



FerroGlobe

FerroGlobe PLC

Extracts from the 2023 Form 20-F

To accompany the PLC Annual Report and Accounts 2023

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ITEM 3. KEY INFORMATION

D. Risk factors.

You should carefully consider the risks and uncertainties described below and the other information in this Annual Report before making an investment in our ordinary shares. Our business, financial condition or results of operations could be materially and adversely affected if any of these risks occurs, and as a result, the market price of our ordinary shares could decline and you could lose all or part of your investment. This Annual Report also contains forward-looking statements that involve risks and uncertainties. See “Cautionary Statements Regarding Forward-Looking Statements.” Our actual results could differ materially and adversely from those anticipated in these forward-looking statements as a result of certain factors.

Risks Related to Our Business and Industry

Our operations depend on industries including the steel, aluminum, 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 steel, aluminum, polysilicon, silicones, and photovoltaic products. Therefore, 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 appliances, 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 silicone from such companies can be 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 yield 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.

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 and market demand for our products, 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 significant increase in silicon metal prices from the end of 2021 throughout the first half of 2022. However, commencing in the second half of 2022 and throughout 2023, we have experienced a sharp decrease in pricing as well as reductions in volumes. Such variances adversely affect our 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 generally one of our largest production components in terms of cost as a percentage of sales. 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 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. In general, high or volatile energy costs in the countries in which we operate could lead to erosion of margins and volumes, leading to a potential reduction in market share.

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.

Additionally, in France, the Company benefited from a program for the regulated access to historic nuclear energy program (ARENH). ARENH is a mechanism established which allows alternative suppliers to obtain energy under favorable conditions set by the public authorities.

In addition, we have an additional agreement with EDF in which we have agreed different electricity prices throughout the year based on demand. When demand is highest, our agreed price is generally lowest and is even negative during certain time periods. Our current benefit with EDF began in 2023 and is expected to continue through 2025 with potential uncertainty regarding future availability or participation in such schemes.

Furthermore, in 2023, we recorded a net benefit of approximately \$186,211 thousand in relation to these programs. Future benefits recorded under this program in 2024 and 2025 will be significantly less if not a net expense for each respective year.

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 50% of its power needs under a fixed price power purchase agreement with a nearby hydroelectric facility owned by a Brookfield affiliate. This facility is more than 70 years old and any breakdown could result in the Alloy facility having to purchase more grid power at higher rates.

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 been volatile, 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 are obligated to pay access tariffs to the national grid and receive a credit for our efforts to act as electro-intensive consumers. The volatile nature of the wholesale market in Spain results in price uncertainty that can only be partially offset by long-term power purchase agreements. Additionally, the credits that we receive for the services provided to the grid are a major component of our power supply arrangements in Spain. However, these regulations previously have been altered to reduce the value of such credits to us, and future changes could further reduce the economic benefits associated with our services to the Spanish electricity grid. Such reductions would affect our production costs and impact our results from 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 the priority to use 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 Ukraine-Russia conflict. 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, 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 shortages 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 events such as the Ukraine-Russia conflict, the recent conflict in the Middle East 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, among other factors. 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, governmental investigations and sanctions, 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: (i) 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; (ii) mining, processing and plant equipment failures and unexpected maintenance problems; (iii) disruptions in the supply of fuel, power and/or water at the mine site; (iv) adverse changes in reclamation costs; (v) the inability to renew mining concessions upon their expiration; (vi) the expropriation of territory subject to a valid concession without sufficient compensation; and (vii) 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, operational 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 always be 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 August 2023, the Company resolved two Notices of Violation/Findings of Violation (“NOV/FOV”) from the U.S. federal government that alleged numerous violations of the Clean Air Act relating to the Company’s Beverly, Ohio facility. 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 a state Director’s Final

Findings & Order (“DFFOs”) 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 SO₂ NAAQS. In May 2023, OEPA submitted an attainment demonstration to the United States Environmental Protection Agency (“EPA”), demonstrating that the DFFOs ensured compliance with the SO₂ NAAQS. In September 2023, EPA issued a final rule approving OEPA’s attainment demonstration. Under this final rule and the DFFOs, the Company must perform additional flow testing at the Beverly facility to verify certain inputs to the NAAQS modeling used to demonstrate attainment with the SO₂ NAAQS. The Company is working with OEPA and USEPA to perform the additional testing, which is expected to occur in mid-2024.

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 of 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, limiting the impact on our business of emissions rights purchases. Recent changes to regulations have and could continue to reduce the allocation of free allowances requiring 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, the current administration has placed a greater emphasis on regulating greenhouse gas emissions, although no proposed regulations have been enacted to date. However, carbon taxes, clean energy standards, carbon offsets, and/or the requirement to participate in a cap-and-trade program are periodically explored by the U.S. government. 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.

Natural disasters and climate change could affect our suppliers or customers, negatively impacting our operations.

Natural disasters and climate change could significantly damage our mining and production facilities and infrastructure both directly and indirectly. Such natural disasters and climate change effects may cause a contraction in sales to countries adversely affected due to, among other factors, droughts, floods, heat waves and wildfires which may cause damages in industrial facilities and infrastructure. Such weather events could adversely affect our operations directly and may cause indirect disruptions in our supply chain and logistic routes. The Company continuously monitors climate and natural events which could impact our facilities and supply chain to maintain and implement appropriate mitigation measures.

As a measure of control and monitoring of the risks associated with climate change, both physical and transitional, an annual assessment is conducted. This assessment includes, at the facility level, all physical risks that may impact our operations. Different scenarios and climatic variables are considered, as well as the time periods in which these risks are expected to materialize and the existing control and mitigation measures that allow for attenuating and controlling such risks.

Although climate change has not historically had a material impact, its future impacts on our business remains uncertain. We are likely to experience changes in rainfall patterns, increased temperatures, water shortages (and potential issues with water availability), rising sea and river levels, lower water levels in rivers due to natural or operational conditions, increased storm frequency and intensity as a result of climate change, which may adversely affect our operations. The Company maintains insurance covering damages caused by natural disasters; however, extensive damage to our facilities and staff casualties due to natural disasters may not be covered by our insurer and/or could materially adversely affect our ability to conduct our operations and, as a result, reduce our future operating results.

In addition, the potential physical impact of climate change on our operations is highly uncertain and would be particular to the geographic circumstances of our facilities and operations. It may include changes in rainfall patterns, water shortages, rising sea and river levels, changing storm patterns and intensities and changing temperatures. These effects may materially adversely impact the cost, production and financial performance of our operations.

Climate change, sustainability regulations and Company initiatives, including our environmental commitments associated with our decarbonization plan, could place additional burden on us and our operations.

We may face increased climate related regulation and as well as expectations from our stakeholders to take actions beyond regulatory requirements to minimize our impact on the environment and mitigate climate change related effects. The mining and metals sector contributes directly to greenhouse gas emissions and continues to be subject to increasing regulations. In order to address such regulations, we may be required to adapt our production processes or purchase additional equipment or carbon offsets, leading to increased costs. In 2023, the Company articulated certain decarbonization actions, which are focused on reducing our Scope 1 and 2 emissions by 2030, and will be published in our 2023 Global ESG Report later in 2024.

To meet these additional requirements, we will need to continue to deploy additional equipment, introduce process changes, utilize alternative suppliers and materials, and take other similar actions, some or all of which may require us to incur additional costs which could result in a material adverse effect on our results of operations and our financial position. In addition, if we fail to meet these expectations, we may experience reputational risk which could impact our ability to attract and retain employees, investors and customers.

Further, our operating sites, as well as those of our partners along the supply chain, may be exposed to changing and/or increasing physical risks resulting from climate change that are either chronic (induced by longer-term shifts in climate patterns, such as sea level rise, or changing temperature, wind or precipitation patterns) or acute (event-driven such as cyclones, hurricanes or heat waves). In the context of efforts to transition to a lower-carbon economy, we will likely be exposed to further policy, legal, technology, and market transition risks. If we do not respond to these risks effectively or if our efforts are lower than our peers, we may suffer reputational risks which may lead to financial repercussions such as a decrease in share price.

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.

For the year ended December 31, 2023, our ten largest customers accounted for 51.0% of Ferroglobe’s consolidated sales. 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.

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.

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 (i) may not remain in effect and continue to be enforced from year to year, (ii) may change the covered products and countries under current orders, and (iii) may reassess duties.

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.

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.

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 a significant net exporter of aluminum and steel. The Chinese silicone manufacturing industry is also growing rapidly. 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, silicon- and manganese-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 significant production disruptions. 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 other events, 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. Acquisitions may further disrupt our ongoing business and distract management from other responsibilities.

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 multiple 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.

Operating globally 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 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 (“U.K.”) 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 based around our Code of Conduct. However, 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.

Although we are not currently operating at full capacity, we have previously 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 can manufacture, collectively, approximately 329,000 tons of silicon metal, 302,000 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.

We may not have sufficient funds or time 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.

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.

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 an explosion at our facility in Chateau Feuillet, France in 2016, 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 expand our operations and assets into 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 were immaterial as of December 31, 2023 and 2022, respectively. Sales were immaterial for the years ended December 31, 2023, 2022 and 2021, respectively.

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 USD, while the financial statements of each of our subsidiaries are prepared in the respective entity's functional currency. Accordingly, our revenues and earnings are continuously affected by fluctuations in foreign currency exchange rates. For example, in instances when our sales made in USD exceed the amount of our purchases made in USD, the appreciation of certain currencies (like the Euro or the South African Rand) against the USD 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, 2023, approximately 59% of our coal was purchased from third parties. Of our third-party purchases, approximately 84% came from 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, silicon alloys 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 Commonwealth of Independent States region, including metallurgical coke, anthracite and carbon and graphite electrodes. Our inability to procure these materials 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 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.

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 term is negative due to several factors, including geopolitical risks, inflation and concerns about global growth and stability.

We are not able to predict the timing or duration of periods of 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.

Changes in laws, rules or regulations relating to data privacy and security, or any actual or perceived failure by us to comply with such laws, rules, regulations and standards, or contractual or other obligations relating to data privacy and security, could result in claims, changes to our business practices, penalties, increased cost of operations and could have a material adverse effect on our reputation, results of operations, financial condition and cash flows.

We are, and may increasingly become, subject to various laws, rules, regulations, treaties, decisions and standards, as well as contractual obligations, relating to data privacy and security in the jurisdictions in which we operate. The regulatory environment related to data privacy and security is increasingly rigorous, with new and constantly changing requirements applicable to our business, and enforcement practices are likely to remain uncertain for the foreseeable future. These laws, rules, regulations, treaties, decisions and standards may be interpreted and applied differently over time and from jurisdiction to jurisdiction and in a manner that is inconsistent with our data practices and that could have a material adverse effect on our results of operations, financial condition and cash flows. New laws, amendments to or reinterpretations of existing laws, rules, regulations, treaties, decisions, standards and other obligations may require us to incur additional costs and restrict our business operations, and may require us to change how we use, collect, store, transfer or otherwise process certain types of personal information and to implement new processes to comply with those laws.

Internationally, laws, regulations and standards in many jurisdictions apply broadly to the collection, use, retention, security, disclosure, transfer and other processing of personal information. For example, the EU General Data Protection Regulation (GDPR), which became effective in May 2018, greatly increased the European Commission’s jurisdictional reach of its laws and adds a broad array of requirements for handling personal data. EU Member States are tasked under the GDPR to enact, and to have enacted, certain implementing legislation that adds to and/or further

interprets the GDPR requirements and potentially extends our obligations and potential liability for failing to meet such obligations. The GDPR, together with national legislation, regulations and guidelines of the EU Member States and Switzerland (via its Federal Data Protection Act) governing the processing of personal data, impose strict obligations and restrictions on the ability to collect, use, retain, protect, disclose, transfer and otherwise process personal data. In particular, the GDPR includes obligations and restrictions concerning the consent and rights of individuals to whom the personal data relates (and the obligations of sponsors of clinical trials acting as data controllers), the transfer of personal data out of the European Economic Area (EEA), the notification of security breaches and the security and confidentiality of personal data. The GDPR authorizes fines for certain violations of up to 4% of global annual revenue or EUR 20 million, whichever is greater. The GDPR also applies to our key business partners, CROs and service providers, whether or not they are located in Europe, with which we share personal data subject to the GDPR. Additionally, we also are subject to the UK General Data Protection Regulation (UK GDPR) (i.e., a version of the GDPR as implemented into UK law), exposing us to two parallel regimes with potentially divergent interpretations and enforcement actions for certain violations. While the European Commission issued an adequacy decision intended to last for at least four years in respect of the UK's data protection framework, enabling data transfers from EU Member States to the UK to continue without requiring organizations to put in place contractual or other measures in order to lawfully transfer personal data between the territories, the relationship between the UK and the EU in relation to certain aspects of data privacy and security law remains unclear. Although we do not have material operations in the UK, we cannot rule out potential disruptions in relation to the clinical regulatory framework applicable to our clinical studies in the UK, and to data privacy and security rules with respect to personal data sharing with vendors and clinical investigators in the UK, and we cannot predict future implications.

All of these evolving compliance and operational requirements impose significant costs, which are likely to increase over time.

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 with tariff-rate quotas were implemented for Japan and the UK in April and June 2022, respectively.

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. Currently a Phase 2 agreement appears unlikely in the foreseeable future.

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 broader “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 increase in profitability.

In order to improve our processes and increase margins, we have consistently 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

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, could 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. In addition, certain of our financing facilities contain cross default provisions pursuant to which a default under one financing agreement could permit lenders under other financing agreements to accelerate such debt. If in such circumstances we were unable to repay our creditors, or obtain waivers from them on acceptable terms or at all, our creditors 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.

