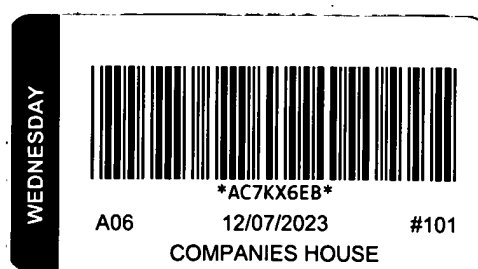


Registered number: 5965190

ENRC Management (UK) Limited Annual Report and Accounts 2022



ENRC Management (UK) Limited

Strategic report

Results

The result of ENRC Management (UK) Limited (the 'Company') is a loss for the year of £3,191 thousand (2021: £400 thousand profit). The Company has total equity of £8,188 thousand (2021: £11,379 thousand).

Principal activity and review of the business

The Company provides management services to subsidiary undertakings of Eurasian Resources Group S.à r.l. ('ERG S.à r.l.'), its ultimate parent. The Director does not anticipate any significant changes to the business in the future.

Key performance indicators

No key financial and other performance indicators have been identified for the Company.

Principal risks and uncertainties

The principal risks and uncertainties of the Company are integrated with the principal risks and uncertainties of the ERG S.à r.l. and its subsidiaries ('the Group') and are not managed separately. For risks related to the military conflict between Ukraine and Russia refer to note 2 of the Accounts.

On behalf of the board



Dmitry Melnikov
Sole Director
Date: June 20, 2023

ENRC Management (UK) Limited

Director's report

Director

The Director of the Company who was in office during the year and up to the date of signing the Annual Report and the audited financial statements (the financial statements are further referred to as the 'Accounts') is Dmitry Melnikov.

Dividends

The Director has not declared any dividends in 2022. The Director does not propose any other dividend payments.

Qualifying third party indemnity provisions

Eurasian Natural Resources Corporation Limited, a direct parent of the Company, has entered into deeds of indemnity for the benefit of the Director of the Company in respect of liabilities to which he may become liable in his capacity as a Director of the Company. These indemnities are qualifying third party indemnity provisions within the meaning given to that term by Section 234 of the Companies Act 2006. These indemnity provisions were in force during the year and remain in force at the time this report is approved.

Financial risk management

Financial risk management of the Company is integrated with the financial risk management of the Group, and not managed separately. The Company is exposed to liquidity risk, credit risk, foreign currency risk and interest rate risk. The Group has internal policies in place, to ensure adequate response to the risks. There have been no significant changes to any risk exposures from the previous year and as such no changes in the processes for managing risks.

Going concern

Refer to note 2 of the Accounts.

Events after the balance sheet date

Refer to note 15 of the Accounts.

Outlook

The principal activity of the Company is not expected to change in the near future.

Statement of Director's responsibilities

The Director is responsible for preparing the Annual Report and Accounts in accordance with applicable law and regulation.

Company law requires the Director to prepare the Accounts for each financial year. Under that law the Director has prepared the Accounts in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law). Under company law the Director must not approve the Accounts unless he is satisfied that they give a true and fair view of the state of affairs of the Company and of the profit or loss of the Company for that period. In preparing the Accounts, the Director is required to:

- select suitable accounting policies and then apply them consistently;
- state whether applicable United Kingdom Accounting Standards, comprising FRS 101, have been followed, subject to any material departures disclosed and explained in the Accounts;
- make judgements and accounting estimates that are reasonable and prudent; and
- prepare the Accounts on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Director is responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Director is also responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable him to ensure that the Accounts comply with the Companies Act 2006.

ENRC Management (UK) Limited

Director's report (continued)

Director's confirmation

In the case of the Director in office at the date the Director's report is approved:

- so far as the Director is aware, there is no relevant audit information of which the Company's auditors are unaware; and
- the Director has taken all the steps that he ought to have taken as a Director in order to make himself aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

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

Independent auditors

The independent auditors, PricewaterhouseCoopers LLP, having indicated their willingness to continue in office will be deemed to be re-appointed for the next financial year in accordance with section 487(2) of the Companies Act 2006 unless the Company receives notice under section 488(1) of the Companies Act 2006.

On behalf of the board



Dmitry Melnikov
Sole Director
Date: 20 June, 2023

ENRC Management (UK) Limited

Comprehensive income statement

£ thousand	note	Year ended 31 December	
		2022	2021
Revenue	4	197	222
Administrative expenses		(206)	(199)
(Impairment)/impairment reversal on amounts owed by group undertakings, other debtors and investments	6	(3)	427
Net other (expense)/income	7	(697)	2,325
Net interest payable to group undertakings		(2,482)	(2,375)
(Loss)/profit before income tax		(3,191)	400
Income tax expense	8	-	-
(Loss)/profit for the year		(3,191)	400
Comprehensive (expense)/income for the year		(3,191)	400

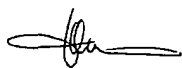
ENRC Management (UK) Limited

Balance sheet

		At 31 December	
£ thousand	note	2022	2021
Fixed assets			
Property, plant and equipment		14	21
Investments	6	-	-
Non-current assets			
Other debtors	10	5,035	2,053
Current assets			
Amounts owed by group undertakings	9	21,078	28,672
Other debtors	10	17,287	15,445
Cash and cash equivalents		1	16
Current liabilities			
Other creditors	12	(9,373)	(6,763)
Amounts owed to group undertakings	11	(4,491)	(18,639)
Net current assets		24,502	18,731
Non-current liabilities			
Amounts owed to group undertakings	11	(21,363)	(9,426)
Net assets		8,188	11,379
Equity			
Called up share capital	13	1	1
Retained earnings		8,187	11,378
Total equity		8,188	11,379

The notes on pages 7 to 11 are an integral part of the Accounts.

The Accounts on pages 4 to 11 were authorised for issue by the Director on 20 June 2023 and signed by:



Dmitry Melnikov
Sole Director

ENRC Management (UK) Limited

Statement of changes in equity

£ thousand	Called up share capital	Retained earnings	Total
Balance at 1 January 2021	1	10,978	10,979
Comprehensive income for the year	-	400	400
Balance at 31 December 2021	1	11,378	11,379
Comprehensive expense for the year	-	(3,191)	(3,191)
Balance at 31 December 2022	1	8,187	8,188

ENRC Management (UK) Limited

Notes to the Accounts – 31 December 2022

1. Significant accounting policies

General information

The Company is a private limited company, limited by shares, and is incorporated and domiciled in England, the United Kingdom. The registered office of the Company is 8th floor, 20 Farringdon Street, London, England, the United Kingdom, EC4A 4AB. The principal activity of the Company is to provide management services to subsidiary undertakings of ERG S.à r.l.

Basis of preparation

The Accounts are prepared under the historical cost convention in accordance with the Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101), and in accordance with the provisions of the UK Companies Act 2006 as applicable to the companies reporting under FRS 101.

The parent of the Company is Eurasian Natural Resources Corporation Limited incorporated and domiciled in England, the United Kingdom.

The ultimate parent of the Company is ERG S.à r.l., which is the smallest and largest group to consolidate these Accounts. The ultimate parent is incorporated in the Grand Duchy of Luxembourg. The registered office and domicile of ERG S.à r.l. is 9, rue Sainte Zithe, L-2763 Luxembourg, the Grand Duchy of Luxembourg. Consolidated accounts of ERG S.à r.l. are publicly available on the UK Companies House alongside these Accounts. Consequently, the Company has taken advantage of the exemption provided by Section 401 of the Companies Act 2006 not to prepare group accounts. Therefore, the Accounts include financial information about the Company as an individual undertaking rather than as a group.

The principal accounting policies have been consistently applied to all the years presented.

No new standards, or amendments to standards, or interpretation that are effective for the year ended 31 December 2022 have had an impact on the Company.

FRS101 disclosure exemptions

The following disclosure exemptions have been adopted under FRS 101:

- IFRS 2, 'Share based payments': paragraphs 45(b) and 46 to 52
- IFRS 7, 'Financial instruments: Disclosures'
- IFRS 13, 'Fair value measurement': paragraphs 91 to 99
- IAS 1, 'Presentation of Financial Statements': paragraphs 38; 10(d); 16; 38A; 38B-D; 111; and 134-136
- IAS 7, 'Statement of Cash flows'
- IAS 8, 'Accounting policies, changes in accounting estimates and errors': paragraphs 30 and 31
- IAS 24, 'Related party disclosures': paragraph 17
- The requirements in IAS 24, 'Related party disclosures' to disclose related party transactions entered into between two or more members of a group.
- IAS 36, 'Impairment of Assets': paragraphs 130 (f) (ii), 130 (f) (iii), 134 (d)-(f), 135 (c)-(e).

Functional and presentation currency

The functional and presentation currency of the Company is GBP.

Investments

Investments are held at cost less accumulated impairment losses.

Investments carried at cost are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the investment exceeds its recoverable amount. The recoverable amount is the higher of an investment's fair value less cost of disposal and value in use. Investments that have suffered impairment are reviewed for possible reversal of the impairment at each reporting date. An impairment reversal is recognised for the amount by which the recoverable amount of the investment exceeds its carrying amount to the extent that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the investment.

ENRC Management (UK) Limited

Notes to the Accounts – 31 December 2022

1. Significant accounting policies (continued)

Revenue

Revenue from contracts with customers is recognised when control of services is transferred to customers at an amount that reflects the consideration to which the Company expects to be entitled in exchange for those services. Revenues are shown net of VAT and discounts. Under agreements where the Company acts as an agent, third-party costs incurred on behalf of the parent, including the legal expenses, are excluded from both revenue and operating expenses.

Debtors

Amounts owed by group undertakings and other debtors are recognised initially at fair value and subsequently carried at amortised cost less any allowance for expected credit loss.

Creditors

Amounts owed to group undertakings and other creditors are recognised initially at fair value and subsequently carried at amortised cost using the effective interest method.

2. Critical accounting estimates, assumptions and judgements in applying accounting policies

Inherent in the application of many of the accounting policies used in preparing the Accounts is the need for management to make judgements, estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the Accounts and the reported amounts of revenues and expenses during the period. Actual outcomes could differ from the estimates and assumptions used. The critical judgements and estimates that could have a significant impact on the results of the Company are set out below and should be read in conjunction with the information provided in the notes to the Accounts.

Impairment of investments

The Company reviews the carrying values of investments to determine whether there is any indication that these assets are impaired or require reversal of impairment. Based on the analysis of the internal and external factors, management determined there were no indicators of impairment reversal at the end of the reporting period.

Expected credit loss

Allowance for expected credit loss (ECL) possible within the next 12 months or expected over the remaining life of the exposure is recognised for amounts owed by group undertakings and other debtors based on credit risk of borrowers with comparable credit rating. ECL is based on the Company's assessment taking into account credit default swap (CDS) rates of comparative companies and the underlying estimated future cash flows of financial instruments. CDS rates have decreased for the year due to market conditions.

Going concern

The Company is dependent on the continued support of its ultimate parent, Eurasian Resources Group S.à r.l., and the group that it heads (the "Group") and its going concern position. The Director of the Company evaluated the going concern assessment performed by the Group and its impact on the Company as outlined later in this note.

In February 2022, a military conflict between Ukraine and Russia commenced. A number of countries and international organisations, including the United States of America, the European Union, Switzerland and the United Kingdom imposed a series of sanctions against the Russian government, various companies, including major lenders of the Group (Sberbank of Russia ("Sberbank") and VTB Bank (PJSC) ("VTB")), and certain individuals. This resulted in significant disruption to financial and commodity markets. The Group complies with all sanctions applicable to its business activities in accordance with adopted compliance policies.

The Board of Managers of ERG S.à r.l. has reviewed the liquidity available for the period until 31 October 2024. Throughout the period under review the Group forecasts to generate sufficient cash flow to maintain a position above minimum working capital and debt servicing requirements.

ENRC Management (UK) Limited

Notes to the Accounts – 31 December 2022

2. Critical accounting estimates, assumptions and judgements in applying accounting policies (continued)

The Group continuously monitors its financial position to ensure adequate liquidity headroom is in place to support its business needs and to ensure compliance with loan covenants or to obtain waivers where appropriate. As of 31 December 2022, the Group had complied with applicable covenants.

Currently the Group's liquidity forecast envisages payments to Sberbank and VTB in 2024 under the existing credit facility agreements. The Group is working on a variety of feasible solutions to enable it to comply with its payment obligations and/or to reschedule the payments in compliance with all applicable laws and regulations. This work is ongoing and is unlikely to be completed in the first half of 2023, therefore at the time of issuance of the Consolidated financial statements of the Group an uncertainty in respect of its outcome remains. If no acceptable solution is available in 2024 and the Group fails to make a scheduled payment under the existing credit facility agreements with Sberbank or VTB, such non-payment may give the relevant lender a right to accelerate payment of the outstanding debt under the facility agreements.

In reaching their conclusion in respect of the preparation of the Group's Consolidated financial statements under the going concern basis the Managers of ERG S.à r.l. note that there are material risks and uncertainties in respect of the Group's ability to prevent Sberbank and/or VTB getting a right to accelerate the debt in 2024, a right which Sberbank or VTB may choose to exercise notwithstanding international sanctions. These matters give rise to a material uncertainty that may cast significant doubt on the Group's ability to continue as a going concern.

The Group appreciates the dependence of its liquidity on commodity prices in its key markets, the exposure to foreign exchange volatility, and the ability to raise additional funding when required.

To ensure adequate liquidity is available to meet its contractual obligations, the Group ensures continuing focus on operational efficiency, working capital improvements and the allocation and spending of capital expenditures budget.

The Managers of ERG S.à r.l. consider that the Group can access adequate resources to continue its business operations for the foreseeable future.

Based on the Board of Managers' of ERG S.a r.l. conclusions, the Director of the Company notes that a material uncertainty exists that may cast significant doubt on the Company's ability to continue as a going concern, because of the uncertainty as to whether the required support from the Group will be available, and, therefore, the Company may be unable to realise its assets and discharge its liabilities in the normal course of business. However, given the ongoing work by the Group to resolve the issue of compliance with the Group's payment obligations, the Director believes that the preparation of these Accounts under a going concern basis is appropriate.

3. Key management compensation and employee information

The Director did not receive any compensation in respect of his services to the Company during the year (2021: £nil).

The Company had no employees during the year (2021: none).

4. Revenue

The revenue is from the provision of management services in the United Kingdom to the parent.

5. Auditors' remuneration

£ thousand	Year ended 31 December	
	2022	2021
Audit of the Company	29	23
Total	29	23

ENRC Management (UK) Limited

Notes to the Accounts – 31 December 2022

5. Auditors' remuneration (continued)

The Company incurred audit fees on behalf of subsidiary undertakings of ERG S.à r.l. of £85 thousand (2021: £68 thousand).

6. Investments

£ thousand	
Cost	
At 1 January 2022	16,115
Disposal	(16,115)
At 31 December 2022	–
Accumulated impairment	
At 1 January 2022	(16,115)
Reversal	16,115
At 31 December 2022	–
Net book value	
At 31 December 2021	–
At 31 December 2022	–

During the year, the Company voluntarily liquidated ENRC Business and Technology Services (UK) Limited which resulted in an impairment reversal and a loss on disposal of £16,115 thousand.

7. Net other (expense)/income

Net other expense for the year mainly includes £2,509 thousand of interest recharges to a subsidiary undertaking of ERG S.à r.l. and £3,365 thousand of net foreign exchange expense. (2021: £2,375 thousand of interest recharges and net foreign exchange expense of £50 thousand).

8. Income tax expense

£ thousand	Year ended 31 December	
	2022	2021
(Loss)/profit before income tax	(3,191)	400
Notional tax credit at 19% UK tax rate	606	(76)
Non-deductible expenses	3,092	82
Group relief	(3,698)	(6)
Income tax expense	–	–

The Company is a member of a group for the purposes of relief within Part 5, Corporation Tax Act 2010.

A deferred tax asset was not recognised on unused tax losses of £609 thousand (2021: £589 thousand) on the basis of insufficient evidence of taxable profits being available against which the deferred tax asset may be utilised.

The UK corporation tax rate increase from 19% to 25% (effective 1 April 2023) was substantially enacted at the balance sheet date, however, there is no effect for the Company as no deferred tax was recognised at the balance sheet date.

ENRC Management (UK) Limited

Notes to the Accounts – 31 December 2022

9. Amounts owed by group undertakings

Amounts owed by group undertakings consist of receivables £17,788 thousand (2021: £28,672 thousand) from the provision of management services in the United Kingdom to a subsidiary undertaking of ERG S.à r.l. and current loan receivable of £3,290 thousand (2021: £nil) from a subsidiary undertaking of ERG S.à r.l..

The loan receivable bears interest at LIBOR plus 7.3% and is repayable on demand.

The receivables from the provision of management services were settled by way of set-off against amounts owed to group undertakings.

10. Other debtors

Other debtors balance at 31 December 2022 mainly consists of VAT receivable of £14,539 thousand (2021: £10,000 thousand) and receivables in relation to legal retainers of £7,500 thousand, net of ECL of £140 thousand (2021: £7,394 thousand, net of ECL of £108 thousand).

11. Amounts owed to group undertakings

The amounts of £6,878 thousand, £9,713 thousand and £5,866 thousand (2021: £10,476 thousand, £17,544 thousand and £nil) owed to a subsidiary undertaking of ERG S.à r.l. at 31 December 2022 bear interest rates of 6.80%, 6.82% and 6.92% and are repayable in 2025, in 2027, and in 2027 respectively.

12. Other creditors

Other creditors balance at 31 December 2022 mainly consists of payables in relation to legal, financial, advisory services received.

13. Called up share capital

Authorised, issued and fully paid share capital at 31 December 2022 and 2021 is £1 thousand consisting of 1,000 shares of £1 par value each. The fully paid ordinary share carries one vote and the right to dividend as declared from time to time.

14. Related undertakings

The Company holds a direct interest in ERG Management (South Africa) (Pty) Limited. Refer to note 6 for movement of direct subsidiaries during the year.

Investee	Principal activity	Class of shares	Shares held	Address	State of incorporation
ERG Management (South Africa) (Pty) Limited	Management	Ordinary	100%	Lower Bulding, 1 Sturdee Ave, Rosebank, Gauteng, 2196, Johannesburg	Republic of South Africa

15. Events after the balance sheet date

The UK government has announced that the main rate of corporation tax will increase to 25% for the financial year beginning 1 April 2023.

