22 April 2022

Ferrexpo plc

(“Ferrexpo” or the “Company” or the “Group”)

2021 Full Year Financial Results

Ferrexpo plc (LSE: FXPO), a FTSE 250 iron ore pellet producer, today announces its full year audited financial results for the 12 months ended 31 December 2021.

Lucio Genovese, Non-executive Chair of Ferrexpo, commented:

“At Ferrexpo, we entered 2022 expecting to celebrate 15 years of success since the Group listed in 2007. Instead, the world is witnessing a brutal invasion being waged by Russia against the people of Ukraine, which has created a humanitarian crisis across the country. From the very start of this invasion, our priority has been the safety and wellbeing of our workforce, their families and our wider communities.

“The Government of Ukraine has been highly organised and quickly recognised the role that the private sector needs to play in supporting the economy, thereby indirectly supporting those on the front line. It has been the resilience of our workforce that has enabled the Group to continue to operate, as well as launch a significant humanitarian programme to assist those directly impacted by the invasion. The response that I have seen from our colleagues has been incredible, and I would like to thank our workforce for their professionalism and continued efforts during this very difficult period.

“The financial results for the full year 2021 that we present here to you today reflect a very different time, in a period that pre-dates the invasion. We make no fanfare in presenting these results, but stand united with the people of Ukraine. In 2021, despite the lingering impact of the global Covid-19 pandemic and significant volatility in the iron ore markets, we maintained our focus on safety, growth in producing high quality iron ore pellets and reduction of carbon emissions.

“As shown in our recent production report and trading update for the first quarter of 2022, our operations continue to operate and we continue to export to Europe. We understand the importance of our role today – our operations have more than 50 years of association with Ukraine, and a workforce of more than 10,000 people in the country. Whilst there remains significant uncertainty in the near term outlook with the ongoing hostilities, the resilience and determination of the Ukrainian people continues to impress in these dark and difficult times.”

Financial Highlights for 2021:

- Revenues up 48% to US$2.5 billion, reflecting rising demand for high grade iron ore (2020: US$1.7 billion).
- Underlying EBITDA[A] up 68% to US$1,439 million (2020: US$859 million).
- Net cash flows from operations up 59% to US$1,094 million (2020: US$687 million).
- Net cash position of US$117 million as at year end (31 December 2020: net cash US$4 million).
- In view of Russia’s invasion of Ukraine in 2022, the Board of Directors (“Board”) has decided to defer any decision in relation to an interim dividend in conjunction with the Group’s full year results for 2021. The Board will continue to assess the situation in Ukraine, and when appropriate, will make a decision in relation to shareholder returns.

2021 Financial Summary:

US$ million (unless otherwise stated)	Year ended 31.12.21	Year ended 31.12.20	% Change
Pellet production (kt)	11,220	11,218	+0.02%
Sales volumes (kt)	11,350	12,062	(6%)
Average Platts[1] CFR 62% Fe iron ore fines price (US$/t)	160	109	+47%
Average Platts[1] CFR 65% Fe iron ore fines price (US$/t)	186	122	+53%
Revenue	2,518	1,700	+48%
Average C1 cash cost[A] (US$/t)	55.8	41.5	+34%
Underlying EBITDA[A]	1,439	859	+68%
Diluted EPS (US cents)	147.9	107.9	+37%
Net cash flow from operating activities	1,094	687	+59%
Capital investment[A]	361	206	+75%
Net cash	117	4	+3,215%
Cash and cash equivalents	167	270	(38%)

[1] Source: S&P Platts.
[A] Alternative Performance Measures. See pages 80 to 81 for more information.

Safety and Wellbeing

- The safety and wellbeing of Ferrexpo's workforce remains the Group's key focus, with measures in place to protect the safety of individuals during Russia's invasion of Ukraine, and additional projects to support individuals' wellbeing and mental health during this difficult time.
- Fatality-free year across the Ferrexpo Group in 2021 (2020: 1).
- Group lost time injury frequency rate of 0.41 – the third successive year of safety performance materially below the Group's five-year full year trailing average (0.98).

Market Factors

- High grade iron ore prices[1] average US$186 per tonne in 2021 (2020: US$122 per tonne).
- Atlantic Pellet Premiums[1] increased to US$56 per tonne in 2021 (2020: US$29 per tonne), reflecting increased demand from steelmakers for forms of iron ore that result in lower emissions of carbon dioxide during the conversion process to create steel.
- C3 freight rate[2] increased to US$27 per tonne (2020: US$15 per tonne), reflecting higher energy costs.

Operational Highlights

- Iron ore pellet production of 11.2 million tonnes (2020: 11.2 million tonnes).
- Proportion of high grade pellets (65% Fe and above) increased to 100% (2020: 99%), including a 27% increase in production of higher grade direct reduction pellets.
- Iron ore sales volume decreased by 6% to 11.3 million tonnes (2020: 12.1 million tonnes), reflecting a one-off destocking process in early 2020.
- C1 cash costs[A] increased by 34% to US$55.8 per tonne (2020: US$41.5 per tonne), reflecting higher commodity input costs.
- Capital investment[A] of US$361 million, an increase of 75% (2020: US$206 million), reflecting increased investment in the Group's Wave 1 Expansion, pelletiser upgrade work and stripping and development work in the Group's mines.

Environment, Social and Governance ("ESG")

- Establishment of a dedicated Humanitarian Fund, with US$12.5 million of approved funding[3], in response to Russia's invasion of Ukraine in 2022 and the unfolding humanitarian crisis in Ukraine.
- Carbon-equivalent emissions per tonne of production reduced by 16% in 2021, matching 2020 achievement, and realising a cumulative 30% reduction since the Group's baseline year of 2019.
- Carbon emissions reduction targets for years 2030 and 2050 announced in October 2021.

Corporate Governance

- February 2022: Jim North confirmed as permanent Chief Executive Officer of the Group.
- December 2021: Natalie Polischuk appointed Independent Non-executive Director, increasing number of Independent Directors to five.
- August 2021: Nikolay Kladiev appointed as Chief Financial Officer of the Group.
- March 2021: Ann-Christin Andersen appointed Independent Non-executive Director.

Stakeholder engagement

Owing to the timing of this release, and ongoing Russian of Ukraine, the Group will not be hosting a conference call alongside this set of financial results. Following the publication of the Group's financial results for 2021, Group expects to host its Annual General Meeting in June 2022 and will update the market accordingly at this event. A summary presentation has been made available on the Group's website alongside this announcement.

Alternative Performance Measures

Words with the symbol [A] are defined in the Alternative Performance Measures – see pages 80 to 81 for more information.

In this report, the terms "Ferrexpo", the "Company", the "Group", our "business", "organisation", "we", "us", "our" and "ourselves" refer to Ferrexpo plc and, except where the context otherwise requires, its subsidiaries.

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1 Source: S&P Platts.
2 Source: Baltic Exchange.
3 As of 21 April 2022.

This announcement contains inside information in relation to the Company. The person responsible for making this notification is Mark Gregory, Company Secretary.

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About Ferrexpo:

Ferrexpo is a Swiss headquartered iron ore company with assets in Ukraine and a premium listing on the London Stock Exchange in the FTSE 250 index (ticker FXPO). The Group produces high grade iron ore pellets, which are a premium product for the global steel industry and enable reduced carbon emissions and increased productivity for steelmakers when the Group's iron ore pellets are converted into steel, compared to more commonly traded forms of iron ore. Ferrexpo's operations have been supplying the global steel industry for over 50 years and in 2021 the Group produced 11.2 million tonnes of iron ore pellets, placing Ferrexpo as the world's third largest exporter of pellets to the global steel industry with a market share of approximately 9%. The Group has a global customer base comprising of premium steel mills around the world, which includes steel mills in Austria, Germany, Japan, South Korea, Taiwan, China, Slovakia, the Czech Republic, Turkey, Vietnam and America. For further information, please visit www.ferrexpo.com.

CHAIR'S STATEMENT

Events of 2022 will have a significant impact on the Ukrainian people, their communities and their future generations.

At Ferrexpo, we had expected the year 2022 to be the year where we celebrated 15 years since the Group listed in 2007. Instead, we are focused on the safety and wellbeing of our Ukrainian workforce and communities across Ukraine, following Russia's invasion, and look to a future of helping to rebuild a country. Our assets have more than 50 years of operating history in Ukraine, through our workforce, local communities and suppliers located throughout Ukraine. We stand with Ukraine, and look forward to the future, whereby Ukraine remains united and can look towards a more positive future for the next generation. To help in the near term, we have established a Humanitarian Fund to help direct funding to humanitarian projects both in our local communities, as well as across Ukraine, with details of this fund available on our website.

Looking back at 2021 in my second annual review as Chair, this was a year of positioning our business for the future. Despite the lingering impact of the global Covid-19 pandemic, we retained our focus in 2021 on safety, growth and reducing carbon emissions. Through investing in high grade production, we can contribute more to the Ukrainian economy, growing our business to represent 4% of Ukraine's export revenues in 2021 (2020: 3%). Through financial resilience, we have been able to provide additional support to our local communities throughout both the global Covid-19 pandemic and more recently during Russia's invasion of Ukraine.

We continue to evolve our management and Board to fit our next phase of development. In management changes announced in February 2022, we appointed Jim North as permanent CEO having successfully transitioned the Group into a new phase of its corporate culture and overall growth ambitions. In August 2021, we also appointed Nikolay Kladiev as CFO of the Group having worked as our CFO at our largest operation in Ukraine for over 15 years.

As a Board, we continue to look to strengthen our corporate governance. In February 2022, we rotated the position of Senior Independent Director to Fiona MacAulay, and I would like to thank Vitalii Lisovenko for his efforts with stakeholder engagement, who continues to provide a strong presence in Ukraine as a Non-executive Director of the Group. During 2021, we also appointed two additional Independent Non-executive Directors, taking the total number of independent Directors to five. These appointments comprised of Ann-Christin Andersen, who specialises in digital technologies and business transformation, and the appointment of Natalie Polischuk, who is an economist based in Kyiv, and who provides further balance to our Board in terms of regional expertise. Furthermore, as part of our initiative to increase our engagement with the market, I travelled to London in October 2021 to host a corporate governance roadshow and engage directly with our shareholders.

We recognise the importance of climate change, and in October 2021, we announced our inaugural carbon targets, effectively moving to align ourselves to our peer group. To further develop this position, we announced our collaboration with environmental consultants Ricardo plc ("Ricardo") to model and review our decarbonisation pathway for Ferrexpo and the role of iron ore pellets in a low carbon economy – see page 28 for more information. Having set our inaugural medium-term target in line with peers, we have now achieved a 30% reduction in our Scope 1 and 2 emissions combined against our baseline year, demonstrating the progress being made at our operations, and ahead of our peers. See page 25 for details of progress made, and page 25 for the external assurance process we are undertaking on our 2021 reporting for carbon emissions, as well as safety.

We also took steps in 2021 to formalise our approach to shareholder returns. We have maintained a consistent approach to shareholder returns since listing in 2007, but we felt it important to outline our approach to help engagement with shareholders. We have structured this policy on the basis of free cash flow to ensure that our investments in growth can continue, targeting a payout of 30% of the Group's free cash flow as dividends going forward, and to date the Group has distributed 37% of free cash flow in respect of 2021.

Looking ahead, Ukraine has shown resilience to date in 2022 and we have every confidence that this will continue in the years to come. The country now faces a significant task ahead to first defend itself, and then to rebuild and repair. As a key part of Ukraine's economy, we will play our part in helping Ukrainians realise a brighter future, through continued investment and development, as we have done for the past 15 years since Ferrexpo listed on the London Stock Exchange. With over US$3.0 billion of investment since listing, we now have a strong platform on which to launch our next phase of growth, with future growth plans outlined on pages 19 to 21.

As a final note, on behalf of the Board, I would like to thank all of Ferrexpo's stakeholders for their resilience and teamwork in exceptional circumstances to date in 2022, as well as thank the Group's workforce for its collective effort in producing the Group's result for 2021. I would also like to thank those that are involved in protecting Ukraine's borders, with every community in Ukraine, including our own, suffering at this difficult time.

Lucio Genovese

Chair, Board of Directors

CASE STUDY: THE IMPORTANCE OF STEEL

Steel is crucial for modern life. Iron ore, the primary ingredient for steel, represents 94% of the total metals mined in the world today[1] and the average person uses more than ten times the amount of steel in a single year as they use than any other single metal, as shown in the table below.

In terms of where steel is used in everyday life, it is widely used in the modern construction of homes, bridges and key infrastructure such as railways, electricity pylons and airports. Research shows that steel is critical for all forms of renewable power generation, representing up to 79% of the mass of a wind turbine[2], and steel demand is expected to grow by 31% by 2050 to meet the needs of the transition to a low carbon future[3]. Steel is used extensively in forms of transport such as trains, trams and shipping, in household domestic appliances, and in manufacturing equipment in factories. Steel is everywhere.

As part of the steel value chain, Ferrexpo understands the need for society to have high quality forms of steel for these uses. The Group is working with its customers to help deliver high grade forms of iron ore to facilitate the steel sector's transition to a low carbon, more sustainable future.

Table: Metals consumed per person per year (global basis, kilogrammes)

Steel[4]	228
Aluminium[5]	12
Copper[6]	3
Zinc[7]	2
Lead[8]	2
Titanium[9]	1
Nickel[10]	0.4
Lithium[11]	0.01

[1] Visual Capitalist (link).
[2] National Renewable Energy Laboratory (link).
[3] International Renewable Energy Agency (link).
[4] Global consumption data for 2020. Source: World Steel Association (link).
[5] Global consumption data for 2020. Source: USGS (link), Worldometer (link).
[6] Global consumption data for 2017. Source: USGS (link), Worldometer (link).
[7] Global consumption data for 2019. Source: USGS (link), Worldometer (link).
[8] Global consumption data for 2019. Source: USGS (link), Worldometer (link)..
[9] Global consumption data for 2021. Source: www.european coatings.com (link)
[10] Global consumption data for 2017. Source: Henckens & Worrell (2020) (link).
[11] Global consumption data for 2019. Source: USGS (link), Worldometer (link).

CEO'S REVIEW

Russia's invasion in 2022 has placed communities throughout Ukraine, under severe pressure, but we remain resilient and determined to look to the future.

As we reflect on the events to date in 2022, with Russia's invasion of Ukraine and unprecedented aggression towards communities throughout Ukraine, it is important to note the resilience of our workforce, as well as the people throughout the country. Russia has caused untold damage to parts of Ukraine, but the country's economy and infrastructure will be rebuilt. At Ferrexpo, we understand the importance of our role in the Ukrainian economy, and we are proud of our team's efforts to continue operating during this invasion, helping the Ukrainian economy to continue to operate. To date, we have continued to produce and are able to export our products to Europe via rail and barge. Our ability to export via the port of Pivdennyi remains closed however – please see the Group's press releases for up to date information on the Group's logistics capabilities and capacity. Our operations, which have a close link to the local communities surrounding our mines near Horishni Plavni, will play an important role in supporting the national and local economies as the reconstruction effort commences. Here, we present our results for 2021, but we are very much focused on the future ahead for Ukraine, and helping to rebuild.

Looking back at 2021, we can report on another year of growth for the Ferrexpo business. From an operating standpoint, we are growing our production volumes through our investments, and we are also growing our product quality through our new higher grade direct reduction pellets. Through our investments in high grade production, we are also growing our profitability, with Underlying EBITDA[A] margins increasing to 57% in 2021, during a peak in the iron ore market cycle. However, modern companies are much more than production numbers and cash flow generation, they are about developing safe and sustainable businesses with a purpose strongly linked to the communities in which we operate. Crucially, our work is about further developing a brand that all stakeholders can trust and believe in.

A safety-first culture

Safety remains a key pillar of our business model, with another positive result in safety achieved in 2021, and without safety embedded throughout our operations, there can be no success. In respect of Russia's invasion of Ukraine in 2022, we report further on the wellbeing of our workforce on page 23. In respect of 2021, we are pleased to report on a fatality-free year, alongside an injury rate that continues materially below our trailing five-year average for the business. The lost time injury frequency rate recorded in 2021 of 0.41 was the lowest full year result reported by the Group since listing in 2007, and I would like to thank every employee and contractor that has helped deliver this result; see pages 23 to 24 for more on our progress in safety. In respect of Covid-19, we continue to be vigilant against this risk to our business, and details of our efforts to insulate our workforce and production from this virus are provided on pages 8, 33 and 51, with minimal disruption caused to operations to date.

Consistent operating performance

In 2021, we delivered production performance in line with 2020 in terms of total output, but with increased output of our higher grade products. This was achieved despite a total of over 60 days of planned expansion work on the Group's pelletiser during 2021, and our operations are in a strong position going into the year ahead having completed this upgrade work.

As an iron ore producer, the grade of our products is a key factor in the Group's success, as evidenced by the increasing premiums being paid for high grade iron ores (see page 10 for more information). The Group has pursued several phases of quality upgrade programmes, which have culminated in the strong operational result seen in 2021, with 100% of Ferrexpo's output comprising of high grade iron ore products.

Growth programme

We are growing and modernising our business. However, given the conflict in Ukraine, we have elected to pause projects that are not expected to deliver near-term growth, with an intention to resume these projects once greater certainty on the outlook for Ukraine is available.

In our mines, growth projects are focused on embracing modern technology, such as automating our truck fleet, with six trucks now automated in the Yeristovo mine, and further phases of automation planned for the years ahead. We are modernising our production process and adapting our product mix for customers as they embark on the journey to green steel production. In 2021, we signed our first long-term contract for direct reduction pellets, with this achievement only possible through our investments into our processing facilities.

We have now finished our initial upgrade work on our pelletiser lines, and we are looking to pivot to our next phase of growth. The Wave 1 Expansion will deliver an additional three million tonnes of pellet capacity and we expect that this could be delivered in the space of three years. This is a significant undertaking and to put this into perspective, this is the same uplift in production volumes that we have achieved in the past 15 years since listing in 2007. For more information on our growth ambitions, please see page 19.

Following approval of the Group's growth plans in October 2021, the decision has been made to focus our operations on processing of high grade ores to maximise production volumes, and to meet customer demands. As a result, currently it cannot be reliably predicted as to when the Group's stockpiled low grade ore will be processed, which has resulted in an impairment amounting to US$231 million. Please see Note 10 (Inventories) to the Consolidated Financial Statements for more information.

Tangible progress in decarbonisation

We have made considerable steps in 2021 to develop our thinking in respect of decarbonisation. In October 2021, we aligned ourselves with our peer group with our inaugural carbon targets, which set our goal of being net zero by 2050.

Efforts to decarbonise our operations have begun well, with the Group delivering a second year of strong performance, and we have now registered a 30% decline in our combined Scope 1 and 2 emissions per tonne against our baseline year of 2019. This result matches our medium-term emissions reduction target and underscores where Ferrexpo is relative to its peers, who are predominantly seeking to reach this level of decarbonisation by 2030. We will now look to maintain this lower level of carbon emissions going forward as a minimum, and we are working with environmental consultants Ricardo to review our strategy, and to develop a bespoke understanding of our decarbonisation journey ahead – please see the Case Study on page 28 for more on this project. Finally, to develop trust on sustainability topics, we are undertaking an external assurance process on our carbon emissions and safety data, as we understand the significance of getting this reporting right – see page 25 for more information on this project.

Fostering inclusivity

We are also seeking to differentiate ourselves through our efforts in diversity, and we are extremely proud of the external recognition received in the fourth quarter of 2021 for having highly-rated, family-friendly policies, whilst also winning awards for our "Fe_munity" women in leadership programme aimed at improving diversity by increasing the skill base of our female leaders. For more details on these initiatives, please see pages 31 to 32.

Technology and innovation

Through a commitment to modern technology and innovation, we are aiming to secure the long-term viability of our mines and products, to keep our business competitive on the world stage. A recent example of modernising production processes is the initiation of the new press filtration plant, which represents a modern form of technology that will reduce moisture in green pellet production, therefore improving pellet quality and increasing energy efficiency; see pages 17 to 20 for more information on these projects.

Supporting local communities

The Group has long held a close bond with its local communities in central Ukraine where the Group's operations are located. Through working closely with our local communities, we aim to understand their needs, to deploy funding to where it is best invested. In March 2021, the Ferrexpo Charity Fund celebrated the tenth anniversary since its establishment, during which time the Group has provided direct support to over 90 educational projects, 30 healthcare projects and direct aid to over 4,000 individuals. This has been particularly relevant during the global Covid-19 pandemic, where companies have needed to step up and provide support to protect their workforces and local communities, and details of this work are provided on pages 8 and 32.

Engagement with stakeholders

In 2021, we increased our focus on developing our relationships with our stakeholders. We have continued our regular activities such as our employee engagement survey and associated employee engagement forum with Board members, which is now in its fourth year. We have also moved to engage more broadly with institutional investors and the media through the appointment of Liberum Capital and Tavistock Communications in London, as well as BDO LLP as the Group's Sponsor, with all three appointed in the first quarter of 2021. Furthermore, we launched our new corporate website in January 2022, bolstering our online presence for informing stakeholders.

In February 2022, we were pleased to receive an upgrade in our ESG rating from ratings agency MSCI Inc. to A, capping a five year journey that has seen our rating increase by four notches during this time. In further external recognition, we were also pleased to receive recognition of our efforts to protect our workforce and engage proactively with our suppliers, through the successful completion of a Sedex Members Ethical Trade Audit ("SMETA"), with this external audit completed in the first quarter of 2022.

Addressing cybersecurity

Given the increasing prevalence of cyberattacks, and war in Ukraine, we have undertaken a number of steps to address this rising risk. These efforts in 2021 have included the procurement of additional IT infrastructure to maintain our access to our data in the event of an attack, and regular audits of our IT security to maintain an up-to-date approach to combating threats; see page 48 for more information.

Looking to the future

The events of early 2022 have changed Ukraine significantly, but our business model and our resolve remains unchanged. We continue to produce high grade iron ore pellets, and we are continuing to invest in growing our business for the future, which will help further support the Ukrainian economy to rebuild. I would like to thank our workforce for their collective effort to continue our operations throughout the invasion in 2022, as well as achieving the strong financial result for 2021 that is presented here in this report. We have continued to show resilience as a business in 2022 and I look forward to working with all of our stakeholders in the years ahead to further develop our business.

Jim North

Chief Executive Officer & Executive Director

CASE STUDY: THE IMPORTANCE OF IRON ORE PELLETS

Blast furnace pellets (vs. sinter fines): 40% emissions saving for steelmakers

Iron ore pellets are a direct charge material and therefore do not require sintering prior to use in the blast furnace. Since sintering is a step that typically requires the use of coal, steelmakers can avoid generating emissions through using more iron ore pellets. Allied with the high grade nature of Ferrexpo's pellets, steelmakers can reduce carbon emissions by 40%[1] for each tonne of sinter fines replaced (hot metal basis).

Direct reduction pellets (vs. other pellets): 49% Scope 3 emissions saving for Ferrexpo

Direct reduction pellets offer a pathway to low emissions steel production. Blast furnace steelmaking represented 73% of the world's steel production in 2021[1], but this process requires coal and therefore has inherent carbon emissions associated with it. Steelmaking via the electric arc furnace production route using direct reduction iron is not reliant on coal, however, and instead involves processes that typically utilise natural gas and electricity, resulting in a significantly lower carbon footprint. Compared to Ferrexpo's blast furnace pellets, direct reduction pellets represent a further emissions saving of 49% for producing crude steel[1], providing a material improvement to Ferrexpo's Scope 3 footprint through producing this particular type of pellet. This saving is expected to further increase over time as steelmakers introduce hydrogen and renewable electricity to this method of steelmaking to pursue the production of carbon-free green steel. ([1]Source: CRU. Natural gas based direct reduction without carbon capture.)

CASE STUDY: FERREXPO'S RESPONSE TO COVID-19

Since the outset of the global Covid-19 pandemic, Ferrexpo has moved to protect its workforce from the Covid-19 virus and the after-effects that the global pandemic is having on individuals and communities around the world. In early 2020, the Group established the Covid-19 Response Fund, with a total of US$3.5 million of approved funding provided to date.

Through measures initiated in 2020 and continued into 2021, including rigorous testing, social distancing measures and staggered shift patterns, the Group has limited the spread of the Covid-19 virus at its operational facilities and has successfully maintained production and capital investment activities to expand output.

Medical equipment purchased in 2021 for the Group's on-site medical centre included the installation of sample analysis machines to determine the severity of infection that an individual has developed, and equipment to measure an individual's natural immunity to the virus following infection.

Following the development of a vaccine for Covid-19 in late 2020, the Group has moved to promote vaccine uptake in its workforce and to facilitate local authorities in their efforts to administer vaccines to local communities and Ferrexpo's workforce through the provision of its healthcare facility as a vaccination centre for anyone to attend. As of January 2022, the Group's employee workforce had received over 5,900 doses of Covid-19 vaccinations, with 65% of the workforce being fully vaccinated, approximately double the national average of Ukraine[1].

Ferrexpo is also working with communities to directly counter the spread of the virus beyond its operations. Details of these activities are provided on pages 32 and 51.

MARKET REVIEW

2021 was a year marked by volatility in global market prices for iron ore and rising demand for iron ore pellets in response to rising environmental measures to reduce steelmakers' emissions.

Ferrexpo's high grade iron ore pellets are priced using the benchmark 65% Fe fines price, with a pellet premium paid in addition to this index, and a freight rate is typically deducted according to the location and type of contract agreed with each customer. This section focuses on the factors affecting pellet pricing, in addition to global supply and demand factors affecting Ferrexpo's end-market – steel. The Atlantic pellet premium, published on a monthly basis by S&P Platts ("Platts"), is presented in this section as an indicator of pellet premiums throughout the year. The Atlantic pellet premium is, however, based on the index for iron ore fines grading 62% Fe, as published by Platts, and therefore is not directly used by the Group in the typical pricing of its pellets, which are priced off the 65% Fe index.

Table: Full year Market Indices 2021

(US$/tonne, unless stated otherwise, and represent full year averages)	**2021**	2020	Change
Platts 62% Fe iron ore fines price CFR China	**160**	109	+47%
Platts 65% Fe iron ore fines price CFR China	**186**	122	+53%
65% Fe spread over 62% Fe	**26**	13	+96%
Atlantic pellet premium (BF pellet)	**56**	29	+92%
China pellet premium (BF pellet)	**52**	22	+139%
Direct reduction ("DR") pellet premium	**61**	36	+67%
DR premium over Atlantic premium	**5**	7	-28%
C3 freight (Brazil – China)	**27**	15	+81%
C2 freight (Brazil – Netherlands)	**16**	7	+135%
Global steel production (million tonnes)[2]	**1,912**	1,829	+4%

Iron ore fines prices

Volatility has been a key factor when looking back at global iron ore markets in 2021, affecting a range of key revenue drivers for iron ore producers like Ferrexpo, with the range of iron ore prices seen in 2021 approximately three times the average range in prices seen in the past five years.

Iron ore fines prices began 2021 at approximately US$180 per tonne, and rose by between US$40 and US$45 per tonne in both 1Q and 2Q of 2021, with this increase driven by government stimulus packages around the world in response to the global Covid-19 pandemic. This upward trajectory was then reversed in August 2021, with average prices declining by US$42 in 3Q 2021 and US$62 per tonne in 4Q 2021, ending the year at a level last seen in August 2020, back when prices originally began to rise.

[1] www.ourworldindata.org
[2] Source: World Steel Association (64 producing countries, representing 98% total world crude steel production in 2021).

The decline in fines pricing seen in the second half of 2021 was primarily related to government policies enacted in China to taper markets, and was therefore a controlled measure, which was widely anticipated by market participants. With China accounting for 73% of global iron ore imports in 2021[1], Chinese demand is the primary driver for iron ore fines prices. Reviewing the market in 2021, Chinese steel production averaged 94 million tonnes a month in the first half of 2021, representing 12% growth year on year and a record level of steel production, with strong demand for iron ore during this period. Following measures enacted by the Chinese government from July 2021 onwards, Chinese steel output fell to 78 million tonnes a month in the second half of 2021, representing a 17% decline on the first half of 2021, and demand for iron ore softened as a result. Chinese steel production cuts enacted in the summer of 2021 were originally announced as early as 2020, as part of Beijing's decarbonisation policy announced at the time, with environmental inspections commencing in April 2021 to ensure that each province's annual production did not exceed 2020 levels. Measures implemented included the removal of export tax rebates in China from August 2021.

In terms of the supply-demand balance of the iron ore market, movements in iron ore pricing in 2021 were primarily driven by fluctuations in demand for iron ore, rather than changes in supply of iron ore, which remained relatively stable. Independent consultants CRU estimate that exports of iron ore grew by 38 million tonnes in 2021, representing an increase of 2%. The majority of this additional material came from Brazil and Australia, with the former relating to recovering supply, and the latter primarily relating to additional low grade supply from brownfield sites.

The near-term outlook for the iron ore fines market and prices in 2022 will depend on the level of activity seen in China in early 2022, following production cuts imposed in 2021, as well as the degree of stockpile drawdown that is seen with steel inventories that have accumulated. If a strong recovery in Chinese demand continues beyond 2Q 2022, then it is expected that the iron ore fines market is likely to become constrained, which would potentially provide a tailwind to iron ore fines prices.

High grade premiums

High grade premiums are the additional prices paid for material that is high grade (65% Fe or above), with this premium averaging US$26 per tonne in 2021 (2020: US$13 per tonne). As the world seeks to decarbonise, steelmakers are increasingly looking to source higher grade iron ores to reduce their emissions footprints. For more information on the environmental benefits of high grade iron ores, please see the Case Study on page 12. This trend is shown through the premiums paid for high grade iron ore fines, with quarterly average premiums climbing consistently throughout 2021, as shown in the table below.

Table: Premium paid for high grade (% of 62% Fe Index)

2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021
12%	15%	16%	17%	18%

The outlook for the high grade premium is expected to remain positive going forward on the basis of steelmakers increasingly looking to reduce emissions, with specific markets – particularly Europe – expected to drive demand for these ore types faster than other regions, based on aggressive decarbonisation policies currently being adopted by key European governments and the European Commission. An example of such a policy change is the European Union's Carbon Border Adjustment Mechanism ("CBAM"), which was announced in 2020 and will be gradually implemented between 2022 and 2025. The CBAM envisages a tariff applied to specific goods produced outside of the European Union ("EU"), to account for the cost of carbon. This legislation is designed to strengthen key industries in Europe, such as the steel industry, particularly as this industry faces rising costs associated with climate change. The Group believes that any measure designed to strengthen the European steel industry will improve the purchasing power of European steelmakers to purchase a greater degree of premium raw materials, such as high grade iron ore pellets, and will therefore drive greater demand for the Group's products.

Pellet premiums

The pellet premium is a premium applied to all pellet sales, and is paid above the Platts 65% Fe Index for Ferrexpo's pellets. The Atlantic pellet premium in 2021 followed a similar trend to the iron ore fines indices during the year. In the first half of the year, this pellet premium rose as steelmakers worldwide looked to maximise steel output and take

[1] Source: CRU

advantage of high steel prices. Subsequently, Atlantic pellet premiums fell in the second half of 2021, but did not fall to the same extent as iron ore fines prices, declining from the highs of US$78 per tonne seen in the summer months of 2021 to close the year at US$56 per tonne. This differing dynamic compared to the iron ore fines price is a reflection of the pellet market being governed by buying in different geographic regions – namely steel production in Europe and North East Asia, which collectively account for more than 40% of the global trade in iron ore pellets[1].

