steel in the initial smelting process, and to improve the mechanical properties, hardenability and resistance to abrasion of steel. The three types of ferromanganese produced by Ferroglobe are:

- high-carbon ferromanganese used to improve the durability of steel;
- medium-carbon ferromanganese used to manufacture flat and other steel products; and
- low-carbon ferromanganese used in the production of stainless steel, low-carbon steel, rolled steel plates and pipes utilized by the oil industry.

Raw Materials, Logistics and Power Supply

The primary raw materials used by Ferroglobe are carbon reductants (primarily coal, but also charcoal, metallurgical and petroleum coke, anthracite and wood) as well as minerals (manganese ore and quartz). Other raw materials used include electrodes (consisting of graphite and carbon electrodes and electrode paste), slag and limestone, as well as certain specialty additive metals. Ferroglobe procures coal, manganese ore, quartz, petroleum and metallurgical coke, electrodes and most additive metals centrally under the responsibility of the corporate purchasing department. Some locally sourced raw materials are purchased at a decentralized level (country specific purchasers) under close cooperation with the corporate purchasing department.

Manganese ore

The global supply of manganese ore comprises standard to high-grade manganese ore, with a 35% to 56% manganese content, and low-grade manganese ore, with lower manganese content. Manganese ore production comes mainly from a limited number of countries including South Africa, Australia, China, Gabon, Brazil, Ukraine, India and Ghana. However, the production of high-grade manganese ore is concentrated in Australia, Gabon, South Africa and Brazil.

The vast majority of the manganese ore Ferroglobe purchased in 2022 came from suppliers located in South Africa (58% of total purchases) and Gabon (40% of total purchases). Global manganese ore prices are mainly driven by manganese demand from China and to a lower extent from India. Potential disruption of supply from South Africa, Australia, Brazil or Gabon due to logistical, labor or other reasons may have an impact on the availability and the pricing of manganese ore.

Coal

Coal is the most commonly used carbon reductant in silicon and silicon alloys production. Only washed and screened coal with ash content below 10% alongside other specific physical properties, can be used in the production of silicon alloys. Colombia and the United States are the leading source for the required type of coal and the vast majority of the silicon alloys industry, including Ferroglobe, is dependent on supply from these two countries.

Approximately 65% of the coal Ferroglobe purchased externally in 2022 was sourced from one source in Colombia while the remaining 35% came from the United States as well as from Kazakhstan and South Africa. Ferroglobe has a long-standing relationship with the operators of coal washing plants who price coal using spot, quarterly, semi-annual or annual contracts, based on market outlook. European coal prices, which are denominated in U.S. Dollars, are mainly based on API 2, the benchmark price reference for coal imported into northwest Europe.

Ferroglobe also owns Alden Resources LLC (“Alden”) in the United States. Alden provides a stable and long-term supply of low ash metallurgical grade coal by fulfilling a substantial portion of the requirements of our North American operations.

See “—Mining Operations” below for further information.

Quartz

Quartz, also known as quartzite, is a key raw material in the production of silicon metal and silicon-based alloys.

Ferroglobe has secured exclusive access to quartz through its quartz mines in Spain, South Africa, the United States and Canada (see “—Mining Operations”). For the year ended December 31, 2022 60.7% of Ferroglobe’s total consumption of quartz was supplied from Ferroglobe’s own sources. To compliment this Ferroglobe purchases its remaining quartz requirements from third-party suppliers through annual contracts. Ferroglobe’s quartz suppliers typically have operations in the same countries where Ferroglobe factories are located, or in close proximity, which minimizes logistical costs and supply chain risks.

Ferroglobe controls quartzite mining operations located in Alabama and a concession to mine quartzite in Saint-Urbain, Québec (operated by a third-party). These mines supply our North American operations with a substantial portion of their quartz requirements.

Other raw materials

Wood is needed for the production of silicon metal and silicon-based alloys. It is used directly in furnaces as woodchips or to produce charcoal, which is the primary source of carbon reductant for Ferroglobe’s plants in South Africa. In South Africa, charcoal is a less expensive substitute for imported coal and provides desirable qualities to the silicon-based alloys it is used to produce. In other countries where Ferroglobe operates, Ferroglobe purchases wood chips locally or logs for on-site wood chipping operations from a variety of suppliers.

In 2022, Ferroglobe’s sources of metallurgical coke were predominantly Poland and Colombia, although certain quantities were sourced from Russia in the first half of the year.

Petroleum coke, electrode related products, slag, limestone and additive metals are important raw materials that Ferroglobe utilizes to manufacture electrometallurgy products. Procurement of these raw materials is either managed centrally or in certain cases, by the local raw materials procurement manager or plant manager with the materials purchased at spot prices or through contracts of up to one year.

In 2022, the sourcing of graphite electrodes came from Europe, India, Ukraine and China through a combination of spot and long-term agreements. Carbon electrodes supplies come from Russia, Poland and China, including from Ferroglobe’s own carbon electrode factory in Ningxia Province in China.

Cost of raw materials

The main raw materials sourced by Ferroglobe are quartz, manganese ore, coal, metallurgical coke, wood and charcoal. Manganese ore is the largest component of the cost base for manganese-based alloys. In 2022, more than 33% of Ferroglobe’s total expenditure on manganese ore was \$187,75 million through an annual commitment, whilst the remaining was purchased on a spot basis. Coal is used as a major carbon reductant in silicon-based alloy production. In 2022, coal represented a \$179.5 million expense for Ferroglobe. Metallurgical coke, used for Mn Alloys production, represented a total purchase volume of \$72.9 million in 2022.

Wood is an important element for the production of both silicon alloys and charcoal, which is used as a carbon reductant at Ferroglobe’s South African subsidiary Silicon Smelters (Pty.), Ltd. Ferroglobe’s wood expense amounted to 37.8 million 2022.

The FerroAtlántica subsidiaries of Ferroglobe sourced approximately 63% of their quartz needs from FerroAtlántica’s mines in Spain and South Africa, with Globe subsidiaries sourcing approximately 64% of their quartz needs from Globe’s mines in the United States and Canada. Total quartz consumption in 2022 represented an expense of \$ 90.4 million.

Logistics

Logistical operations are managed centrally where possible. Sea-freight operations are centralized at corporate level, while rail logistics are centralized at country level. Road transportation is managed at plant level with centralized coordination in countries multiple sites. Contractual commitments in respect of transportation and logistics match, to the extent possible, Ferroglobe's commitments for raw materials and customer contracts.

Power

In Spain, energy is purchased through a supply contract with trading companies. The final energy price is subject to daily market volatility. In 2022, Spanish power prices initially exceeded the general power price increases seen across Europe, with and prices moving significantly above the five-year average Spain. In June 2022, and in response to the impact of gas prices on electricity tariffs, a compensation mechanism was introduced by the Spanish Government for a duration of one year. The European Union provided additional support by capping prices in Spain. Due to the persistent high energy prices in Spain, Ferroglobe took the decision to reduce production in the country during the second half of 2022. To achieve the most competitive energy costs, production is adjusted to align with the hourly scheme under the tariffs alongside energy management systems implemented across all plants. All Spanish plants are classified as electro-intensive power consumers giving access to discounts on certain cost components of the electrical grid. In 2022, the Spanish government applied an 80 % rebate on distribution costs in addition to indirect CO2 compensation which helped to alleviate rate increases. See also "Item 7.—Major Shareholders and Related Party Transactions—Related Party Transactions".

Ferroglobe has negotiated a supply contract in France based on ARENH (Nuclear electricity at a fixed tariff) and market prices for three years from 2020 until 2022. A similar contract was executed in 2022 covering 2023 until 2025. Regulation enacted in 2015 enables FerroPem SAS and FMF to benefit from reduced transmission tariffs, interruptibility compensation (an agreement whereby the companies agree to interrupt production in response to surges in demand across the French electricity grid), as well as receiving compensation for indirect CO2 costs under the EU Emission Trading System (ETS) regulation. These arrangements allow FerroPem SAS and FMF to operate competitively over a 12-month basis, but also allows our plants to concentrate production during periods when energy prices are lower, as and when required. Ferroglobe's production of energy in France through its hydro-electric power plants provides some mitigation to its exposure to volatility in energy price.

In the United States, we favour long term electric supply contracts that provide the ability to interrupt load and achieve reasonable rates. Our power supply contracts have, in the past, resulted in stable price structures. In West Virginia, we have a contract with Brookfield Renewable Partners, LP to provide, on average, 45% of our power needs, from a dedicated hydro-electric facility, through December 2025 at a fixed rate. Our needs for non-hydroelectric power in West Virginia and Alabama are primarily sourced through special contracts that provide competitive rates. In Ohio, electricity is sourced at market-based rates.

In South Africa, we have an "evergreen" supply agreement with Eskom, the local electricity supplier, for our Polokwane, eMalahleni, Newcastle (Siltech) and Thaba Chueu mining facilities. Eskom's energy prices are regulated by the National Energy Regulator (NERSA) and price changes are publicly announced in advance and implemented on the 1st of April every year. Operational smelters in South Africa were operating on normal tariffs for the year 2022, with eMalahleni participating in a curtailment program. The Polokwane smelter was taken out of Care & Maintenance in November 2022 and a new Electricity Supply Agreement was signed with Eskom. The Newcastle smelter remained in Care & Maintenance for the full year. In eMalahleni, focus remained on ferrosilicon production. Profitability was very good with positive EBITDA figures for the plant, and as a result, we are evaluating the potential to start exporting ferrosilicon. The eMalahleni plant continued to participate in an interruptibility program where power curtailments are compensated on an hourly basis. This has a positive effect on the overall price paid for electricity. As a result, we look to insure production during the summer months when power is cheaper. Conversely, we look to reduce our output during the winter months (June, July and August), when power is more expensive.

Independent power production from private power producers increased during 2022 and helped to improve supply within the country, this is expected to continue to grow over the next 2 to 4 years and will help alleviate the amount Load Shedding Events undertaken by Eskom. We are currently engaging with green energy producers to diversify our power supply from 2024. This will be on a power wheeling basis through Eskom's grid, allowing consumption at any of our plants.

In Norway, we have a long-term contract with Statkraft to provide 75% of our energy needs at a fix price. Ferroglobe Manganese Norway is also benefiting from a reduction of distribution tariff, whilst also receiving compensation for indirect CO2 costs under the EU Emission Trading System (ETS) regulation, allowing FMF to produce very competitively.

The level of power consumption of our submerged electric arc furnaces is highly dependent on which products are being produced and typically fall in the following ranges: (i) manganese based alloys require between 1.5 and 5.5 megawatt hours to produce one ton of product, (ii) silicon based alloys require between 7 and 8 megawatt hours to produce one ton of product and (iii) silicon metal requires approximately 12 megawatt hours to produce one ton of product. As a result, consistent access to low cost, reliable sources of electricity is essential to our business.

Mining Operations

Reserves

The Securities and Exchange Commission (“SEC”) amendments to its disclosure rules modernizing the mineral property disclosure requirements for mining registrants became effective on January 1, 2021. The amendments include the adoption of S-K 1300, which governs disclosure for mining registrants (the “SEC Mining Modernization Rules”). The SEC Mining Modernization Rules replaced the historical property disclosure requirements for mining registrants that were included in the SEC’s Industry Guide 7 and better align disclosure with international industry and regulatory practices.

A Mineral reserve is defined by S-K 1300 as an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted. A proven mineral reserve is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource. A probable mineral reserve is the economically mineable part of an indicated and, in some cases, a measured mineral resource. Reserve estimates were made by independent third party consultants (qualified person), based primarily on dimensions revealed in outcrops, trenches, detailed sampling and drilling studies performed. For a probable mineral reserve, the qualified person’s confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality is lower than what is sufficient for a classification as a proven mineral reserve, but is still sufficient to demonstrate that, at the time of reporting, extraction of the mineral reserve is economically viable under reasonable investment and market assumptions. For a proven mineral reserve, the qualified person has a high degree of confidence in the results obtained from the application of the modifying factors and in the estimates of tonnage and grade or quality. These estimates are reviewed and reassessed from time to time. Reserve estimates are based on various assumptions, and any material changes in these assumptions could have a material impact on the accuracy of Ferroglobe’s reserve estimates.

The following table sets forth summary information on Ferroglobe's mines as of December 31, 2022.

Mine	Location	Mineral	Annual capacity kt	Production in 2022 kt	Production in 2021 kt	Production in 2020 kt	Mining Recovery
Sonia	Spain (Mañón)	Quartz	150	141	125	89	0,4
Esmeralda	Spain (Val do Dubra)	Quartz	50	22	25	19	0,4
Serrabal.	Spain (Vedra & Boqueixón)	Quartz	330	288	300	184	0,2
Thaba Chueu Mining	South Africa (Delmas)	Quartzite	1,000	553	601	586	0,7
Mahale	South Africa (Limpopo)	Quartz	80	23	24	25	0,5
Roodepoort	South Africa (Limpopo)	Quartz	50	—	—	—	0,5
Fort Klipdam	South Africa (Limpopo)	Quartz	50	43	30	34	0,6
AS&G Meadows Pit	United States (Alabama)	Quartzite	300	115	242	257	0,4
			2,010	1,185	1,346	1,194	
Mosely Gap	United States (Kentucky)	Coal (active)	400	379.5	—	—	0,7
Davis Creek	United States (Kentucky)	Coal (inactive)	240	7.2	3	3	0,7
Log Cabin No. 5	United States (Kentucky)	Coal (active)	168	170.2	156	156	0,6
Hubbs Hollow	United States (Kentucky)	Coal (active)	200	84	—	—	0,7
Kimberly	United States (Kentucky)	Coal (inactive)	100	—	—	—	0,6
Bennett's Branch	United States (Kentucky)	Coal (inactive)	100	—	—	—	0,7
Bain Branch No. 3	United States (Kentucky)	Coal (inactive)	60	—	—	—	0,5
Harpes Creek 4A	United States (Kentucky)	Coal (active)	100	32.7	—	—	0,6
			1,368	673.60	159	159	

Mine	Proven reserves Mt(1)	Probable reserves Mt(1)	Mining Method	Reserve grade	Btus per lb.	Life(2)	Expiry date(3)
Sonia	1.58	0.8	Open-pit	Metallurgical	N/A	16	2069
Esmeralda	0.03	0.12	Open-pit	Metallurgical	N/A	7	2029
Serrabal.	3.11	1.6	Open-pit	Metallurgical	N/A	16	2038
Thaba Chueu Mining	7.03	19.5	Open-pit	Metallurgical & Glass	N/A	37	2039
Mahale	—	3.0	Open-pit	Metallurgical	N/A	30	2035
Roodepoort	—	0.02	Open-pit	Metallurgical	N/A	2	2028
Fort Klipdam	—	1.0	Open-pit	Metallurgical	N/A	5	2022 (4)
AS&G Meadows Pit	3.00	—	Surface	Metallurgical	N/A	9	2031
	14.75	26.04					
Mosely Gap	1.5	—	Surface	Metallurgical	14,000	3	2025
Hubbs Hollow	2.5	—	Surface	Metallurgical	14,000	4	2026
Log Cabin No. 5	0.6	—	Underground	Metallurgical	14,000	2	2024
Buffalo Creek	0.5	—	Surface	Metallurgical	14,000	2	2027
Kimberly	0.5	—	Surface	Metallurgical	14,000	5	2026
Bennett's Branch	1.7	—	Underground	Metallurgical	14,000	15	2036
Bain Branch No. 3	3.6	2.9	Underground	Metallurgical	14,000	25	2042
Harpes Creek 4A	1.2	1.3	Underground	Metallurgical	14,000	10	2032
	12.10	4.20					

(1) The estimated recoverable proven and probable reserves represent the tons of product that can be used internally or sold to metallurgical or glass grade customers. The mining recovery is based on historical yields at each particular site. We estimate our permitted mining life based on the number of years we can sustain average production rates under current circumstances.

(2) Current estimated mine life in years.

(3) Expiry date of Ferroglobe's mining concession.

(4) The expiry date relates to last approved mining permit relating to an area within Fort Klipdam farm. The application for a new Mining Right has not yet been approved and the last mining permit has been submitted for a 1-year renewal period until end 2022.

Ferroglobe considers its Conchitina and Conchitina Segunda mines as a single mining project legally supported by the formation of Coto Minero, formally approved by the Mining Authority in March 2018. In addition, Ferroglobe currently holds all necessary permits to start production at its Conchitina mines. Although Ferroglobe has not received formal approval from the Spanish Mining Authority over its 2023 Annual Mining Plan, we are not legally prevented from commencing mining operations in the area based on the fully-authorized 2022 Annual Mining Plan.

Reserves for the Conchitina mine are, accordingly, considered to be probable reserves, and the following table sets forth summary information on the Conchitina and Conchitina Segunda mines:

Mine	Location	Mineralization	Mining Recovery	Recoverable Reserves		Reserve Grade	Mining Method
				Proven MT⁽¹⁾	Probable MT⁽¹⁾		
Conchitina and Conchitina Segunda	Spain (O Vicedo)	Quartz	0.35	—	0.80	Metallurgical	Open-pit

(1) Estimates of recoverable probable reserves represent the tons of product that can be used internally or which are of metallurgical grade and can be delivered to Ferroglobe's customers.

Ferroglobe has additional mining rights in Spain (Cristina and Merlán), but none of these mines are currently producing or undergoing mine development activities as the Spanish Mining Authority started cancelling mining rights for Merlán and Cristina in September 2015 and December 2017, respectively. The Spanish Mining Authority concluded the cancellation process for our mining rights for Trasmonte. Ferroglobe does not consider classify its Venezuelan mines as mining assets (La Candelaria, El Manteco and El Merey) as the minerals are fully-depleted and due to the difficulty in obtaining new mining rights at these locations given the current economic and political environment.

Spanish mining concessions

Conchitina

The Conchitina mining concession previously belonged to Cuarzos Industriales S.A.U., which acquired the mining concession in 1979. Ferroglobe acquired this company, along with Conchitina mining concession, in 1996 from the Portuguese cement manufacturer Cimpor. The Conchitina Segunda mining concession was granted to Cuarzos Industriales S.A.U. in 1997 for a 30-year term after the necessary mining research had been conducted and the mining potential of the area had been demonstrated. The Conchitina concession expired in 2009 and Cuarzos Industriales S.A.U. subsequently applied for its renewal, whilst also requesting the competent authority to consolidate the concession with that of Conchitina Segunda. Legal support for the consolidation request was that both mining rights apply over a unique quartz deposit. Approval was formally granted in March 2018. Cuarzos Industriales S.A.U. is the owner of the properties currently mined at Conchitina. The surface area covered by Conchitina concessions is 497 hectares.

Sonia

The Sonia mining concession previously belonged to Cuarzos Industriales S.A.U., which acquired the mining concession in 1979. Ferroglobe acquired Cuarzos Industriales S.A.U., which is the owner of the properties currently mined at Sonia, along with the Sonia mining concession, in 1996 from the Portuguese cement manufacturer Cimpor. The surface area covered by the Sonia mining concession is 387 hectares. The concession is due to expire in 2069.

Esmeralda

The original Esmeralda mining concession was granted in 1999 to Cuarzos Industriales, S.A.U., the owner of the properties currently mined at Esmeralda, after proper mining research had been conducted and the mining potential of the area had been demonstrated to the relevant public authority. The surface area covered by the Esmeralda mining concession is 84 hectares. The concession is due to expire in 2029.

Serrabal

The Serrabal mining concession was originally granted in 1978 to Rocas, Arcillas y Minerales S.A. Ferroglobe acquired control of this company, which is the owner of the properties currently mined at Serrabal, along with the Serrabal mining concession, in 2000. Rocas, Arcillas y Minerales, S.A. has applied for the renewal of the concession. Pursuant to an interim measure approved by the applicable mining authority, Rocas Arcillas y Minerales S.A. is permitted to continue mining operations in Serrabal indefinitely until a final decision on the renewal of the concession has been made. If the renewal is granted, the concession will expire in 2038. The surface area covered by Serrabal mining concession is 861 hectares.

Cabanetas

The mining right granting process and tax regulations applicable to the Cabanetas limestone quarry differ slightly from those applicable to other Ferroglobe mines in Spain due to Cabanetas classification as a quarry, as opposed to a mine. Ferroglobe is currently operating the Cabanetas quarry pursuant to a permit resolution, which authorized the extension of the original mining concession, issued in 2013 by the competent mining authority. The extension is for a period of 30 years and, consequently, the concession will expire in 2043. Limestone extracted from the Cabanetas quarry was intended to be used by the FerroAtlántica del Cinca S.L. Monzón electrometallurgy plant. However, because new metallurgical techniques require low consumption of this product, most of the Cabanetas limestone is generally sold to the civil engineering and construction industries. The production level of the Cabanetas quarry has fallen considerably in recent years, mainly due to difficulties in the local construction industry.

The land on which the mining property is located is owned by Mancomunidad de Propietarios de Fincas Las Sierras and the plot containing the mining property is leased to FerroAtlántica del Cinca S.L. pursuant to a lease agreement entered into in 1950, which was subsequently restated in 2000 and is due to expire in 2020. The lease agreement has been extended to 2050. To retain the lease, FerroAtlántica del Cinca S.L. pays the landlord an annual fee currently equal to €0.15 per ton of limestone quarried out of the mine. The quarry covers a surface area of approximately 180 hectares. The area affected by the planned exploitation during the current extension of the concession area is 6.9 hectares.

For further information regarding Spanish regulations applicable to mining concessions, as well as environmental and other regulations, see “—Laws and regulations applicable to Ferroglobe’s mining operations—Spain.

South African mining rights

Thaba Chueu Mining Delmas Operation

The SamQuarz mining rights were transferred from the original owners, Glass South Africa Holdings (Pty) Ltd and Samancor Limited, to SamQuarz (Pty) Ltd. (“SamQuarz”) in 1997. In 2009, the Minister of Mineral Resources converted the then existing SamQuarz mining rights into new order mining rights due to expire after 30 years in 2039. In 2012, FerroAtlántica acquired control of SamQuarz along with the mining rights. At the end of 2014, SamQuarz mining rights were transferred from SamQuarz to its sole shareholder, Thaba Chueu Mining (Pty) Ltd (“TCM”). During 2017, ownership of the properties currently mined in Delmas were transferred from SamQuarz to TCM. The total surface area covered by TCM Delmas mine is 118.1 hectares. The mine supplies some of its material to Ferroglobe’s eMalahleni smelter, but the majority of its production, mainly Flint Sand, is sold to South African Glass Manufacturing Industry and other local Metallurgical customers.