Independent auditors' report to the members of ENRC Management (UK) Limited

Report on the audit of the financial statements

Opinion

In our opinion, ENRC Management (UK) Limited's financial statements:

- give a true and fair view of the state of the Company's affairs as at 31 December 2022 and of its loss for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework", and applicable law); and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report and Accounts 2022 (the "Annual Report"), which comprise: the Balance Sheet as at 31 December 2022; the Comprehensive income statement and the Statement of changes in equity for the year then ended; and the Notes to the Accounts, which include a description of the significant accounting policies.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Material uncertainty related to going concern

In forming our opinion on the financial statements, which is not modified, we have considered the adequacy of the disclosure made in note 2 to the financial statements concerning the Company's ability to continue as a going concern. The Company places reliance upon the continued support of its ultimate parent Eurasian Resources Group S.a r.l., which is dependent upon the liquidity of the group that it heads ('the Group'). The Group is facing risks and uncertainties which exist in respect of the Group's ability to find a feasible solution to enable it to comply with its debt payment obligations and/or to reschedule the associated payments in compliance with all applicable laws and regulations. As a result of this, the Group's financial statements include a material uncertainty related to going concern. These conditions, along with the other matters explained in note 2 to the financial statements, indicate the existence of a material uncertainty which may cast significant doubt about the Company's ability to continue as a going concern. The financial statements do not include the adjustments that would result if the Company were unable to continue as a going concern.

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

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

Reporting on other information

The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The Director is responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic report and Director's Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on our work undertaken in the course of the audit, the Companies Act 2006 requires us also to report certain opinions and matters as described below.

Strategic report and Director's Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic report and Director's Report for the year ended 31 December 2022 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the Company and its environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic report and Director's Report.

Responsibilities for the financial statements and the audit

Responsibilities of the Director for the financial statements

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

In preparing the financial statements, the Director is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Director either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

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

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

Based on our understanding of the Company and industry, we identified that the principal risks of non-compliance with laws and regulations related to the failure to comply with UK tax regulation, and we considered the extent to which non-compliance

might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the financial statements such as the Companies Act 2006. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting inappropriate journal entries and management bias in accounting estimates. Audit procedures performed by the engagement team included:

- enquiring of management, internal legal counsel and external lawyers around ongoing and potential litigations and claims;
- reviewing minutes of meetings of those charged with governance;
- reviewing financial statement disclosures and testing to supporting documentation to assess compliance with applicable laws and regulations, including UK tax regulation;
- challenging assumptions and judgements made by management in their significant accounting estimates; and
- identifying and testing journal entries, in particular any journal entries posted with unusual account combinations or posted by senior management.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

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

Use of this report

This report, including the opinions, has been prepared for and only for the Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting

Companies Act 2006 exception reporting

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

- we have not obtained all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Company, or returns adequate for our audit have not been received from branches not visited by us; or
- certain disclosures of Director's remuneration specified by law are not made; or
- the financial statements are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

Daulet Bek.

Daulet Bekmukhamedov (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
20 June 2023

ENRC Management (UK) Limited
Registered number: 5965190
to be annexed to the accounts on record

**Eurasian Resources Group S.à r.l.
Annual Report and Accounts 2022**

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About this report

The following abbreviations are used in this report:

- ERG - Eurasian Resources Group S.à r.l. (the ultimate parent company of the Group)
- Group - ERG and its subsidiaries

The following sections are based on a Consolidated balance sheet and Consolidated income statement for the Group:

- CEO report
- Corporate review
- Divisional review
- Financial review
- Risk management
- Consolidated management report

The information in these sections is unaudited unless otherwise stated.

Forward-looking information

This Annual Report and Accounts contain certain forward-looking statements. Forward-looking statements are not based on historical facts and are inherently prospective in nature. Forward-looking statements may be identified by the use of terminology including, but not limited to, 'intend', 'aim', 'project', 'anticipate', 'estimate', 'plan', 'believes', 'expect', 'may', 'should', 'will', 'potential', 'possible', 'investigate', 'explore', or similar terms.

Forward-looking statements involve known and unknown risks, uncertainties and other variables that may cause actual performance, events and outcomes to vary significantly from any future performance, events or outcomes expressly or implicitly anticipated by such forward-looking statements. Such variables may include, but are not limited to, actual operational performance, market conditions, exchange rate fluctuations, operational disruption, macroeconomic dynamics, political uncertainty, government regulation and other related factors. As such, undue reliance should not be placed on such forward-looking statements.

Forward-looking statements contained in this report are only made with respect to the situation at the date of publishing. ERG will not be under any obligation and will not undertake to update or revise any forward-looking statements contained in this report after this date.

Proposed infographics¹

Business model

Generating shared value

Inputs

- Financial capital
- Human capital
- Social and relationship capital
- Natural capital
- Manufactured capital
- Intellectual capital

An integrated business

- Exploration and acquisition
- Development
- Mining
- Sales
- Smelting and metallurgy
- Processing and beneficiation
- Post-mining reclamation
- Energy
- Logistics

Our products

- Future/Transition Metals
 - Cobalt**
Lithium-ion batteries
 - Copper**
Infrastructure, transport and electronics
 - Alumina/Aluminium**
Infrastructure, construction and transportation
- Other Metals/Products
 - Ferroalloys**
Steel industry
 - Iron ore**
Steel industry
 - Coal**
Power generation

Our Group performance

- 24.7 mt CO₂e GHG emissions
- US\$3,392 million Underlying EBITDA
- US\$7,924 million revenue
- US\$493 million free cash flow
- US\$7,254 million economic value distributed
- US\$96 million community social investment

Our vision

An international, sustainable, socially responsible and efficient natural resources company.

¹ Could be a part of a different section in the final designed version.

Our mission

Be the best at what we do. Navigate global change whilst holding true to our values. Responsibly unlock the potential of the Earth and its people, ensuring the prosperity of those who rely on us.

Our values

Safety

- We put safety first.
- We ensure safe labour conditions for all our employees and contractors, continuously working to prevent any injuries occurring in the workplace.

Unity

- We work together as a team of passionate people aiming to achieve our set goals.
- We respect the cultural and regional traditions where we operate.

Efficiency

- We are focused on delivering results.
- We manage our resources carefully to achieve results.
- We prioritise the most relevant issues.
- We minimise tasks that do not bring value.

Development

- We appreciate our employees and create conditions for their development.
- We efficiently implement new technologies and develop as a company.
- We ensure the sustainable development of the Group.

Responsibility

- We fulfil our obligations to our employees, their families, customers, partners, shareholders and society.
- We carefully manage the resources and the environment entrusted to us.
- We build a culture of mutual confidence and respect in the Group, as well as with partners and customers.

Key commodities

Division	Ferroalloys	Iron Ore	Alumina and Aluminium	Copper, Cobalt and Other Non-ferrous	Energy	Logistics and Other Business
Revenue (US\$m)	2,813	1,122	1,178	2,392	657	303
EBITDA (US\$m)	1,465	435	303	1,028	196	60
Region	Kazakhstan	Kazakhstan and Brazil	Kazakhstan	Democratic Republic of the Congo (the DRC) and Zambia	Kazakhstan	Kazakhstan

Overview

About ERG

We are a global mining company, with a workforce of around 69,000² and integrated mining, processing, energy and logistics operations in Kazakhstan, Africa and Brazil.

ERG represents one-third of the metals and mining industry in Kazakhstan, and is the world leader in high-carbon ferrochrome production by chrome content. We are also a substantial supplier of iron ore, aluminium and alumina in Eurasia, as well as a provider of energy and railway services.

Our Metalkol operation in the DRC is the world's second largest producer of cobalt. Furthermore, we are a large producer of copper in Africa, with development projects focused on other minerals and metals in Mali, Mozambique, South Africa and Zimbabwe. In Brazil, we are developing an integrated iron ore mining and logistics operation (BAMIN).

Key metrics in 2022

Operational:

- +1.3% gross ferroalloy production: 1,707.6kt (2021: 1,685.6kt);
- -8.7% iron ore pellets production: 5,230.0kt (2021: 5,726.1kt);
- -41.4% iron ore concentrate production: 5,269.1kt (2021: 8,988.1kt);
- +1.7% alumina production: 1,338.0kt (2021: 1,315.1kt);
- -5.1% aluminium production: 249.0kt (2021: 262.4kt);
- +5.4% copper metal: 99.9kt (2021: 94.8kt);
- -11.6% copper concentrate production: 90.5kt (2021: 102.4kt);
- +8.7% cobalt hydroxide production: 22.5kt (2021: 20.7kt);
- +0.3% coal production: 29,967.0kt (2021: 29,890.6kt);
- -3.6% electricity production: 15,426.0 GWh (2021: 16,000.0 GWh).

Financial:

- -19.4% Underlying EBITDA: US\$3,392 million (2021: US\$4,210 million);
- +54.4% CAPEX: US\$1,135 million (2021: US\$735 million).

Sustainability:

- 7 work-related fatalities (2021: 10);
- 0.91 lost time injury frequency rate (LTIFR) (2021: 0.93);
- 1 employee died from health complications related to COVID-19 (2021: 30);
- -1.6% in GHG emissions (CO₂e): 24.7 mt CO₂e (2021: 25.1 mt CO₂e);
- +47.7% in community social investment spending: around US\$96 million (2021: around US\$65 million);
- +16.3% in economic value distributed to stakeholders: US\$7,254 million (2021: US\$6,240 million).

² Excluding contractors.

CEO report

In 2022, we continued to observe significant challenges in both the global economy and the mining and metals sector. The conflict between Russia and Ukraine impacted regional trade and international food and energy security. Following the post-pandemic surge, global commodity demand declined due to macroeconomic uncertainties and fears of a looming global recession, whilst strict COVID-19 policies in China had a sustained impact on markets and supply chains.

However, despite these challenges, I am pleased to report that over the last 12 months, we have ramped up our supply of key materials required for the transition to clean energy, exhibited growth across our global portfolio, taken concrete steps to further improve our sustainable development performance, and streamlined many of our organisational structures. ERG has been undergoing a successful business transformation and in doing so, we have made progress towards becoming a more efficient, socially responsible and resilient Company.

Prioritising safety

Our commitment to health and safety is at the forefront of our operations worldwide. We aim to achieve Zero Harm and provide a healthy, safe, productive and stable working environment for our employees and contractors. Last year, five of our employees and two of our contractors regrettably lost their lives in work-related safety incidents at our operations in Kazakhstan. I express my deepest condolences to families and reiterate ERG's commitment to eliminating any fatalities at our operations. Each incident has been thoroughly investigated to identify causes, inform appropriate prevention measures, and minimise the risk of recurrence.

It is with great sadness that we also marked the passing of one of our colleagues from health complications related to COVID-19, and my sincere condolences are with the family and friends. We are continuing to implement a range of coordinated preventive measures to counteract the risk of COVID-19 across our global operations.

Operating and financial performance

The conflict between Russia and Ukraine has created significant geopolitical challenges – including logistical problems in the shipping of raw materials and delivery of goods, which impacted the Group's operational and financial capacity. Despite this complex backdrop, which was exacerbated by post-pandemic economic uncertainties, the Group managed to develop and expand its operations in 2022, whilst successfully restructuring supply chains to avoid working with sanctioned companies.

In Kazakhstan, we progressed works to construct a special coke plant with a capacity of 400 thousand tons per annum, invested in recycling slimes from Donskoy GOK's tailing dumps, and advanced the Phase 2 development of our 10th Anniversary Mine. In the Democratic Republic of the Congo, ERG increased the production of cobalt hydroxide and copper cathode at Metalkol. We also restarted the production of copper and cobalt at Boss Mining, which was placed into care and maintenance in 2019, and will ramp up the operation to its full capacity in the coming months. BAMIN, our wholly-owned subsidiary in Brazil, posted steady growth, an installed capacity of up to 2 million tonnes of iron ore per year at its Pedra de Ferro mine.

Our revenue amounted to US\$7,924 million, a 7.1% decrease from the previous year (2021: US\$8,530 million), and EBITDA decreased by 19.4% to US\$3,392 million (2021: US\$4,210 million). This was largely due to lower sales volumes of iron ore pellets and concentrate following the suspension of shipments to Russia, lower sales of cobalt due to reduced demand, lower production output of ferroalloys and copper sulphide concentrate, and dampened prices for iron ore and copper. Nonetheless, these factors were partially offset by higher prices for ferroalloys and aluminium, as well as redistribution of sales volumes from sanctioned entities to other markets and clients, particularly in China and Kazakhstan. This helped

ensure that production remained at high levels and that ERG continued to deliver value for its stakeholders.

Responsible production and supply chain

ERG is steadfast in its commitment to ensuring responsible production and driving up standards across global supply chains. In 2022, our efforts to achieve this were recognised by a number of international bodies. In Kazakhstan, the International Chromium Development Association awarded TNC Kazchrome JSC the 'Responsible Chromium Label', acknowledging that the enterprise had gone above and beyond the standard requirement needed to responsibly sourced chromium. Independent CSR agency Ecovadis awarded TNC Kazchrome JSC the Ecovadis Platinum Award in 2022, whilst our Responsible Aluminium Framework continued delivering responsible value chain assurance at our Kazakhstan Aluminium Smelter JSC.

In Africa, our Clean Cobalt and Copper Framework received independent assurance from PwC for the second time, which verified that Metalkol goes beyond current OECD guidance and is leading the industry towards more sustainable cobalt and copper value chains. The updated Framework is being rolled out to both our Frontier mine and Boss Mining. In August 2022, the Responsible Minerals Initiative also confirmed Metalkol's conformance with the RMAP Due Diligence Standards for Copper and Cobalt.

Renewable energy and greenhouse gas emissions

ERG is working to reduce the long-term carbon intensity and decrease our coal consumption, while investing in renewable power. In 2022, the Group's GHG emissions decreased to 24.7 million tonnes of CO₂e (2021: 25.1 million tonnes). To support national renewable energy goals in our operating regions, such as the 2060 carbon neutrality targets in Kazakhstan, we are taking steps to generate and obtain renewable energy for our electricity needs.

In Kazakhstan, we plan to invest US\$230 million in constructing a new wind power plant in the Aktobe region, which is expected to reduce CO₂ emissions by around 520,000 tons annually. The facility will have a capacity of up to 155 MW, and will supply energy to our TNC Kazchrome JSC Donskoy GOK, as well as neighbouring facilities and the region more widely. The Group continues to explore other locations for large-scale wind and solar projects, and through its Decarbonisation Think Tank, it is participating in government-led initiatives to support the country's broader decarbonisation efforts.

Our operations in Africa already utilise renewable energy sources, especially hydropower. While this means that our carbon footprint is currently limited, the Group continues to explore opportunities for further GHG reductions, such as supplying Metalkol with solar power to enhance its reliability, lower costs and further improve its environmental impact.

Societal impact

In terms of our broader role in society, we distributed US\$7,254 million in value to our stakeholders (2021: US\$6,240 million) – ranging from suppliers and contractors to host governments.

In Kazakhstan, we continued to focus our corporate social investment (CSI) efforts on socio-economic development priorities identified by local communities. Our US\$65 million donation was instrumental in supporting the creation of the Kazakhstan Khalkyna public social fund, which helps to address national development priorities, including healthcare, education and social services in Kazakhstan.

In Africa, we signed a five-year Community Development Plan Agreement with the DRC's government, which included expanding our agricultural projects to increase food security in local communities as well as constructing schools. Our US\$8 million CSI investment in the region went alongside our US\$2 million spending in Brazil which contributed to educational, environmental and social welfare projects.

Debt position and credit rating

In accordance with our compliance policies, in 2022 the Group renegotiated and amended the terms of certain financing arrangements and discontinued certain transactions and activities with those lenders who are under sanctions. The Group will continue operating in full compliance with sanction protocols, and where appropriate, establish new lines of credit.

In June 2022, Standard & Poor's upgraded assigned credit rating to B from B- with stable outlook. The Group concluded to discontinue obtaining a credit rating from Standard and Poor's. At the request by the Group, Standard and Poor's withdrew a credit rating of the Group in March 2023. The outlook was stable at the time of the withdrawal.

In December 2022, the rating agency Moody's affirmed a B1 credit rating and Stable outlook. The Stable outlook balances ERG's solid positioning within the current rating category against the sensitivity of its credit metrics and liquidity to a potential substantial decline in commodity prices, which could occur in the current difficult global macroeconomic environment.

Looking at the year ahead and beyond

Despite overall market volatility and macrouncertainty in 2022, the Group ended the year with good results. Once again, we delivered a strong financial and operational performance across our global portfolio, and we can see signs of sustained growth in the years to come.

Looking ahead, we will continue to embed our development strategy to achieve our vision of being an international, sustainable, socially responsible and efficient natural resources company. We aim to achieve a stable financial performance, ensuring that we contribute to the sustainable development of our host regions whilst delivering the key materials required for the transition to Net-Zero.

In Kazakhstan, we are planning to expand our Donskoy GOK chromium mine, develop our Kachar iron ore mine and continue constructing our special coke plant. In Africa, we are making continuous improvements to the efficiency and production capacity of Metalkol, as well as ramping up Boss Mining. In Brazil, we are constructing a multipurpose Porto Sul deep-water port and the FIOL railway, which are expected due to become operational in 2026. We are also expanding our global presence by developing our non-ferrous portfolio and investing in technology-enabled geological exploration in Saudi Arabia.

ERG is well-placed for a strong 2023 and committed to delivering sustainable value for the benefit of our stakeholders. I would like to thank all our employees and contractors who have helped ensure that we finished 2022 in a strong position, and whose efforts and hard work mean we look to the future with confidence.

Benedikt Sobotka
Chief Executive Officer

Corporate review

Performance

Operational

In 2022 global industrial commodity demand started to weaken following its post-pandemic surge. The decline primarily reflects deteriorating global economic activity and concerns about possible global recession. In addition, demand in China the world's largest metal consumer remained weak amid COVID-19 related restrictions and property sector stress. Macroeconomic uncertainties, rising geopolitical tensions and prolonged deeper conflict in Ukraine are weighing on ferroalloys, iron ore, aluminium, copper and cobalt prices. Conversely, coal prices remain elevated as countries temporarily turn to coal as a substitute for natural gas.

Total ferroalloy production increased by 1.3% to 1,707.6kt gross output (2021: 1,685.6kt) reflecting higher production of ferrosilicomanganese.

Production of iron ore pellets and concentrate decreased by 28.6% to 10,499.1kt (2021: 14,714.1kt) reflecting the suspension of shipments to one of our largest clients MMK as the company and its owner was put under sanctions in the first quarter of 2022. The Group partially redistributed sales volumes from MMK to other markets and clients, particularly in China and Kazakhstan.

In 2022, our Brazilian entity BAMIN focused on stabilising mining production with logistics performance. We also continued the pre-stripping of the Pedra de Ferro mine with 5.1 million tons handled and production of 643kt which was sold in the domestic market and exported by the Company through the Enseada maritime terminal. While our Porto Sul port and FIOL railway are under construction, with operations expected to start in 2026, BAMIN currently transports its iron ore with the support of the Enseada maritime terminal.

Aluminium production during 2022 was decreased to 249.0kt (2021: 262.4kt) due to a temporary shutdown of the electrowinning facility. Alumina production increased by 1.7% to 1,338.0kt (2021: 1,315.1kt) as the Group was able to sell more to third party clients in Russia and Tajikistan.