Demand for iron ore pellets is therefore more aligned to the health of the steel sector in these two regions, as well as overall pace of decarbonisation seen globally.

Global iron ore pellet exports amounted to approximately 127 million tonnes in 2021, reflecting a contraction of 1 million tonnes versus 2020[1]. The main driver for the decrease in supply seen in 2021 came from lower exports from producers in Brazil, India and the USA, balanced in part by a returning producer in Brazil[1]. Within this total, exports of blast furnace pellet exports contracted by 6 million tonnes during 2021 (representing a 7% reduction), with supply of direct reduction pellets growing by 4 million tonnes (10% increase)[1]. This relative stability in the supply of iron ore pellets is a reflection of the difficulties faced by companies looking to introduce new supply of pellets into the market, since new supply requires significant capital investment to commence operations and the relative scarcity of deposits relevant for pelletising operations that have good access to existing infrastructure.

Demand for iron ore pellets in 2022 has been strong in European markets following Russia's invasion of Ukraine, with iron ore from Russia subject to trade restrictions. Furthermore, pellet demand is expected to increase globally in response to increasing environmental controls. As referenced on page 10, the introduction of the European Union's CBAM regulations is expected to strengthen the European steel sector in the medium term, and as a result will increase the ability of EU steelmakers to purchase premium products for steelmaking such as iron ore pellets. The global supply of iron ore pellets today is relatively constrained, with the majority of existing suppliers operating at (or near to) full capacity, particularly following the recent completion of the ramp up of Samarco, a Brazilian pellet supplier, which had previously halted production following a tailings dam breach in 2015.

Freight rates

The Baltic Exchange's C3 freight rate, which is indicative for the Group's overall freight costs, increased significantly in 2021 to US$27 per tonne. This increase was due in part to the market imbalance seen in early 2021 that was created by the global Covid-19 pandemic, with reduced dry bulk shipments from Brazil, resulting in fewer vessels entering the Atlantic basin to receive cargoes. Secondly, increasing fuel prices in the second half of the year resulted in a sharp increase in freight rates, peaking at an average of US$41 per tonne in October 2021, before retreating back to US$26 per tonne by the end of the year. Freight rates are a further example of the volatility seen in 2021 and how this contrasts to previous years. In contrast, the average C3 freight rate for the past five years has varied by just US$4 between US$15 and US$19, whilst the average for 2021 rose by US$12 to U$27 per tonne.

In terms of the near-term outlook for freight rates, the forward curve for C3 freight rates indicates that the index in 2022 will fall below the high levels seen in 2021, but will remain above the historical averages seen in previous years, reflecting increased energy costs.

Steel production

Global steel production, according to the World Steel Association, increased by 4% in 2021 compared to 2020, which also reflects a rise above 2019 levels, indicating the strong return to growth as governments worldwide continue to respond to the global Covid-19 pandemic. During 2021, the majority of this growth in global steel production occurred during the first half of the year, which was 15% up year on year, whereas the second half of 2021 saw a 5% contraction year on year in global crude steel output. This trend was driven by Chinese output, where production increased by 13% year on year in the first half and then contracted by 15% year on year in the second half, ending the year below the total output for 2020. The European steel space has continued its strong recovery in 2021, growing by 20% in the first half and a further 10% in the second half of the year. North East Asia, another key market for global iron ore pellet exports, exhibited a similar trend to Europe in 2021, growing by 11% in both halves of 2021.

Based on data presented by independent consultants CRU, it is expected that the global outlook for hot metal production is set to peak in 2021 (relevant data on this topic to be published in 2022), with global levels of output expected to remain above 1,400 million tonnes between 2022 and 2025. It is expected that the share of steel production from electric arc furnaces will grow from 27% of global crude steel production in 2021 to 31% in 2025.

[1] Management estimate

Steel pricing

The Group closely monitors the margins being made by steelmakers as a lead indicator of possible future movements in the demand for iron ore, with the margin for hot rolled coil ("HRC") used as an indicator of this. Margins for HRC remained positive throughout 2021, with steel prices remaining elevated despite the fall in raw materials costs seen in the second half of 2021.

The Group expects global steel output to rise in 2022, on the basis of steel margins remaining at elevated levels at the present time, with steelmakers increasing output to meet rising global demand for steel.

Future trends: Green Steel

A clear trend within the steel sector is decarbonisation, with many of the world's governments pledging to achieve net zero carbon emissions by either 2050 or 2060. Governments are also setting medium-term targets to establish a trajectory for emissions reduction – typically a 30% reduction by 2030. The European Union is working towards its "Fit for 55" plan announced in July 2021, which is a legislative process aimed at delivering a 55% reduction in carbon emissions by 2030 against a baseline year of 1990. Given Ferrexpo's close proximity to European steelmakers, this provides the Group with a significant opportunity, since iron ore pellets enable steelmakers to reduce emissions through greater use of direct charge material in their blast furnaces. For more information on the environmental benefits of pellets, please see the Case Study on page 8. This shift towards iron ore pellets is mirrored in data presented by independent consultants CRU, who forecast that global iron ore pellet consumption will increase by 15% between 2021 and 2026, whilst consumption of iron ore fines is forecast to contract by 14% during this same period.

Over time, the Group also intends to increase production of its latest product – the higher grade (67% Fe) direct reduction pellets, which are typically converted to steel using natural gas and then electricity in electric arc furnaces. This is in contrast to the blast furnace method of steelmaking, which typically uses coal as the main fuel to produce steel. Through removing coal from the steel-production process, steelmakers can operate with a significantly lower carbon footprint. Direct reduction pellets represented 4% of the Group's production in 2021 (2020: 3%), and the Group intends to utilise its expansion plans in the medium term to increase this proportion of production as steelmakers around the world decarbonise and demand for this pellet type increases.

CASE STUDY: THE IMPORTANCE OF HIGH GRADE IRON

In iron ore, grade is key. For commercially available iron ores, which are predominantly hematite, the maximum iron content is 70%, with the remaining 30% being oxygen (as part of the iron oxide that iron ores are predominantly comprised of). Benchmark iron ores grading 62% Fe are therefore 62% iron, the oxygen as part of the iron oxide molecule, and a component of waste that represents approximately 11% of this material. For low grade ores (58% Fe), the proportion of waste material contained is higher - approximately 17% of the total mass of material being sold. Ferrexpo's products are high grade and therefore contain between 4% and 7% waste material, and as a result contain up to four times less waste than competitors' iron ores. This is important, as it is the waste in the ore that steelmakers must supply energy to remove when making steel, with ores that contain more waste requiring more energy to process. In the blast furnace, this energy is typically provided by coal, whereas in the direct reduction process this energy comes from either natural gas or electricity. High grade ores are therefore a tool available to steelmakers to reduce emissions today.

CASE STUDY: THE IMPORTANCE OF PROXIMITY TO KEY MARKETS

In a global world that is facing up to the journey of decarbonisation that lies ahead, consumers are looking increasingly for supplies of goods and services to come from local sources. With assets based in Ukraine, Ferrexpo is well positioned geographically to supply the steel sector in both Europe and the Middle East, with Ferrexpo's peers in Brazil, Canada and South Africa located further away from these key markets. Ferrexpo is able to supply customers in Europe via rail, barge or ocean-going vessel. The Middle East represents the single biggest market for direct reduction pellets today, and with Europe rapidly decarbonising, this is expected to significantly increase pellet demand for this pellet type in the future as steelmakers seek to adapt their production processes.

In a world where ocean-going freight contributed as much to Ferrexpo's total emissions as emissions from mining in 2021, the distance to markets matters.

FINANCIAL REVIEW

Through investment in high grade iron ore products, the Group has been able to maintain its position as a high margin business, further enabling the Group to continue its strategy of investing for future growth and returns.

Summary

Through rising pellet quality and strong market demand for high grade, premium forms of iron ore such as pellets, the Group saw revenues in 2021 increase by 48% to US$2.5 billion and Underlying EBITDA[A] increase by 68% to US$1,439 million (2020: US$859 million), maintaining the Group's position as a high margin business. The Group has maintained its balanced approach to capital allocation, with Capital investment[A] rising by 75% to US$361 million. The Group realised a net operating profit after tax of US$871 million in 2021 (2020: US$635 million) following the accounting of an impairment loss of US$231 million as at 31 December 2021.

Revenue

Group revenues increased in 2021 by 48%, relating to increases in commodity pricing seen during the year – principally iron ore prices, premiums for high grade materials and pellet premiums. Total sales for the period fell by 6%, reflecting the de-stocking process that was conducted in 2020 in response to the onset of the global Covid-19 pandemic. Revenues also benefited from the increase to 100% high grade iron ore products (2020: 99%). For further information, please see the Operational Review section on pages 17 to 19.

Seaborne freight revenue arising from CFR sales increased revenue by US$12 million compared to 2020, reflecting the net effect from higher freight rates, partially offset by lower sales volumes to Asia. Finally, the revenues from the Group's barging and bunker operations, First-DDSG Logistics Holding, increased by US$4 million in 2021 compared with 2020 as a result of higher freight rates and bunker prices, partially offset by a lower volume shipped.

C1 cash cost of production[A]

The Group's average C1 cash cost of production[A] was US$55.8 per tonne in 2021, compared with US$41.5 per tonne in 2020, with this increase in the Group's cost base relating to a global rise in commodity input prices, which applies to approximately 50% of the Group's cost base.

In the first half of 2021, global commodity prices rose as global economies experienced a recovery from the financial effects of the global Covid-19 pandemic. Following this rise in the first half of 2021, global energy prices rose further due to a tightness in the supply of crude oil, following production cuts announced in late 2020 by OPEC nations. Consequently, oil prices rose from US$55 per barrel in January 2021 to a peak of US$84 per barrel in October 2021, representing a rise of more than 50%, before retreating during the fourth quarter[1].

The Group pays royalties on the extraction and sale of iron ore products to the Ukrainian government, with this royalty regime updated in late 2021. This new royalty regime, which came into force in January 2022, includes a royalty payment based on the spot iron ore (62% Fe) fines price, with no reference to pellet premiums or freight rates, which is structured as follows: (1) at monthly iron ore prices (62% Fe) less than or equal to US$100 per tonne, a royalty rate of 3.5% will apply to iron ore product sales, (2) at prices less than or equal to US$200 per tonne a royalty rate of 5% will apply and (3) at prices above US$200 per tonne a 10% royalty rate will apply. Royalties are not tiered and therefore the rate applied will apply to the full price of the iron ore product being sold. This compares to the previous iron ore royalty calculation whereby the Group paid a flat royalty rate of approximately US$3.5 per tonne of all tonnes sold.

In line with previous years, the Group's C1 cash cost of production[A] represents the cash costs of production of iron pellets from own ore (to the mine gate), divided by production volume from own ore, and excludes non-cash costs such as depreciation, pension costs and inventory movements, as well as the costs of purchased ore, concentrate and gravel. The C1 cash cost of production[A] (US$ per tonne) is regarded as an Alternative Performance Measures ("APM"). For further information, please see pages 80 to 81.

Selling and distribution costs

Total selling and distribution costs were US$340 million in 2021 (2020: US$309 million), reflecting an increase in freight rates, offset by a decrease in sales to Asia. As a result, international freight costs arising from CFR sales increased by US$36 million compared to 2020.

[1] Source: EIA

General and administrative expenses

The general, administrative and other expense in 2021 was US$72 million (2020: US$62 million), with this increase mainly due to higher consulting fees related to the business improvement projects and personnel expenses in Ukraine linked to local inflation.

Currency

Ferrexpo prepares its accounts in US dollars. The functional currency of the Group's operations in Ukraine is the Ukrainian hryvnia, which has historically represented approximately half of the Group's operating costs. In 2021, the hryvnia appreciated by 4% from UAH 28.275 per US dollar on 1 January 2021 to UAH 27.278 per US dollar as of 31 December 2021. For further information, please see section on C1 cash cost of production[A] on page 13 and Case Study on page 16.

Local balances as of 31 December 2021 are converted into the Group's reporting currency at the prevailing exchange rate. The appreciation of the hryvnia resulted in a US$79 million increase in net assets in 2021 (2020: decrease of US$301 million), as reflected in the translation reserve, net of an associated tax effect.

Operating foreign exchange gains/losses

Given that the functional currency of the Ukrainian subsidiaries is the hryvnia, an appreciation of the hryvnia against the US dollar results in foreign exchange loss on the Group's Ukrainian subsidiaries' US dollar denominated receivable balances (from the sale of pellets). The operating foreign exchange loss in 2021 was US$38 million compared to a gain of US$61 million in 2020 when the hryvnia depreciated.

Non-operating foreign exchange gains/losses

Non-operating foreign exchange gains are mainly due to the conversion of the hryvnia denominated intercompany payable balances and the conversion of euro denominated loans (at the Group's barging facility) into the functional currency of the respective Group's subsidiary. In 2021, the Group recorded a non-operating foreign exchange loss of US$3 million (2020: gain of US$5 million), which was driven by a 4% appreciation of the hryvnia during the year against the US dollar, as well as fluctuations in the euro/US dollar exchange rate. For further information, please see Note 6 (Foreign exchange gains and losses) to the Consolidated Financial Statements.

Underlying EBITDA[A]

Underlying EBITDA[A] in 2021 increased by 68% to US$1,439 million, with this increase reflecting a balance of positive factors, including the 53% increase seen in iron ore fines prices, a 92% increase in the Platts Atlantic pellet premium, balanced by negative factors such as a 6% decrease in sales volumes, 34% increase in C1 cash costs of production[A] and an 81% increase in the C3 freight rate. The Group's Underlying EBITDA[A] for 2021 includes a non-cash operating forex loss of US$38 million in 2021 (2020: non-cash operating forex gain of US$61 million).

Interest

Interest expense on loans and borrowings declined by 57% to US$10 million compared to US$22 million in 2020, due to a lower average outstanding debt balance. The average cost of debt was 4.7% for the period until the full repayment of the Group's major debt facility in June 2021 (average 31 December 2020: 5.2%). Further details on finance expense are disclosed in Note 7 (Net finance expense) to the Consolidated Financial Statements.

Tax

In 2021, the Group's tax expense was US$200 million (2020: US$113 million). The effective tax rate for 2021 was 18.7% (2020: 15.1%). The increase in the effective tax rate was driven by a higher proportion of taxable profits in Ukraine and the impairment loss, which is not tax deductible. In 2021, the Group paid income taxes of US$228 million (2020: US$57 million), of which US$221 million were paid in Ukraine (2020: US$54 million).

A total of US$29 million of income taxes related to 2021 are expected to be paid in 2022, of which US$21 million in Ukraine. Further details on taxation are disclosed in Note 8 (Taxation) to the Consolidated Financial Statements.

Items excluded from underlying earnings

The Group has recognised an impairment charge of US$231 million as at 31 December 2021, relating to stockpiled low grade ore as it cannot reliably predict when this material will be processed. Please see Note 10 (Inventories) to the Consolidated Financial Statements for more information.

Profit for the period

Profit for the period increased 37% to US$871 million compared with US$635 million in 2020, reflecting a 44% increase in operating profit (including operating foreign exchange effects) and US$3 million lower net financial expense and a foreign exchange loss of US$38 million compared to a foreign exchange gain of US$61 million in 2020, in addition to a higher income tax expense of US$200 million.

Cash flows

Operating cash flow before working capital increased 85% while the working capital outflow in 2021 was US$139 million compared to an outflow of US$24 million in 2020. The increase in the working capital outflow largely reflects higher balances of trade and other receivables, prepayments made as of 31 December 2021 and higher inventories, which were mainly as a result of shipments that slipped into 2022 due to bad weather conditions at the Group's loading port at year end.

As a result of the higher operating cash flow, the net cash flow from operating activities increased 59% to US$1,094 million in 2021 (2020: US$687 million). Capital investment was US$361 million, an increase of 75% compared to 2020 (US$206 million), while dividends paid during the 2021 calendar year increased by 220% to 105.6 US cents compared to 33.0 US cents in 2020.

Capital investment[A]

Capital expenditure in 2021 was US$361 million compared to US$206 million in 2020. Of this amount for 2021, sustaining and modernisation capex was US$113 million (2020: US$103 million), covering activities at all of Ferrexpo's major business units. In relation to growth capital investment[A], total investment in the Group's concentrator and pelletiser, including the Wave 1 Expansion, amounted to US$111 million in 2021 (2020: US$34.3 million). In addition, FPM invested US$34 million on the press filtration project, which is set for completion in 2022. Further areas of capital investment[A] included mine stripping and development of US$69 million in 2021 (2020: US$14 million) and US$6 million invested in the infrastructure, development and exploration of the Bilanivske (Belanovo mine), Galeschynske and the Northern Deposits (2020: US$6 million). For further information on the Group's growth plans, please see pages 19 to 21.

Shareholder returns

In view of Russia's invasion of Ukraine and the ongoing hostilities, the Board has decided to defer any decision in relation to an interim dividend in conjunction with the Group's full year results for 2021. The Board will continue to assess the situation, and when appropriate, will make a decision in relation to shareholder returns. Total dividends paid to date in respect of 2021 are 46.2 US cents (2020 total: 85.8 US cents). In November 2021, the Group announced a shareholder returns policy outlining the Group's intention to deliver 30% of free cash flows as dividends in respect of a given year. To date, the Group has announced dividends in respect of the 2021 financial year representing 37% of the Group's free cash flow in 2021.

Following repayment of the Group's PXF Facility in June 2021, the Group no longer has a financial covenant restriction over the total available distributable profits of the Group (noting that any dividend payment must still comply with distributable reserve requirements under company law).

The Group's Board will consider, as appropriate, whether or not to propose a further interim dividend in respect of 2021.

Debt and maturity profile

Ferrexpo has a strong balance sheet, low levels of gross debt and had a net cash position as of 31 December 2021. As of 31 December 2021, the Group's net cash position was US$117 million (31 December 2020: US$4 million net cash position). Gross debt as of 31 December 2021 was US$50 million compared with US$266 million as of 31 December 2020. The Group's gross debt relates to short-term trade finance facilities that typically have tenures of less than 12 months.

As of 31 December 2021, the credit ratings agency Moody's has a long-term corporate and debt rating for Ferrexpo of B2, with a negative outlook. The credit ratings agency Fitch maintains a BB- rating on the Group, with a stable outlook. While the credit rating of Ferrexpo is capped by the sovereign credit rating of Ukraine, the ceiling for credit ratings ascribed to Ferrexpo by both Fitch and Moody's are higher (one notch above sovereign for Moody's and two notches above sovereign for Fitch).

Following the start of the Russian invasion of Ukraine on 24 February 2022, the credit ratings agencies have taken steps to update their assessment on Ukrainian issuers. As of 4 April 2022, with regards to Ferrexpo plc, Moody's has a long-term corporate and debt rating for Ferrexpo of Caa2, with a negative outlook, while the credit ratings agency Fitch has a long-term corporate and debt rating for Ferrexpo plc of B-, with a negative outlook. While the credit rating of Ferrexpo is capped by the sovereign credit rating of Ukraine, the credit rating ascribed to Ferrexpo by Fitch is higher. The credit ratings agency Standard & Poor's has temporarily suspended the credit rating for Ferrexpo plc.

Related party transactions

The Group enters into arm's length transactions with entities under the common control of Kostyantin Zhevago and his associates. For further information, please see Note 14 (Related party disclosures).

CASE STUDY: MAINTAINING A LOW CASH COST OF PRODUCTION

The Group's C1 cash cost of production[A] is governed by a range of factors, with energy costs historically representing approximately half of the cost base through the Group's exposure to diesel prices (mining), electricity prices (predominantly processing) and natural gas prices (pelletising).

The Group's full year C1 cash cost of production[A] rose by 34% to US$55.8 per tonne, primarily reflecting a rise in the second half of the year due to high energy costs. Over the full year, increasing energy costs have accounted for a combined US$10 per tonne increase in the Group's C1 cash cost of production[A], with a further US$2 per tonne increase attributable to spare parts and maintenance costs per tonne combined. Elevated energy prices are expected to remain in place going into 2022, with a gradual decline to historic levels expected during the course of first half of the year.

Through its production of high grade iron ore pellets, the Group remains competitive for costs on a global scale, as shown in the pellet cost curve, presented by independent consultants CRU. With the increases in energy costs described above, the Group has moved from the first to the second quartile of costs for pellet producers, but the Group retains a cost advantage over more than 55 million tonnes of existing pellet production, representing approximately half of the current market of iron ore pellets. Given the long-term value proposition of high grade iron ore and pellet premiums, as outlined in the Case Studies provided in this report, the Group believes that it will continue to be globally competitive on its cost of production.

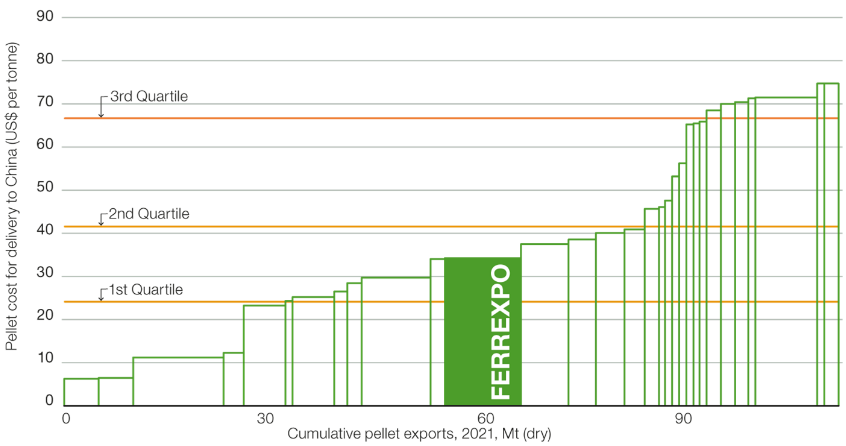
For more details of the increasing premiums paid for high grade iron ore, please see page 10.

Table: Breakdown of Ferrexpo's C1 cash cost of production[A]

Electricity	23%
Gas + Biofuel	16%
Fuel	6%
Materials	8%
Spare parts	11%
Personnel costs	8%
Repair service	11%
Grinding bodies	8%
Royalties	6%
Blasting	2%

Note: above numbers are rounded.

Chart: CRU Breakdown pellet cost curve to natural markets (US$ per tonne)



Definition: Business costs are the sum of realisation costs and site costs. Realisation costs include the cost of getting the material to market, the marketing of the material and the financing cost of selling the material. The power of business costs is that by adjusting all product qualities relative to the same benchmark (62% Fe fines product delivered to North China), it allows all mines to be compared on a cost curve on a like-for-like basis. This also means that by subtracting the benchmark price from the business costs for a mine an estimate of cash flow from that operation is obtained. Source: CRU Group

OPERATIONAL REVIEW

2021 saw operations continue to develop and grow, with work already under way for the next phase of growth, with the Wave 1 Expansion set to add three million tonnes of additional capacity.

Russia-Ukraine conflict (2022)

To date, the Group has managed to continue production operations during Russia's invasion of Ukraine in 2022, with the Group curtailing non-core activities. Shipments continue via rail and barge to Europe, but seaborne exports via the port of Pivdennyi have been temporarily suspended. Please see the Group's press releases for up-to-date operational updates.

Mining (2021)

Total mining volumes increased by 21% in 2021, with the Group preparing for the Wave 1 Expansion, which will require an increase in supply of iron ore to the Group's processing plant upon completion. At FPM, mining activities in 2021 remained in line with 2020, but the Group significantly increased total volume movements at FYM to over 60 million tonnes, representing a 39% increase, underscoring FYM's role for the Group's near-term growth ambitions. FBM is the key project in the Group's medium-term growth plans, and this project saw a seven-fold increase in material moved to 10 million tonnes in 2021, with this mine expected to continue its ramp up of activities over time.

Additional projects under way in the Group's mines include the ongoing automation of the haul truck fleet at FYM (see Case Study on page 19), as well as ongoing discussions to electrify the Group's mining fleet, which is likely to include trolley assist and battery technology (see Case Study on page 20). Both projects are expected to offer long-term benefits in safety performance, productivity and emissions reduction.

Total mining volumes in 2022 across the Group's two ore-producing mines – FPM and FYM – are expected to remain in line with 2021, reflecting the recent step up in waste stripping activities ahead of the Wave 1 Expansion. For more information on the Group's growth plans, please see page 19.

Processing (2021)

The Group's processing plant has seen significant investment in recent years, and as a result, ore tonnes processed and concentrate tonnes produced both increased by 5% in 2021, with the Group expecting further growth in future years. The pelletiser was the focus of investments in processing in 2021, with upgrade work taking place in three distinct phases throughout the year.

Following the approval of the Group's Wave 1 Expansion in October 2021, the Group has taken the decision to focus on the processing of high grade ores to maximise production, and has therefore realised an impairment on the value of the low grade ore stockpiled at site. Please see Note 10 (Inventories) to the Consolidated Financial Statements for more information.

A key project completed in early 2022 is the Group's press filtration complex, which will help improve product quality and reduce natural gas consumption through lowering the moisture content of pellets before entering the pelletisation process. The work completed to date represents the first phase of this project, which will help facilitate an increase in throughput of material through the Group's processing facilities.

In terms of product quality, the Group has phased out production of medium grade products, transitioning to 100% high grade (65% Fe and above) production as of 2021 (2020: 99%). This shift marks the culmination of 15 years of investment in high grade production since the Group's IPO, and reflects a shift in preference by the Group's premium customers, who use pellets to make premium types of steel. To understand the importance of high grade materials to steel companies, please see the Case Study on page 12.

Ferrexpo continues to use sunflower husks as a substitute for natural gas in the pelletiser, with 18% of pelletiser energy use sourced from sunflower husks in 2021 (2020: 25%). The decrease seen in 2021 correlates to commercial trials of producing direct reduction pellets, and the Group expects consumption rates of sunflower husks to increase as the Group's understanding of the technical requirements of producing this pellet type increases.

Logistics (2021)

Sales volumes fell 6% in 2021 as a result of the Group conducting a one-off de-stocking process in early 2020. Production and sales volumes in 2021 returned to a level broadly matching each other.

In December 2021, the Group also conducted a trial shipment to a German steel mill via rail, which has the potential to reduce the Group's Scope 3 emissions footprint through use of the electrified rail network in Europe, as well as having the potential to cut delivery times in half to certain customers.

In 2021, the Group's subsidiary First-DDSG transported 0.8 million tonnes of iron ore pellets via the River Danube (2020: 0.8 million tonnes), providing additional logistics flexibility for the Group to supply customers in Europe.

Table: Operational performance

(000't unless otherwise stated)	**2021**	2020	Change
Production			
Iron ore mined	**33,764**	29,842	+13%
Strip ratio	**3.5**	3.2	+9%
Iron ore processed	**31,111**	29,723	+5%
Concentrate production	**14,655**	14,007	+5%
Pellet production	**11,220**	11,218	+0.02%
– Direct reduction pellets (67% Fe)	**431**	339	+27%
– Premium blast furnace pellets (65% Fe)	**10,790**	10,780	+0.1%
– Basic blast furnace pellets (62% Fe)	**–**	98	-100%
Commercial concentrate production	**234**	183	+28%
Iron ore sales			
– Pellets	**11,115**	11,878	-6%
– Concentrate	**234**	183	+28%
– Total products sold	**11,349**	12,062	-6%

Table: JORC-Compliant Ore Reserves and Mineral Resources[1]

	Proven			Probable			Total		
JORC-compliant Ore Reserves	Mt	Fe total %	Fe magnetic %	Mt	Fe total %	Fe magnetic %	Mt	Fe total %	Fe magnetic %
Gorishne-Plavninske-Lavrykivske ("GPL")	300	33	26	829	31	23	1,135	32	24
Yerystivske	220	30	25	290	33	26	510	32	26
Total	**526**	**32**	**26**	**1,119**	**32**	**24**	**1,645**	**32**	**25**

	Measured			Indicated			Inferred			Total		
JORC-compliant Mineral Resources	Mt	Fe total %	Fe magnetic %	Mt	Fe total %	Fe magnetic %	Mt	Fe total %	Fe magnetic %	Mt	Fe total %	Fe magnetic %
Gorishne-Plavninske-Lavrykivske ("GPL")	472	35	29	1,627	30	22	744	32	24	2,843	31	24
Yerystivske	269	35	29	571	34	27	382	33	27	1,222	34	27
Bilanivske	336	31	24	1,149	31	23	217	30	21	1,702	31	23
Total	**1,077**	**34**	**27**	**3,347**	**31**	**23**	**1,343**	**32**	**24**	**5,767**	**32**	**24**

1 The Group's JORC-compliant Ore Reserves and Mineral Resources shown above are based on an independent review completed by Bara Consulting, shown on a depleted basis as of 1 January 2022. The Group previously reported a resource estimate of 326Mt for the Galeschynske deposit, which is the subject of a legal dispute and is therefore not shown above; please see page 38 for more information.

CASE STUDY: MINING FLEET AUTOMATION

In December 2020, the Group was proud to unveil the latest phase of autonomy in its business – Europe's first large scale autonomous haul trucks. The Group has continued to progress this project, with the first phase of automation completed, representing the first six CAT 793D trucks at the Yeristovo mine. Over time, the Group plans to continue to introduce fleet automation throughout its mining operations in line with this equipment showing improvements in both safety and productivity.

Through automation, the Group expects to see significant benefits in safety, productivity and maintenance. The autonomous fleet continues to improve in its fleet utilisation levels, and in November 2021 the Group's automated fleet achieved the same rates of utilisation as the Group's historic level.

GROWTH PLANS

The Group has now invested over US$3 billion in its operations since IPO, with over 85% of this investment at the Group's operations in Ukraine.

Growth projects in 2021

Recent projects completed include the pelletiser upgrade work primarily completed in 2021, as well as the concentrator upgrade and concentrate stockyard that were both completed in 2020. Through this work, the Group aims to provide stability and consistency in pellet production, growth in production volumes, and growth in product quality.

Wave 1 Expansion

The Group's Wave 1 Expansion is an ambitious project to add approximately 25% of the Group's existing pellet capacity in the next three years. In light of the current conflict in Ukraine, the Group has temporarily paused investment in growth projects and will look to recommence growth activities once additional clarity on the outlook for Ukraine is known. Please see the Principal Risks section for more information (pages 36 to 52).

Expansion plans in the processing of magnetite iron ore are modular in nature, whereby processing increased volumes uses larger and more advanced pieces of equipment, largely replicating the existing process flow sheet. The Group's investments to date have been a reflection of this, and the Group's Wave 1 Expansion will be a continuation of this strategy.

Each key aspect of the production process required to deliver the Wave 1 Expansion are shown in the diagram below, with pre-stripping activities commencing in 2021, and reflected in a 21% increase in the total tonnes mined during the year. The all-in capital intensity of the Wave 1 Expansion at the Group's operations is expected to be approximately US$200 per tonne of additional pellet capacity.

The Group also expects to see additional benefits and flexibility in processing different ore types as a result of the Wave 1 Expansion. Through adding modern equipment, such as the planned high-pressure grinding rolls in the beneficiation plant, the Group expects to see efficiency savings for key consumables such as electricity, which will have a positive effect on the Group's cost structure and environmental footprint.