Mahale

Mahale is state-owned land, lawfully occupied by the Mahale community. Thaba Chueue Mining currently leases the land pursuant to an agreement with the Majeje Traditional Authority and runs mining operations on the area with mining rights owned by Thaba Chueue Mining and licensed to it. The latest mining right license was granted by the Department of Mineral Resources in December 2014 and registered at the mining titles deeds office in early 2016. The license is for a 20-year period and will expire in 2035. The total surface area covered by Mahale mine is 329.7 hectares. The lease agreement between Thaba Chueue Mining and the Majeje Traditional Authority will be in force for the entire duration of the mining right or as long as it is economically viable for the lessee to mine. Under the lease agreement, a monthly rent of ZAR 10 per Ton is paid to the lessor in the form of a Royalty. Mining volumes reduced significantly at the Mahale mine through the stoppage of the Polokwane smelter in July 2019, but activities are continuing at minimum viable production volumes to supply the eMalahleni smelter with low alkaline quartz. Activity at this mine is expected to be restored during 2023 through the restart of the Polokwane smelter in November 2022. Options are also under investigation to target export High Purity Quartz to the EU in order to act as a counter measure to local mining costs to improve production costs at the smelters going forward.

Roodepoort

The Roodepoort mining right is held by Ferroglobe’s subsidiary, Silicon Smelters (Pty.), Ltd. (“Silicon Smelters”), and will expire in 2028. In 2009, Silicon Smelters applied for a conversion of the mining right into a new mining right under the South African Mineral and Petroleum Resources Development Act (the “MPRDA”), which came into force

in 2004. The new mining right has been granted and is valid for the continuation of our mining activities at the Roodepoort mine until. Silicon Smelters is currently in the process of transferring this mining right to its mining subsidiary, Thaba Chueue Mining, in order that all licenses and permits in South Africa are held under this entity.

The total surface area covered by Roodepoort mine is 17.6 hectares. The mining area covers the cobble and block areas. The land in which Roodepoort mine is located is owned by Alpha Sand, which also conducts all mining operations as a contractor for Silicon Smelters. An agreement is in place whereby Alpha Sand operates the mine and Silicon Smelters purchases the quartz mined from Alpha Sand based on the quartz requirements of Silicon Smelters and at prices that are reviewed annually on the basis of increases in production costs and diesel fuel. The agreement with Alpha Sand will terminate at the expiry of the mining right or when it is no longer economically viable to mine quartz in the area. Mining activities were suspended in July 2019 when a decision was taken to stop production at the Polokwane smelter and agreement was reached with the authorities to suspend activities legally until such time when the silicon metal market recovers significantly in order to allow the restart of the Polokwane smelter. With the restart of the Polokwane smelter in November 2022, it is expected that operations at this mine could be restored towards the second half of 2023.

Fort Klipdam

The land on which Fort Klipdam is located is owned by Silicon Smelters. The mining rights application filed by Silicon Smelters was rejected. Mining operations have been limited to mining permits that were approved for quartz mining, which includes block mine areas. As substantial block reserves have been established, a new application was launched in 2021 for a mining right and the current mining permit was extended to December 2022. Negotiations are continuing with local mining authorities in order to secure a new mining right during the year 2023, but no mining activities can be performed until this has been granted. An important quantity of block material was mined during Q4 of 2022 in order to secure a minimum of 6-months supply to the Polokwane smelter. This was done in anticipation of the expiry of the current mining permit.

For further information regarding South African regulations applicable to mining concessions, as well as environmental and other regulations, see “—Laws and regulations applicable to Ferroglobe’s mining operations—South Africa.”

French mining rights

Soleyron

FerroPem, SAS, a subsidiary of Ferroglobe, previously owned 12.2 hectares of the overall Soleyron quartz mine area. The Saint-Hippolyte de Montaigu Municipality owns the remaining part. In February 2015, FerroPem, SA, entered into a new lease and royalty agreement with the municipality, which is valid for five years. The effective date of the agreement and the relevant term coincide with the effective date and term of the prefectural authorization renewal, which was granted to FerroPem, SAS in March 2015. With the end of the reachable reserves, operation at the mine was terminated on December 2016 and no extension of the permit was requested. The lease and royalty agreement with the municipality was terminated on December 2016. Rehabilitation of the site was performed during the first quarter of 2022. Validation of the realized rehabilitation by the French administration was obtained in April 2022. The 12.2 hectares of land were sold to the Saint-Hippolyte de Montaigu Municipality in May 2022.

United States and Canadian mining rights

Coal

As of December 31, 2022, we have four active coal mines (two surface mines and two underground mines) located in Knox, and Whitley County, Kentucky. We also have five inactive permitted coal mines available for extraction located in Kentucky and Alabama. All of our coal mines are leased and the remaining term of the leases range from 2 to 40 years. The majority of the coal production is consumed by the Company’s facilities in the production of silicon metal and silicon-based alloys. As of December 31, 2022, we estimate our proven and probable reserves to be approximately 12,100,000 tons with an average permitted life of approximately 34 years at present operating levels. Present operating levels are determined based on a three-year annual average production rate. Reserve estimates were made by our geologists, engineers and third parties based primarily on drilling studies performed. These estimates are

reviewed and reassessed from time to time. Reserve estimates are based on various assumptions, and any material changes in these assumptions could have a material impact on the accuracy of our reserve estimates.

We currently have two coal processing facilities in Kentucky, one of which is inactive. The active facility processes approximately 500,000 tons of coal annually, with a capacity of 2,500,000 tons. The average coal processing recovery rate is approximately 65%.

Quartzite

We have an open-pit quartz mining operation in Lowndesboro, Alabama, with accompanying wash facilities. We also have a concession to mine quartzite in Saint-Urbain, Québec (operated by a third party miner). These mines supply our North American operations with a substantial portion of their requirements for quartzite.

Laws and regulations applicable to Ferroglobe's mining operations

Spain

In Spain, mining concessions have an average term of 30 years and are extendable for additional 30-year terms, up to a maximum of 90 years. In order to extend the concession term, the concessionaire must file an application with the competent public authority. The application, which must be filed three years prior to the expiration of the concession term, must be accompanied by a detailed report demonstrating the continuity of mineral deposits and the technical ability to extract such deposits, as well as reserve estimates, an overall mining plan for the term of the concession and a detailed description of extraction and treatment techniques. The renewal process is straightforward for a mining company that has been mining the concession regularly. The main impediments to renewal are a lack of mining activity and legal conflicts. Every year in January, in order to maintain the validity of the mining concession, we are required to submit an annual mining plan to the competent public authority. This document must detail the work to be developed during the coming year.

Regarding the environmental requirements applicable to Ferroglobe's mining operations in Spain, each of Serrabal, Esmeralda, Conchitina and Conchitina Segunda is subject to an "environmental impact statement" (or "EIS"), issued by the relevant environmental authority and specifically tailored to the environmental features of the relevant mine. The EIS requires compliance with high environmental standards and is based on the environmental impact study performed by the mining concession applicant in connection with each mining project. It is the result of a consultation process involving several public administrations, including cultural, archaeology, landscape, urbanistic, health, agriculture, water and industrial administrations. The EIS sets forth all conditions to be fulfilled by the applicant, including in connection with the protection of air, water, soil, flora and fauna, landscape, cultural heritage, restoration and the interaction of such elements. The EIS covers mining activities, auxiliary facilities and heaps carried out in a determined perimeter of each mine and includes a program of surveillance and environmental monitoring. The relevant authority regularly verifies compliance with it.

Sonia is subject to a "restoration plan" which provides for less stringent environmental requirements than an EIS and is mainly aimed at ensuring that the new areas generated as a result of the mining activity are properly restored in an environmentally friendly manner. The restoration plan is submitted by the mining concession applicant for the approval of the relevant authority together with the mining project for the area. Information about the exploitation project, including area of operation, annual production, method and operating system, and designed top and bottom level of the pit is included in the restoration plan.

All mines, with the exception of Cabanetas, also need to obtain from the relevant public administration an authorization for the discharge of the water used at the mine. This authorization is subject to certain conditions, including analyzing the water before any such discharge is made. In addition, when presenting to the competent mining authorities its annual mining plans, Ferroglobe must include an environmental report describing all environmental actions carried out during the year. Authorities are able to oversee such actions upon their annual inspections. Because Cabanetas is classified as a quarry and not as a mine, environmental requirements are generally less stringent and an environmental report is not required. The environmental license for Cabanetas is included in the mining permit and is formalized in the annual work plan and the annual restoration plan approved by the mining authority.

The main recurring payment obligation in connection with Ferroglobe's mines in Spain relates to a tax payable annually, calculated on the basis of the budget included in the relevant annual mining plan provided to the authority. In addition, with the exception of Cabanetas, a small surface tax is paid annually to the administration on the basis of the mine property extension. A levy also applies to water consumption at each mine property, which is paid at irregular intervals whenever the relevant public administration requires it.

South Africa

In South Africa, mining rights are valid for a maximum of 30 years and may be renewed for further periods of up to 30 years per renewal. Prior to granting and renewing a mining right, the competent authority must be satisfied with the technical and financial capacity of the intended mining operator and the mining work program according to which the operator intends to mine. In addition, a species rescue, relocation and re-introduction plan must be developed and implemented by a qualified person prior to the commencement of excavation, a detailed vegetation and habitat and rehabilitation plan must be developed by a qualified person and a permit must be obtained from the South African Heritage Resource Agency prior to the commencement of excavations. The mining right holder must also compile a labor and social plan for its mining operations and comply with certain additional regulatory requirements relating to, among other things, human resource development, employment equity, housing and living conditions and health and safety of employees, and the usage of water, which must be licensed.

It is a condition of the mining right that the holder disposes of all minerals and products derived from exploitation of the mineral at competitive market prices, which means, in all cases, non-discriminatory prices or non-export parity prices. If the minerals are sold to any entity which is an affiliate or non-affiliate agent or subsidiary of the mining right holder, or is directly or indirectly controlled by the holder, such purchaser must unconditionally undertake in writing to dispose of the minerals and any products from the minerals and any products produced from the minerals, at competitive market prices. The mining right, a shareholding, an equity, an interest or participation in the right or joint venture, or a controlling interest in a company, close corporation or joint venture, may not be encumbered, ceded, transferred, mortgaged, let, sublet, assigned, alienated or otherwise disposed of without the written consent of the Minister of Mineral Resources, except in the case of a change of controlling interest in listed companies.

Environmental requirements applicable to mining operations in South Africa are mostly set out in the MPRDA. Pursuant to the MPRDA, in order to obtain reconnaissance permissions as well as actual mining rights, applicants must have in place an approved environmental management plan, pursuant to which, among other things, all boreholes, excavations and openings sunk or made during the duration of the mining right must be sealed, closed, fenced and made safe by the mining operator. Further environmental requirements apply in connection with health and safety matters, waste management and water usage. The MPRDA further requires mining right applicants to conduct an environmental impact assessment on the area of interest and submit an environmental management program setting forth, among other things, baseline information concerning the affected environment to determine protection, remedial measures and environmental management objectives, and describing the manner in which the applicant intends to modify, remedy, control or stop any action, activity or process which causes pollution or environmental degradation, contain or remedy the cause of pollution or degradation and migration of pollutants and comply with any prescribed waste standard or management standards or practices. In addition, applicants must provide sufficient insurance, bank guarantees, trust funds or cash to ensure the availability of sufficient funds to undertake the agreed work programs and for the rehabilitation, management and remediation of any negative environmental impact on the interested areas. Holders of a mining right must conduct continuous monitoring of the environmental management plan, conduct performance assessments of the plan and compile and submit a performance assessment report to the competent authority, the frequency of which must be as approved in the environmental management program, or every two years or as otherwise agreed by the authority in writing. Mine closure costs are evaluated and reported on an annual basis, but are typically only incurred at mine closure, but guarantees are increased based on the extent of completed mining activity.

The mining right holder must also be in compliance with an important governmental regulation called Black Economic Empowerment ("BEE"), a program launched by the South African government to redress certain racial inequalities. In order for a mining right to be granted, a mining company must agree on certain BEE-related conditions with the Department of Mineral and Petroleum Resources. Such conditions relate to, among other things, the company's ownership and employment equity and require the submission of a social and labor plan. Failure to comply with any of these BEE conditions may have an impact on, among other things, the ability of the mining company to retain the mining right or obtain its renewal upon expiry. In addition, companies subject to BEE must conduct, on an annual basis, a BEE rating audit on several aspects of the business, including black ownership, management control,

employment equity, skills development, preferential procurement, enterprise development and socio-economic development. Poor performance on the BEE rating audit may have a negative impact on the company's ability to do business with other companies, to the extent that a company's low rating is likely to reduce the rating of its business partners.

Mining rights are subject to payments of royalties to the tax authority, the South African Revenue Services. Such payments are generally made by June 30 and December 31 each year and upon the approval of the concessionaire's annual financial statements.

France

In France, mining rights are subject to a prefectural authorization. The authorization provides details of all requirements, including environmental requirements, which the mining operator and its subcontractors must comply with to operate the mine. Such requirements mainly concern archaeology, water protection, air pollution, control of noise, visual impact and safety matters. The authorization also contains the requirements relating to the remediation of the land after the end of the mining operations, including the provision of adequate financial guarantees by the mining operator. Mines are regularly inspected by the administration and local environmental commissions, comprising representatives of the relevant municipality, administration, several associations and the mining operator, which must meet at least once a year.

United States

The Coal Mine Health and Safety Act of 1969 and the Federal Mine Safety and Health Act of 1977 impose stringent safety and health standards on all aspects of mining operations. Also, the state of Kentucky, in which we operate underground and surface coal mines, has state mine safety and health regulations. The Mine Safety and Health Administration (the "MSHA") inspects mine sites and enforces safety regulations and the Company must comply with ongoing regulatory reporting to the MSHA. Numerous governmental permits, licenses or approvals are required for mining operations. In order to obtain mining permits and approvals from state regulatory authorities, we must submit a reclamation plan for restoring, upon the completion of mining operations, the mined property to its prior or better condition, productive use or other permitted condition. We are also required to establish performance bonds, consistent with state requirements, to secure our financial obligations for reclamation, including removal of mining structures and ponds, backfilling and regrading and revegetation.

Customers and Markets

The following table details the breakdown of Ferroglobe's revenues by geographic end market for the years ended December 31, 2022, 2021 and 2020.

(\$ thousands)	Year ended December 31,		
	2022	2021	2020
United States of America	966,161	515,095	404,633
Europe			
Spain	282,387	251,528	133,370
Germany	442,331	292,774	191,107
France	148,741	130,811	79,491
Italy	111,887	76,721	42,067
Other EU Countries	162,374	176,046	88,443
Total revenues in Europe	1,147,720	927,880	534,478
Rest of the World	484,035	335,933	205,323
Total	2,597,916	1,778,908	1,144,434

Customer base

We have a diversified customer base across our key product categories. Over our business tenure, we have built long-lasting relationships with our customers based on the breadth and quality of our product offerings, as well as our ability to frequently offer lower-cost and more reliable supply options than our competitors who do not have production facilities located near the customers' facilities or production capabilities to meet specific customer requirements. We sell our products to customers in over 30 countries across six continents, though our largest customer concentration is

in the United States and Europe. The average length of our relationships with our top 30 customers exceeds ten years and, in some cases, such relationships go back as far as 30 years.

For the year ended December 31, 2022, Ferroglobe's ten largest customers accounted for approximately 50.9% of Ferroglobe's consolidated sales. During the year ending December 31, 2021, Ferroglobe's ten largest customers accounted for approximately 48.1% of Ferroglobe's consolidated sales.

Customer contracts

Our contracting strategy seeks to lock in significant revenue while remaining flexible to benefit from any movement in market pricing and operating efficiencies. Our silicon metal, manganese-based ferroalloys and silicon-based ferroalloys are typically sold under annual and quarterly contracts. Historically, we have targeted to contract approximately 50-65% of our silicon metal, manganese-based ferroalloys production and silicon-based ferroalloy production in the fourth quarter for the following calendar year. In 2022, the majority of our contracts were indexed, to market related benchmarks.

The remaining balance of our silicon metal, manganese-based ferroalloys and our silicon-based ferroalloy production are sold under quarterly contracts or on a spot basis. By selling on a spot basis, we are able to take advantage of premiums for prompt delivery. We believe that our diversified contract portfolio allows us to lock in a significant amount of revenues while also allowing us to remain flexible and benefit from unexpected price and demand upticks. Given current spot price and current market dynamics, we are looking to enter into contracts for 2023 with shorter terms as we anticipate the market price to improve, in particular over the second half of the year.

Sales and Marketing Activities

Ferroglobe generally sells the majority of its silicon products under annual or longer-term contracts for silicone producers, and mainly between one month to three months for aluminum producing customers. All contracts generally include a volume framework and price formula based on the spot market price and other elements, including expected production costs and premiums. Ferroglobe also makes spot sales to customers with whom it does not have a contract as well as through quarterly agreements at prices that generally reflect market spot prices. In addition, Ferroglobe sells certain high-quality products at prices that are not directly correlated with the market prices for the metals or alloys from which they are composed.

With the exception of the manganese-based business, the vast majority of Ferroglobe's products are sold in Europe and United states directly by its own sales force located in Spain, France, the United States and Germany whereas sales in other regions are done via agents in general. For the manganese-based business, Glencore and Ferroglobe operates under exclusive agency agreements for the marketing of Ferroglobe's manganese alloys products worldwide, and for the procurement of manganese ores to supply Ferroglobe's plants.

Competition

The most significant competitive factor in the silicon metal, manganese and silicon-based alloys and specialty metals markets is price. Other factors include consistency of the chemical and physical specifications over time and reliability of supply.

The silicon metal, manganese- and silicon-based alloys and specialty metals markets are highly competitive, global markets, in which suppliers are able to reach customers across different geographies, and in which local presence is generally a minor advantage. In the silicon metal market, Ferroglobe's primary competitors include Chinese producers, which have production capacity that exceeds total worldwide demand. Aside from Chinese producers, Ferroglobe's competitors include Elkem, a Norwegian manufacturer of silicon metal, ferrosilicon, foundry products, silica fumes, carbon products and energy, Dow Inc., an American company specializing, in silicone and silicon-based technology, Rima, a Brazilian silicon metal and ferrosilicon producer, Liasa and Minas Ligas, Brazilian producers of silicon, Wacker, a German chemical business which manufactures silicon in Norway, Simcoa, in Australia which belongs to the Japanese chemical company Shin-Etsu, a consumer of silicon, as well as several other smaller producers in Bosnia Herzegovina, Iceland, Germany, Malaysia, Russia and Thailand.

In the manganese and silicon alloys market, Ferroglobe's competitors include Privat Group, a Ukrainian company with operations in Australia, Ghana and Ukraine, Eramet, a French mining and metallurgical group, CHEMK

Industrial Group, a Russian conglomerate which is one of the largest silicon-based alloy producers in the world, South 32 (formerly BHP Billiton), a global mining company with operations in Australia and South Africa and Vale, a mining and metals group based in Brazil, Asia Minerals and OM Holdings in Malaysia and Elkem in Norway.

In the silica fumes market, Ferroglobe's main competitor is Elkem.

Ferroglobe strives to be a highly efficient, low-cost producer, offering competitive pricing and engaging in manufacturing processes that capture most of its production of by-products for reuse or resale. Additionally, through the vertical integration of its quartz mines in Spain, the United States, Canada and South Africa and its metallurgical coal mines in the United States, Ferroglobe has ensured access to some of the highest quality raw materials that are essential in silicon metal, manganese- and silicon-based alloys and specialty metals production processes and has been able to gain a competitive advantage over some of its competitors by it has reducing the contribution of these raw materials and associated due to its cost.

Research and Development (R&D)

Ferroglobe focuses on developing new products, production processes and continuous improvement to create further value for our stakeholders and to follow global megatrends, including the green energy transition. Ferroglobe has dedicated teams for R&D and continuous improvement, but it also has cooperation agreements in place with various universities and research institutes in Spain, France and other countries around the world. Set forth below is a description of Ferroglobe's significant ongoing research and development projects.

ELSA electrode

Ferroglobe has developed a patented technology for electrodes used in silicon metal furnaces, which it has been able to sell to several major silicon producers globally. This technology, known as the ELSA electrode, improves the energy efficiency in the production process of silicon metal and eliminates contamination with iron. Ferroglobe has granted these producers the right to use the ELSA electrode against payment to Ferroglobe of royalties. Continuous improvements are made in an effort to maintain ELSA's status as cutting edge.

Solar grade silicon

Ferroglobe has sought to produce solar grade silicon metal with a purity above 99.9999% through a new, potentially cost-effective, electrometallurgical process. The traditional chemical process tends to be costly and involves high energy consumption and potentially environmentally hazardous processes. The new technology, entirely developed by Ferroglobe aims to reduce the costs, energy consumption and carbon footprint associated with the production of solar grade silicon.

In 2016, FerroAtlántica entered into a project with Aurinka Photovoltaic Group, S.L. ("Aurinka") for a feasibility study and basic engineering for an upgraded metallurgical grade ("UMG") solar silicon manufacturing plant. On December 20, 2016, Grupo FerroAtlántica, S.A.U., along with certain of its subsidiaries, entered into a joint venture agreement (the "Solar JV Agreement") with Blue Power Corporation, S.L. ("Blue Power") and Aurinka providing for the formation and operation of a joint venture with the purpose of producing UMG solar silicon. In furtherance of this project, FerroAtlántica obtained a loan, with a principal amount of approximately €45 million, from the Spanish Ministry of Industry and Energy for the purpose of building the UMG silicon plant. Due to the market environment for solar grade silicon (or polysilicon) worldwide, at the end of 2018 the Company suspended the investment in the project while preserving the technology and know-how in order to be able to finalize the construction of the factory when market circumstances change. In July 2019, the Solar JV Agreement was terminated. See "Item 7.B – Related Party Transactions – Aurinka and the Solar JV, below.