Moreover, the restrictions contained in our financing agreements 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, collateral requirements and other 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.

Our leverage may make it difficult for us to service our debt and operate our business.

Although the Company completed a partial redemption of its Senior Secured Notes totaling \$150.0 million in 2023, as of December 31, 2023, the Company has a net debt balance and material 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 continued positive results and liquidity, which will be affected by prevailing economic conditions and financial, business, regulatory and other factors, including the military conflict in Ukraine and the Middle East. 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.

In February 2024, the Company completed the full redemption of the 9.375% Senior Secured Notes due 2025 at 102.34375% of the principal amount plus accrued interest.

We have experienced past losses and cannot assure you that we will be profitable in the future.

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. The Company reported positive net results for the years ended December 31, 2023 and 2022, respectively, following multiple consecutive years of losses. Because of the numerous uncertainties and risks inherent in our industry, we are unable to ensure that such profitability will continue into the future.

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 as well as fund capital expenditures depends in part on our ability to continue to generate cash in the future. 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.

There can be no assurance that we will:

- generate sufficient cash flow from operations;

- realize operating improvements on schedule; or
- have future borrowings 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.

There can be no assurance that we will have the available liquidity or the ability to raise financing in order to repay our debt instruments at or ahead of their maturity.

If we are unable to further 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.

In February 2024, the Company completed the full redemption of the 9.375% Senior Secured Notes due 2025 at 102.34375% of the principal amount plus accrued interest.

Risks Related to Our Ordinary Shares

Grupo VM, our principal shareholder, has significant voting power with respect to corporate matters considered by our shareholders.

Our principal shareholder, Grupo VM, 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 owns shares representing 40.1% of the aggregate voting power of our capital stock. So long as Grupo VM's retains its voting power, as well as its 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.

Grupo VM has pledged most of its shares in our company to secure a loan from Tyrus Capital ("Tyrus").

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 market price of our ordinary shares may be volatile and may fluctuate due to factors beyond our control.

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.

Broad market and industry factors may materially affect the market price of companies' stock, including ours, regardless of actual operating performance. 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.

The Company may be restricted or unable to pay cash dividends in the future.

When and if the Company is not subject to financial covenants that restrict the payment of dividends or the repurchase of shares, the Company may pay dividends from time to time. The payment of future dividends, if any, is subject to then-applicable financial covenants that could in the future restrict the payment of dividends or the repurchase of our shares. The payment of dividends, if any, depends at all times on, among other matters, 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 may 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, 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, which would then require us to comply with the Exchange Act's domestic reporting regime and cause us to incur significant legal, accounting and other expenses.

We are a foreign private issuer and therefore we are not required to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. domestic issuers. We may no longer be a foreign private issuer as of June 30, 2024 (or the end of our second fiscal quarter in any subsequent fiscal year), which would require us to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. domestic issuers as of January 1, 2025 (or the first day of the fiscal year immediately succeeding the end of such second quarter). In order to maintain our current status as a foreign private issuer, either (a) a majority of our ordinary shares must be either directly or indirectly owned of record by non-residents of the U.S. or (b) (i) a majority of our executive officers or directors may not be U.S. citizens or residents, (ii) more than 50 percent of our assets cannot be located in the U.S. and (iii) our business must be administered principally outside the U.S.. If we lost this status, we would be required to comply with the Exchange Act reporting and other requirements applicable to U.S. domestic issuers, which are more detailed and extensive than the requirements for foreign private issuers. We may also be required to make changes in our corporate governance practices in accordance with various SEC and Nasdaq rules. The regulatory and compliance costs to us under U.S. securities laws if we are required to comply with the reporting requirements applicable to a U.S. domestic issuer may be significantly higher than the cost we would incur as a foreign private issuer. As a result, we expect that a loss of foreign private issuer status would increase our legal and financial compliance costs and would make some activities highly time-consuming and costly. We also expect that if we were required to comply with the rules and regulations applicable to U.S. domestic issuers, it would make it more difficult and expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These rules and regulations could also make it more difficult for us to attract and retain qualified members of our board of directors.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, shareholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our ordinary shares.

Our management is responsible for establishing and maintaining adequate internal controls over financial reporting. Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud, among other objectives. Any failure to implement any required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. In connection with the audit of our consolidated financial statements as of and for the year ended December 31, 2020, we identified material weaknesses in our internal control over financial reporting, which were not fully remediated as of December 31, 2023. In addition, any testing by us conducted in connection with Section 404 of the Sarbanes-Oxley Act of 2002, or any testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting, which are deemed to be material weaknesses or that may require prospective or retroactive changes to our consolidated financial statements or identify other areas for further attention or improvement.

Moreover, if we are not able to comply with the requirements of Section 404 applicable to us in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our ordinary shares could decline, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources. Furthermore, investor perceptions of our company may suffer if deficiencies are found, and this could cause a decline in the market price of our ordinary shares. Irrespective of compliance with Section 404, any failure of our internal control over financial reporting could have a material adverse effect on our stated operating results and harm our reputation. If we are unable to implement these requirements

effectively or efficiently, it could harm our operations, financial reporting, or financial results and could result in an adverse opinion on our internal control over financial reporting from our independent registered public accounting firm.

We are taking measures and plan to continue to take measures to remediate this material weakness. However, the implementation of these measures may not fully address this material weakness in our internal control over financial reporting, and therefore we would not be able to conclude that it has been fully remedied. Our failure to correct this material weakness or our failure to discover and address any other control deficiencies could result in inaccuracies in our financial statements and could also impair our ability to comply with applicable financial reporting requirements and make related regulatory filings on a timely basis. As a result, our business, financial condition, results of operations and prospects, as well as the trading price of our shares, may be materially and adversely affected.

As an English public limited company, we may be required to obtain shareholder approval for certain capital structure decisions. Such approvals 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 Annual General Meeting (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 purchase our shares except where our shareholders have approved our doing so by ordinary resolution (and with a maximum duration of such approval of five years) and 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 directors may also decide to pay interim dividends if it appears to them that the profits available for distribution justify the payment. When 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 materially affect 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 rules. 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 baseline 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%, which would exclude our company from its application. Then, Pillar Two rules, also called the GloBE (Global Anti-Base Erosion proposal) rules consist of setting a minimum rate of taxation, giving the countries the right to apply a “top up” tax where jurisdictional profit is taxed at a rate below the minimum 15% rate. This top up tax is to be collected through several avenues: (i) domestic minimum taxes in local jurisdictions; (ii) the income inclusion rule, charging top up tax in the ultimate parent jurisdiction (or in some cases, in the jurisdiction of an intermediary holding company); (iii) an undertaxed profit rule charging top up tax on profits which are not within the scope of any territory’s income inclusion or domestic minimum tax rules; (iv) switch over rule in the double tax treaties to allow the jurisdiction of residence to switch from exemption to credit method when the profit of a permanent establishment is taxed below the minimum rate; and (v) 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. On December 22, 2022, the EU approved the Minimum Tax Directive (Pillar Two). The Directive requires Member States to transpose the rules into domestic law by 31 December 2023. The main rule of the Directive (so called Income Inclusion Rule or IIR) became effective on 31 December 2023 with the backstop rule (so called Undertaxed Profits Rule or UTPR) becoming effective on or after 31 December 2024. The Directive provides the option for Member States to implement a qualified domestic top-up tax (QDMTT) that operates to increase the domestic tax liability of in-scope MNE groups within a jurisdiction to the minimum effective tax rate of 15% of profits. Spain and France have enacted legislation implementing this Directive. On 20 June 2023, Finance (No.2) Act 2023 was substantively enacted in the UK, introducing a global minimum effective tax rate of 15% in application of the GloBE rules from the OECD. The legislation implements a domestic top-up tax and a multinational top-up tax, effective for accounting periods starting on or after 31 December 2023. There are transitional safe harbours which can apply in certain circumstances which can remove the requirement to do the full detailed calculations for the first 3 years after the effective date.

Based on the UK transitional safe harbour analysis we have performed using our 2022 financial statements and the Country-by-Country Reporting data, according to UK legislation, the Group anticipates that it is not probable that Pillar Two will have a material impact on the group going forward. We are aware that there are several jurisdictions that have substantively enacted a qualifying domestic minimum top up tax that may also include safe harbour rules that may apply differently to the UK legislation. These have not been assessed but will be assessed and monitored by the company on a go forward basis.

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, 2023. 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. The Company was 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 \$20,000 thousand 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 \$40,000 thousand, 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 \$1,400 thousand. The Company has not sold any other securities under this agreement. Effectiveness of the related registration statement, and ability to sell additional ordinary shares under the Equity Distribution Agreement, expires on June 15, 2024.

During 2023, 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 as treasury shares as of December 31, 2023 was 1,440,785. See Note 12 Equity to our consolidated financial statements.

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 Electrometallurgie, 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 partnership 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 partnership 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;

- **2015:** Business Combination of Globe and FerroAtlántica as wholly-owned subsidiaries of Ferroglobe PLC
- **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 Cedic, S.A;
- **2021:** Sale of Niagara Falls silicon metal facility;
- **2023:** Sale of Chateau Feuillet silicon-alloy 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 <https://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 <https://www.sec.gov>.

Corporate Developments and Capital Expenditures

For a further description of important corporate developments since January 1, 2021, see “Item 18. Financial Statements.” For information regarding the Company’s material commitments for capital expenditures, see “Item 4.B.—Information on the Company—Business Overview.”

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 (i) quartz mining activities in Spain, the United States, Canada, and South Africa, (ii) low-ash metallurgical quality coal mining activities in the United States, and (iii) 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, electric vehicle batteries 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 high value-added 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.

Ferroglobe's Competitive Strengths and Strategy

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 maintain the leading market share in certain of our products. The Company has global production capacity for silicon metal of approximately 328,000 metric tons (including 51% of our attributable partnership capacity). We have 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. We are among the three largest global producers of manganese alloys excluding those located in 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, electric vehicle batteries, 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 source critical, 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 our vertical integration 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 who 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 more than 40 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, electric vehicle batteries, 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, especially in the areas with secular growth, such solar and EV battery markets. This diversity of products, customers and end-markets provides 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 years ended December 31, 2023, 2022 and 2021, Ferroglobe's ten largest customers accounted for 50.5%, 50.1% and 48.1% of our consolidated sales, respectively. 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 material 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 enhances our delivery times.

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 USD, when it occurs, reduces the costs of our operations, offering an increased competitive edge in the international market.

We believe our scale, flexibility 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 multiple qualified suppliers in each operating region for each raw material, ensuring 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.
- High purity Silicon — Ferroglobe has sought to produce solar grade silicon metal with a purity above 99.9999% through a new, potentially cost effective, electrometallurgical process. 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 rationalize it and adapt it towards the industrial production of high purity silicon (99.9-99.99%Si). High purity silicon demand is increasing thanks to niche markets in advanced applications and Li-ion batteries.
- 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 industrial, cost effective and with low carbon footprint. Concurrently, new know-how linked to specific milling technologies has been developed in the last years. Combined, these capabilities place Ferroglobe in position to potentially succeed 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 can increase capacity of the Li-ion batteries and reduce costs, lower carbon footprint, accelerate charging times and improve performance in very cold conditions. 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 expedite the research and development required for competitive success.

In addition to the above, the Ferroglobe Innovation team continues to research new, innovative projects to create the next generation of batteries.

Experienced management team in the metals and mining industry

We have an experienced management team with extensive knowledge of the global metals, mining and materials industry and a proven 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 via 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 2022, we continued to develop our 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.

Our strategy is defined by the following four key pillars:

- (i) Strengthening our governance framework;
- (ii) Promoting engagement with our people and local communities in which we operate;
- (iii) Reinforcing the role of sustainability through our value chain; and
- (iv) Improving our environmental footprint to enable materials which are vital for sustainable development.

We will continue to disclose our ESG progress annually in our revised Global ESG Reports. Our 2023 Global ESG Report will be published in 2024.

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 impacts all the functional areas of our Company as we seek to drive changes that ensure competitiveness throughout the cycle. Since 2021, the Company has successfully been delivering on its previously disclosed strategic EBITDA improvement projects, yielding positive EBITDA for each of the past three years ended December 31, 2023, 2022 and 2021. These consecutive positive results reflect the Company's turnaround and commitment to executing on its strategic plan, which is driven by the following key areas:

- **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. Prospectively, 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 procurement:** Our centralized procurement process enhances the effectiveness of our spending efforts, improves our ability to schedule purchases and enables 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. In addition to cost reductions, our campaign to spend better will reduce supply chain risk, supporting continuous quality and service improvement, fostering better decision-making about suppliers and optimizing resource allocation.
- **Other operating expenses 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 discipline for deploying best practices to drive sound spending decisions without compromising our overall performance.

- Working capital improvement: The Company continues to focus on and improve its 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.

With our strategic plan we aim to:

Maintain and leverage our 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 optimizing our asset footprint in the regions that present attractive opportunities and focusing on continuous improvements to increase competitiveness of our assets. These efforts include continuing to secure competitive and clean sources of energy and extending our existing sources of Quartz, all while continuing our ESG journey.

We also plan to achieve organic growth by developing new products, such as silicon-based anodic materials for Li-ion batteries, to further diversify our portfolio and expand our customer base. We intend to focus our production and sales efforts on high-margin products and end-markets that we consider having 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 towards improving their terms and introducing 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 to develop high value powders for high-end applications, including silicon-based anodic materials for Li-ion batteries. We also aim to continue the development of EV Battery Cathode high purity manganese-based precursors.