1. Mining

- **Scale:** increasing total volumes mined from 125Mt in 2020 to approximately 265Mt.
- **Equipment required:** additional excavators and haul trucks.
- **Phasing:** gradual increase.
- **Total investment:** US$180 million, excluding trolley-assist.

2. Crushing & Beneficiation

- **Scale:** increasing crushing capacity to more than 45Mt.
- **Equipment required:** minor upgrades to primary crushing, additional secondary and tertiary crushing capacity. Contracts signed with Metso and Weir Minerals.
- **Total investment:** US$240 million.

3. Pelletising

- **Scale:** increasing capacity of one pelletiser line (out of four) by three million tonnes.
- **Equipment required:** pelletiser kilns to remain as is, with modifications to pre-heating stages to add capacity.
- **Phasing:** timing to be after concentrate capacity completed.
- **Total investment:** US$181 million.

4. Logistics

- **Scale:** capacity to transfer three million tonnes of additional products to customers.
- **Equipment required:** additional rail cars, upgraded port capacity.
- **Phasing:** gradual implementation.
- **Total investment:** US$28 million.

CASE STUDY: DECARBONISATION OF MINING FLEETS

With 40% of Scope 1 (direct) emissions in 2021 relating to diesel consumption in the Group's mining fleet, projects to address this area will have a clear impact on the overall carbon footprint.

In the short term, diesel consumption rates declined by 7% in 2021 as productivity measures continue to be implemented, and the Group is working towards continuing this progress in future years.

For over ten years, Ferrexpo has operated electric excavators, taking advantage of the fact that Ferrexpo's mines are located with good access to the Ukrainian electricity grid, a key advantage of Ferrexpo's mines over the majority of iron ore mines operated by the Group's peers in Australia. With this in mind, the Group continues to review the installation of trolley-assist infrastructure along the upward section of the haul ramps of its mines, as 50% of diesel consumption occurs when fully-loaded trucks ascend out of the Group's mines, making this a clear area to target in decarbonisation efforts. The Group is continuing discussions with suppliers of this technology, and in 2021, representatives of the Group visited a mining operation with trolley-assist equipment already in operation. It is expected that the installation of such equipment would take two to three years to implement. Aside from the benefits of decarbonisation, trolley-assist technologies also allow trucks to ascend pit ramps using 100% of each truck's engine capacity, leading to shorter cycle times, therefore reducing the requirement for the number of trucks operating, as well as more efficient mining practices.

The longer-term solution is however to completely remove diesel consumption from the Group's haul trucks. This is possible through a range of technologies and the Group believes that, as of today, the best opportunity to implement diesel-free fuelling of trucks is through battery technology, which represents a technology that is rapidly developing. The Group considers itself to be a fast follower for new technologies, and is looking to implement a fleet-replacement strategy with battery technology trucks once this becomes a widespread solution in the mining industry. The Group expects this to be a gradual phasing out of diesel trucks over time, with this becoming a viable pathway in the medium to long term.

HSEC COMMITTEE CHAIR'S REVIEW

The events in the first quarter of 2022 has highlighted the importance of sustainability, particularly Ferrexpo's community support initiatives, at this difficult time. The Group's newly established Humanitarian Fund is designed to help address the needs of communities across the country.

New Chair appointed

In February 2022, I assumed the role of HSEC Committee Chair, with Fiona MacAulay moving to become the Senior Independent Director. In this section, we look back at progress made in a number of sustainability topics, with further details available in our Responsible Business Reports, which are available on the Group's website (http://www.ferrexpo.com).

Prioritising safety and wellbeing

Safety and wellbeing have never been more prominent in our activities than during Russia's invasion of Ukraine in early 2022. Further details of our humanitarian efforts are provided in our community support section on page 32, with US$12.5 million of approved funding for the Group's Humanitarian Fund[1].

Looking back at 2021, we can report a fatality-free year, alongside the Group's lowest recorded full-year lost time injury frequency rate ("LTIFR") since its listing in 2007. Our safety performance in 2021 was once again materially below our five-year trailing average for LTIFR, and also continues below the same metric as recorded by Ferrexpo's iron ore producing peers in Western Australia[2], with further details provided on page 23.

Workforce wellbeing is a key area of focus to ensure that people are well looked after during the conflict, including the free provision of psychological support and on-site childcare facilities. In external recognition of our efforts in 2021, we were pleased to be recognised as one of the top four companies in Ukraine for family-friendly policies in a country-wide survey sponsored by the United Nations Population Fund. Further details are provided on page 31.

Addressing climate change

On carbon emissions, we are continuing to deliver reductions, with a 16% reduction in combined Scope 1 and 2 carbon emissions per tonne for a second successive year, with this decrease in 2021 driven by our clean power purchasing strategy, which helped to reduce Scope 2 emissions by 40% in 2021 on a per tonne basis. We did, however, record an 11% increase in Scope 1 emissions per tonne, which was driven by increased mining activity as we ramp up our Wave 1 Expansion activities, and reduced sunflower husk consumption in our pelletiser as we trial the production of our latest product, direct reduction pellets. This emphasises the need for us to advance our plans to electrify our mining activities – see page 20 on this work stream – and the importance of biofuels today, which will facilitate the transition away from natural gas in the future.

Through the result presented here for 2021, we have nominally achieved a 30% reduction in carbon emissions against our baseline year, which was the medium-term target set by the Group in 2021. This 30% target is the benchmark level set in the mining industry, and by achieving this goal, we can demonstrate where Ferrexpo is relative to its peer group in reducing emissions. From here, we intend to continue to reduce our emissions, and through our ongoing work with environmental consultants Ricardo plc ("Ricardo"), we plan to establish a bespoke pathway for Ferrexpo's net-zero ambitions. The Group's long-term emissions reduction target remains to be carbon neutral by 2050, and we look forward to reporting further on this when our work with Ricardo concludes later this year; further

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1 As at 21 April 2022.
2 Source: Government of Western Australia (link). Accessed April 2022.

details of this project are provided on page 28. Further to our work with Ricardo, we understand the importance of external assurance of sustainability data, particularly given the prominence of these topics in stakeholder discussions. As a result, we are currently conducting an external assurance process with an independent consultant on our reporting of carbon emissions and safety data, with details of this project provided on page 25.

Promoting diversity and inclusion

Diversity, equity and inclusion ("DEI") is an area where we have recently increased our focus. In 2021, we appointed a dedicated DEI officer to further our understanding of our own workforce, and we also conducted our inaugural DEI survey. Gender diversity is a focus of a range of training programmes at our operations, from attracting women into atypical roles, to providing management training to women identified as high potential future leaders of our business as part of our "Fe_munity" women in leadership programme. We are proud of the progress made to date, with the proportion of women in management roles advancing to 20.1% in 2021 (2020: 18.2%).

Strong links to local communities

Since the development of Horishni Plavni in the 1960s for the original construction of the iron ore mining and processing operations, there has been a close association between the mine and the town. In 2022, we are set to celebrate 15 years since Ferrexpo's listing and we are proud of the support that we have been able to provide during this time. In March 2021, the Ferrexpo Charity Fund celebrated its tenth year, during which time the Group has directly assisted over 90 schools and other educational facilities, over 30 hospitals and related facilities, and direct aid to over 4,000 individuals requiring assistance, such as regular support packages or expensive medical operations. See pages 32 to 33 for more on our work with local communities.

Sustainable environments

At Ferrexpo, we understand the need for sustainable working practices. The Dnieper River runs close to our operations, and we have a number of projects to promote both biodiversity in the river and local community use on the river (see Case Study opposite). Furthermore, in 2021, we undertook a new phase of biodiversity mapping – looking at the species of plants, fungi and animals in our local ecosystems, and we expect to compile our first biodiversity monograph in 2022 following this project's work.

Sustainability is a broad topic however, and we regularly report our performance across more than 30 standards under the framework published by the Global Reporting Initiative, as part of our Responsible Business Reports (available at **www.ferrexpo.com**).

In conclusion, our efforts to mitigate the detrimental humanitarian effects of Russia's invasion of Ukraine are ongoing and have highlighted the need for a close and effective relationship with local communities to quickly deliver relevant support where it is needed. Despite the war, we are continuing to work on our Responsible Business activities, and I would like to thank our workforce for embracing the fundamental values of sustainability to help deliver this progress. Ferrexpo has strong credentials in sustainability and we look forward to updating the market on our progress in the year ahead.

Ann-Christin Andersen

Chair, HSEC Committee

CASE STUDY: SUPPORTING LIFE ON AND IN THE DNIEPER RIVER

Ferrexpo and the Group's local communities are fortunate to be situated close to one of Europe's great rivers, the Dnieper River, which flows through Ukraine to the Black Sea and is more than two kilometres wide as it passes Ferrexpo's operations.

Whilst the Group does not operate in a region considered to be high risk for water stress (in accordance with the Water Resources Institute), the Group aims to reduce its water consumption regardless, and the Group is pleased to report a third consecutive year of materially lower water withdrawal from the local water supply network. Furthermore, the Group's processing plant regularly recycles 98% of water used in processing operations, minimising the impact of processing on the local water system.

To promote biodiversity, the Group is continuing its initiative to reintroduce native fish species to the Dnieper River, with this project winning a sustainability award at an award ceremony in Kyiv in December 2021 for helping implement the UN's Sustainable Development Goal 14 (Life Below Water). Further details of this project are available in the Group's Responsible Business Report.

With a healthy Dnieper River, local communities are able to utilise the river for sport and leisure. The Group is proud to support the local sailing club, which had four Olympians travel to the Tokyo Olympics in the summer of 2021 (with local canoeist Liudmyla Luzan, pictured above, winning two silver medals). The Group also regularly sponsors local and national dragon boat racing competitions on the river in Horishni Plavni, which is a popular sport within Ukraine.

HEALTH AND SAFETY REVIEW

A successful mining company is one that delivers value for all stakeholders in a safe and sustainable manner. Following Russia's invasion of Ukraine in 2022, the Group's primary focus is the safety and wellbeing of its workforce, with the following a review of safety in 2021.

Table: Safety Indicators 2020/21

	2021	2020	Change
Lagging indicators			
Fatalities[1]	**–**	1	-100%
Lost time injuries[1]	**9**	17	-47%
LTIFR[1]	**0.41**	0.79	-48%
TRIFR[2]	**0.97**	1.25	-22%
Near miss events[2]	**5**	7	-29%
Significant incidents[2]	**12**	17	-29%
Road traffic accidents[2]	**43**	31	+39%
Lost work days[2]	**497**	1,046	-52%
Leading indicators[2]			
HSE inspections	**3,293**	3,305	-0.4%
HSE meetings	**1,165**	1,528	-24%
HSE inductions	**11,602**	7,335	+58%
Training hours	**11,786**	14,755	-20%
Hazard reports	**595**	51	+1,067%
Management high visibility tours	**124**	131	-5%

1 Group-level indicators.

2 Ferrexpo's operations in Ukraine only.

In recent years, the Group has seen significant progress in safety, with zero fatalities in 2021 (2020: 1) and a lost time injury frequency rate – a key benchmark of safety in the mining industry – continuing to remain below the Group's trailing five-year average. The Group also records a range of leading and lagging indicators of safety, aiming to encourage a culture of safety that requires an employer to identify risks before safety incidents occur, monitor near miss events and analyse incidents when they have occurred, to learn and improve.

Reviewing the safety indicators for 2021 shows an improvement in the majority of lagging indicators, demonstrating that progress is being made in instilling a safety-first culture throughout the Ferrexpo business. Of particular note is the ten-fold increase in hazard reporting in 2021, which is a reflection of the recent adoption of ISO 45001:2019. A number of leading indicators are, however, down against the level set in 2020, which is an area to monitor in the year ahead to ensure that the standards being set today are maintained. In recognition of the recent trend in road traffic incidents, the Group has commenced a process to test visitors' driving safety awareness before being permitted to drive between areas of plant and administrative buildings (mining areas being already subject to strict controls).

As part of the Group's newly announced 'Vision Zero' programme to reduce operational injuries and instances of occupational disease, the Group has introduced a range of new measures such as the installation of a new aspiration system to reduce particulate emissions in the pelletiser in 2021, which will have benefits for both improving working conditions as well as the environment.

As part of the Group's efforts to further develop its position on sustainability, an independent assurance process is being undertaken on the Group's safety data (LTIFR and TRIFR) for 2021 by an external consultant, which is expected to be completed later in 2022. Details of this assurance process are provided in the Case Study on page 25.

CASE STUDY: INTERVIEW WITH NATALIA STOROZH, HEAD OF SAFETY AT FPM

Q: Health and safety is clearly an important department at Ferrexpo; how many people work in the safety department?

A: In total we have 72 people working in the safety department at Ferrexpo's operations in Ukraine, the equivalent of approximately 1 for every 100 employees across our operations.

Q: Since starting the role of Head of Safety at FPM in March 2021, what were the main safety projects implemented in 2021?

A: Safety projects often go hand in hand with modernisation of equipment, which comes with additional benefits such as improved productivity. Good examples of projects implemented include the installation of a stationary jib at the primary crusher, removing the need for operators to enter the crusher hoppers to break oversized ore, and the installation of a fully automated lathe in our workshops, both of which are projects that help to remove operators from hazardous areas. Safety projects range from improving signage – such as clearer demarcation of container storage areas – to the installation of six speed bumps on the main road entering our production facilities.

Q: Were there any particular departments that required a specific approach for establishing safety protocols?

A: Every area of our operations has a tailored approach to safety. A good example would be our maintenance workshops of the processing plant, where work is carried out at height and where a large number of contractors are involved. Here, we have a strong focus on risk assessments and safety training, given the higher concentration of contractors, to familiarise those working in maintenance with the identified risks.

Q: How often does the Safety Committee meet at site?

A: At FPM, Ferrexpo's main operating entity, we have a committee for labour protection, industrial safety and the environment, as well as a council board for labour protection, industrial safety and the environment of the plant. Meetings are held to help draw up measures aimed at improving working conditions, organising the safe performance of work, to eliminate inconsistencies and manage hazards and risks. During 2021, FPM's Safety Committee met four times at site.

Q: Which safety projects are planned for the coming year?

A: We have a number of projects that we are continuing to roll out from previous years, such as the tag-out lock-out system for isolating machinery during maintenance, as well as safety training programmes specifically for those working at height. In 2021, we obtained certification for our occupational health and safety management system under ISO 45001:2019 and we continue to update practices and introduce standards as part of this project. New projects for 2022 include the installation of additional traffic calming measures and the installation of a training simulator to help train operatives for working at height. Ultimately we are aiming to develop our own safety standard across the Group for operatives working at height.

To help further deliver safety improvements in the year ahead, we have developed the concept of "Vision Zero" to eliminate workplace injuries and occupational diseases, with efforts under way to raise awareness of this programme, such as the installation of 12 large billboards around our operational areas, as well as notices on internal communications channels.

CASE STUDY: EXTERNAL ASSURANCE – PROVIDING TRUST IN SUSTAINABILITY PROGRESS

Ferrexpo recognises that a company's reporting around climate change is an important pillar on which stakeholders base their trust in a company. In order to build trust in Ferrexpo's performance on climate change reporting, the Group is in the process of undertaking an external assurance process (ISAE 3000) with an independent consultant, with the first year of this project looking at both reporting of data for carbon emissions and safety.

In terms of carbon reporting, the process will provide external assurance on the Group's Scope 1 (direct) and Scope 2 (indirect) emissions, as these are directly associated with the Group's pellet production facilities. Over time, the Group intends to provide assurance on a broader range of topics within sustainability.

The assurance process to date for the Group's carbon footprint has highlighted a number of minor amendments to the Group's calculation of its carbon footprint, amounting to an overall decrease in the Group's carbon footprint of 1% in absolute terms for 2020 and a 2% reduction on a unit basis for 2020. The full list of amendments raised through this process will be provided on the Group's website once this assurance process is completed, including the following amendments for the Group's 2020 data:

- Removal of steam from Scope 2 calculation, as this is generated from purchased natural gas and therefore previously double counted. (Net impact on 2020 data: -24kt CO_2e.)
- Increase carbon factor for nuclear power purchases from 5g to 12g per kilowatt-hour, aligning with World Nuclear Association[1] data. (Net impact on 2020 data: +2t CO_2e.)
- Correction of factor for sunflower husks from 0.73kg/t to 0.073kg/t, bringing into line with other biofuels. (Net impact on 2021 data: -113kt CO_2e.)
- Inclusion of the Group's commercial concentrate sales of 183kt in calculating per tonne emissions.

ENVIRONMENTAL REVIEW

Ferrexpo works closely with the natural environment, to minimise any impact and strive to improve as new technology becomes available.

The Group's interaction with the environment is encapsulated not just through carbon emissions, but also through other forms of emissions, energy use, water withdrawal and recycling, waste generation and biodiversity. These topics are covered in detail in the Group's Responsible Business Reports, which are published annually and available on the Group's website (**www.ferrexpo.com**).

Delivering progress on carbon

In 2021, the Group not only announced decarbonisation targets to frame its net-zero ambitions, but also engaged with environmental consultants Ricardo plc ("Ricardo") to further develop the Group's understanding and reporting around climate change. Further details of the Group's engagement with Ricardo are provided in the Case Study on page 28.

The Group continues to make progress in cutting its carbon footprint, delivering a 16% reduction in its Scope 1 and Scope 2 carbon emissions (CO_2e) per tonne in 2021. Details of this progress, as well as the Group's reporting under the TCFD, are provided on pages 25 to 30.

Cutting water consumption

The Group typically interacts with water in two areas of its operations: (1) in mining, water ingress into the Group's open pits (groundwater and precipitation) is pumped out of mining areas and back into the natural environment ("dewatering"), and (2) in processing, water that is used to facilitate the processing of iron ore. Dewatering represented 95% of the Group's total water withdrawal in 2021, and the Group's activities in mining areas do not predominantly utilise this water (aside from dust suppression activities, which utilises the equivalent of 4% of dewatering volumes). Ferrexpo, however, maintains regular inspections of the quality of this water, monitoring 13 chemical elements at each operation and other attributes, to maintain standards, to ensure compliance with local laws and to ensure a minimal impact on the environment that this water is returned to. With water that is used in processing, the Group's processing plant and tailings facility acts as a closed loop, with water used to pump waste material to the tailings facility reclaimed and pumped back to the processing plant, resulting in 98% of process water being recycled by the Group's processing plant. The remaining 2% of water is lost through processes such as

[1] www.world-nuclear.org/information-library/energy-and-the-environment/carbon-dioxide-emissions-from-electricity.aspx

evaporation when green pellets are heated in the pelletiser or surface evaporation at the tailings facility.

Supporting local biodiversity

A key natural habitat located close to the Group's operations in Ukraine is the Dnieper River, one of Europe's largest rivers. As a consequence of domestic detergent use and fertiliser use in agriculture[1], this river faces frequent blooms of blue-green algae in the summer months, which are harmful to the river's ecosystem, as well as limiting local communities from using the river for recreation. Through an initiative launched in 2020, which was proposed internally by an employee, the Group is aiming to improve local conditions in the Dnieper River through the introduction of native species of fish that live off these algae and will help to balance the river's natural ecosystem. The Group is working with the Poltava Fish Conservation Patrol on this multi-year project, with the second phase of this project introducing two tonnes of local species (carp) into the river in November 2021.

Responsible waste management

The Group primarily produces waste through overburden removal in mining operations, and waste separated from iron ores during processing. In 2021, the Group's three mines stripped a combined 118 million tonnes of waste rock and sand (2020: 95 million tonnes), with this material stored locally in waste facilities designed by the Group's mining engineers and reviewed by local authorities. Waste mining activities increased in 2021, ahead of the Group's Wave 1 Expansion, with details of this project provided on page 19. Waste material from processing, referred to as tailings, increased by 6% to approximately 16 million tonnes, with approximately 40% of this waste subsequently recycled by the Group as other materials such as gravel for road construction.

CLIMATE CHANGE

Scope 1 and Scope 2 emissions

The Group's Scope 1 (direct) and Scope 2 (indirect) emissions relate to the Group's controlled activities to produce and transport products to customers, and are shown in the table below. The Group has made significant progress in its efforts relating to climate change in 2021, with a combined 16% reduction in Scope 1 and 2 carbon emissions[2] in 2021.

The Group has therefore reduced its emissions by 30%[2] in the space of two years, and whilst this meets the Group's medium-term target of reducing emissions by 30% by 2030[2], Ferrexpo understands that progress in sustainability is only achieved through improvements that are maintained over a period of time. The Group therefore commits to continuing to sustain this level of reduction, and will look to publish more on its decarbonisation pathway once its work with Ricardo is completed – with this project designed to outline a bespoke, emissions reduction journey for the Group. See Case Study on page 28 for more information on this work stream.

The reduction in carbon emissions in 2021[2] has primarily been achieved through the Group's targeted power purchasing programme, driving the improvement in Scope 2 emissions, which has delivered a 40% reduction in this category[1]. Conversely, with increased mining volumes and reduced biofuel consumption in 2021, Scope 1 emissions per tonne rose by 11%[2]. The Group intends to continue to improve efficiencies in the consumption of diesel and natural gas, as well as increase biofuel consumption, along with the various decarbonisation projects outlined in the Case Study on page 20.

[1] Source: NASA (link).
[2] Scope 1 and 2 emissions on a per tonne basis, carbon dioxide equivalent basis.
[3] Adjusted figures versus 2020 Annual Report as a result of external assurance process, see page [25] for more details.

Table: Scope 1 and Scope 2 emissions	**2021**	2020[1]	Change
Emissions (CO_2e, kilotonnes)			
– Scope 1	**649**	580	+12%
– Scope 2	**404**	675	-40%
– Combined	**1,053**	1,255	-16%
Footprint (CO_2e kg/t)			
– Scope 1	**57**	51	+11%
– Scope 2	**35**	59	-40%
– Combined	**92**	110	-16%
Biofuels (tonnes CO_2)	**10**	13	-24%
Energy consumption (kWh)	**5,489,232,550**	5,142,974,253[1]	+7%

The Group calculates its carbon footprint via the application of carbon factors supplied by the Greenhouse Gas Protocol (https://ghgprotocol.org/), in line with guidance provided by the Global Reporting Initiative, which is the framework that the Group uses to publish its annual Responsible Business Reports. The carbon factors supplied by this initiative are combined with consumption data for the Group's activities at its mining, processing and logistics subsidiaries, including the Group's consumption of diesel, natural gas, gasoil and electricity, which collectively accounted for 98% of the Group's Scope 1 and 2 emissions in 2021 (2020: 98%). Using the factors provided by the Greenhouse Gas Protocol, the Group is able to incorporate a range of greenhouse gases into its calculation to generate a carbon-equivalent figure. Gases included in this calculation are as follows: carbon dioxide, methane and nitrous oxide.

Scope 3 emissions

The Group's Scope 3 (value chain) emissions relate to the upstream and downstream emissions related to the Group's activities, and over 90% of which are related to the conversion of iron ore to steel. The Group's understanding of its Scope 3 emissions continues to develop through the Group's ongoing engagement with Ricardo. Furthermore, following the Group's increased focus on direct reduction pellets, the Group has engaged independent consultants CRU to provide an emissions factor specific to this pellet type, with this work summarised in the Case Study on page 8. As a result of this work, the Group can disclose that its Scope 3 emissions footprint was 1.28tCO_2/t in 2021 (2020[2]: 1.29tCO_2/t), with this 1% reduction related to the Group's increasing production of direct reduction pellets.

Cutting carbon: targets

The Group understands the importance of climate change, and for stakeholders to understand a company's long-term ambitions in respect of climate change. In recognition of this, the Group announced its inaugural carbon reduction targets for Scope 1 and Scope 2 emissions in October 2021, primarily designed to show a clear ambition of achieving net zero carbon emissions by 2050 and to align the Group with its peer group in terms of the trajectory to achieve this net zero goal, through a 30% reduction in carbon emissions by 2030 on a per tonne basis. Through announcing inaugural targets, the Group is aligned with its peer group, but the Group also understands the importance of setting goals that are specific to a company's operations; for more on this work stream, please see the Case Study on Ricardo on page 28.

The capital investment required to decarbonise the Group's activities is a key aspect of the Group's ongoing collaboration with Ricardo, and the results of this work stream are expected to be published later in 2022.

The Group is also developing its understanding of Scope 3 emissions and as outlined in the Case Study on page 8, the Group can reduce its Scope 3 emissions through the gradual increase in output of its higher grade direct reduction pellets. Since direct reduction pellets are processed by steelmakers using a combination of natural gas and electricity

[1] Adjusted versus 2020 Annual Report as a result of the ongoing external assurance process, see page 25 for more details.
[2] Adjusted versus 2020 Annual Report as a result of review by Ricardo, see page 28 for more details.

to produce steel, these pellets have a 49% lower carbon footprint than the Group's blast furnace pellets. The Group intends to develop its forward thinking around reducing Scope 3 emissions as the Group's understanding of producing this pellet type increases over time.

Improving energy efficiency

The Group understands the importance of reducing its energy consumption over time, and is implementing a series of energy efficiency projects across its operations. The Group's energy consumption mirrors the Group's carbon emissions, with natural gas, electricity and diesel the key drivers for energy consumption. As a result of a 21% increase in mining activities and a 5% increase in ore tonnes processed, total energy consumption increased by 7% in 2021, as shown in the table on page 27.

CASE STUDY: RICARDO – A NEW PHASE OF CLIMATE CHANGE REPORTING FOR FERREXPO

In October 2021, alongside inaugural decarbonisation targets, Ferrexpo announced its collaboration with Ricardo plc ("Ricardo") to produce the next phase of climate change reporting for the Group. Through working with Ricardo, Ferrexpo aims to further develop its forward-looking understanding around climate change, to develop a bespoke understanding of the Group's pathway to net-zero emissions and a clear picture on the role of iron ore pellets in the decarbonisation of the global steel industry. This project is specifically looking at the modules shown below:

- **Module 1: Government legislation – risks and opportunities.** Looking primarily at the jurisdictions into which Ferrexpo sells its pellets, this module focuses on the changing regulatory framework. Through this work stream the Group intends to gain a better understanding of the likely decarbonisation pathways ahead in each of the jurisdictions into which the Group sells its products.
- **Module 2: TCFD reporting.** The group has disclosed under TCFD since 2019 and with the help of Ricardo the Group will present more detailed climate change scenario analysis. This will provide more in-depth insight to understand the risks and opportunities for the group and inform future strategy.
- **Module 3: Pathway to net-zero carbon emissions.** The Group has established a net-zero ambition with its inaugural targets announced in October 2021, and with the help of Ricardo, the Group hopes to advance this process and identify a bespoke pathway for the Group's emissions.
- **Module 4: Life cycle analysis.** Looking at Ferrexpo's role in the circular economy, this module aims to outline how pellets have a lower environmental impact beyond Ferrexpo's own operations than other forms of iron ore. For example, Ferrexpo's higher grade iron ore pellets are typically used to make higher grade forms of steel, which in turn are more likely to be recycled, lowering the environmental footprint of this type of steel.

Through a clear understanding of Ferrexpo's future pathway, the Group expects to be able to present a further level of detail on climate change than has been previously published by the Group. It is expected that the Group will be in a position to present the results of its collaboration with Ricardo in its next Responsible Business Report, to be published later in 2022.

TCFD REPORTING

The Group is proud to support the Task Force on Climate-Related Financial Disclosures ("TCFD"), which is designed to help companies provide clear reporting for stakeholders on climate change.

Topics reported by the Group in accordance with TCFD are provided in the table on page 30.

Ferrexpo understands that climate change presents the Group with a range of risks and opportunities, and these are presented in detail in the Group's Responsible Business Report for 2020 (pages 48 to 52). In addition, Principal Risks relating to climate change are outlined on page [49] of this report.

In respect of climate change scenario planning, the Group is working with Ricardo to conduct a detailed modelling exercise of a range of climate change scenarios – further details of this work stream are provided in the Case Study [above]. Ahead of the conclusion of this process with Ricardo, the Group has completed a qualitative review of two potential climate scenarios, which are as follows:

- 2°C scenario (Paris Agreement), with an associated increase in government regulation compared to today. Under this scenario, the Group expects carbon pricing in Ukraine to increase to align with pricing envisaged under the Paris Agreement (US$50-100/t). Based on the Group's Scope 1 and 2 emissions, this would equate to an additional C1 cash cost of production[A] of between US$5 and US$9 per tonne directly relating to carbon costs. In addition, the Group expects that the cost of electricity in Ukraine will increase during the transition to renewables.
- +3°C scenario, whereby a lack of legislative action results in increased physical effects of climate change, such as increased water stress, as forecast by US Aid's projections for Eastern Europe, which envisages prolonged periods of drought. The Group uses water throughout its operations, in the form of dust suppression in mining operations and in the wet processing of ores to separate contained iron from waste material. Any restriction on water use would potentially require additional capital investment to adjust existing mining practices and reconfigure the Group's ore processing flow sheet.

The Group is currently conducting a process with environmental consultants Ricardo that is reviewing three different climate change scenarios and the Group will publish the results of this climate change modelling following the conclusion of this process later in 2022.

Climate change risks

In respect of climate change, the Group considers this to be a Principal Risk, and details of this are provided on page 49 of this report. The Group also considers that climate change poses opportunities to the Group as well as risks, since the Group produces a form of iron ore that is known to reduce emissions for steelmakers when used instead of more commonly traded forms of iron ore. A full breakdown of the Group's approach to climate change risks and opportunities is presented on pages 48 to 52 of the Group's Responsible Business Report for 2020, which is available on the Group's website (www.ferrexpo.com).

Climate change represents both a material risk and opportunity to the Group in how it is shaping the global steel industry, as described in the Market Review section (Green Steel) on page 12. In response to this global trend towards lower emissions steelmaking, the Group has commenced production of higher grade (67% Fe) direct reduction iron ore pellets, which are used in lower carbon forms of steelmaking - see the Case Study on page 8 of this report for more information. The transition to producing direct reduction pellets will be led by market factors as the Group's customers pivot to production processes that will require the use of this pellet type. In order to produce greater volumes of direct reduction pellets, the Group is investing in its operations to increase capacity and operational flexibility, as described in the Growth Plans section of this report (page 19).

The Group is investing in reducing its greenhouse gas emissions throughout its business. The Group is undertaking a range of projects to decarbonise its mining operations, with diesel consumption from mining representing 40% of the Group's Scope 1 emissions in 2021 (2020: 40%), and an overview of these projects is provided on page 20 of this report.

The Group has been utilising biofuels (sunflower husks) as a partial substitute for natural gas consumption in its pelletiser since 2015, with this activity having the benefit of reducing the Group's Scope 1 emissions as well as reducing the Group's exposure to the availability and pricing of natural gas. In 2021, the Group substituted 18% of the pelletiser's energy requirements with sunflower husks (2020: 25%), with this level of consumption expected to increase in future years as the Group's understanding of producing direct reduction pellets increases.

In 2020, the Group commenced a clean power purchasing programme, aimed at utilising new legislation in Ukraine that enabled the purchase of electricity from selected producers. As a result of this programme, the Group reduced its Scope 2 emissions footprint on a per tonne basis by 40% in 2021 (see page 27 for more details).