Silicon for Advanced technologies– Li-ion batteries

Ferroglobe has launched the Silicon for Advanced Technologies project, which aims at producing silicon-based, tailor made products for high end applications. Among the various targeted applications, the most attractive market is the anodic materials for Li-ion batteries. In this specific field, Ferroglobe has developed several partnerships and technical collaborations to develop high purity silicon powder raw material for Si/C composites and SiO_x. In a more innovative approach, we are also working on special high purity micrometric silicon for pure silicon anodes.

In this project we leveraged the purification technologies developed for the Solar Grade silicon project and which are patented. These technologies are industrial, cost effective and with low carbon footprint, and places Ferroglobe at the forefront of this this new market.

We currently have the first demonstration milling unit in our Innovation Centre in Sabón (Spain) and we have several industrial purification units in Montricher (France) and Puertollano (Spain).

High Purity Manganese Sulphate – Battery grade

This is a new addition to our portfolio of projects, based on the R&D work done some years ago to develop Electrolytic Manganese, Ferroglobe aims to produce high purity Manganese Sulphate from off-specification materials in Mn alloy production. Manganese is the next cathodic material due to its abundance, lower cost in comparison to Co and Ni, possibility of higher voltages and higher energy density.

Proprietary Rights and Licensing

The majority of Ferroglobe's intellectual property consists of proprietary know-how and trade secrets. Ferroglobe's intellectual property strategy is focused on developing and protecting proprietary know-how and trade secrets, which are maintained through employee and third-party confidentiality agreements and physical security measures. Although Ferroglobe owns some patented technology, we believe that the Company's businesses and profitability do not rely fundamentally upon patented technology and that the publication implicit in the patenting process may in certain instances be detrimental to Ferroglobe's ability to protect its proprietary information.

Regulatory Matters

Environmental and health and safety

Ferroglobe operates facilities worldwide, which are subject to foreign, national, regional, provincial and local environmental, health and safety laws and regulations, including, among others, those requirements governing the discharge of materials into the environment, the generation, use, storage and disposal of hazardous substances, the extraction and use of water, land use, reclamation and remediation and the health and safety of Ferroglobe's employees. These laws and regulations require Ferroglobe to obtain from governmental authorities permits to conduct its regulated activities, which permits may be subject to modification or revocation by such authorities.

Ferroglobe may not be at all times in full compliance with such laws, regulations and permits, although Ferroglobe is not aware of any material past or current noncompliance. Failure to comply with these laws, regulations and permits may result in the assessment of administrative, civil and criminal penalties or other sanctions by regulators, the imposition of obligations to conduct remediation or upgrade or install pollution or dust control equipment, the issuance of injunctions limiting or preventing Ferroglobe's activities, legal claims for personal injury or property damages, and other liabilities.

Under these laws, regulations and permits, Ferroglobe could also be held liable for any consequences arising out of an industrial incident, human exposure to hazardous substances or environmental damage that relates to Ferroglobe's current or former operations or properties. Environmental, health and safety laws are likely to become more stringent in the future. Ferroglobe purchases insurance to cover these potential liabilities, but the costs of complying with current and future environmental, health and safety laws, and its liabilities arising from past or future releases of, or exposure to, hazardous substances, may exceed insured, budgeted or reserved amounts and adversely affect Ferroglobe's business, results of operations and financial condition. Several corporate standards and procedures are being deployed to ensure a proactive approach in the compliance management.

Some environmental laws assess liability on current or previous owners or operators of real property for the cost of removal or remediation of hazardous substances. In addition to cleanup, cost recovery or compensatory actions brought by foreign, national, provincial and local agencies, neighbors, employees or other third parties could make personal injury, property damage or other private claims relating to the presence or release of hazardous substances. Environmental laws often impose liability even if the owner or operator did not know of, or did not cause, the release of hazardous substances. Persons who arrange for the disposal or treatment of hazardous substances also may be responsible for the cost of removal or remediation of these substances. Such persons can be responsible for removal and remediation costs even if they never owned or operated the disposal or treatment facility. In addition, such owners

or operators of real property and persons who arrange for the disposal or treatment of hazardous substances can be held responsible for damages to natural resources.

There are a variety of laws and regulations in place or being considered at the international, national, regional, provincial and local levels of government that restrict or are reasonably likely to result in limitations on, or additional costs related to, emissions of carbon dioxide and other greenhouse gases. These legislative and regulatory developments may cause Ferroglobe to incur material costs to reduce the greenhouse gas emissions from its operations (through additional environmental control equipment or retiring and replacing existing equipment) or to obtain emission allowance or credits, or result in the incurrence of material taxes, fees or other governmental impositions on account of such emissions. In addition, such developments may have indirect impacts on Ferroglobe's operations, which could be material. For example, they may impose significant additional costs or limitations on electricity generators, which could result in a material increase in energy costs. Restrictions in water usage are also expected in the near future. Open cooling systems will be less tolerated by the regulators.

For a summary of regulatory matters applicable to Ferroglobe's mining operations, see "—Laws and regulations applicable to Ferroglobe's mining operations."

Energy and electricity generation

Ferroglobe operates hydro-electric plants in France under a concession system, which are subject to energy, environmental, health and safety laws and regulations, including those governing the generation of electricity and the use of water and river basins. These laws and regulations require Ferroglobe to obtain from the French State a Prefectural decree granting the operation to Ferroglobe according to the specifications of the concession.

Trade

Ferroglobe benefits from antidumping and countervailing duty orders and laws that protect its products by imposing special duties on unfairly traded imports from certain countries. These orders may be subject to revision, revocation or rescission as a result of periodic and five-year reviews.

In the United States, antidumping or countervailing duty orders are in effect covering silicon metal imports from China, Russia, Bosnia and Herzegovina, Iceland, Kazakhstan, and Malaysia.

In June 2020, Globe Specialty Metals, Inc. ("GSM") petitioned the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("ITC") to stop silicon metal producers in Bosnia and Herzegovina, Iceland, Malaysia and Kazakhstan from selling dumped and unfairly subsidized silicon metal imports into the United States. These cases were successful, and in April 2021, Commerce issued formal antidumping orders on all imports from Bosnia and Herzegovina and Iceland, and a formal countervailing duty order on all imports from Kazakhstan. A formal antidumping duty order was issued with respect to all imports from Malaysia in August 2021. These orders will remain in place for at least five years.

In June 2020, the Russia antidumping duty order was renewed for another five years after Commerce and the ITC determined that revocation of the order would lead to continued or recurrent dumping and injury to the U.S. industry. Similarly, in June 2018, the China antidumping duty order was renewed for another five years after the ITC and Commerce determined that revocation of the order on Chinese silicon metal imports would lead to continued or recurrent dumping and injury to the U.S. industry.

Currently, an appeal of the 2021 Kazakhstan determination is pending before the United States Court of Appeals for the Federal Circuit. Additionally, periodic reviews are underway concerning imports from Kazakhstan and from Malaysia.

In Canada, antidumping and countervailing duties covering silicon metal imports from China are in effect. A five-year expiry review of the Canadian antidumping/countervailing duty order covering silicon metal imports from China will begin in the first half of 2024.

In the European Union, antidumping duties are in place covering silicon metal and calcium silicon imports from China, and ferrosilicon imports from China and Russia. In June 2020, the European Commission renewed the antidumping orders on ferrosilicon from China and Russia for five years. In August 2022, following an expiry review the European

Commission extended the antidumping duties on silicon metal imports from China for another five-year period. On March 23, 2022, the European Commission imposed definitive antidumping duties on calcium silicon imports from China for a 5-year period.

Seasonality

Electrometallurgy

Due to the cyclical nature of energy prices and the energy-intensive nature of the production processes for silicon metal, manganese- and silicon-based alloys and specialty metals, Ferroglobe does not operate its electrometallurgy plants during certain periods or times of day when energy prices are at their peak. Demand for Ferroglobe's manganese- and silicon-based alloy and specialty metals products is lower during these periods as its customers also suspend their energy-intensive production processes involving Ferroglobe's products. As a result, sales within particular geographic regions are subject to seasonality.

C. Organizational structure.

The organizational structure remains as follows as of December 31, 2022:



For a list of subsidiaries and ownership structure see *Note 2* in the Consolidated Financial Statements.

D. Property, Plant and Equipment.

See “Item 4.B.—Information on the Company—Business Overview.”

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

A. Operating Results

Introduction

The following “management’s discussion and analysis” should be read in conjunction with the Consolidated Financial Statements of Ferroglobe as of December 31, 2022 and 2021 and for the years ended December 31, 2022, 2021 and 2020, which are included in this annual report. This discussion includes forward-looking statements, which, although based on assumptions that Ferroglobe considers reasonable, are subject to risks and uncertainties which could cause actual events or conditions to differ materially from those expressed or implied by the forward-looking statements. See “Cautionary Statements Regarding Forward-Looking Statements.” For a discussion of risks and uncertainties facing Ferroglobe, see “Item 3.D.—Key Information—Risk Factors.”

In accordance with IAS 21 — The Effects of Changes in Foreign Exchange Rates, Ferroglobe’s consolidated income statements and consolidated statement of financial position have been translated from the functional currency of each subsidiary, which is determined by the primary economic environment in which each subsidiary operates, into the reporting currency of the Company that is U.S. Dollars.

Principal Factors Affecting Our Results of Operations

Sale prices

Ferroglobe's operating performance is highly correlated to the demand for our products, market prices and cost to serve, in a global competitive environment. Ferroglobe follows a pricing policy aimed at maintaining balance between exposures to termed contracts, based on formula pricing, and exposure to the spot market. This approach allows Ferroglobe to remain flexible in adjusting its production and sales footprint depending on changing market conditions, which traditionally have been volatile.

During 2022, demand across our segments was positively impacted due to the re-filling of value chains to pre-COVID levels and a recovery in the market demand across our core need markets. Furthermore, disruptions along the global chain, coupled with changes in supply channels, due to the Russia/Ukraine crisis impacted global supply for our products. Collectively these factors resulted in peak demand and pricing in mid-2022, which quickly normalized in the second half of the year as demand concerns from end-use markets crept in.

Silicon metal pricing rallied until late second quarter, due to premiums placed on supply security into key sectors, like chemicals, along with increased demand in the aluminum and other commodity sectors. This normalized in the second half of the year, with US pricing lagging in the rate of correction versus Europe.

Historically, manganese-based alloy prices have shown a significant correlation with the price of manganese ore, but from 2018 up to middle 2020, the correlation was disrupted, causing a margin squeeze for Ferroglobe as a non-integrated producer. Since 2020, alloy pricing spreads over ore have recovered. In 2022, further improvements in the spread of ore continued to increase due to the recovery in steel demand and interruptions cause by the onset of the Russia/Ukraine crisis, but then normalizing in the fourth quarter. We anticipate these dynamics in the second half of 2022, driven by stable demand in the European steel sector and the supply availability of manganese ore.

Our ferrosilicon business pricing improved year over year from the historical lows of 2020. We expect these dynamics to sustain in 2023, supported by demand from the steel industry, stimulated by the construction and automotive sectors.

Cost of raw materials

The main raw materials sourced by Ferroglobe are quartz, manganese ore, coal, metallurgical coke, wood and charcoal. Manganese ore is the largest component of the cost base for manganese-based alloys. In 2022, more than 33% of Ferroglobe's total \$187.75 million expense with respect to manganese ore fell under an annual commitment, whilst the remaining was purchased on spot basis. Special coal is used as a major carbon reductant in silicon-based alloy production. In 2022, coal represented a \$179.5 million expense for Ferroglobe. Metallurgical coke, used for Mn Alloys production, represented a total purchase volume of \$72.9 million in 2022. Wood is both an important element for the production of silicon alloys and used to produce charcoal, which is used as a carbon reductant at Ferroglobe's South African subsidiary Silicon Smelters (Pty.), Ltd. Ferroglobe's wood expense amounted to 37.8 million 2022. In 2022, the FerroAtlántica subsidiaries of Ferroglobe sourced, approximately 63% of their quartz needs from FerroAtlántica's mines in Spain and South Africa, and Globe subsidiaries sourced approximately 64% of their quartz needs from Globe's mines in the United States and Canada. Total quartz consumption in 2022 from both external purchases and own mines represented an expense of \$ 90.4 million.

Power

Power constitutes one of the single largest expenses for most of Ferroglobe's products. Ferroglobe focuses on minimizing energy prices and unit consumption throughout its operations by concentrating its silicon and manganese-based alloy production during periods when energy prices are lower. In 2022, Ferroglobe's total power consumption was 6,431 gigawatt-hours, with power contracts that vary across its operations.

Energy availability was heavily challenged in all geographies due to the war in Ukraine. Power supply was heavily challenged with an evolution of the consumption matrix in European countries and particularly changes in the sources of gas supplies. Other factors, such as climate change impact, nuclear power generation decline for maintenance in France and South Africa, coal-plants performance in South Africa also reduced power availability, pushing prices higher.

In Europe, power prices climbed to unprecedented levels during the summer of 2022 forcing production adjustments in some of our plants.

In the United States, fuel price increase impacted some of our plants and translated in to prices which were higher than expected.

Foreign currency fluctuation

Ferroglobe has a diversified production base consisting of production facilities across the United States, Europe, South America, South Africa and Asia. Ferroglobe production costs are mostly dependent on local factors, with the exception of the cost of manganese ore and coal, which are dependent on global commodity prices. The relative strength of the functional currencies of Ferroglobe's subsidiaries influences its competitiveness in the international market, most notably in the case of Ferroglobe's South African operations, which have historically exported a majority of their production to the U.S. and the European Union. For additional information see "Item 11.—Quantitative and Qualitative Disclosures About Market Risk—Foreign Exchange Rate Risk."

Regulatory changes

See "Item 4.B.—Business Overview—Regulatory Matters."

Results of Operations — Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	2,597,916	1,778,908
Raw materials and energy consumption for production	(1,285,086)	(1,184,896)
Other operating income	147,356	110,085
Staff costs	(314,810)	(280,917)
Other operating expense	(346,252)	(296,809)
Depreciation and amortization charges, operating allowances and write-downs	(81,559)	(97,328)
Impairment (loss) gain	(56,999)	137
Net gain due to changes in the value of assets	349	758
(Loss) gain on disposal of non-current assets	(459)	1,386
Other gain	91	62
Operating profit	660,547	31,386
Finance income	2,274	253
Finance costs	(61,015)	(149,189)
Financial derivative gain	—	—
Exchange differences	(9,995)	(2,386)
(Loss) Profit before tax	591,811	(119,936)
Income tax (expense) benefit	(147,983)	4,562
(Loss) Profit for the year from continuing operations	443,828	(115,374)
(Loss) for the year from discontinued operations	—	—
(Loss) Profit for the year	443,828	(115,374)
Loss attributable to non-controlling interests	(2,952)	(4,750)
(Loss) Profit attributable to the Parent	440,314	(110,624)

Sales

Sales increased \$819,008 thousand, or 46.0%, from \$1,778,908 thousand for the year ended December 31, 2021 to \$2,597,916 thousand for the year ended December 31, 2022. The increase in sales revenue is primarily attributed to the increase in average realized price across all our products portfolio despite a drop in tonnes sold.

Sales revenue increased across all major products in 2022. Silicon metal sales revenue increased 75% and average selling prices of silicon metal increased by 112.3% to \$5,332/MT in 2022, and \$2,511/MT in 2021. Total shipments of silicon metal decreased in 17.6% due to weak demand in chemicals and aluminum in Europe.

Silicon-Based Alloys sales revenue increased 50.9% and average selling prices increased by 79.5% to \$3,694/MT in 2022, and \$2,058/MT in 2021. Total shipments decreased in 15.9% driven by weak demand from steel manufacturers.

Manganese-Based Alloys sales revenue increased 12% and average selling prices increased by 19.2% to \$1,778/MT in 2022, compared to \$1,492/MT in 2021. Total shipments decreased by 6% due to production adjustments in Spain as a result of high energy prices, and low-cost imports higher pressure from Asia.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased \$100,190 thousand, or 8.5%, from \$1,184,896 thousand for the year ended December 31, 2021 to \$1,285,086 thousand for the year ended December 31, 2022, primarily due to higher energy costs, higher raw material costs and lower fixed cost absorption as a result of lower production in France from July 2022. During 2022, raw materials and energy consumption for production as a percentage of sales was 49%, compared to 67% in 2021. The increase was driven by operating leverage as a result of higher pricing.

Other operating income

Other operating income increased \$37,271 thousand, or 33.9%, from \$110,085 thousand for the year ended December 31, 2021 to \$147,356 thousand for the year ended December 31, 2022, mainly due to the energy compensation received in December from our French energy provider EDF.

Staff costs

Staff costs increased \$33,893 thousand, or 12.1%, from \$280,917 thousand for the year ended December 31, 2021 to \$314,810 thousand for the year ended December 31, 2022. This increase is primarily due to restart of our facility in Selma, Alabama at the beginning of 2022. This resulted in higher variable remuneration driven by the improved results in 2022 and the recording of the “*participation salarie*” in FerroPem,S.A.S. This increase was partially offset by our reduced production in Spain as a result of high energy prices.

Other operating expense

Other operating expense increased \$49,443 thousand, or 16.7%, from \$296,809 thousand for the year ended December 31, 2021 to \$346,252 thousand for the year ended December 31, 2022, driven by an increase in distribution costs.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased \$15,769 thousand or 16.2%, from \$97,328 thousand for the year ended December 31, 2021 to \$81,559 thousand for the year ended December 31, 2022. The decrease in depreciation is driven by a number of assets being fully depreciated and the effect of the EUR/USD exchange rate.

Impairment (loss) gain

Impairment losses increased \$57,136 thousand, from a profit of \$137 thousand for the year ended December 31, 2021 to a loss of \$56,999 thousand for the year ended December 31, 2022.

During year ended December 31, 2022 the Company recognized an impairment of \$56,999 thousand in relation to; our an impairment of \$5,994 thousand relating to our Château Feuillet facility in France, an impairment of \$11,559 thousand relating to our Boo facility in Spain, an impairment of \$5,915 thousand relating to our Cinca facility in Spain, an impairment of \$20,034 thousand relating to our Cee facility in Spain, an impairment of \$15,749 thousand relating to our Mo I Rana facility in Norway, impairment amounting to \$5,514 thousand relating to our asset in Puertollano, Spain, an impairment reversal of \$2,750 thousand relating to our mining business in South Africa alongside, an impairment reversal of \$5,017 thousand relating to our Polokwane facility also located in South Africa.

In 2021, the Company recorded a reversal of the impairment recorded at the Polokwane facility, amounting to \$2,681 thousand, an additional impairment at the Château Feuillet facility, amounting to \$441 thousand, and an impairment in relation to our quartz mine in Mauritania amounting to \$1,726 thousand.

Net loss (gain) due to changes in the value of assets

In 2022, the Company had a net gain of \$349 thousand in the value of assets attributable to a higher valuation of shares in Pampa Energy in Argentina. This compares to a net gain of \$758 thousand in 2021.

Loss (gain) on disposal of non-current assets

The loss on the disposal of non-current assets of \$459 thousand for the year ended December 31, 2022 is mainly due to a loss of assets in the United States. The gain on disposal of non-current assets of \$1,386 thousand for the year ended December 31, 2021 relates to the sale of the former Niagara plant and certain assets in France.

Finance income

Finance income increased \$2,021 thousand, or 798.8%, from \$253 thousand for the year ended December 31, 2021 to \$2,274 thousand for the year ended December 31, 2022. The increase is driven by the interest received on the repurchased notes.

Finance costs

Finance costs decreased \$88,174 thousand, or 59.1%, from \$149,189 thousand for the year ended December 31, 2021 to \$61,015 thousand for the year ended December 31, 2022. The decrease is primarily due to the an accounting charge related to the Senior Notes refinancing, amounting to \$90.8 million in 2021.

Exchange differences

Exchange differences increased \$7,609 thousand, or 318.9% from \$2,386 thousand for the year ended December 31, 2021 to \$9,995 thousand for the year ended December 31, 2022, primarily due to the EURO/U.S. Dollar exchange rate.

Income tax (expense) benefit

Income tax expense increased \$152,545 thousand, from an income tax benefit of \$4,562 thousand for the year ended December 31, 2021 to an income tax expense of \$147,983 thousand for the year ended December 31, 2022. The variance is primarily due to income tax recorded in 2022, in the United States totaling \$55,580 thousand, in France \$46,148 thousand and in Canada \$50,871 thousand.

Segment operations

In 2022, the company revised its operating segments to reflect the way its chief operating decision maker (“CODM”) is currently managing and viewing the business.

Operating segments are based upon the Company’s management reporting structure. As such, we report our results in accordance with the following segments since 2022:

- North America – Silicon Metals
- North America – Silicon Alloys
- Europe – Manganese
- Europe – Silicon Metals
- Europe – Silicon Alloys
- South Africa – Silicon Metals
- South Africa – Silicon Alloys
- Other segments

North America – Silicon Metals

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	671,290	370,109
Raw materials and energy consumption for production	(305,545)	(265,653)
Other operating income	6,464	5,089
Staff costs	(61,378)	(51,163)
Other operating expense	(33,708)	(22,222)
Depreciation and amortization charges, operating allowances and write-downs	(33,708)	(40,489)
(Loss) on disposal of non-current assets	(522)	(347)
Operating (loss) profit	242,893	(4,676)

Sales

Sales increased \$301,181 thousand, or 81.4%, from \$370,109 thousand for the year ended December 31, 2021 to \$671,290 thousand for the year ended December 31, 2022. The increase is primarily due to an increase in the average realized selling price, resulting from a combination of higher market prices, and a different product and customer mix. In addition, 2022 saw the restart of our facility in Selma, Alabama.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$39,892 thousand, or 15.0%, from \$265,653 thousand for the year ended December 31, 2021 to \$305,545 thousand for the year ended December 31, 2022. The increase in our raw materials and energy consumption for production is due to higher raw material costs.

Other operating income

Other operating income increased \$1,375 thousand, or 27.0%, from \$5,089 thousand for the year ended December 31, 2021 to \$6,464 thousand for the year ended December 31, 2022, primarily due to a gain from the free CO2 emission rights regulatory period settlement in Canada and an increase in scrap sales.