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. Our financing and liquidity strategy focuses on maintaining a strong and conservative financial position, with sufficient liquidity and financial flexibility to facilitate

all of our ongoing operations, support organic and strategic growth and finance prudent capital expenditure programs aimed at placing us in a better position to generate increased revenues and cash flows. We plan to become even more efficient in our working capital management through various initiatives aimed at optimizing inventory levels and accounts receivable. We also seek to repay indebtedness from free cash flow and retain low leverage for maximum free cash flow generation.

Pursue strategic opportunities

We have consistently and successfully acquired and integrated complementary businesses, and divested operations as part of our strategy execution. Our acquisitions have extended 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.

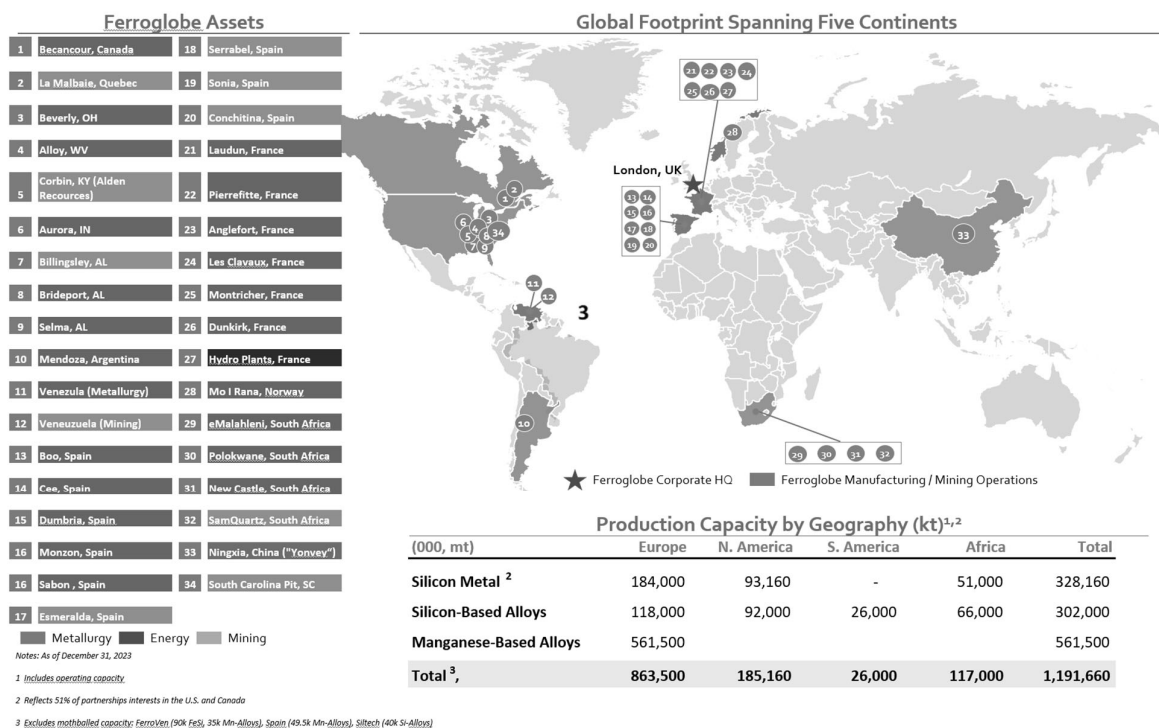
Facilities and Production Capacity

As of December 31, 2023, the location of our assets and our production capacity, including 51% of the capacity of our partnerships (of which we own 51%), by geography, of silicon, silicon-based alloys and manganese-based alloys is detailed below in Figure 1. 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.

As of December 31, 2023, certain production facilities in the United States, Spain and Venezuela were partially or fully idled due to current market conditions, while certain production facilities in Europe were partially or fully idled to optimize energy and operating costs. Ferroglobe subsidiaries own a total of 18.9 megawatts of hydro production capacity in France.

Products



For the years ended December 31, 2023, 2022 and 2021, the Company's consolidated sales, shipments in metric tons and average selling price by product were as follows:

(\$ thousands)	Year ended December 31,		
	2023	2022	2021
Silicon metal	722,226	1,116,193	637,695
Manganese-based alloys	259,197	525,483	469,138
Ferrosilicon	330,946	561,539	337,833
Other silicon-based alloys	159,441	192,409	161,750
Silica fume	33,804	32,290	32,409
Other	144,419	170,002	140,083
Total Sales	1,650,033	2,597,916	1,778,908

Shipments in metric tons:

Silicon metal	194,385	209,342	253,991
Manganese-based alloys	227,243	295,589	314,439
Ferrosilicon	147,874	154,972	166,268
Other silicon-based alloys	43,557	49,105	76,498

Average Selling price (\$/MT):

Silicon metal	3,715	5,332	2,511
Manganese-based alloys	1,141	1,778	1,492
Ferrosilicon	2,238	3,623	2,032
Other silicon-based alloys	3,661	3,918	2,114

Silicon metal

Ferroglobe is a leading global silicon metal producer with a total production capacity of approximately 384,000 tons (including our 51% share of Ferroglobe's partnership 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, 2023, 2022 and 2021, Silicon metal sales accounted for 43.8%, 43.0% and 35.8% of Ferroglobe's total consolidated revenues, respectively.

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, 2023, sales to aluminum producers represented 30% of silicon metal revenues (29% for the year ended December 31, 2022, and 45% for the year ended December 31, 2021).

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 20% of the cost of production. For the year ended December 31, 2023 sales to chemical producers represented 47% of silicon metal revenues (66% for the year ended December 31, 2022, and 43% for the year ended December 31, 2021).

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, which convert sunlight into electricity. Individual solar cells are soldered together to make solar modules. For the year ended December 31, 2023 sales to polysilicon producers represented 19% of silicon metal revenues (5% for the year ended December 31, 2022, and 10% for the year ended December 31, 2021).

Manganese-based alloys

Ferroglobe is among the leading global manganese-based alloys producers based on production capacity. As of December 31, 2023, 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 years ended December 31, 2023, 2022 and 2021 Ferroglobe sold 227,423 tons, 295,590 tons and 314,439 tons of manganese-based alloys, respectively. For the years ended December 31, 2023, 2022 and 2021, Ferroglobe's revenues generated by manganese-based alloys sales accounted for 15.7%, 20.2% and 26.4% of Ferroglobe's total consolidated revenues, respectively. More than 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 a 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 Low Carbon.

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.

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, 2023, Ferroglobe sold 147,874 tons of ferrosilicon (147,725 tons during the year ended December 31, 2022, and 166,268 tons during the year ended December 31, 2021). For the years ended December 31, 2023, 2022 and 2021, Ferroglobe's revenues generated by ferrosilicon sales accounted for 20.1%, 21.6% and 19.0%, of Ferroglobe's total consolidated revenues, respectively.

Ferrosilicon is an alloy of iron and silicon (normally 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. More than 95% of ferrosilicon produced is used in steel production (including stainless steel).

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, 2023, Ferroglobe sold 43,557 tons of silicon-based alloys (excluding ferrosilicon) (56,630 tons during the year ended December 31, 2022, and 76,498 tons during the year ended December 31, 2021). For the years ended December 31, 2023, 2022 and 2021, Ferroglobe's revenues generated by silicon-based alloys (excluding ferrosilicon) accounted for 9.7%, 7.4% and 9.1% of Ferroglobe's total consolidated revenues, respectively.

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, 2023, 2022 and 2021, Ferroglobe's revenues generated by silica fume sales accounted for 2.0%, 1.2% and 1.8%, 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.

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), slags 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) by delegation from 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 majority of the manganese ore Ferroglobe purchased in 2023 and 2022 came from suppliers located in South Africa and Gabon. 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 major carbon reductant in silicon and silicon alloy production. Only washed and screened coal with ash content below 10% and with specific physical and chemical properties is used for production of silicon alloys. Colombia and the United States are the best sources for the required types of coal in the silicon alloys industry, and Ferroglobe is dependent on supply from these two countries.

The majority of externally purchased coal in 2023 and 2022 was sourced from a single mining site in Colombia, while the remainder originated primarily from the United States, and to a lesser extent from Kazakhstan and South Africa. Ferroglobe has a long-standing relationship with the coal washing plants which price coal using spot, quarterly, semi-annual or annual contracts, based on market outlook. European coal prices, which are denominated in USD, are mainly related to API 2, the benchmark price reference for coal imported into northwest Europe.

Ferroglobe also owns Ferroglobe USA Mining, LLC. (formerly Alden Resources LLC) in the United States. Ferroglobe USA Mining provides a stable and long-term supply of low ash metallurgical grade coal by fulfilling a substantial portion of our requirements to our North American operations.

See “—Mining Operations” below for further information.

Quartz

Quartz, also known as quartzite, is a key raw material in the manufacture silicon metal and silicon-based alloys.

Ferroglobe has secured access to quartz from its quartz mines in Spain, South Africa, the United States and Canada (see “—Mining Operations”). For the year ended December 31, 2023 and 2022, more than 60% of Ferroglobe’s total consumption of quartz was self-supplied. Ferroglobe also purchases quartz from third-party suppliers on the basis of annual contractual agreements. Ferroglobe’s quartz suppliers typically have operations in the same countries where Ferroglobe factories are located, or in close proximity, which minimizes logistical costs.

Ferroglobe controls quartzite mining operations located in Alabama and 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 quartz. In 2023, Ferroglobe expanded its supply through the acquisition of a property in South Carolina, USA. We aim to commence mining activities in 2024.

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 cut to produce charcoal, which is the major 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 the other countries where Ferroglobe operates, Ferroglobe purchases wood chips locally or logs for on-site wood chipping operations from a variety of suppliers.

In 2023, the sourcing of metallurgical coke was predominantly from Poland, China and Colombia.

Petroleum coke, electrode related products, slag, limestone and additive metals are other relevant raw materials that Ferroglobe utilizes to manufacture its electrometallurgy products. Procurement of these raw materials is either managed centrally or with each country's raw materials procurement manager or plant manager and the materials purchased at spot prices or under contracts for one year or less.

In 2023, the sourcing of graphite electrodes came from European countries, India and China with a combination of spot and long-term agreements. Carbon electrodes supplies originated in Poland and China, including from Ferroglobe's own carbon electrode factory in Ningxia Province in China.

Logistics

Logistical operations are managed centrally. Sea-freight operations are centralized at corporate level, while rail logistic is managed at a country level. Road transportation is managed at plant level with centralized coordination in multi-site countries. Contractual commitments in respect of transportation and logistics match, to the extent possible, Ferroglobe's contracts 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 2023, while spot Spanish power prices declined significantly, they remained at levels impacting energy price competitiveness. In 2023, the Company maintained the low level of production that was initiated in the country starting in the second half of 2022. The Company produced on a limited capacity due to an extreme modulation practice at certain hours of the day. Ferroglobe has also progressed during the year in engaging discussions with energy companies to secure Purchasing Power Agreements ("PPAs") based on solar and wind generation. Two PPAs were signed in 2023 for a total volume of 130 GWh. See also "Major Shareholders and Related Party Transactions—Related Party Transactions."

In France, Ferroglobe entities have their power needs covered by a three-year agreement ending in 2025. The Regulation enacted in 2015 enables French subsidiaries of the Company 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 carbon dioxide costs under the EU Emission Trading System (ETS) regulation. These arrangements not only allow French plants to operate competitively over a 12-month basis, but also to concentrate production during periods when energy prices are lower or even negative, as and when required. In 2023, Ferroglobe did not operate during the first quarter and most of December to optimize its contractual commitments.

The ARENH benefit allows all alternative suppliers to obtain electricity from EDF during certain time periods under conditions set by the public authorities. The price is currently established at EUR 42/megawatt hour. As such, when market prices are high, the ARENH system is an attractive solution.

In addition, we have an additional agreement with EDF in which we have agreed different electricity prices throughout the year based on demand. When demand is highest, our agreed price is generally lowest and is even negative during certain time periods.

As noted above, the Company did not operate during the first quarter and most of December as the benefits mentioned above are primarily in effect from April through October.

For the year ended December 31, 2023, the Company recorded \$186,211 thousand as an offset to expense recorded within “raw materials and energy consumption for production” associated with these benefits. However, such benefits are expected to be reduced significantly if not a net expense in future periods due to changes in energy prices and contractually agreed prices that reduce the overall benefit.

Ferroglobe’s production of energy in France through its hydroelectric power plants provides some mitigation to its exposure to volatility in energy price.

In the United States, we prefer 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, approximately 50% of our power needs, from a dedicated hydroelectric 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 2023, with eMalahleni participating in a curtailment program for the full year. The Polokwane smelter was restarted and operated by the end of the year at 65% capacity and also started participating in the curtailment program as from Q4. The Newcastle smelter remained in Care and Maintenance for the full year and the Notified Maximum Demand was reduced during the year to reduce fixed costs. The interruptibility program of Eskom that is applicable to eMalahleni and Polokwane, requires power curtailments when the grid is under supply pressure, but compensated on an hourly basis. This has a positive effect on the overall price paid for electricity. As a result, we look to ensure 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. Occurrences of Loadshedding was important during 2023, but had minimal impact on the smelters due to the interruptibility program, while in the Delmas mine, this was partially countered through diesel generators, where a portion of the costs are compensated by our customers to ensure contracted volumes. Load shedding is expected to continue up to 2028.

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 in the coming years and will help alleviate the amount of Load Shedding Events undertaken by Eskom. We are currently engaging with green energy producers to diversify our power supply from 2024. These are anticipated to 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 fixed price. Our operations there benefit from a reduction of the distribution tariff, while also receiving compensation for indirect carbon dioxide costs under the EU Emission Trading System (ETS) regulation, allowing it 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, 2023.