The Group's copper metal and cobalt hydroxide production increased to 99.9kt and 22.5kt respectively (2021: 94.8kt of copper and 20.7kt of cobalt hydroxide). This was due to a strong performance at the Metalkol where production ramp up to designed plant capacity (120.0kt of copper and 24.0kt of cobalt) higher metal recovery and grade together were the main drivers. We are continuing to enhance the operation's production processes to ensure the achievement of planned output levels.

The production of saleable copper concentrate at Frontier mine decreased by 11.6% to 90.5kt (2021: 102.4kt) in line with the mine plan due to lower grade material usage to support plant feed and the decrease of mining volumes. The Group started the development of Cut 4 which will further extend life of mine.

The production of thermal coal was 29,967.0kt (2021: 29,890.6kt). Electricity generation decreased by 3.6% to 15,426.0 GWh (2021: 16,000.0 GWh) reflecting postponed repairs from 2021 to 2022.

Financial

2022 market context

Ferroalloys	European and U.S ferrochrome prices hit all-time highs in 2022 with ~70% and ~105% growth year-on-year respectively, whereas Chinese tender prices showed ~6% year-on-year decline. Strong prices in Western markets were driven by supply issues amid the energy crisis in Europe and geopolitical tensions. The poor performance of the Chinese ferrochrome market was mainly caused by the strict zero-COVID policy throughout 2022, which significantly weakened stainless steel production and impacted demand.
Iron ore	Iron ore prices were under significant pressure for most of 2022, declining from above US\$150/t to below US\$90/t throughout February-November, mainly due to the strict zero-COVID policy in China. Nevertheless, prices recovered to above US\$110/t towards the year end, due to disappointing seaborne supply and accelerated cost inflation. Moreover, China's reopening in December prompted robust restocking by mills, providing more temporary support to spot prices.
Alumina and aluminium	Despite significant supply disruptions in 2022 and European smelting capacity closures caused by the energy crisis, the aluminium market moved to a more balanced state in 2022 after the significant deficit seen in 2021. China was the key driver of supply growth throughout the year in both aluminium and alumina markets supporting the increase in global supply. However, the market balancing did not result in lower prices as the market experienced record-high smelting costs in 2022 and an all-time high aluminium price of over US\$4,100/t in March 2022. Despite significant correction in prices during the second half of 2022, annual average prices for both aluminium and alumina were still higher by ~10% compared with 2021 levels.
Copper, Cobalt and Other Non-ferrous	The LME cash copper price averaged US\$8,797/t in 2022 (down -5.6% year-on-year), depressed by the US Federal Reserve System's aggressive monetary tightening policy, the coronavirus lockdowns in China and a global economic slowdown. The standard low grade cobalt metal price averaged US\$30.29/lb in 2022 (up +26.3% year-on-year) and the hydroxide low-payable averaged 71.4% in the same period (down-20.0% year-on-year). Cobalt prices were supported by strong demand and supply disruptions in the first four months of the year, but fell sharply thereafter in response to a growing market surplus.
Energy	Amid record-high natural gas prices and the emerging energy crisis in Europe, gas to coal switching processes intensified by late 2021 - early 2022 driving a significant coal demand. At the same time weak hydro and nuclear power output in Europe increased demand for alternative sources of energy, from which coal-fired power generation became the most affordable option by early 2022. In China strict quarantine measures throughout the year undermined the demand for coal. However the resulting global coal demand still reached the new all-time-high level in 2022 and the key coal price benchmarks increased by 140-170% year-on-year.

Sustainable development

In 2022, we continued to make progress in preparing our business for the future. This included implementing a range of initiatives in order to:

- continue the transformation of our business as well as streamlining our organisational structures and maintaining our focus on continuous improvement to help us be a more efficient and agile Company;
- pursue multiple projects that will support the long-term sustainability of our business. This includes brownfield and greenfield exploration, ongoing development of our active operations, re-starting operations that are in care and maintenance, and establishing new operations. We are focused on both our established operating countries, as well as a diversified set of jurisdictions that offer new opportunities;
- embed technology and efficiency across our business, including through our Digital Strategy;
- pursue financial resilience, including through the maintenance of appropriate liquidity.

In addition, in 2022 we established a Decarbonisation Think Tank in Kazakhstan to act as a decarbonisation centre of excellence, guide our efforts in reducing carbon intensity and carry out external stakeholder engagement on this crucial issue. We are participating, via the Think Tank, in a range of Government-led initiatives to support broader decarbonisation efforts within the country.

Health and safety

In line with our values, we put safety first. We aim to achieve Zero Harm – and we are committed to delivering a healthy, safe, productive and stable working environment for all our employees and contractors.

It is with the deepest regret that we report the loss of five employees and two contractors in work-related safety incidents during the year (2021: seven employees and three contractors), which took place at our operations in Kazakhstan). We express sincere condolences to their families. A loss of life reflects an unacceptable failure, and we remain fully committed to eliminating fatalities at our operations.

Thorough investigations have taken place into each fatal incident to identify the causes, inform appropriate prevention measures and help minimise the risk of recurrence.

Lost time injuries (LTIs) including fatalities rose to 110 (2021: 108)³. This resulted in a LTIFR of 0.91 (2021: 0.93)⁴.

COVID-19

Tragically, we lost one colleague from health complications related to COVID-19 in 2022. During the year we continued to implement a co-ordinated response to COVID-19, including through the application of a range of preventative measures across our global operations.

Community social investment

ERG's worldwide CSI contributions were around US\$96 million (2021: US\$65 million). In Kazakhstan we invested around US\$86 million (2021: US\$58.1 million). In particular we continued to support national-level social investment projects in Kazakhstan. Most notably, this included the donation of US\$65 million to support the creation of the Government-run Kazakhstan Khalkyna public social fund. The fund was created to help address a range of national development priorities, including the enhancement of healthcare, education and social services. In Kazakhstan we also continued to support regional development through Memoranda of Understanding with local governments. In 2022, this support amounted to US\$18.3 million (2021: US\$21.4 million).

³ Employees only.

⁴ Employees only and including employee fatalities.

In the DRC, we continued implementing a range of CSI programmes under our Commitments Registers as well as broader CSI efforts. In 2022, our CSI investment in the region amounted to around US\$8 million. This focused primarily on agriculture, education, infrastructure development and healthcare.

In Brazil we spent around US\$2 million on CSI efforts to support educational, environmental and social welfare projects.

Energy and greenhouse gas emissions

In 2022, our total energy use decreased to 276,250 terajoules (2021: 279,841 terajoules), with 81% of direct energy sourced from coal generation (2021: 81%). This primarily reflected reduced coal consumption at Eurasian Energy Corporation JSC's power station in Kazakhstan due to capital repairs and reduced capacity at some of our power units. The decrease at Eurasian Energy Corporation JSC was partially offset by higher coal consumption at Aluminium of Kazakhstan JSC to help support increased alumina production, as well as higher demand for heating in the city of Pavlodar (where domestic energy is significantly supplied by ERG).

Meanwhile our GHG emissions, almost all of which occur in Kazakhstan, decreased to 24.7 million tonnes of CO₂e (2021: 25.1 million tonnes of CO₂e). This largely reflects the above-mentioned decrease in coal consumption at Eurasian Energy Corporation JSC.

Renewable energy

Kazakhstan has national targets to generate:

- 15% of electricity from renewables by 2030 (i.e. wind, solar and small-scale hydro);
- 50% of electricity from renewables and alternative energy sources (e.g. nuclear power) by 2050.

In this context, we are working, subject to short-term demands, to reduce our long-term carbon intensity. We are planning to generate or source renewable energy to meet a certain percentage of our electricity demand, in line with national renewable energy targets. This includes our planned 155 MW Khromtau-1 wind power project near Donskoy GOK. We plan to initiate construction in 2023, with commissioning potentially to take place in 2024. We are also assessing additional sites in Kazakhstan for large-scale renewable energy projects over the next 5-10 years, including both wind and solar.

In addition, we are advancing plans to generate energy using off-gas from our production processes, with an immediate focus on Aktobe Ferroalloys Plant and our special coke plant.

The fact that our operations in Africa largely rely on hydropower significantly reduces their carbon footprint and limits opportunities for further GHG reductions. However, given its occasional reliance on back-up diesel generators, we are examining opportunities to supply Metalkol with solar power, thereby enhancing the reliability of its supply and reducing its cost base. In addition, we are investigating innovative solutions to address energy security challenges at Metalkol, such as increased energy costs and operational disruption resulting from grid power outages. This includes the potential application of a direct, online generation system which can be utilised immediately should an outage occurs, as well as the installation of back-up batteries.

Economic value generated and distributed

Our long-term ability to generate shareholder value is ultimately contingent on our ongoing revenue generation, as well as the delivery of shared economic benefits to our other stakeholders.

In 2022, we distributed US\$7,254 million – or 94% of our revenues – to our stakeholders (2021: US\$6,240 million /78%). This increase reflected, amongst other things:

- higher purchase prices for reductants, reagents, diesel and acid as well as increased consumption of anodes;

- increased headcount in Africa to support production growth, as well as the indexation of salaries in Kazakhstan to improve our competitiveness in the labour market;
- increased dividend payments to our shareholders;
- increased capital spending in Kazakhstan, including on special coke plant of Shubarkol komir JSC, advancing the Slimes 2 project at Donskoy GOK, continued development of TNC Kazchrome JSC's ore deposits, multiple environmental projects and the expansion of Frontier's mining fleet.

At the same time, overall revenue generation fell as a result of (among other factors) reduced iron ore product sales to Russia resulting from sanctions applied to one of our main Russia-based customers. Nonetheless the negative impact of these factors was partially offset by lower realised losses from hedging as a result of the early termination of derivative contracts with Sberbank (again as a result of international sanctions).

Our commitment to contribute to the socio-economic development and well-being of communities in our operating regions extends beyond our own activities. We also seek to promote responsible behaviours amongst our suppliers and contractors – and to deliver assurance that the products we sell have been responsibly mined and processed, and are not associated with negative environmental, social or governance impacts. Our key initiatives in this area include those below and are aligned with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas:

- the rollout of our Group Supplier Code of Conduct;
- the application of our Clean Cobalt and Copper Framework, which integrates our commitment to the RMAP of the Responsible Minerals Initiatives' (RMI), including carrying out an annual assurance process. Our first RMAP assurance process was completed in early 2022 and we received certification in August 2022. This follows the publication of our second independently assured Metalkol RTR Clean Cobalt & Copper Performance Report in 2022;
- the application of Responsible Aluminium Framework, which is applied on our aluminium value chain and ensures we manage human rights, business ethics, environmental health and safety risks in line with internationally accepted standards. The aluminium we produce at Kazakhstan Aluminium Smelter JSC is an 'approved brand' of the London Metals Exchange (LME). This means it must meet the LME Responsible Sourcing requirements (RS requirements). In line with the RS requirements, in 2022 we completed a Red Flag assessment report for aluminium produced at Kazakhstan Aluminium Smelter JSC and received independent reasonable assurance.

ERG was a founding member of and is actively involved in the Global Battery Alliance (GBA), which includes more than 100 organisations, with companies ranging from BASF to Tesla, as well as governments and civil society. The GBA aims to support the development of an ecosystem that will promote traceability, transparency and sustainable practices across the battery value chain. Our CEO, Benedikt Sobotka, is Co-Chair of the Supervisory Council. The GBA's flagship project is the development of a Battery Passport. This is a digital representation of a battery that conveys information about key Environment Social Governance (ESG) and lifecycle requirements based on a comprehensive definition of a sustainable battery. ERG is also a founding member of Re|Source, a digital platform for the traceability of minerals powered by blockchain technology which ensures the traceability of minerals from the mine to the electric vehicle. Re|Source ensured data collection and participated in two of the three GBA Battery Passport pilots.

For more information about ERG's initiatives in this area as well as our broader sustainability efforts, please see our Sustainable Development Report.

Key initiatives and events in 2022 and early 2023

Operating

In 2022, the Group announced that it plans to invest US\$230 million in building a major wind power plant in Kazakhstan, which will be commissioned in 2024. This new renewable energy facility will have a capacity of up to 155 MW, and is expected to reduce CO₂ emissions by around 520,000 tons annually. The wind power generated will be used to supply ERG's TNC Kazchrome JSC and Donskoy GOK plant, the largest industrial enterprise in the Aktobe region, and cover the plant's growing energy needs as it increases its production capacity in the coming years. In addition, the wind farm will supply energy to neighbouring industrial facilities and the Aktobe region more widely, thereby reducing Kazakhstan's coal usage.

Throughout 2022, progress was made on the construction and installation works, as well as delivery of equipment and materials, for the project to build a special coke production plant at Shubarkol Komir JSC which will have a capacity of 400kt per annum. Commissioning of the special coke production plant is scheduled for the second half of 2023. The completion of this project will make it possible to replace the use of anthracite at production facilities with our own reducing agents and, accordingly, reduce the production costs of ferroalloys and alumina.

The Group invested in the recycling of slimes from Donskoy GOK's tailing dumps to produce an additional 400kt of chrome concentrate (including an additional flotation circuit to maximise recovery), in order to increase the overall recovery of beneficiation by up to 10% and the capacity of fines beneficiation.

ERG and its joint-venture partner, La Générale des Carrières et des Mines (Gécamines) restarted operations at Boss Mining in December 2022. The phased restart will concentrate on re-processing historically mined fines over the next 16 months to produce copper cathodes and cobalt hydroxide. The operation will ramp up over the coming months to its full capacity producing, on average, 1,800t of copper cathode and 300t of cobalt hydroxide a month, by March 2023.

ERG plans to invest in Saudi Arabia and expand its existing global footprint by conducting tech-enabled early-stage exploration for battery transition minerals in the Ad Dawidimi region of Saudi Arabia, where it has already secured licences and is actively pursuing further ground exploration. The Group plans to invest US\$50 million in the market, with the potential to increase this number year-on-year.

Social unrest in Kazakhstan

In January 2022, Kazakhstan faced extraordinary events associated with significant social unrest. The situation in all regions of the country stabilised by the end of the month. The President of Kazakhstan announced political and economic reforms that are ongoing. Throughout this period, ERG took all necessary steps to avoid disruption to the normal course of business, to deal with localised issues and to minimise the impact of external factors on its enterprises. All of the Group's enterprises in Kazakhstan continued to operate as normal in January 2022, with any issues resolved promptly.

Conflict in Ukraine

In February 2022, a military conflict between Ukraine and Russia commenced. A number of countries and international organisations, including the US, the European Union, Switzerland and the UK imposed a series of sanctions against the Russian government, various companies, including major lenders of the Group (Sberbank of Russia and VTB Bank (PJSC)), and certain individuals. This resulted in significant disruption to financial and commodity markets. In 2022, the Group halted the supply of iron ore to one major client in Russia to comply with the sanctions, and amended and terminated certain transactions and activities with the banks of Russia. The Group continues to comply with all sanctions applicable to its business activities in accordance with adopted compliance policies.

Modification of credit facilities

In March, April and May 2022, in compliance with applicable sanctions the Group renegotiated and amended applicable terms of certain financing arrangements and terminated certain transactions and activities with Sberbank of Russia, VTB Bank (PJSC), Vnesheconombank and their subsidiaries, including the following:

- US\$550 million undrawn committed loan facility was terminated;
- US\$372 million was paid in connection with an early termination of certain loan and lease facilities;
- US\$218 million was paid in connection with an early termination of commodity derivative contracts;
- principal and interest payments were deferred for up to two years;
- certain changes have been made to the security provided to the banks.

In December 2022 an agreement was reached with VTB Zug and VTB Europe, which establishes a permitted sanctions-compliant payment/reservation of funds mechanism in order to avoid payment defaults in the future.

These actions helped us to minimise any sanctions risks applicable to the Group's debt portfolio and close the year in full compliance with loan documentation.

Key financing initiatives

In order to support the working capital of SSGPO JSC, in August 2022 the credit facility with Eurasian Development Bank was signed. US\$55 million was utilised in October 2022.

The Group continues to invest in future growth and to develop certain investment projects. For example, in December 2022 we received a credit line from Development Bank of Kazakhstan in the amount of up to US\$78 million for the construction of a plant for the enrichment of slag tailings of the Donskoy mining and processing plant in Khromtau.

These loan facilities diversify the Group's existing debt portfolio and support stable future production.

Maintenance and improvement of our credit ratings

In June 2022, Standard & Poor's upgraded assigned credit rating to B from B- with stable outlook. The Group concluded to discontinue obtaining a credit rating from Standard and Poor's. At the request by the Group, Standard and Poor's withdrew a credit rating of the Group in March 2023. The outlook was stable at the time of the withdrawal.

In December 2022, the rating agency Moody's affirmed B1 credit rating and Stable outlook.

The Stable outlook balances ERG's solid positioning within the current rating category against the sensitivity of its credit metrics and liquidity to a potential substantial decline in commodity prices, which could occur in the current difficult global macroeconomic environment.

Strategy 2025

During the year, we continued to embed our Strategy 2025 - which was approved by our Board of Managers. This integrated strategy – which is underpinned by well-defined strategic goals, key performance indicators (KPIs) and implementation levers – will help us achieve our vision of being 'an international, sustainable, socially responsible and efficient natural resources company'.

Our strategic priorities are:

- balanced portfolio growth;
- a happy and professional team;
- sustainable development of our host regions;
- efficiency in all that we do;
- financial stability.

Strategic priorities	Strategic goals
Balanced portfolio growth	
Steady growth and development of the asset portfolio in Kazakhstan and beyond.	<ul style="list-style-type: none"> • Further develop existing assets in Kazakhstan; • Increase returns on the existing portfolio of international assets; • Optimise our portfolio through new natural resource opportunities and/or divestment; • Further develop the Group's power generation business.
A happy and professional team	
Development of our employees' competencies and the maintenance of their safety and well-being.	<ul style="list-style-type: none"> • Deliver safe working conditions; • Improve employee health and well-being; • Deliver comfortable workplaces; • Develop strategic skills and competencies; • Improve employee benefits; • Improve ERG's employee proposition and status as an employer; • Further develop our corporate culture; • Develop our talent pool and leadership pipeline.
Sustainable development of our host regions	
Contribution to the socio-economic development and well-being of communities in our regions of operation.	<ul style="list-style-type: none"> • Improve the well-being and prosperity of communities in our regions of operation; • Maintain international environmental standards, including those relating to water, air and soil, to support local well-being in our regions of operation; • Support entrepreneurship and the development of the business environment in our host countries.
Efficiency in all that we do	
A strong focus on pursuing efficiency for the Group.	<ul style="list-style-type: none"> • Reduce unit costs by eliminating bottlenecks and improving productivity; • Improve organisational effectiveness; • Improve sales effectiveness; • Develop a culture of continuous improvement supported by relevant tools and mechanisms.