Staff costs

Staff costs increased \$10,215 thousand, or 20.0%, from \$51,163 thousand for the year ended December 31, 2021 to \$61,378 thousand for the year ended December 31, 2022. The increase is primarily due to the start-up of Selma in December 2021, as well as higher medical insurance expenses following an increase in claims during 2022.

Other operating expense

Other operating expense increased \$11,486 thousand, or 51.7%, from \$22,222 thousand for the year ended December 31, 2021 to \$33,708 thousand for the year ended December 31, 2022 primarily due to inflationary pressure on prices and the restart of our facility in Selma, Alabama.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased \$6,781 thousand, or 16.7%, from \$40,489 thousand for the year ended December 31, 2021 to \$33,708 thousand for the year ended December 31, 2022, primarily due to assets becoming fully depreciated at the beginning of 2022, combined with the termination of the purchase price allocation recorded in WVA, Manufacturing, LLC during 2022.

Loss on disposal of non-current assets

The loss on disposal of non-current assets relates primarily to the disposal of fixed assets at our facility in Selma, Alabama

North America – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	339,414	154,699
Raw materials and energy consumption for production	(68,490)	(57,663)
Other operating income	122	296
Staff costs	(41,923)	(31,300)
Other operating expense	(37,859)	(20,848)
Depreciation and amortization charges, operating allowances and write-downs	(15,135)	(15,281)
(Loss) gain on disposal of non-current assets	(126)	741
Operating profit	176,003	30,644

Sales

Sales increased \$184,715 thousand, or 119.4%, from \$154,699 thousand for the year ended December 31, 2021 to \$339,414 thousand for the year ended December 31, 2022. The increase in sales is attributed to an increase in the average realized selling price, resulting from a combination of higher market prices, and a different product and customer mix.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$10,827 thousand, or 18.8%, from \$57,663 thousand for the year ended December 31, 2021 to \$68,490 thousand for the year ended December 31, 2022. The increase in our raw materials and energy consumption for production is due to higher raw material prices.

Other operating income

Other operating income decreased \$174 thousand, or 58.8%, from \$296 thousand for the year ended December 31, 2021 to \$122 thousand for the year ended December 31, 2022. This income relates primarily to the sale of scrap.

Staff costs

Staff costs increased \$10,623 thousand, or 33.9%, from \$31,300 thousand for the year ended December 31, 2021 to \$41,923 thousand for the year ended December 31, 2022. The increase is primarily due to higher variable remuneration driven by our improved results in 2022.

Other operating expense

Other operating expense increased \$17,011 thousand, or 81.6%, from \$20,848 thousand for the year ended December 31, 2021 to \$37,859 thousand for the year ended December 31, 2022. The increase is primarily due to management fee charges that are eliminated during the consolidation process.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased \$146 thousand, or 1.0%, from \$15,281 thousand for the year ended December 31, 2021 to \$15,135 thousand for the year ended December 31, 2022, primarily due to the disposal of certain assets at our facility in Bridgeport, Alabama during 2022.

(Loss) gain on disposal of non-current assets

The loss on disposal of non-current assets relates mainly to the disposal of fixed assets at our facility in Bridgeport, Alabama.

Europe - Manganese

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	701,140	476,287
Raw materials and energy consumption for production	(541,034)	(326,257)
Other operating income	42,882	34,142
Staff costs	(28,996)	(33,696)
Other operating expense	(111,741)	(105,290)
Depreciation and amortization charges, operating allowances and write-downs	(13,005)	(18,634)
Impairment (loss)	(33,222)	(376)
(Loss) on disposal of non-current assets	(189)	—
Other gain	11	—
Operating profit	15,846	26,176

Sales

Sales increased \$224,853 thousand or 47.2%, from \$476,287 thousand for the year ended December 31, 2021 to \$701,140 thousand for the year ended December 31, 2022, primarily due to an increase in average selling prices of 19.2%, partially offset by a decrease in overall shipments of 6%.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$214,777 thousand, or 65.8%, from \$326,257 thousand for the year ended December 31, 2021 to \$541,034 thousand for the year ended December 31, 2022. The increase is primarily driven by higher raw material and energy consumption in addition to higher raw material prices.

Other operating income

Other operating income increased \$8,740 thousand, or 25.6%, from \$34,142 thousand for the year ended December 31, 2021 to \$42,882 thousand for the year ended December 31, 2022, primarily driven by energy compensation received in France.

Staff costs

Staff costs decreased \$4,700 thousand or 13.9%, from \$33,696 thousand for the year ended December 31, 2021 to \$28,996 thousand for the year ended December 31, 2022. This decrease is mainly due to the recognition of restructuring costs during Spain in 2021 in respect of our facility in Monzón.

Other operating expense

Other operating expense increased \$6,451 thousand, or 6.1%, from \$105,290 thousand for the year ended December 31, 2021 to \$111,741 thousand for the year ended December 31, 2022, primarily driven by a decrease in distribution costs linked to lower volumes in 2022 compared to 2021.

Depreciation and amortization charges, operating allowances and write downs

Depreciation and amortization charges, operating provisions and write-downs decreased \$5,629 thousand, or 30.2%, from \$18,634 thousand for the year ended 31 December 2021 to \$13,005 thousand for the year ended 31 December 2022, primarily due to an increase in the number of assets fully depreciated in Spain.

Impairment (loss)

Impairment losses increased by \$32,846 thousand, from a loss of \$376 thousand for the year ended 31 December 2021 to a loss of \$33,222 thousand for the year ended 31 December 2022. During 2022, the Company recorded impairments our facilities in Boo (Spain), Monzón (Spain), and Mo I Rana (Norway) of \$11,559 thousand and \$5,915 thousand of \$15,749 thousand respectively.

Europe – Silicon Metals

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	536,753	437,533
Raw materials and energy consumption for production	(241,936)	(303,811)
Other operating income	76,255	48,828
Staff costs	(81,175)	(77,608)
Other operating expense	(99,513)	(105,712)
Depreciation and amortization charges, operating allowances and write-downs	(4,605)	(7,330)
Impairment (loss) gain	—	14
Gain on disposal of non-current assets	230	733
Operating (loss) profit	186,009	(7,353)

Sales

Sales increased \$99,220 thousand or 22.7%, from \$437,533 thousand for the year ended December 31, 2021 to \$536,753 thousand for the year ended December 31, 2022, primarily due to an increase in the average selling price, which was partially offset by lower product volumes during the year.

Raw materials and energy consumption for production

Raw materials and energy consumption decreased \$61,875 thousand, or 20.4%, from \$303,811 thousand for the year ended December 31, 2021 to \$241,936 thousand for the year ended December 31, 2022. Raw materials and energy consumption decreased driven by lower product volumes during the year.

Other operating income

Other operating income increased \$27,427 thousand, or 56.2%, from \$48,828 thousand for the year ended December 31, 2021 to \$76,255 thousand for the year ended December 31, 2022, due primarily to energy compensation received in France.

Staff costs

Staff costs increased \$3,567 thousand or 4.6%, from \$77,608 thousand for the year ended December 31, 2021 to \$81,175 thousand for the year ended December 31, 2022. The increase is primarily due to a higher variable remuneration driven by our improved results during 2022.

Other operating expense

Other operating expense decreased \$6,199 thousand, or 5.9%, from \$105,712 thousand for the year ended December 31, 2021 to \$99,513 thousand for the year ended December 31, 2022, primarily driven by a decrease in distribution costs due to lower product volumes in 2022 compared to 2021.

Depreciation and amortization charges, operating allowances and write downs

Depreciation and amortization charges, operating provisions and write-downs decreased \$2,725 thousand, or 37.2%, from \$7,330 thousand for the year ended December 31, 2021 to \$4,605 thousand for the year ended December 31, 2022, primarily due to the increase in the number of French assets fully depreciated.

Gain on disposal of non-current assets

Gain (loss) on disposal of non-current assets decreased \$503 thousand, or 68.6%, from a gain of \$733 thousand for the year ended December 31, 2021 to \$230 thousand for the year ended December 31, 2022, driven by the disposal of buildings and other assets in France during 2021 and 2022.

Europe – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	259,419	227,804
Raw materials and energy consumption for production	(139,687)	(170,073)
Other operating income	23,622	16,924
Staff costs	(50,467)	(42,679)
Other operating expense	(33,265)	(23,043)
Depreciation and amortization charges, operating allowances and write-downs	(8,086)	(9,522)
Impairment (loss)	(26,028)	(455)
Gain on disposal of non-current assets	82	296
Other (loss)	—	—
Operating (loss) profit	25,590	(748)

Sales

Sales increased \$31,615 thousand or 13.9%, from \$227,804 thousand for the year ended December 31, 2021 to \$259,419 thousand for the year ended December 31, 2022, primarily due to an increase in both domestic sales and average selling prices, partially offset by lower product volumes.

Raw Materials and energy consumption for production

Raw Materials and energy consumption decreased \$30,386 thousand, or 17.9%, from \$170,073 thousand for the year ended December 31, 2021 to \$139,687 thousand for the year ended December 31, 2022. Raw materials and energy consumption for production decreased due to lower volumes in 2022.

Other operating income

Other operating income increased \$6,698 thousand, or 39.6%, from \$16,924 thousand for the year ended December 31, 2021 to \$23,622 thousand for the year ended December 31, 2022, primarily due to energy compensation received in France.

Staff costs

Staff costs increased \$7,788 thousand or 18.2%, from \$42,679 thousand for the year ended December 31, 2021 to \$50,467 thousand for the year ended December 31, 2022. The increase is due to higher variable remuneration driven by the improved results in 2022.

Other operating expense

Other operating expense increased \$10,222 thousand, or 44.4%, from \$23,043 thousand for the year ended December 31, 2021 to \$33,265 thousand for the year ended December 31, 2022, primarily attributable to the increase in distribution cost and management fees.

Depreciation and amortization charges, operating allowances and write downs

Depreciation and amortization charges, operating provisions and write-downs decreased \$1,436 thousand, or 15.1%, from \$9,522 thousand for the year ended December 31, 2021 to \$8,086 thousand for the year ended December 31, 2022.

Impairment (loss)

Impairment loss increased by \$25,573 thousand, from a loss of \$455 thousand for the year ended December 31, 2021 to a loss of \$26,028 thousand for the year ended December 31, 2022. During the year ended December 31, 2022, the Company recognized an impairment of \$5,994 thousand at the Château Feuillet facility in France and an impairment of \$20,034 thousand in relation to our tolling agreement with the plant in Cee, Spain.

South Africa – Silicon Metals

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	17,337	12,604
Raw materials and energy consumption for production	(9,270)	(8,240)
Other operating income	156	278
Staff costs	(1,736)	(1,542)
Other operating expense	(2,649)	(1,904)
Depreciation and amortization charges, operating allowances and write-downs	(748)	(546)
Impairment gain	5,357	288
Operating profit	8,447	938

Sales

Sales increased \$4,733 thousand, or 37.6%, from \$12,604 thousand for the year ended December 31, 2021 to \$17,337 thousand for the year ended December 31, 2022. Our sales in South Africa were positively impacted by improved demand and market conditions, leading to an increase in both average selling price and sales volumes.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$1,030 thousand, or 12.5%, from \$8,240 thousand for the year ended December 31, 2021 to \$9,270 thousand for the year ended December 31, 2022, driven by higher energy cost as well as the increase in product volumes sold during 2022.

Other operating income

Other operating income decreased \$122 thousand, or 43.9%, from \$278 thousand for the year ended December 31, 2021 to \$156 thousand for the year ended December 31, 2022.

Staff costs

Staff costs increased \$194 thousand, or 12.6%, from \$1,542 thousand for the year ended December 31, 2021 to \$1,736 thousand for the year ended December 31, 2022. The increase in staff costs are primarily due to a higher number of employees on payroll as of December 31, 2022 resulting from the restart of our Polokwane facility.

Other operating expense

Other operating expense increased \$745 thousand, or 39.1%, from \$1,904 thousand for the year ended December 31, 2021 to \$2,649 thousand for the year ended December 31, 2022, mainly due to the increase in activity as well as the restart of our Polokwane facility.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs increased \$202 thousand, or 37.0%, from \$546 thousand for the year ended December 31, 2021 to \$748 thousand for the year ended December 31, 2022.

Impairment gain

Impairment gain increased \$5,069 thousand, from \$288 thousand for the year ended December 31, 2021 to \$5,357 thousand for the year ended December 31, 2022. This variance is mainly due to the partial reversal of the Polokwane impairment in the year ended December 2022.

South Africa – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	122,262	104,591
Raw materials and energy consumption for production	(65,373)	(68,377)
Other operating income	66	485
Staff costs	(11,652)	(11,726)
Other operating expense	(13,193)	(11,352)
Depreciation and amortization charges, operating allowances and write-downs	(5,278)	(4,535)
Impairment gain	2,408	2,396
Operating profit	29,240	11,482

Sales

Sales increased \$17,671 thousand, or 16.9%, from \$104,591 thousand for the year ended December 31, 2021 to \$122,262 thousand for the year ended December 31, 2022. Our sales in South Africa were positively impacted by improved demand and market conditions, increasing both average selling price and sales volumes.

Raw materials and energy consumption for production

Raw materials and energy consumption for decreased \$3,004 thousand, or 4.4%, from \$68,377 thousand for the year ended December 31, 2021 to \$65,373 thousand for the year ended December 31, 2022. The decrease is attributed to the increase in energy cost which were partially offset by lower volumes during 2022.

Other operating income

Other operating income decreased \$419 thousand, or 86.4%, from \$485 thousand for the year ended December 31, 2021 to \$66 thousand for the year ended December 31, 2022, primarily due to sundry sales from the idle Polokwane plant reported in other income during 2021.

Staff costs

Staff costs decreased \$74 thousand, from \$11,726 thousand for the year ended December 31, 2021 to \$11,652 thousand for the year ended December 31, 2022. The decrease is due to the impact of the ZAR/USD exchange rate, across both periods.

Other operating expense

Other operating expense increased \$1,841 thousand, or 16.2%, from \$11,352 thousand for the year ended December 31, 2021 to \$13,193 thousand for the year ended December 31, 2022, primarily due to increased activity in addition to the restart of our Polokwane facility.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs increased \$743 thousand, or 16.4%, from \$4,535 thousand for the year ended December 31, 2021 to \$5,278 thousand for the year ended December 31, 2022. The increase is a result of higher depreciation in leases during 2022.

Impairment gain

Impairment gain increased \$12 thousand, or 0.5%, from \$2,396 thousand for the year ended December 31, 2021 to \$2,408 thousand for the year ended December 31, 2022. This variance is primarily due to the reversal of the Thaba Chueu Mining, Ltd impairment in 2022.

Other segments

(\$ thousands)	Year ended December 31,	
	2022	2021
Sales	81,560	43,568
Raw materials and energy consumption for production	(46,759)	(33,445)
Other operating income	59,840	49,901
Staff costs	(37,483)	(31,203)
Other operating expense	(74,626)	(51,960)
Depreciation and amortization charges, operating allowances and write-downs	(994)	(991)
Impairment (loss)	(5,514)	(1,730)
Net gain due to changes in the value of assets	349	758
(Loss) gain on disposal of non-current assets	66	(37)
Other gain	80	—
Operating (loss)	(23,481)	(25,076)

Sales

Sales increased \$37,992 thousand, or 87.2%, from \$43,568 thousand for the year ended December 31, 2021 to \$81,560 for the year ended December 31, 2022, primarily due to an increase in selling prices for our products.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased \$13,314 thousand, or 39.8%, from \$33,445 thousand for the year ended December 31, 2021 to \$46,759 thousand for the year ended December 31, 2022, primarily due to higher costs as consequence of the higher production volumes.

Other operating income

Other operating income increased \$9,939 thousand, or 19.9%, from \$49,901 thousand for the year ended December 31, 2021 to \$59,840 thousand for the year ended December 31, 2022, primarily due to the allocation of management fee charges that are eliminated during the consolidation process.

Staff costs

Staff costs increased \$6,280 thousand, or 20.1%, from \$31,203 thousand for the year ended December 31, 2021 to \$37,483 thousand for the year ended December 31, 2022, primarily due increased staff numbers as a result of the restart of the second furnace at our facility in Mendoza, Argentina at the end of 2021. The increase was also attributable to the impact of the AR\$/USD exchange rate.

Other operating expense

Other operating expense increased \$22,666 thousand, or 43.6%, from \$51,960 thousand for the year ended December 31, 2021 to \$74,626 for the year ended December 31, 2022, primarily due to intercompany charges and higher cost related to an increase in sales in Argentina and China.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs were, \$991 thousand for the year ended December 31, 2021 and \$994 thousand for the year ended December 31, 2022.

Impairment (loss)

Impairment losses increased \$3,784 or 218.7%, from \$1,730 thousand for the year ended 31 December 2021 to \$5,514 thousand for the year ended 31 December 2022, primarily due to our solar-grade silicon metal project in Puertollano, Spain, amounting to \$5,514 thousand (5,743 thousand in 2022).

Net gain due to changes in the value of assets

The gain due to changes in the value of assets in 2022 is primarily due to the valuation of Pampa Energy shares in Argentina.

Results of Operations — Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	1,778,908	1,144,434
Raw materials and energy consumption for production	(1,184,896)	(835,486)
Other operating income	110,085	33,627
Staff costs	(280,917)	(214,782)
Other operating expense	(296,809)	(132,059)
Depreciation and amortization charges, operating allowances and write-downs	(97,328)	(108,189)
Impairment loss	137	(73,344)
Net gain due to changes in the value of assets	758	158
Gain on disposal of non-current assets	1,386	1,292
Other losses	62	(1)
Operating profit (loss)	31,386	(184,350)
Finance income	253	177
Finance costs	(149,189)	(66,968)
Financial derivative gain	—	3,168
Exchange differences	(2,386)	25,553
(Loss) before tax	(119,936)	(222,420)
Income tax (expense) benefit	4,562	(21,939)
(Loss) for the year from continuing operations	(115,374)	(244,359)
(Loss) for the year from discontinued operations	—	(5,399)
(Loss) for the year	(115,374)	(249,758)
Loss attributable to non-controlling interests	(4,750)	(3,419)
(Loss) attributable to the Parent	(110,624)	(246,339)

Sales

Sales increased \$634,474 thousand, or 55.4%, from \$1,144,434 thousand for the year ended December 31, 2020 to \$1,778,908 thousand for the year ended December 31, 2021. The increase in sales is attributed to an increase in volumes and average realized selling prices across our product portfolio.

Sales volumes increased across all major product categories. Silicon metal sales volume increased 22.5% and average selling prices of silicon metal increased by 12.4% to \$2,511/MT in 2021, compared to \$2,234/MT in 2020. Total shipments of silicon metal increased primarily as a result of continued strength in chemicals and to a lesser extent, the aluminum market in Europe which continues to lag due to continued supply chain issues. Overall tightness in the market, attributable to strong end market demand and ongoing reforms in China, propelled U.S. and European index prices to unprecedented levels mainly during the fourth quarter.

Silicon-Based Alloys sales volume increased 21.3% and average selling prices increased by 35.8% to \$2,058/MT in 2021, as compared to \$1,899/MT in 2020. Total shipments increased due to the continued recovery in global steel production. Strong demand for ferrosilicon, coupled with low levels of inventory, sent the index higher in the US and Europe, contributing significantly to the increase in average realized prices across silicon-based alloy.

Manganese-Based Alloys sales volume increased 20.2% and average selling prices increased by 46% to \$1,492/MT in 2021, as compared to \$1,022/MT in 2020. Total shipments increased due to continued recovery in global steel production, and some seasonal spillover of orders.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased \$349,410 thousand, or 41.8%, from \$835,486 thousand for the year ended December 31, 2020 to \$1,184,896 thousand for the year ended December 31, 2021, primarily due to an increase in sales volumes across all three product categories. For the full year 2021, raw materials and energy consumption for production as a percentage of sales was 66.6%, compared to 73.0% during full year 2020. In addition to the increase in sales, the improvement in the raw materials and energy consumption for production was primarily driven by improved utilization of our asset base, reallocation of orders to optimize economics, stronger operational performance at the furnace level, and continued cost cutting.

Other operating income

Other operating income increased \$76,458 thousand, or 227.4%, from \$33,627 thousand for the year ended December 31, 2020 to \$110,085 thousand for the year ended December 31, 2021, primarily due to free CO₂ emissions allowances ("rights held emit greenhouse gasses"). The Company has recognized emission rights (allowances) received at market value. Market value of the allowances has increased 130.5% from \$39.3/allowance for the year ended December 31, 2020 to \$90.6/allowance as of December 31, 2021.

Staff costs

Staff costs increased \$66,135 thousand, or 30.8%, from \$214,782 thousand for the year ended December 31, 2020 to \$280,917 thousand for the year ended December 31, 2021. This increase is mainly due to the recording of the restructuring provision in Spain and France amounting \$27,367 thousand and higher variable consideration driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased \$164,750 thousand, or 124.8%, from \$132,059 thousand for the year ended December 31, 2020 to \$296,809 thousand for the year ended December 31, 2021, mainly due to CO₂ emissions. As the Company emits CO₂, it recognizes a provision for its obligation to deliver the CO₂ allowances at the end of the compliance period. The provision is remeasured at the end of each reporting period at market value. Market value of the allowances increased 130.4% from \$39.3/allowance for the year ended December 31, 2020 to \$90.6/allowance as of December 31, 2021.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased \$10,861 thousand or 10.0%, from \$108,189 thousand for the year ended December 31, 2020 to \$97,328 thousand for the year ended December 31, 2021. The decrease in depreciation is driven by a relevant number of our assets becoming fully depreciated.

Impairment (loss) gain

Impairment losses decreased \$73,481 thousand, or 100.2%, from a loss of \$73,344 thousand for the year ended December 31, 2020 to a gain of \$137 thousand for the year ended December 31, 2021. In 2020, the Company recognized an impairment of \$73,344 thousand in relation to; our idled capacity at the Niagara facilities in the United States \$35,685 thousand, our Polokwane facility in South Africa of \$8,677 thousand, our Château Feuillet facility in France of \$17,941 thousand and an impairment of \$11,041 thousand in relation to our solar-grade silicon metal project in Puertollano, Spain. In 2021, the Company recorded a reversal of the impairment recorded at Polokwane facilities, amounting to \$2,681 thousand, an additional impairment at our Château Feuillet facility, amounting to \$441 thousand, an impairment in relation to our quartz mine in Mauritania amounting to \$1,726 thousand.