Compliance Statement (FCA's Listing Rule 9.8.6(8)R)

In line with the current UK listing Rules requirements, we have included climate related financial disclosures consistent with the 4 TCFD pillars and 11 recommended disclosures. The table [over the page] provides a summary of the Group's climate-related financial disclosures, with these disclosures intended to be in accordance with the recommendations by the TCFD. The location of further information regarding the Group's climate change disclosures is presented in the table on page 30 as well as in the Group's Responsible Business Reports, which are available at the Group's website (www.ferrexpo.com). Throughout the year, Ferrexpo has made a number of steps to progress its reporting of climate change topics in order to fully comply with TCFD recommended disclosures. Where full compliance is yet possible, disclosure is included as to the various work streams that are underway to facilitate full compliance.

FERREXPO

Table: Summary disclosure against TCFD recommendations

STRATEGY	
Climate-related risks and opportunities over the short, medium and long term	Climate change is considered to be a Principal Risk to the Group, and this risk is detailed on page 49 of this report, alongside risk mitigation actions. The risks and opportunities relating to climate change and their effect on the Group's operations are outlined in detail in the Group's Responsible Business Report, which is available on the Group's website. These include transition risks and physical risks associated with the transition to a lower carbon economy. The time horizon for these risks and opportunities to emerge are also described being short-term (less than 2 years), medium-term or long-term (greater than 10 years). The Group's Risk Management Process is outlined on page 35 of this report.
Impact on the Ferrexpo business, strategy and financial planning	The Group has incorporated climate change into its strategic planning and is currently pivoting its production base towards direct reduction pellets as a consequence of this process, as discussed on page 8 (Case Study: The Importance of Iron Ore Pellets) and page 12 (Market Review, Future Trends: Green Steel). The Group has incorporated climate change into its financial modelling through the establishment of an internal cost of carbon, which has been used when evaluating capital investment projects during the year. Please see the Principal Risks Section (pages 36 to 52) for more information on the Group's approach to evaluating the impact of climate change on its business.
Resilience based on climate change scenarios	The Group is conducting a detailed climate change modelling exercise with environmental consultants Ricardo, which is a process that is expected to complete later in 2022. The Group has conducted scenario analysis as presented in this report based on two climate change scenarios – please see page 29 for more details.
GOVERNANCE	
The Board's role in oversight of climate-related risks and opportunities	The Board of Directors has ultimate oversight of the Group's strategy, including its approach to the effect of climate change on the Group's business model. Climate change was a standing agenda item at all five scheduled Board meetings throughout the year. The HSEC Committee has been delegated management of climate change risk, , which includes three members of the executive management team, and reports the Group's progress on climate change related matters to the Board of Directors. Independent Non-executive Director Ann-Christin Andersen is Chair of the HSEC Committee, which met four times during the year and climate change has been a standing agenda item at all scheduled HSEC Committee meetings throughout the year..
Management's role in assessing risks and opportunities	The Board is accountable for the long-term stewardship of the group. The Board has delegated oversight of climate change related activities to the HSEC Committee. The Group's executive management team monitors and assesses climate-related risks through its risk monitoring activities as part of the Group's Finance, Risk Management and Compliance Committee, which typically meets ten times a year. Risks relating to climate change are determined in the same way as other principal and emerging risks, and the relative significance of climate risks is assessed based on monetary impact, probability, maximum foreseeable loss, trend and mitigating actions. A summary of the Group's approach to risk identification and risk mitigation activities is provided on pages 35 to 36 of this report.
RISK MANAGEMENT	
Processes for identifying, assessing and managing climate-related risks	The Group regularly assesses risks applicable to the Group through its Finance, Risk Management and Compliance Committee, which assesses risks based on the probability of occurrence and severity of impact should an event occur. An overview of the Principal Risks facing the Group, and the risk mitigation measures that the Group has put in place in relation to these, is provided on pages 36 to 52, with climate change identified as a Principal Risk and detailed on page 49 of this report. Within the topic of climate change, the Group's management has identified specific risks and opportunities relating to climate change, ranging from policy and legal topics, physical effects, emerging technologies, market factors and reputational differentiators.
How Ferrexpo integrates these risks into the Group's overall risk management	Ferrexpo's governance relating to climate change risks has been designed to ensure that the management of the financial risks from climate change are integrated across the whole governance system and embedded into the existing risk management framework. The Group's approach to assessing and managing risk, including climate-related risks, is described on page 49.
METRICS AND TARGETS	
Metrics used to assess climate-related risks and opportunities	Ferrexpo's approach to managing its performance with respect to climate change is to fully integrate climate change into the Group's overarching strategy to grow production of direct reduction pellets, which have a lower Scope 3 footprint for the Group, as well as decarbonise the key elements of the Group's production process, with consumption of diesel, electricity and natural gas collectively accounting for 90% of the Group's Scope 1 and 2 emissions. Details of projects to reduce consumption of each of these consumables are provided on pages 26 to 28.
Greenhouse gas emissions	Details of the Group's Scope 1, 2 and 3 emissions are provided on page 27 of this report.
Targets	Details of the Group's targets for reducing Scope 1 and 2 emissions are provided on page 26 of this report. Approximately 90% of the Group's Scope 3 emissions relate to the conversion of the Group's products to steel, with the emissions from this process primarily governed by the type of iron ore pellet that the Group produced - see the Case Study on page 8 for more information. The Group will be in a position to establish Scope 3 emissions targets once its technical understanding of producing direct reduction pellets has been further established.

WORKFORCE DEVELOPMENT AND INCLUSION

Ferrexpo's workforce comprises over 10,000 employees and contractors, making it one of the largest employers in the region.

Through the Group's employee engagement initiatives, and through providing training and development, the Group aims to foster a positive and inclusive culture within its organisation.

Training and development

With an employee workforce of over 5,000 men and over 2,000 women, the Group is a substantial employer in central Ukraine, with the Group accounting for 4% of Ukraine's export revenues in 2021 (2020: 3%). The Group has a long-held belief that it can only deliver strong financial results through a close relationship with its workforce, which can only be fostered through a strong programme for workforce development. During the year, the Group held 6,442 training courses for employees (2020: 6,863), with a further 931 training courses provided to contractors (2020: 490). The focus of this training remains primarily safety and skills training, with 99% of Ferrexpo's employees having an annual training and development review in 2021 (2020: 86%).

Employee wellbeing

Over the course of the past year the Group has increased its focus on the health and wellbeing of its workforce with the continuation of the global Covid-19 pandemic in 2021. Ferrexpo understands that as a responsible employer, the Group's interaction with its workforce goes beyond basic safety, and through this approach, the Group intends to foster a constructive and positive working environment.

A positive culture is achieved through projects such as the Employee Wellbeing Programme, which provides training on soft skills such as courses to help people identify the signs of burnout as well as training in financial literacy, to provide people with the tools required for managing the stresses of modern life, which have been magnified by the global pandemic. As an example of the work carried out in this area, the Group has recently worked to instil a culture at its operations of not contacting colleagues for work reasons after hours or at weekends, to establish a strong work-life balance for the Group's workforce in Ukraine.

Diversity, equity and inclusion

The development of the initiatives outlined here has been the product of the Group appointing a Diversity, Equity and Inclusion ("DEI") Officer in 2021, and the Group's inaugural DEI survey, gathering responses from over 600 employees to help establish a 360-degree DEI strategy and promote equal opportunities for all employees going forward.

A new programme to promote inclusivity amongst different age groups was launched in May 2021 with the Group's "STEM Streamers" programme, which attracted 90 local students aged 14-18 from local schools. Children were invited to participate in a one-day workshop event consisting of interactive talks and activities to promote inclusivity, gender equality, and tackling stereotypes within society. Other events in the same month included Ferrexpo representatives participating in a panel discussion on diversity and inclusion at the People Management Conference, held in Kyiv in May 2021, as well as events held at schools in Ferrexpo's local communities.

It is a legal requirement in Ukraine for companies of Ferrexpo's size to ensure that 4% of their workforces in Ukraine are registered as disabled, with this regulation deliberately designed to aid those with disabilities. Ferrexpo is proud to adhere to this legislation, with 4.4% of employees in Ukraine having a registered disability in 2021 (2020: 4.3%).

Local recruitment for sustainable communities

Ferrexpo benefits from having a location close to well-established communities, with strong educational facilities for providing high calibre individuals to work at its operations. In 2021, the Group was able to source 96% of new recruits from local communities (2020: 85%). In management roles, the same trend is also evident, with 84% of newly recruited managers coming from local communities (2020: 60%).

The Group regularly recruits apprentices and provides bursaries to students to plan for the future, with a total of 98 sponsored learners in 2021 (2020: 135). Through the "Dual Education" programme, the Group offers opportunities to students wishing to learn practical, on-the-job skills, whilst continuing their educational studies. This programme alone has helped 62 local students begin their careers with Ferrexpo since 2019.

CASE STUDY: "FE_MUNITY" WOMEN IN LEADERSHIP PROGRAMME

Given Ferrexpo's heritage and location in Ukraine, the Group is able to call upon a highly skilled female population for roles throughout its business. As of 31 December 2021, three of the Group's eight directors were female (37%), and the Group's Executive Committee ("Exco") consists of five males. Of the 43 individuals reporting to the Exco, the number of females in this group rose to nine in 2021 (representing 20.9%) from seven in 2020 (representing 17.9%).

Started in 2020, the "Fe_munity" programme is a series of training modules for high performing female employees within Ferrexpo to receive training on a range of topics, from business topics such as leadership and negotiation, to soft skills for developing business networks. The goal of this programme is to help identify and fast track the careers of high potential individuals, to help improve gender diversity throughout the management structure of the Ferrexpo business.

Launched in 2020 with an intake of 72 women, the Group welcomed its second intake of 86 participants in 2021, with Non-executive Directors Ann-Christin Andersen and Fiona MacAulay hosting the opening session in Horishni Plavni in September 2021.

The Group is already seeing the benefits of this programme, with women in management roles across the Ferrexpo Group increasing by 11% in 2021, rising to represent 20.1% of the Group's total management roles (2020: 18.2%), which underscores the role of dedicated diversity projects such as Fe_munity.

External recognition in 2021

Further to the gains being witnessed internally within Ferrexpo's workforce, the Group has received external recognition for its efforts in promoting diversity and inclusion within its workforce. In November 2021, the Group won the award for Diversity and Inclusion at the HR Pro Awards in Kyiv, which is an award ceremony that promotes the achievements of the companies that are contributing to raising the level of professional practices in Ukraine. In the diversity category, Ferrexpo received recognition of its diversity efforts from a panel of 30 leading representatives of the human resources community in Ukraine from across 15 industries.

In addition, the Group was recognised in 2021 by a study initiated by the United Nations Population Fund, which surveyed 50 companies across 16 sectors within Ukraine. Reviewing family-friendly policies, such as the Group's approach to offering parental benefits equally between men and women, this study placed Ferrexpo in the top four for family-friendly companies in Ukraine.

COMMUNITY SUPPORT AND ENGAGEMENT

Russia's invasion of Ukraine in 2022 has emphasised the importance of working with local communities, to help communities during this humanitarian crisis.

Russia-Ukraine war (2022)

Following Russia's invasion of Ukraine in February 2022, the Group has moved to support both its local communities and communities across Ukraine, through a dedicated Humanitarian Fund with an approved US$12.5 million of funding. Through this fund, the Group is able to coordinate its response to the humanitarian needs of Ukraine both quickly and effectively. Numerous projects have been approved through this fund, with details available on the Group's website (**www.ferrexpo.com/responsibility/humanitarian-projects**) and recent press releases.

Community support in 2021

In March 2021, the Ferrexpo Charity Fund, through which the Group conducts its engagement activities in its local communities surrounding its operations, celebrated its tenth anniversary. The Group aims to support local schools, hospitals, cultural centres and other public institutions, as well as providing direct support to individuals in the form of care packages for the vulnerable and funding for medical procedures that are not available in local facilities. The Group also sees sports and recreation as a key aspect of both its community engagement activities as well as employee wellbeing initiatives. As a result, the Group has a strong focus on supporting local teams and local sports facilities, helping to facilitate local sporting events and sponsoring local sports men and women to compete at national and international competitions - see the Case Study on page 33 for more information on this area of engagement. The Group is proud of the five local athletes that participated in the Tokyo Olympics in the summer of 2021 – quite an achievement for a city of only 50,000 people!

Funding of community projects increased by 63% to UAH153 million in 2021 (equivalent of US$6 million), reflecting the strong operating performance of the Group, and therefore the Group's ability to reach a broader range of local stakeholders. In addition, the Group financed UAH24 million (equivalent to approximately US$1 million) of expenditures through the Group's Covid-19 Response Fund, which primarily focused on meeting the needs of local hospitals with equipment for the treatment of conditions that are more prevalent as a consequence of Covid-19 infections, such as respirators and x-ray equipment for diagnosing respiratory conditions, as well as continuing the supply of personal protective equipment for hospital workers.

As part of its community engagement strategy, Ferrexpo aims to support Ukrainian cultural events, to preserve Ukrainian culture in local communities as well as to promote Ukrainian culture overseas. Locally, the Group continues to assist the Palace of Culture in Horishni Plavni, which is a significant resource in recording local history and culture in Ferrexpo's local communities. The Group also sponsored the exhibition of art by local artist Ivan Dryapachenko, along with the installation of a statue in commemoration of the artist in his home village of Vasylivka. In September 2021, Ferrexpo had the honour of being able to sponsor the Ukrainian Ballet Gala in its performance of "Innovation" at the Sadler's Wells Theatre, London, which was an event attended by over 1,400 people, including the Ukrainian Ambassador to the UK and guests invited through the Ukrainian Embassy in London. Ferrexpo also sponsored the Ukrainian Investment Roadshow in London in December 2021, an event aimed at highlighting Ukraine's investment potential. In December 2021, Ferrexpo celebrated the 50th anniversary of the twinning of the Japanese city of Kyoto and Kyiv with a tree-planting ceremony in Kyoto.

Additional local community support projects completed in 2021 included the purchase of a car for the family doctor covering local communities in the Pryshyb region, the supply of medical equipment to the outpatient clinic in Pyrogy village, sponsorship of local football team "Geologiya" and refurbishment work of community and cultural centres in Nova Galeschyna.

To understand more about Ferrexpo's community support work, please see the Group's website (www.ferrexpo.com/what-we-do/projects-map/).

CASE STUDY: PROMOTING SPORT FOR THE HEALTH AND WELLBEING OF LOCAL COMMUNITIES

The Group continued to support a number of sporting activities in 2021, to promote healthy and balanced lifestyles amongst local community members, with well-documented benefits to both individuals and communities alike.

Ferrexpo has long supported the local football club "Girnyk-Sport" in the city of Horishni Plavni, and, in 2021, the Group was pleased to help the club in establishing its first women's teams within its structure, in accordance with recent efforts made on a national level to promote women's sports in Ukraine, and the club is now recruiting female players born between 2011 and 2017 for these newly established teams. Furthermore, Girnyk-Sport has already established mixed-gender teams that compete in local and national competitions.

The Group is also proud to sponsor the local football team "Geologiya Sport Club", who were successful in winning a number of regional and national competitions in Ukraine – including the Dnipro Cup, Odessa Open Cup and Energy Cup championships.

Away from football, the Group promotes a range of activities in local communities, including the Group's support for the local rowing club, which hosts a number of local athletes that have represented Ukraine at Olympic, World and European championships. The Group is also proud to help Horishni Plavni host local and national dragon boat competitions on the River Dnieper, which is a popular sport in Ukraine.

The Group has long held a close association with the local summer camp "Horyzont", which hosts local schoolchildren during the summer months and aims to promote healthy lifestyles. The Group provided UAH1 million (approximately US$35,000) of funding for this project in 2021 and this represents a relationship that has existed for over ten years.

Ferrexpo also helps support the local chess club in the local community of Horishni Plavni, which was recently renovated with assistance from Ferrexpo.

CORPORATE GOVERNANCE

Ferrexpo understands the importance of good corporate governance for transparency and building trust with stakeholders. In 2021, the Group has continued to strengthen its approach to corporate governance throughout its organisation, from its Board of Directors to training programmes for operators in Ukraine.

Board structure and appointments

The Board understands the need for a balanced and effective Board and senior leadership team, in order to operate a successful business model. As the Group develops as a business, and aligns itself towards a new phase of growth, changes have been made within the Board and senior leadership team to reflect this changing environment.

As of early 2022, the Group appointed Jim North as CEO on a permanent basis, reflecting Mr North's successful period as Interim CEO, with Mr North already appointed as an Executive Director. In February 2022, Fiona MacAulay was appointed as Senior Independent Director, meeting a target outlined by the FCA's recent consultation on Board Diversity and Inclusion. In March 2021, a further Independent Non-executive Director – Ann-Christin Andersen – was added to the Board. In December 2021, Natalie Polischuk was appointed as an Independent Non-executive Director, who is an economist based in Kyiv, Ukraine.

The above appointments have served to increase the number of Independent Non-executive Directors to five out of eight Board positions.

Hampton-Alexander Review

The Hampton-Alexander Review is an independent review that was established to ensure that talented women at the top of business are recognised, promoted and rewarded, with a particular focus on female representation on FTSE Boards and women in senior leadership roles. As a result of this work, the Hampton-Alexander Review recommends that companies listed within the FTSE 350 have at least 33% female representation at the Board level, as well as 33% representation at the senior leadership level and those reporting directly into senior leaders. As a result of the appointments of Ms Andersen and Ms Polischuk in 2021, the Group now has 38% female representation on its Board, meeting this requirement. The same review also recommends that women are promoted into senior roles such as the Chair, Senior Independent Director and Executive Director, and the Group now has a female in one of these roles. The Group is also focusing on increasing diversity further down its organisational structure; further details of this work can be found on page 31 to 32.

Corporate governance controls

The Group continues to strengthen its internal corporate governance controls and adapt its processes. Furthermore, the Group bolstered its advisory set-up in January 2021 through the appointment of financial advisors Liberum, who act to advise both the Board and executive management team on corporate matters. In addition, BDO LLP was appointed in early 2021 as the Group's Sponsor in accordance with the Listing Rules to provide advice and guidance on certain corporate matters as required.

Stakeholder engagement

Highlights of stakeholder engagement activities during 2021 include the hosting of a number of shareholder and analyst events in London with the assistance of the Group's advisors Liberum Capital, the employee engagement forum held at site in September 2021, and the Group's Family Day in July 2021 for engaging directly with local communities in Ukraine. The Group is actively working to increase its engagement with a broader range of stakeholder groups, in order to understand stakeholder needs and communicate effectively on a range of topics. The Group intends to further broaden its engagement with its stakeholders in the year ahead, working with its advisors in London and Kyiv to achieve this goal.

Related party matters

The Group has a controlling shareholder that also has a number of different businesses with which the Group has a commercial relationship. In order to maintain strong levels of corporate governance, and to ensure that these business relationships are conducted on an arm's length basis, the Group has both the Committee of Independent Directors at the Board level and the Executive Related Party Matters Committee at the management level.

As discussed in the Group's 2020 Annual Report and Accounts, the Committee of Independent Directors ("CID") has previously conducted a review in connection with the Group's sponsorship arrangements with FC Vorskla and concluded its enquiry in March 2021. Arrangements were put in place by Kostyantin Zhevago and his associated entities, which are required to be executed by 31 July 2022. As of the date of this Annual Report and Accounts, the CID understands that these arrangements have not yet been completed.

RISK MANAGEMENT: ASSESSING AND MANAGING RISK

Ferrexpo identifies and assesses risks based on each risk's probability of occurrence and the potential severity of any event. The Group aims to mitigate the potential impact of each risk through its management of day-to-day activities, taking a prudent approach to risk where possible.

Risk identification

The process to identify risk areas is conducted through each business function within the Ferrexpo Group, with senior management responsible for conducting regular assessments to identify risk in each aspect of the Group's activities. Risks are managed locally through the implementation of policies and procedures, which are maintained by local risk owners that have individual responsibilities for specific business functions. Risks are reported internally through the Group's risk register and assessed against risks identified throughout the business on the basis of probability of occurrence and the potential severity of an event. Through the identification of principal risks facing the Group, management are able to optimise the risk management process through the dedication of increased resources to these risks, whilst also monitoring other risks for increases either in probability or severity. The Group considers emerging risks to be risks that are newly developing, increasing in potential severity of impact or changing risks that are difficult to quantify. The risks that have been assessed by the Group's management to be the Principal Risks facing the Ferrexpo Group are presented on pages 36 to 52.

Risk mitigation

The Group's management understands that risk is an inherent aspect of operating a business, and the Group's executive management team and the Board aim to mitigate the risks faced by the business through prudent decision-making to limit the Group's exposure to risk where possible.

Risk governance framework

Risks are reported internally on a monthly basis, as part of the Finance, Risk Management and Compliance Committee ("FRMCC"), with the Group's senior leadership team reviewing the Group-level risk matrix, which plots probability against the potential severity of impact, and identifying material changes in either variable to all of the risks listed. Over 30 risks are reported to the FRMCC on a monthly basis, with each risk attributed a potential monetary impact should an event occur. The FRMCC reports to the Group's Executive Committee, which in turn reports to the Board, which has the ultimate responsibility for the Group's approach to risk management. The Audit Committee, a sub-committee of the Board, assists the Board in its regular monitoring of the risks faced by the Group. The Group's internal audit function assists with the process of risk review, and conducts ad hoc reviews of risk management controls and procedures. For more information in relation to the Audit Committee's monitoring and assessment of the effectiveness of the risk management and internal control systems.

Risk assessment for 2022

The overall profile of the risks faced by the Group in 2022 has increased relative to 2021, principally related to risks relating to geopolitical tensions between Russia and Ukraine. The primary focus of the Group's Principal Risks, as outlined on pages 36 to 52, are on the ongoing Russia-Ukraine war, global market prices for iron ore pellets, costs impacting the Group's profitability and climate change.

The ongoing global Covid-19 pandemic remains a Principal Risk, with continuing infections of this virus both within Ukraine and around the world, but the Group notes that the severity of recent strains of this virus do not appear to be as harmful to human health as previous strains. The Group continues to monitor the risk profile related to Covid-19 for any potential impact on operations in Ukraine or any loss of ability to distribute and market the Group's products.

Cybersecurity is a risk that has been added as a Principal Risk given Russia's invasion of Ukraine in early 2022. Further details of the considerations relating to this risk are provided on page 37.

PRINCIPAL RISKS

Principal Risks are those considered to have the greatest potential impact on the Ferrexpo business, assessed on the basis of impact and probability.

Introduction

Principal Risks are considered to be the main risks that have the potential to negatively affect the Group's strategy and business model, which are outlined on pages 36 to 52 and summarised through the items shown below.

Principal Risks are defined as factors that may negatively affect the Group's ability to operate in its normal course of business, and may be internal, in the form of risks derived through the Group's own operations and activities, or external, such as political risks, market risks or climate change related risks.

Principal Risks include, but are not necessarily limited to, those that could result in events or circumstances that might threaten the Group's business model, future performance, solvency or liquidity and reputation.

Risks are inherently unpredictable, and, therefore, the risks outlined in this report are considered the main risks facing the Group. New risks may emerge during the course of the coming year, and existing risks may also increase or decrease in severity and/or likelihood, and this is why it is important to conduct regular reviews of the Group's risk register throughout the year. The Group maintains a more extensive list of risks, covering over 30 different risk areas at the Group level, with additional risks considered in local risk registers at each operating entity. The Group risk register is reviewed on a monthly basis for completeness and relevance by the Group's FRMCC, which ultimately reports into the Board for further review and approval of the risk register. The Group's risk register is also reviewed by the Audit Committee at least four times a year. The members of the Executive Committee manage risk within the business on a day-to-day basis, which is a committee that includes the Chief Executive Officer, Chief Financial Officer and Chief Marketing Officer.

The Group has updated its Principal Risks as shown in this section, in accordance with the known risks facing the business. Further updates to the Group's Principal Risks will be provided in the Group's Interim Results announcement, which is due for publication in August 2022. Where the Group has identified a Principal Risk, details of the Group's efforts to mitigate each risk are also provided.

Russian invasion of Ukraine

On 24 February 2022, Russia commenced an invasion of Ukraine. This action has resulted in significant loss of life within Ukraine, the destruction of key infrastructure across Ukraine and poses a threat to the Group's mining, processing and logistics operations in Ukraine. This risk is discussed in detail on page 37.

Covid-19

The Group continues to consider the global Covid-19 pandemic as a Principal Risk given the scale and impact that this global event demonstrated in 2020 and 2021. As noted, however, on page 35, the global outbreak of this virus has continued to evolve into different strains, which appear to be increasing in the transmissibility of the virus with each new strain, but also reducing the severity and death rate for those contracting the virus. The Group therefore notes that with this trend, in addition to increasing vaccination rates both locally in Ukraine and globally, that the risks to the Group associated with Covid-19 appear to be decreasing in 2022. The Group however notes that the Russian invasion of Ukraine in 2022 has resulted in reduced testing and vaccination rates, and therefore this risk may increase as a result. The Group will maintain its protective measures to curb the spread of Covid-19, however, noting that further waves of infection and/or more severe new strains of the Covid-19 virus may emerge.

Cybersecurity

As the Group seeks to increasingly modernise and digitise its operations and business activities, the Group notes the rising importance of cybersecurity, and threats that may emerge via electronic means. Since the NotPetya cyberattack in 2017, which was a cyberattack that affected systems on a global basis, however, primarily targeted at Ukraine, the Group has sought to significantly increase its understanding and to bolster its protocols and defence relating to its digital presence. Given the Russian invasion of Ukraine in early 2022, the Group notes the rising significance of cyber-threats to its business, and has therefore elevated this topic to become a Principal Risk, as discussed on page 48.

Each Principal Risk is linked to the aspects of the Group's strategy that could be potentially impacted if an event were to occur:

1. Produce high quality pellets.
2. Achieve low cost production.
3. Maintain strong relationships with a network of premium customers.
4. Conduct business in a safe and sustainable manner.
5. Retain a balanced approach to capital allocation.

1. COUNTRY RISK

1.1 CONFLICT RISK (EXTERNAL RISK)

Risk overview

Ukraine is currently at war with Russia. On 24 February 2022, Russia commenced an invasion of Ukraine using significant and widespread military force. To date, the invasion of Ukraine has resulted in the temporary occupation of south eastern territory within the sovereign nation of Ukraine, loss of life for citizens of Ukraine and damage to infrastructure within Ukraine.

The situation in Ukraine remains uncertain and unpredictable. As of early April 2022, the Group's operations, located adjacent to the city of Horishni Plavni, has not been a centre of armed conflict, but this remains a risk should the current conflict continue to escalate and grow in terms of the areas directly affected. The Group has however temporarily lost the ability to export its products via the Black Sea, as the port operator has closed the Group's normal port of operations (Pivdennyi). Should the area surrounding the Group's operations and local communities be the setting for armed conflict, there will be a significant risk posed to the safety of the Group's workforce, as well as a significant risk to key assets and infrastructure required for the Group to operate effectively. The Group's workforce of more than 10,000 people is predominantly based in local communities surrounding the Group's operations and therefore the Group does not have the ability to effectively evacuate its workforce from the conflict zone. The Group will always prioritise the safety and wellbeing of its workforce and therefore may partially halt, or fully halt, its operations to protect its workforce.

Further consequences of the ongoing invasion relate to a number of aspects of the Group's business. Ukraine's government has declared a state of martial law, and a number of the Group's employees have been enlisted into the armed forces of Ukraine. The Group relies on key consumables, such as (but not limited to) diesel, natural gas and electricity, to produce the Group's products, and the ongoing invasion may limit the supply of these items. Should the Group not receive one or more of its key consumables, the Group's ability to effectively produce may be impaired.

The Group relies on continuous and reliable access to key infrastructure – principally Ukraine's railway network and the port of Pivdennyi, to rail and ship its products to customers, and both have been the subject of significant disruption, including the full stoppage of all port operations in Ukraine. On 24 February 2022, the Group announced that it had received notification of a suspension of Ukraine's railway network, which was subsequently partially lifted (see release 28 February 2022). On 25 February 2022, the Group announced that it had received formal notification from the port authorities at Pivdennyi that all operations were being halted and the Group has served force majeure notices to customers affected by this suspension. Given the nature of the situation, the Group may not be able to accurately forecast the likely availability and scale of its access to infrastructure or key consumables until the conclusion of Russia's warfare towards Ukraine.

On 2 April 2022, a Russian missile strike on Kremenchuk oil refinery, located approximately 15-20 kilometres from the Group's operations, resulted in damage to this facility. This facility is one of the sources of fuel for the Group and this incident has resulted in the suspension of regular deliveries of diesel, with supplies now being provided periodically. The Group has existing arrangements in place to source alternative supplies of diesel from Europe, with these supplies arriving via both rail and road delivery routes.

To date, the situation within the Group's operations and in the local communities surrounding the Group's operations, has remained orderly, with local authorities remaining in control. In the event of a prolonged and/or escalated conflict in the area where the Group operates, there is a risk that the local authorities may no longer be able to maintain civil order and there may be a risk posed to either the safety of the Group's workforce, or threat to the integrity of the

Group's assets and/or key supplies. Furthermore, any conflict in the local area may reduce the local authorities' ability to provide basic emergency services, such as medical services and fire protection, with potential effects on the Group's workforce, communities and production facilities.

Following the outbreak of hostilities, it is expected that the business and operating environment in Ukraine will be materially worse than previously, and these conditions may not completely recover to previous levels for a period of time beyond the cessation of hostilities.

It is also expected that cyber-warfare will be a tool used against Ukraine and corporate companies based in Ukraine, with Ukrainian corporates being the subject of cyberattacks in the recent past. Any disruption to the digital infrastructure belonging to either the state of Ukraine, operators of key infrastructure or Ferrexpo would likely result in a significant interruption to the Group's ability to operate.

With regards to international lending activities, it is unclear as to whether the Group will have access to external financing following the cessation of hostilities. For the duration of the ongoing conflict, the Group does not expect to have any access to debt markets, domestic or international.

The current war between Russia and Ukraine is a threat to regional stability and may impact international relations in the longer term beyond the region in which Ferrexpo operates. As a consequence, trading relationships between sovereign nations may be amended, or cut, and the availability of key goods and services may become restricted and/or limited.

Risk mitigation

The risks posed to Ferrexpo, its workforce and operations as a result of the invasion are difficult to predict in scale and nature, and therefore difficult to mitigate as a result. The Group aims to prepare itself in a number of areas, such as enacting safety measures, practising orderly shutdowns of equipment, implementing asset protection measures and planning to operate with multiple logistics pathways for sourcing key consumables for delivery to site, as well as delivering the Group's products to its customers. In the event of any hostilities happening close to the Group's operations, the Group's first priority will be the protection of its workforce, and the Group will enact measures to protect its workforce that are proportional to the extent, severity and location of any hostilities occurring. This will include, where appropriate, the demobilisation of the Group's workforce from operational sites and actions to distance individuals from any areas affected by armed conflict and/or a breakdown in civil order.

In mining, the Group has implemented measures to increase the volume of blasted ore available for mining and has increased stockpiles of raw ore available for processing should access to the Group's mines become restricted. In logistics, the Group has investigated alternative options for accessing customers, either by different rail routes, different methods of transport, or different loading ports for ocean-going vessels.