Financial stability	
The maintenance of financial sustainability, whilst delivering proper shareholder returns.	<ul style="list-style-type: none"> • Maintain a sustainable level of dividend yield for shareholders; • Maintain high returns on invested capital; • Achieve and maintain acceptable level of debt; • Maintain high levels of liquidity to support resilience in the face of changing market conditions.

During 2022, the ESG Committee continued a formal process to develop ESG targets and action plans in relation to the following areas:

Reduction of ERG environmental footprint	<ul style="list-style-type: none"> • Conservation of water, air and soil quality; • Carbon competitiveness/net-zero; • Development of a circular economy.
Respect for the rights of hosted communities and support their socio-economic growth	<ul style="list-style-type: none"> • Participation in decision-making; • Community infrastructure investments; • Growth opportunities.
Growing a diverse, safe and prosperous workforce	<ul style="list-style-type: none"> • Zero injury rate/LTI; • Safe and responsible labour practices; • Inclusive and accountable teams; • Employees health and wellbeing.
Leadership in driving a transparent and sustainable value chain	<ul style="list-style-type: none"> • Responsible business conduct and practices; • Transparency and traceability; • Responsible, inclusive, and sustainable value chains.

Divisional review

ERG is a leading diversified natural resources producer and operates through six divisions supported by a central sales and marketing department.

Ferroalloys Division

We produce and sell ferroalloys for use as alloying products by third-party steel producers. Our strategic sales destinations include China, Japan, Europe, the US, and South Korea.

ERG is the world leader in high-carbon ferrochrome production by chrome content – with the lowest unit cost of production. The Ferroalloys Division is vertically integrated, using its own chrome and manganese ore mines to feed its ferroalloy production plants. The division also benefits from its own gas-fired power plant in Aktobe, competitively priced power supplied by our Energy Division and transportation services supplied by our Logistics and Other Business Division.

2022 highlights

- +1.3% in total gross ferroalloys production: 1,707.6kt (2021: 1,685.6kt) due to increase in production of ferrosilicomanganese.
- -13.7% in chrome ore stripping: 6,193.0 kcbm (2021: 7,175.0 kcbm) at TNC Kazchrome JSC, mostly due to postponement of pre-stripping of small deposits until 2023 due to delays in obtaining extraction licence.
- Development of certain small deposits, which were put into operation in 2022.
- In 2022, after staffing production facilities and restructuring the site's key assets, communications services and infrastructure, Group's newly acquired Manganese Zhairama extracted 27kt manganese ore and produced 11kt manganese concentrate respectively and plans to further increase production volumes. Works on new a sludge processing plant are at the final stage and upgraded thickening facility was commissioned which will enable the production of an additional 38kt concentrate per year.

Market context in 2022

- This year has been marked by significant fluctuation in prices for ferroalloys, especially in Europe and in the US, with major spikes taking place in Q2 2022 as a result of geopolitical tensions between Russia and Ukraine, and the emerging European energy crisis. In Europe, high-carbon ferrochrome (HC FeCr) and low-carbon ferrochrome (LC FeCr) prices reached all-time high levels of ~ US\$3.40 /lb Cr and ~ US\$6.71 /lb Cr respectively in May, while 2022 annual average levels were ~ US\$2.62 /lb Cr and ~ US\$5.14 /lb Cr respectively. Whereas in China FeCr prices were less volatile: HC FeCr and LC FeCr prices reached their peak for year in May at ~ US\$1.15 /lb Cr and ~ US\$1.90 /lb Cr with average for the year of ~ US\$1.00 /lb Cr and ~ US\$1.65 /lb Cr respectively. Consequently, Western market prices experienced the largest price gap over Chinese price levels as the key drivers were different for these markets.
- Such a strong price environment in Europe was driven by several key factors:
 - European high-quality HC FeCr market experienced a significant supply shock in 2022: Turkey and Albania cut production by 50% in early January and February due to high electricity tariffs; amid the European energy crisis, in August and September most of the European ferrochrome smelters reduced production of nearly ~45-50%.
 - Such supply cutbacks and production costs increase led to some steel plants' panic buying behavior and supported FeCr spot prices at elevated levels throughout the year.

- For the Chinese market, the main issue that suppressed prices in 2022 was lower-than-expected demand. However FeCr prices still remained relatively high, supported by elevated production costs:
 - In Q1 Chinese New Year holidays limited stainless steel production and FeCr demand, while in Q2 despite the expectation for recovery in demand, the actual situation worsened due to COVID-19 related lockdowns in Shanghai, one of the major regions of stainless-steel production. The second half of the year also did not meet expectation in terms of stainless-steel production due to still persisting lockdowns in different provinces and strict zero-COVID policy.
 - Despite the weak demand throughout year, the prices were well-supported by elevated production costs, especially chromium ore costs. For example, in 2022, South African UG2 (Cr ore concentrate) price averaged ~US\$244/t which was ~44% higher than that of the previous year.
- By the end of 2022, demand within the global ferrochrome market was still muted, due to the potential risk of COVID-19 outbreaks in China with the easing of the zero-COVID policy, persisting high inflation globally and electricity costs remaining high in key high-quality FeCr producing regions.

Key Facts		2022	2021	% change
Third-party Sales Volumes				
High-carbon ferrochrome	'000t	1,264	1,288	(1.9)%
Medium-carbon ferrochrome	'000t	10	13	(25.7)%
Low-carbon ferrochrome	'000t	41	43	(4.7)%
Ferrosilicochrome	'000t	33	29	14.6%
Ferrosilicomanganese	'000t	109	78	39.2%
Ferrosilicon	'000t	30	44	(31.1)%
Total Ferroalloys	'000t	1,487	1,495	(0.5)%
Production				
Chrome ore	'000t	3,338	3,385	(1.4)%
Manganese ore concentrate	'000t	413	390	5.0%
Ferroalloys total gross	'000t	1,708	1,686	1.3%
Ferroalloys total net	'000t	1,553	1,540	0.8%
High-carbon ferrochrome gross	'000t	1,389	1,432	(3.0)%
High-carbon ferrochrome net	'000t	1,283	1,345	(4.6)%

Results

US\$ million	2022	2021	% change
Revenue	2,813	2,484	13.2%
Underlying EBITDA	1,465	1,400	4.7%

Performance in 2022

The Ferroalloys Division contributed US\$1,465 million or 43% to the Group's Underlying EBITDA (2021: US\$1,400 million or 33%). The increase in EBITDA reflected the strong price environment for ferroalloys. The main factor contributing to the ferroalloy price increase in 2022 was the shortage of supply in European and the US markets and cost increases across the value chain.

Sales volumes were almost in line with prior year results, 1,487kt compared with 1,495kt in 2021. However, the product mix changed, with lower sales of high carbon ferrochrome and ferrosilicon which

have higher prices and with higher sales of ferrosilicomanganese which has lower prices. This reflects the lower quality of chrome material.

In addition, operating expenses increased due to higher purchase prices of reductants (mainly due to higher prices for coking nuts and metal coke) and increases in employment costs due to salary indexation.

Capital expenditure

The Ferroalloys division's capital expenditure in 2022 was US\$339 million (2021: US\$291 million).

The Division's key project is the stripping and mining of ore reserves in the second phase of the "10th Anniversary of Kazakhstan's Independence" Mine (part of Donskoy GOK). In 2022, based on the results of research and comparisons of advanced technologies, new mining methods were selected and will be used starting from 2024. The new methods will make it possible to achieve productivity of 6-7 million tons of ore a year with minimum ore losses.

At the same time, further development was made on projects such as the sludge processing plant at Donskoy GOK tailings dump, aimed at increasing chrome concentrate production and obtaining additional volumes of chrome ore.

At the Aktobe Ferroalloys Plant construction of the third reducing agent drying line was resumed, which will provide the ability to achieve a record production volume in Workshop No.4 of up to 460kt of ferrochrome per year.

Planning for 2023 and beyond

TNC Kazchrome JSC continues evaluating a number of projects to increase production and optimise costs.

For mining, this includes building capacity at the ShDNK-2 mine and increasing the capacity of the ShDNK-1 mine, the development of additional satellite deposits, additional exploration to find new chrome ore, the launch of a new manganese ore deposit and the development of legacy chromium-bearing overburden dumps, as well as the recycling of manganese dumps.

For beneficiation, this includes the recycling of slimes from Donskoy GOK's tailing dumps to produce additional volumes of chrome concentrate to increase the overall recovery of beneficiation and the capacity of fines beneficiation.

For metallurgy, TNC Kazchrome JSC will further modernise its Aktobe Ferroalloys Plant Workshop No.4 to overachieve its design capacity of 460 ktpa. Focus will also be placed on further processing of slag materials to produce additional volumes of metal concentrate and construction materials. In addition, TNC Kazchrome JSC will perform a range of projects aimed at increasing production and decreasing costs.

Iron Ore Division

The Iron Ore Division consists of producing assets in Kazakhstan, as well as early production, exploration and development assets in Brazil. We are a major exporter of iron ore products (including concentrate and pellets) from Kazakhstan. Strategic sales destinations include China and Kazakhstan.

2022 highlights

- -41.4% in saleable concentrate production: 5,269.1kt (2021: 8,988.1kt) driven by a fall in demand. Sales of iron ore products to Russia have been suspended since 19 March, 2022 as the Group complies with all sanctions applicable to its business activities in accordance with adopted compliance policies.

- -8.7% in pellet production: 5,230.0kt (2021: 5,726.1kt) due to suspension of shipments to Russia as a result of sanctions; this was partially offset with shipments to China.
- In Brazil, we focused on stabilising mining production with logistics performance. In the 2022, we continued the pre-stripping of the Pedra de Ferro Mine with 5.1 million tons handled and production of 643kt of product at the plant.

Market context in 2022

- Iron ore prices were under significant pressure for the most of 2022. Prices declined from above US\$150/t to below US\$90/t throughout February-November, mainly due to the weak ferrous demand impacted by the strict zero-COVID policy in China. Although the Chinese government attempted to boost economic growth through such stimulus as lowering interest rates, easing home buying restrictions, providing financial support to real estate developers and front-loading bond issuance to support infrastructure, the outcome remained unsatisfactory.
- On the top of weak steel end-use demand, Chinese crude steel production continued falling slightly throughout the year, resulting in a 2.1% year-on-year decline from 2021. However, the key development that drove the decline in steel output was the country's inability to collect scrap, which was impacted by the China's COVID-19 measures. Low scrap collection rates have partially impacted hot metal output and, hence, iron ore demand.
- Moreover, iron ore prices were supported by weaker-than-expected seaborne supply and accelerated cost inflation. 2022 seaborne iron ore shipments came in almost 60 million tonnes below market expectations. This was caused by a number of disruptions: production losses in Ukraine, sanctions against Russian exporters, India's export duties and operational issues in Brazil and South Africa.
- Prices managed to recover back to above US\$110/t towards year end, due to China's reopening in December, which prompted robust restocking by mills.
- Overall, iron ore prices averaged US\$121/t in 2022, declining by 25% from the 2021 average price.

Key facts		2022	2021	% change
Third-party sales volumes				
Iron ore concentrate	'000t	5,281	8,770	(39.8)%
Iron ore pellets	'000t	4,114	5,797	(29.0)%
Production				
Iron ore mined	'000t	30,064	33,748	(10.9)%
Iron ore primary concentrate	'000t	11,724	16,269	(27.9)%
Iron ore concentrate	'000t	5,269	8,988	(41.4)%
Iron ore pellets	'000t	5,230	5,726	(8.7)%

Results

US\$ million	2022	2021	% change
Revenue	1,122	2,080	(46.1)%
Underlying EBITDA	435	887	(51.0)%

Performance in 2022

The Iron Ore Division contributed US\$435 million or 13% to the Group's Underlying EBITDA (2021: US\$887 million or 21%). ERG decreased its production of saleable iron ore concentrate and pellets by 29% due to the suspension of shipments to Russia as a result of sanctions. In March 2022, the Group had early termination of commodity derivative contracts with Russian banks as a result of sanctions.

The decrease in operating expenses was mainly driven by subcontractor costs, due to a decrease in stripping works and lower mineral extraction tax costs due to a decrease in extraction volumes by 15% from 30,395kt to 25,872kt. This was partially offset by increased employment costs as a result of the Group's salary indexation and higher materials costs (diesel, explosives).

Capital expenditure

The Iron Ore Division's capital expenditure reached US\$253 million in 2022 (2021: US\$211 million).

In 2022, the Kachar Pit Reconstruction Project was marked by the completion of the revised geological model and mining plan update and optimisation. 18 dump trucks and two excavators were commissioned as part of the mining equipment purchase under the project. Construction of infrastructure facilities to support the mining equipment has been postponed until 2024. Reconstruction of the Kachar open pit is in line with the Group's strategic plan to develop the open pit, which will increase production to 26 million tonnes of ore a year.

In 2022, the "HBI Production Development" project was resumed at SSGPO JSC, which will make it possible to produce high-quality products and at higher processing stages (DR/BF pellets, HBI).

Also, under the "Modernisation of the Ore Preparation and Processing Plant" project the FEL2 stage feasibility study report was completed. The project implementation will reduce costs and increase product quality by using the latest developments in ore crushing, grinding and beneficiation.

During the 2022 Brazil continued with the construction of the railway and port, overcoming environment constraints. All compliance with regulatory deadlines accomplished including the second capitalisation required by the bid. Due diligence and second capitalisation have been completed.

Planning for 2023 and beyond

On the global iron ore market, while ferrous demand is yet to recover to normal levels, China's reopening and the overall improvement in outlook are expected to support restocking by mills and provide short-term support to prices. Steel industries are projected to rebound towards the second half of 2023 into 2024, which, coupled with accelerated cost inflation, will give greater support to iron ore prices in the medium-term. Hence, we maintaining a view that prices should remain well above US\$80-90/t in the coming years.

The Iron Ore Division will carry out a number of major projects to further extend its product portfolio, ensure swift recovery of sales volumes and improve both the sales diversification and cost position. Key projects include:

- Completion of renovation of the three wet magnetic separation sections at the concentrator and the start of the full-scale production of premium quality concentrate and premium blast-furnace (BF)-pellets with Fe content of 65-66%.
- Evaluation and potential execution of other product portfolio development opportunities, such as the low-serum concentrate, fluxed pellets, direct-reduction (DR)-grade pellets (with Fe content over 67%).
- Feasibility study update and start of the detailed engineering of the direct reduced iron (DRI)/hot briquetted iron (HBI) plant with an expected production capacity of 1.8-2.2 mln tonnes of HBI.
- Further acceleration of the Kachar iron ore mine development, which will include the continuation of the renovation programme for the mining fleet, development of new infrastructure facilities and optimisation of the life-of-mine mining plan. This project will make a major contribution to the reducing the division's operating costs and sustaining capital expenses, while simultaneously securing a stable supply of iron ore in the long-term.
- Further assessment of long-term renovation options for SSGPO JSC ore concentrating and pellet production plants. The corresponding programme will contribute to the reduction of sustaining capital expenditure, while securing stable production volumes and product quality.

- Completion of engineering studies for volume build-up at existing tailing facilities.

In addition, the division will continue to evaluate a pipeline of further operational efficiency improvement opportunities and make further investments aimed at continued improvement in all aspects of HSE.

In Brazil, key activities in 2023 will be focused on design and process optimization of the Pedra de Ferro mine plant as well as the FIOL railroad logistics system. At the port site early construction works will continue the completion of a bridge connecting the BA-001 highway to the future industrial area at the port has already advanced the access works. The overall BAMIN project timeline will be defined by both value of engineering activities and project financing options with the potential final investment decision in the second half of 2023.

Alumina and Aluminium Division

This division is the only producer of alumina and aluminium in Kazakhstan. We sell alumina to third-party aluminium producers and use it to produce our own high-quality aluminium.

The majority of the aluminium produced was sold to customers in Europe and the Commonwealth of Independent States (CIS).

2022 highlights

- +1.7% in alumina production: 1,338.0kt (2021: 1,315.1kt) at Aluminium of Kazakhstan JSC.
- -5.1% in aluminium production at Kazakhstan Aluminium Smelter JSC marginally impacted by an incident at a small number of production pots which were completely repaired in 2022 249.0kt (2021: 262.4kt).
- -4.4% in bauxite mining: 4,176.0kt (2021: 4,370.0kt) mainly due to flooding at the pit.
- -1.8% in stripping at Aluminium of Kazakhstan JSC: 45,170.0 kcbm (2021: 45,993.0) mainly due to optimization of mining works.

Market context in 2022

- The aluminium industry has been highly exposed to market volatility over a three-year period. Following the COVID-19 challenges in 2020, and the rapid economic uptick in 2021, we experienced significant supply disruptions in supply during 2022, due to the energy crisis triggered by the conflict between Russia and Ukraine, demand uncertainty as a result of strict zero-COVID policy in China and the overall slowdown in the global economy.
- During the energy crisis Europe closed ~1/4 of its annualised smelting capacities, or ~1.1 million tonnes. However, despite such cutbacks global production of aluminium still increased due to China's capacity growth. China was the key driver of supply growth throughout the year and showed ~1.5 million tonnes year-on-year increase in production. Similarly, despite the global slowdown of the alumina market. China's output increased by more than 4.0 million tonnes year-on-year.
- After the significant deficit seen in 2021, the aluminium market moved to a more balanced state in 2022. However, that did not result in lower prices as the market experienced record high smelting costs throughout 2022. London Metal Exchange (LME) aluminium prices reached an all-time high of over US\$4,100/t in March 2022.
- During the second half of 2022, both aluminium and alumina prices experienced a sharp pullback and physical premiums softened. Prices fell by ~40% to 70% from their March peak-levels as overall sentiment over demand weakened, in China and other regions, and gas and electricity prices diminished. This pushed aluminium prices down to a 2022 low level of ~US\$2,100/t in late September before a rebound to US\$2,400-2,500/t in December after Chinese officials signalled the easing of COVID-19 restrictions and China's reopening.

- Despite such significant correction in prices throughout the second half of 2022 from March peak levels, annual average prices for both aluminium and alumina were still higher by ~10% compared with 2021 levels.

Key facts		2022	2021	% change
Third-party sales volumes				
Alumina	'000t	967	763	26.7%
Aluminium	'000t	236	247	(4.5)%
Production				
Bauxite mined	'000t	4,176	4,370	(4.4)%
Alumina produced	'000t	1,338	1,315	1.7%
Aluminium produced	'000t	249	262	(5.1)%

Results

US\$ million	2022	2021	% change
Revenue	1,178	986	19.5%
Underlying EBITDA	303	413	(26.6)%

Performance in 2022

The division contributed US\$303 million or 9% to the Group's Underlying EBITDA (2021: US\$413 million or 10%). The increase in revenue by US\$192 million to US\$1,178 million (2021: US\$986 million) was driven by higher sales prices for aluminium and alumina. This price factor was partially offset by lower sales volumes of aluminium. In addition, the Group had US\$151 million realised losses on aluminium hedges (2021: US\$44 million) due to early termination of commodity derivative contracts with VTB as a result of sanctions and higher operating expenses contributed to lower EBITDA.