Net gain due to changes in the value of assets

In 2021, the Company had a net gain of \$758 thousand in the value of assets attributable to a higher valuation of shares in Pampa Energy in Argentina. The net loss of \$158 thousand in 2020 was due to a lower valuation.

Gain on disposal of non-current assets

The gain on disposal of non-current assets of \$1,386 thousand for the year ended December 31, 2021 relates to the sale of the Niagara plant (fully impaired as of December 31, 2020) and certain assets located in France.

Finance income

Finance income increased \$76 thousand, or 42.9%, from \$177 thousand for the year ended December 31, 2020 to \$253 thousand for the year ended December 31, 2021. The increase is driven by higher earnings in our collateral account balance held by the South African subsidiary.

Finance costs

Finance costs increased \$82,221 thousand, or 122.8%, from \$66,968 thousand for the year ended December 31, 2020 to \$149,189 thousand for the year ended December 31, 2021. The increase is due to an accounting charge relating to the Senior Notes refinancing, totaling \$90.8 million.

For accounting purposes the refinancing of the Senior Notes has been considered a debt extinguishment. As a consequence:

(i) The accounting rules do not allow the company to capitalize the fees incurred during the exchange of the notes, amounting to \$31.7 million

(ii) The shares issued to bondholders and the work fee paid were recognized as one-off expenses, totaling \$51.6 million at market value.

(iii) In the case of an extinguishment, any outstanding upfront fees that have been capitalized upon issuance of the original notes must be recycled through our profit and account. This amounted to \$1 million. Additionally, as a result of the refinancing, the gross carrying amount of the amortized cost of the Reinstated Notes has been adjusted to reflect actual and revised estimated contractual cash flows. The gross carrying amount of the Reinstated Notes has been recalculated as the present value of the estimated future contractual cash flows that are discounted at the effective interest rate of 9.096%. The adjustment amounts to \$6,462 and was recognized as an expense in the income statement. After the exchange the Senior notes were accounted for under the amortized cost method.

The transaction fees incurred in the issuance of the Super Senior Notes have been capitalized as required by the accounting rules (IFRS).

Financial derivative gain

Gains on financial derivatives declined from \$3,168 thousand in 2020 to \$0 in 2021. The currency swap hedging the senior unsecured bonds was terminated in 2020.

Exchange differences

Exchange differences decreased \$27,939 thousand, from income of \$25,553 thousand for the year ended December 31, 2020 to a loss of \$2,386 thousand for the year ended December 31, 2021, primarily due to the Euro and U.S. Dollar exchange rate.

Income tax (expense) benefit

Income tax expense variation amounted to \$26,501 thousand, or 120.8%, from an income tax expense of \$21,939 thousand for the year ended December 31, 2020 to an income tax benefit of \$4,562 thousand for the year ended December 31, 2021. The variance is mainly due to the tax assets recorded in 2021 relating to a carryback credit of \$ 6,408 thousand in our French subsidiary. In France, when a company incurs a loss during a given fiscal year, they may carry it back to reduce the tax liability of the immediately previous fiscal year. This generates a deferred tax asset that

can be offset against the corporate income tax for the following five fiscal years or claimed to the French Treasury at the end of that period.

Profit (loss) for the year from discontinued operations

The result from discontinued operations decreased from \$5,399 thousand in 2020 to \$0 in 2021, due to the adjustment of the sales price of assets in Spain registered in 2020.

Segment operations

Our operating segments were revised in 2022 to reflect the way its chief operating decision maker (“CODM”) is currently managing and viewing the business. Accordingly, the results of 2021 and 2020 have been restated to report results according to the revision of operating segments in 2022.

As such, we report our results in accordance with the following segments:

- North America – Silicon Metal
- North America – Silicon Alloys
- Europe – Manganese
- Europe – Silicon Metals
- Europe – Silicon Alloys
- South Africa – Silicon Metal
- South Africa – Silicon Alloys
- Other segments

North America – Silicon Metals

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	370,109	289,485
Raw materials and energy consumption for production	(265,653)	(205,260)
Other operating income	5,089	2,804
Staff costs	(51,163)	(48,219)
Other operating expense	(22,222)	(18,990)
Depreciation and amortization charges, operating allowances and write-downs	(40,489)	(48,691)
Impairment (loss)	—	(26,861)
Loss on disposal of non-current assets	(347)	(641)
Operating (loss)	(4,676)	(56,373)

Sales

Sales increased \$80,624 thousand, or 27.9%, from \$289,485 thousand for the year ended December 31, 2020 to \$370,109 thousand for the year ended December 31, 2021, the increase in sales is attributed to higher average realized prices, resulting from a combination of higher market prices, along with a different product and customer mix. Additionally, there was an increase in volumes resulting from strong customer demand.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased \$60,393 thousand, or 29.4%, from \$205,260 thousand for the year ended December 31, 2020 to \$265,653 thousand for the year ended December 31, 2021, primarily due to an increase in volumes.

Other operating income

Other operating income increased \$2,285 thousand, or 81.5%, from \$2,804 thousand for the year ended December 31, 2020 to \$5,089 thousand for the year ended December 31, 2021, primarily due a gain on the free CO2 emission rights regulatory period settlement for Canada, and an increase in scrap sales.

Staff costs

Staff costs increased \$2,944 thousand, or 6.1%, from \$48,219 thousand for the year ended December 31, 2020 to \$51,163 thousand for the year ended December 31, 2021. The increase is primarily due to a higher number of employees on payroll in 2021 as a result of an increase in production, adjustments to the Pension Plan as part of the buyout in 2021, and an increase in employee health insurance claims.

Other operating expense

Other operating expense increased \$3,232 thousand, or 17.0%, from \$18,990 thousand for the year ended December 31, 2020 to \$22,222 thousand for the year ended December 31, 2021. This increase is attributable mainly to higher freight costs resulting from increased in the sales volumes; an increase in the property and liability insurance premium; and an increase in the royalty rate for the right fork surface mine royalty agreement.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased \$8,202 thousand, or 16.8%, from \$48,691 thousand for the year ended December 31, 2020 to \$40,489 thousand for the year ended December 31, 2021, primarily due to the impairment of the Niagara plant write-off in 2020.

Impairment losses

There were no impairment losses for the year ended December 31, 2021. During the year ended December 2020, the Company recognized an impairment related to the permanent shutdown of the Niagara plant.

North America – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	154,699	135,792
Raw materials and energy consumption for production	(57,663)	(75,597)
Other operating income	296	113
Staff costs	(31,300)	(25,769)
Other operating expense	(20,848)	(15,325)
Depreciation and amortization charges, operating allowances and write-downs	(15,281)	(12,973)
Impairment (loss)	—	(8,824)
(Loss) gain on disposal of non-current assets	741	(227)
Operating (loss) profit	30,644	(2,810)

Sales

Sales increased \$18,907 thousand, or 13.9%, from \$135,792 thousand for the year ended December 31, 2020 to \$154,699 thousand for the year ended December 31, 2021. The increase in sales is attributed to higher average realized price, resulting from a combination of higher market selling prices, and a different product and customer mix.

Raw materials and energy consumption for production

Raw materials and energy consumption decreased \$17,934 thousand, or 23.7%, from \$75,597 thousand for the year ended December 31, 2020 to \$57,663 thousand for the year ended December 31, 2021. The decrease is primarily to a reduction in product volumes sold from 2020 to 2021.

Other operating income

Other operating income increased \$183 thousand, or 161.9%, from \$113 thousand for the year ended December 31, 2020 to \$296 thousand for the year ended December 31, 2021, due to the increase in scrap sales.

Staff costs

Staff costs increased \$5,531 thousand, or 21.5%, from \$25,769 thousand for the year ended December 31, 2020 to \$31,300 thousand for the year ended December 31, 2021. The increase is primarily due to a higher number of employees on payroll in 2021 as a result of an increase in production, adjustments to the Pension Plan as part of the buyout in 2021, and an increase in employee health insurance claims.

Other operating expense

Other operating expense increased \$5,523 thousand, or 36.0%, from \$15,325 thousand for the year ended December 31, 2020 to \$20,848 thousand for the year ended December 31, 2021. This increase is attributable mainly to higher freight cost due to the higher sales volume; an increase in the property and liability insurance premium; and an increase in the royalty rate for the Right Fork surface mine royalty agreement.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs increased by \$2,308 thousand, or 17.8%, from \$12,973 thousand for the year ended December 31, 2020 to \$15,281 thousand for the year ended December 31, 2021.

Impairment (loss)

There were no impairment losses for the year ended December 31, 2021. During the year ended December 2020, the Company recognized an impairment related to the permanent closure of the Niagara plant.

Europe – Manganese

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	476,287	240,142
Raw materials and energy consumption for production	(326,257)	(204,063)
Other operating income	34,142	9,199
Staff costs	(33,696)	(28,337)
Other operating expense	(105,290)	(33,884)
Depreciation and amortization charges, operating allowances and write-downs	(18,634)	(19,086)
Impairment (loss) gain	(376)	305
Gain on disposal of non-current assets	—	1,154
Other gain	—	4
Operating (loss) profit	26,176	(34,562)

Sales

Sales increased \$236,145 thousand or 98.3%, from \$240,142 thousand for the year ended December 31, 2020 to \$476,287 thousand for the year ended December 31, 2021, mainly due to the increase of 20.2% in both domestic sales and exports. In addition, the increase of 46% in the average price has contributed higher sales in the year.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$122,194 thousand, or 59.9%, from \$204,063 thousand for the year ended December 31, 2020 to \$326,257 thousand for the year ended December 31, 2021. Raw materials and energy consumption for production increased due to higher volumes, as well as higher raw material costs and energy prices.

Other operating income

Other operating income increased \$24,943 thousand, or 271.1%, from \$9,199 thousand for the year ended December 31, 2020 to \$34,142 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. Market value of the allowances has increased 130.4% from \$39.3/allowance for the year ended December 31, 2020 to \$90.6/allowance as of December 31, 2021.

Staff costs

Staff costs increased \$5,359 thousand or 18.9%, from \$28,337 thousand for the year ended December 31, 2020 to \$33,696 thousand for the year ended December 31, 2021. This increase is mainly due to the recognition of the restructuring costs in Spain and a higher variable consideration driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased \$71,406 thousand, or 210.7%, from \$33,884 thousand for the year ended December 31, 2020 to \$105,290 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. As commented in the Other operating income section the market value of the allowances has increased significantly in 2021.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating provisions and write-downs decreased \$452 thousand, or 2.4%, from \$19,086 thousand for the year ended 31 December 2020 to \$18,634 thousand for the year ended 31 December 2021, due to an increase in the number of assets fully depreciated.

Impairment (loss) gain

Impairment gains decreased by \$681 thousand, or 223.3%, from a gain of \$305 thousand for the year ended 31 December 2020 to a loss of \$376 thousand for the year ended 31 2021.

Gain on disposal of non-current assets

The amount reflected during the year ended December 31, 2020 was driven by the sale of excess CO₂ rights.

Europe – Silicon Metals

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	437,533	321,632
Raw materials and energy consumption for production	(303,811)	(255,798)
Other operating income	48,828	19,971
Staff costs	(77,608)	(52,236)
Other operating expense	(105,712)	(35,415)
Depreciation and amortization charges, operating allowances and write-downs	(7,330)	(8,900)
Impairment (loss) gain	14	—
Gain on disposal of non-current assets	733	682
Operating (loss)	(7,353)	(10,064)

Sales

Sales increased \$115,901 thousand or 36.0%, from \$321,632 thousand for the year ended December 31, 2020 to \$437,533 thousand for the year ended December 31, 2021. The increase in sales is attributed to the increase in volumes and average realized selling prices across the products.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased \$48,013 thousand, or 18.8%, from \$255,798 thousand for the year ended December 31, 2020 to \$303,811 thousand for the year ended December 31, 2021. Raw materials and energy consumption for production increased with higher volumes, as well as higher raw material costs.

Other operating income

Other operating income increased \$28,857 thousand, or 144.5%, from \$19,971 thousand for the year ended December 31, 2020 to \$48,828 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. Market value of the allowances has increased 130.4% from \$39.3/allowance for the year ended December 31, 2020 to \$90.6/allowance as of December 31, 2021

Staff costs

Staff costs increased \$25,372 thousand or 48.6%, from \$52,236 thousand for the year ended December 31, 2020 to \$77,608 thousand for the year ended December 31, 2021. This increase is mainly due to the recognition of the restructuring provision in France amounting \$23,798 thousand and a higher variable consideration driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased \$70,297 thousand, or 198.5%, from \$35,415 thousand for the year ended December 31, 2020 to \$105,712 thousand for the year ended December 31, 2021. The increase is primarily attributable to the freely granted CO2 emission rights. As described in the Other operating income section the market value of the allowances increased significantly in 2021.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write downs decreased \$1,570 thousand, or 17.6%, from \$8,900 thousand for the year ended December 31, 2020 to \$7,330 thousand for the year ended December 31, 2021 due to an increase in the number of assets fully depreciated.

Europe – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	227,804	146,096
Raw materials and energy consumption for production	(170,073)	(113,332)
Other operating income	16,924	5,078
Staff costs	(42,679)	(32,064)
Other operating expense	(23,043)	(16,397)
Depreciation and amortization charges, operating allowances and write-downs	(9,522)	(10,352)
Impairment (loss)	(455)	(17,942)
(Loss) gain on disposal of non-current assets	296	319
Other (loss)	—	—
Operating (loss)	(748)	(38,594)

Sales

Sales increased \$81,708 thousand or 55.9%, from \$146,096 thousand for the year ended December 31, 2020 to \$227,804 thousand for the year ended December 31, 2021, primarily due to an increase in both domestic sales and exports.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$56,741 thousand, or 50.1%, from \$113,332 thousand for the year ended December 31, 2020 to \$170,073 thousand for the year ended December 31, 2021. Raw materials and energy consumption for production increased with the higher sales volumes, in addition to higher raw material costs.

Other operating income

Other operating income increased \$11,846 thousand, or 233.3%, from \$5,078 thousand for the year ended December 31, 2020 to \$16,924 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. The market value of allowances has increased 130.4% from \$39.3/allowance for the year ended December 31, 2020 to \$90.6/allowance as of December 31, 2021.

Staff costs

Staff costs increased \$10,615 thousand or 33.1%, from \$32,064 thousand for the year ended December 31, 2020 to \$42,679 thousand for the year ended December 31, 2021. This increase is due to higher performance related pay, driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased \$6,646 thousand, or 40.5%, from \$16,397 thousand for the year ended December 31, 2020 to \$23,043 thousand for the year ended December 31, 2021, primarily attributable to the freely granted CO2 emission rights. As described in the Other operating income section the market value of the allowances increased significantly in 2021.

Depreciation and amortization charges, operating allowances and write downs

Depreciation and amortization charges, operating allowances and write downs decreased \$830 thousand, or 8.0%, from \$10,352 thousand for the year ended December 31, 2020 to \$9,522 thousand for the year ended December 31, 2021 due to an increase in the number of assets fully depreciated.

Impairment (loss) gain

Impairment loss decreased by \$17,487 thousand, or 97.5%, from a loss of \$17,942 thousand for the year ended 31 December 2020 to a loss of \$455 thousand for the year ended 31 December 2021. During the year ended 31 December 2020, the Company recognized an impairment of \$17,942 thousand at our Château Feuillet facility in France.

South Africa – Silicon Metals

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	12,604	17,631
Raw materials and energy consumption for production	(8,240)	(12,267)
Other operating income	278	127
Staff costs	(1,542)	(2,497)
Other operating expense	(1,904)	(3,515)
Depreciation and amortization charges, operating allowances and write-downs	(546)	(1,563)
Impairment (loss) gain	288	(1,899)
Operating (loss) profit	938	(3,983)

Sales

Sales decreased \$5,027 thousand, or 28.5%, from \$17,631 thousand for the year ended December 31, 2020 to \$12,604 thousand for the year ended December 31, 2021. Sales in South Africa were adversely impacted by the temporary shutdown of the Polokwane facility.

Raw materials and energy consumption for production

Raw materials and energy consumption for production decreased \$4,027 thousand, or 32.8%, from \$12,267 thousand for the year ended December 31, 2020 to \$8,240 thousand for the year ended December 31, 2021, in-line with the decrease in sales volumes.

Other operating income

Other operating income increased \$151 thousand, or 118.9%, from \$127 thousand for the year ended December 31, 2020 to \$278 thousand for the year ended December 31, 2021.

Staff costs

Staff costs decreased \$955 thousand, or 38.2%, from \$2,497 thousand for the year ended December 31, 2020 to \$1,542 thousand for the year ended December 31, 2021, due to staffing adjustments and employee separation costs in connection with the shutdown of Polokwane plant during 2020. Furthermore, foreign exchange differences favorably impacted staff costs.

Other operating expense

Other operating expense decreased \$1,611 thousand, or 45.8%, from \$3,515 thousand for the year ended December 31, 2020 to \$1,904 thousand for the year ended December 31, 2021, primarily due to the recovery of operating, selling and administrative expenses assumed in the 2020 financial year following the closure of the Polokwane facility in August 2019.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased \$1,017 thousand, or 65.1%, from \$1,563 thousand for the year ended December 31, 2020 to \$546 thousand for the year ended December 31, 2021. The impairment of the Polokwane plant at the end of 2020 resulted in a lower depreciation charge at the end of 2021.

Impairment loss (gain)

Impairment decreased \$2,187 thousand, or 115.2%, from a loss of \$1,899 thousand for the year ended December 31, 2020 to a gain of \$288 thousand for the year ended December 31, 2021. This effect is a result of the partial reversal of the 2020 impairment in the year ended December 2021.

South Africa – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	104,591	62,941
Raw materials and energy consumption for production	(68,377)	(43,796)
Other operating income	485	3
Staff costs	(11,726)	(8,516)
Other operating expense	(11,352)	(10,583)
Depreciation and amortization charges, operating allowances and write-downs	(4,535)	(5,578)
Impairment (loss) gain	2,396	(6,777)
Operating (loss) profit	11,482	(12,306)

Sales

Sales increased \$41,650 thousand, or 66.2%, from \$62,941 thousand for the year ended December 31, 2020 to \$104,591 thousand for the year ended December 31, 2021. Our sales in South Africa were positively impacted by improved demand and market conditions, increasing both average selling price and sales volumes. In addition, this increase translates into the recovery of sales following the impact of Covid-19 in 2020.

Raw materials and energy consumption for production

Raw materials and energy consumption for increased \$24,581 thousand, or 56.1%, from \$43,796 thousand for the year ended December 31, 2020 to \$68,377 thousand for the year ended December 31, 2021. Such variation is attributed to the increase in electricity price alongside the improvement in sales volume.

Other operating income

Other operating income increased \$482 thousand, from \$3 thousand for the year ended December 31, 2020 to \$485 thousand for the year ended December 31, 2021, mainly, due to all sundry sales from the idle Polokwane plant reported in other income.

Staff costs

Staff costs increased \$3,210 thousand, or 37.7%, from \$8,516 thousand for the year ended December 31, 2020 to \$11,726 thousand for the year ended December 31, 2021. The increase in staff cost is primarily due to an inflationary adjustment made in 2021, and the incentive bonus accrued as of December 31, 2021.

Other operating expense

Other operating expense increased \$769 thousand, or 7.3%, from \$10,583 thousand for the year ended December 31, 2020 to \$11,352 thousand for the year ended December 31, 2021, primarily due to operating, selling and administrative expenses during 2021.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased by \$1,043 thousand, or 18.7%, from \$5,578 thousand for the year ended December 31, 2020 to \$4,535 thousand for the year ended December 31, 2021. The impairment of the Polokwane plant at the end of 2020 resulted in a lower depreciation charge at the end of 2021.

Impairment (loss) gain

Impairment losses decreased \$9,173 thousand, or 135.4%, from a loss of \$6.777 thousand for the year ended December 31, 2020 to a gain of \$2,396 thousand for the year ended December 31, 2021. This effect is a result of due to the partial reversal of the 2020 impairment in the year ended December 2021.

Other segments

(\$ thousands)	Year ended December 31,	
	2021	2020
Sales	43,568	25,334
Raw materials and energy consumption for production	(33,445)	(19,518)
Other operating income	49,901	24,587
Staff costs	(31,203)	(17,144)
Other operating expense	(51,960)	(26,679)
Depreciation and amortization charges, operating allowances and write-downs	(991)	(1,046)
Impairment (loss)	(1,730)	(11,346)
Net gain due to changes in the value of assets	758	158
(Loss) gain on disposal of non-current assets	(37)	5
Other losses	—	(5)
Operating (loss)	(25,076)	(25,654)

Sales

Sales increased \$18,234 thousand, or 72.0%, from \$25,334 thousand for the year ended December 31, 2020 to \$43,568 for the year ended December 31, 2021, mainly due to an increase in demand and prices for all our products. Additionally, sales have increased by the restart of the second furnace in our plant in Argentina.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased \$13,927 thousand, or 71.4%, from \$19,518 thousand for the year ended December 31, 2020 to \$33,445 thousand for the year ended December 31, 2021, mainly due to increases in sales volumes. This increase is also due to an increase in the power tariff and price increases in both local and imported raw materials.

Other operating income

Other operating income increased \$25,314 thousand, or 103.0%, from \$24,587 thousand for the year ended December 31, 2020 to \$49,901 thousand for the year ended December 31, 2021, primarily due to intercompany charges.

Staff costs

Staff costs increased \$14,059 thousand, or 82.0%, from \$17,144 thousand for the year ended December 31, 2020 to \$31,203 thousand for the year ended December 31, 2021, primarily due to additional personnel requirements for the restart of the second furnace in Argentina. The increase was also attributable to wage adjustments in 2021, and a higher variable consideration driven by the improved results in 2021 compared to 2020.