In addition to the above measures, the Group has also established a dedicated humanitarian fund to direct assistance to the people of Ukraine affected by the conflict. More details of this fund's work are provided on page 32 and in the Group's recent press releases.

Responsibility

Board of Directors and Chief Executive Officer

Risk appetite

Low

Link to strategy

1, 2, 3, 4 and 5

Change

Increased

1.2 UKRAINE COUNTRY RISK (EXTERNAL RISK)

Risk overview

Ferrexpo's operating base is in Ukraine, where all of the Group's iron ore production is generated, and therefore the Group is materially exposed to the business environment within Ukraine, which continues to be defined as an emerging market by Western governments and institutions. As such, the Group is subject to heightened risks, relative to developed economies, relating to the stability of the environment in which the Group operates, including risks relating to the local economy, currency, labour market, infrastructure and other key resources essential for operating. This exposure to an emerging market can directly and indirectly affect the Group through a range of factors, including changes in government legislation, decision-making related to changes in political policy at a local or national level, access to key operating licences and infrastructure essential for producing and distributing the Group's products, access to financial services and the Group's ability to transact with external parties either within Ukraine or abroad, in addition to other factors. Ukraine also continues to receive a relatively low score in Transparency International's Corruption Perceptions Index, placing 122nd out of 179 countries (2020 Index: 117th place) in the latest survey published in January 2022.

In recent years, Ukraine has been the subject of armed conflict with Russia and this is identified as a separate Principal Risk on page 37. Russia's invasion of Ukraine, in addition to the annexation of Crimea and temporary occupation of sections of eastern Ukraine since 2014, has caused a significant strain on the Ukrainian economy and the budget of the Ukrainian government, which in turn has resulted in changes to the business environment within Ukraine. In addition, these factors will likely continue to negatively affect Ukraine's economy for a period of time beyond the cessation of hostilities in Ukraine. In recent years, the government of Ukraine has been reliant on external funding through overseas governments and agencies, principally the International Monetary Fund ("IMF"), for funding. Through this reliance on external funding, there is increased risk around the short- to medium-term stability of the Ukrainian economy, local currency, and local operating environment for businesses, amongst other factors, particularly if the availability of this external funding were to change unexpectedly.

The independence of the judicial system, and its immunity from economic and political influences in Ukraine, remains questionable, and the stability of existing legal frameworks may weaken further with future political changes in Ukraine. Because Ukraine is a civil law jurisdiction, judicial decisions generally have no precedential effect on subsequent decisions, and courts are generally not bound by earlier decisions taken under the same or similar circumstances, which can result in the inconsistent application of Ukrainian legislation to resolve the same or similar disputes. In addition, court claims are often used in the furtherance of political aims. The Group may be subject to such claims and may not be able to receive a fair hearing.

The risk factors discussed here, either individually or in combination, have the ability to adversely impact the Group's ability to operate its pellet production facilities, ability to export its iron ore products, access to new debt facilities and ability to repay debt, ability to reinvest in the Group's asset base, either in the form of sustaining capital investment[A] to maintain production or expansion capital investment[A] for future growth, as well as the Group's ability to pay dividends.

As at the date of approval of this report, the share dispute lodged by four claimants to invalidate a share sale and purchase agreement concluded in 2002 remains ongoing. Following a statement of defence filed by Ferrexpo AG (Ferrexpo's Swiss subsidiary), earlier in 2021, the relevant court in Ukraine ruled on 27 May 2021 in favour of Ferrexpo AG. The opposing parties filed their appeals in June 2021 and the next hearing is expected to take place later this year. The court of appeal has opened the appeal proceedings, and several hearings have now been held, but without a court decision being made as of the date of this report.

Following the cancellation of the licence for Galeschynske deposit, which is a project in the exploration phase that is situated to the north of the Group's active mining operations, Ferrexpo Belanovo Mining has commenced a legal action in the Ukrainian courts system. For further information on ongoing legal disputes, please see Note 13 (Commitments, contingencies and legal disputes) to the Consolidated Financial Statements.

As referenced in the Group's Interim Results published in August 2021, there are outstanding matters in Ukraine relating to the Group's controlling shareholder that remain unresolved, and there is a risk that assets owned or controlled (or alleged to be owned or controlled) by the Group's controlling shareholder may be subject to restrictions, in Ukraine or elsewhere, or that the Group may be impacted by, or become involved in, legal proceedings relating to these matters, in Ukraine or elsewhere.

Despite the recent cancellation of the share freeze action in Ukraine regarding the Group's shareholding in FPM, held via the Group's Swiss subsidiary Ferrexpo AG, there continues to be a risk that this action may be resumed, despite several court decisions to dismiss this action.

Risk mitigation

Ferrexpo operates in accordance with relevant laws and utilises internal and external legal advisors as required to monitor and adapt to legislative changes or challenges.

The Group maintains a premium listing on the London Stock Exchange and as a result is subject to high standards of corporate governance, including the UK Corporate Governance Code and Market Abuse Regulation. Ferrexpo has a relationship agreement in place with Kostyantin Zhevago, which stipulates that the majority of the Board of Directors must be independent of Mr Zhevago and his associates. For all related party transactions, appropriate procedures, systems and controls are in place.

Ferrexpo prioritises a strong internal control framework including high standards of compliance and ethics. The Group operates a centralised compliance structure that is supported and resourced locally at the Group's operations. Ferrexpo has implemented policies and procedures throughout the Group including training. Ferrexpo prioritises sufficient total liquidity[A] levels and strong credit metrics to ensure smooth operations should geopolitical or economic weakness disrupt the financial system of Ukraine. Ferrexpo looks to maintain a talented workforce through skills training and by offering competitive wages, taking into account movements of the Ukrainian hryvnia against the US dollar and local inflation levels.

Ferrexpo has a high profile given its international client base and London listing. It is therefore important that Ferrexpo's Board of Directors and relevant senior management engage with the Group's stakeholders to effectively communicate the economic contribution that Ferrexpo makes to Ukraine and to show that it operates to high international standards.

Responsibility

Board of Directors and Chief Executive Officer

Risk appetite

Medium

Link to strategy

1, 2, 3, 4 and 5

Change: Increased

1.3 COUNTERPARTY RISK (EXTERNAL RISK)

Risk overview

Ferrexpo is exposed to counterparty risk through its interactions with government agencies, customers, suppliers, contractors and external parties that the Group interacts with, including through its CSR programmes. Risks relating to government agencies both in Ukraine and other jurisdictions in which the Group operates throughout the globe include levels of taxation, the repayment of VAT and licences required for Ferrexpo's operations to operate. In Ukraine, a number of monopolies exist, including the transmission of electricity and natural gas that is required for the creation of the Group's products, as well as the railway network in Ukraine, and this presents the Group with a risk should these monopoly companies fail to function correctly. The Group is also exposed to counterparty risk through its business interactions with customers and suppliers of goods and services, as these interactions may result in financial loss for the Group if the counterparty in question fails to fulfil its duties correctly. This risk is heightened by the ongoing conflict with Russia, which may result in damage to key infrastructure required for either the production or shipment of the Group's products. The invasion of Ukraine has also put an increased level of financial stress on the counterparties with which Ferrexpo does business in Ukraine, and therefore has heightened the risk of counterparty failure.

The advent of the global Covid-19 pandemic in 2020, which has continued into 2021, has also introduced additional risk to Ferrexpo in the form of heightened risk of counterparty failure, as third parties struggled to adapt to the effects of the pandemic. This is a risk facing the Group in terms of timely payment and/or delivery of goods and services, and Covid-19 is also covered as a Principal Risk on page 51. As noted on page 35, however, the risks associated with recent variants of the Covid-19 virus appear to be diminishing in severity, compared to the original variant of this virus.

Risk mitigation

Ferrexpo sells its iron ore products to well-established steel producers that have sound credit profiles. Ferrexpo's counterparties are subject to regular and thorough review. The results of these reviews are used to determine appropriate levels of exposure and available alternatives, in order to reduce the potential risk of financial loss.

The Group has developed its supplier base in order to avoid excessive dependence on any supplier, actively encouraging a diversity of supply where reasonable and practical. Companies that would like to work with Ferrexpo are required to undergo an accreditation procedure, where their documents, licences and financial stability are checked. In 2021, in line with previous years, Ferrexpo screened and monitored third-party entities for sanctions and other risks, with suppliers that pass accreditation able to participate in tenders. For entities deemed to be "high risk", additional checks and further monitoring are required by the Group's compliance function. All supplier contracts must contain the defined set of compliance clauses (including, but not limited to, topics such as anti-bribery, sanctions, tax compliance and modern slavery). These requirements were consolidated into the Business Partners' Code of Conduct in 2019, which is referenced in 95% of all contracts signed as of 2021 (98% of contracts with a value in excess of UAH 500,000).

The Finance, Risk Management and Compliance Committee ("FRMCC"), an executive sub-committee of the Board, met ten times in 2021 and is charged with ensuring that systems and procedures are in place for the Group to comply with laws, regulations and ethical standards. The FRMCC is attended by the Group Compliance Officer and, as necessary, by the local compliance officers from the operations, who present regular reports and ensure that the FRMCC is given prior warning of regulatory changes and their implications for the Group. The FRMCC enquires into the ownership of potential suppliers deemed to be "high risk", and oversees the management of conflicts of interests below Board level and general compliance activities (including under the UK Bribery Act 2010, the Modern Slavery Act, the Criminal Finances Act, and the EU General Data Protection Regulation).

The Group aims to minimise risk around the timely provision of goods and services through maintaining sufficient cash reserves and liquidity, as well as maintaining alternative suppliers should one counterparty fail.

The Board aims to ensure adherence to the highest standards of diligence, oversight, governance and reporting with all charitable donations, with the HSEC Committee required to provide approval for community support expenditures.

Responsibility

Board of Directors, Chief Executive Officer and Chief Financial Officer

Risk appetite

Low

Link to strategy

4

Change: Increased

2. MARKET RELATED RISKS

2.1 RISKS RELATING TO THE GLOBAL DEMAND FOR STEEL

Risk overview

The Group is a supplier to the global steel industry, with customers located in several continents around the world. The global steel industry produces steel for a wide range of end uses and is exposed to a wide range of factors that may affect each customer's ability to produce steel and supply end users of steel. Therefore, as part of the global steel value chain, Ferrexpo is in turn also exposed to the same risks as steelmakers. The Group does not, however, supply its products to steelmakers in Russia, and is therefore not exposed to risks related to recent restrictions in trading with this group of steelmakers that relate to Russia's invasion of Ukraine in early 2022.

On the input side, steel production requires raw material inputs such as iron ore and coking coal, as well as significant numbers of employees, all of which represent a significant proportion of steelmakers' cost bases and therefore have the potential to negatively affect the profitability of a steel mill. In the event of reduced profitability, steel mills often reduce steel output in order to preserve the balance sheet of the operating company, which in turn reduces demand for iron ore. Steel producers are also reliant on the consistent supply of raw materials, which requires access to global markets, which can often be disrupted by natural events, geopolitical events or otherwise. These same distribution networks are required for the transfer of steel products to customers and end users, and therefore any disruption can have a significant impact on the overall steel value chain. One high profile example of such an event was seen in 2021 with the six-day blockage of the Suez Canal by the vessel Ever Given in March 2021.

Steel mill profitability can also influence the demand for different grades and forms of iron ore, with demand for high grade iron ore pellets typically lower at times of lower steel prices, when steelmakers typically move to reduce mill productivity and overall output. Global demand for steel is also linked to global productivity and levels of investment, and therefore during periods of reduced economic activity, steel demand (and therefore steel production) is often reduced as a consequence. The steel industry is also regionally fragmented, with factors relevant for certain geographic or political regions, not applicable for other regions. It is therefore important to have a strong understanding of regional factors that may affect specific steel producers more than others.

The global steel industry is also under significant pressure to decarbonise its operations, with the global steel industry responsible for 7% of global carbon emissions[1]. Steelmakers are currently seeking technological solutions for producing commercial quantities of low to zero carbon steel, which will require significant investment in both research and development, as well as likely require significant investment to deploy new technologies.

Risk mitigation

The Group aims to mitigate risks relating to the global steel prices and global demand for steel through having a network of premium customers located in a variety of geographic regions. Ferrexpo has also commenced a process to develop a network of additional customers for its higher grade (67% Fe) direct reduction pellets, which currently represents approximately a third of the global pellet export market, and historically has not been a market that Ferrexpo has served. Through direct reduction pellets, as well as the ability to produce and market new products such as high grade concentrate, the Group aims to have the ability to serve a broader range of customers, if required. The Group also aims to develop long-term relationships with customers, whereby there is a strong level of engagement and understanding between both parties. Through the Group selling the majority of its production via long-term contracts, the Group aims to secure the stable and consistent offtake of its production, enabling the Group to be able to adapt and adjust to meet changing business conditions, if required, rather than relying on short-term relationships and spot sales.

Ferrexpo operates in a country whereby the local currency, the Ukrainian hryvnia, is a currency that is linked to the performance of commodity prices, and historically the Group has experienced depreciation in the hryvnia at times of lower commodity prices, which in turn reduces the Group's dollar-denominated cost base. Movements in the hryvnia-dollar exchange rate can, however, be influenced by other factors and may not necessarily reduce costs at times of low iron ore prices.

Responsibility:

n/a (Ferrexpo not large enough to influence global demand)

Risk appetite:

Medium

Link to strategy:

3 and 5

Change: Unchanged

3. RISKS RELATED TO REALISED PRICING

3.1 CHANGES IN PRICING METHODOLOGY

Risk overview

Pricing formulas for iron ore pellets are governed by a number of factors, including the iron ore fines price, a premium for additional ferrum content (if applicable), pellet premiums, freight rates and additional quality premiums and discounts depending on the type of iron ore pellet or concentrate supplied and its chemistry. Industry-wide factors, which are outside of the Group's control, can influence the methodology for pricing iron ore products, in addition to the various premiums and discounts that are applied by individual customers and individual regions. Premiums or discounts paid for specific characteristics may change and adversely impact the Group's ability to market specific products.

[1] Source: IEA

Risk mitigation

The Group aims to price its products through clear and consistent engagement with customers, with the Group seeking to develop mutually beneficial long-term relationships. Through consistent supply and consistent high quality of the Group's products, Ferrexpo aims to maintain strong relationships with its customers.

Ferrexpo endeavours to achieve the prevailing market price at all times, and the Group aims to be a low cost producer and therefore cash flow positive throughout the commodities cycle. For more information on its position on the cost curve, please see the Case Study provided on page 16. The Group also has the logistics capability to divert sales to other markets to offset any regional weakness, as was seen during the initial peak of the global Covid-19 pandemic in 2020, when the Group was able to redirect sales volumes away from Europe and towards China, to meet temporary shifts in demand patterns. The Group has since seen global demand patterns for iron return to historical distribution levels in 2021. The Group has retained this flexibility to divert sales to alternative markets should future shifts in demand occur.

Responsibility

Chief Executive Officer and Chief Marketing Officer

Risk appetite

Medium

Link to strategy

1, 3 and 5

Change: Unchanged

3.2 LOWER IRON ORE PRICES

Risk overview

As a single commodity producer, the Group is inherently exposed to performance of the iron ore price, in addition to other market prices. The Group is a producer of high grade iron ore products, which are widely considered to be products with an iron content in excess of 65%, and this is a subset of the wider global trade in iron ore that is affected by additional factors. The iron ore industry as a whole is primarily governed by steel demand and demand for iron ore as a consequence. During periods of low steel demand, iron ore prices trend lower as steel mills look to actively reduce steel output. The majority of the world's exported iron ore is traded on the 62% Fe fines index, which in the past five years has varied between periods of being less than US$50 per tonne to over US$200 per tonne. Ferrexpo is not sufficiently large enough a producer to be able to directly affect the globally quoted price of iron ore, and therefore, like other companies that produce and sell iron ore, must accept the prevailing iron ore price. Factors governing steel demand are discussed in this section (Risks relating to global demand for steel, page 41). Factors specifically governing the price of iron ore also include the global supply of iron ore, as stable pricing requires that the available supply of iron ore broadly matches the global demand for iron ore, and any imbalance can result in significant movements in iron ore pricing. There are a number of large greenfield and brownfield projects that have the potential to significantly impact the global price of iron ore should these projects come into production.

The global demand for high grade iron ore is a further subset of the global iron ore trade, with the supply of high grade iron ore typically sourced from iron ore mines in Northern Brazil, and fluctuations in output from these particular mines can have a direct impact on the prices paid for high grade iron ores. Ferrexpo's iron ore products are priced using the high grade index (65% Fe) and the Group is therefore impacted by these fluctuations.

Risk mitigation

Ferrexpo is a low to medium cost producer relative to the majority of its peers, and is positioned in the lower half of the global cost curve of iron ore pellet producers. Ferrexpo's operating costs are partly correlated with commodity prices. When the commodities cycle is in a downward phase, Ferrexpo typically receives a lower selling price, but the Group's cost base also tends to decline as a result of local currency devaluation. The Ukrainian hryvnia is a commodity-related currency and historically over the long term it has depreciated during periods of low commodity prices, although movements of the Ukrainian hryvnia against the US dollar can also be influenced by short-term political factors, in addition to other factors. Ferrexpo regularly reviews options to hedge the price of its output; however, its current strategy is not to enter into hedging agreements, due to the relatively low liquidity of this market and high cost of entering into such arrangements. Ferrexpo has maintained positive profit and cash generation throughout the iron ore price cycle.

Responsibility
n/a (Ferrexpo not large enough to influence global demand)

Risk appetite
Medium

Link to strategy
1, 3 and 5

Change: Unchanged

3.3 PELLET PREMIUMS AND PELLET SUPPLY

Risk overview
Iron ore pellets are utilised by steel mills to improve productivity through their inherent characteristics as a pellet and the higher grade nature of Ferrexpo's iron ore pellets. At times of lower steel mill profitability, steel producers are known to reduce demand for higher cost inputs such as iron ore pellets, in order to reduce the cost of steel production and to protect steel margins. This has the potential to negatively affect the pellet premium, and by extension, the profitability of Ferrexpo, since the majority of Ferrexpo's profit margin has come from its ability to receive the pellet premium. Risks to the pellet premium also exist in replacement of pellets in the blast furnaces operated by Ferrexpo's customers with alternatives, such as lump ores, and a significant increase in this substitution would have the potential to reduce pellet premiums.

Further supply of pellets into the global export market would also have the potential to reduce pellet premiums and a pellet producer in Brazil, which was offline since 2015, returned to production in late 2020 and has now reached its published nameplate capacity for production.

Recent trends in the global steel industry have led steel producers towards targeting lower carbon emissions, and iron ore pellets are a method for achieving such a reduction, since iron ore pellets do not require sintering prior to conversion into steel. If, however, this trend towards an environmentally friendlier method of steel production were to reverse in the future, this could also negatively affect demand for iron ore pellets, and by extension, lower pellet premiums. Lower pellet premiums could impact the Group's ability to pay dividends to shareholders, repay debt amortisation and could result in lower levels of capital investment (including sustaining capex).

Risk mitigation
Ferrexpo primarily sells high quality pellets, which underpin demand for its product throughout the commodity cycle. Should the pellet premium decline, Ferrexpo has historically one of the lowest pellet conversion costs in the industry depending to different periods of commodity prices, which helps the Group to remain a competitive producer. Ferrexpo also has the ability to produce iron ore concentrate should market conditions make this product more economically viable. Ferrexpo's pelletising costs in 2021 were approximately US$19 per tonne (2020: US$11 per tonne) and, therefore, lower than the pellet premium seen in 2021, aiding the Group to deliver firm margins during the year. Please see the Market Review section on pages 9 to 12 for more details. Should, however, the pellet premium fall below the cost of pelletising material, the Group has the option to halt pelletising operations and produce concentrate instead for a period of time.

Responsibility
Chief Executive Officer and Chief Marketing Officer

Risk appetite
Medium

Link to strategy
1, 3 and 5

Change: Decreased

3.4 SEABORNE FREIGHT RATES

Risk overview

As iron ore is a bulk commodity, seaborne freight rates are an important component of the cost to deliver product to a customer. An increase in freight rates will reduce the net price received from a customer, and reduce profitability, while a reduction in freight rates will increase the net price received from a customer. Seaborne freight rates, such as the C3 freight index, are published by the Baltic Exchange. The C3 freight index represents the cost for ocean transportation for iron ore from the Brazilian port of Tubarão (where the largest seaborne pellet supplier is based) to Qingdao, China (with China being the world's largest steel producer).

Ferrexpo's received price is referenced to transparent freight indices such as the Baltic Exchange C3 freight index. In 2021, the C3 freight index increased to an average of US$27 per tonne (2020: US$15 per tonne).

Russia's invasion of Ukraine in early 2022, and the related military activity in the Black Sea, has resulted in increased freight charges (principally additional insurance premiums) for companies looking to charter vessels to receive cargoes at Ukrainian ports.

Risk mitigation

Ferrexpo understands the need to have its own in-house specialists within the Group's marketing team that are capable of ensuring the Group pays a competitive rate for seaborne freight rates. Through effective internal planning procedures and engagement with stakeholders in the Group's freight business, the Group is able to effectively charter vessels at competitive freight rates relative to the prevailing index. The Group also has sufficient flexibility in its customer and logistics network to consider differences in freight rates when budgeting for future periods, considering freight rates in broader decisions around allocating tonnages to each geographic market into which the Group sells its products.

Through the Group's close proximity to the key markets of Europe and the Middle East, the Group has a natural advantage over alternative suppliers of iron ore pellets that are located in more distant locations, such as Canada and Brazil. This reduced distance to certain markets results in shorter travel times for the Group as well as a reduction in the carbon emissions associated with the freight for deliveries into these markets. For more information, see the Case Study on page 12. The Group may decide to enter into the forward hedging of its freight related costs in light of the market volatility witnessed in 2021, with derivatives trading in freight markets more liquid than similar markets for iron ore pellets, and therefore potentially making such activities economically advantageous to the Group.

The additional insurance premiums associated with Russia's invasion of Ukraine are expected to be temporary in nature, and a requirement for such premiums will likely be removed following the cessation in hostilities. The Group is also reviewing the possibility of shipping its products either via (a) Black Sea ports outside of Ukraine, or (b) ports that the Group could utilise outside of the Black Sea. However, it should be noted that utilising such ports will likely result in increased freight charges to the Group relative to the logistics pathway utilised via Pivdennyi.

Responsibility

Chief Executive Officer and Chief Marketing Officer

Risk appetite

Low

Link to strategy

2, 3 and 5

Change: Increased

4. OPERATING RISKS

4.1 RISKS RELATING TO PRODUCING AND DELIVERING THE GROUP'S IRON ORE PRODUCTS TO CUSTOMERS

Risk overview

Ferrexpo operates three open pit mining operations, a large-scale beneficiation plant and four pelletising lines, which all involve the processing of significant volumes of material, and, therefore, have inherent significant associated risks due to their size and complexity of operations.

Russia's invasion of Ukraine poses numerous operational risks to the Group's operations, which are detailed on page 37 of this report.

In mining, there are inherent risks associated with open pit mining, including geotechnical risks, risks related to groundwater and surface water ingress, risks surrounding mine planning decisions, and risks related to critical equipment failure, in addition to other factors.

In the Group's beneficiation and pelletising operations, there are risks associated with critical equipment failure, as well as risks specific to the potential failure of the Group's tailings dam facilities. Logistics risks relate to the business's reliance on the ease of transport of its iron ore products to customers, in addition to the consistent supply to the Group's operations of key consumables such as fuel for mining and natural gas for pelletising.

Lower volumes, higher costs and financial penalties due to poor quality and late delivery can impact the Group's cash generation ability, reducing levels of total liquidity[A] and impacting capital investment[A] levels as well as affecting the Group's ability to repay debt and pay dividends to shareholders. Poor pellet quality or late delivery of product can also affect the Group's ability to perform according to customer contracts and its ability to maintain and renew contracts in the future.

The global steel industry is under increasing pressure to adapt its production processes to reduce emissions of greenhouse gases, and as a result the Group is seeing increasing market demand for higher grade forms of iron ore. The Group is able to produce high grade forms of iron ore, namely iron ore pellets grading 65% Fe (blast furnace pellets) or 67% Fe (direct reduction pellets), but these forms of product require additional processing and therefore are produced at an additional cost. In certain circumstances, it may not be economically viable to produce higher grade forms of iron ore pellets from specific lower grade ore types from the Group's mines, and therefore it may be necessary to adjust mine planning activities and impair existing investments in stockpiles of these particular ore types.

Risk mitigation

The Group aims to continually reinvest its profits into its business to expand its production, improve product quality and enhance logistics capabilities. Extensive monitoring by in-house planning departments, in addition to external certification by third-party consultants, help to mitigate risks around the Group's mining, processing, pelletising and logistics operations, including the Group's tailings facility. To mitigate risk in relation to the Group's logistics business and delivery of iron ore products to customers, the Group strives to operate its own equipment and facilities where possible, and as a result the Group owns a fleet of 2,850 railcars within Ukraine, a fleet of 218 vessels for delivering products to customers via the Danube River, and has a 49.9% interest in a berth at the port of Pivdennyi (formerly known as Yuzhny). The Group also operates a talent management and leadership programme to ensure management coverage of business-critical roles. This involves the annual assessment of all managers across the Group of approximately 350 people, and the results of this process are presented to the Operations Management Committee, the Executive Committee and the Board.

Responsibility

Chief Executive Officer, Chief Operating Officer and Chief Marketing Officer

Risk appetite

Medium

Link to strategy

2, 3 and 5

Change: Increased

4.2 RISKS RELATING TO HEALTH AND SAFETY

Risk overview

Russia's invasion of Ukraine in early 2022 has created a significant risk related to the health and safety of the Group's workforce in Ukraine, with details of this risk and mitigation measures, presented on page 37.

The extraction and processing of large volumes of rock has historically been associated with hazardous working environments. Hazards in open pit mining include hazards relating to drilling and blasting of rock, the presence of operators on and around large pieces of equipment such as excavators and haul trucks, and the creation of deep open pit mines with steep inclines. In processing, operators are in close proximity to large pieces of equipment such as crushers and ball mills, all of which carry significant electrical currents, weigh a significant number of tonnes and are constantly moving when under operation. Maintainers are often required to place themselves within equipment to access and repair equipment, and are often required to use lifting equipment to raise machinery weighing several tonnes. The risks to operators conducting these activities, or in close proximity to those conducting these activities, can be high if the correct risk mitigation measures are not enforced. There are inherent risks with materials handling throughout the Group's operations – from hazardous chemicals, flammable liquids and gases, and other dangerous goods. In logistics, the Group oversees the transfer of significant volumes of iron ore pellets loaded onto trains, dry bulk vessels and inland vessels, all of which carry inherent risks. The Group's logistics subsidiary, First-DDSG, transports pellets along the Danube River in all seasons, with specific safety hazards applicable to river transport throughout the year, including operating in freezing conditions and river safety around other vessels.

In addition, the Group and its workforce have faced significant health and safety risks relating to the global Covid-19 pandemic. Details of the risks relating to this are provided on page 51 of the Principal Risks section, with risk mitigation measures also provided in the Case Study on page 8 of this report.

Risk mitigation
Risk mitigation in the Group's approach to health and safety begins with understanding the risks faced by operators when entering a place of work. This is achieved through risk assessments for each area and activity in which an operator is active, aiming to ensure that potential risks are understood before work takes place. Extensive safety training is provided to both operators and management, to provide the necessary level of understanding of the risks faced and the high level of safety standards expected by the Group. Training is provided to both employees and contractors, since safety hazards do not distinguish between an individual's contract status.

The Group uses leading and lagging safety indicators to better understand where safety risks may exist. An example of a leading indicator of safety is the number of safety audits conducted by the Group's safety department, which correlates to the degree of safety improvements made in each working area, and therefore reducing the potential for future incidents to occur. Lagging indicators of safety relate to safety incidents that have already occurred, such as near miss events, and the Group monitors these closely to learn and improve for the future, to reduce the number of these events occurring. Increases in a lagging indicator are often an aspect of encouraging employees to register incidents correctly and to promote an open and understanding culture when it comes to safety.

In relation to the safety and wellbeing measures implemented in response to the global Covid-19 pandemic, the Group has sought to protect both its workforce and its local communities, with details of these measures provided on pages 8 and 32 of this report.

In 2021, through implementation of the above safety measures, the Group was able to report on a fatality-free year and a record-low full year lost time injury frequency rate since IPO of 0.41 (2020: 0.79).

Responsibility
Chief Executive Officer, Chief Operating Officer and Chief Marketing Officer

Risk appetite
Low

Link to strategy
1, 2, 3, 4 and 5

Change: Increased

4.3 RISKS RELATING TO OPERATING COSTS

Risk overview
Ferrexpo's overall ability to generate cash is predicated on its ability to maintain a low cash cost of production across its business, including the Group's mining, processing, pelletising and logistics businesses. A number of factors affect the Group's ability to remain cost effective relative to its iron ore producing peers, including the component of the Group's cost base that relates to global commodity prices, such as fuel, gas, explosives, tyres and steel grinding media. The commodity-linked component of the Group's cost base has historically represented approximately 50%

of the total C1 cash cost of production[A]. In times of relatively high iron ore prices the cost of production tends to increase due to commodity cost inflation; however, during periods of low commodity prices the cash cost is typically reduced. A second important driver of C1 cash cost of production[A] is local currency, which for Ferrexpo is the Ukrainian hryvnia, and this has historically directly affected approximately 50% of the Group's total C1 cash cost of production[A]. The Ukrainian hryvnia is a commodity-related currency and historically over the long term it has depreciated during periods of low commodity prices, although movements of the Ukrainian hryvnia against the US dollar can also be influenced by short-term political factors.

In 2021, the Group's C1 cash cost of production[A] increased by 34% to US$55.8 per tonne (2020: US$41.5 per tonne). See the Financial Review section (pages 13 to 17) for a description of the factors impacting operating costs.

The Group has seen significant inflationary pressure relating to energy costs in the second half of 2021 and into 2022, with prices for key consumables such as natural gas, electricity and diesel all increasing. See Case Study on page 16 for more information.

The Russian invasion of Ukraine in early 2022 has resulted in inflationary cost pressures on a number of the Group's key consumables, with the Group conducting measures to reduce the risks associated with the conflict, such as increased stockpiling of key consumables to reduce the risks around potential supply disruption.

Risk mitigation

Ferrexpo sits in the bottom half of the pellet cost curve, and as such maintains a degree of competitiveness over its pellet-producing peers in countries such as Brazil, Canada and Sweden. Many of the Group's costs relate to commodity prices, which will in turn also impact Ferrexpo's peers to a similar extent, and as such, in times of higher commodity prices, the Group should be able to maintain its cost competitiveness relative to its competitors.

In 2022, Ferrexpo expects to increase production volumes, which will aid production costs through the dilution of fixed costs, and will potentially enable the Group to offset (to some extent) external cost inflation. A number of companies in the Group's peer group have in the past switched between production of iron ore pellets and iron ore concentrate, according to pellet premiums and the profitability of producing pellets. Ferrexpo's pelletising costs in 2021 were approximately US$9 per tonne and therefore lower than the pellet premium seen in 2021 (please see the Market Review section on pages 9 to 12 for more details). However, should the pellet premium fall below the cost of pelletising material, the Group has the option to halt pelletising operations and produce concentrate instead of pellets for a period of time. The Group also has a Business Improvement Programme aimed at increasing efficiencies and reducing costs by 1% to 2% per annum. Ferrexpo has established several sources of suppliers for key products as well as several supply routes to ensure cost effective supplies of all key consumables.