Mine	Location	Mineral	Annual capacity kt	Production in 2023 kt	Production in 2022 kt	Production in 2021 kt	Mining Recovery
Sonia	Spain (Mañón)	Quartz	150	119	141	125	0.4
Esmeralda	Spain (Val do Dubra)	Quartz	50	10	22	25	0.4
Serrabal	Spain (Vedra & Boqueixón)	Quartz	330	201	288	300	0.2
Coto Minero Conchitina ⁽⁵⁾	Spain (O Vicedo)	Quartz	150	14	25	20	0.4
Thaba Chueu Mining	South Africa (Delmas)	Quartzite	1,000	592	553	601	0.7
Mahale	South Africa (Limpopo)	Quartz	80	32	23	24	0.5
Rodepoort	South Africa (Limpopo)	Quartz	50	—	—	—	0.5
Fort Klipdam	South Africa (Limpopo)	Quartz	75	75	43	30	0.8
AS&G Meadows Pit	United States (Alabama)	Quartzite	300	140.5	115	242	0.4
South Carolina Pit	United States (South Carolina)	Quartzite	300	—	—	—	0.3
			2,485	1,184	1,210	1,366	
Mosely Gap/Eatin Fk.	United States (Kentucky)	Coal (active)	400	348.6	379.5	—	0.7
Davis Creek	United States (Kentucky)	Coal (inactive)	240	—	—	—	0.7
Log Cabin No. 5	United States (Kentucky)	Coal (active)	168	289.6	170.2	156	0.6
Hubbs Hollow	United States (Kentucky)	Coal (active)	200	163	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	42.3	32.7	—	0.6
			1,368	843.20	666.40	156	

Mine	Proven reserves Mt ⁽¹⁾	Probable reserves Mt ⁽¹⁾	Mining Method	Reserve grade	Btus per lb.	Life ⁽²⁾	Expiry date ⁽³⁾
Sonia	1.46	0.8	Open-pit	Metallurgical	N/A	15	2069
Esmeralda	0.02	0.12	Open-pit	Metallurgical	N/A	6	2029
Serrabal	2.91	1.6	Open-pit	Metallurgical	N/A	15	2038
Coto Minero Conchitina ⁽⁵⁾	—	0.8	Open-pit	Metallurgical	N/A	12	2036
Thaba Chueu Mining	7.03	19.5	Open-pit	Metallurgical & Glass	N/A	30	2039
Mahale	—	3.0	Open-pit	Metallurgical	N/A	20	2035
Rodepoort	—	0.50	Open-pit	Metallurgical	N/A	5	2028
Fort Klipdam	—	0.50	Open-pit	Metallurgical	N/A	5	Expired (4)
AS&G Meadows Pit	2.50	—	Surface	Metallurgical	N/A	8	2031
South Carolina Pit	2.65	—	Surface	Metallurgical	N/A	11	2035
	16.57	26.77					
Mosely Gap	1.20	—	Surface	Metallurgical	14,000	3	2026
Hubbs Hollow	2.00	—	Surface	Metallurgical	14,000	4	2027
Log Cabin No. 5	0.12	—	Underground	Metallurgical	14,000	1	2024
Buffalo Creek	0.50	—	Surface	Metallurgical	14,000	2	2027
Kimberly	0.50	—	Surface	Metallurgical	14,000	5	2026
Bennett's Branch	1.70	—	Underground	Metallurgical	14,000	15	2036
Bain Branch No. 3	3.60	2.9	Underground	Metallurgical	14,000	25	2042
Harpes Creek 4A	1.20	1.3	Underground	Metallurgical	14,000	10	2032
	10.82	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 mining permit expired at the end of 2022. The application for a new mining permit was submitted in 2023 and is awaiting approval from the mining authorities. Stock is sufficient to supply the smelters into Q2 2024.
- (5) Ferroglobe considers its Conchitina mining concessions 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 2024 Annual Mining Plan, we are not legally prevented from commencing mining operations in the area based on the fully-authorized 2023 Annual Mining Plan.

Spanish mining concessions

Conchitina

Ferroglobe purchased Cuarzos Industriales S.A.U and various of its mining rights in 1996 including Conchitina and Sonia.

Cuarzos Industriales, S.A.U. has requested the renewal of Conchitina while also requesting the competent authority to consolidate the concession with that of Conchitina Segunda. The Conchitina Segunda mining concession was granted to Cuarzos Industriales S.A.U. in 2006 for a 30-year term after the necessary mining research had been conducted and the mining potential of the area had been demonstrated. Legal support for the consolidation request was that both mining rights apply over a unique quartz deposit. Coto Minero 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

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. ("RAMSA") Ferroglobe acquired RAMSA, 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. applied for the renewal of the concession which was formally granted in October 2023 and the concession will expire in 2038. The surface area covered by Serrabal mining concession is 387 hectares.

Cabanetas

The mining right granting process and tax regulations applicable to the Cabanetas limestone quarry differ 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, that authorized the extension of the original mining concession issued in 2013 by the competent mining authority. The extension 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 FerroAtlantica del Cinca S.L. pursuant to a lease agreement entered into in 1950, which was subsequently extended until 2050. To retain the lease, FerroAtlantica del Cinca S.L. pays an annual fee currently equal to €0.15 per ton of limestone quarried out of the mine. The quarry covers a surface area of 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 “Item 4.B—Laws and regulations applicable to Ferroglobe’s mining operations—Spain”.

South African concessions

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”). In 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 Chueu 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 Chueu Mining and licensed to it. The latest mining right license was granted by the Department of Mineral Resources in 2014 and registered at the mining titles deeds office in 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 Chueu 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 11 per ton is paid to the lessor in the form of a Royalty. Mining volumes increased significantly with the reopening of the Polokwane smelter at the end of 2022, but the mine also continues to supply the eMalahleni smelter with low alkaline quartz. 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. First block quartz trials are envisaged during 2024 at the Polokwane smelter.

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 was granted and is valid for the continuation of our mining activities at the Roodepoort mine until 2028. Silicon Smelters is currently in the process of transferring this mining right to its mining subsidiary, Thaba Chueu 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. A new agreement is in process of drafting to pay Alpha Sand a royalty when mining is expected to resume in 2024. 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 during 2024.

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 2023. An important quantity of block material was mined during Q4 of 2023 in order to secure a minimum of 12 months' supply to the Polokwane smelter. This was done in anticipation of the expiry of the current mining permit. An agreement was reached with a mining partner that was granted a Prospecting Right, to apply for Mining Permits under Rixhaka mining until the reserve is depleted. This follows an extensive drilling campaign that was performed in 2023.

For further information regarding South African regulations applicable to mining concessions, as well as environmental and other regulations, see "Item 4.B—Laws and regulations applicable to Ferroglobe's mining operations—South Africa."

French mining concessions

Soleyron

Ferroglobe France (formerly 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. Rehabilitation of the site was performed in Q1 2022 and the French administration validated the realized rehabilitation in Q2 2022. With this approval, the Company sold the 12.2 hectares of land to the Saint-Hippolyte de Montaigu Municipality in May 2022.

United States and Canadian concessions

Coal

As of December 31, 2023, we have three active coal mines (two surface mines and one underground mine) located in Knox County, 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, 2023, we estimate our proven and probable reserves to be 10,820,000 tons with an average permitted life of 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 500,000 tons of coal annually, with a capacity of 2,500,000 tons. The average coal processing recovery rate is 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. Each January, in order to maintain the validity of the mining concession, we are required to submit an annual mining plan detailing the projected development work in the upcoming year to the competent public authority.

Regarding the environmental requirements applicable to Ferroglobe's mining operations in Spain, each of Conchitina and Conchitina Segunda, Sonia, Esmeralda and Serrabal 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, which includes the protection of air, water, soil, flora and fauna, landscape, cultural heritage, restoration and the interaction of such elements. The relevant authority verifies compliance with our EIS, which covers mining activities, auxiliary facilities and heaps carried out in a determined perimeter of each mine. The EIS also includes a program of surveillance and environmental monitoring.

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 are extendable for one additional 30-year period. 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 the Black Economic Empowerment (“BEE”) regulation, 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. Certain states in which we operate underground and surface coal mines have 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, 2023, 2022 and 2021, respectively.

(\$ thousands)	Year ended December 31,		
	2023	2022	2021
United States of America	670,854	966,161	515,095
Europe			
<i>Spain</i>	169,390	282,387	251,528
<i>Germany</i>	276,333	442,331	292,774
<i>Other European Countries</i>	199,789	423,002	383,578
Total revenues in Europe	645,512	1,147,720	927,880
Rest of the World	333,668	484,035	335,933
Total	1,650,034	2,597,916	1,778,908

Customer base

We have a diversified customer base across our key product categories. Throughout our history, 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 more than 40 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 10 years and, in some cases, such relationships are for as long as 30 years.

For the years ended December 31, 2023, 2022 and 2021, Ferroglobe’s ten largest customers accounted for 50.5%, 50.9% and 48.1% of the Company’s consolidated revenues, respectively.

Customer contracts

Our contracting strategy seeks to ensure significant revenue while remaining flexible to benefit from 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 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 2023, the majority of our contracts were indexed to market related benchmarks.

The remaining balance of our silicon metal, manganese-based ferroalloys production 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 secure a significant amount of revenues while also allowing us to remain flexible and benefit from unexpected price and demand upticks.

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, such as 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-value-added 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 majority of Ferroglobe's products are sold in Europe and the United States directly by our own sales forces located in Spain, France, Germany and the United States whereas sales in other regions are generally handled by agents. For the manganese-based business, Glencore and Ferroglobe operate 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

Price represents the most significant differentiating and competitive factor in our core industries. Other important factors include the consistency of the chemical and physical specifications, as well as the 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, but are not limited to: (i) Elkem, a Norwegian manufacturer of silicon metal, ferrosilicon, foundry products, silica fumes, carbon products and energy; (ii) Dow Inc., an American company specializing in silicone and silicon-based technology; (iii) Rima, a Brazilian silicon metal and ferrosilicon producer; (iv) Liasa and Minas Ligas, Brazilian producers of silicon; (v) Wacker, a German chemical business which manufactures silicon in Norway; (vi) 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 headquartered 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 high 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 against our competition by reducing our costs.

Research and Development (R&D)

Ferroglobe is committed to advancing novel products, cutting-edge technologies, and innovative production processes to enhance value for our stakeholders and align with worldwide megatrends, particularly the transition towards green energy. We maintain specialized teams dedicated to R&D and technology, while also fostering collaborative partnerships through agreements with universities and research institutes in Spain, France, and other global locations. The ensuing section provides an overview of Ferroglobe's noteworthy and continuous research and development initiatives.

ELSA electrode

Ferroglobe has pioneered a patented technology for electrodes employed in silicon metal furnaces, successfully marketing it to numerous prominent silicon producers worldwide. Recognized as the ELSA electrode, this technology plays a pivotal role in enhancing energy efficiency during the silicon metal production process while eradicating iron contamination. Ferroglobe has extended the privilege to utilize the ELSA electrode to these producers, subject to the payment of royalties to Ferroglobe. The company remains dedicated to ongoing investments in ELSA to uphold its innovativeness and ensure continual advancement in the process.

Silicon for advanced technologies– Li-ion batteries

Ferroglobe initiated the Silicon for Advanced Technologies project, with the objective of manufacturing customized, silicon-based products tailored for high-end applications. Among the diverse applications being targeted, the most promising market is that of anodic materials for Li-ion batteries. In this specific domain, Ferroglobe has developed high-purity silicon powder, available in various purities and sizes, intended for use as raw material in the production of anodic active materials such as silicon/carbon composites (Si/C) or silicon monoxide (SiOx). These materials, Si/C and SiOx, are incorporated in small proportions in the anodes of lithium-ion batteries.

Ferroglobe is actively engaged in advancing the next-generation technology involving pure silicon anodes. In this endeavor, we are in the process of formulating specialized grades of micro and submicrometric silicon, designed for direct application in the anode with specific treatments. To facilitate the treatments and conduct electrochemical testing, Ferroglobe has established collaborative agreements with select companies and research institutes.

In this project, we have harnessed the purification technologies pioneered for the solar grade silicon initiative, all of which are protected by patents. These technologies, boasting industrial viability, cost-effectiveness, and a minimal carbon footprint, position Ferroglobe as a frontrunner in this emerging market. Our Innovation Centre in Sabón, Spain, houses the inaugural demonstration milling unit, while multiple industrial purification units are operational in Montricher, France, and Puertollano, Spain.

High purity manganese sulphate – Battery grade

Manganese emerges as an upcoming cathodic material, given its abundance, cost-effectiveness in contrast to cobalt and nickel, potential for higher voltages, and increased energy density. Several years ago, Ferroglobe secured a patent for a process to generate electrolytic manganese metal, starting from off-specification materials derived from manganese alloy production. Building upon this process and leveraging our expertise, Ferroglobe Innovation is currently in the process of developing supplementary purification steps to achieve battery grade manganese sulphate monohydrate.

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 permits from governmental authorities to conduct its regulated activities. Such permits may be subject to modification or revocation by such authorities.

Ferroglobe may not always be 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, regional, 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, with water reduction programs becoming mandatory for certain of our plants. Open cooling systems will be less tolerated by the regulators.

For a summary of regulatory matters applicable to Ferroglobe's mining operations, see "Item 4.B—Laws and regulations applicable to Ferroglobe's mining operations."

Energy and electricity generation

Ferroglobe operates hydroelectric 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, Ferroglobe USA, Inc. (formerly Globe Specialty Metals, Inc.) (“Ferroglobe USA”) 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 unfairly priced and 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. Currently, an appeal of the 2021 Kazakhstan determination remains pending before the United States Court of Appeals for the Federal Circuit. Additionally, periodic reviews are underway at Commerce concerning imports from Malaysia.