Other operating expense

Other operating expense increased \$25,281 thousand, or 94.8%, from \$26,679 thousand for the year ended December 31, 2020 to \$51,960 for the year ended December 31, 2021, primarily due to intercompany charges.

Depreciation and amortization charges, operating allowances and write-downs

Depreciation and amortization charges, operating allowances and write-downs decreased \$55 thousand, or 5.3%, from \$1,046 thousand for the year ended December 31, 2020 to \$991 thousand for the year ended December 31, 2021.

Impairment (loss)

Impairment losses decreases \$9,616 or 84.8%, from a loss of \$11,346 thousand for the year ended 31 December 2020 to a loss of \$1,730 thousand for the year ended 31 December 2021, mainly due to impaired intercompany loans. These items are eliminated in the consolidation. During 2021 the Company recorded an impairment related to quartz mine in Mauritania amounting \$1,726 thousand.

Net gain due to changes in the value of assets

The gain due to changes in the value of assets in 2021 is mainly due to the increase in the valuation of Pampa Energy shares in Argentina.

(Loss) gain on disposal of non-current assets

Loss of disposal of non-current assets increased by \$42 thousand, or 840.0%, from a gain of \$5 thousand for the year ended 31 December 2020 to a loss of \$37 thousand for the year ended 31 December 2021, mainly due to the loss on the sale of fixed assets at the facility in Puertollano, Spain.

Effect of Inflation

In 2022, inflation reached unprecedented levels in most countries where Ferroglobe operates and sources products. Inflation led to higher pressure on costs, with unusual surcharges being applied by suppliers on some product categories. Energy and fuel surcharges impacted specifically some supplies during the second and third quarter.

Management believes that the impact of inflation was not material to Ferroglobe's results of operations in the years ended December 31, 2021 and 2020.

Cyclical Nature of the Industry and Movement in Market Prices, Raw Materials and Input Costs

Our business has historically been subject to fluctuations in the price of our products and market demand for them, caused by general and regional economic cycles, raw material and energy price fluctuations, competition and other factors. The timing, magnitude and duration of these cycles and the resulting price fluctuations are difficult to predict. For example, we experienced a weakened economic environment in national and international metals markets, including a sharp decrease in silicon metal prices in all major markets from late 2014 to late 2017. Throughout 2019 and 2020, we experienced the most dramatic decline in prevailing prices of our products, which adversely affected our results. During the fourth quarter of 2020, demand for our products increased to levels similar to those prior to the pandemic. During 2021, demand for our products has further increased; however, COVID-19 and the Ukraine-Russia conflict have negatively impacted, and will in the future negatively impact our business. The COVID pandemic and the Ukraine-Russia conflict have also impacted international logistics costs and have significantly impacted raw materials and commodities prices, external and unforeseeable factors have also contributed to extremely volatile and high spot electricity prices, in particular in Europe.

B. Liquidity and Capital Resources

Sources of Liquidity

Ferroglobe's primary sources of long-term liquidity are its senior secured notes with a \$345,058 thousand aggregate principal at an interest rate of 9.375%, due on June 30, 2025, ("the Reinstated Senior Notes") and its primary source of short-term liquidity is its factoring agreements with a Leasing and Factoring Agent and with Bankinter, for anticipating the collection of receivables of the Company's European entities, which in 2022 provided upfront cash consideration of approximately \$895,264. The Company also signed in 2022 a \$100 million ABL Revolver, which is currently undrawn.

On March 27, 2021, Ferroglobe and Globe and certain other members of our group entered into the Lock-Up Agreement with the Ad Hoc Group Noteholders, Grupo VM and affiliates of Tyrus Capital that set forth a plan to implement the restructuring. On July 30, 2021 the company announced the occurrence of the "Transaction Effective Date" under the lock-up agreement dated March 27, 2021 (the "Lock-Up Agreement") between the Company and the

financial stakeholders. The Issuers completed the exchange of 98.588% of the 9 $\frac{3}{8}$ % Senior Notes due 2022 (the “Old Notes”) issued by the Company and Globe for a total consideration per \$1,000 principal amount of Old Notes comprising (i) \$1,000 aggregate principal amount of new 9 $\frac{3}{8}$ % senior secured notes due 2025 issued by the Issuers (the “New Notes”) plus (ii) a cash fee amounting to \$51,611 thousand, which the Parent, at the direction of the qualifying noteholders, applied as cash consideration for a subscription of new ordinary shares of the Company. In addition the Company issued new ordinary shares for total gross proceeds of \$40 million.

On October 2, 2020, the Company signed a factoring agreement with a financial institution, to anticipate the collection of receivables issued by the Company’s European entities (Grupo FerroAtlántica, S.A. and FerroPem S.AS). See *Note 16*.

The main characteristics of the factoring agreement are the following:

- the maximum cash consideration advanced for the financing facility is up to €60,000 thousand;
- over collateralization of 10% of accounts receivable as guarantee provided to the Agent until payment has been satisfied;
- a 0.18% to 0.25% fee charged on the total of invoices and credit notes sold to the Agent;
- a financing commission set at IBOR +1% charged on the drawdowns;

Other conditions are set in relation to credit insurance policy which has been structured in an excess of loss policy where the first €5,000 thousand of bad debt losses are not covered by the insurance provider. The Company has assumed the cash collateralization for the entire excess of loss, as agreed in contractual terms.

On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter. This program offers the possibility to sell the receivables corresponding to ten customers pre-approved by the bank and its credit insurer. Receivables are pre-financed at 100% of their face value.

The main characteristics of this program are the following:

- the maximum cash consideration advanced for the financing facility is up to €30,000 thousand;
- a service fee set at 0.25% of the receivable face value;
- a cost of financing set at Euribor 12-month +1%;
- a closing fee set at 0.25% of the financing;
- an annual renewal fee set at 0.25% of the financing.

On September 8, 2016, FerroAtlántica, S.A.U., as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the “Ministry”), as lender, entered into a loan agreements under which the Ministry made available to the borrower a loan in aggregate principal amount of €44.9 million, in connection with the industrial development projects relating to our solar grade silicon project. FAU transferred the loan to OPCO before its sale. See “Item 4.B.—Information on the Company—Business Overview—Research and Development (R&D)—Solar grade silicon.” The loan of €44.9 million is to be repaid in seven installments starting on 2023 and completed by 2030. On January 25, 2022, the Ministry opened a procedure to decide about the potential reimbursement of the loan. The company presented its allegations on February 15, 2022. Based on those allegations, the Ministry closed the reimbursement procedure. As a result of this procedure, a partial early repayment of €16.3 million has been made on February 10, 2023. In March 2023, we have received from the Ministry the new repayment schedule. Interest on outstanding amounts under each loan accrues at an annual rate of 3.55%. See *Note 19*.

On June 2, 2020, Ferroglobe subsidiary, Silicium Québec, as borrower, agreed a \$7,000 thousand loan with Investissement Québec, a regional government loan & investment agency, as lender, to finance its capital expenditures

activities in Canada. The loan is to be repaid in 84 installments over a 10-year period with the first three years as a grace period. Interest rate on outstanding amounts is zero percent.

On July 23, 2020, Ferroglobe subsidiary, Ferropem, S.A.S., as borrower, entered into a loan with BNP Paribas, as lender, amounting to €4,300 thousand, to finance Company's activities in France. The loan is guaranteed by French government following special measurements taken on COVID-19 impact on businesses. Repayment of principal and payment of interest and accessories shall be made with the possibility for the Borrower to request the amortization of the amounts due at maturity for an additional period of 1 to 5 years. Interest rate is zero percent and the borrower shall be liable to pay a fee equal to 0.50% equal to an amount of €22 thousand calculated on the total borrowed capital.

On March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the "Beneficiaries") and the Sociedad Estatal de Participaciones Industriales ("SEPI"), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic.

The €34.5M was funded using a dual-tranche loan, with €17.25M maturing in February 2025 and €17.25M maturing in June 2025. €16.9M of the loan carries a fixed interest rate of 2% per annum, and interest on the remaining €17.6M is calculated as IBOR plus a spread of 2.5% in the first year, 3.5% in the second and third years and 5.0% in the fourth year, plus an additional 1.0% payable if the result before taxes of the Beneficiaries is positive. The loans are secured by corporate joint guarantees from Ferroglobe, Ferroglobe Holding Company and Ferroglobe Finance Company and certain share pledges, bank account pledges, intercompany receivables pledges, inventory pledges and security over certain real property, and other assets from Grupo FerroAtlántica and certain of its subsidiaries.

Until the loans have been fully repaid, the Beneficiaries are subject to several restrictions, including the following prohibited payments: (1) payment of dividends; (2) payment of management fee; (3) repayment of intra-group loans; (4) payment of intercompany net commercial balances as of June 30, 2021 (denominated "legacy"), with an exception of \$20M of those balances. (Intercompany commercial balances generated after Jun-21 are permitted); and (5) payment of interest on intercompany loans corresponding to the years 2021 and 2022.

In 2022, The Company closed a new, five-year \$100 million North American asset-based revolving credit facility (the "ABL Revolver"), involving Ferroglobe's subsidiary, Globe Specialty Metals, Inc. ("Globe"), and its wholly owned North American subsidiaries, as borrowers, and Bank of Montreal ("BMO"), as lender and agent. The ABL Revolver is secured by North America inventories and receivables. At December 31, 2022, the ABL Revolver was undrawn.

Ferroglobe's primary short-term liquidity needs are to fund its capital expenditure commitments, fund specific initiatives underlying the strategic plan, service its existing debt and working capital. Ferroglobe's long-term liquidity needs primarily relate to debt repayment. Ferroglobe's core objective with respect to capital management is to maintain a balanced and sustainable capital structure through the economic cycles of the industries in which it participates, while keeping the cost of capital at competitive levels.

For the year ended December 31, 2022, operating activities generated a cash flow of \$405,018 thousand, compared to \$(1,341) thousand in 2021 and \$154,268 thousand in 2020, mainly due to the 2022 results, as a result of favourable pricing, commercial excellence, operational agility and cost discipline. Investing activities resulted in a total outflow of \$51,774 thousand of cash in 2022, compared to an outflow of \$23,848 thousand in 2021 and an outflow of \$31,940 thousand in 2020. Financing activities resulted in a total inflow of \$140,458 thousand in cash in 2021, compared to an inflow of \$10,452 thousand in 2021 and an outflow of \$113,333 thousand in 2020. See "Cash Flow Analysis" below for additional information.

As of December 31, 2022 and 2021, Ferroglobe had cash, restricted cash and cash equivalents of \$322,943 thousand (of which \$5,008 thousand is restricted cash) and \$116,663 thousand (of which \$2,272 thousand is restricted cash), respectively. Cash and cash equivalents are primarily held in U.S. Dollars and Euros.

We believe our working capital is sufficient for our present requirements, and we anticipate generating sufficient cash to satisfy our short and long-term liquidity needs.

Availability of funds

At December 31, 2022, we had cash and cash equivalents, restricted cash and other restricted funds amounted to \$322,943 thousand (\$116,663 thousand at December 31, 2021). This amount includes non-current restricted cash in relation to the guarantees taken over escrow amounting \$2,133 thousand. The escrow was constituted in August 30, 2019, in consideration of previous FerroAtlántica. The restricted cash also includes current-restricted cash in relation to the NMTC program amounting 2,875 (See Note 10).

The Company also has certain restrictions for the disposal of the cash in the joint ventures with Dow Corning amounting as of December 31, 2022.

Ferroglobe PLC is the parent company of Ferroglobe Group and receives funding from its subsidiaries in the form of intercompany loans. Consequently, certain restrictions on the ability of the Group's subsidiaries to transfer funds to Ferroglobe PLC would negatively affect our liquidity and thus our business.

Grupo Ferroatlántica also has restrictions coming from the SEPI loans. Until the loans have been fully repaid, the company is subject to several restrictions, including the following prohibited payments: (1) payment of dividends; (2) payment of management fee; (3) repayment of intra-group loans; (4) payment of intercompany net commercial balances as of June 30, 2021 (denominated "legacy"), with an exception of \$20M of those balances. (Intercompany commercial balances generated after Jun-21 are permitted); and (5) payment of interest on intercompany loans corresponding to the years 2021 and 2022 (see Note 19).

Under the ABL credit agreement, the borrowers commit to respect usual affirmative covenants, among others communicating any default or event of default, a change of control, the creation or acquisition of subsidiaries, a casualty or damage to any material used as a collateral, maintenance of the insurance, the compliance with ERISA and the Canadian Pension Laws, the compliance with environmental laws. The borrowers also commit not to create or incur any indebtedness, capital leases in excess of a \$7.5m, create liens, merge, dissolve, divide any borrowers, change the nature of the business, pay dividends, repay indebtedness for the account of holder of Equity Interests of any Loan Party or its affiliates, maintain a financial covenant consolidated fixed charge coverage ratio to be less than 1.00 to 1.00.

Working Capital Position

As of December 31, 2022, Ferroglobe's working capital position (defined as inventories and trade and other receivables less trade and other payables) was \$705,888 thousand as compared to \$464,870 thousand as of December 31, 2021, mainly due to an increase in inventories by \$210,283 thousand and receivables by \$44,401 thousand partially offset for an increase in payables by \$13,666 thousand.

Capital Expenditures

Ferroglobe incurs capital expenditures in connection with expansion and productivity improvements, production plants maintenance and research and development projects. Capital expenditures are funded through cash generated from operations and financing activities. Ferroglobe's capital expenditures for the years ended December 31, 2022, 2021 and 2020 were \$52,153 thousand, \$27,597 thousand and \$30,257 thousand, respectively.

Contractual Obligations

The following table sets forth Ferroglobe's contractual obligations and commercial commitments with definitive payment terms that will require significant cash outlays in the future, as of December 31, 2022.

(\$ thousands)	Total	Payments Due by Period			
		Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Long and short term debt obligations	643,499	156,123	466,106	5,248	16,022
Capital expenditures	16,607	16,607	—	—	—
Leases	23,166	8,928	7,349	3,246	3,643
Power purchase commitments ⁽¹⁾	526,841	155,374	320,872	37,946	12,649
Purchase obligations ⁽²⁾	32,432	32,432	—	—	—
Other Long-Term Liabilities Reflected on the Company's Balance Sheet ⁽³⁾	142,221	5,500	14,595	8,367	113,759
Total	1,384,766	374,964	808,922	54,807	146,073

(1) Represents minimum charges that are enforceable and legally binding, and do not represent total anticipated purchases. Minimum charges requirements expire after providing one year notice of contract cancellation.

(2) The Company has outstanding purchase obligations with suppliers for raw materials in the normal course of business. The disclosed purchase obligation amount represents commitments to suppliers that are enforceable and legally binding and do not represent total anticipated purchases of raw materials in the future.

(3) Included tolling agreement with Cee-Dumbria facility and contingent consideration with Glencore.

The table above also excludes certain other obligations reflected in our consolidated balance sheet, including estimated funding for pension obligations, for which the timing of payments may vary based on changes in the fair value of pension plan assets and actuarial assumptions. We expect to contribute approximately \$648 thousand to our pension plans for the year ended December 31, 2022.

Further information regarding Ferroglobe's contractual obligations and commercial commitments as of December 31, 2022, is set forth in note 28 to the consolidated financial statements.

Cash Flow Analysis — Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

The following table summarizes Ferroglobe's primary sources (uses) of cash for the years ended December 31, 2022 and 2021:

(\$ thousands)	Year ended December 31,	
	2022	2021
Cash and cash equivalents at beginning of period	116,663	131,557
Cash flows from operating activities	405,018	(1,341)
Cash flows from investing activities	(51,774)	(23,848)
Cash flows from financing activities	(140,458)	10,452
Exchange differences on cash and cash equivalents in foreign currencies	(6,506)	(157)
Cash, restricted cash and cash equivalents at end of period	322,943	116,663
Cash, restricted cash and cash equivalents at end of period from statement of financial position	322,943	116,663

Ferroglobe PLC paid nil dividends during the year ended December 31, 2022 and the year ended December 31, 2021.

Cash flows from operating activities

Cash flows from operating activities increased \$406,359 thousand, from a negative cash generated of \$1,341 thousand for the year ended December 31, 2021, to a positive \$405,018 thousand for the year ended December 31, 2022, mainly due to the 2022 results, as a result of sales prices increase in 2022 compared to 2021, commercial excellence and cost discipline.

Cash flows from investing activities

Cash flows from investing activities increased \$37,835 thousand from an outflow of \$23,848 thousand for the year ended December 31, 2021, to an outflow of \$61,683 thousand for the year ended December 31, 2022. Capital expenditures increased during the year ended December 31, 2022 to \$52,153 thousand from \$27,597 thousand during the year ended December 31, 2021.

Cash flows from financing activities

Cash flows from financing activities decreased \$141,001 thousand, from a net inflow of \$10,452 thousand for the year ended December 31, 2021 to a net outflow of \$130,549 thousand for the year ended December 31, 2022. The decrease is mainly due to the repayment of the principal of the Super Senior Notes amounting \$60 million and the Old Notes amounting \$4.9 million, the repurchase of 19.05 million of the Reinstated Notes and the payment of the interests accrued under amounting to \$52.3 million.

Cash Flow Analysis — Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

The following table summarizes Ferroglobe's primary sources (uses) of cash for the years ended December 31, 2021 and 2020:

(\$ thousands)	Year ended December 31,	
	2021	2020
Cash and cash equivalents at beginning of period	131,557	123,175
Cash flows from operating activities	(1,341)	154,268
Cash flows from investing activities	(23,848)	(31,940)
Cash flows from financing activities	10,452	(113,333)
Exchange differences on cash and cash equivalents in foreign currencies	(157)	(613)
Cash, restricted cash and cash equivalents at end of period	116,663	131,557
Cash, restricted cash and cash equivalents at end of period from statement of financial position	116,663	131,557

Ferroglobe paid nil dividends during the year ended December 31, 2021 and the year ended December 31, 2020.

Cash flows from operating activities

Cash flows from operating activities decreased \$155,609 thousand, from a positive cash generated of \$154,268 thousand for the year ended December 31, 2020, to a negative \$1,341 thousand for the year ended December 31, 2021. The decrease is mainly due to the bad result in 2021, tightness in the market drove pricing to unprecedented levels primarily silicon metal and ferrosilicon.

Cash flows from investing activities

Cash flows from investing activities increased \$8,092 thousand from an outflow of \$31,940 thousand for the year ended December 31, 2020 to an outflow of \$23,848 thousand for the year ended December 31, 2021. Capital expenditures decreased during the year ended December 31, 2021 to \$27,597 thousand from \$30,257 thousand during the year ended December 31, 2020. Additionally, during the year ended December 31, 2021, cash inflows were the proceeds from the disposal of certain assets, including \$1,370 thousand from the sale of Niagara assets.

Cash flows from financing activities

Cash flows from financing activities increased \$123,785 thousand, from a net outflow of \$113,333 thousand for the year ended December 31, 2020 to a net inflow of \$10,452 thousand for the year ended December 31, 2021. The increase is mainly due to the refinancing process, the issuance of the Super Senior notes amounting \$60 million and \$40 million of new equity.

Capital resources

Ferroglobe's core objective is to maintain a balanced and sustainable capital structure through the economic cycles of the industries in which it operates, while keeping the cost of capital at competitive levels. In addition to cash flows from continuing operations, the Company's main sources of capital resources are its Reinstated Senior Notes with an aggregate principal value of \$345,058 thousand and the factoring agreements with a maximum cash consideration advanced up to €90,000 thousand.

Capital Raising and Extension of the Maturity of the Senior Notes

Details and description of Ferroglobe's debt instrument and factoring agreement are described in Notes 16 and 18 of the Consolidated Financial Statements.

For additional information see also "Item 10.C.— Material Contracts".

C. Research and Development, Patents and Licenses, etc.

For additional information see "Item 4.B.—Information on the Company—Business Overview—Research and Development (R&D)."

D. Trend Information

We discuss in Item 5.A. above and elsewhere in this annual report, trends, uncertainties, demands, commitments or events for the year ended December 31, 2022 that we believe are reasonably likely to have a material adverse effect on our revenues, income, profitability, liquidity or capital resources or to cause the disclosed financial information not to be necessarily indicative of future operating results or financial conditions.

E. Critical Accounting Estimates

The discussion and analysis of Ferroglobe's financial condition and results of operations is based upon its Consolidated Financial Statements, which have been prepared in accordance with IFRS. The preparation of those financial statements requires Ferroglobe to make estimates and judgments that affect the reported amounts of assets and liabilities, revenues and expenses, the disclosure of contingent assets and liabilities and related disclosure at the date of its financial statements. The estimates and related assumptions are based on available information at the date of preparation of the financial statements, on historical experience and on other relevant factors. Actual results may differ from these estimates under different assumptions and conditions. Critical accounting policies are those that reflect significant judgments of uncertainties and potentially result in materially different results under different assumptions and conditions. The principal items affected by estimates are business combinations, impairment of long-lived assets, inventories and income taxes. The following are Ferroglobe's most critical accounting policies, because they generally involve a comparatively higher degree of judgment in their application. For a description of all of Ferroglobe's principal accounting policies, see Note 4 to the Consolidated Financial Statements of Ferroglobe included elsewhere in this annual report.

Business combinations

Ferroglobe subsidiaries have completed a number of significant business acquisitions over the past several years. Our business strategy contemplates that we may pursue additional acquisitions in the future. When we acquire a business, the purchase price is allocated based on the value of tangible assets and identifiable intangible assets acquired and liabilities assumed. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. Goodwill as of the acquisition date is measured as the residual of the excess of the consideration transferred, plus the fair value of any non-controlling interest in the acquiree at the acquisition date, over the fair value of the identifiable net assets acquired. If, after reassessment, the net of the acquisition date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the excess is recognized immediately in profit or loss as a bargain purchase gain. We generally engage independent third-party appraisal firms to assist in determining the fair value of assets acquired and liabilities assumed. Such a valuation requires management to make significant estimates, especially with respect to intangible assets. These estimates are based on historical experience and information obtained from the management

of the acquired companies. These estimates are inherently uncertain and may impact reported depreciation and amortization in future periods, as well as any related impairment of goodwill or other long lived assets.