During the year, alumina production increased by 2% impacted by marginally higher sales to Russia. Aluminium production decreased by 5% to 249.0kt (2021: 262.4kt) reflecting incidents at a small number of production pots at Kazakhstani Aluminium Smelter JSC in the middle of the year. As a result, sales volumes of aluminium decreased to 236.0kt (2021: 247.0kt). The Group had restored the operations of all production pots by the end the year.

The inflation of operating expenses was mainly caused by higher raw material expenses (petroleum coke, fuel oil), higher consumption of purchased anodes following the decrease of in-house anodes production (electrowinning breakdown) and employment costs due to salary indexation.

Capital expenditure

The Alumina and Aluminium Division's capital expenditure in 2022 was US\$122 million (2021: US\$64 million).

In 2022 work continued on the dust and gas treatment the project of Boiler Unit No.6 at CHP project. This aims to reduce the residual dust content of gas after filtering to not more than 20mg/nm³. Commissioning is scheduled for Q1 2023.

Also, in 2022, the project to replace electric precipitators at two sintering furnaces was continued. As part of its Environmental Program, the Group invested US\$44 million in this project, which will allow us to meet our obligations under the comprehensive environmental permit issued by the state authorities.

In 2022 a feasibility study was completed for the upgrading the red slurry separation hardware and process scheme project. As a result of the proposed upgrades the capacity to process "blow-off" slurry of red mud of the hydrometallurgical workshop (HMW)-2 of Pavlodar Alumina Plant should increase. This

will enable the production of up to 1,560 thousand tonnes of alumina, options for upgrading the HMW to increase the production throughput of up to 1,800 thousand tonnes of alumina will be considered.

Planning for 2023 and beyond

Aluminium of Kazakhstan JSC will implement several projects to ensure a stable and sustainable development:

- For mining, the development of the new Vostochno-Ayatskoye Mestorozhdenie (VAM)-2 mine will ensure a stable flow of bauxite ore until 2024;
- In terms of beneficiation, completion of research in to beneficiation methods, which include kaolinite washing and iron sands removal;
- For metallurgy, continued efforts to remove the production bottleneck at the red mud washing and filtration unit;
- For the environment, continue to realise the ecological strategy and considerably decrease rates of pollution at the sintering unit and power plant.

Kazakhstan Aluminium Smelter JSC has successfully completed a feasibility study for expanding production capacity with 16 new cells and has moved the project to the detailed design phase. The final investment decision is expected during 2023.

Copper, Cobalt and Other Non-ferrous division

Our Copper, Cobalt and Other Non-ferrous Division is primarily focused on the DRC, where we mine and produce copper cathode/sulphide concentrate and cobalt hydroxide.

We also own the Chambishi copper and cobalt refinery in Zambia, which is currently placed under care and maintenance. In addition, we have a number of exploration and development assets – primarily in the DRC, Mozambique, South Africa, Mali, Zimbabwe and Saudi Arabia.

2022 highlights

- The production at Metalkol shows stable increase over the last years achieving +5.4% in copper cathode production: 99.8kt (2021: 94.8kt) and +8.7% cobalt hydroxide production: 22.5kt (2021: 20.7kt).
- -11.6% in production of copper concentrate at Frontier mine: 90.5kt (2021: 102.4kt) was mainly due to changes in the mining plan.
- In 2022, the Group restarted the production of copper and cobalt at Boss Mining which was placed into care and maintenance in early 2019. The operation will ramp up in the to its full capacity in the first half of 2023 producing, on average, 1.8kt of copper cathode and 0.3t of cobalt hydroxide a month.
- The Group continues to expand its global presence by developing non-ferrous portfolio and investing in geological exploration in Saudi Arabia. The Group will use the latest technologies for the exploration of new mineral deposits, required for battery production, in the Ad Dawidimi area where the Group already owns licences and conducts operations.

Market context in 2022

- The LME cash copper price averaged US\$8,797/t in 2022, representing a YoY decrease of 5.6%. The price climbed to an all-time high of US\$10,730/t in March, slightly exceeding the previous high of US\$10,725/t set in 2021.
- During Q1 2022, LME copper prices were supported by tight physical markets, amid low visible inventories, logistical bottlenecks and concerns over supply disruptions stemming from the conflict in Ukraine.
- However, LME copper prices fell sharply in Q2 2022 to Q3 2022 in response to a strengthening of the US dollar off the back of aggressive monetary policy tightening by the US Federal

Reserve, demand headwinds in China resulting from coronavirus lockdowns and a property sector crisis, as well as the sharp economic slowdown in the rest of world, especially in Europe. Prices reached a floor of US\$7,000/t in July, before recovering to an average of US\$8,001/t in Q4 2022.

- Wood Mackenzie consultancy estimated a small refined copper market deficit of 67kt in 2022, as weak growth in demand of 0.8% year-on-year was offset by a heavily disrupted growth in supply of just 0.5% year-on-year.
- In the cobalt market, the Fastmarkets MB standard low grade metal price averaged US\$30.29/lb in 2022, an increase of 26.3% year-on-year. Meanwhile, the Fastmarkets MB hydroxide payable-low averaged 71.4% in the same period, down by 20.0% year-on-year.
- The Fastmarkets MB standard low grade metal price peaked at US\$39.75/lb in April, supported by strong end-use demand, especially from the electric vehicle and aerospace sectors, as well as logistical disruptions to hydroxide supply and concerns over the supply of Russian-origin metal in light of the conflict in Ukraine. Similarly, the Fastmarkets MB hydroxide payable-low remained elevated at a constant 88.0% from the beginning of the year until April.
- However, the prices of metal and hydroxide fell sharply thereafter, depressed by the impact of COVID-19 lockdowns on China's downstream demand, supply chain disruptions to Europe's electric vehicle segment, extreme weakness in global demand for portable electronics and the ongoing ramp-up of global mine supply. The Fastmarkets MB standard grade-low metal price closed the year at US\$18.75 /lb – the lowest level since January 2021. Meanwhile, the Fastmarkets MB hydroxide payable-low ended the year at 58.0% – the lowest level in the history since it began in January 2019.

Key facts		2022	2021	% change
Third-party sales volumes				
Copper metal	'000t	99	91	9.2%
Copper concentrate (Frontier)	'000t	91	102	(11.0)%
Cobalt metal	'000t	–	1	(100.0)%
Cobalt hydroxide	'000t	20	20	(3.4)%
Production				
Saleable copper metal	'000t	100	95	5.4%
Saleable copper concentrate (Frontier)	'000t	91	102	(11.6)%
Saleable cobalt hydroxide	'000t	23	21	8.7%

Results

US\$ million	2022	2021	% change
Revenue	2,392	2,637	(9.3)%
Underlying EBITDA	1,028	1,392	(26.1)%

Performance in 2022

The division contributed US\$1,028 million or 30% to the Group's Underlying EBITDA (2021: US\$1,392 or 33%). Revenue in 2022 decreased to US\$2,392 million (2021: US\$2,637 million), mainly driven by lower market prices for copper and lower sales volume of cobalt hydroxide due to overcapacity at trader's warehouse.

The increase of copper, cobalt hydroxide production at Metalkol was marginally impacted by higher recovery and higher grade of plant feed. The decrease of copper concentrate production volumes at Frontier is mainly due to lower grade material usage to support plant feed resulting in the decrease of mining volumes.

Along with lower revenue, increased operating costs contributed to the negative movement of EBITDA. The increase in operating costs were marginally affected by higher materials costs (quicklime and other reagents, diesel and acid) and the increase in mining royalties at Metalkol as a result of the corresponding increase in cobalt prices. The increase in operating expenses was partially offset by the decrease of expenses at Frontier reflecting lower stripping and mining volumes impacted by the delayed delivery of mining equipment during the transition of Frontier from subcontractor mining to owner mining.

Capital expenditure

The Copper, Cobalt and Other Non-ferrous Division's capital expenditure in 2022 was US\$187 million (2021: US\$119 million). This reflects the development at the Metalkol and Frontier mine and processing facilities and further capital expenditures required for production assets in the DRC.

In 2022, the Group continued to invest in the mining fleet at Frontier mine. This will help the Group proceed with future expansion projects, such as the Cut 4 project which will support an average production of 80ktpa of copper contained in concentrate over the next few years.

Planning for 2023 and beyond

The Frontier Cut 4 project was approved and launched in 2022; first copper production is expected in 2024 with a life of mine extension of 10 years. New high-performance trucks and the design of a steep-wall pit are the key success factors attaining required financial results. An operational efficiency improvement program has been launched to unlock the potential of the new equipment and significantly reduced production costs.

Boss Mining was restarted with tailings from the Kiwana deposit as an intermediate phase while study of fresh ore processing from the Kakanda deposit is underway. First copper cathode plate was produced in December 2022, and tailings resources are available to maintain production until the middle of 2024. Further options for a life of mine extension are currently being developed.

The processing unit design for cobalt purification enhancement at Metalkol is being finalised with construction commencing in early 2023. The new plant will enable production of a fully clean cobalt to match the strictest quality standards in a highly-competitive market. At the beginning of 2025, the project will be completed and hazardous cadmium impurities in the content of the final product will be closed to zero.

The Metalkol Phase 3 study is currently under development to prove the possibility of scaling up the plant to 115kt of copper and 24kt of cobalt. The initial design is being analysed to identify bottlenecks throughout all processing units and improve performance without significant investment. In addition, overall plant reliability and the ability to process ultrafine feed parts should be increased within the same project. The feasibility study is due to be finalised in 2023, but implementation might require extra resources for Metalkol as the capacity extension will cause life-of-mine reduction.

Energy Division

The Energy Division is one of the largest electricity generators in Kazakhstan, together with power plants in other ERG divisions producing 17% of the country's electricity. It sells the majority of the electricity that it produces (approximately 77%) to our other entities and the rest to third parties. The division is also a major coal and semi-coke producer. The coal is used by the division to generate electricity and is sold both to our other entities and to third parties. Our Shubarkol Komir JSC 'Original' brand of coal is recognised as one of the best in the region, due to its low-ash, high-calorie characteristics.

The global climate change agenda continued to remain prominent during 2022. And, in early 2023 the Government of Kazakhstan approved the Decarbonisation Strategy to achieve carbon neutrality by 2060.

The fact that 81% of our power is generated using coal means that our GHG emissions are substantial. We plan to reduce our long-term carbon intensity by increasing, over time and subject to immediate internal and external energy demands, the proportion of energy we obtain from non-coal sources. Although this will be a gradual process, it is a journey we are committed to making.

During 2022, ERG's Decarbonisation Think Tank in Kazakhstan continued to guide our efforts and engage with external stakeholders through participation in a range of Government-led initiatives to support broader decarbonisation efforts in the country.

In relation to our own projects, in 2022 we continued to advance plans for the construction of the 155MW Khromtau-1 wind power project near Donskoy GOK, including the selection of relevant equipment suppliers and contractors. We plan to start construction in 2023 and commission the project in 2024. There is potential to further expand our wind capacity at the site by an additional 150 megawatts.

We will also continue to investigate the potential development of additional large-scale wind and solar projects at other sites in Kazakhstan over the next 5-10 years

In addition, we are advancing plans to generate energy using off-gas from our production processes, with an immediate focus on Aktobe Ferroalloys Plant and our special coke plant.

2022 highlights

- Production of coal in 2022 was almost on the same level as the prior year (+0.3%): 29,967.0kt (2021: 29,890.6kt).
- -3.6% in electricity production: 15,426.0 GWh (2021: 16,000.0 GWh) due to postponement of capital repairs of power unit No.4 and repairs to power unit No.5 from 2021 to 2022.
- -7.3% in special coke production: 198.3kt (2021: 213.8kt) due to planned repairs of coke ovens No.3 and No.4 and stoppage of plant due to modernisation of railway as part of a project to construct of a new special coke production plant.
- Construction of a new special coke production plant with a capacity of 400ktpa is in progress. Commissioning of this facility is scheduled for the second half of 2023.

Market context in 2022

- In 2022, electricity generating commodities (natural gas and thermal coal) have seen the biggest surge in prices for the last several decades. One of the key reasons for such hikes in the price of thermal coal was constrained Russian gas supply and intensification of gas to coal switching processes.
- With the emerging European energy crisis, some previously shut-down coal plants re-entered the market in order to ensure sufficient power supply. For example, in Germany ~10 GW of coal plants are now operating.
- Additionally, weak hydro and nuclear electricity generation in Europe boosted demand for thermal coal even further.
- As a result, in 2022 demand for coal reached ~8 billion tonnes for the first time in history. API 2 thermal coal prices reached a record-highs ~ US\$389/t in July and ~ US\$432/t in September. In 2022, the annual average European CIF ARA benchmark API2 jumped by ~145% year-on-year to US\$285/t, while FOB Newcastle Australian API6 benchmark (6,000 net caloric value (NCV)) reached an annual average of US\$360/t an increase of ~167% year-on-year.
- A partial explanation of the surge in coal prices also lies in rising cost of thermal coal production, which was over 30% higher in 2022 compared with the previous year, mainly due to supply chain issues, higher diesel costs and global inflation.
- In China, which accounts for nearly half of global coal consumption, prolonged COVID-19 restrictions throughout the year limited business activity and, as a result, undermined demand for coal. However, during the summer time droughts and heat waves there was an acceleration in

coal burning in order to meet power demand for air conditioning which provided support to coal demand in 2022.

Key facts		2022	2021	% change
Third-party sales volumes				
Coal Eurasian Energy Corporation JSC	'000t	4,529	4,793	(5.5)%
Coal Shubarkol Komir JSC	'000t	11,775	11,257	4.6%
Semi-coke	'000t	36	40	(10.7)%
Electricity	GWh	3,486	3,647	(4.4)%
Consumption				
Coal consumed in the production of electricity	'000t	8,614	8,620	(0.1)%
Electricity produced and consumed for own use	GWh	1,075	1,099	(2.1)%
Production				
Coal Eurasian Energy Corporation JSC	'000t	17,422	17,128	1.7%
Coal Shubarkol Komir JSC	'000t	12,545	12,762	(1.7)%
Semi-coke	'000t	198	214	(7.3)%
Electricity	GWh	15,426	16,000	(3.6)%

Results

US\$ million	2022	2021	% change
Revenue	657	591	11.2%
Underlying EBITDA	196	220	(10.9)%

Performance in 2022

The Energy Division contributed US\$196 million or 6% of Group EBITDA (2021: US\$220 million or 5% of Group EBITDA). Revenue increased by US\$66 million from US\$591 million in 2021 to US\$657 million in 2022, reflecting both higher market prices for coal and special coke and higher demand for Shubarkol komir JSC. The decrease in electricity generation was mainly due to the postponement of capital repairs to power units No.4 and No.5 from 2021 to 2022, in order to satisfy record high demand and to ensure a consistent supply of electricity in Kazakhstan.

Along with higher sales volumes of coal, the division's expenses increased, mainly caused by an increase in the use of contractors due to the delayed supply of dump trucks, increased expenses on materials, increased volumes and prices of renewable energy, and salary indexation.

Capital expenditure

Capital expenditure for the Energy Division was US\$134 million in 2022 (2021: US\$111 million).

In 2022, construction and installation works, and delivery of equipment and materials for the project to build a special coke production plant with a capacity of 400kt per year progressed. Commissioning of the facility is scheduled for the second half of 2023. This project enables the replacement of anthracite at production facilities with own reducing agents, decreasing the production costs of ferroalloys and alumina.

The reconstruction project of power unit No.8 of Eurasian Energy Corporation JSC power plant continued during 2022. The aim of the project is to increase the installed capacity of the power unit by 20 megawatts, prolongation of its lifetime by at least 15 years and reducing of dust emissions to 20 mg/Nm³ through the installation of bag filters. During the year, design work was underway and a of major equipment supplier was selected.

In 2022, final investment decisions were made on the projects for the construction of a second single-strand input to the fuel feeding line of the power plant of Eurasian Energy Corporation JSC and construction of the second section of the ash dump of the power plant.

In 2022, design of a combined-cycle plant at the site of 3-Energoortalyk JSC began, which will provide additional power supply in the amount of 3.6 billion kWh/year and, accordingly, will solve the problem of power supply to public utilities of Shymkent and Group Companies.

The planned scope of work for 2022 for clearing the supply channels at the Eurasian Energy Corporation power plant was fulfilled. Design works on the 2nd and 3rd stages of the project (construction of stream-guiding dams and reinforcement of the right bank of the Irtys river) were started.

Planning for 2023 and beyond

- A focus on business sustaining capital expenditure on Eurasian Energy Corporation JSC's coal-fired power generation units – particularly on targeted repairs instead of full replacements, as well as more limited life extensions.
- Further progress on our renewable energy projects through the initiation of construction of Khromtau-1 wind power project and completion of our assessment of additional large-scale wind- and solar-generation sites in Kazakhstan.
- Initiate the design stage of the off-gas-fuelled power plant at Aktobe Ferroalloys Plant as well as the feasibility stage of using Aksu Ferroalloy Plant's off-gas to produce heat and electricity.
- Complete the construction of the semi-coke plant (400ktpa) with improved quality at Shubarkol Komir JSC to decrease reductant costs for Group ferroalloys production and increase sales to external clients.
- Build additional sorting capacity and develop railway infrastructure in the Zapadny pit at Shubarkol Komir JSC to increase its share in total production. As a result, we expect a reduction in mining costs due to lower stripping coefficient and haulage distance at the Zapadnyi pit.
- Further improve the operational efficiency of key mining equipment at both Vostochny pit and Shubarkol Komir JSC. The key driver of improvements is expected to be reducing downtime through fleet unification and the use of an automatic fleet management system.
- Implement a pilot project for autonomous haulage (driverless dump car) at Vostochny pit leading to the automation of overburden transportation with a total volume of 4,248m³ per annum. As a result of the project we expect to reduce the consumption of tyres, fuel, staff cost and maintenance costs, and raise operational efficiency by decreasing downtimes and increasing transportation speed.

Logistics and Other Business Division

Our Logistics and Other Business Division primarily provides transportation and logistics services to the Group's principal operating divisions in Kazakhstan, as well as to third parties. In addition, the division provides various services such as repair and maintenance, IT, medical service and recycling of industrial waste to operating divisions.

2022 highlights

- +0.6% in freight forwarding: 13,149kt (2021: 13,072kt) due to increased demand in Kazakhstan and Russia.
- Increase in the railroad tariff by an average of 6% compared to 2021.

Key facts		2022	2021	% change
Transportation				
Total tonnage transported by rail	'000t	45,345	52,139	(13.0)%
Sales volumes				
Third party freight forwarding	'000t	13,149	13,072	0.6%

Results

US\$ million	2022	2021	% change
Revenue	303	225	34.7%
Underlying EBITDA	60	31	93.5%

Performance in 2022

The Logistics and Other Business Division contributed US\$60 million or 2% to the Group's Underlying EBITDA (2021: US\$31 million or 1%). EBITDA increased by US\$29 million driven by higher revenue. Revenue increased by US\$78 million to US\$303 million (2020: US\$225 million) driven by a higher share of transportation of iron ore to China. The increase in EBITDA was partially offset by increased staff costs due to salary indexation and a rise in empty mileage costs as a result of changes in the route to China.