In June 2020, the Russia silicon metal 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 November 2023, 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.

In September 2023, a bipartisan bill was introduced in the U.S. Senate and subsequently in the House of Representatives to enact a 35% tariff on imports of Russian and Belarusian ferrosilicon. The legislation remains under consideration in both chambers.

In March 2024, Ferroglobe USA petitioned Commerce and the ITC to stop ferrosilicon producers in Brazil, Kazakhstan, Malaysia, and Russia from selling unfairly priced and subsidized ferrosilicon imports into the United States. These proceedings are ongoing and are subject to specific statutory deadlines. The ITC’s preliminary determination will be rendered in May 2024. Commerce’s preliminary countervailing duty (subsidies) determinations may be rendered as early as June 2024, and its preliminary antidumping duty determinations may be rendered as early as September 2024. Formal countervailing duty and antidumping duty orders could be issued as early as October 2024 and January 2025, respectively. These deadlines may be extended by operation of law.

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 five-year period.

Seasonality

Electrometallurgy

Due to the cyclicity of energy prices and the energy-intensive nature of the production processes for silicon metal, manganese- and silicon-based alloys and specialty metals, in certain instances Ferroglobe does not operate its electrometallurgy plants during certain periods when energy prices are at their peak. Demand for Ferroglobe’s manganese- and silicon-based alloy and specialty metals products is lower during these same periods as its customers also tend to 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.

For a list of subsidiaries and ownership structure see “Note 2. Organization and Subsidiaries” to our consolidated financial statements.

D. Property, Plant and Equipment.

See “Item 4. Information on the Company—B. Business Overview.”

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

A. Operating Results

Introduction

You should read the following management’s discussion and analysis of our financial condition and results of operations together with our consolidated financial statements, including the notes thereto, included in this Annual Report. The following discussion is based on our financial information prepared in accordance with IFRS as issued by the IASB, which might differ in material respects from generally accepted accounting principles in other jurisdictions. The following discussion includes forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including but not limited to those described under “Item 3. Key information—D. Risk factors” and elsewhere in this Annual Report.

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 costs to serve in a globally competitive environment. Ferroglobe follows a pricing policy aimed at maintaining balance between exposure to termed contracts, based on formula pricing, and 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 2023, demand across our segments was impacted by the ongoing decline in market price, which had peaked in the prior years due to the re-filling of value chains after the COVID-19 pandemic. The end market demand concerns were exacerbated by the higher interest and inflation rate environment. Additionally, lower market demand continued into the second half of 2023.

Silicon metal pricing declined during the year in line with demand across global value chains such as the chemical, aluminum, and other commodity sectors. Pricing across Europe and Asia has converged while the US still carries a premium. The drop in demand has forced producers to adjust their production, in an effort to attenuate the downward trend in silicon prices that began in mid-2022. The Company has further noticed a trend reversal commencing in Q4 2023. Ferroalloy prices followed a similar trend, recovering in Q4 2023 as a result of improved steel production in the EU and supply chain disruptions.

Since 2020, the manganese-based alloy pricing spreads, over ore, recovered through mid-2022 and have since returned to near historical levels in late 2023 due to weaker demand of steel across Europe.

Our ferrosilicon business pricing declined in 2023 in line with the weakening demand in steel going into the construction and automotive sectors. Further investments were limited by the higher interest and inflation rate environment.

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 2023, more than 35% of Ferroglobe’s total \$112.6 million in expenses with respect to manganese ore fell under an annual commitment (33% of \$187.8 million in 2022 and 27% of \$133.48 million in 2021), while the remaining was purchased on a spot basis.

In 2023, coal represented a \$191.3 million expense for Ferroglobe (\$179.5 million in 2022 and \$137.4 million in 2021). Metallurgical coke, used for manganese alloys production, represented a total purchase volume of \$41.5

million in 2023 (\$72.9 million in 2022 and \$47.5 million in 2021). Wood is both an important element for both the production of silicon alloys and the production of charcoal, which is used as a carbon reductant at Ferroglobe's South African operations. Ferroglobe's wood expense amounted to \$40.7 million, \$37.8 million and \$36.8 million in 2023, 2022 and 2021, respectively. Ferroglobe sourced the majority of our quartz needs globally from its own mines in Spain, South Africa, the United States and Canada. Total quartz consumption in 2023, 2022 and 2021 represented an expense of \$76.7 million, \$90.4 million and \$87.8 million, respectively.

Power

Power generally constitutes one of the largest expenses for most of Ferroglobe's products. Ferroglobe focuses on minimizing energy prices and unit consumption throughout its operations through active management of our energy procurement and by concentrating its silicon and manganese-based alloy production during periods when energy prices are lower. In 2023, Ferroglobe's total power consumption was 5,834 gigawatt-hours (6,431 in 2022), with power contracts that vary across its operations and geographies.

Energy pricing gradually improved in 2023 after prices peaked in 2022 due to the turmoil created by the conflict in Ukraine. With improved production in European countries, especially nuclear power production in France, together with reduced consumption in most countries, prices declined throughout the year in Europe. Other geographies remain relatively stable in both availability and prices except in South Africa where load shedding has been more common than in previous years.

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."

Comparison of the years ended December 31, 2023 and 2022

(\$ thousands)	Year ended December 31,	
	2023	2022
Sales	1,650,034	2,597,916
Raw materials and energy consumption for production	(879,286)	(1,285,086)
Other operating income	100,992	147,356
Staff costs	(305,859)	(314,810)
Other operating expense	(270,090)	(346,252)
Depreciation and amortization charges	(73,532)	(81,559)
Impairment (loss)	(25,290)	(56,999)
Other (loss)	(29)	(19)
Operating profit	196,940	660,547
Finance income	5,422	2,274
Finance costs	(38,793)	(61,015)
Exchange differences	(7,551)	(9,995)
Profit before tax	156,018	591,811
Income tax (expense)	(57,540)	(147,983)
Profit for the year	98,478	443,828
Profit attributable to non-controlling interests	15,816	3,514
Profit attributable to the Parent	82,662	440,314

Sales

Sales decreased \$947,882 thousand, or 36.5%, from \$2,597,916 thousand for the year ended December 31, 2022 to \$1,650,034 thousand for the year ended December 31, 2023. The decrease in our sales results is primarily attributable to lower volumes across our product portfolio and lower pricing of our main products.

Sales revenue decreased across all major products in 2023. Silicon metal sales revenue decreased \$394,053 thousand, or 35.3%, and average selling prices of silicon metal decreased by 30.3% to \$3,715/MT in 2023 from \$5,332/MT in 2022. Total shipments of silicon metal decreased by 7.1% due to weak demand in chemicals and aluminum in Europe.

Silicon-Based Alloys sales revenue decreased \$263,502 thousand, or 35%, and average selling prices decreased by 30.6% to \$2,562/MT in 2023 from \$3,694/MT in 2022. Total shipments decreased by 6.2% driven by weak demand from steel manufacturers.

Manganese-Based Alloys sales revenue decreased \$266,199 thousand, or 50.7%, and average selling prices decreased by 35.8% to \$1,141/MT in 2023, compared to \$1,778/MT in 2022. Total shipments decreased by 23.1% due to production adjustments in Spain as a result of high energy prices, and lower-cost imports introducing higher pressure from Asia.

Raw materials and energy consumption for production

Raw materials and energy consumption for production decreased \$405,800 thousand, or 31.6%, from \$1,285,086 thousand for the year ended December 31, 2022 to \$879,286 thousand for the year ended December 31, 2023, primarily due to the reduction in sales and our agreement with EDF regarding the electricity pricing mechanism as well as the ARENH benefit of \$186,211 thousand, which has been recorded as an offset to “raw materials and energy consumption for production.” As mentioned earlier, this benefit was primarily based on favorable electricity pricing, even negative, that we had agreed with EDF during time periods when demand for electricity was highest. We had not agreed a similar pricing mechanism for 2022. During 2023, raw materials and energy consumption for production as a percentage of sales was 53%, compared to 49% in 2022. The increase was driven by lower sales pricing.

Other operating income

Other operating income decreased \$46,364 thousand, or 31.5%, from \$147,356 thousand for the year ended December 31, 2022 to \$100,992 thousand for the year ended December 31, 2023, mainly due to the benefit received from our French energy provider to stop production in Q4 2022 amounting to \$42,219 thousand and lower income recognized in 2023 related to the carbon dioxide emission allowances amounting to \$8,635 thousand.

Staff costs

Staff costs decreased \$8,951 thousand, or 2.8%, from \$314,810 thousand for the year ended December 31, 2022 to \$305,859 thousand for the year ended December 31, 2023. This decrease is primarily due to a lower variable remuneration driven by the lower results in 2023.

Other operating expense

Other operating expense decreased \$76,182 thousand, or 22.0%, from \$346,252 thousand for the year ended December 31, 2022 to \$270,090 thousand for the year ended December 31, 2023, driven by a decrease in distribution costs amounting to \$26,831 thousand, a result of lower sales volumes, a reduction of services of independent professionals amounting to \$33,865 thousand and lower carbon dioxide cost for a total of \$18,351 thousand.

Depreciation and amortization charges

Depreciation and amortization charges decreased \$8,027 thousand or 9.8%, from \$81,559 thousand for the year ended December 31, 2022 to \$73,532 thousand for the year ended December 31, 2023. The decrease in depreciation is driven by the impairments of assets recognized in 2022, amounting to \$56,999 thousand.

Impairment (loss) gain

Impairment losses decreased \$31,709, from a loss of \$56,999 thousand for the year ended December 31, 2022 to \$25,290 thousand for the year ended December 31, 2023.

During the year ended December 31, 2023 the Company recognized an impairment of \$21,008 thousand in relation to our Selma facility in the U.S, an impairment of \$1,570 thousand relating to our Boo facility in Spain and an impairment of \$3,619 thousand relating to our Cee-Dumbria facility in Spain.

During the year ended December 31, 2022 the Company recognized an impairment of \$56,999 thousand in relation to 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, and an impairment reversal of \$5,017 thousand relating to our Polokwane facility also located in South Africa.

Finance income

Finance income increased \$3,148 thousand, or 138.4%, from \$2,274 thousand for the year ended December 31, 2022 to \$5,422 thousand for the year ended December 31, 2023. The increase is driven by the interest received on money market funds.

Finance costs

Finance costs decreased \$26,871 thousand, or 44.0%, from \$61,015 thousand for the year ended December 31, 2022 to \$34,144 thousand for the year ended December 31, 2023. The decrease is primarily due to the partial redemption of the Reinstated Notes by \$150.0 million in July 2023 and the early partial repayment of \$17.4 million of Reindus loan in February 2023.

Exchange differences

Exchange differences decreased \$2,444 thousand, or 24.5% from \$9,995 thousand for the year ended December 31, 2022 to \$7,551 thousand for the year ended December 31, 2023, primarily due to the EUR-USD exchange rate.

Income tax (expense) benefit

Income tax expense decreased \$90,443 thousand, from an income tax expense of \$147,983 thousand for the year ended December 31, 2022 to an income tax expense of \$57,540 thousand for the year ended December 31, 2023. The variance is primarily due to a lower income tax recorded in 2023, mainly in the United States by \$7,825 thousand recorded in 2023 compared to \$68,104 thousand in 2022 and in Canada by \$6,226 thousand recorded in 2023 compared to \$27,209 thousand in 2022, both driven by higher profit before tax in 2022.

Segment operations

Operating segments are based upon the Company's management reporting structure. As such, we report our results in accordance with the following segments:

- 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,	
	2023	2022
Sales	505,472	671,290
Raw materials and energy consumption for production	(313,162)	(305,545)
Other operating income	6,605	6,464
Staff costs	(67,160)	(61,378)
Other operating expense	(44,304)	(33,708)
Depreciation and amortization charges	(32,313)	(33,708)
Impairment (loss)	(21,008)	—
Other (loss)	(71)	(522)
Operating (loss) profit	34,059	242,893

Sales

Sales decreased \$165,818 thousand, or 24.7%, from \$671,290 thousand for the year ended December 31, 2022 to \$505,472 thousand for the year ended December 31, 2023 and average selling prices decreased by 30.4% to \$3,968/MT in 2023 from \$5,700/MT in 2022. Total shipments of silicon metal remain stable in 2023 compared to 2022.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$7,617 thousand, or 2.5%, from \$305,545 thousand for the year ended December 31, 2022 to \$313,162 thousand for the year ended December 31, 2023. 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 \$141 thousand, or 2.2%, from \$6,464 thousand for the year ended December 31, 2022 to \$6,605 thousand for the year ended December 31, 2023.

Staff costs

Staff costs increased \$5,782 thousand, or 9.4%, from \$61,378 thousand for the year ended December 31, 2022 to \$67,160 thousand for the year ended December 31, 2023. The increase is primarily due to a higher number of employees in 2023.

Other operating expense

Other operating expense increased \$10,596 thousand, or 31.4%, from \$33,708 thousand for the year ended December 31, 2022 to \$44,304 thousand for the year ended December 31, 2023, primarily due to the agreement in its partnerships with Dow Corning.

Depreciation and amortization charges

Depreciation and amortization charges decreased \$1,395 thousand, or 4.1%, from \$33,708 thousand for the year ended December 31, 2022 to \$32,313 thousand for the year ended December 31, 2023.

Impairment (loss)

The Company recorded an impairment loss of \$21,008 thousand for the year ended December 31, 2023 associated with the idling of our Selma facility in the U.S.