When the consideration transferred by the Company in a business combination includes an asset or liability resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates at fair value with the corresponding gain or loss being recognized in profit or loss. Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

See Note 5 to the accompanying audited Consolidated Financial Statements for detailed disclosures related to our acquisitions.

Goodwill

Goodwill represents the excess purchase price of acquired businesses over fair values attributed to underlying net tangible assets and identifiable intangible assets. For the purpose of impairment testing, goodwill is allocated to each of the Company's cash-generating units (or groups of cash generating units) that is expected to benefit from the synergies of the combination. A cash-generating unit to which goodwill has been allocated is tested for impairment annually, or more frequently when there is an indication that the cash-generating unit may be impaired. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro rata based on the carrying amount of each asset in the unit. Any impairment loss for goodwill is recognized directly in profit or loss. On disposal of the relevant cash-generating unit, the attributable amount of goodwill is included in the determination of the profit or loss on disposal.

The valuation of the Company's cash generating units requires significant judgment in evaluation of, among other things, recent indicators of market activity and estimated future cash flows, discount rates and other factors. The estimates of cash flows, future earnings, and discount rate are subject to change due to the economic environment and business trends, including such factors as raw material and product pricing, interest rates, expected market returns and volatility of markets served, as well as our future manufacturing capabilities, government regulation, technological change and operational improvements and cost efficiencies driven by the implementation of the new strategy.

We believe that the estimates of future cash flows, future earnings, and fair value are reasonable; however, changes in estimates such as volumes, pricing, costs, discount rate, circumstances or conditions could have a significant impact on our fair valuation estimation, which could then result in an impairment charge in the future.

During the years ended December 31, 2021 and December 31, 2020, the Company has concluded that there is no impairment of goodwill.

Ferroglobe operates in a cyclical market, and silicon and silicon-based alloy index pricing and foreign import pressure into the U.S. and Canadian markets impact the future projected cash flows used in our impairment analysis.

Long-lived assets (excluding goodwill)

In order to ascertain whether its assets have become impaired, Ferroglobe compares their carrying amount with their recoverable amount if there are indications that the assets might have become impaired. Where the asset itself does not generate cash flows that are independent from other assets, Ferroglobe estimates the recoverable amount of the cash-generating unit to which the asset belongs. Recoverable amount is the higher of fair value and value in use, which is the present value of the future cash flows that are expected to be derived from continuing use of the asset and from its ultimate disposal at the end of its useful life, discounted at a rate which reflects the time value of money and the risks specific to the business to which the asset belongs.

If the recoverable amount of an asset or cash-generating unit is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount, and an impairment loss is recognized as an expense under “net impairment losses” in the consolidated income statement. Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years. A reversal of an impairment is recognized as “impairment gain (losses)” in the consolidated income statement. The basis for depreciation or amortization is the carrying amount of the assets, deemed to be the acquisition cost less any accumulated impairment losses.

During year ended December 31, 2022 the Company recognized an impairment of \$56,999 thousand in relation to; our idled capacity at the Polokwane facility in South Africa impairment reversal of \$5,017 thousand, at Château Feuillet facility in Europe impairment of \$5,994 thousand, at Boo facility in Europe impairment of \$11,559 thousand, at Cinca facility in Europe impairment of \$5,915 thousand, at Cee facility in Europe impairment of \$20,034 thousand, at Moi Rana facility in Europe impairment of \$15,749 thousand, at South Africa mines an impairment reversal of \$2,750 thousand and in our assets in Puertollano impairment amounting \$5,515 thousand. During year ended December 31, 2021 the Company recognized an impairment reversal of \$137 thousand in relation to; our idled capacity at the Polokwane facility in South Africa impairment reversal of \$2,681 thousand, at Château Feuillet facility in Europe impairment of \$441 thousand and in our quartz mine in Mauritania amounting \$1,726 thousand.

Inventories

Cost of inventories is determined by the average cost method. Inventories are valued at the lower of cost or Net Realizable Value. Circumstances may arise (e.g., reductions in market pricing, obsolete, slow moving or defective inventory) that require the carrying amount of our inventory to be written down to net realizable value. We estimate market and net realizable value based on current and future expected selling prices, as well as expected costs to complete, including utilization of parts and supplies in our manufacturing process. We believe that these estimates are reasonable; however, future market price decreases caused by changing economic conditions, customer demand, or other factors could result in future inventory write-downs that could be material.

Determination of income taxes provision

The current income tax expense incurred by Ferroglobe subsidiaries on an individual basis is determined by applying the applicable tax rate to the taxable profit for the year, calculated on the basis of accounting profit before tax, increased or decreased, as appropriate, by the permanent differences arising from the application of tax legislation and by the elimination of any tax consolidation adjustments, taking into account tax relief and tax credits. The consolidated income tax expense is calculated by adding together the expense recognized by each of the consolidated subsidiaries, increased or decreased, as appropriate, as a result of the tax effect of consolidation adjustments for accounting purposes.

Ferroglobe’s deferred tax assets and liabilities include temporary differences measured at the amounts expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities and their tax bases, and tax loss and tax credit carryforwards. These amounts are measured at the tax rates that are expected to apply in the period when the asset is realized or the liability is settled. Deferred tax liabilities are recognized for all taxable temporary differences, except for those arising from the initial recognition of goodwill. Deferred tax assets are recognized to the extent that it is considered probable that Ferroglobe will have taxable profits in the future against which the deferred tax assets can be utilized. The deferred tax assets and liabilities recognized are reassessed at each reporting date in order to ascertain whether they still exist, and the appropriate adjustments are made on the basis of the findings of the analyses performed.

Significant judgment is required in determining income tax provisions and tax positions. Ferroglobe may be challenged upon review by the applicable taxing authorities, and positions taken may not be sustained. The accounting for uncertain income tax positions requires consideration of timing and judgments about tax issues and potential outcomes and is a subjective estimate. In certain circumstances, the ultimate outcome of exposures and risks involves significant uncertainties. If actual outcomes differ materially from these estimates, they could have a material impact on Ferroglobe’s results of operations and financial condition. Interest and penalties related to uncertain tax positions are recognized in income tax expense.

Fair value measurement of financial instruments

Certain of the Company's financial instruments are classified as Level 3 as they include unobservable inputs. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either: in the principal market for the asset or liability; or in the absence of a principal market, in the most advantageous market for the asset or liability.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

F. Safe Harbor

This annual report contains forward-looking statements within the meaning of Section 27A of the U.S. Securities Act and Section 21E of the U.S. Exchange Act and as defined in the Private Securities Litigation Reform Act of 1995. See "Cautionary Statements Regarding Forward-Looking Statements."

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

B. Related Party Transactions

The following includes a summary of material transactions with any: (i) enterprises that directly or indirectly through one or more intermediaries, control or are controlled by, or are under common control with us, (ii) associates, (iii) individuals owning, directly or indirectly, an interest in the voting power of the Company, that gives them significant influence over us, and close members of any such individual's family, (iv) key management personnel, including directors and senior management of such companies and close members of such individuals' families or (v) enterprises in which a substantial interest in the voting power is owned, directly or indirectly, by any person described in (iii) or (iv) or over which such person is able to exercise significant influence.

Grupo VM shareholder agreement

On November 21, 2017, we entered into an amended and restated shareholder agreement with Grupo VM (the "Grupo VM Shareholder Agreement"), as amended on January 13, 2021, and July 29, 2021 that contains various rights and obligations with respect to Grupo VM's Ordinary Shares, including in relation to the appointment of directors and dealings in the Company's shares. It sets out a maximum number of directors (the "Maximum Number") designated by Grupo VM (each, a "Grupo VM Director") dependent on the percentage of share capital in the Company held by Grupo VM. The Maximum Number is three, if Grupo VM's percentage of the Company's shares is greater than 25%; two if the percentage is greater than 15% but less than 25%; and one if the percentage is greater than 10% but less than 15%. As at the date of the Grupo VM Shareholder Agreement, the Board of Directors of the Company has three Grupo VM Directors.

Under the Grupo VM Shareholder Agreement, Grupo VM has the right to submit the names of one or more director candidates (a "Grupo VM Nominee") to the Nominations Committee for consideration to be nominated or appointed as a director as long as it holds 10% or more of Company's shares. If the Nominations Committee does not recommend a Grupo VM Nominee for nomination or appointment or if the requisite approval of the Board of Directors is not obtained in accordance with the Articles, Grupo VM shall, in good faith, and as promptly as possible but in all cases within thirty days, submit the names of one or more additional (but not the same) Grupo VM Nominees for approval. Grupo VM shall continue to submit the names of additional (but not the same) Grupo VM Nominees until such time as the favorable recommendation of the Nominations Committee and requisite approval of the Board of Directors are obtained. On December 23, 2015, Grupo VM designated Javier López Madrid to serve as the Executive Vice-Chairman of the Board in connection with the closing of the Business Combination. Upon the resignation of Alan Kestenbaum as Executive Chairman of the Board, Mr. López Madrid was appointed as Executive Chairman of the Board effective December 31, 2016. Mr. López Madrid is also the Chairman of the Nominations Committee.

The Board of Directors are prohibited from filling a vacancy created by the death, resignation, removal or failure to win re-election (a "Casual Vacancy") of a Grupo VM Director other than with a Grupo VM Nominee. Grupo VM shall have the right to submit a Grupo VM Nominee for appointment to fill a Casual Vacancy only if the Casual

Vacancy was created by the death, resignation, removal or failure to win re-election of a Grupo VM Director. Grupo VM does not have the right to submit a Grupo VM Nominee for appointment to fill a Casual Vacancy if the number of Grupo VM Directors equals or exceeds the Maximum Number. In connection with any meeting of shareholders to elect directors, the number of Grupo VM Nominees in the slate of nominees recommended by the Board of Directors must not exceed the Maximum Number.

Subject to certain exceptions, Grupo VM has preemptive rights to subscribe for up to its proportionate share of any shares issued in connection with any primary offerings. The Grupo VM Shareholder Agreement (i) also restricts the ability of Grupo VM and its affiliates to acquire additional shares and (ii) contains a standstill provision that limits certain proposals and other actions that can be taken by Grupo VM or its affiliates with respect to the Company, in each case, subject to certain exceptions, including prior Board approval. The Grupo VM Shareholder Agreement also restricts the manner by which, and persons to whom, Grupo VM or its affiliates may transfer shares. On February 3, 2016, during an in person meeting of our Board, the Board approved the purchase of up to 1% of the shares by Javier López Madrid in the open market pursuant to Section 5.01(b)(vi) of the Grupo VM Shareholder Agreement.

The Grupo VM Shareholder Agreement will terminate on the first date on which Grupo VM and its affiliates hold less than 10% of the outstanding Shares.

Agreements with executive officers and key employees

We have entered into agreements with our executive officers and key employees. See “Item 6.A.—Directors, Senior Management and Employees—Directors, Senior Management and Employees.”

VM Energía and Energya VM

Under contracts entered into with FerroAtlántica S.A.U., (“FAU”) on June 22, 2010 and December 29, 2010 (assigned to FerroAtlántica de Boo, S.L.U. (“FAU Boo”) and to FerroAtlántica de Sabon, S.L.U. (“FAU Sabon”) in August 2019 in anticipation of the FAU Disposal), and with Hidro Nitro Española on December 27, 2012 (assigned to FerroAtlántica del Cinca when Hidro Nitro Española was sold in December 2018), VM Energía supplies the energy needs of the Boo, Sabón and Monzón electrometallurgy facilities, as a broker for FAU (FAU Boo or FAU Sabon, as appropriate) and Hidro Nitro Española (now FerroAtlántica del Cinca) in the wholesale power market. The contracts allow FAU (FAU Boo or FAU Sabon, as appropriate) and Hidro Nitro Española (now FerroAtlántica del Cinca) to buy energy from the grid at market conditions without incurring costs normally associated with operating in the complex wholesale power market, as well as to apply for fixed price arrangements in advance from VM Energía, based on the energy markets for the power, period and profile applied for. The contracts have a term of one year, which can be extended by the mutual consent of the parties to the contract. The contracts were renewed in January 2019 and will renew annually for up to three years unless terminated. The contracts were again renewed in January 2020. In January 2021, the contracts were renewed for two years with the possibility to extend it for additional one-year periods unless terminated with thirty days’ notice. On September 30, 2021 Grupo FerroAtlántica, S.A.U absorbed its subsidiaries FAU Boo and FAU Sabón assuming all the rights and obligations derived from those contracts. Those contracts were assigned from Villar Mir Energía SLU to Energya VM Gestión de Energía, SLU (“Energya VM”) on October 15, 2022. The relevant contracting party within the Ferroglobe group pays VM Energía a service charge in addition to paying for the cost of energy purchase from the market. For the fiscal year ended December 31, 2022, Grupo Ferroatlantica S.A.U and FerroAtlantica del Cinca’s obligations to make payments to VM Energía or Energya VM under their respective agreements for the purchase of energy plus the service charge amounted to \$95,401 thousand and \$37,317 thousand, respectively. For the fiscal year ended December 31, 2021, Grupo Ferroatlantica S.A.U and FerroAtlantica del Cinca’s obligations to make payments to VM Energía under their respective agreements for the purchase of energy plus the service charge amounted to \$102,065 thousand and \$30,501 thousand, respectively. For the fiscal year ended December 31, 2020, FAU Boo, FAU Sabon and FerroAtlantica del Cinca’s obligations to make payments to VM Energía under their respective agreements for the purchase of energy plus the service charge amounted to \$16,924 thousand, \$14,334 thousand and \$8,643 thousand, respectively. These contracts are similar to contracts FerroAtlántica signs with other third-party brokers.

Under contracts entered into with Rocas, Arcillas y Minerales SA (“RAMSA”) on December 3, 2010 and with Cuarzos Industriales SA (“CISA”) on April 27, 2012, VM Energía supplied the energy needs of the mining facilities operated by those companies, as a broker for RAMSA and CISA in the wholesale power market. RAMSA and CISA are both subsidiaries of the Company operating in the mining sector. These agreements superseded in 2019 by agreements entered into as of 15 March 2019 between VM Energía and each of RAMSA and CISA pursuant to which VM Energía

provides equivalent intermediary services for term of one year, renewing annually. Those contracts were assigned from Villar Mir Energía SLU to Energya VM Gestión de Energía, SLU (“Energya VM”) on September 27, 2022. For the fiscal year ended December 31, 2022, RAMSA and CISA’s obligations to make payments to VM Energía or Energya VM under their respective agreements amounted to \$1,152 thousand and \$459 thousand respectively. For the fiscal year ended December 31, 2022, RAMSA and CISA’s obligations to make payments to VM Energía under their respective agreements amounted to \$1,152 thousand and \$460 thousand respectively. For the fiscal year ended December 31, 2021, RAMSA was obliged to make payments to VM Energía of \$1,012 thousand under its agreements then in force with VM Energía and CISA was obliged to make payments to VM Energía of \$353 thousand under its agreements then in force with VM Energía. For the fiscal year ended December 31, 2020, RAMSA was obliged to make payments to VM Energía of \$427 thousand under its agreements then in force with VM Energía and CISA was obliged to make payments to VM Energía of \$220 thousand under its agreements then in force with VM Energía.

Additionally, for the fiscal year ended December 31, 2022, 2021 and 2020, Energía VM invoiced other subsidiaries of FerroAtlántica for a total amount of \$ 647 thousand, \$120 thousand and \$79 thousand, respectively.

On June 2020, FerroAtlántica del Cinca and VM Energía entered into a collaboration agreement by virtue of which VM Energía is allowed to use Monzon’s grid connection point and high voltage electrical assets for a PV installation project, electricity from which will be supplied to FerroAtlántica del Cinca.

On February 24, 2021, FerroAtlántica de Sabón and VM Energía entered into a collaboration agreement by virtue of which VM Energía is allowed to use Sabón’s grid connection point and high voltage electrical assets for a PV installation project, electricity from which will be supplied to FerroAtlántica de Sabón.

On November 10, 2021 Grupo FerroAtlántica entered into an agreement with VM Energía and Parque Eólico A Picota, S.L.U. (a VM Energía subsidiary) for a free assignment of 10% of the Guarantees of Origin of the total energy consumed by Grupo FerroAtlántica for five (5) years when the wind farms start to produce (in 2023 according to the estimation).

On December 14, 2021, Grupo FerroAtlántica entered into an agreement with VM Energía to assist in the identification of counterparties and intermediation for the closing of long-term power purchase agreements. The agreement extended for a new three-months period and automatic renewals with a thirty day prior notice for its termination.

On December 22, 2022, Grupo FerroAtlántica and VM Energía entered into a Power Purchase Agreement (PPA). Under this PPA, VM Energía will supply to Sabón plant 65 GW on a *pay as produced* basis during 10 years from the commencement of operation of the Plants. This PPA will cover 10% of the total power consumption of the Sabón plant. In January 2023, VME was denied authorization to construct the plants, so the PPA was amicably terminated.

Anook, S.L

On April 2022, Grupo VM sold its interest in Espacio I.T. so those transactions do not involve a Grupo VM subsidiary and therefore as of that date should no longer be considered as related party transactions. The company was renamed Anook, S.L., shortly after the acquisition.

Espacio Information Technology, S.A. (“Espacio I.T.”), a Spanish company wholly-owned by Grupo VM, provides information technology and data processing services to Ferroglobe PLC and certain of its direct and indirect subsidiaries: FAU (until shortly prior to the FAU Disposal when such services were assigned to Grupo FerroAtlántica de Servicios, S.L.U. (“Servicios”)), FerroAtlántica de Mexico, Silicon Smelters (Pty), Ltd. and FerroPem, SAS pursuant to several contracts.

Under a contract entered into on January 1, 2004, Espacio I.T. provided FAU with information processing, data management, data security, communications, systems control and customer support services. The contract was assigned to Servicios shortly prior to the FAU Disposal; it has a one-year term, subject to automatic yearly renewal, unless terminated with notice provided three months prior to the scheduled renewal. The base yearly amount due under the contract for these services is \$641 thousand, exclusive of VAT and subject to inflation adjustment. For the years 2021 and 2022, Servicios’s obligations to make payments to Espacio IT under this agreement amounted to \$1,427 thousand and \$618 thousand respectively.

Under a contract entered into on January 1, 2006, Espacio I.T. provides FerroPem, SAS with information processing, data management, data security, communications, systems control and customer support services. The contract has a one-year term, subject to automatic yearly renewal, unless terminated with notice provided three months prior to the scheduled renewal. The base yearly amount due under the contract for these services is \$826 thousand, exclusive of VAT and subject to inflation adjustment. For the fiscal years 2022, 2021, and 2020, FerroPem, SAS's obligations to make payments to Espacio I.T. under this agreement amounted to \$215 thousand, \$860 thousand and \$823 thousand, respectively.

Under a contract entered into on January 1, 2009, Espacio I.T. provides Silicon Smelters (Pty), Ltd. with services including the maintenance and monitoring of the company's network, servers, applications, and user workstations, as well as standard software licenses. The contract has a one-year term, subject to automatic yearly renewal, unless terminated with notice three months prior to the scheduled renewal. The base yearly amount due under the contract is \$266 thousand, subject to inflation adjustment. For the fiscal years 2022, 2021 and 2020 Silicon Smelters (Pty), Ltd.'s obligations to make payments to Espacio I.T. under this agreement amounted to \$65 thousand, \$274 thousand, and \$264 thousand, respectively.

Under a contract entered into on May 2, 2016, Espacio I.T. provides Quebec Silicon with services including the maintenance and monitoring of its network, servers, applications, and user workstations, as well as standard software licenses at Quebec Silicon. The contract has a one-year term, subject to automatic yearly renewal, unless terminated with notice three months prior to the scheduled renewal. The base yearly amount due under the contract is \$148 thousand, subject to inflation adjustment. For the fiscal years 2022, 2021 and 2020 payments made under this contract to Espacio I.T. were \$37 thousand, \$147 thousand and \$141 thousand, respectively.

Espacio I.T. also provides Grupo FerroAtlántica with IT outsourcing services in connection with the Mangshi facility in China and provided Hidro Nitro Española (FerroAtlántica del Cinca) with IT services, for neither of which is there a formal contract in place. The amounts invoiced in connection with these services for the fiscal years 2022, 2021 and 2020, \$59 thousand, \$30 thousand and \$41 thousand, respectively paid by Grupo FerroAtlántica, \$62 thousand, \$240 thousand, and \$232 thousand, respectively paid by FerroAtlántica del Cinca.

For the fiscal years 2022, 2021, and 2020, Espacio I.T. and other subsidiaries of Grupo VM involved in the provision of IT services invoiced FAU and other subsidiaries of Grupo FerroAtlántica and Ferroglobe PLC in a total amount of \$59 thousand, \$190 thousand, and \$161 thousand, respectively.

On March 24, 2021, Servicios entered into an agreement with Espacio I.T., effective as from January 1, 2021, for the maintenance of the network electronics equipment (switches) that allow interconnection between all the user devices (computers and printers) on each of Ferroglobe floors (49th and 45th floors). The services include monitoring in order to detect eventual incidents in the network, 24x7 support, maintenance service, and spares to replace devices in the event of a breakdown.

Other agreements with other related parties

Under the terms of a loan agreement entered into on 24 July 2015 between FerroAtlántica and Inmobiliaria Espacio, S.A. ("IESA"), the ultimate parent of Grupo VM, FerroAtlántica extended to IESA a credit line for treasury purposes of up to \$20 million, of which \$3.1 million (the "Loan") remains outstanding. The credit line runs year on year for a maximum period of 10 years and amounts outstanding under it (including the Loan) bear interest annually at the rate equal to the EURIBOR three month rate plus 2.75 percentage points. The availability of the credit line may be cancelled at the end of any year or at any time by IESA.

Additionally, as a result of a tax audit of the IESA tax group, a reassessment of its net operating losses (NOLs) was made within the members of the tax group with respect to fiscal years 2008 through 2012. In particular, additional NOLs were attributed to Grupo Ferroatlántica, S.A.U. (GFAT) and Ferroatlántica, S.A.U. (FAT). GFAT, as top parent company of a tax group to which FAT belonged to until fiscal year 2019, filed an amending corporate income tax (CIT) return of fiscal years 2016 and 2017. By way of this amending returns, the reassigned NOLs of FAT have been partially applied and consequently partial refund of the CIT paid in such fiscal years has been in the amount of \$592,378. To the extent that the negative results obtained by GFAT and FAT when forming part of the IESA tax group were duly paid each year, this refund corresponds to IESA. GFAT has granted to IESA a loan in the amount of the CIT refund requested (the CIT loan). Therefore, upon receiving the CIT refund, the CIT loan will be canceled under

an assignment and offsetting agreement between GFAT and IESA. The CIT loan bears interest annually at 5.25% fix rate for one-year loan under Ferroglobe transfer pricing policy.