The Group expects the inflationary cost pressures related to Russia's invasion of Ukraine to be temporary in nature and that the Group will retain the cost advantages outlined above in the medium term to remain competitive on costs on a global scale.

Responsibility

Chief Executive Officer and Chief Financial Officer

Risk appetite

Low

Link to strategy

2 and 5

Change: Increased

4.4 RISKS RELATING TO INFORMATION TECHNOLOGY AND CYBERSECURITY

Risk overview

Russia's invasion of Ukraine in early 2022 has created a significant risk related to cybersecurity at the Group's operations in Ukraine, with details of this risk and mitigation measures, presented on page 37.

The Group is continually looking to modernise and digitise its operations, and is increasingly looking towards information technology ("IT") to operate its business model. The move towards increasing digitalisation presents an increasing exposure to parties that may wish to disrupt the Group's operations for financial gain, competitive advantage over the Group or to inflict other negative consequences on the Group for other reasons. Cybersecurity threats may take the form of, but not limited to, the following: malware, ransomware, phishing, denial-of-service attacks, and password attacks.

Cyberattacks have been noted on a global scale in recent years, as well as similar attacks that have been specifically targeted against sovereign nations, such as the NotPetya ransomware first noted in 2017 that is believed to have been targeted at entities in Ukraine, or the Colonial Pipeline cyberattack in May 2021 that shut down 45% of the United States' East Coast fuel supply.[1] Such events appear to be becoming increasingly frequent, with increasing impact on the entities subjected to such attacks. Events such as cyberattacks are not necessarily targeted at specific companies or sovereign states, but often inflict additional damage to companies and governments not directly connected to the original targeted entity, and therefore such attacks may appear random in nature and difficult to predict as a consequence.

Cyberattacks, such as malware and ransomware, are often unreported in the mainstream media by companies and governments to avoid the negative publicity associated with such events. It is therefore difficult to ascertain the full extent to which the Group is facing risks relating to cybersecurity. Published cyberattacks affecting companies and governments in the past have closed or limited a company's ability to produce, have withheld or disclosed confidential information, and have withheld access to key operational infrastructure, in addition to other attributes of such events.

Risk mitigation

Ferrexpo conducts regular reviews of the different information systems and technologies in use across its business, to ensure that information systems and technologies are regularly maintained and up-to-date in terms of security protocols.

The Group's IT department conducts regular reviews of the general IT landscape and provides regular cyber awareness training for employees as well as ad hoc notification when new threats are identified. The Group also regularly reviews requirements on data protection, with email security bulletins circulated to ensure internal users of IT are provided with up-to-date information on cybersecurity. The Group has also implemented a dynamic approach to anti-malware policies, to ensure an adaptive approach for new threats as they emerge. Efforts in 2021 have centred around the procurement and installation of a dedicated on-site data centre at Ferrexpo's operations with backup power, with elevated security protocols to ensure the Group's continued access to its data and IT systems in the event of a cyberattack.

Further to existing practices and protocols, the Group regularly updates the software and hardware in use throughout its business, to remove the Group's exposure to known weaknesses in cybersecurity.

Responsibility

Chief Executive Officer

Risk appetite

Low

Link to strategy

1, 2 and 3

Change: Increased

5. RISKS RELATING TO CLIMATE CHANGE

Risk overview

As a contributor to the global steel value chain, the Group is aware of the risks posed to it by climate change. The risks posed by climate change are diverse in scale and can be either local, affecting the Group's stakeholders in the jurisdictions in which it operates, or global whereby there are impacts to factors such as demand for iron ore pellets. Climate change risks can also be further classified into risks that affect the Group's physical environment – such as flooding, drought conditions and extremes of temperature, or risks could be regulatory in nature whereby governments seek to impose restrictions to limit emissions of carbon dioxide through measures such as environmental levies or carbon taxes.

[1] Source: Forbes (link). Accessed April 2022.

Climate change risks can also affect the Group through its suppliers and customers, with suppliers facing the same risks as Ferrexpo, and as a result may not be able to continue to supply the Group with the same goods and services as currently provided. Customers of Ferrexpo, comprising the global steel industry, are significantly affected businesses by climate change risk given the relatively high proportion of global emissions produced by steelmakers (7% of total emissions[1]). As an example, the EU has selected the European steel industry as one specifically targeted under carbon reduction regulations, such as a gradual reduction in carbon credits as part of the EU's "Fit for 55" initiative to achieve a 55% reduction in carbon emissions by 2030[2]. As steelmakers around the world face increasing regulation to curb emissions, as well as the direct effects of climate change and changing end user demand, these changes will filter through to Ferrexpo as a supplier to these producers, with a portion of these changes likely to be negative.

Ferrexpo also faces acute physical risk as a result of climate change outside of Ukraine in its logistics network, particularly its barging operations along the Danube River, which are prone to freezing weather conditions in European winters and both flooding and low water events in summer.

Additionally, the Group faces reputational risk both in Ukraine and across the globe with stakeholders such as investors, suppliers and customers, if it is not seen to have strong environmental credentials, or does not comply with government regulation. This particular risk can apply to the Group's activities in Ukraine and barging operations in Europe, but also perceptions around the environmental footprint of the Group's products.

Risk mitigation

The Group has sought to mitigate risks around climate change in a number of areas in 2021. Locally in Ukraine, the Group has implemented a significant number of operational projects targeting productivity improvements to reduce diesel and natural gas consumption, including construction of a 5MW trial solar power plant and the Group's clean power purchasing programme. Through various initiatives, the Group has reduced its carbon footprint per tonne (Scope 1 and Scope 2 basis) by 30% since the Group's baseline year of 2019. Further to this progress, in October 2021 the Group announced medium- and long-term carbon reduction targets (see page 27). To further reinforce the Group's existing position on climate change and progress in carbon emissions, the Group is undertaking an external assurance process, whereby an external consultant is reviewing and providing assurance on the validity of the Group's calculations for its carbon footprint. Further details of this project are available on page 25. Looking forward, the Group is seeking to further establish its understanding of the role of iron ore pellets in a low carbon future through its ongoing work with independent climate change consultants Ricardo plc; see page 28 for more details.

The Group understands the need to take action in addressing climate change today, and positioning for the future. For Ferrexpo, the future is Green Steel, which is the production of steel without associated carbon emissions. The first Green Steel was created in Sweden in the summer of 2021 using direct reduction iron ore pellets[3] and the Group has commenced a process to align itself towards Green Steel by starting to produce direct reduction pellets, which represent a known pathway to Green Steel. The Group intends to build its presence in marketing direct reduction pellets in new regions, as well as maintain a dialogue with existing customers as they modernise their production facilities and switch to direct reduction pellets over time.

The Group's management believe that through a multi-layered approach to addressing climate change through implementing projects today, as well as the implementation of longer-term projects, the Group will be well positioned for a low carbon future.

Responsibility

Board of Directors and Chief Executive Officer

Risk appetite

Low

Link to strategy

1, 2, 3, 4 and 5

Change: *Increased*

[1] Source: IEA, 2020 (link). Accessed April 2022.
[2] Source: European Commission (link). Accessed April 2022.
[3] Source: Forbes (link), accessed April 2022.

6. RISKS RELATING TO THE GLOBAL COVID-19 PANDEMIC

Risk overview

In 2021 the world has seen a continuation of the disruption caused by the Covid-19 pandemic, similar in nature to the effects seen in 2020 but with periodic and regional easing of restrictions followed by increases in infection rates and the reintroduction of restrictive measures. Measures introduced in response to the global Covid-19 pandemic have varied between different jurisdictions and have also varied in 2021 according to an individual's vaccination status, adding an additional dimension to Covid-19 restrictions.

Overall, Covid-19 continues to affect the health and wellbeing of individuals, as well as continuing to divide and isolate communities as governments and businesses seek to find measures to slow the spread of the virus each time infection rates increase. Risks relating to the individual continue to be significant – from the threat to the long-term health of an individual and their families and friends, to the impact on wellbeing through social distancing measures. Businesses are at risk of seeing significant numbers of employees and contractors of their own business be forced to isolate due to infection, as well as suppliers and customers experiencing similar restrictions, resulting in a general slowdown in companies' ability to do business with each other. Governments face the risk of the additional strain on public services and resources as a result of measures taken to combat the causes and the effects of the pandemic, which are costs that may be passed on to businesses and individuals in the form of additional taxes and royalties, as well as cuts to existing services. More broadly, the global steel value chain relies on a steady transfer of goods and services to operate efficiently, and market prices such as iron ore prices and pellet premiums could be negatively impacted by a decrease in steel output or a decrease in the ability of steelmakers to produce steel. The global steel value chain also relies heavily on international travel for global businesses to conduct business with each other effectively, and the global travel industry has been significantly affected by travel restrictions. International travel was also a frequent requirement for the Group's senior leadership team, which is an activity that has also been significantly curtailed during the pandemic.

The Russian invasion of Ukraine in 2022 has also elevated the risk associated with Covid-19 due to a reduced focus on testing for the virus and therefore higher risk of transmission in local communities.

Risk mitigation

The Group has sought to mitigate the impact of the global Covid-19 pandemic on its workforce, communities and business activities through a variety of measures. In relation to the Group's workforce, the Group moved quickly to implement measures in early 2020 as the pandemic commenced and these measures, such as mask-wearing, social distancing, staggered shift patterns, Covid-19 testing and temperature screening, have all been perpetuated into 2021. The Covid-19 virus has affected every community around the world and Ferrexpo is acutely aware of the impact of Covid-19, having had 14 employees pass away as a direct result of Covid-19, or complications related to Covid-19, as of December 2021. The Group is therefore making every effort to prevent the virus causing further harm to its workforce and as a result, the Group is encouraging its workforce in Ukraine to take up the government's offer of Covid-19 vaccinations and has provided local authorities with the use of the Group's on-site medical facility as a vaccination centre. As of January 2022, over 5,900 of the Group's employees have had at least one dose of a Covid-19 vaccine and 65% of employees were fully vaccinated, approximately double the rate for the general population of Ukraine[1]. The Group's management is also aware of the significant impact that Covid-19 has had on the wellbeing of its employees, and as a result the Group has offered psychological support services and training to help employees and contractors to cope with the various forms of stress that have emerged as a result of the pandemic.

On a broader scale, the Group has noted a return in the global balance of steel production, and therefore iron ore demand, in 2021 as the world returns to a more normal balance of trade as Covid-19 restrictions ease. In the iron ore industry, the shift seen during the peak of the pandemic during 2020 was towards China, and in 2021, global markets have gradually returned to a similar balance of demand as has been seen in years prior to 2020. Whilst the Group is prepared for further shifts in iron ore demand, and has capacity in its logistics network to manage such events, the Group does not expect a similar scale of market shift as observed in 2020.

In relation to the Group's local communities, the Group's Covid-19 Response Fund continues to work to assist local hospitals and medical institutions in their work combating the pandemic, with a total approved funding amount of US$3.5 million. Details of the work conducted through this project are provided in the Case Study on page 8.

[1] Source: www.ourworldindata.org, accessed 1 February 2022

Responsibility
Board of Directors and Chief Executive Officer

Risk appetite
Low

Link to strategy
1, 2, 3, 4 and 5

Change: Decreased

STATEMENT OF DIRECTORS' RESPONSIBILITIES

Statement by the Directors under the UK Corporate Governance Code
The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare such financial statements for each financial year. Under that law the Directors are required to prepare the Group financial statements in accordance with International Financial Reporting Standards as adopted in the United Kingdom ("UK adopted IFRS") and have also chosen to prepare the Parent Company financial statements in accordance with the United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 Reduced Disclosure Framework, and applicable law).

Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Parent Company and of their profit or loss for that period.

In preparing the financial statements, the Directors are required to:

- Select suitable accounting policies and then apply them consistently;
- Make judgements and estimates that are reasonable and prudent;
- State whether applicable UK adopted International Financial Reporting Standards have been followed for the Group financial statements and United Kingdom Accounting Standards, comprising FRS 101 Reduced Disclosure Framework have been followed, subject to any material departures disclosed and explained in the financial statements; and
- Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

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

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Responsibility Statement of the Directors in respect of the Annual Report and Accounts

We confirm that to the best of our knowledge:

(a) the Group financial statements, prepared in accordance with UK adopted IFRS, give a true and fair view of the assets, liabilities, financial position and profit of the Company and the subsidiary undertakings included in the consolidation taken as a whole and attention is drawn to the going concern material uncertainty statement in Note 2 (Basis of preparation) to the Consolidated Financial Statements;

(b) the parent company financial statements, which have been prepared in accordance with United Kingdom Accounting Standards, comprising FRS 101 Reduced Disclosure Framework, give a true and fair view of the company's assets, liabilities and financial position of the Parent Company;

(c) the Strategic Report includes a fair review of the development and performance of the business and the position of the Company and the subsidiary undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face; and

(d) the Annual Report and financial statements, taken as a whole, is fair, balanced and understandable, and provides the information necessary for shareholders to assess the Group's and Company's position, performance, business model and strategy.

This responsibility statement was approved by the Board of Directors on 21 April 2022 and is signed on its behalf by:

Lucio Genovese

Chair

Jim North

Chief Executive Officer and Executive Director

INDEPENDENT AUDITOR'S REPORT TO THE SHAREHOLDERS OF FERREXPO PLC ON THE PRELIMINARY ANNOUNCEMENT OF FERREXPO PLC

As the independent auditor of Ferrexpo plc we are required by UK Listing Rule LR 9.7A.1 (2) to agree to the publication of Ferrexpo plc's preliminary statement of annual results for the year ended 31 December 2021.

The preliminary statement of annual results for the year ended 31 December 2021 includes the 2021 full year results and the disclosures required by the Listing rules including:

- Financial Highlights and 2021 Financial Summary;
- Chair's Statement;
- Management commentary included under the following headings; Ferrexpo's Response to COVID-19, Market Review, Financial Review, Operations Review, Growth Plans, HSEC's Chair Review, Health and Safety Review, Climate Change, TCFD Reporting, Workforce Development and Inclusion, Community Support and Development, Corporate Governance, Risk Management, Responsible Business and Principal Risks Sections;
- Statement of Directors' Responsibilities;
- Consolidated Income Statement;
- Consolidated Statement of Comprehensive Income;
- Consolidated Statement of Financial Position;
- Consolidated Statement of Cash Flows;
- Consolidated Statement of Changes in Equity;
- Notes to the Consolidated Financial Statements; and
- Alternative Performance Measures.

The Directors of Ferrexpo plc are responsible for the preparation, presentation and publication of the preliminary statement of annual results in accordance with the UK Listing Rules.

We are responsible for agreeing to the publication of the preliminary statement of annual results, having regard to the Financial Reporting Council's Bulletin "The Auditor's Association with Preliminary Announcements made in accordance with the requirements of the UK Listing Rules".

Status of our audit of the financial statements
Our audit of the annual financial statements of Ferrexpo plc for the year ended 31 December 2021 is complete and we signed our auditor's report on 21 April 2022. Our auditor's report is not modified although it includes a separate section in respect of a material uncertainty related to going concern.

Procedures performed to agree to the preliminary announcement of annual results
In order to agree to the publication of the preliminary announcement of annual results of Ferrexpo plc we carried out the following procedures:

- Confirmed that the preliminary statement includes the minimum information required by the Listing Rules.
- Checked that the figures in the preliminary statement have been accurately extracted from the audited financial statements.
- Checked the consistency of presentation of the financial information in the preliminary statement with the audited financial statements.
- Read management commentary, the financial information in the consolidated financial statements and notes thereof and considered if the management commentary is:
  - Fair, balanced and understandable
  - Materially consistent with the financial statements and with the contents of the annual report
  - Consistent with the information and our knowledge obtained in the course of the audit of the financial statements of Ferrexpo plc for the year ended 31 December 2021.
- Considered if for Alternative Performance Measures (APMs) and associated narrative:
  - APMs are clearly defined and have been given meaningful labels
  - The use and relevance of APMs is explained
  - APMs have been reconciled to the most relevant figures in the financial statements
  - Comparatives have been included
- Considering whether the financial information in the preliminary announcement is misstated, either because it is stated incorrectly or because it is presented in a misleading manner.

[*Signature*]

Rakesh Shaunak FCA
Senior Statutory Auditor
For and on behalf of MHA MacIntyre Hudson,
Statutory Auditor
London
21 April 2022

CONSOLIDATED INCOME STATEMENT

US$000	Notes	**Year ended 31.12.21**	Year ended 31.12.20
Revenue	4	**2,518,230**	1,700,321
Operating expenses	3/5	**(1,411,911)**	(1,018,109)
Other operating income		**9,499**	5,432
Operating foreign exchange (losses)/gains	6	**(37,808)**	61,023
Operating profit		**1,078,010**	748,667
Share of profit from associates		**4,468**	5,624
Profit before tax and finance		**1,082,478**	754,291
Finance income	7	**637**	553
Finance expense	7	**(8,940)**	(12,286)
Non-operating foreign exchange (losses)/gains	6	**(3,200)**	5,302
Profit before tax		**1,070,975**	747,860
Income tax expense	8	**(199,982)**	(112,568)
Profit for the year		**870,993**	635,292
Profit attributable to:			
Equity shareholders of Ferrexpo plc		**870,987**	635,292
Non-controlling interests		**6**	–
Profit for the year		**870,993**	635,292
Earnings per share:			
Basic (US cents)	9	**148.2**	108.1
Diluted (US cents)	9	**147.9**	107.9

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

US$000	Notes	**Year ended 31.12.21**	Year ended 31.12.20
Profit for the year		**870,993**	635,292
Items that may subsequently be reclassified to profit or loss:			
Exchange differences on translating foreign operations		**82,196**	(317,674)
Income tax effect	8	**(3,313)**	16,278
Net other comprehensive income/(loss) that may be reclassified to profit or loss in subsequent periods		**78,883**	(301,396)
Items that will not be reclassified subsequently to profit or loss:			
Remeasurement gains/(losses) on defined benefit pension liability		**9,882**	(1,057)
Net other comprehensive income/(loss) not being reclassified to profit or loss in subsequent periods		**9,882**	(1,057)
Other comprehensive income/(loss) for the year, net of tax		**88,765**	(302,453)
Total comprehensive income for the year, net of tax		**959,758**	332,839
Total comprehensive income attributable to:			
Equity shareholders of Ferrexpo plc		**959,778**	332,822
Non-controlling interests		**(20)**	17
		959,758	332,839

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

US$000	Notes	**As at 31.12.21**	As at 31.12.20
Assets			
Property, plant and equipment		**1,216,693**	1,004,385
Right-of-use assets		**7,776**	8,313
Goodwill and other intangible assets		**43,586**	40,734
Investments in associates		**7,034**	5,873
Inventories	10	**8,414**	213,685
Other non-current assets		**96,484**	25,480
Deferred tax assets	8	**32,946**	30,574
Total non-current assets		**1,412,933**	1,329,044
Inventories	10	**202,399**	144,605
Trade and other receivables		**192,363**	152,750
Prepayments and other current assets		**68,162**	25,884
Income taxes recoverable and prepaid	8	**636**	1,351
Other taxes recoverable and prepaid		**48,040**	31,323
Cash and cash equivalents	11	**167,291**	270,006
Total current assets		**678,891**	625,919
Total assets		**2,091,824**	1,954,963
Equity and liabilities			
Issued capital		**121,628**	121,628
Share premium		**185,112**	185,112
Other reserves		**(1,986,131)**	(2,065,896)
Retained earnings		**3,510,793**	3,250,534
Equity attributable to equity shareholders of Ferrexpo plc		**1,831,402**	1,491,378
Non-controlling interests		**75**	95
Total equity		**1,831,477**	1,491,473
Interest-bearing loans and borrowings	3/12	**2,143**	132,129
Defined benefit pension liability		**26,074**	32,475
Provision for site restoration		**3,873**	2,846
Deferred tax liabilities	8	**141**	101
Total non-current liabilities		**32,231**	167,551
Interest-bearing loans and borrowings	3/12	**48,206**	134,349
Trade and other payables		**72,824**	43,749
Accrued and contract liabilities		**52,613**	45,542
Income taxes payable	8	**37,138**	58,483
Other taxes payable		**17,335**	13,816
Total current liabilities		**228,116**	295,939
Total liabilities		**260,347**	463,490
Total equity and liabilities		**2,091,824**	1,954,963

The financial statements were approved by the Board of Directors and authorised for issue on 21 April 2022 and signed on behalf of the Board.

Lucio Genovese	**Jim North**
Non-executive Chair	***Chief Executive Officer & Executive Director***

CONSOLIDATED STATEMENT OF CASH FLOWS

US$000	Notes	**Year ended 31.12.21**	Year ended 31.12.20
Profit before tax		**1,070,975**	747,860
Adjustments for:			
Depreciation of property, plant and equipment, right-of-use assets and amortisation of intangible assets		**115,111**	102,475
Finance expense	7	**5,729**	9,113
Finance income	7	**(637)**	(553)
Losses on disposal and liquidation of property, plant and equipment		**4,695**	1,303
Write-offs	5	**4,507**	192
Impairment of inventories	5/10	**231,111**	–
Share of profit from associates		**(4,468)**	(5,624)
Movement in allowance for doubtful receivables		**690**	724
Movement in site restoration provision		**551**	18
Employee benefits		**4,936**	4,779
Share-based payments		**856**	291
Operating foreign exchange losses/(gains)	6	**37,808**	(61,023)
Non-operating foreign exchange losses/(gains)	6	**3,200**	(5,302)
Other adjustments		**(4,914)**	(2,546)
Operating cash flow before working capital changes		**1,470,150**	791,707
Changes in working capital:			
Increase in trade and other receivables		**(102,827)**	(49,538)
(Increase)/decrease in inventories		**(65,170)**	27,034
Increase/(decrease) in trade and other payables (incl. accrued and contract liabilities)		**40,186**	(4,798)
(Increase)/decrease in other taxes recoverable and payable (incl. VAT)		**(11,073)**	3,214
Cash generated from operating activities		**1,331,266**	767,619
Interest paid		**(7,031)**	(21,439)
Income tax paid	8	**(227,930)**	(56,571)
Post-employment benefits paid		**(2,475)**	(2,391)
Net cash flows from operating activities		**1,093,830**	687,218
Cash flows from investing activities			
Purchase of property, plant and equipment and intangible assets		**(360,869)**	(205,779)
Proceeds from disposal of property, plant and equipment and intangible assets		**1,030**	836
Interest received		**583**	442
Dividends from associates		**3,967**	4,027
Advance payment for investment in joint venture		**–**	(5,000)
Net cash flows used in investing activities		**(355,289)**	(205,474)
Cash flows from financing activities			
Proceeds from loans and borrowings	12	**42,146**	–
Repayment of loans and borrowings	12	**(257,430)**	(144,904)
Principal elements of lease payments	12	**(5,517)**	(3,082)
Dividends paid to equity shareholders of Ferrexpo plc	9	**(619,377)**	(195,446)
Net cash flows used in financing activities		**(840,178)**	(343,432)
Net (decrease)/increase in cash and cash equivalents		**(101,637)**	138,312
Cash and cash equivalents at the beginning of the year		**270,006**	131,020
Currency translation differences		**(1,078)**	674
Cash and cash equivalents at the end of the year	11	**167,291**	270,006

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Attributable to equity shareholders of Ferrexpo plc						
US$000	Issued capital	Share premium	Other reserves	Retained earnings	Total capital and reserves	Non-controlling interests	Total Equity
At 1 January 2020	121,628	185,112	(1,764,774)	2,810,588	1,352,554	78	1,352,632
Profit for the year	–	–	–	635,292	635,292	–	635,292
Other comprehensive (loss)/income	–	–	(301,413)	(1,057)	(302,470)	17	(302,453)
Total comprehensive (loss)/income for the year	–	–	(301,413)	634,235	332,822	17	332,839
Share-based payments	–	–	291	–	291	–	291
Equity dividends to shareholders of Ferrexpo plc	–	–	–	(194,289)	(194,289)	–	(194,289)
At 31 December 2020	121,628	185,112	(2,065,896)	3,250,534	1,491,378	95	1,491,473
Profit for the year	**–**	**–**	**–**	**870,987**	**870,987**	**6**	**870,993**
Other comprehensive income/(loss)	**–**	**–**	**78,909**	**9,882**	**88,791**	**(26)**	**88,765**
Total comprehensive income/(loss) for the year	**–**	**–**	**78,909**	**880,869**	**959,778**	**(20)**	**959,758**
Share-based payments	**–**	**–**	**856**	**–**	**856**	**–**	**856**
Equity dividends to shareholders of Ferrexpo plc	**–**	**–**	**–**	**(620,610)**	**(620,610)**	**–**	**(620,610)**
At 31 December 2021	**121,628**	**185,112**	**(1,986,131)**	**3,510,793**	**1,831,402**	**75**	**1,831,477**

Although accounts are published in US dollars and dividends are declared in US dollars, the shares are denominated in UK pounds sterling and dividends are therefore paid in UK pounds sterling. See Note 9 Earnings per share and dividends paid and proposed for dividends paid during the year.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Note 1: Corporate information

The financial information set out in this statement does not constitute statutory accounts as defined in section 435 of the Companies Act 2006. This set of financial results was approved by the Board on 21 April 2022. The financial information for the years ended 31 December 2021 and 31 December 2020 has been extracted from the statutory accounts for each year.

The auditors' report on the 2021 statutory accounts was (i) unqualified, (ii) included a separate section with regard to a material uncertainty related to going concern, in respect of which the report was not qualified and (iii) did not contain statements under section S498(2) or S498(3) of the Companies Act 2006. The audited statutory accounts for the year ended 31 December 2020 have been delivered to the Registrar of Companies.

Ferrexpo plc will publish on or around 12 May 2022 its Annual Report and Accounts for the year ended 31 December 2021 on its corporate website www.ferrexpo.com. The audited statutory accounts for the year ended 31 December 2021 will be delivered to the Registrar of Companies following the Company's annual meeting convened for Wednesday, 15 June 2022.

Organisation and structure

Ferrexpo plc (the "Company") is incorporated and registered in England, which is considered to be the country of domicile, with its registered office at 55 St James's Street, London SW1A 1LA, UK. The Company is listed on the London Stock Exchange and is a member of the FTSE 250 Index. Ferrexpo plc and its subsidiaries (the "Group") operate two mines and a processing plant near Kremenchug in Ukraine, have an interest in a port in Odessa and sales and marketing activities around the world including offices in Switzerland, Dubai, Japan, China, Singapore and Ukraine. The Group also owns logistics assets in Austria, which operate a fleet of vessels operating on the Rhine and Danube waterways and an ocean-going vessel, which provides top-off services. The Group's operations are vertically integrated from iron ore mining through to iron ore concentrate and pellet production and subsequent logistics. The Group's mineral properties lie within the Kremenchug Magnetic Anomaly and are currently being extracted at the Gorishne-Plavninske-Lavrykivske ("GPL") and Yerystivske deposits.

The majority shareholder of the Group is Fevamotinico S.a.r.l. ("Fevamotinico"), a company incorporated in Luxembourg. Fevamotinico is ultimately wholly owned by The Minco Trust, of which Kostyantin Zhevago, the Group's previous Chief Executive Officer, and two other members of his family are the beneficiaries. At the time this report was published, Fevamotinico held 50.3% (2020: 50.3%) of Ferrexpo plc's issued share capital.

Note 2: Basis of preparation

Whilst the preliminary announcement has been prepared in accordance with International Financial Reporting Standards ("IFRS") adopted for use in the United Kingdom ("UK adopted IFRS") and with the Companies Act 2006, as applicable to companies reporting under international accounting standards, this announcement does not itself contain sufficient information to comply with IFRS. The Board approved the full financial statements that comply with IFRS on 21 April 2022. The financial statements have been prepared under the historical cost convention as modified by the recording of pension assets and liabilities and the revaluation of certain financial instruments.

The Group's principal risks likely to affect its future development, performance and position are set out on pages 36 to 52. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Financial Review on pages 13 to 17.

Going concern

On 24 February 2022, Russia began its invasion into Ukraine using direct military force and this has led to an intense armed conflict in Ukraine, which is, as at the date of the approval of these consolidated financial statements, still ongoing. Although the Group has managed to continue its operations, the war continues to pose a threat to the Group's mining, processing and logistics operations within Ukraine and represents a material uncertainty in terms of the Group's ability to continue as a going concern.

As at the date of the approval of these consolidated financial statements, the Group has assessed that, taking into account:

i) its available cash and cash equivalents;

ii) its cash flow projections, adjusted for the effects caused by the war in Ukraine, for the period of management's going concern assessment covering a period of 18 months from the date of the approval of these consolidated financial statements; and

iii) the feasibility and effectiveness of all available mitigating actions within the Group management's control for identified uncertainties,

a material uncertainty still remains as some of the uncertainties are outside of the Group management's control, with the duration and the impact of the war unable to be predicted at this point of time. Whilst the Group has successfully managed to procure all its key consumables, such as natural gas, electricity and diesel fuel, and equipment required for its mining and processing operation to date, the risk of a potential disruption to the required supplies, remains. As announced several times to the market, the Group's seaborne sales through the port of Pivdennyi, located in southwest Ukraine, where the Group's berth is located for shipping pellets to customers, have been suspended as a result of the closure of the port and due to constraints caused by the hostilities in the Black Sea. Although activities at the Black Sea port of Pivdennyi continue to be suspended, the Group's logistics pathways to its European customers via rail and barge remain currently available. These have historically represented approximately 50% of the Group's sales. However, a further interruption to the availability of the Group's logistics network may result in a significant decline in the Group's operating cash flows. Due to the potential threat resulting from the war in Ukraine, the Group has redesigned its mining and processing plans in order to align them to the new circumstances. Further to that, the Group has identified possible alternative options accessible in case of an interruption of the supplies of key consumables and equipment and as well as its currently available logistics network.

As at the date of the approval of these consolidated financial statements, the Group is in a net cash position of approximately US$192,000 thousand with an available cash balance of approximately US$209,000 thousand. In addition to the available cash balance, the Group has an outstanding receivable balance of approximately US$156,000 thousand from its sales in March and April 2022, which are expected to be collected in the next weeks.

As part of management's going concern assessment, the Group adjusted its long-term model reflecting the lower sales volume caused by the unavailable seaborne sales to its customers. The adjusted base case of the long-term model shows that the Group has sufficient liquidity to continue its operations at a reduced level for the entire period of the management's going concern assessment, even allowing for reasonably possible or plausible adverse changes in respect of realised prices, lower production and sales volumes as well as higher production costs.

As a result of the remaining material uncertainty outside of the Group's control in respect of the duration and the impact of the war in the future, the Group also prepared stress tests with more severe adverse changes, such as a ceasing of its production for 3, 6 and 18 months, which could be caused by a disruption of the supplies for key consumables and equipment and/or a further interruption of the Group's currently available logistics network. Based on these stress tests, it is expected that the Group would have sufficient liquidity for more than 12 months and sufficient mitigating actions, such as further reductions of the development capital expenditures and its operating costs, within its control, even if the operations were to be stopped immediately.