North America – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2023	2022
Sales	283,180	339,414
Raw materials and energy consumption for production	(165,193)	(68,490)
Other operating income	3,896	122
Staff costs	(37,744)	(41,923)
Other operating expense	(26,840)	(37,859)
Depreciation and amortization charges	(15,183)	(15,135)
Other (loss)	(115)	(126)
Operating profit	42,001	176,003

Sales

Sales decreased \$56,234 thousand, or 16.6%, from \$339,414 thousand for the year ended December 31, 2022 to \$283,180 thousand for the year ended December 31, 2023 and average selling prices decreased by 38.2% to \$2,936/MT in 2023 from \$4,747/MT in 2022. Total shipments increased by 16%.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$96,703 thousand, or 141.2%, from \$68,490 thousand for the year ended December 31, 2022 to \$165,193 thousand for the year ended December 31, 2023. The increase in our raw materials and energy consumption for production is mainly due to higher raw material prices and the increase in overall shipments.

Other operating income

Other operating income increased \$3,774 thousand, or 3093.4%, from \$122 thousand for the year ended December 31, 2022 to \$3,896 thousand for the year ended December 31, 2023. This income relates primarily to the commissions charged to other group companies that are eliminated during the consolidation process.

Staff costs

Staff costs decreased \$4,179 thousand, or 10.0%, from \$41,923 thousand for the year ended December 31, 2022 to \$37,744 thousand for the year ended December 31, 2023. The decrease is primarily due to lower variable remuneration driven by our lower results in 2023.

Other operating expense

Other operating expense decreased \$11,019 thousand, or 29.1%, from \$37,859 thousand for the year ended December 31, 2022 to \$26,840 thousand for the year ended December 31, 2023. The decrease is primarily due to litigation provisions recorded in 2022 that were settled during 2023.

Depreciation and amortization charges

Depreciation and amortization charges increased \$48 thousand, or 0.3%, from \$15,135 thousand for the year ended December 31, 2022 to \$15,183 thousand for the year ended December 31, 2023.

Europe - Manganese

(\$ thousands)	Year ended December 31,	
	2023	2022
Sales	277,508	701,140
Raw materials and energy consumption for production	(183,839)	(541,034)
Other operating income	36,628	42,882
Staff costs	(28,326)	(28,996)
Other operating expense	(69,897)	(111,741)
Depreciation and amortization charges	(7,835)	(13,005)
Impairment (loss)	(1,571)	(33,222)
Other gain (loss)	1	(178)
Operating profit	22,669	15,846

Sales

Sales decreased \$423,632 thousand or 60.4%, from \$701,140 thousand for the year ended December 31, 2022 to \$277,508 thousand for the year ended December 31, 2023, driven by a decrease in average selling prices by 35.8% to \$1,141/MT in 2023 from \$1,778/MT in 2022. Total shipments decreased by 23.1%. Additionally, sales of other products decreased in 2023 in both volumes and average sales prices.

Raw materials and energy consumption for production

Raw materials and energy consumption decreased \$357,195 thousand, or 66.0%, from \$541,034 thousand for the year ended December 31, 2022 to \$183,839 thousand for the year ended December 31, 2023, mainly due to the French energy agreement benefit as discussed above and recorded in 2023 amounting to \$54,380 thousand and the decrease in overall shipments.

Other operating income

Other operating income decreased \$6,254 thousand, or 14.6%, from \$42,882 thousand for the year ended December 31, 2022 to \$36,628 thousand for the year ended December 31, 2023, primarily driven by the energy compensation received in France in 2022.

Staff costs

Staff costs decreased \$670 thousand or 2.3%, from \$28,996 thousand for the year ended December 31, 2022 to \$28,326 thousand for the year ended December 31, 2023.

Other operating expense

Other operating expense decreased \$41,844 thousand, or 37.4%, from \$111,741 thousand for the year ended December 31, 2022 to \$69,897 thousand for the year ended December 31, 2023, primarily driven by a decrease in distribution costs linked to lower volumes in 2023 compared to 2022.

Depreciation and amortization charges

Depreciation and amortization charges decreased \$5,170 thousand, or 39.8%, from \$13,005 thousand for the year ended December 31, 2022 to \$7,835 thousand for the year ended December 31, 2023, primarily due to the impairments recorded in 2022 in our facilities in Boo, Monzón and Mo I Rana.

Impairment (loss)

Impairment losses decreased by \$31,651 thousand, from a loss of \$33,222 thousand for the year ended December 31, 2022 to a loss of \$1,571 thousand for the year ended December 31, 2023. During 2023, the Company recorded an impairment in our facility in Boo (Spain), of \$1,570 thousand, while in 2022 we recorded an impairment of \$11,559 thousand, and an impairment in our facilities in Monzón (Spain), and Mo I Rana (Norway) of \$5,915 thousand and \$15,749 thousand, respectively.

Europe – Silicon Metals

(\$ thousands)	Year ended December 31,	
	2023	2022
Sales	307,230	536,753
Raw materials and energy consumption for production	(103,304)	(241,936)
Other operating income	40,321	76,255
Staff costs	(79,114)	(81,175)
Other operating expense	(71,632)	(99,513)
Depreciation and amortization charges	(6,325)	(4,605)
Other gain	79	230
Operating (loss) profit	87,255	186,009

Sales

Sales decreased \$229,523 thousand or 42.8%, from \$536,753 thousand for the year ended December 31, 2022 to \$307,230 thousand for the year ended December 31, 2023 and average selling prices decreased by 31.2% to \$3,422/MT in 2023 from \$4,978/MT in 2022. Total shipments decreased by 24%.

Raw materials and energy consumption for production

Raw materials and energy consumption decreased \$138,632 thousand, or 57.3%, from \$241,936 thousand for the year ended December 31, 2022 to \$307,230 thousand for the year ended December 31, 2023. Raw materials and energy consumption decreased driven by the French energy agreement benefit recorded in 2023 amounting to \$96,816 thousand and the decrease in overall shipments.

Other operating income

Other operating income decreased \$35,934 thousand, or 47.1%, from \$76,255 thousand for the year ended December 31, 2022 to \$40,321 thousand for the year ended December 31, 2023, primarily due to energy compensation received in France in 2023 and lower income related to the carbon dioxide emission allowances recognized in 2023.

Staff costs

Staff costs decreased \$2,061 thousand or 2.5%, from \$81,175 thousand for the year ended December 31, 2022 to \$79,114 thousand for the year ended December 31, 2023. The decrease is primarily due to a lower variable remuneration driven by our lower results during 2023.

Other operating expense

Other operating expense decreased \$27,881 thousand, or 28.0%, from \$99,513 thousand for the year ended December 31, 2022 to \$71,632 thousand for the year ended December 31, 2023, primarily driven by a decrease in distribution costs due to lower product volumes in 2023 compared to 2022.

Depreciation and amortization charges

Depreciation and amortization charges increased \$1,720 thousand, or 37.4%, from \$4,605 thousand for the year ended December 31, 2022 to \$6,325 thousand for the year ended December 31, 2023, primarily due to property, plant and equipment additions.

Europe – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2023	2022
Sales	216,465	259,419
Raw materials and energy consumption for production	(108,409)	(139,687)
Other operating income	21,149	23,622
Staff costs	(42,069)	(50,467)
Other operating expense	(44,132)	(33,265)
Depreciation and amortization charges	(3,005)	(8,086)
Impairment (loss)	(3,619)	(26,028)
Other gain	47	82
Operating (loss) profit	36,427	25,590

Sales

Sales decreased \$42,954 thousand or 16.6%, from \$259,419 thousand for the year ended December 31, 2022 to \$216,465 thousand for the year ended December 31, 2023, and average selling prices decreased by 14.6% to \$2,766/MT in 2023 from \$3,240/MT in 2022. Total shipments decrease by 4.3%.

Raw Materials and energy consumption for production

Raw Materials and energy consumption decreased \$31,278 thousand, or 22.4%, from \$139,687 thousand for the year ended December 31, 2022 to \$108,409 thousand for the year ended December 31, 2023. Raw materials and energy consumption decreased driven by the French energy agreement benefit recorded in 2023 amounting to \$35,001 thousand.

Other operating income

Other operating income decreased \$2,473 thousand, or 10.5%, from \$23,622 thousand for the year ended December 31, 2022 to \$21,149 thousand for the year ended December 31, 2023, primarily due to energy compensation received in France in 2022.

Staff costs

Staff costs decreased \$8,398 thousand or 16.6%, from \$50,467 thousand for the year ended December 31, 2022 to \$42,069 thousand for the year ended December 31, 2023. The decrease is due to lower variable remuneration driven by the lower results in 2023.

Other operating expense

Other operating expense increased \$10,867 thousand, or 32.7%, from \$33,265 thousand for the year ended December 31, 2022 to \$44,132 thousand for the year ended December 31, 2023, primarily attributable to restructuring and legal provisions associated with the disposal of our Chateau Feuillet facility.

Depreciation and amortization charges

Depreciation and amortization charges decreased \$5,081 thousand, or 62.8%, from \$8,086 thousand for the year ended December 31, 2022 to \$3,005 thousand for the year ended December 31, 2023.

Impairment (loss)

Impairment loss decreased by \$22,409 thousand, from a loss of \$26,028 thousand for the year ended December 31, 2022 to a loss of \$3,619 thousand for the year ended December 31, 2023. During the year ended December 31, 2023, the Company recognized an impairment of \$3,619 thousand in relation to our tolling agreement with the plant in Cee, Spain, while in 2022 we recorded an impairment of \$20,034 thousand. Additionally in 2022 we also recorded an impairment of \$5,994 thousand at the Château Feuillet facility in France.

South Africa – Silicon Metals

(\$ thousands)	Year ended December 31,	
	2023	2022
Sales	50,071	17,337
Raw materials and energy consumption for production	(44,003)	(9,270)
Other operating income	594	156
Staff costs	(5,007)	(1,736)
Other operating expense	(11,223)	(2,649)
Depreciation and amortization charges	(1,840)	(748)
Impairment gain	478	5,357
Operating profit	(10,930)	8,447

Sales

Sales increased \$32,734 thousand, or 188.8%, from \$17,337 thousand for the year ended December 31, 2022 to \$50,071 thousand for the year ended December 31, 2023, mainly due to the restarting of the Polokwane facility.

Raw materials and energy consumption for production

Raw materials and energy consumption increased \$34,733 thousand, or 374.7%, from \$9,270 thousand for the year ended December 31, 2022 to \$44,003 thousand for the year ended December 31, 2023, driven by the increase in product volumes sold during 2023 due to incremental cost associated with the ramping up and restarting of the Polokwane facility.

Other operating income

Other operating income increased \$438 thousand, or 280.8%, from \$156 thousand for the year ended December 31, 2022 to \$594 thousand for the year ended December 31, 2023.

Staff costs

Staff costs increased \$3,271 thousand, or 188.4%, from \$1,736 thousand for the year ended December 31, 2022 to \$5,007 thousand for the year ended December 31, 2023. The increase is mainly due to the restarting of the Polokwane facility.

Other operating expense

Other operating expense increased \$8,574 thousand, or 323.7%, from \$2,649 thousand for the year ended December 31, 2022 to \$11,223 thousand for the year ended December 31, 2023. The increase is mainly due to the higher commercial expenses associated with higher volumes sold during 2023.

Depreciation and amortization charges

Depreciation and amortization charges increased \$1,092 thousand, or 146.0%, from \$748 thousand for the year ended December 31, 2022 to \$1,840 thousand for the year ended December 31, 2023.

Impairment gain

Impairment gain decreased \$4,879 thousand, from \$5,357 thousand for the year ended December 31, 2022 to \$478 thousand for the year ended December 31, 2023. This variance is mainly due to the partial reversal of the Polokwane impairment of \$5,017 thousand recorded in 2022.

South Africa – Silicon Alloys

(\$ thousands)	Year ended December 31,	
	2023	2022
Sales	109,684	122,262
Raw materials and energy consumption for production	(82,201)	(65,373)
Other operating income	(142)	66
Staff costs	(10,412)	(11,652)
Other operating expense	(10,718)	(13,193)
Depreciation and amortization charges	(4,056)	(5,278)
Impairment gain	—	2,408
Operating profit	2,155	29,240

Sales

Sales decreased \$12,578 thousand, or 10.3%, from \$122,262 thousand for the year ended December 31, 2022 to \$109,684 thousand for the year ended December 31, 2023. Average selling prices decreased by 23.9% to \$2,087/MT in 2023 from \$2,740/MT in 2022. Total shipments of silicon metal remain stable in 2023 compared to 2022.

Raw materials and energy consumption for production

Raw materials and energy consumption for production increased \$16,828 thousand, or 25.8%, from \$65,373 thousand for the year ended December 31, 2022 to \$82,201 thousand for the year ended December 31, 2023. The increase is attributed to the higher energy cost.

Other operating income

Other operating income decreased \$208 thousand, or 315.5%, from \$66 thousand for the year ended December 31, 2022 to \$142 thousand for the year ended December 31, 2023.

Staff costs

Staff costs decreased \$1,240 thousand, from \$11,652 or 10.7% thousand for the year ended December 31, 2022 to \$10,412 thousand for the year ended December 31, 2023.

Other operating expense

Other operating expense decreased \$2,475 thousand, or 18.8%, from \$13,193 thousand for the year ended December 31, 2022 to \$10,718 thousand for the year ended December 31, 2023.

Depreciation and amortization charges

Depreciation and amortization charges decreased \$1,222 thousand, or 23.1%, from \$5,278 thousand for the year ended December 31, 2022 to \$4,056 thousand for the year ended December 31, 2023.