Calatrava RE, a Luxembourg affiliate of Grupo VM, is a reinsurer of the Company's global marine and property insurance programs. The property and marine cargo insurances are placed with Mapfre Global Risks S.A. with whom the Company contracts for the provision of this insurance. There are no contracts directly in place between the Company and Calatrava RE.

Torre Espacio Gestión SLU, a wholly owned subsidiary of Grupo VM, manages the premises which are the subject of the leases on behalf of Torre Espacio, including collecting rents and other payments under the terms of the leases from FerroAtlántica on behalf of Torre Espacio. On September 30, 2020 the contract between Torre Espacio Gestión, SLU and the owner of the premises was terminated so this transaction does not involve a Grupo VM subsidiary and should therefore not be considered a related-parties transaction anymore. For the period from January 1, 2020 to September 30, 2020, Servicios' obligations to make payments under those agreements amounted to \$1,235 thousand.

Aurinka and the Solar JV

Javier López Madrid, the Company's Executive Chairman and a member of the Board, currently owns approximately 100% of the outstanding share capital of Financiera Siacapital which, in turn, holds a 31.33% interest in Aurinka International, S.L. ("Aurinka Int") and a 31.33% interest in Blue Power. Blue Power is a party to the Solar JV entered into by FerroAtlántica group with Aurinka Photovoltaic Group, S.L. ("Aurinka PV"). Aurinka PV is almost 100% owned by Aurinka Value, S.L., a company which also owns a 31.66% interest in Aurinka Int. Blue Power owns certain intellectual property contributed to the joint venture and provided certain technology consulting services to it, as summarized below.

The remaining equity interests in Blue Power and Aurinka Value, S.L. are owned by third party outside investors. In July 2019 certain changes were made to the terms of the Solar JV to effect its unwinding, as a result of which FerroAtlántica group acquired 100% of the share capital of the operating company set up as part of the joint venture to build and operate the pilot plant for the Solar JV ("OpCo") and FerroAtlántica group's wholly owned subsidiary, Silicio Ferrosolar, S.L.U. (now renamed as Ferroglobe Innovation, S.L.) ("SFS") disposed of 1% of its interest in the research and development company ("R&DCo") formed to license or develop and own certain intellectual property used in connection with the Solar JV. These changes are described further below.

In 2016, FAU entered into a project with Aurinka PV for a feasibility study and basic engineering for a UMG solar silicon manufacturing plant. Purchases under this project were approximately \$3.4 million for 2016.

On December 20, 2016, FerroAtlántica and its wholly owned subsidiaries, FAU and SFS entered into the Solar JV Agreement with Blue Power and Aurinka PV providing for the formation and operation of a joint venture with the purpose of producing UMG solar silicon. The entry into the joint venture pursuant to the Solar JV Agreement was subject to certain conditions precedent, including the satisfactory completion of an ex-ante verification procedure in relation to the ability of the technology to be contributed to the joint venture by Blue Power to meet certain technical and cost parameters and the authorization of the joint venture by Ferroglobe PLC, Blue Power and Aurinka PV's management bodies. All these conditions precedent were met during 2017 and the Solar JV Agreement became fully binding.

Under the Solar JV Agreement, FerroAtlántica indirectly owned 75% of OpCo, which owns certain assets comprising, among others, constructions at Sabón and a UMG solar silicon plant at Puertollano, Spain. SFS owned 51% of R&DCo, the company formed as part of the joint venture to hold certain intellectual property rights and know-how contributed by Blue Power and SFS. R&DCo licensed such intellectual property rights and know-how to OpCo. Pursuant to the Solar JV Agreement, FerroAtlántica and other subsidiaries committed to incur capital expenditure, subject to the approval of the joint venture board, in connection with the joint venture of up to a maximum of \$133,000 thousand over an initial phase of up to 2 years. During the fiscal years ended December 31, 2018 and 2017, FerroAtlántica and other subsidiaries paid Aurinka PV \$4,252 thousand and \$3,611 thousand, respectively, in connection with the project. Further investment in the joint venture was to be determined as the joint venture progressed. In connection with the Solar JV Agreement, FAU obtained a loan of approximately \$50,000 thousand ("the REINDUS Loan") from the Spanish Ministry of Industry and Energy ("the Ministry") for the purpose of building and operating the UMG solar silicon plant. In November 2018, FAU agreed to transfer to OpCo certain assets which had been acquired with the proceeds of the REINDUS Loan and used exclusively by OpCo in connection with the

joint venture in consideration of OpCo assuming liability for the REINDUS Loan. The request for this novation was formally submitted to the Ministry in November 2018. On September 25, 2017, OpCo entered into an agreement with Caiz Salceda SLU ("Salceda"), a company ultimately owned by members of the Villar Mir family (who are related to Javier Lopez Madrid by marriage), under which Salceda agrees to construct on its land and lease to the OpCo and to operate and maintain for a term of 25 years a pilot plant for power generation from photovoltaic panels produced with UMG solar silicon, in return for ownership of all power generated at the plant. On June 13, 2016, SFS entered into a loan agreement with Blue Power under which SFS advanced a principal sum of over \$9,000 thousand to Blue Power in connection with the project. As at December 31, 2016 the amount outstanding under the loan agreement was \$9,845 thousand. On February 24, 2017, the loan was novated to OpCo as part of a capital injection by Blue Power to OpCo and on August 1, 2019 the loan was novated to FerroAtlantica.

In July 2019, the Solar JV was unwound on the following terms:

- FerroAtlántica acquired the whole of the share capital of OpCo for €1;
- Aurinka PV acquired 1% of SFS's interest in the share capital of R&DCo for €1, such that, following such disposal, R&DCo is owned as to 50% by SFS and, following the disposal of its 49% shareholding by Blue Power to Aurinka PV, 50% by Aurinka PV;
- SFS agreed to sell certain patents to R&DCo for €1;
- arrangements were made between;
 - o Aurinka PV and OpCo pursuant to which Aurinka PV will continue to maintain the Puertollano plant for a monthly fee of \$33.6 thousand and for a maximum term expiring on December 31, 2020. Amounts paid pursuant to these arrangements in the fiscal year ended December 31, 2019 totalled \$404;
 - o Aurinka PV and FerroAtlántica, FAU and Opco for the payment by the latter of the sum of \$2,800 thousand and the grant by Opco to Aurinka of an option to purchase certain equipment with a book value of approximately \$6,721 thousand for the sum of \$1,120 thousand, in satisfaction of any claim Aurinka PV might otherwise have in relation to the termination of the Solar JV. In April 2022, Aurinka PV exercised its option to purchase certain equipment with a book value of 1,771,725€. Eventually, Aurinka has only exercised the purchase option in time for a book value of 1,000,000€;
 - o Aurinka PV and FerroAtlántica, SFS and Opco for the marketing and promotion of the sale of the OpCo and SFS's rights in R&DCo, including a right of first refusal to Aurinka PV to purchase the 50% shares in R&DCo owned by SFS and a right of first refusal to Aurinka PV to acquire assets owned by Opco. This agreement was extended until June 30, 2021 and the purchase option was exercised on February 24, 2021. On March 10, 2021 the Parties partially executed the purchase option \$111 Thousand.
- save as set out above, all arrangements in place with Blue Power or Aurinka PV in relation to OpCo or R&DCo and any rights or claims which Aurinka PV or Blue Power might have in relation thereto were brought to an end.

Corporate Vision Strategists Ltd.

On September 20, 2020 Ferroglobe entered into a lease agreement with Corporate Vision Strategists Ltd for the provision of corporate and head office services for 13 Chesterfield Street, Mayfair, London, W1J 5JN. Nicolas de Santis, a Ferroglobe Director, became a director of the Company on May 13, 2021 and exercises significant influence over Corporate Vision Strategists Ltd as the company is wholly owned by him. For the years ended December 31, 2022 and 2021, Ferroglobe's obligations to make payments to Corporate Vision Strategists Ltd under this agreement amounted to \$99 thousand, and \$68 thousand.

C. Interests of Experts and Counsel

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Ferroglobe operates in an international and cyclical industry which exposes it to a variety of financial risks such as currency risk, liquidity risk, interest rate risk, credit risk and risks relating to the price of finished goods, raw materials and power.

The Company's management model aims to minimize the potential adverse impact of such risks upon the Company's financial performance. Risk is managed by the Company's executive management, supported by the Risk Management, Treasury and Finance functions. The risk management process includes identifying and evaluating financial risks in conjunction with the Company's operations and quantifying them by project, region and subsidiary. Management provides written policies for global risk management, as well as for specific areas such as foreign currency risk, credit risk, interest rate risk, liquidity risk, the use of hedging instruments and derivatives, and investment of surplus liquidity.

Market risk

Market risk is the risk that the Company's future cash flows or the fair value of its financial instruments will fluctuate because of changes in market prices. The primary market risks to which the Company is exposed comprise foreign currency risk, interest rate risk and risks related to prices of finished goods, raw materials (principally coal and manganese ore) and power.

Foreign exchange rate risk

Ferroglobe generates sales revenue and incurs operating costs in various currencies. The prices of finished goods are to a large extent determined in international markets, primarily in US dollars and Euros. Foreign currency risk is partly mitigated by the generation of sales revenue, the purchase of raw materials and other operating costs being denominated in the same currencies. Although it has done so on occasions in the past, and may decide to do so in the future, the Company does not generally enter into foreign currency derivatives in relation to its operating cash flows.

Notes and cross currency swap

The Parent Company has been historically exposed to exchange rate fluctuations as it had a Euro functional currency and future commitments to pay interest and principal in US dollars in respect of its outstanding debt instruments of \$150,000 thousand (see Note 18). To manage this foreign currency risk, the Parent Company entered in 2017 into a cross currency swap and designated a portion of this as an effective cash flow hedge of the future interest and principal amounts due on its debt instruments. In March, 2020, the Company closed out the cross currency swap (see Note 19).

In 2021, due to an occurrence of events and conditions that reduce the number of transactions in euros, management conducted a review of the functional currency of the Parent Company and they concluded that there has been a change in its functional currency from Euro to US Dollars, effective since October 1, 2021 (see Note 3.3).

Interest rate risk

Ferroglobe is exposed to interest rate risk in respect of its financial liabilities that bear interest at floating rates. These primarily comprise credit facilities and leases commitments for lease agreements following IFRS 16 implementation.

At December 31, the Company's interest-bearing financial liabilities were as follows:

	2022		
	Fixed rate US\$'000	Floating rate US\$'000	Total US\$'000
Bank borrowings	16,857	60,976	77,833
Obligations under leases	—	21,872	21,872
Debt instruments	343,443	—	343,443
Other financial liabilities (*)	80,388	18,273	98,661
	440,688	101,121	541,809

(*) Other financial liabilities comprise loans from government agencies (see Note 19 of the Consolidated Financial Statements).

	2021		Total US\$'000
	Fixed rate US\$'000	Floating rate US\$'000	
Bank borrowings	—	98,967	98,967
Obligations under leases	—	18,358	18,358
Debt instruments	440,297	—	440,297
Other financial liabilities (*)	67,013	—	67,013
	507,310	117,325	624,635

(*) Other financial liabilities comprise loans from government agencies (see Note 19 of the Consolidated Financial Statements).

Credit risk

Credit risk refers to the risk that a customer or counterparty will default on its contractual obligations resulting in financial loss. The Company's main credit risk exposure related to financial assets is trade and other receivables.

Trade receivables consist of a large number of customers, spread across diverse industries and geographical areas. The Company has established policies, procedures and controls relating to customer credit risk management. Ongoing credit evaluation is performed on the financial condition of accounts receivable and, where appropriate, the Company insures its trade receivables with reputable credit insurance companies.

Since October 2020, the Company entered into a factoring program where the receivables of some of the Company's French and Spanish entities are advanced pursuant to a factoring arrangement. On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter.

Since December 2019, the Company entered into a forfaiting program where some of the Company's French and Spanish entities may assign their rights to receive payments under the Contracts with the customer "ArcelorMittal Sourcing s.c.a." in accordance with a forfaiting scheme.

Liquidity risk

The purpose of the Company's liquidity and financing policy is to ensure that the Company keeps sufficient funds available to meet its financial obligations as they fall due. The Company's main sources of financing are as follows:

- \$345,058 thousand aggregate principal amount of 9.375% senior secured notes due December 31, 2025 (the "Reinstated Senior Notes"). The proceeds from the Reinstated Notes, issued by Ferroglobe and Globe (together, the "Issuers") on July 30, 2021, were primarily used to repay certain existing indebtedness of the Parent Company and its subsidiaries. Interest is payable semi-annually on January 31 and July 31 of each year.
- \$60,000 thousand aggregate principal amount of 9.300% super senior secured notes due June 30, 2025 (the "Super Senior Notes"). The proceeds from the Notes, issued by Ferroglobe on May 17, 2021, were primarily used to repay certain existing indebtedness of the Parent Company and its subsidiaries. Interest is payable semi-annually on January 31 and July 31 of each year. On July 21, 2022, the Super Senior Notes were redeemed at 100% of the principal amount thereof plus accrued interest.
- On September 8, 2016, FerroAtlántica, S.A.U, as borrower, and the Spanish Ministry of Industry, Tourism and Commerce (the "Ministry"), as lender, entered into a loan agreement under which the Ministry made available to the borrower a loan in aggregate principal amount of €44,999 thousand, in connection with with the industrial development projects relating silicon purification project. FAU transferred the loan to OPCO before its sale. The loan of €44.9 million was scheduled to be repaid in seven installments starting in 2023 and completing by 2030. Interest on outstanding amounts under the loan accrues at an annual rate of 3.55%. As of December 31, 2022, the amortized cost of the loan was €54,989 thousand (equivalent to \$58,651 thousand) (2021: €54,578 thousand and \$61,815 thousand), see Note 19. A partial early repayment of €16.3 million has been made on February 10, 2023.

- On February 1, 2018 the Company acquired 100% of the outstanding ordinary shares of Kintuck (France) SAS and Kintuck AS from a wholly-owned subsidiary of Glencore International AG (“Glencore”) and obtained control of both entities. Consideration included both cash and contingent consideration. The contingent consideration arrangement requires the Company to pay the former owners of Kintuck (France) SAS and Kintuck AS a sliding scale commission based on the silicomanganese and ferromanganese sales spreads of Ferroglobe Mangan Norge and Ferroglobe Manganèse France, up to a maximum amount of \$60,000 thousand (undiscounted). The contingent consideration applies to sales made up to eight and a half years from the date of acquisition and if it applies, the payment is on annual basis. The potential undiscounted amount of all future payments that the Company could be required to make under the contingent consideration arrangement is between \$nil thousand and \$60,000 thousand.
- On October 2, 2020, the Company ended the receivables funding agreement and cancelled the securitization program, signing a new factoring agreement with a financial institution, for anticipating the collection of receivables of the Company’s European entities (Grupo FerroAtlántica, S.A. and FerroPem S.A.S). On February 2022 Grupo FerroAtlántica, S.A. signed an additional factoring agreement with Bankinter. This program offers the possibility to sell the receivables corresponding to ten customers pre-approved by the bank and its credit insurer. During 2022, the factoring agreements provided upfront cash consideration of approximately \$895,264 thousand (\$659,083 thousand in 2021). The Company has repaid \$ 918,070 thousand (\$640,168 thousand in 2021), showing at December 31, 2022, an on-balance sheet bank borrowing debt of \$60,976 thousand (2021: \$93,090 thousand) (see Note 10 and 16).
- On July 23, 2020, Ferroglobe subsidiary, Ferropem, S.A.S., as borrower, contracted a loan with BNP Paribas, as lender, amounting to €4,456 thousand, to finance Company’s activities in France. The loan is guaranteed by the French government as part of the COVID-19 relief measures. Repayment of principal and payment of interest and accessories offer the possibility for the Borrower to extend the amortization of the amounts due at maturity for an additional period of 1 to 5 years. Interest rate is zero percent and the borrower is liable to pay a 0.50% fee calculated on the capital borrowed equivalent to an amount of €22 thousand.
- On June 2, 2020, Ferroglobe subsidiary, Silicium Québec, as borrower, contracted a \$7,000 thousand loan with Investissement Québec, a regional government loan & investment agency, as lender, to finance its capital expenditures activities in Canada. The loan is to be repaid in 84 installments over a 10 year period with the first three years as a grace period. Interest rate on outstanding amounts is zero percent.
- On March 3, 2022, Grupo FerroAtlántica and Grupo FerroAtlántica de Servicios (together the “Beneficiaries”) and the Sociedad Estatal de Participaciones Industriales (“SEPI”), a Spanish state-owned industrial holding company affiliated with the Ministry of Finance and Administration, entered into a loan agreement of €34.5 million. This loan is part of the SEPI fund intended to provide assistance to non-financial companies operating in strategically important sectors within Spain in the wake of the COVID-19 pandemic.

Ferroglobe PLC



Your vote matters - here's how to vote!

You may vote online or by phone instead of mailing this card.



Votes submitted electronically must be received by 00:01, British Summer Time, on June 26, 2023.

Online

Go to www.envisionreports.com/GSM or scan the QR code – login details are located in the shaded bar below.



Phone

Call toll free 1-800-652-VOTE (8683) within the USA, US territories and Canada



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Using a **black ink** pen, mark your votes with an **X** as shown in this example. Please do not write outside the designated areas.



Annual Meeting Proxy Card

▼ IF VOTING BY MAIL, SIGN, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

A Proposals – The Board recommends a vote FOR proposals 1 - 15

	For	Against	Abstain		For	Against	Abstain		For	Against	Abstain
1.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
6.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				



B Authorized Signatures – This section must be completed for your vote to be counted. – Date and Sign Below

Please sign exactly as name(s) appears hereon. Joint owners should each sign. When signing as attorney, executor, administrator, corporate officer, trustee, guardian, or custodian, please give full title.

Date (mm/dd/yyyy) – Please print date below.

Signature 1 – Please keep signature within the box.

Signature 2 – Please keep signature within the box.

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1 U P X



2023 Annual Meeting Admission Ticket

2023 Annual Meeting of Ferroglobe PLC Shareholders

The 2023 Annual Meeting of Shareholders of Ferroglobe PLC will be held on
Tuesday, June 27, 2023 at 14:00 (British Summer Time)
at 13 Chesterfield Street, London W1J 5JN, UK

Upon arrival, please present this admission ticket and photo identification at the registration desk.

U.K. Annual Report and Accounts 2022

1. THAT the directors' and auditor's reports and the accounts of the Company for the financial year ended 31 December 2022 (the "U.K. Annual Report and Accounts") be received.

Directors' 2022 Remuneration Report

2. THAT the directors' annual report on remuneration for the year ended 31 December 2022 (excluding, for the avoidance of doubt, any part of the Directors' remuneration report containing the directors' remuneration policy), as set out on pages 32 to 33 and 46 to 60 of the U.K. Annual Report and Accounts be approved.

Directors' Re election

3. THAT Javier López Madrid be re-elected as a director.
4. THAT Marco Levi be re-elected as a director.
5. THAT Marta Amusatogui be re-elected as a director
6. THAT Bruce L. Crockett be re-elected as a director.

7. THAT Stuart E. Eizenstat be re-elected as a director.
8. THAT Manuel Garrido y Ruano be re-elected as a director.
9. THAT Juan Villar Mir de Fuentes be re-elected as a director.
10. THAT Belen Villalonga be re-elected as a director.
11. THAT Silvia Villar-Mir de Fuentes be re-elected as a director.
12. THAT Nicolas De Santis be re-elected as a director.
13. THAT Rafael Barrilero Yarnoz be re-elected as a director.

Appointment of Auditor

14. THAT KPMG Auditor, S.L. be appointed as auditor of the Company to hold office from the conclusion of the Annual General Meeting until the conclusion of the next general meeting at which accounts are laid before the Company.

Remuneration of Auditor

15. THAT the Audit Committee of the Board be authorized to determine the auditor's remuneration.

▼ IF VOTING BY MAIL, SIGN, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

Proxy – Ferroglobe PLC



Proxy Solicited by Board of Directors for Annual Meeting – June 27, 2023

The undersigned hereby appoints the Company's Executive Chairman or Company Secretary, each individually and each with powers of substitution, as proxies for the undersigned to vote all of the Ordinary Shares the undersigned may be entitled to vote at the Annual General Meeting of Shareholders of Ferroglobe PLC called to be held at **14:00 (British Summer Time) on Tuesday, June 27, 2023 at 13 Chesterfield Street, London, W1J 5JN, UK**, or any adjournment or postponement thereof in the manner indicated on the reverse side of this proxy, and upon such other business as may lawfully come before the meeting or any adjournment or postponement thereof. The undersigned acknowledges receipt of the Notice of Annual General Meeting of Ferroglobe PLC. The undersigned revokes any proxy or proxies previously given for such shares. The undersigned ratifies and confirms any actions that the persons holding the undersigned's proxy, or their substitutes, by virtue of this executed card take in accordance with the proxy granted hereunder. **IF NO DIRECTION AS TO THE MANNER OF VOTING THE PROXY IS MADE, THE PROXY WILL BE VOTED "FOR" THE RESOLUTIONS IN PROPOSALS 1 THROUGH 15 AS INDICATED ON THE REVERSE SIDE HEREOF.**

You are encouraged to specify your choices by marking the appropriate boxes (SEE REVERSE SIDE) but you need not mark any boxes if you wish to vote in accordance with the Board of Directors' recommendations. This proxy, when properly executed, will be voted in the manner directed herein. The Board of Directors recommends a vote "FOR" Proposals 1 – 15.

(Items to be voted appear on reverse side.)

Non-Voting Items

Change of Address – Please print new address below.

Comments – Please print your comments below.

Meeting Attendance

Mark box to the right if you plan to attend the Annual Meeting.