Considering the current situation of the war in Ukraine, all identified available mitigating actions addressing the uncertainties caused by the war, as outlined on page 38, and the results of the management's going concern assessment, the Group continues to prepare its consolidated financial statements on a going concern basis. However, many of the identified uncertainties are outside of the Group management's control and are of unpredictable duration and severity, which may cast significant doubt upon the Group's ability to continue as a going concern.

In addition, as at the date of the approval of these consolidated financial statements, the Group's operations, located adjacent to the city of Horishni Plavni, have not been involved in the conflict, but this remains a risk. Should the area surrounding the Group's operations become a focal point of the armed conflict, there would be a significant risk posed to the safety of the Group's workforce and the local community, as well as a significant risk to key assets and the infrastructure required for the Group to operate effectively. See the Principal Risks section on pages 37 and 38 for further information.

If the Group is unable to continue to realise assets and discharge liabilities in the normal course of business, it would be necessary to adjust in the future amounts in the statement of financial position to reflect these circumstances, which may materially change the amounts and classification of certain figures contained in the consolidated financial statements. Further information on the financial impact of the war in Ukraine is provided in Note 15 Events after the reporting period.

Changes in accounting policies

New standards and interpretations adopted

The accounting policies and methods of computation adopted in the preparation of the consolidated financial statements are consistent with those followed in the preparation of the Group's annual financial statements for the year ended 31 December 2020 except for the adoption of new standards, interpretations and amendments to UK adopted IFRS effective as of 1 January 2021.

All new standards, interpretations and amendments adopted as of 1 January 2021 did not have a material impact on the Group's consolidated financial statements for the year ended 31 December 2021. Full disclosure of the list of new standards, interpretations and amendments adopted during the year will be provided in Note 3 New accounting policies included in the Group's 2021 Annual Report and Accounts.

Furthermore, the Group does not expect an impact on its consolidated financial statements from all other standards, interpretations and amendments issued at the reporting date, but not yet to be adopted for these financial statements.

Use of critical estimates and judgements

The preparation of consolidated financial statements in conformity with IFRSs requires management to make estimates and judgements that affect the amounts reported in the consolidated financial statements and accompanying notes. These estimates and judgements are based on information available as at the date of authorising the consolidated financial statements for issue. Actual results could therefore differ from those estimates and judgements. The Group identified a number of areas involving the use of critical estimates and judgements made by management in preparing the consolidated financial statements and supporting information is embedded within the following disclosure notes:

Critical estimates

- Note 10 Inventories – low-grade and weathered ore

Critical judgements

- Note 2 Basis of preparation – going concern assumption
- Note 8 Taxation – tax legislation
- Note 13 Commitments, contingencies and legal disputes – loan relationship between related parties of the Group
- Note 15 Events after the reporting period - non-adjusting post balance sheet event

Note 3: Segment information

The Group is managed as a single segment, which produces, develops and markets its principal product, iron ore pellets, for sale to the metallurgical industry. While the revenue generated by the Group is monitored at a more detailed level, there are no separate measures of profit reported to the Group's Chief Operating Decision-Maker ("CODM"). In accordance with IFRS 8 *Operating segments*, the Group presents its results in a single segment, which are disclosed in the consolidated income statement for the Group.

Management monitors the operating result of the Group based on a number of measures, including underlying EBITDA, gross profit and net cash.

Underlying EBITDA and gross profit

The Group presents the underlying EBITDA as it is a useful measure for evaluating its ability to generate cash and its operating performance. The Group's full definition of underlying EBITDA is disclosed in the Alternative performance measures section on page 80.

US$000	Notes	**Year ended 31.12.21**	Year ended 31.12.20
Profit before tax and finance		**1,082,478**	754,291
Losses on disposal and liquidation of property, plant and equipment		**4,695**	1,303
Share-based payments		**856**	291
Write-offs and impairments	5	**235,618**	192
Depreciation and amortisation		**115,112**	102,475
Underlying EBITDA		**1,438,759**	858,552

US$000	Notes	**Year ended 31.12.21**	Year ended 31.12.20
Revenue	4	**2,518,230**	1,700,321
Cost of sales	5	**(727,818)**	(608,641)
Gross profit		**1,790,412**	1,091,680

Net cash

Net cash as defined by the Group comprises cash and cash equivalents less interest-bearing loans and borrowings.

US$000	Notes	**As at 31.12.21**	As at 31.12.20
Cash and cash equivalents	11	**167,291**	270,006
Interest-bearing loans and borrowings – current	12	**(48,206)**	(134,349)
Interest-bearing loans and borrowings – non-current	12	**(2,143)**	(132,129)
Net cash		**116,942**	3,528

The Group made debt repayments net of proceeds of US$221,188 thousand during the year ended 31 December 2021 (2020: US$148,328 thousand). Net cash is an Alternative Performance Measure ("APM"). Further information on the APMs used by the Group, including the definitions, is provided on pages 80 and 81.

Disclosure of revenue and non-current assets

The Group does not generate significant revenues from external customers attributable to the UK, the Company's country of domicile. The information on the revenues from external customers attributed to the individual foreign countries is given in Note 4 Revenue. The Group does not have any significant non-current assets that are located in the country of domicile of the Company. The vast majority of the non-current assets are located in Ukraine.

Note 4: Revenue

Revenue for the year ended 31 December 2021 consisted of the following:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Revenue from sales of iron ore pellets and concentrate	**2,323,238**	1,523,772
Freight revenue related to sales of iron ore pellets and concentrate	**137,595**	125,254
Total revenue from sales of iron ore pellets and concentrate	**2,460,833**	1,649,026
Revenue from logistics and bunker business	**50,393**	46,002
Revenue from other sales and services provided	**7,004**	5,293
Total revenue	**2,518,230**	1,700,321

Revenue for the year ended 31 December 2021 includes the effect from the derecognition of contract liabilities of US$8,487 thousand (2020: US$8,572 thousand) deferred as revenue in the comparative year ended 31 December 2020. As at 31 December 2021, freight-related revenue in the amount of US$7,648 thousand was deferred in relation to the performance obligations not fulfilled and included in the balance of the contract liabilities.

Export sales of iron ore pellets and concentrate by geographical destination showing separately countries that individually represented 10% or more of export sales in either the current or prior year were as follows:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Europe, including Turkey	**1,354,048**	584,286
Austria	**527,200**	*280,903*
Germany	**291,235**	*145,311*
Turkey	**270,514**	*82,514*
Others	**265,099**	*75,558*
North East Asia	**223,409**	78,786
China & South East Asia	**770,584**	951,718
China	**549,885**	*908,949*
Others	**220,699**	*42,769*
Middle East & North Africa	**23,928**	–
North America	**88,864**	34,236
Total exports	**2,460,833**	1,649,026

The Group markets its products across various regions. The presentation of the sales segmentation data has been changed during the financial year 2021 with Turkey being reclassified from the region Middle East and North Africa to Europe in order to reflect how the Group makes its business decisions and monitors its sales. In order to be consistent with the presentation in the current year, export sales of iron ore pellets and concentrate to Turkey in the amount of US$82,514 thousand have been reclassified for the comparative year ended 31 December 2020.

During the year ended 31 December 2021, sales made to three customers accounted for 37% of the revenues from export sales of ore pellets and concentrate (2020: 41%).

Sales to customers that individually represented more than 10% of total sales in either current or prior year are as follows:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Customer A	**389,554**	280,903
Customer B	**211,231**	316,720
Customer C	**290,511**	96,596

Note 5: Operating expenses

Operating expenses for the year ended 31 December 2021 consisted of the following:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Cost of sales	**727,818**	608,641
Selling and distribution expenses	**340,301**	309,276
General and administrative expenses	**72,163**	61,788
Other operating expenses	**271,629**	38,404
Total operating expenses	**1,411,911**	1,018,109

Total operating expenses include:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Inventories recognised as an expense upon sale of goods	**697,900**	582,796
Employee costs (excl. logistics and bunker business)	**104,018**	106,782
Inventory movements	**(51,603)**	41,471
Depreciation of property, plant and equipment and right-of-use assets	**113,429**	101,278
Amortisation of intangible assets	**1,682**	1,197
Royalties	**40,871**	29,180
Costs of logistics and bunker business	**47,254**	39,993
Audit and non-audit services	**1,694**	1,719
Community support donations	**6,449**	5,800
Write-offs and impairments	**235,618**	192
Losses on disposal and liquidation of property, plant and equipment	**4,695**	1,303

US$000	Notes	**As at 31.12.21**	As at 31.12.20
Write-off of inventories		**247**	466
Write-off/(write-back) of property, plant and equipment		**3,233**	(288)
Write-off of intangible assets		**931**	–
Write-off of receivables and prepayments		**96**	14
Total write-offs		**4,507**	192
Impairment of inventories	10	**231,111**	–
Total impairments		**231,111**	–
Total write-offs and impairments		**235,618**	192

Impairment of inventories for the year ended 31 December 2021 is related to the stockpiled low-grade ore for which the start of the processing of low-grade ore and the volume expected to be utilised cannot be reliably estimated as at the date of the approval of the consolidated financial statements. Further information is provided in Note 10 Inventories. Write-offs of property, plant and equipment and intangible assets for the year ended 31 December 2021 is primarily related to the cancellation of the licence for the Galeschynske project, which is in the exploration phase. Whilst the Group is focused on returning this licence to its previous state, all capitalised costs associated with this licence have been written off as the outcome is currently uncertain. For further information see Note 13 Commitments, contingencies and legal disputes and the update on the Group’s Principal Risks on pages 38 to 40 in terms of the Ukraine country risk.

Auditor remuneration

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Audit services		
Ferrexpo plc Annual Report	**1,269**	1,356
Subsidiary entities	**196**	213
Total audit services	**1,465**	1,569
Audit-related assurance services	**229**	150
Total audit and audit-related assurance services	**1,694**	1,719
Total auditor remuneration	**1,694**	1,719

Auditor remuneration paid is in respect of the audit of the financial statements of the Group and its subsidiary companies and, when applicable, for the provision of other services not in connection with the audit.

Note 6: Foreign exchange gains and losses

Foreign exchange gains and losses for the year ended 31 December 2021 consisted of the following:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Operating foreign exchange (losses)/gains		
Conversion of trade receivables	**(37,791)**	61,948
Conversion of trade payables	**38**	(538)
Other	**(55)**	(387)
Total operating foreign exchange (losses)/gains	**(37,808)**	61,023
Non-operating foreign exchange (losses)/gains		
Conversion of interest-bearing loans	**(3,229)**	3,378
Conversion of cash and cash equivalents	**(181)**	2,506
Other	**210**	(582)
Total non-operating foreign exchange (losses)/gains	**(3,200)**	5,302
Total foreign exchange (losses)/gains	**(41,008)**	66,325

The translation differences and foreign exchange gains and losses are predominantly dependent on the fluctuation of the exchange rate of the Ukrainian hryvnia against the US dollar and the outstanding US dollar denominated receivable balances in Ukraine. During the financial year 2021, the Ukrainian hryvnia appreciated from 28.275 as at the beginning of the year to 27.278 as at 31 December 2021 resulting in an operating foreign exchange loss (2020: depreciation from 23.686 as at the beginning of the year to 28.275 as at 31 December 2020 resulting in an operating foreign exchange gain).

The table below shows the closing and average rates of the most relevant currencies of the Group compared to the US dollar.

	Average exchange rates		Closing exchange rates	
Against US$	**As at 31.12.21**	As at 31.12.20	**Year ended 31.12.21**	Year ended 31.12.20
UAH	**27.286**	26.958	**27.278**	28.275
EUR	**0.845**	0.877	**0.882**	0.815

Exchange differences arising on translation of non-US dollar functional currency operations (mainly in Ukrainian hryvnia) are included in the translation reserve.

Note 7: Net finance expense

Finance expense and income for the year ended 31 December 2021 consisted of the following:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Finance expense		
Interest expense on loans and borrowings	**(9,567)**	(22,381)
Less capitalised borrowing costs	**5,343**	14,871
Net interest on defined benefit plans	**(3,211)**	(3,170)
Bank charges	**(632)**	(829)
Interest expense on lease liabilities	**(474)**	(443)
Other finance costs	**(399)**	(334)
Total finance expense	**(8,940)**	(12,286)
Finance income		
Interest income	**609**	497
Other finance income	**28**	56
Total finance income	**637**	553
Net finance expense	**(8,303)**	(11,733)

Note 8: Taxation

Critical judgements

Tax legislation

The Group operates across a number of jurisdictions through its value chain and prices its sales between its subsidiaries using international benchmark prices for comparable products covering product quality and applicable freight costs. The Group judges these to be on terms which comply with applicable legislation in the jurisdictions in which the Group operates.

In August 2017, the State Fiscal Service of Ukraine ("SFS") commenced a tax audit for the period from 1 September 2013 to 31 December 2015 at the Group's major subsidiary in Ukraine with a focus on cross-border transactions in terms of its pellet sales to another subsidiary of the Group. Following the completion of this audit, the SFS issued its official tax audit report on 27 December 2018, claiming a tax adjustment totalling UAH448 million (US$16,423 thousand as at 31 December 2021) and issued the formal claim on 12 March 2019. The Group's subsidiary initiated legal proceedings and filed a claim to the first court instance in Poltava on 22 March 2019. The Poltava court of first instance confirmed on 4 September 2019 the position of the Group's major subsidiary. The SFS filed its appeal in November 2019 and the Second Administrative Court of Appeal confirmed on 21 December 2019 the decision of the first court instance and supported the position of the Group's subsidiary in full. The SFS subsequently filed an application of cassation to the Supreme Court of Ukraine. The cassation proceedings commenced in November 2021 and although several hearings have been held since then, no decision has yet been made by the Supreme Court of Ukraine. A hearing was scheduled for 28 February 2022, but did not take place due to the Russian invasion into Ukraine on 24 February 2022. Considering the current situation in Ukraine, it is unknown if and when the next hearing will take place.

On 18 February 2020, the State Tax Service of Ukraine ("STS"), formerly known as SFS, commenced two new tax audits for cross-border transactions between the Group's major subsidiary in Ukraine and two subsidiaries of the Group outside of Ukraine in relation to the sale of iron ore products during the financial years 2015 to 2017. The audits were halted in March 2020 due to a Covid-19 related quarantine imposed in Ukraine and resumed on 10 February 2021. On 14 June 2021, the STS commenced another tax audit for the financial years 2015 to 2017 for cross-border transactions of another Ukrainian subsidiary with the same two subsidiaries of the Group outside of Ukraine. Based on legislation in Ukraine, the results of these audits are to be provided by the STS within 18 months after commencement. As for the claim for cross-border transactions currently heard in the Supreme Court of Ukraine, the above-mentioned tax audits are on hold and it is currently unknown if and when these will resume again.

The Group considers that it has complied with applicable legislation for all cross-border transactions undertaken and continues to expect that it can successfully defend its methodology applied to determine the prices between its subsidiaries. Consequently, no provision has been recorded as at 31 December 2021, neither for the years subject to the aforementioned court proceedings nor for transactions and years subject to the new audits commenced by the SFS in Ukraine. As of the approval of these consolidated financial statements, no claim has been made by the SFS in respect of the newly commenced audits.

As required by IFRIC 23 *Uncertainty over income tax treatments*, the Group reviewed and reassessed its exposure in respect of all uncertain tax positions, including the ongoing court proceedings and the newly commenced audits of cross-border transactions in Ukraine under the provisions of this interpretation. Considering the two favourable court decisions and third party advice obtained for the financial years 2021, 2020 and 2019, the management of the Group concluded that it is probable that the Supreme Court of Ukraine will confirm the decisions from the two lower court instances. It is considered that, if there are any new claims made by the SFS, the Group will continue to successfully defend its pricing methodology applied during these years. An unexpected outcome of the ongoing court proceeding would have an adverse impact on the Group's total income tax expense and effective tax rate in a future period.

Separate from the cases mentioned above, on 23 June 2020 FPM received a court ruling, which grants access to information and documents to the State Bureau of Investigators in Ukraine ("SBI") in relation to the sale of iron ore products to two subsidiaries of the Group outside of Ukraine during the years 2013 to 2019. The court ruling relates to pre-trial investigations carried out by the SBI in relation to potential tax evasion by the Group in Ukraine. At the time of the approval of these consolidated financial statements, there is very little information provided in the court ruling in respect to the alleged offences. There is no quantified claim made by the SBI and the ruling is primarily seeking disclosure of information in order to allow the SBI to determine whether there have potentially been any offences. The Ukrainian subsidiaries cooperated with the SBI and provided the requested information as per the court ruling in order to support these pre-trial investigations. As of the date of approval of these consolidated financial statements, there have been no actions or any new requests received from the SBI.

The Ukrainian legislation and regulations on taxation continued to evolve over the last number of years. However, they are not always clearly written and are therefore subject to varying interpretations and inconsistent enforcement by local, regional and national tax authorities. As a result, instances of inconsistent interpretations and enforcements to resolve the same or similar cases are not unusual. See also the Principal Risks section on pages 38 to 40 for further information on the Ukraine country risk.

Except for the matters in Ukraine mentioned above, the Group is not aware of any significant challenges by local tax authorities in any jurisdictions in which the Group operates. However, the application of international and local tax legislation and regulations can be complex and requires judgement to assess possible associated risks, particularly in relation to the Group's cross-border operations and transactions.

The income tax expense for the year ended 31 December 2021 consisted of the following:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Current income tax		
Current income tax charge	**202,335**	111,160
Amounts related to previous years	**(1,010)**	(1,203)
Total current income tax	**201,325**	109,957
Deferred income tax		
Origination and reversal of temporary differences	**(1,343)**	2,611
Total deferred income tax	**(1,343)**	2,611
Total income tax expense	**199,982**	112,568

Tax effects on items recognised in other comprehensive income consisted of the following for the year ended 31 December 2021:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Tax effect of exchange differences arising on translating foreign operations	**3,313**	(16,278)
Total income tax effects recognised in other comprehensive (loss)/income	**3,313**	(16,278)

The weighted average statutory corporate income tax rate is calculated as the average of the statutory tax rates applicable in the countries in which the Group operates, weighted by the profits and losses before tax of the subsidiaries in the respective countries, as included in the consolidated financial information. The weighted average statutory corporate income tax rate was 15.5% for the financial year 2021 (2020: 15.1%). A reconciliation between the income tax charged in the accompanying financial information and income before taxes multiplied by the weighted average statutory tax rate for the year ended 31 December 2021 is as follows:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Profit before tax	**1,070,975**	747,860
Notional tax charge computed at the weighted average statutory tax rate of 15.5% (2020: 15.1%)	**166,330**	112,583
Derecognition/(recognition) of deferred tax assets[1]	**1,107**	2,139
Credit for Ukrainian fuel excise tax against income tax[2]	**–**	(1,106)
Expenses not deductible for local tax purposes[3]	**42,163**	1,046
Income exempted for local tax purposes[4]	**(238)**	(1,807)
Effect from utilisation of non-recognised deferred taxes[5]	**(5,852)**	–
Effect from capitalised tax loss carry forwards on historic tax losses[5]	**(1,578)**	–
Effect from non-recognition of deferred taxes on current year losses[6]	**–**	1,345
Effect of different tax rates on local profit streams[7]	**(1,131)**	779
Prior year adjustments to current tax[8]	**(1,010)**	(1,203)
Effect from share of profit from associates[9]	**(803)**	(997)
Other (including translation differences)	**994**	(212)
Total income tax expense	**199,982**	112,568

1 The derecognition in 2021 and 2020 is related to deferred tax assets recognised in 2019 in light of the change of the tax law in Switzerland. The deferred tax assets recognised were in connection with available transitional measures for companies losing the special tax status available under the old tax law. The derecognition is due to the fact that the taxable profits of the Swiss subsidiaries were lower than forecasted. Whilst the recognition is considered of a non-recurring nature, the derecognition might recur again depending on the taxable profits of the Swiss subsidiaries in the future.

2 Effective 1 January 2018, a temporary provision in the Ukrainian tax code allowed a reduction in income tax payable for the amount of excise tax included in prices of fuel used for mining equipment. This provision was still applied for the financial year 2020, but not for the financial year 2021.

3 The effect in 2021 predominantly relates to the impairment loss of US$231,111 thousand on stockpiled low-grade ore recorded in one of the Group's subsidiaries in Ukraine, which is not deductible. This effect is considered to be of a non-recurring nature. There are other expenses in Ukraine and the United Kingdom, which are historically not deductible for tax purposes according to the enacted local tax legislation and considered to be of a recurring nature.

4 The effect in 2020 largely relates to interest income that does not incur any additional local tax in the United Kingdom due to withholding tax paid on this interest in Ukraine. This effect is considered to be of a non-recurring nature.

5 The effects relate to a subsidiary in Ukraine, for which no deferred tax asset was recognised for available tax losses at the end of the comparative year ended 31 December 2020. During the financial year 2021, the subsidiary became profitable and available tax losses incurred in previous years were used to offset the profit. As all available losses are either used or recognised as a deferred tax asset as at 31 December 2021, this effect is considered to be of a non-recurring nature.

6 The effect in 2020 relates mainly to a subsidiary in Ukraine. Due to the uncertainty in respect of the timing of the subsidiary becoming profitable for local tax purposes, no deferred tax asset has been recognised. This effect was considered to be of a recurring nature until this subsidiary becomes operative and profitable.

7 The effects in 2021 and 2020 relate to different tax rates applying to different income streams in Swiss subsidiaries as a result of their specific tax status. The effect is of a recurring nature.

8 The effects in 2021 and 2020 relate to final tax assessments received in Switzerland. Similar effects are likely to occur in the future. In addition to the effect in Switzerland in 2021, included therein is the release and recognition of provisions, which are expected to be non-recurring.

9 Share of profit from associates is recognised net of taxes of the associates. This effect is of a recurring nature.

The Group operates across a number of jurisdictions and its effective tax rate is subject to various factors outside of the Group's control. This includes the volatility in the global iron ore pellet market and foreign exchange rate movements, primarily between the Ukrainian hryvnia and the US dollar. The effective tax rate of the financial year 2021 was 18.7% (2020: 15.1%). The increase predominantly relates to an impairment loss in respect of stockpiled low-grade ore recorded in a subsidiary in Ukraine, which is not tax deductible in Ukraine. This effect is considered to be of a non-recurring nature and, without this effect, the effective tax rate for the financial year 2021 would have been 15.4%.

Following an agreement reached by the Finance Ministers from the G7 in July 2021 backing the creation of a global minimum corporate tax rate of least 15%, over 140 countries and jurisdictions have agreed to the OECD/G20 Inclusive Framework on BEPS, also referred to as BEPS 2.0, including Ukraine, United Arab Emirates and Switzerland. The new framework aims to ensure that large multinational enterprises pay a fair share of tax wherever they operate and to set a global minimum tax rate. Earliest possible implementation is on 1 January 2023 and it is expected that implementation in key countries will commence soon. Whilst some details are still unknown, the United Arab Emirates and Switzerland announced the adjustment of their local tax legislation by 1 June 2023 and 1 January 2024, respectively, resulting in an increase of the local corporate tax rate.

Based on the current understanding of the anticipated changes to the global tax landscape, the Group expects an increase of its future effective tax rate once adjustments are made to relevant local tax legislation. The Group's future effective tax rate is expected to be in a range of 15.0% to 19.0%. As mentioned above, this effective tax rate is also dependent on the volatility in the global iron ore pellet market and on foreign exchange rate movements, primarily between the Ukrainian hryvnia and the US dollar.

As mentioned under critical judgements on pages 66 and 67, the Group is involved in ongoing court proceedings in respect of its cross-border transactions and an unexpected adverse outcome would have an adverse impact on the Group's total income tax expense and its effective tax rate in the future. In addition to the changes in the statutory tax rates, the Group's future effective tax rate could also be impacted by legislative changes or different interpretations of the legislation in any of its key jurisdictions. See also the Principal Risks section on pages 38 to 40 for further information on the Ukraine country risk.

The net balance of income tax payable changed as follows during the financial year 2021:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Opening balance	**(57,132)**	(21,064)
Charge in the consolidated income statement	**(201,325)**	(109,957)
Booked through other comprehensive (loss)/income	**(3,313)**	16,278
Tax paid	**227,930**	56,571
Translation differences	**(2,662)**	1,040
Closing balance	**(36,502)**	(57,132)

The net income tax payable as at 31 December 2021 consisted of the following:

US$000	**As at 31.12.21**	As at 31.12.20
Income tax receivable balance	**636**	1,351
Income tax payable balance	**(37,138)**	(58,483)
Net income tax payable	**(36,502)**	(57,132)

Temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes and the recognition of available tax loss carry forwards result in the following deferred income tax assets and liabilities at 31 December 2021:

	Consolidated statement of financial position		Consolidated income statement	
US$000	**As at 31.12.21**	As at 31.12.20	**Year ended 31.12.21**	Year ended 31.12.20
Property, plant and equipment	**23,757**	21,996	**895**	(426)
Right-of-use assets	**532**	425	**92**	(518)
Intangible assets	**5,942**	7,447	**(1,456)**	(1,869)
Inventory	**478**	344	**123**	(409)
Allowance for restricted cash and deposits	**3,837**	3,702	**–**	9
Defined benefit pension liability	**537**	1,098	**(560)**	331
Other	**1,679**	1,203	**450**	(14)
Tax losses recognised	**2,157**	499	**1,657**	134
Total deferred tax assets/change	**38,919**	36,714	**1,201**	(2,762)
Thereof netted against deferred tax liabilities	**(5,973)**	(6,140)		
Total deferred tax assets as per the statement of financial position	**32,946**	30,574		
Property, plant and equipment	**(559)**	(600)	**33**	(64)
Intangible assets	**(470)**	–	**(472)**	–
Financial assets	**(4,133)**	(4,422)	**289**	(86)
Lease obligations	**(590)**	(519)	**(53)**	488
Other	**(362)**	(700)	**345**	(187)
Total deferred tax liabilities/change	**(6,114)**	(6,241)	**142**	151
Thereof netted against deferred tax assets	**5,973**	6,140		
Total deferred tax liabilities as per the statement of financial position	**(141)**	(101)		
Net deferred tax assets/net change	**32,805**	30,473	**1,343**	(2,611)

The movement in the deferred income tax balance is as follows:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Opening balance	**30,473**	38,468
Charge in consolidated income statement	**1,343**	(2,611)
Translation differences	**989**	(5,384)
Closing balance	**32,805**	30,473

The increase of the deferred tax assets as at 31 December 2021 is primarily related to the recognition of available tax losses for a Ukrainian subsidiary that started to trade and generate taxable profits in 2021. At current prices for iron ore pellets, it is expected that the entire balance of available tax losses from previous years will be utilised during the financial year 2022. Other movements, which impacted the net deferred tax assets though not necessarily the income tax expense, related to foreign exchange movements and a reclassification from current to deferred taxes.

As at 31 December 2021, the Group had available tax loss carry forwards in the amount of US$78,188 thousand (2020: US$116,076 thousand) for which no deferred tax assets were recognised. US$44,591 thousand (2020: US$82,100 thousand) are related to losses incurred in Ukraine and Austria and those losses do not expire. The remaining balance totalling US$33,598 thousand (2020: US$33,913 thousand) relates to losses incurred in Hungary, of which US$19,545 thousand (2020: US$22,407 thousand) expire after more than eight years.

No deferred tax liabilities have been recognised on temporary differences in the amount of US$1,282,355 thousand (2020: US$1,001,311 thousand) arising from undistributed profits from subsidiaries as no distributions are planned. Other temporary differences of US$7,765 thousand have not been recognised as of 31 December 2021 (2020: US$5,489 thousand), of which the vast majority relates to temporary differences on property, plant and equipment in Ukraine.

Non-adjusting post balance sheet event

On 24 February 2022, Russia began its invasion into Ukraine using direct military force and this has led to an intense armed conflict in Ukraine, which, as at the date of the approval of these consolidated financial statements, is still ongoing. This event is treated as a non-adjusting post balance sheet event and therefore does not affect the carrying value of the Group's assets and liabilities as at 31 December 2021. However, as a result of the uncertainties caused by the war, the recoverability of the recognised deferred tax assets will have to be re-assessed when the Group is preparing its interim condensed consolidated financial statements for the six months period ended 30 June 2022. Note 15 Events after the reporting period provides further information on the possible financial impact.

Note 9: Earnings per share and dividends paid and proposed

Distributable reserves

Ferrexpo plc (the "Company") is the Group's holding company, with no direct operating business, so its ability to make distributions to its shareholders is dependent on its ability to access profits held in the subsidiaries. The Group's consolidated retained earnings shown in the consolidated statement of changes in equity do not reflect the profits available for distribution in the Group as of 31 December 2021.

	Year ended 31.12.21	Year ended 31.12.20
Earnings for the year attributable to equity shareholders – per share in US cents		
Basic	**148.2**	108.1
Diluted	**147.9**	107.9
Profit for the year attributable to equity shareholders – US$000		
Basic and diluted earnings	**870,993**	635,292
Weighted average number of shares – thousands		
Basic number of Ordinary Shares outstanding	**587,699**	587,496
Effect of dilutive potential Ordinary Shares	**1,028**	1,510
Diluted number of Ordinary Shares outstanding	**588,727**	589,006

Dividends proposed and paid

Prior to the dividend proposed below and taking into account the provisions of the Companies Act 2006 and relevant thin capitalisation rules, the total available distributable reserves of Ferrexpo plc is US$170,800 thousand as of 31 December 2021 (2020: US$317,646 thousand).

US$000	**Year ended 31.12.21**
Dividends proposed	
Interim dividend for 2021: 6.6 US cents per Ordinary Share	**38,788**
Total dividends proposed	**38,788**

The interim dividend for 2021 was declared on 22 December 2021 and paid on 28 January 2022.US$000

	Year ended 31.12.21
Dividends paid during the year	
Interim dividend for 2021: 39.6 US cents per Ordinary Share	**231,011**
Final dividend for 2020: 13.2 US cents per Ordinary Share	**77,890**
Special interim dividend for 2020: 39.6 US cents per Ordinary Share	**233,097**
Special interim dividend for 2020: 13.2 US cents per Ordinary Share	**77,379**
Total dividends paid during the year	**619,377**

Although accounts are published in US dollars and dividends are declared in US dollars, the shares are denominated in UK pounds sterling and dividends are therefore paid in UK pounds sterling.

Companies Acts requirements in respect of dividend payments

During the financial year 2021, the Directors became aware of a technical issue in respect of the interim dividend declared on 4 August 2021 and, following investigations of the issue, of technical issues in respect of dividend payments made by the Company in 2010 and 2011. A circular to shareholders to convene a general meeting seeking to ratify the relevant distributions and authorise the Company to enter into relevant release agreements and giving more information about the relevant distributions will be sent to shareholders shortly.

US$000	Year ended 31.12.20
Dividends proposed	
Special interim dividend for 2020: 39.6 US cents per Ordinary Share	232,729
Special interim dividend for 2020: 13.2 US cents per Ordinary Share	77,576
Total dividends proposed	310,305

The special interim dividend for 2020 was declared on 5 January 2021 and paid on 28 January 2021.