Capital expenditure

During 2022, US\$60.4 million (2021: US\$7.5 million) was spent to improve competitive transportation services for other Group divisions. The expenditure included open wagons and dump trucks, as well as the repair of equipment.

Planning for 2023 and beyond

The priority of the division is to provide Group entities with transportation and logistics services. We intend to rent or purchase open-top wagons due to expected write-offs in 2024-2027. There is also a long-term plan to develop the internal and external rail infrastructure throughout Group enterprises. In addition, our captive logistics operator TransCom LLP renewed its strategy and continues working on various efficiency targets.

Financial review

Key 2022 highlights

- -7.1% in revenue: US\$7,924 million (2021: US\$8,530 million);
- -19.4% in EBITDA: US\$3,392 million (2021: US\$4,210 million);
- +54.4% in capital expenditure: US\$1,135 million (2021: US\$735 million);
- In June 2022, Standard & Poor's upgraded assigned credit rating to B from B- with stable outlook. The Group concluded to discontinue obtaining a credit rating from Standard and Poor's. At the request by the Group, Standard and Poor's withdrew a credit rating of the Group in March 2023. The outlook was stable at the time of the withdrawal. In December 2022, Moody's affirmed B1 credit rating with the stable outlook.

Group performance

Underlying EBITDA and cost of sales

Underlying EBITDA decreased by 19.4% to US\$3,392 million (2021: US\$4,210 million). This was due to a 7.1% decrease in Group revenue to US\$7,924 million (2021: US\$8,530 million) mainly due to lower sales volumes of iron ore pellets and concentrate due to the suspension of shipments to Russia, and lower cobalt sales due to lower demand. These negative effects were partially offset by higher prices for ferroalloys and aluminium.

TNC Kazchrome JSC remained the major contributor to Group EBITDA (US\$1,467 million or 43% compared with US\$1,392 million or 33% in 2021). Increased EBITDA reflects the strong price environment for ferroalloys. Despite the worsening market context in copper and cobalt markets, our Copper, Cobalt and Other Non-ferrous Division remained the second largest contributor to Group EBITDA (US\$1,028 million or 30% compared with US\$1,392 million or 33% in 2021).

In 2022, as a result of sanctions imposed on several Russian banks, the Group had an early termination of derivative contracts for aluminium, iron ore and copper. Net realised losses from the Group's hedging programme were US\$185 million (2021: US\$544 million). The largest portion of hedge losses is attributed to our aluminium hedges 2022: US\$151 million (2021: US\$44 million). The realised losses on hedges are booked under operating expenses.

The Group's operating expenses increased substantially reflecting higher costs for raw materials due to inflated price (reductants, reagents, acid, diesel, mazut etc.) and higher employment costs due to salary indexation. This was partially offset by reduced production output at Iron Ore Division.

Capital expenditure

In 2022, the capital expenditure totalled US\$1,135 million (2021: US\$735 million). The increase in capital expenditure was largely directed at the improvement of the potential of existing assets and the implementation of a pool of new projects related to environmental protection, health and safety, as well as purchasing of transport and equipment to extend the lifetime of existing projects and to prepare the basis for future projects.

The focus of the investment programme was on both expansionary projects and sustaining capital investments to maintain our production volumes and reduce future costs at our existing assets.

Key examples included:

- Continuation of development of ShDNK-2 mine at Donskoy GOK;
- Further enrichment of slime tailings and production of sellable concentrate at Donskoy GOK;
- Further development of small deposits at Donskoy GOK;
- Extension of the investment in environmental protection projects, mainly at TNC Kazchrome JSC and Aluminium of Kazakhstan JSC;
- Reconstruction of Kachar iron ore mine;
- Continuation of construction of semicoke plant;
- Continuation of 'Dust and gas treatment project of Boiler Unit No. 6' project at CHP at Pavlodar power station;
- Purchasing open wagons and dump trucks at Transcom LLP;
- Transition to owner mining fleet at Frontier;
- Continuation of the development of the railway, port and the deposit infrastructure in Brazil.

Dividends

During the year ended 31 December 2022, we declared dividends of US\$500 million at US\$6,452 per share (2021: US\$300 million at US\$3,871 per share) as detailed in note 22 of the Consolidated financial statements.

Cash flow

Net cash generated from operating activities

We generated US\$1,616 million in net cash from our operating activities (2021: US\$2,565 million). This 36% decrease was driven by (amongst other factors):

- market price decrease for iron ore and copper;
- lower sales volumes of iron ore due to suspension of shipments to Russia;
- inflated prices for major material (reductants, reagents, acid, diesel, mazut etc.).

Net cash used for investing activities

We used a net total of US\$1,281 million in cash for investing activities (2021: US\$699 million) – most of which was focused on capital expenditure. In 2022, we focused on the completion of a number of in-progress projects and sustaining capital investments to maintain our production capacity. The increase in capital expenditure was due to the postponement of several projects from 2021 to 2022.

Net cash used for financing activities

In 2022, net cash outflow from financing activities was US\$1,028 million, compared with a net cash outflow of US\$998 million in 2021. The amount drawn from credit facilities totaled US\$119 million (2021: US\$903 million). Proceeds from borrowings were utilised for working capital needs as well as to finance capital investments. The Group repaid US\$707 million (2021: US\$1,770 million).

The net repayment of borrowings totalled US\$588 million (2021: US\$867 million). The Group incurred fees of US\$5 million (2021: US\$15 million) for arranging new facilities.

In addition, the Group incurred outflows related to:

- dividends paid to owners of the Company: US\$362 million (2021: US\$118 million);
- dividends to non-controlling interests: US\$24 million (2021: US\$5 million).

Tax

The Group's income tax expense for 2022 was US\$710 million (2021: US\$856 million), with an effective tax rate (ETR) of 42.8% (2021: 27.5%). The Group's ETR is higher than the income tax rate of 20% applicable in the Republic of Kazakhstan, where the majority of the Group's operations are located. This largely reflected high profits in Africa as well as tax losses in Europe for which no deferred tax is recognised.

Key events in 2022

Major developments in the debt portfolio

In accordance with adopted compliance policies, in March, April and May 2022, the Group renegotiated and amended certain financial and security terms in its credit facilities and terminated certain transactions and activities with its major lenders.

Principal and interest payments under the existing facility agreements with VTB Bank (PJSC) and Sberbank of Russia (PJSC) were deferred for a period of minimum one year and up to three years and applicable interest rate under the existing facility agreement with Sberbank of Russia (PJSC) was reduced by 0.38% from April 2022.

The Group repaid early US\$283 million of outstanding debt under the prepayment facility and terminated US\$550 million of undrawn committed loan facility with Sberbank.

The interest rate under one of the credit facilities with Sberbank was agreed to be reduced by 0.38%.

Debt to an affiliate of VTB in the amount of US\$55 million was fully repaid ahead of schedule.

US\$34 million was repaid early to an affiliate of Vnesheconombank in relation to a lease agreement.

In December 2022, an agreement was reached with VTB Bank (PJSC) Zug and VTB Bank (PJSC) Europe to establish a sanctions-compliant payment mechanism that permits the avoidance of payment defaults in the future.

All these measures allowed the Group to continue debt maintenance in full compliance with the existing loan documentation and with the sanctions, imposed on the Group's lenders. At the same time, the Group focused on attracting financing from Kazakhstan and Africa.

In August 2022, the credit facility with Eurasian Development Bank was signed. US\$55 million was utilised in October 2022.

In December 2022, a credit line with Development Bank of Kazakhstan in the amount of up to US\$78 million for the construction of a plant in Khromtau was signed. US\$43 million was utilised.

These loan facilities diversify the Group's existing debt portfolio and support stable production in the future.

The Group's indebtedness at the end of the year decreased significantly compared with the previous year. This resulted in a notable improvement in leverage and enhanced our financial stability and resilience.

Credit rating

In June 2022, Standard & Poor's upgraded assigned credit rating to B from B- with stable outlook. The Group concluded to discontinue obtaining a credit rating from Standard and Poor's. At the request by the Group, Standard and Poor's withdrew a credit rating of the Group in March 2023. The outlook was stable at the time of the withdrawal.

In December 2022, the rating agency Moody's affirmed B1 credit rating and the Stable outlook. The Stable outlook balances ERG's solid positioning within the current rating category against the sensitivity of its credit metrics and liquidity to a potential substantial decline in commodity prices, which could occur in the current difficult global macroeconomic environment.

Tax environment

The Group is strongly committed to complying with all applicable laws, rules and regulations along with adherence to the Group Tax Policy and Tax Code of Conduct.

Risk management

Our risk management framework helps us to identify and understand potential threats to the sustainability of our business. This includes our most material sustainable development issues, which have the potential to impact our people, local communities and the environment, as well as our ability to achieve our operational and strategic objectives. We embed risk management at every level of the organisation to effectively manage threats and opportunities to our business and host communities, and our impact on the environment. Our three lines of defence framework provides necessary assurance that risks are effectively managed in line with our policies, standards and procedures.

The political and economic situation in the world is currently highly unstable. The sanctions restrictions imposed on Russian companies in relation to the conflict in Ukraine have significant implications for many countries, especially those with historical economic ties to Russia and Ukraine.

The Group's Management responded promptly to the risks caused by the conflict escalation. In order to increase the effectiveness of the response, a Global Crisis Team (GCT) has been created. The GCT held regular meetings to facilitate assessing the impact of the conflict between Russia and Ukraine on the Group's activities, and develop priority measures and business continuity plans to reduce the negative consequences for the Group.

The main focus of GCT meetings was to develop response to risks of shipments disruption, supply chain disruption and inability to work with sanctioned counterparties including financial institutions. Group's risk response actions focused on the indicated areas below:

- Shipments of commodities to sanctioned customers have been stopped. Group is redirecting volumes from those clients to other clients and markets. The impact on Group business activities is not critical. The Group checks potential new clients for their presence in the sanction lists.
- Interaction with suppliers under sanctions has been terminated but there were no disruptions to the supply chain. The Group successfully switched to alternative suppliers. The Group checks potential new suppliers for their presence in the sanctions lists as part of its complex due diligence (CPDD)/know your client (KYC) processes. Stores of spare parts, materials and equipment necessary for production have also been stockpiled.
- Co-ordination with sanctioned banks for deferred repayment of loans in accordance with applicable sanctions and winding down periods/licenses. Additional measures include termination of new contracts with sanctioned bank, search for new providers of banking services, and exploring internal possibilities including development of measures to eliminate potential liquidity deficit.

In January 2022, Kazakhstan faced extraordinary events associated with significant social unrest. As part of the response to these events in the most acute period of the crisis, the GCT met regularly to ensure the safety of the Group's personnel, continuity of production processes and compliance with obligations to counterparties. Following the end of the January crisis, the Group analysed the impact of these events and developed measures to reduce future risks.

We support the global effort on tackling climate change. We incentivise energy efficiency, invest into green energy (wind-power projects and longer-term development of larger-scale renewable energy projects) and continue to partner with host governments, customers and suppliers to enable the energy transition process.

We regularly provide assessment (current and residual) of potential impact and probabilities of our principal risks, monitor effectiveness of mitigation actions and effectiveness of associated controls.

Our principal risks are set out in the table below. There may be additional risks yet unknown to the Group and other risks currently not believed to be material, which could have a significant impact on our business performance and financial results.

Principal risks and selected mitigation actions

Key risk areas	Selected mitigation actions
Environmental risks The nature of our activities and processes mean they have, in the absence of appropriate controls, the potential to harm the environment.	<ul style="list-style-type: none"> ■ ISO 14001-certified and/or aligned environmental management systems. ■ Implementation of our environmental strategy in Kazakhstan, including the phased implementation of advanced filter and air monitoring technology at our key operations. ■ Regular risk analysis and technical review of our residual storage facilities.
Climate change risks We face regulatory and market risks in relation to our GHG emissions that require the implementation of appropriate management actions. Also, our operating facilities may be affected by harsh weather conditions, extreme temperature, floods and other extreme weather impacts.	<ul style="list-style-type: none"> ■ Short-term implementation of wind-power projects in Kazakhstan and longer-term development of larger-scale renewable energy projects. ■ Implementation of energy efficiency measures at our operations in Kazakhstan, as well as ISO 50001-certified energy management systems in Kazakhstan. ■ Analysis of our carbon transition risks to better understand and manage exposure, and inform future carbon strategy. ■ Factoring-in of GHG emission implications when making long-term investment decisions, with the aim of reducing our emissions where it is commercially feasible to do so. ■ Analysis and quantitative evaluation of climate risks for the Group's businesses in regions where we operate, including the physical impact assessment.
Social risks Our business activities may negatively affect nearby communities. Therefore, there is a risk this could affect our social licence to operate, lead to a severe deterioration in our relationships with people or communities, limit our access to land, cause potential operational disruptions and security incidents.	<ul style="list-style-type: none"> ■ Delivering sustainable, long-term outcomes through sponsorship, strategic community social investment and regional economic development in our host countries. ■ Application of Commitments Register framework as well as the Clean Cobalt and Copper Framework in the DRC. ■ Social attitude monitoring in our host regions – and the maintenance of community grievance mechanisms. ■ Implementation of employee housing programmes, as well as the improvement of local urban environments.
Health, safety and security risks We are committed to ensure the safety of our people, communities, and environment around us. The nature and location of our operations mean they have, in the absence of appropriate controls, the potential to affect the well-being and health of our employees, contractors and community members. This includes the potential for COVID-19 infections both inside and outside of work.	<ul style="list-style-type: none"> ■ ISO 45001-certified occupational health and safety management systems in Kazakhstan – as well as management systems in Africa that are informed by ISO 45001. ■ Zero Harm approach (zero risk tolerance) towards critical health and safety risks. ■ Safety management system audits. ■ Integration of safety targets into managers' KPIs. ■ Dedicated programme to address COVID-19 risks in our workforce, while maintaining operational continuity (including PPE, social distancing, changed working patterns, screening, testing and other related approaches).

<p>Compliance and governance risks We are subject to a range of internal and external compliance obligations, including those relating to sanctions, confidentiality, data protection, human rights, money laundering / the financing of terrorism, and bribery and corruption. Any non-compliance in this regard could result in financial and non-financial sanctions, as well as reputational damage.</p>	<ul style="list-style-type: none"> ■ Group Compliance Programme, including training/ monitoring of adherence to policies and guidance (Code of Conduct, Supplier Code of Conduct, etc.). ■ Updated counterparty and supply chain due diligence processes, including a focus on human rights/OECD Due Diligence Guidance⁵. ■ Sanctions Compliance Programme. ■ Data protection programme. ■ Maintenance of whistleblower system. ■ Ensuring respect for human rights, aligning our commitments with international standards.
<p>Regulatory and legal risks There are a number of factors that could affect our regulatory context and present risks to our business. This includes the introduction of new (or changes to existing) laws and regulations by our host governments.</p>	<ul style="list-style-type: none"> ■ Monitoring of potential legislative and regulatory changes. ■ Representation of our interests through professional bodies/associations. ■ Monitoring of compliance with our licence and permit obligations.
<p>Political risks There are varying degrees of political stability in our host countries. We conduct our business in complex environments, which are characterised by ever-changing political dynamics and the potential for unexpected risks. Besides, geopolitical tensions and military conflicts have potential to affect our key markets, supply routes, vendors and customers.</p>	<ul style="list-style-type: none"> ■ Monitoring and analysis of political and macro-economic trends in our regions of operations. ■ Close follow-up of regular sanctions updates and maintenance of the obligations register. ■ Regular involvement of third-party legal advisors.
<p>Price risks A substantial decline in – or volatility around – commodity prices could materially affect our business, including our financial results and our liquidity.</p>	<ul style="list-style-type: none"> ■ Investigating opportunities to expand and diversify our commodity product portfolio. ■ Regular review and forecast of short and medium-term market fundamentals (consumption, supply, availability, etc). ■ Maintenance of long-term sales contracts that link commodity prices to benchmarks. ■ Price analysis and hedging of commodity prices. ■ Development of alternative sales channels.
<p>Production and operational risks Challenging operational environments have the potential to result in business interruption, damage to physical property, unplanned downtime and asset shutdowns. Our estimates of mineral resources and ore reserves are based on results and assumptions available at the time of reporting. There is uncertainty in geological formations and mineralisation, which may lead to reduced economic viability and inability</p>	<ul style="list-style-type: none"> ■ Risk-based reliability planning and maintenance. ■ Maintenance of a resilient power supply system/long-term contracts with reliable suppliers. ■ Control of input materials, including the introduction of a raw material control system. ■ Development and testing of business continuity plans. ■ Infill drilling and ore body modelling. ■ Maintenance of property damage and business interruption insurance.

⁵ OECD Guidelines for the Integrated Inspection of Responsible Mineral Supply Chains from Conflict-Affected and High-Risk Zones.

to realise mining plans to their planned potential.	
Supply chain and logistics risks The Group's large supply chain exposes it to risks relating to contractual non-compliance by suppliers, including non-delivery, changes in prices for purchased goods and shortages of transportation for goods.	<ul style="list-style-type: none"> ■ Creation and maintenance of supplementary stocks of critical items (including PPE). ■ Regular review of supplies of critical reagents/materials. ■ Quality/specification/completeness controls related to the supply of goods and services. ■ Long-term contracts and category strategies for key goods/ services (including formula pricing). ■ Maintenance of our own fleet of railway wagons.
Capital project execution risks A failure to deliver major capital projects within planned timeframes, budgets and quality criteria could negatively affect long-term profitability and reputation, including our ability to attract future financing.	<ul style="list-style-type: none"> ■ Systematic, transparent and stage-gated project implementation process. ■ Enhanced project due diligence, including independent project reviews prior to stage gates. ■ Contingency planning based on quantitative schedule and cost-risk analysis. ■ The insurance of construction risks and risks relating to the delayed start-up of critical capital projects. ■ Monitoring/control of project deadlines, budgets and ramp-up, etc.
Financial risks Risks relating to the ability of the Group to carry out necessary operational and investment activities, and the potential for these to be undermined by credit risks, liquidity risks, foreign exchange risks and interest rate risks. Also, any deterioration in cash flow and profitability that could adversely affect our ability to meet our existing financial obligations, including debt repayments, and lack of access to commercially viable external financing.	<ul style="list-style-type: none"> ■ Maintenance of strong relationships with established lenders and financial counterparties, the expansion of our credit lines to allow diversified sources of funding, as well as improvements to our debt portfolio, funding opportunities and conditions in different capital markets. ■ Prudent financial policies (including regular updating of our cash flow plan and control over the Group's liquidity level, compliance with covenants, monitoring of the Group's open forex exchange position and tax legislation compliance). ■ Disciplined credit control process assurance.
Personnel management risks The fact we operate in remote locations may lead to difficulties in accessing skilled labour and poses risks in terms of our ability to attract, develop and retain people with the required sets of skills. Failure to deliver broader social benefits to our workforce, many of whom live in relatively remote mine towns, would result in a loss of talent and skills and would make it hard to recruit new employees.	<ul style="list-style-type: none"> ■ Talent sourcing from across the globe, targeting multiple labour markets. ■ Maintaining partnerships with local universities. ■ Maintenance of competitive remuneration packages. ■ Training and development to maintain the skills pipeline. ■ Implementation of an effective incentivisation and retention system. ■ Implementation of social support programmes for personnel (see 'Social risks' above).