Impairment gain

Impairment gain decreased \$2,408 thousand, or 100%, from \$2,408 thousand for the year ended December 31, 2022 to nil for the year ended December 31, 2023. This variance is primarily due to the reversal of the Thaba Chueu Mining, Ltd impairment recorded in 2022.

Other segments

(\$ thousands)	Year ended December 31,	
	2023	2022
Sales	54,921	81,560
Raw materials and energy consumption for production	(35,280)	(46,759)
Other operating income	50,655	59,840
Staff costs	(36,027)	(37,483)
Other operating expense	(48,309)	(74,626)
Depreciation and amortization charges	(2,975)	(994)
Impairment gain (loss)	430	(5,514)
Other gain	30	495
Operating (loss)	(16,555)	(23,481)

Sales

Sales decreased \$26,639 thousand, or 32.7%, from \$81,560 thousand for the year ended December 31, 2022 to \$54,921 for the year ended December 31, 2023, primarily due to a decrease in selling prices for our products.

Raw materials and energy consumption for production

Raw materials and energy consumption for production decreased \$11,479 thousand, or 24.5%, from \$46,759 thousand for the year ended December 31, 2022 to \$35,280 thousand for the year ended December 31, 2023, primarily due to lower costs as consequence of the lower production volumes.

Other operating income

Other operating income decreased \$9,185 thousand, or 15.3%, from \$59,840 thousand for the year ended December 31, 2022 to \$50,655 thousand for the year ended December 31, 2023, primarily due to an increase in the allocation of management fee charges that are eliminated during the consolidation process.

Staff costs

Staff costs decreased \$1,456 thousand, or 3.9%, from \$37,483 thousand for the year ended December 31, 2022 to \$36,027 thousand for the year ended December 31, 2023.

Other operating expense

Other operating expense decreased \$26,317 thousand, or 35.3%, from \$74,626 thousand for the year ended December 31, 2022 to \$48,309 for the year ended December 31, 2023, primarily due to a reduction of professional services costs.

Depreciation and amortization charges

Depreciation and amortization charges were \$994 thousand for the year ended December 31, 2022 and \$2,975 thousand for the year ended December 31, 2023.

Impairment gain (loss)

Impairment losses decreased \$5,944 or 107.8%, from a loss of \$5,514 thousand for the year ended 31 December 2022 to a gain of \$430 thousand for the year ended 31 December 2023, primarily due to the impairment recorded in 2022 in our solar-grade silicon metal project in Puertollano, Spain, amounting to \$5,514 thousand.

Comparison of the years ended December 31, 2022 and 2021

For a discussion of the financial results and condition for the fiscal year ended December 31, 2021, please refer to “Item 5. Operating and financial review and prospects—A. Operating results—Comparison of the years ended December 31, 2022 and 2021” of our Annual Report on Form 20-F for the year ended December 31, 2022 filed on May 1, 2023.

Non-IFRS measures and reconciliation

In addition to our operating results, as calculated in accordance with IFRS as adopted by the IASB, the Company uses non-IFRS measures such as EBITDA, working capital and net debt for internal planning and performance measurement purposes. We believe these measures provide useful information about the financial performance of our operations that facilitates period-to-period comparisons on a consistent basis. Management uses EBITDA internally to evaluate our underlying operating performance for the reporting periods presented and to assist with the planning and forecasting of future operating results. Management believes that EBITDA is a useful measure of our performance because it reflects our cash generation potential from our operational activities excluding depreciation and amortization and miscellaneous adjustments, if any, for the period. These measures should not be considered individually or as a substitute for net income or operating income, as indicators of operating performance, or as alternatives to cash flow as measures of liquidity. Additionally, our calculation of EBITDA and other non-IFRS measures may be different from the calculation used by other companies, including our competitors in the mining industry, so our measures may not be comparable to those of other companies.

In this Annual Report, we present EBITDA, which we define as net profit (loss) attributable to the parent, adjusted by (i) profit (loss) attributable to non-controlling interest; (ii) income tax (benefit) expense; (iii) net finance expense; and (iv) depreciation and amortization charges; and we present FX Adjusted EBITDA, which we define as EBITDA adjusted by exchange differences. In addition, management may adjust the effect of certain types of transactions that in its judgment are not indicative of the Company’s normal operating activities, or do not necessarily occur on a regular basis.

A reconciliation of EBITDA and FX Adjusted EBITDA to our net income (loss) for the years indicated is presented below:

	<u>2023</u>	<u>2022</u>	<u>2021</u>
Profit (loss) attributable to the parent	82,662	440,314	(110,624)
Profit (Loss) attributable to non-controlling interest	15,816	3,514	(4,750)
Income tax (benefit) expense	57,540	147,983	(4,562)
Net finance expense	33,371	58,741	148,936
Depreciation and amortization charges	73,532	81,559	97,328
EBITDA	262,921	732,111	126,328
Exchange differences	7,551	9,995	2,386
FX Adjusted EBITDA	270,472	742,106	128,714

We calculate working capital as (i) inventories, plus (ii) trade and other receivables, less (iii) trade and other payables. The Company believes that working capital is an important figure as it provides a relevant metric for the efficiency and liquidity of our operating activities.

The calculation of our working capital derived from our consolidated financial statements as of December 31, 2023 and 2022 is presented below:

	2023	2022
Inventories	383,841	500,080
Trade and other receivables	310,243	420,484
Trade and other payables	(183,375)	(219,666)
Working Capital	510,709	700,898

We calculate net debt as the summation of (i) bank borrowings excluding factoring agreements; (ii) debt instruments; and (iii) other financial liabilities; less (v) non-current restricted cash; (vi) current restricted cash; and (vii) cash and cash equivalents.

The calculation of our net debt derived from our consolidated financial statements as of December 31, 2023 and 2022 is presented below:

	2023	2022
Bank borrowings ⁽¹⁾	15,865	16,857
Debt instruments	154,780	343,442
Other financial liabilities	81,283	98,661
Non-current restricted cash	—	(2,133)
Current restricted cash	(1,179)	(2,875)
Cash and cash equivalents	(136,470)	(317,935)
Net Debt	114,279	136,017

⁽¹⁾ Bank borrowings exclude factoring programs

B. Liquidity and Capital Resources

Overview

The Company's financial resources are managed conservatively to fund our working capital requirements, capital expenditures, service our indebtedness and fund key initiatives underlying our strategic plan, including our ESG-related initiatives. 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. The Company has historically managed these efforts through its cash flows from operations, long-term debt and share issuances, revolving lines of credit, funding from the Sociedad Estatal de Participaciones Industriales ("SEPI") and its factoring arrangements with third parties.

In July 2023, in coordination with the management of our liabilities and strengthened cash and cash equivalents position, the Company via its subsidiary issuers of the 9.375% Senior Secured Notes due 2025 (the "Notes") partially redeemed such Notes at 102.34375% of the principal amount plus accrued interest. The issuers elected to redeem an aggregate principal amount of \$150.0 million of the Notes plus accrued and unpaid interest of \$14,000 thousand. In February 2024, the Company completed the full redemption of the 9.375% Senior Secured Notes due 2025 at 102.34375% of the principal amount plus accrued interest. The issuers elected to redeem an aggregate principal amount of \$147,624 thousand of the Notes, the entire amount outstanding as of the redemption date, plus accrued and unpaid interest and call premium of \$4,075 thousand. The Notes were fully redeemed from the Company's cash and cash equivalents.

As of December 31, 2023 and 2022, Ferroglobe had cash, restricted cash and cash equivalents of \$137,649 thousand (of which \$1,179 thousand is restricted cash) and \$322,943 thousand (of which \$5,008 thousand is restricted cash), respectively. Cash and cash equivalents are primarily held in USD and EUR.

In addition to these resources, the Company believes that our working capital is sufficient for our present requirements, and we anticipate generating sufficient cash to satisfy our short and long-term liquidity needs.

Capital Expenditures

The Company's capital expenditures for the years ended December 31, 2023, 2022 and 2021 were \$83,679 thousand, \$52,153 thousand and \$27,597 thousand, respectively. These investments targeted expansion and productivity improvements, as well as, capitalizable repairs and maintenance.

Debt

Debt comprises bank borrowings, obligations under leases, debt instruments, and other financial liabilities. As of December 31, 2023, the Company's total outstanding debt was \$310,998 thousand, consisting of \$61,535 thousand in short-term, including the current portion of long-term debt, and \$249,463 in long-term debt.

Our USD denominated debt as of December 31, 2023 was \$171,566 thousand (or 55% of our total debt), our EUR denominated indebtedness was \$131,429 million (or 42% of our total debt) and other denominated debt was \$8,003 thousand (or 3% of our total debt).

As of December 31, 2023, \$79,294 thousand (23% of total debt) bears interest at floating rates and \$275,726 thousand (77% of total debt) bears interest at fixed rates.

Long-term debt

The following discussion briefly describes our long-term debt arrangements as of December 31, 2023. For additional information, see the Notes to our consolidated financial statements.

Reinstated and Super Senior Notes: In 2017, the Company issued \$350,000 thousand of 9.375% senior unsecured notes due in March 2022 (the "Notes"). Interest was payable semi-annually. In 2021, the Company effected a restructuring of these Notes, with the following terms:

- The Company exchanged 98.6% of the Notes due in 2022 (the "Old Notes") for total consideration of \$1,000 of principal amount, which is comprised of (i) \$1,000 aggregate principal amount of the new 9.375% senior secured notes due in 2025 (the "Reinstated Senior Notes") plus (ii) cash amount to \$51.6 million, which the Company's Parent applied as cash consideration for a subscription of new ordinary shares of the Company.
- The Company issued \$60.0 million in new 9% senior secured notes due in 2025 ("Super Senior Notes").

In tandem with this restructuring, the Company issued new ordinary shares for total gross proceeds of \$40.0 million.

In March and July 2022, the Company fully redeemed both its Old Notes and its Super Senior Notes, respectively.

In July 2023, the Company partially redeemed the Reinstated Senior Notes, for an aggregate principal amount of \$150.0 million of the Notes plus accrued. In February 2024, the Company completed the full redemption of the 9.375% Senior Secured Notes due 2025 at 102.34375% of the principal amount plus accrued interest.

REINDUS Loan: In 2016, a Company subsidiary entered into a loan agreement with the Spanish Ministry of Industry, Tourism and Commerce (the "Ministry") to borrow an aggregate principal amount of €44,999 thousand (\$50,223 thousand) in connection with the industrial development projects related to a silicon project in Spain, at an annual interest rate of 3.6%. The Company is required to repay this loan in seven instalments commencing in 2023 and to be completed by 2030.

The Company commenced repayment of the loan, making a €16.3 million (\$17.4 million) payment in February 2023. See "Item 4.B.—Information on the Company—Business Overview—Research and Development (R&D)—Solar grade silicon" as well as Note 18 Other financial liabilities to our consolidated financial statements.

Québec Loan: In 2020, a Company subsidiary entered into a loan agreement with Investissement Québec to borrow an aggregate principal amount, interest-free, of CAD 7.0 million to finance its capital expenditures activities in Canada. The loan is to be repaid over a seven-year period, with payments deferred for the first three years from inception of the loan.

French Loan: In 2020, a Company subsidiary entered into a loan agreement with BNP Paribas to borrow an aggregate principal amount, interest-free, of €4,300 thousand (\$4,752 thousand), to finance the Company's activities in France. The French government guaranteed the loan in line with special measures taken in response to the COVID-19 pandemic. The loan is to be repaid by 2026. The Company is liable for a fee of 0.5% based on the total borrowed capital.

SEPI loan: In March 2022, Ferroglobe Spain Metals, S.A.U. (also "FG Spain", formerly Grupo FerroAtlántica, S.A.U.) and Ferroglobe Corporate Services (also "FG Corporate", formerly 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 for €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 of the experienced hardships related to the COVID-19 pandemic.

The €34.5 million was funded using a dual-tranche loan, with the first €17.25 million maturing in February 2025 and the second €17.3 million maturing in June 2025. €16.9 million of the loan carries a fixed interest rate of 2% per annum, and interest on the remaining €17.6 million 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 borrower reports a positive result before income taxes. 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 FG Spain and certain of its subsidiaries.

Until the loans have been fully repaid, the Beneficiaries are subject to several restrictions, including: on the (i) payment of dividends; (ii) payment of management fee; (iii) repayment of intra-group loans; (iv) payment of intercompany net commercial balances that were outstanding as of June 30, 2021 (denominated "legacy"), with an exception of \$20.0 million of those balances. (Intercompany commercial balances generated after June 2021 are permitted); and (v) payment of interest on intercompany loans corresponding to the years 2022 and 2021, respectively.

North American revolving line of credit

In June 2022, a Company subsidiary entered into a five-year, \$100 million asset-based revolving credit facility (the "ABL Revolver"), with the Bank of Montreal as lender and agent. The maximum amount available under the ABL Revolver at any given moment is subject to a borrowing base test comprising North American inventory and accounts receivable. The revolver bears interest at SOFR plus a spread of between 150/175 basis points depending on levels of utilization. During the year ended December 31, 2023, the Company drew down \$1,000 thousand, which was fully repaid, yielding no balance as of the end of the year.

Under the ABL credit agreement, the borrowers commit not to, without lender consent, create or incur any indebtedness, capital leases in excess of a \$7.5 million, 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, and maintain a financial covenant consolidated fixed charge coverage ratio to be less than 1.00 to 1.00.

Factoring arrangements

In October 2020, the Company signed a factoring agreement with a financial institution to anticipate the collection of receivables issued by the Company's European subsidiaries with the following main terms:

- maximum cash consideration advanced is up to €60.0 million;
- overcollateralization of 10% of accounts receivable as a guarantee provided to the Agent until the payment has been satisfied;
- a 0.18% to 0.25% fee charges on total invoices and credit notes sold to the Agent; and
- a financing commission set at IBOR plus 1% charged on 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.