US$000	Year ended 31.12.20
Dividends paid during the year	
Special interim dividend for 2020: 6.6 US cents per Ordinary Share	39,004
Interim dividend for 2020: 6.6 US cents per Ordinary Share	38,796
Interim dividend for 2020: 6.6 US cents per Ordinary Share	39,177
Final dividend for 2019: 3.3 US cents per Ordinary Share	20,050
Special final dividend for 2019: 3.3 US cents per Ordinary Share	19,458
Special interim dividend for 2019: 6.6 US cents per Ordinary Share	38,961
Total dividends paid during the year	195,446

Note 10: Inventories

Critical estimates

Low-grade and weathered ore

Iron ore of various grades is being extracted at the Group’s two operating mines GPL and Yerystivske. In order to maximise the operational efficiency and output of the processing facility at FPM, management determines the optimal mix and grade of ore to be delivered to the processing facility from each mine under consideration of the market environment for iron ore pellets. As a result, ore of a lower iron content was stockpiled due to limited processing capacities during the last financial years.

As at 31 December 2021, the stockpiled ore valued at cost totalled US$8,414 thousand (2020: US$213,685 thousand). The decrease compared to the comparative year is due to an impairment loss of US$231,111 thousand recorded as at 31 December 2021 in respect of the stockpiled low-grade ore. The balance of US$8,414 thousand relates to weathered ore, which is not expected to be processed within the next 12 months.

The processing of the stockpiled ore is dependent on the availability of additional processing capabilities. It was the Group’s intention to ramp up the processing of the stockpiled low-grade ore once additional processing capabilities became available. Whilst additional processing capabilities were commissioned in the second half of 2020, operational difficulties were experienced during the financial year 2021 as the new facility did not deliver the expected and required capacities. Because of this and in light of changed customer demand for additional high quality iron ore and the continued high price environment for iron ore pellets, management decided during the financial year 2021 to postpone the processing of the low-grade ore in order to maximise the financial benefits from the prevailing market conditions.

Following the approval of a growth project by the Board in October 2021, management has had to revisit its mining and processing plans and strategies as the growth project requires significant higher volumes of high-grade ore in order to meet future production needs for the current market expectations. Further to that, because of the recent focus on the decarbonisation challenges facing the global steel industry, there has been a significant increase in the demand for high quality products in the second half of the financial year 2021, such as direct reduction pellets, which cannot be produced by feeding low-grade ore into the Group’s current processing facilities. As a consequence, management is exploring a further expansion of its processing capabilities to be in the position to process the low-grade ore using a facility built for this specific purpose.

As at the date of the approval of the consolidated financial statements, it cannot be reliably predicted when the additional processing capabilities will be available and the unknown timing of processing of the stockpiled low-grade ore was considered in the net realisable value test performed. Whilst the stockpiled low-grade ore is considered as an asset for the Group, the changed circumstances have resulted in a full impairment of the stockpiled low-grade ore totalling US$231,111 thousand.

The most critical estimate in determining the net realisable value of low-grade ore as at 31 December 2021 is the fact that the start of processing of low-grade ore and the volume expected to be utilised cannot be reliably estimated as at the date of the approval of these consolidated financial statements. Further critical estimates are a WACC-based pre-tax discount rate of 13.8% and an average forecasted long-term iron ore prices of US$104 per tonne of 65% Fe fines CFR North China.

Some or all of this impairment loss might reverse in the future, once changed facts and circumstances can be considered in the net realisable value test of this asset. It is the Group's intention to accelerate the currently ongoing engineering studies exploring the option of new processing capabilities for the specific purpose of processing low-grade ore. Depending upon the outcome of the engineering studies, the Group may move the project forward. Inclusion of the additional processing facilities in a future net realisable value test is subject to completion of full technical feasibility study, financial budgets and Board approval relating to the construction and operation of these new processing capabilities. In the best case, the new processing capabilities could be available during the financial year 2029. Assuming the start of the processing of the currently stockpiled low-grade ore in 2029 and an utilisation of approximately 11,500 thousand tonnes per year, the impairment loss of US$231,111 thousand recorded as at 31 December 2021 would be approximately US$167,200 thousand lower, all other assumptions unchanged.

At 31 December 2021, inventories comprised:

US$000	**As at 31.12.21**	As at 31.12.20
Raw materials and consumables	**57,575**	38,286
Spare parts	**80,886**	76,565
Finished ore pellets	**48,058**	17,699
Work in progress	**13,496**	9,679
Other	**2,384**	2,376
Total inventories – current	**202,399**	144,605
Low-grade and weathered ore	**8,414**	213,685
Total inventories – non-current	**8,414**	213,685
Total inventories	**210,813**	358,290

Inventories classified as non-current comprise low-grade and weathered ore that are, based on the Group's current processing plans, not planned to be processed within the next 12 months. The processing of this stockpile will take more than 12 months and the beginning and duration of the processing depend on the Group's future mining activities, processing capabilities and anticipated market conditions.

The balance of low-grade and weathered ore is net of an impairment loss of US$231,111 thousand recorded as at 31 December 2021 in respect of the stockpiled low-grade ore. See further information on critical estimates on the previous page.

Note 11: Cash and cash equivalents

As at 31 December 2021, cash and cash equivalents comprised:

US$000	**As at 31.12.21**	As at 31.12.20
Cash at bank and on hand	**158,052**	270,006
Cash equivalents	**9,239**	–
Total cash and cash equivalents	**167,291**	270,006

The Group made debt repayments net of proceeds of US$221,188 thousand during the year ended 31 December 2021 (2020: US$148,328 thousand) affecting the balance of cash and cash equivalents. Further information on the Group's gross debt is provided in Note 12 Interest-bearing loans and borrowings.

The balance of cash and cash equivalents held in Ukraine amounts to US$52,326 thousand as at 31 December 2021 (2020: US$33,058 thousand).

Cash equivalents as at 31 December 2021 relate to cash deposits for letters of credit available within three months from the date of inception of the letters of credit. Cash deposits available only after three months are classified as other current assets.

Note 12: Interest-bearing loans and borrowings

This note provides information about the contractual terms of the Group's major finance facilities.

US$000	**As at 31.12.21**	As at 31.12.20
Current		
Syndicated bank loans – secured	**–**	128,333
Other bank loans – unsecured	**–**	764
Lease liabilities	**6,060**	5,252
Trade finance facilities	**42,146**	–
Total current interest-bearing loans and borrowings	**48,206**	134,349
Non-current		
Syndicated bank loans – secured	**–**	128,333
Lease liabilities	**2,143**	3,796
Total non-current interest-bearing loans and borrowings	**2,143**	132,129
Total interest-bearing loans and borrowings	**50,349**	266,478

Following two further quarterly amortisations and the cancellation of advance prepayments of US$60,000 thousand of the Group's syndicated revolving pre-export facility (the "facility") earlier in 2021, the remaining outstanding amount of US$140,000 thousand was fully repaid on 30 June 2021 and the facility was subsequently cancelled. The facility agreement was signed in 2018 and repayment was scheduled to take place in quarterly instalments between 2020 and 2022.

As at the end of the comparative year ended 31 December 2020, the outstanding amount of the facility was US$256,666 thousand.

The aforementioned bank debt facility was guaranteed and secured as follows:

- Ferrexpo AG and Ferrexpo Middle East FZE, which are also joint borrowers, assigned the rights to revenue from certain sales contracts;
- PJSC Ferrexpo Poltava Mining assigned all of its rights of certain export contracts for the sale of pellets to Ferrexpo AG and Ferrexpo Middle East FZE; and
- the Group pledged bank accounts of Ferrexpo AG and Ferrexpo Middle East FZE into which sales proceeds from certain assigned sales contracts are exclusively received.

As at 31 December 2021, the Group has uncommitted trade finance facilities in the amount of US$140,000 thousand of which US$42,146 thousand were drawn, compared to a total and undrawn US$80,000 thousand as at the end of the comparative year ended 31 December 2020.

Trade finance facilities are secured against receivable balances related to these specific trades.

Arrangement fees for the aforementioned syndicated revolving pre-export facility were presented as prepayments in current assets and other non-current assets based on the maturity of the underlying facility and were amortised on a straight-line basis over the term of the facility. Following the cancellation of the facility, the associated arrangement fees were amortised in full.

The table below shows the movements in the interest-bearing loans and borrowings:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Opening balance of interest-bearing loans and borrowings	**266,478**	412,378
Cash movements:		
Repayments of syndicated bank loans – secured	**(256,666)**	(143,333)
Repayments of other bank loans – unsecured	**(764)**	(1,570)
Principal and interest elements of lease payments	**(5,904)**	(3,425)
Change of trade finance facilities, net	**42,146**	–
Total cash movements	**(221,188)**	(148,328)
Non-cash movements:		
Amortisation of prepaid arrangement fees	**4**	39
Additions to lease liabilities	**4,506**	2,589
Others (incl. translation differences)	**549**	(200)
Total non-cash movements	**5,059**	2,428
Closing balance of interest-bearing loans and borrowings	**50,349**	266,478

The interest elements of lease payments are included in the cash flows from operating activities and not in the cash flows used in financing activities.

Note 13: Commitments, contingencies and legal disputes

Commitments

Commitments as at 31 December 2021 consisted of the following:

US$000	**Year ended 31.12.21**	Year ended 31.12.20
Total commitments for the lease of mining land (out of the scope of IFRS 16)	**57,665**	30,874
Total capital commitments on purchase of property, plant and equipment	**191,412**	57,526
Commitments for investment in a joint venture	**6,064**	6,064

Critical judgements

Loan relationship between related parties of the Group

As disclosed in the 2020 Annual Report and Accounts, the Board, acting through the Committee of Independent Directors (the “CID”), conducted during the financial year 2020 a review in connection with the Group’s sponsorship arrangements with FC Vorskla and concluded its enquiry in March 2021. See Note 30 Commitments, contingencies and legal disputes in the 2020 Annual Report and Accounts for detailed information.

Legal

In the ordinary course of business, the Group is subject to various legal actions and ongoing court proceedings. There is a risk that the independence of the judicial system and its immunity from economic and political influences in Ukraine is not upheld, consequently Ukrainian legislation might be inconsistently applied to resolve the same or similar disputes. See also the Principal Risks section on pages 38 to 40 for further information on the Ukraine country risk.

Share dispute

On 23 November 2020, the Kyiv Commercial Court opened court proceedings in relation to an old shareholder litigation. In 2005, a former shareholder in PJSC Ferrexpo Poltava Mining (“FPM”) brought proceedings in the Ukrainian courts seeking to invalidate the share sale and purchase agreement pursuant to which a 40.19% stake in FPM was sold to nominee companies that were previously ultimately controlled by Kostyantin Zhevago, amongst other parties. After a long period of litigations, all old claims were fully dismissed in 2015. In January 2021, Ferrexpo AG (“FAG”) received a claim from a former shareholder in FPM to invalidate part of the share sale and purchase agreement concluded in 2002 related to the sale of a 9.32% shareholding in FPM. Following the receipt of the claim, FAG, as the parent company of FPM, filed on 27 January 2021 its statement of defence to the court in response.

In February 2021, after the first hearing of the Kyiv Commercial Court on this case, FAG became aware that three new claims had been filed by three other former shareholders in FPM. Taken together, four claimants seek to invalidate the share sale and purchase agreement concluded in 2002 pursuant to which a 40.19% stake in FPM was sold, similarly to the previous claims made back in 2005. FAG filed on 5 March 2021 its statements of defence to the court in response to these new claims. The Kyiv Commercial Court ruled on 27 May 2021 in favour of FAG. The opposing parties filed in June 2021 their appeals. The Northern Commercial Court of Appeal has opened the appeal proceedings and several hearings have been held since then without a court decision made. Considering the current situation in Ukraine, it is unknown if and when the next hearing will take place. The date of the next hearing is not yet known.

Based on legal advice obtained and considering the dismissal of the claims made by a former shareholder in FPM back in 2015, it is management’s view that FAG has compelling arguments to defend its position in the court.

Royalty-related investigation and claim

On 3 February 2022, PJSC Ferrexpo Poltava Mining (“FPM”) and Ferrexpo Yeristovo Mining LLC (“FYM”) received letters from the Office of Prosecutor General notifying about ongoing investigation on potential underpayment of iron ore royalty payments during the years 2018 to 2021. The amount of underpayment is not specified in the letters. As part of the investigation, the Office of Prosecutor General requested documents related to iron ore royalty payments and requested four representatives of the Group’s subsidiaries to appear as witnesses for investigations. The Group’s subsidiaries are collecting the necessary documents and intend to comply with all lawful requests in this investigation. However, due to the current situation in Ukraine, the status and further development of the initiated investigation is unknown.

On 8 February 2022, FPM received a tax audit report, which claims the underpayment of iron ore royalty payments during the period from April 2017 to June 2021 in the amount of approximately UAH1,042,000 thousand (approximately US$38,200 thousand as at 31 December 2021). The Group provided its objections to the claims made in the tax audit report and it was expected that this case will ultimately be heard by the courts in Ukraine in due course. However, due to the current situation in Ukraine, it is unknown if and when a first hearing will take place in respect of the claim received and how the aforementioned investigation is going to further develop.

Based on legal advice obtained, it is management's view that FPM has compelling arguments to defend its position in the court and, as a consequence, no associated liabilities have been recognised in relation to the claim made in the consolidated statement of financial position as of 31 December 2021.

Ecological claims

In September 2021, the State Ecological Inspection carried out an inspection of Ferrexpo Yeristovo Mining LLC ("FYM") and on 1 October 2021 issued an order to remove a number of alleged violations of environmental rules. On 19 October 2021, FYM received two ecological claims from the State Ecological Inspection. One of the claims was related to an allegation of violation of rules regarding removal of soil on a particular land plot and the State Ecological Inspection requested payment for damages of approximately UAH768 million (US$28,155 thousand). The other claim was related to an allegation of absence of documents for disposal of waste on a particular land plot and the State Ecological Inspection requested payment for damages in the amount of approximately UAH18 million (US$660 thousand). Each claim states that if FYM does not voluntarily pay the damages, the State Ecological Inspection will start court proceedings. In November 2021, FYM sent written objections to these claims to the State Ecological Inspection. The State Ecological Inspection has neither responded to FYM's objections nor filed the claims to the court within a reasonable period by February 2022. In February 2022, FYM has therefore filed a lawsuit to the court. The Kremenchuk District Prosecutor's Office is conducting the investigation in connection with alleged violations of environmental rules. Due to the current situation in Ukraine, it is not clear if and when a first hearing will take place.

Based on legal advice obtained, it is management's view that FYM has compelling arguments to defend its position in the court and, as a consequence, no associated liabilities have been recognised in relation to these matters in the consolidated statement of financial position as of 31 December 2021.

Cancellation of licence for Galeschynske deposit

On 24 June 2021, an Order of the President of Ukraine was published on the official website of the President (the "Order"), which enacted the Decision of the National Security and Defence Council of Ukraine on the application of personal special economic and other restrictive measures and sanctions (the "Decision"). Ferrexpo Belanovo Mining ("FBM") is included in the list of legal entities which are subject to sanctions pursuant to the Decision. The Order and the Decision do not provide any legal ground for the application of sanctions. The sanction imposed on FBM is the cancellation of the mining licence for the Galeschynske deposit, which is one of two licences held by FBM. The Galeschynske deposit is a project in the exploration phase that is situated to the north of the Group's active mining operations.

Note 14: Related party disclosures

During the years presented, the Group entered into arm's length transactions with entities under the common control of Kostyantin Zhevago, a controlling shareholder of Ferrexpo plc, with associated companies and with other related parties. Management considers that the Group has appropriate procedures in place to identify, control, properly disclose and obtain independent confirmation, when relevant, for transactions with the related parties.

Entities under common control are those under the control of Kostyantin Zhevago. Associated companies refer to TIS Ruda LLC, in which the Group holds an interest of 49.9% (2020: 49.9%). This is the only associated company of the Group.

Related party transactions entered into by the Group during the years presented are summarised in the following tables:

Revenue, expenses, finance income and expense

US$000	**Year ended 31.12.21** Entities under common control	**Associated companies**	**Other related parties**	Year ended 31.12.20 Entities under common control	Associated companies	Other related parties
Other sales [a]	**657**	**–**	**9**	323	–	7
Total related party transactions within revenue	**657**	**–**	**9**	323	–	7
Materials and services [b]	**8,334**	**–**	**–**	6,299	–	–
Spare parts and consumables [c]	**6,350**	**–**	**–**	3,063	–	–
Other expenses [d]	**2,172**	**–**	**–**	524	–	–
Total related party transactions within cost of sales	**16,856**	**–**	**–**	9,886	–	–
Selling and distribution expenses [e]	**4,876**	**18,139**	**–**	4,552	19,073	–
General and administration expenses [f]	**1,762**	**–**	**524**	1,747	–	482
Finance expense	**20**	**–**	**–**	25	–	–
Total related party transactions within expenses	**23,514**	**18,139**	**524**	16,210	19,073	482
Other income	**2**	**–**	**–**	21	–	–
Total related party transactions	**24,173**	**18,139**	**533**	16,554	19,073	489

- A description of the most material transactions, which are in aggregate over US$200 thousand in the current or comparative year, is given below.

Entities under common control

- The Group entered into various related party transactions with entities under common control. All transactions were carried out on an arm's length basis in the normal course of business.

a Sales of scrap metal to OJSC Uzhgorodsky Turbogas totalling US$437 thousand (2020: US$157 thousand); and

a Sales of electricity to Kislorod PPC for US$209 thousand (2020: US$140 thousand).

b Purchases of oxygen, scrap metal and services from Kislorod PCC for US$1,533 thousand (2020: US$2,060 thousand);

b Purchases of cast iron balls from OJSC Uzhgorodsky Turbogas for US$5,700 thousand (2020: US$4,191 thousand); and

b Purchase of maintenance and construction services from FZ Solutions LLC (formerly OJSC Berdichev Machine-Building Plant Progress) for US$1,024 thousand (2020: nil).

c Purchases of spare parts from OJSC AvtoKraz Holding in the amount of US$1,983 thousand (2020: US$446 thousand);

c Purchases of spare parts from CJSC Kyiv Shipbuilding and Ship Repair Plant ("KSRSSZ") in the amount of US$837 thousand (2020: US$656 thousand);

c Purchases of spare parts from OJSC Uzhgorodsky Turbogas in the amount of US$1,032 thousand (2020: US$675 thousand);

c Purchases of spare parts from FZ Solutions LLC (formerly OJSC Berdichev Machine-Building Plant Progress) of US$719 thousand (2020: US$353 thousand); and

c Purchases of spare parts from Valsa GTV of US$1,735 thousand (2020: US$878 thousand).

d Insurance premiums of US$2,172 thousand (2020: US$524 thousand) paid to ASK Omega for insurance cover in respect of mining equipment and machinery. The increase in insurance premiums during the financial year 2022 is due to the increase in the insurance coverage of the insured equipment.

e Purchases of advertisement, marketing and general public relations services from FC Vorskla of US$4,875 thousand (2020: US$4,552 thousand). See page 75 in respect of a loan relationship between FC Vorskla and another related party.

f Insurance premiums of US$1,341 thousand (2020: US$1,365 thousand) paid to ASK Omega for workmen's insurance and other insurances; and

f Purchase of marketing services from TV & Radio Company of US$243 thousand (2020: US$237 thousand).

Associated companies

- The Group entered into related party transactions with its associated company, TIS Ruda LLC, which were carried out on an arm's length basis in the normal course of business for the members of the Group.

e Purchases of logistics services in the amount of US$18,139 thousand (2020: US$19,073 thousand) relating to port operations, including port charges, handling costs, agent commissions and storage costs.

Other related parties

- The Group entered into various transactions with related parties other than those under the control of a controlling shareholder of Ferrexpo plc. All transactions were carried out on an arm's length basis in the normal course of business.

f Legal and administrative services in the amount of US$506 thousand (2020: US$471 thousand) provided by Kuoni Attorneys at Law Ltd., which is controlled by a member of the Board of Directors of one of the subsidiaries of the Group. The Directors' fees paid totalled US$100 thousand for the financial year 2021 (2020: US$100 thousand).

Purchases of property, plant and equipment

The table below details the transactions of a capital nature, which were undertaken between Group companies and entities under common control, associated companies and other related parties during the years presented.

	Year ended 31.12.21			Year ended 31.12.20		
US$000	**Entities under common control**	**Associated companies**	**Other related parties**	Entities under common control	Associated companies	Other related parties
Purchases in the ordinary course of business	**552**	**–**	**–**	2,247	–	–
Total purchases of property, plant and equipment	**552**	**–**	**–**	2,247	–	–

- During the year ended 31 December 2021, the Group purchased major spare parts and equipment from FZ Solutions LLC (formerly OJSC Berdichev Machine-Building Plant Progress) totalling US$283 thousand in respect of its regular sustaining capital expenditure programmes (2020: US$1,719 thousand). The Group also procured equipment and materials from CJSC Kyiv Shipbuilding and Ship Repair Plant ("KSRSSZ") totalling US$235 thousand for several ongoing projects on its processing facilities (2020: US$510 thousand).
- The FPM Charity Fund owns 75% of the Sport & Recreation Centre ("SRC") in Horishni Plavni and made contributions totalling US$120 thousand during the year ended 31 December 2021 (2020: US$115 thousand) for the construction and maintenance of the building, including costs related to electricity, gas and water consumption. The remaining stake of 25% is owned by JSC F&C Realty, which is under the control of Kostyantin Zhevago.

Balances with related parties

The outstanding balances, as a result of transactions with related parties, for the years presented are shown in the table below:

	As at 31.12.21			As at 31.12.20		
US$000	**Entities under common control**	**Associated companies**	**Other related parties**	Entities under common control	Associated companies	Other related parties
Prepayments for property, plant and equipment [g]	**8,463**	**–**	**–**	133	–	–
Total non-current assets	**8,463**	**–**	**–**	133	–	–
Trade and other receivables [h]	**101**	**4,181**	**1**	96	4,473	1
Prepayments and other current assets [i]	**2,076**	**–**	**–**	1,390	–	–
Total current assets	**2,177**	**4,181**	**1**	1,486	4,473	1
Trade and other payables [j]	**732**	**489**	**–**	462	2	86
Accrued and contract liabilities	**–**	**–**	**–**	71	–	–
Total current liabilities	**732**	**489**	**–**	533	2	86

A description of the balances over US$200 thousand in the current or comparative year is given below.

- **Entities under common control**

g Prepayments for property, plant and equipment totalling US$8,422 thousand were made to FZ Solutions LLC (formerly OJSC Berdichev Machine-Building Plant Progress) in relation to the ongoing update of pellet lines and work on the concentrate stockyard. No such prepayments were made at the end of the comparative year ended 31 December 2020.

h Prepayments and other current assets totalling US$1,123 thousand related to insurance premiums from ASK Omega (2020: US$1,053 thousand); and

i Prepayments and other current assets totalling US$572 thousand related to spare parts from FZ Solutions LLC (formerly OJSC Berdichev Machine-Building Plant Progress) (2020: US$279 thousand).

j Trade and other payables included US$221 thousand (2020: US$195 thousand) related to the purchase of oxygen, scrap metal and services from Kislorod PCC and US$295 thousand (2020: US$191 thousand) related to the purchase of spare parts and services from FZ Solutions LLC (formerly OJSC Berdichev Machine-Building Plant Progress).

Associated companies

h Trade and other receivables included US$4,181 thousand (2020: US$4,473 thousand) related to dividends declared by TIS Ruda LLC.

j Trade and other payables included US$489 thousand (2020: US$2 thousand) related to purchases of logistics services from TIS Ruda LLC.

Note 15: Events after the reporting period

On 24 February 2022, Russia began its invasion into Ukraine using direct military force and this has led to an intense armed conflict in Ukraine, which is, as at the date of the approval of these consolidated financial statements, still ongoing. To date, this action has resulted in significant loss of life and the destruction of key infrastructure in a number of regions across Ukraine, but not in close proximity of the Group's mines and processing plant. Military activities to date, however, have impacted the Group's logistics network, with operations at the port of Pivdennyi in southwest Ukraine formally halted by the port authorities, as announced by the Group on 25 February 2022. The armed conflict in Ukraine continues to pose a threat to the Group's mining, processing and logistics operations within Ukraine.

The situation in Ukraine remains uncertain and unpredictable. As at the date of the approval of these consolidated financial statements, the Group's operations, located adjacent to the city of Horishni Plavni, have not been involved in the conflict, but this remains a risk. Should the area surrounding the Group's operations become the focal point of the armed conflict, there would be a significant risk posed to the safety of the Group's workforce and the local community, as well as a significant risk to key assets and the infrastructure required for the Group to operate effectively. See the Principal Risks section on pages 37 and 38 for further information.

Critical judgements

The Russian invasion into Ukraine is treated as a non-adjusting post balance sheet event and therefore does not affect the carrying value of the Group's assets and liabilities as at 31 December 2021. This event however poses a material uncertainty in respect of the Group's going concern assessment (see Note 2 Basis of preparation for further details). The Group adjusted its long-term model to reflect the lower sales volume caused by the unavailable seaborne sales to its customers. The anticipated lower sales volume will have an adverse effect on the Group's cash flow generation, which would in turn negatively impact the carrying value of the Group's non-current assets in future periods. Based on the base case of the Group's long-term model, the Group's single cash generating unit's assets, including plant, property and equipment, and goodwill and other intangibles, may become subject to an impairment loss of approximately US$190,000 thousand using assumptions for iron ore prices, production costs as well as production and sales volumes, which are consistent with the conditions experienced after the balance sheet date and up until the date of approval of these financial statements. The impairment loss will, however, depend on a number of factors that will only be known to the Group as at this point of time. As a result of the remaining material uncertainty outside of the Group's control in terms of potential disruption to the supply of key consumables, such as natural gas, electricity and diesel fuel, and equipment in the future and a further interruption to the Group's logistics network currently available, the Group also prepared stress tests with more severe adverse changes, such as a ceasing of its production for 3, 6 and 18 months. Under these stress test scenarios, the impairment loss may increase to an amount between US$320,000 thousand and US$400,000 thousand, again depending on circumstances and macro-economic data, which will only be known to the Group as at the point of time of the preparation of its interim condensed consolidated financial statements for the six month period ended 30 June 2022. In addition to the potential financial impact on the Group's non-current assets in the future and as disclosed in Note 8 Taxation, the recoverability of the recognised deferred tax assets will be re-assessed when the Group is preparing its interim condensed consolidated financial statements for the six month period ended 30 June 2022.

Other than the event disclosed above, there are no material adjusting or non-adjusting events that have occurred subsequent to the year end.

ALTERNATIVE PERFORMANCE MEASURES

When assessing and discussing the Group's reported financial performance, financial position and cash flows, management may make reference to Alternative Performance Measures ("APMs") that are not defined or specified under International Financial Reporting Standards ("IFRSs").

APMs are not uniformly defined by all companies, including those in the Group's industry. Accordingly, the APMs used by the Group may not be comparable with similarly titled measures and disclosures made by other companies. APMs should be considered in addition to, and not as a substitute for or as superior to, measures of financial performance, financial position or cash flows reported in accordance with IFRSs.

Ferrexpo makes reference to the following APMs in this statement.

C1 cash cost of production

Definition: Non-financial measure, which represents the cash cost of production of iron pellets from own ore divided by production volume of own production ore. Non-C1 cost components include non-cash costs such as depreciation, inventory movements and costs of purchased ore and concentrate. The Group presents the C1 cash cost of production because it believes it is a useful operational measure of its cost competitiveness compared to its peer group.

US$000	Notes	**Year ended 31.12.21**	Year ended 31.12.20
C1 cash costs		**626,561**	466,013
Non-C1 cost components		**71,339**	116,783
Inventories recognised as an expense upon sale of goods	5	**697,900**	582,796
Own ore produced (tonnes)		**11,220,260**	11,217,926
C1 cash cost per tonne (US$)		**55.8**	41.5

Underlying EBITDA

Definition: The Group calculates the underlying EBITDA as profit before tax and finance plus depreciation and amortisation, net gains and losses from disposal of investments and property, plant and equipment, share-based payments and write-offs and impairment losses. The underlying EBITDA is presented because it is a useful measure for evaluating the Group's ability to generate cash and its operating performance. See Note 3 Segment information to the consolidated financial statements for further details.

Closest equivalent IFRSs measure: Profit before tax and finance.

Rationale for adjustment: The Group presents the underlying EBITDA as it is a useful measure for evaluating its ability to generate cash and its operating performance. Also it aids comparability across peer groups as it is a measurement that is often used.

Reconciliation to closest IFRSs equivalent:

US$000	Notes	**Year ended 31.12.21**	Year ended 31.12.20
Underlying EBITDA		**1,438,759**	858,552
Losses on disposal and liquidation of property, plant and equipment	5	**(4,695)**	(1,303)
Share-based payments		**(856)**	(291)
Write-offs and impairments	5	**(235,618)**	(192)
Depreciation and amortisation		**(115,112)**	(102,475)
Profit before tax and finance		**1,082,478**	754,291

Diluted earnings per share

Definition: Earnings per share calculated using the diluted number of Ordinary Shares outstanding.

Closest equivalent IFRSs measure: Diluted earnings per share.

Rationale for adjustment: Excludes the impact of special items that can mask underlying changes in performance.

Reconciliation to closest IFRSs equivalent:

	Year ended 31.12.21	Year ended 31.12.20
Earnings for the year attributable to equity shareholders – per share in US cents		
Basic	**148.2**	108.1
Diluted	**147.9**	107.9

Net cash/(debt)

Definition: Cash and cash equivalents net of interest-bearing loans and borrowings.

Closest equivalent IFRSs measure: Cash and cash equivalents.

Rationale for adjustment: Net cash/(debt) is a measurement of the strength of the Group's balance sheet. It is presented as it is a useful measure to evaluate the Group's financial liquidity.

Reconciliation to closest IFRS equivalent:

US$000	Notes	As at 31.12.21	As at 31.12.20
Cash and cash equivalents	11	**167,291**	270,006
Interest-bearing loans and borrowings – current	12	**(48,206)**	(134,349)
Interest-bearing loans and borrowings – non-current	12	**(2,143)**	(132,129)
Net cash		**116,942**	3,528

Capital investment

Definition: Capital expenditure for the purchase of property, plant and equipment and intangible assets.

Closest equivalent IFRSs measure: Purchase of property, plant and equipment and intangible assets (net cash flows used in investing activities).

Rationale for adjustment: The Group presents the capital investment as it is a useful measure for evaluating the degree of capital invested in its business operations.

Reconciliation to closest IFRSs equivalent:

US$000	As at 31.12.21	As at 31.12.20
Purchase of property, plant and equipment and intangible assets (net cash flows used in investing activities)	**360,869**	205,779

Total liquidity

Definition: Sum of cash and cash equivalents, available committed facilities and undrawn uncommitted facilities. Committed facilities at the end of the comparative year ended 31 December 2020 include the Group's syndicated revolving pre-export finance facility, while uncommitted facilities include trade finance facilities secured against receivable balances related to these specific trades. See Note 12 Interest-bearing loans and borrowings for further information.

Closest equivalent IFRSs measure: Cash and cash equivalents.

Rationale for adjustment: The Group presents total liquidity as it is a useful measure for evaluating its ability to meet short-term business requirements.

Reconciliation to closest IFRSs equivalent:

US$000	Notes	As at 31.12.21	As at 31.12.20
Cash and cash equivalents	11	**167,291**	270,006
Available committed facilities		**–**	10,000
Undrawn uncommitted facilities		**97,854**	80,000
Total liquidity		**265,145**	360,006