Consolidated management report

The Managers present their report and the audited Consolidated financial statements for the year ended 31 December 2022.

Principal activities

The Group is a leading diversified natural resources group with integrated mining, processing, energy, logistical, and marketing operations. Production assets are located in the Republic of Kazakhstan, Zambia, Brazil and the DRC. The Group has six operating divisions: Ferroalloys, Iron Ore, Alumina and Aluminium, Energy, Copper, Cobalt and Other Non-ferrous, and Logistics and Other Business.

Corporate review

The Corporate review has been prepared to provide the Company's shareholders and other interested parties with a fair review of the business of the Group and a description of the principal risks and uncertainties facing it. In accordance with the law on the register of commerce and companies and the accounting and annual account of undertakings dated 19 December 2002 (as amended), information required to be disclosed in this regard has been presented in the report as follows:

- CEO report on pages 6 to 8;
- Corporate review on pages 9 to 17 which includes information on financial and operational performance, key initiatives and events in 2022 and early 2023 and Strategy 2025;
- Divisional review on pages 18 to 31;
- Financial review on pages 32 to 35;
- Risk management on pages 36 to 39, 52-53 and 87 to 93.

All of the above form part of the management report required by the accounting legislation of the Grand Duchy of Luxembourg.

Managers

The Managers who held office during the financial year ended 31 December 2022 and up to the date of signing the Consolidated financial statements are those listed below:

Manager	Occupation	Date of appointment	Date of resignation
Mr Bakyt Sultanov	Class A Manager	17/06/2013	16/09/2022
Mr Alexander Machkevitch	Class B Manager	17/06/2013	-
Mr Patokh Chodiev	Class B Manager	17/06/2013	-
Mr Beibut Atamkulov	Class A Manager	20/06/2013	21/02/2022
Mr Shukhrat Ibragimov	Class B Manager	03/03/2021	-
Mr Yerulan Zhamaubayev	Class A Manager	22/02/2022	-
Mr Serik Zhumangarin	Class A Manager	16/09/2022	

The following individuals served as the representatives in charge of daily management of the Company:

Delegate	Position	Date of appointment
Mr Benedikt Sobotka	Chief Executive Officer	15/01/2014
Mr Satzhan Temirgaliyev	Chief Financial Officer	02/04/2018
Mr Dmitry Melnikov	Chief Legal Officer	01/01/2017

Financial instruments

Details of the Group's financial risk management, objectives and policies, together with details of financial instruments are described in note 26 to the Consolidated financial statements.

Research and development activities

The Group has a research and development centre, which reviews scientific and technological developments to improve existing mining and metallurgical processes as well as discover innovative technologies and approaches to be implemented at our entities.

The Group incurred costs amounting to US\$7 million (2021: US\$6 million) during the year in relation to research and development activities.

Management responsibility statement

We confirm to the best of our knowledge that the Consolidated financial statements, which have been prepared in accordance with the International Financial Reporting Standards as adopted by the European Union, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group and the undertakings included in the consolidation taken as a whole, and that the Consolidated management report presents a fair review of the development and performance of the business and the position of the Group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

The Consolidated financial statements on pages 47 to 97 were approved by the Board of Managers on 12 May 2023 and signed on its behalf by:

Mr Alexander Machkevitch
Chairman



Mr Benedikt Sobotka
Chief Executive Officer

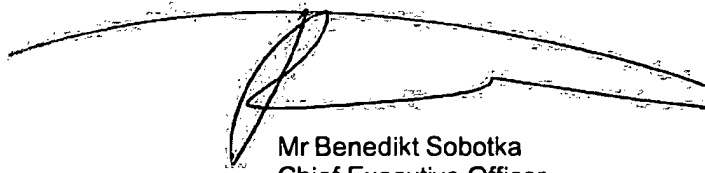


Management responsibility statement

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Mr Alexander Machkevitch
Chairman



Mr Benedikt Sobotka
Chief Executive Officer

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Audit report

To the Shareholders of
Eurasian Resources Group S.à r.l.

Report on the audit of the consolidated financial statements

Our opinion

In our opinion, the accompanying consolidated financial statements give a true and fair view of the consolidated financial position of Eurasian Resources Group S.à r.l. (the "Company") and its subsidiaries (the "Group") as at 31 December 2022, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union.

What we have audited

The Group's consolidated financial statements comprise:

- the consolidated income statement for the year ended 31 December 2022;
- the consolidated comprehensive income statement for the year then ended;
- the consolidated balance sheet as at 31 December 2022;
- the consolidated cash flow statement for the year then ended;
- the consolidated changes in equity statement for the year then ended; and
- the notes to the consolidated financial statements, which include a summary of significant accounting policies.

Basis for opinion

We conducted our audit in accordance with the Law of 23 July 2016 on the audit profession (Law of 23 July 2016) and with International Standards on Auditing (ISAs) as adopted for Luxembourg by the "Commission de Surveillance du Secteur Financier" (CSSF). Our responsibilities under the Law of 23 July 2016 and ISAs as adopted for Luxembourg by the CSSF are further described in the "Responsibilities of the "Réviseur d'entreprises agréé" for the audit of the consolidated financial statements" section of our report.

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

We are independent of the Group in accordance with the International Code of Ethics for Professional Accountants, including International Independence Standards, issued by the International Ethics Standards Board for Accountants (IESBA Code) as adopted for Luxembourg by the CSSF together with the ethical requirements that are relevant to our audit of the consolidated financial statements. We have fulfilled our other ethical responsibilities under those ethical requirements.

*PricewaterhouseCoopers, Société coopérative, 2 rue Gerhard Mercator, B.P. 1443, L-1014 Luxembourg
T : +352 494848 1, F : +352 494848 2900, www.pwc.lu*

*Cabinet de révision agréé. Expert-comptable (autorisation gouvernementale n°10028256)
R.C.S. Luxembourg B 65 477 - TVA LU25482518*

Material uncertainty related to going concern

We draw attention to Note 1 to the consolidated financial statements which indicates the material risks and uncertainties which exist in respect of the Group's ability to find a feasible solution to enable it to comply with its payment obligations in 2024 and/or to reschedule the payments in compliance with all applicable laws and regulations. These events or conditions indicate that material uncertainty exists that may cast significant doubt on the Group's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

Other information

The Board of Managers is responsible for the other information. The other information comprises the information stated in the Annual report including the consolidated management report but does not include the consolidated financial statements and our audit report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Managers and those charged with governance for the consolidated financial statements

The Board of Managers is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs as adopted by the European Union, and for such internal control as the Board of Managers determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Managers is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Managers either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Responsibilities of the "Réviseur d'entreprises agréé" for the audit of the consolidated financial statements

The objectives of our audit are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an audit report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Law of 23 July 2016 and with ISAs as adopted for Luxembourg by the CSSF will always detect a material misstatement when it exists.



Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the Law of 23 July 2016 and with ISAs as adopted for Luxembourg by the CSSF, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Managers;
- conclude on the appropriateness of the Board of Managers' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our audit report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our audit report. However, future events or conditions may cause the Group to cease to continue as a going concern;
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtain sufficient appropriate audit evidence regarding the financial information of the entities and business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.



We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on other legal and regulatory requirements

The consolidated management report is consistent with the consolidated financial statements and has been prepared in accordance with applicable legal requirements.

PricewaterhouseCoopers, Société coopérative
Represented by

Luxembourg, 12 May 2023

Electronically signed by:
Andrei Chizhov

A handwritten signature in black ink, appearing to be "A. Chizhov", written over a horizontal line.

Andrei Chizhov

Consolidated income statement

US\$ million	note	Year ended 31 December	
		2022	2021
Revenue	3	7,924	8,530
Cost of sales	5	(3,959)	(3,504)
Gross profit		3,965	5,026
Distribution costs	6	(315)	(281)
General and administrative expenses	7	(794)	(711)
Research, business development and exploration costs	8	(164)	(100)
Impairment	9	(397)	(36)
Other operating expense	10	(1,061)	(976)
Other operating income	10	746	696
Operating profit		1,980	3,618
Finance income	12	292	135
Finance cost	13	(613)	(640)
Profit before income tax		1,659	3,113
Income tax expense	14	(710)	(856)
Profit for the year		949	2,257
Profit attributable to:			
Owners of the Company		949	2,223
Non-controlling interests		—	34

Consolidated comprehensive income statement

US\$ million	Year ended 31 December	
	2022	2021
Profit for the year	949	2,257
Other comprehensive (expense)/income, net of income taxes:		
Items that may be subsequently or are reclassified to profit or loss:		
Currency translation differences	(381)	(154)
Cash flow hedges	(85)	(127)
Cash flow hedges – reclassification to profit	121	44
Items that will not be subsequently reclassified to profit or loss:		
Remeasurement of employee benefit obligations	(3)	(1)
Other comprehensive expense	(348)	(238)
Comprehensive income for the year	601	2,019
Comprehensive income attributable to:		
Owners of the Company	566	1,986
Non-controlling interests	35	33

Consolidated balance sheet

31 December

US\$ million	note	2022	2021
Assets			
Non-current assets			
Property, plant and equipment	15	9,788	9,800
Intangible assets	16	131	131
Other financial assets		118	103
Deferred tax asset	14	89	124
Other	17	238	177
Total		10,364	10,335
Current assets			
Inventories	18	1,762	1,329
Trade and other receivables	19	1,500	1,335
Cash and cash equivalents	20	783	1,523
Total		4,045	4,187
Total assets		14,409	14,522
Equity			
Capital reserve	22	3,159	3,159
Reserves		392	288
Attributable to owners of the Company		3,551	3,447
Non-controlling interests		66	145
Total equity		3,617	3,592
Liabilities			
Non-current liabilities			
Borrowings	23	6,953	6,824
Deferred tax liability	14	1,112	1,179
Asset retirement obligations	24	182	98
Employee benefit obligations		33	31
Other		77	82
Total		8,357	8,214
Current liabilities			
Trade and other payables	25	1,803	1,387
Borrowings	23	241	609
Income tax payable		227	541
Other taxes payable		164	179
Total		2,435	2,716
Total liabilities		10,792	10,930
Total equity and liabilities		14,409	14,522

These Consolidated financial statements were approved by the Board of Managers on 12 May 2023, and were signed on its behalf by



Mr. Alexander Machkevitch
Chairman

Mr. Benedikt Sobotka
Chief Executive Officer

Consolidated balance sheet

		31 December	
US\$ million	note	2022	2021
Assets			
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Mr. Alexander Machkevitch
Chairman



Mr. Benedikt Sobotka
Chief Executive Officer

Consolidated cash flow statement

US\$ million	note	Year ended 31 December	
		2022	2021 (restated)
Cash generated from operating activities	21	2,711	3,514
Income tax paid		(1,051)	(382)
Interest and other similar expenses paid		(61)	(576)
Interest received		17	9
Net cash generated from operating activities		1,616	2,565
Cash flow from investing activities			
Purchase of property, plant and equipment		(1,072)	(711)
Loans and deposits granted		(173)	(4)
Purchase of intangible assets		(63)	(24)
Acquisition of subsidiaries		–	(27)
Proceeds from disposal of subsidiaries		–	34
Proceeds from disposal of intangible assets		1	2
Proceeds from disposal of property, plant and equipment		26	31
Net cash used for investing activities		(1,281)	(699)
Cash flow from financing activities			
Borrowings – proceeds		119	903
Borrowings – repayments		(707)	(1,770)
Dividend paid to owners of the Company		(362)	(118)
Acquisitions of non-controlling interests	30	(49)	7
Dividend paid to non-controlling interests		(24)	(5)
Payment of arrangement fees		(5)	(15)
Net cash used for financing activities		(1,028)	(998)
Net change in cash and cash equivalents		(693)	868
Cash and cash equivalents at the beginning of the year		1,523	665
Foreign exchange loss on cash and cash equivalents		(47)	(10)
Cash and cash equivalents at the end of the year	20	783	1,523

Purchase of property, plant and equipment include US\$27 million of capitalised borrowing costs (2021: US\$11 million).

Consolidated changes in equity statement

	Attributable to owners of the Company							Non-controlling interests	Total equity
US\$ million	Share capital	Capital reserve	Retained earnings	Translation reserve	Hedge reserve ¹	Other reserve ¹	Total		
Balance at 1 January 2021	–	3,159	6,251	(7,639)	(10)	–	1,761	110	1,871
Profit for the year	–	–	2,223	–	–	–	2,223	34	2,257
Other comprehensive expense	–	–	–	(153)	(62)	(22)	(237)	(1)	(238)
Comprehensive income/(expense)	–	–	2,223	(153)	(62)	(22)	1,986	33	2,019
Dividend	–	–	(300)	–	–	–	(300)	(5)	(305)
Other changes in non-controlling interests	–	–	–	–	–	–	–	7	7
Balance at 31 December 2021	–	3,159	8,174	(7,792)	(72)	(22)	3,447	145	3,592
Profit for the year	–	–	949	–	–	–	949	–	949
Other comprehensive (expense)/income	–	–	–	(416)	(11)	44	(383)	35	(348)
Comprehensive income/(expense)	–	–	949	(416)	(11)	44	566	35	601
Dividend	–	–	(500)	–	–	–	(500)	(27)	(527)
Other changes in non-controlling interests (note 30)	–	–	38	–	–	–	38	(87)	(49)
Balance at 31 December 2022	–	3,159	8,661	(8,208)	(83)	22	3,551	66	3,617

¹ Hedge reserve balance at 31 December 2022 is from hedging relationships for which hedge accounting is no longer applied due to early termination of commodity derivative contracts.

1. Principal accounting policies

General

Eurasian Resources Group S.à r.l. (the 'Company') is organised under the laws of the Grand Duchy of Luxembourg as a private limited liability company for an unlimited period. The Company's registered address and domicile is 9, rue Sainte Zithe, L-2763 Luxembourg, the Grand Duchy of Luxembourg. The Consolidated financial statements as at and for the year ended 31 December 2022 comprise the Company and its subsidiaries (the 'Group').

The Company, together with its subsidiaries, is a leading diversified natural resources group with integrated mining, processing, energy, logistical and marketing operations. Production assets are located in the Republic of Kazakhstan, Zambia, Brazil and the Democratic Republic of the Congo ('DRC'). The Group has six operating divisions: Ferroalloys, Iron Ore, Alumina and Aluminium, Copper, Cobalt and Other Non-ferrous, Energy, and Logistics and Other Business.

Basis of preparation

The Consolidated financial statements have been prepared on a going concern basis in accordance with International Financial Reporting Standards ('IFRS') as adopted by the European Union ('EU').

The Consolidated financial statements have been prepared under the historical cost convention as modified for the revaluation of certain assets and liabilities as further explained in the respective accounting policies.

The preparation of the Consolidated financial statements in conformity with IFRS requires the use of certain critical accounting estimates and judgments in applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the Consolidated financial statements are disclosed in note 2.

Going concern

In February 2022, a military conflict between Ukraine and Russia commenced. A number of countries and international organisations, including the United States of America, the European Union, Switzerland and the United Kingdom imposed a series of sanctions against the Russian government, various companies, including major lenders of the Group (Sberbank of Russia ("Sberbank") and VTB Bank (PJSC) ("VTB")), and certain individuals. This resulted in significant disruption to financial and commodity markets. The Group complies with all sanctions applicable to its business activities in accordance with adopted compliance policies.

The Board of Managers has reviewed the liquidity available for the period until 31 October 2024. Throughout the period under review the Group forecasts to generate sufficient cash flow to maintain a position above minimum working capital and debt servicing requirements.

The Group continuously monitors its financial position to ensure adequate liquidity headroom is in place to support its business needs and to ensure compliance with loan covenants or to obtain waivers where appropriate. As of 31 December 2022, the Group complied with applicable covenants.

In June 2022, Standard & Poor's upgraded assigned credit rating to B from B- with stable outlook. The Group concluded to discontinue obtaining a credit rating from Standard & Poor's. At the request by the Group, Standard and Poor's withdrew a credit rating of the Group in March 2023. The outlook was stable at the time of the withdrawal. In December 2022, Moody's affirmed B1 credit rating with the stable outlook.

1. Principal accounting policies (continued)

Current Group's liquidity forecast envisages payments to Sberbank and VTB in 2024 under the existing credit facility agreements. The Group is working on a variety of feasible solutions to enable it to comply with its payment obligations and/or to reschedule the payments in compliance with all applicable laws and regulations. This work is ongoing and is unlikely to be completed in the first half of 2023, therefore at the time of issuance of these Consolidated financial statements an uncertainty in respect of its outcome remains. If no acceptable solution is available in 2024 and the Group fails to make a scheduled payment under the existing credit facility agreements with Sberbank or VTB, such non-payment may give relevant lender a right to accelerate payment of the outstanding debt under the facility agreements.

In reaching the Managers' conclusion in respect of the preparation of these Consolidated financial statements under the going concern basis the Managers note that there are material risks and uncertainties in respect of the Group's ability to prevent Sberbank and/or VTB getting a right to accelerate the debt in 2024, which right Sberbank or VTB may choose to exercise. These material risks and uncertainties may cast significant doubt on the Group's ability to continue as a going concern.

The Group appreciates the dependence of liquidity on commodity prices in its key markets, the exposure to foreign exchange volatility, and ability to raise additional funding when required.

To ensure adequate liquidity is available to meet contractual obligations, the Group ensures continuing focus on operational efficiency, working capital improvements and allocation and spending of capital expenditures budget.

The Managers consider that the Group can access adequate resources to continue its business operations for the foreseeable future and that the preparation of these Consolidated financial statements under the going concern basis is appropriate.

Changes in accounting policy and new standards

The Consolidated financial statements have been drawn up on the basis of accounting policies consistent with those applied in the Consolidated financial statements for the year ended 31 December 2021 except for changes in classification of divisional information and cash flow. Adoption of amendments to standards effective from 1 January 2022 did not have a significant impact on the Group. The Group has not early adopted any standard, interpretation or amendment that has been issued, but is not yet effective. The Group is evaluating potential impact arising from new standards, amendments to standards, interpretations and improvements that have been issued, but are not yet effective.