In February 2022 the company signed a *without recourse* factoring agreement with Bankinter that offers the possibility to sell the receivables corresponding to 11 pre-approved customers 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:

- maximum cash consideration advanced is up to €30,000 thousand;
- a 0.25% fee of the receivables face values;
- a cost of financing at Euribor 12-month plus 1%;
- a closing fee of 0.25% of the financing; and
- an annual renewal fee of 0.25% of the financing.

Availability of funds

As of December 31, 2023 and 2022, we had cash and cash equivalents, restricted cash and other restricted funds amounting to \$137,649 thousand and \$322,943 thousand, respectively. Please see Note 9 Financial assets and other receivables to our consolidated financial statements.

The Company also has certain restrictions in the partnerships with Dow as of December 31, 2023.

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 negatively affect our liquidity and thus our business.

Ferroglobe Spain Metals 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 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 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.

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, 2023.

(\$ thousands)	Total	Payments Due by Period			
		Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Non-current and current debt obligations	188,397	19,692	168,705	—	—
Government loans	84,926	14,653	51,243	15,444	3,586
Bank borrowings	46,548	31,635	—	1,683	13,230
Capital expenditures	16,019	16,019	—	—	—
Leases	38,489	9,240	6,413	10,897	11,939
Power purchase commitments ⁽¹⁾	434,507	154,622	200,678	64,289	14,918
Purchase obligations ⁽²⁾	16,714	16,714	—	—	—
Other non-current liabilities ⁽³⁾	138,329	4,083	8,348	11,726	114,172
Total	963,929	266,658	435,387	104,039	157,845

(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 statements of financial position, 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 \$601 thousand to our pension plans for the year ended December 31, 2024.

Further information regarding Ferroglobe's contractual obligations and commercial commitments as of December 31, 2023, is set forth in Note 29 Financial risk management to the consolidated financial statements.

Cash Flows

Comparison of the years ended December 31, 2023 and 2022

The following table summarizes our cash flows for the periods indicated:

(\$ thousands)	Year ended December 31,	
	2023	2022
Cash and cash equivalents at beginning of period	322,943	116,663
Cash flows from operating activities	178,372	405,018
Cash flows from investing activities	(81,806)	(51,774)
Cash flows from financing activities	(282,147)	(140,458)
Exchange differences on cash and cash equivalents in foreign currencies	287	(6,506)
Cash, restricted cash and cash equivalents at end of period	137,649	322,943
Cash, restricted cash and cash equivalents at end of period from statement of financial position	137,649	322,943

Cash flows from operating activities

Cash flows from operating activities decreased \$226,646 thousand, from a positive cash generated of \$405,018 thousand for the year ended December 31, 2022, to a positive \$178,372 thousand for the year ended December 31, 2023. The change in cash flows from operating activities for the year ended December 31, 2023 was mainly due to (i)

a decrease of \$345.3 million in the profit for the year, from a net profit of \$443.8 million for the year ended December 31, 2022 compared with a net profit of \$98.5 million for the same period in 2023, (ii) a decrease of \$156.4 million in non-cash adjustments, predominantly driven by a decrease of \$90.4 million in income tax expense, and (iii) a decrease in other changes in operating assets and liabilities by \$112.9 million; mainly related to the energy receivable.

Cash flows from investing activities

Cash flows from investing activities increased \$30,032 thousand from an outflow of \$51,774 thousand for the year ended December 31, 2022, to an outflow of \$81,806 thousand for the year ended December 31, 2023. Capital expenditures increased during the year ended December 31, 2023 to \$83,679 thousand from \$52,153 thousand during the year ended December 31, 2022.

Cash flows from financing activities

Cash flows from financing activities decreased \$141,689 thousand, from a net outflow of \$140,458 thousand for the year ended December 31, 2022 to a net outflow of \$282,147 thousand for the year ended December 31, 2023. The decrease is mainly due to the partial redemption of the Reinstated Notes by \$150.0 million in July 2023, the repurchase of \$29 million of Reinstated Notes and the early partial repayment of \$17.4 million of Reindus loan in February 2023. In 2022, the Company repaid the principal of the Super Senior Notes amounting to \$60 million and the Old Notes amounting \$4.9 million, and repurchased \$19.05 million of the Reinstated Notes.

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, 2023 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

Not applicable.

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 this Annual Report, the Board of Directors of the Company has three Grupo VM Directors pursuant to the Grupo VM Shareholder Agreement: Javier Lopez Madrid, Juan Villar-Mir de Fuentes and Manuel Garrido y Ruano. Additionally, Silvia Villar-Mir de Fuentes is affiliated with Grupo VM.

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 was Chairman of the Nominations Committee until it was replaced by the Nominations and Governance Committee on May 26, 2023.

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 Sabón, S.L.U. (“FAU Sabón”) in August 2019 in anticipation of the FAU Disposal), and with Hidro Nitro Española on December 27, 2012 (assigned to Ferroglobe Monzón (formerly 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 Ferroglobe Monzón) in the wholesale power market. The contracts allow FAU (FAU Boo or FAU Sabon, as appropriate) and Hidro Nitro Española (now Ferroglobe Monzón) 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 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 Ferroglobe Spain Metals (formerly 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 contracts were renewed in January 25, 2023 and amended in September 14, and November 29, 2023. On December 19, 2023, the agreements were renewed for an additional year. 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, 2023, Ferroglobe Spain Metals and Ferroglobe Monzón’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 \$24,635 thousand and \$10,691 thousand, respectively (\$95,401 thousand and \$37,317 thousand, respectively, in 2022 and \$102,065 thousand, \$30,501 thousand, respectively, in 2021). These contracts are similar to contracts Ferroglobe Spain Metals signs with other third-party brokers.

Under contracts entered into with Ferroglobe Ramsa Mining (formerly Rocas, Arcillas y Minerales SA) (“RAMSA”) on December 3, 2010 and with Ferroglobe Cuarzos Industriales Mining S.A (formerly 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 were 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. The contracts were renewed in February 26, 2023 and again extended on December 19, 2023 for an additional year. For the fiscal year ended December 31, 2023, RAMSA and CISA’s obligations to make payments to VM Energía or Energya VM under their respective agreements amounted to \$779 thousand and \$359 thousand respectively (\$1,152 thousand and \$460 thousand, respectively, in 2022, and \$1,012 thousand and \$353 thousand, respectively, in 2021).

Additionally, for the fiscal year ended December 31, 2023, 2022 and 2021, Energya VM invoiced other subsidiaries of Ferroglobe Spain Metals for a total amount of \$636 thousand, \$647 thousand and \$120 thousand, respectively.

In June 2020, Ferroglobe Monzón and VM Energía entered into a collaboration agreement by virtue of which VM Energía is allowed to use Monzón’s grid connection point and high voltage electrical assets for a PV installation project, electricity from which will be supplied to Ferroglobe Monzón.

In February 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 September 30, 2021 Ferroglobe Spain

Metals (formerly Grupo FerroAtlántica, S.A.U) absorbed its subsidiary FAU Sabón assuming all the rights and obligations derived from this contract.

In November 2021 Ferroglobe Spain Metals 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 Ferroglobe Spain Metals for five (5) years when the wind farms start to produce (in 2023 according to the estimation). In January 2023, VME was denied authorization to construct the plants, so this agreement was amicably terminated.

In December 2021, Ferroglobe Spain Metals 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.

In December 2022, Ferroglobe Spain Metals 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.

From March 1 to May 31, 2023, Ferroglobe Spain Metals entered into eleven swap contracts with Energía VM, its current power supplier, to pay a fix cost for the energy supplied to Sabón during those months. As of December 31, 2023, Ferroglobe Spain Metals obligations to make payments to Energía VM under this agreement amounted to \$1,239 thousand.

On September 14, 2023, Ferroglobe Spain Metals and Ferroglobe Monzón entered into voltage control center agreements for the three plants, Boo, Sabón and Monzón, necessary for the participation in the Active Response Demand system that will be effective in January 2024.

On October 31, 2023, Ferroglobe Spain Metals and Energía VM entered into a Power Purchase Agreement (PPA). Under this PPA, Energía VM will supply 30,000 Mwh/year from November 1st, 2023, to June 30, 2027.

On December 27, 2023, Ferroglobe Spain Metals and VM Energía entered into three Power Purchase Agreements (PPAs). Under those PPAs, VM Energía, or a VM Energía subsidiary, will supply to Sabón 368 GWh/year on a pay as produced basis during 10 years from the commencement of operation of the plants which is expected in 2028.

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.

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 are 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 USD 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.

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 USD, effective since October 1, 2021 (see Note 3.3 Basis of presentation - Functional and reporting currency to our consolidated financial statements).

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 under IFRS 16.

As of December 31, the Company's interest-bearing financial liabilities were as follows:

	2023		Total U.S.\$'000
	Fixed rate U.S.\$'000	Floating rate U.S.\$'000	
Bank borrowings (Note 16)	15,865	30,683	46,548
Obligations under leases (Note 17)	—	28,387	28,387
Tolling agreement lease liability (Note 22)	37,863	—	37,863
Debt instruments (Note 18)	154,780	—	154,780
Other financial liabilities (Note 19)	57,218	20,224	77,442
	265,726	79,294	345,020

(*) Other financial liabilities comprise loans from government agencies (see Note 19 *Other Financial Liabilities* of the consolidated financial statements).

	2022		Total U.S.\$'000
	Fixed rate U.S.\$'000	Floating rate U.S.\$'000	
Bank borrowings (Note 16)	16,857	60,976	77,833
Obligations under leases (Note 17)	—	21,871	21,871
Debt instruments (Note 18)	343,442	—	343,442
Other financial liabilities (Note 19)	80,388	18,273	98,661
	440,687	101,120	541,807

(*) Other financial liabilities comprise loans from government agencies (see Note 19 *Other Financial Liabilities* of the consolidated financial statements).

Power risk

Power generally constitutes one of the larger 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 2023, Ferroglobe's total power consumption was 5,834 gigawatt-hours (6,431 in 2022), with power contracts that vary across its operations.

In 2023, Ferroglobe has engaged discussions with energy companies to secure Purchasing Power Agreements ("PPAs") based on Solar and wind generation. Two wind PPAs were signed in 2023 with a total volume of 130 GWh at a fixed price between 77 and 50 EUR/MWh.

Certain of the Company's subsidiaries have their power needs covered by a three-year agreement ending in 2025. Regulation enacted in 2015 enables French subsidiaries of the Company 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 carbon dioxide costs under the EU Emission Trading System (ETS) regulation.

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. In February 2022, Ferroglobe Spain Metals (formerly Grupo FerroAtlántica, S.A) signed a without recourse factoring agreement with Bankinter.

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:

- In 2021, the Company exchanged 98.6% of its 350 million 9.375% senior unsecured notes due in March 2022 ("Old Notes") for total consideration of \$1,000 of principal amount, which is comprised of (i) \$1,000 aggregate principal amount of the new 9.375% senior secured notes due in 2025 (the "Reinstated Senior Notes") plus (ii) cash amount to \$51.6 million, which the Company's Parent applied as cash consideration for a subscription of new ordinary shares of the Company.

In 2021, the Company issued \$60.0 million in new 9% senior secured notes due in 2025 ("Super Senior Notes"). In July 2022, the Super Senior Notes were redeemed at 100% of the principal amount thereof plus accrued interest.

- In 2016, a Company subsidiary entered into a loan agreement with the Spanish Ministry of Industry, Tourism and Commerce (the “Ministry”) to borrow an aggregate principal amount of €44.9 million (\$50.2 million) in connection with the industrial development projects relation to a silicon purification project at an annual interest rate of 3.6%. The Company is required to repay this loan in seven instalments commencing in 2023 and to be completed by 2030.
- In October 2020, the Company signed a new factoring agreement with a financial institution for anticipating the collection of receivables of the Company’s European subsidiaries. During 2023, the factoring agreement provided upfront cash consideration of \$431,274 thousand (\$835,388 thousand in 2022). The Company has repaid \$454,576 thousand (\$863,192 thousand in 2022), showing at December 31, 2023, an on-balance sheet bank borrowing debt of \$30,683 thousand (2022: \$56,157 thousand), (see Note 9 and 16 to our consolidated financial statements.)
- In February 2022, Ferroglobe Spain Metals (formerly 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.
- In June 2022, a Company subsidiary entered into a five-year, \$100 million asset-based revolving credit facility (the “ABL Revolver”), with the Bank of Montreal as lender and agent. The maximum amount available under the ABL Revolver is subject to a borrowing base test comprising North American inventory and accounts receivable.
- In 2020, a Company subsidiary entered into a loan agreement with BNP Paribas to borrow an aggregate principal amount, interest-free, of €4.5 million (\$5.3 million), to finance Company’s activities in France. The French government guaranteed the loan in line with special measures taken in response to the COVID-19 pandemic. The loan is to be repaid by 2026. The Company is liable for a fee of 0.5% equal based on the total borrowed capital.
- In 2020, a Company subsidiary entered into a loan agreement with Investissement Québec to borrow an aggregate principal amount, interest-free, of \$7.0 million to finance its capital expenditures activities in Canada. The loan is to be repaid over a seven-year period, with payments deferred for the first three years from inception of the loan.
- On March 3, 2022, Ferroglobe Spain Metals, S.A.U. (also “FG Spain”, formerly Grupo FerroAtlántica, S.A.U.) and Ferroglobe Corporate Services (also “FG Corporate”, formerly 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 €34,500 thousand. 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.

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.”