Comparative information

The Group has improved classification of divisional information to better reflect the function of entities. Certain entities were reallocated across existing divisions and certain existing divisions were renamed. Comparative information was restated (refer to note 3). The Group has improved classification of cash flow information to better reflect the nature of borrowings proceeds and repayments. The Group applies netting for transactions with quick turnover. Comparative information was restated resulting in decrease of borrowings proceeds by US\$100 million and decrease of borrowings repayments by US\$100 million.

Basis of consolidation

The Consolidated financial statements of the Group include the consolidation of the financial statements of the Company and its subsidiaries drawn up to 31 December 2022. Subsidiaries are those entities, over which the Company has control. The Company controls an entity when the Company is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

1. Principal accounting policies (continued)

Subsidiaries are consolidated from the date on which control is transferred to the Company (acquisition date) and are deconsolidated from the date that control ceases.

The financial statements of subsidiaries are prepared for the same reporting year as the Company, using consistent accounting policies, and intercompany transactions, balances and unrealised gains and losses on transactions between subsidiaries are eliminated.

Non-controlling interest is a portion of net results and of the equity in a subsidiary not attributable, directly or indirectly, to the Company.

The Group recognises any non-controlling interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the recognised amounts of acquiree's identifiable net assets.

Functional and presentation currency

All amounts in the Consolidated financial statements are presented in millions of US dollars, unless otherwise stated.

The functional currency for major entities in the Group is determined as the currency of the primary economic environment in which the entities operate. The following additional factors are considered in determining the functional currency of a foreign operation:

- whether the activities of the foreign operation are carried out as an extension of the reporting entity, rather than being carried out with a significant degree of autonomy;
- whether transactions with the reporting entity are a high or a low proportion of the foreign operation's activities;
- whether cash flows from the activities of the foreign operation directly affect the cash flows of the reporting entity and are readily available for remittance to it;
- whether cash flows from the activities of the foreign operation are sufficient to service existing and normally expected debt obligations without funds being made available by the reporting entity.

The functional currency of the operating entities in the Republic of Kazakhstan is the Kazakhstani tenge (KZT).

For the Sales and Marketing entities and significant African operations, the functional currency is the US dollar (US\$). The functional currency of the Company is the US\$. The exchange rates for significant operating entities are set out below.

	31 December		Average	
	2022	2021	2022	2021
Kazakhstani tenge (KZT)	462.65	431.80	460.20	425.94
Brazilian real (BRL)	5.22	5.58	5.24	5.65
South African rand (ZAR)	16.97	15.90	17.23	15.86
Congolese franc (CDF)	2,005.00	1,980.71	1,998.62	1,974.57

Foreign currency translation

Transactions in currencies other than the functional currency are translated to the functional currency at the rate of exchange ruling at the date of the transaction, unless hedge accounting applies in which case the contract rate is used. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency rate of exchange ruling at the balance sheet date.

1. Principal accounting policies (continued)

Exchange gains and losses on settlement of foreign currency transactions and the translation of monetary assets and liabilities are taken to the Consolidated income statement, except when recognised in other comprehensive income, depending on whether intra group monetary assets and liabilities are regarded as a part of a net investment in a foreign operation where a settlement is neither planned nor likely to occur in a foreseeable future.

Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

All intra Group monetary assets and liabilities within Kazakhstani operations have been concluded not to form the part of an investment in a foreign operation. Accordingly, all the related foreign exchange gains and losses have been recognised in the Consolidated income statement.

Translation from functional to presentation currency

The results and financial position of all Group entities that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- assets and liabilities are translated at the closing rate at the date of the Consolidated balance sheet;
- income and expenses for each income statement are translated at average monthly exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions);
- all resulting exchange differences are recognised as a separate component of equity; and
- goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate at the date of the Consolidated balance sheet;
- equity items are translated using the exchange rate at the date of the transaction.

Revenue recognition

A significant portion of production is sold under contracts of sale of goods. Revenue from contracts with customers is recognised when control of the goods (generally, upon delivery) or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

Revenues are shown net of VAT and discounts. Certain of the commodities delivered to customers are provisionally priced at the date revenue is recognised. The prices are generally finalised within 3 months. Such adjustments to revenue are dealt with under IFRS 9 'Financial Instruments' rather than IFRS 15 'Revenue from Contracts with Customers' and therefore the IFRS 15 'Revenue from Contracts with Customers' rules on variable consideration do not apply. Such adjustments therefore represent revenue from sources other than contracts with customers.

Employee benefits

Defined benefit plans

The Group provides long-term employee benefits to employees before, on and after retirement, in accordance with labour union agreements in Kazakhstan and the DRC. The agreements typically provide for one-off retirement payments, financial aid for employees' disability, significant anniversaries and funeral aid. The entitlement to some benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. Such benefits are valued consistent with an unfunded defined benefit plan in accordance with IAS 19 'Employee Benefits'.

1. Principal accounting policies (continued)

The future benefits that employees have earned in return for their service in the current and prior periods is discounted to determine the present value. Since Kazakhstan and the DRC do not have an extensive market of high quality corporate bonds, the market yields on government bonds with a maturity closest to average duration of actuarial liabilities are used as a basis for discount rates.

The calculation is performed annually internally or by a qualified, independent actuary depending on the complexity of computations.

The expected costs of the benefits associated with one-off retirement payments are accrued over the period of employment using the same accounting methodology as used for defined benefit post-employment plans. This means that the difference between the fair value of the plan assets (if any) and the present value of the defined benefit obligations is recognised as an asset or liability on the Consolidated balance sheet.

Actuarial gains and losses related to remeasurement of defined benefit pension plan obligations shall be recorded within other comprehensive income. Remeasurement of other long-term employee benefits are recognised in profit and loss.

For this purpose, actuarial gains and losses comprise both the effects of changes in actuarial assumptions and experience adjustments arising because of differences between the previous actuarial assumptions and what has actually occurred.

Other movements in the net surplus or deficit are recognised in the Consolidated income statement, including current service cost, any past service cost and the effect of any curtailments or settlements. Benefit costs are split between (i) the cost of benefits accrued in the current period (service cost) and benefit changes (past-service cost, settlements and curtailments); and (ii) finance expense or income. This analysis is presented in the Consolidated income statement or in the notes to the Consolidated financial statements.

Defined contribution plans

The Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. Contributions to defined contribution plans are recognised in the Consolidated income statement as an employee benefit expense in the period in which they are due.

Payroll expense and related contributions

Wages, salaries and social insurance funds, paid annual leave and sick leave, bonuses and non-monetary benefits are accrued in the period in which the associated services are rendered by the employees of the Group.

On behalf of its employees, the Group pays those statutory pension and post-employment benefit amounts prescribed by the legal requirements of the countries in which it operates. These payments are expensed as incurred unless capitalised.

Finance income and cost

Finance income comprises interest income on funds invested, gain on modification of borrowings and unwinding of loss on origination of loans.

1. Principal accounting policies (continued)

Finance costs comprise interest expense on borrowings, expenses from the unwinding of discount on asset retirement obligations, expenses from the unwinding of discount on financial instruments, expenses from the unwinding of discount on employee benefits obligations, amortisation of arrangement fees on credit facilities, accelerated unwinding of debt issue costs/discount.

Finance income and costs include foreign exchange gains and losses that relate mainly to loans receivable, borrowings, and term deposits (more than three months).

Interest income and expenses are recognised on a time proportion basis, using the effective interest method. All interest and other costs incurred in connection with borrowings are expensed as incurred as part of finance costs unless incurred on borrowings to finance the acquisition of a qualifying asset.

Borrowing costs to finance the acquisition of a qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use. All borrowings are classified between specific borrowings and general borrowings for the purpose of capitalisation.

Borrowing costs which relate to borrowings made specifically to fund the acquisition of a specific qualifying asset are fully capitalised during the period when this specific qualifying asset is being constructed. Borrowings which do not qualify as specific are defined as general borrowings.

For general borrowings the capitalisation rate is used to determine the amount of borrowing costs eligible for capitalisation.

Income tax

The income tax expense for the period comprises current and deferred tax. Current tax expense is the amount of tax estimated to be payable or recoverable in respect of the taxable income or loss for a period, as well as adjustments to estimates in respect of previous periods. It is calculated on the basis of the tax laws and rates enacted or substantively enacted at the balance sheet date.

Deferred tax represents the amount of income taxes payable or recoverable in future periods in respect of temporary differences, unused tax losses and unused tax credits. The deferred tax is recognised in respect of temporary differences between the tax bases of assets and liabilities and their carrying amounts in the Consolidated financial statements, subject to the exceptions below.

Deferred tax is not accounted for if it arises from the initial recognition of goodwill or the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss.

Deferred tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses to the extent that it is probable that future taxable profit will be available against which the deductible temporary differences, carry forward of unused tax credits and unused tax losses can be utilised.

Deferred tax assets are reviewed at each balance sheet date and are reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax assets to be utilised.

Deferred tax is provided on temporary differences associated with investments in subsidiaries, interests in joint ventures, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

1. Principal accounting policies (continued)

Deferred tax is determined using tax rates and laws that have been enacted or substantively enacted at the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the recognised amounts and the deferred tax assets and liabilities are intended to be settled either simultaneously or on a net basis.

Exploration and evaluation

Exploration for and evaluation of mineral resources include the search for mineral resources after the Group company has obtained legal rights to explore in a specific area, as well as the determination of the technical feasibility and commercial viability of extracting mineral resources.

Exploration and evaluation expenditures related to an area of interest are written off as incurred until management concludes that it is probable that future costs will be recovered through successful development and exploitation of the area of interest, or alternatively through its sale, from which point they are carried forward as an asset in the Consolidated balance sheet and are included within the assets under construction component of property, plant and equipment at cost less impairment charges.

Capitalised costs include costs directly related to exploration and evaluation activities in the relevant area of interest.

General and administrative costs are allocated to an exploration or evaluation asset only to the extent that those costs can be related directly to operational activities in the relevant area of interest. All capitalised exploration and evaluation expenditure is assessed for impairment if facts and circumstances indicate that impairment may exist.

For the purpose of assessing impairment, the exploration and evaluation assets subject to testing are grouped with relevant existing cash-generating units of operating mines that are located in the same geographical region. Where the assets are not associated with a specific cash-generating unit, the recoverable amount is assessed for the specific exploration area. Any impairment loss is recognised as an expense in accordance with the policy on impairment of non-financial assets.

Identifiable exploration and evaluation assets acquired as part of a business combination are recognised as assets at their fair value at the date of acquisition.

Property, plant and equipment

Property, plant and equipment is carried at cost less accumulated depreciation and any accumulated impairment loss.

Cost includes the original purchase price of the asset, costs attributable to bringing the asset to its working condition for its intended use and estimated future cost of closure and restoration of the asset.

Depreciation is recorded over the useful life of the asset, or over the expected remaining life of the mine if shorter, as follows:

- buildings (including mining premises): 10 to 60 years on a straight-line basis;
- mining assets (including mineral rights): on a units of production basis;
- plant and equipment: 5 to 30 years on a straight-line basis;
- motor vehicles: 5 to 30 years on a straight-line basis; and
- land: not depreciated.

1. Principal accounting policies (continued)

The residual value of an asset is nil if the Group expects to use the asset until the end of its physical life. Estimates of residual values and useful lives are reassessed annually, and any change in estimate is taken into account in the determination of future depreciation charges.

The individual significant parts of an item of property, plant and equipment (components), whose useful lives are different from the useful life of the asset as a whole, are depreciated individually, applying depreciation rates reflecting their anticipated useful lives. The cost of replacing major parts or components of property, plant and equipment items is capitalised and the replaced part is retired.

Subsequent costs are included in an asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repair and maintenance costs are charged to the Consolidated income statement in the period in which they are incurred.

Specialised spare parts and servicing equipment with a significant initial value and a useful life of more than one year are recognised as items of property, plant and equipment. Other spare parts and servicing-related equipment are recognised as inventories and accounted for in the Consolidated income statement on utilisation.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount of the assets disposed of and are recognised in the Consolidated income statement.

Property, plant and equipment is tested for impairment if facts and circumstances indicate that impairment may exist, in accordance with the impairment policy below.

i) Mining assets

Once a project has been established as commercially viable, capitalised expenditures are transferred from 'exploration and evaluation' to 'mining assets'. In addition, mining assets include mineral rights, expenditure incurred to establish or expand production capacity, costs to conduct mining construction and mining capital works, as well as costs arising from mining preparation works during the development or mine reconstruction phase.

Development expenditure incurred by or on behalf of the Group is accumulated separately for each area of interest in which economically recoverable resources have been identified.

Such expenditure comprises costs directly attributable to the construction of a mine and the related infrastructure, including the cost of materials, direct labour and an appropriate proportion of production overheads.

When further development expenditure is incurred in respect of a mining asset after the commencement of production, such expenditure is carried forward as part of the mining asset when it is probable that additional future economic benefits associated with the expenditure will flow to the Group. Otherwise, such expenditure is recognised as a cost of production.

Once a project has been fully commissioned, depreciation is charged using the units of production method, based on proved and probable reserves, with separate calculations being made for each area of interest. The units of production basis results in a depreciation charge proportional to the depletion of proved and probable reserves.

1. Principal accounting policies (continued)

Mining assets are included within the category 'buildings and mining assets' of property, plant and equipment.

ii) Assets under construction

Assets under construction are capitalised as a separate component of property, plant and equipment. Self-constructed assets include the cost of materials, direct labour and an appropriate proportion of allocated overheads. On completion, the cost of construction is transferred to the appropriate asset category. Assets under construction are not depreciated. Depreciation commences on the date when the assets are available for intended use.

iii) Stripping costs

Stripping costs comprise the removal of overburden and other waste products from mines. Stripping costs incurred in the development of mines and open pits before the production commences are capitalised as part of the cost of constructing the mines and open pits, and depreciated using the unit of production method over the lives of the mines or open pits.

Stripping costs incurred during the production phase of operations are treated as a production cost that forms part of the cost of inventory.

Impairment

The carrying amounts of property, plant and equipment and all other non-financial assets are reviewed for impairment if facts and circumstances indicate that impairment may exist.

An intangible asset that has an indefinite useful life, such as goodwill, is tested for impairment annually and whenever there is an indication that the asset may be impaired.

The Group tests an asset or cash-generating unit ('CGU') for impairment by comparing its recoverable amount with its carrying amount. When an impairment review is undertaken, the recoverable amount is assessed by reference to the higher of 'value in use' and 'fair value less costs of disposal'.

A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

Value in use is the net present value of expected future cash flows of the relevant CGU in its current condition. Value in use is determined by applying assumptions specific to the Group's continued use of the asset or CGU and does not take into account future developments.

The estimates used for impairment reviews to determine value in use are based on detailed mine plans and operating budgets.

Future cash flows are based on management's best estimates of:

- quantities of the reserves and mineral resources for which there is a high degree of confidence of economic extraction;
- future production levels;
- future commodity prices; and
- future cash costs of production, capital expenditure related to construction in progress and development projects that are not yet completed, close down, restoration and environmental clean up.

1. Principal accounting policies (continued)

Fair value less costs of disposal is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date less incremental costs directly attributable to the disposal of an asset or cash-generating unit, excluding finance costs and income tax expense.

Where there is no binding sale agreement or active market, fair value less costs of disposal is based on the best information available to reflect the amount that the Group could receive for the CGU in an arm's length transaction.

If the carrying amount of the asset exceeds its recoverable amount, the asset is impaired and an impairment loss is charged to the Consolidated income statement so as to reduce the carrying amount in the Consolidated balance sheet to its recoverable amount. For assets excluding goodwill, a previously recognised impairment loss is reversed if the recoverable amount increases as a result of a reversal of the conditions that originally resulted in the impairment.

This reversal is recognised in the Consolidated income statement and is limited to the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised in prior years. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Business combinations and goodwill

The acquisition method of accounting is used to account for business combinations. The Group elects on a transaction-by-transaction basis to measure non-controlling interests at the value of their proportion of identifiable assets and liabilities or at full fair value. The excess of the consideration transferred, amount of any non-controlling interest in the acquired entity, and acquisition-date fair value of any previous equity interest in the acquired entity over the fair value of the net identifiable assets, liabilities and contingent liabilities acquired, represents goodwill.

Goodwill is initially measured as the excess of the aggregate of the consideration transferred and the fair value of non-controlling interest over the net identifiable assets acquired and liabilities assumed. Subsequently, goodwill is measured at cost less accumulated impairment losses.

Intangible assets

Intangible assets, which are acquired by the Group and have finite useful lives, are stated at cost less accumulated amortisation and impairment losses. Intangible assets acquired in a business combination are capitalised at fair value when the fair value can be measured reliably on initial recognition. Intangible assets are tested for impairment if facts and circumstances indicate that impairment may exist, in accordance with the impairment policy described above.

Intangible assets are amortised using the straight-line method over their useful lives as follows:

- Concession intangible assets - duration of concession contracts: 10 to 50 years;
- Internally generated intangible assets: 2 to 10 years;
- Other intangible assets: 3 to 20 years.

Financial assets

Classification

The Group classifies its financial assets into the following measurement categories: financial assets at fair value through profit or loss, financial assets at fair value through other comprehensive income, and financial assets at amortised cost. The classification depends on the Group's business model for managing financial assets and the contractual terms of the cash flows. Management determines the classification of its financial assets at initial recognition.

1. Principal accounting policies (continued)

Non-derivative financial assets

The Group classifies its non-derivative financial assets as at amortised cost only if both of the following criteria are met: (a) the asset is held within a business model with the objective of collecting the contractual cash flows; and (b) the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal outstanding.

Financial assets at amortised cost include loans receivable, trade receivables (other than provisionally priced trade receivables), and other financial assets that are held with the objective of collecting contractual cash flows. After initial measurement at fair value, the financial assets are measured at amortised cost using the effective interest rate ('EIR') method, less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR.

The EIR amortisation is included in finance income in the Consolidated income statement. The losses arising from impairment are recognised in profit or loss.

Derivative financial assets

Derivative instruments (including instruments with embedded derivatives such as provisionally priced receivables) are measured at fair value through profit or loss, and are held for trading or designated as cash flow hedges relating to highly probable forecast transactions.

The effective portion of a change in fair value of a derivative contract designated as a cash flow hedge is recognised in other comprehensive income until the hedged transaction occurs; any ineffective portion is recognised in the Consolidated income statement.

The amount in accumulated other comprehensive income is reclassified to income when the hedged transaction is recognised in the Consolidated income statement.

Cost of hedging deferred in a separate reserve in equity is transferred to the Consolidated income statement only when the hedged transactions occurs.

Gains and losses on derivative contracts not qualifying or not designated as hedges are recognised in the Consolidated income statement.

Derecognition

The Group derecognises financial assets when: (i) the assets are redeemed or the rights to cash flows from the assets have otherwise expired; (ii) the Group has transferred the rights to the cash flows from the financial assets and transferred substantially all the risks and rewards of ownership of the assets; or (iii) the Group has neither transferred nor retained substantially all risks and rewards of ownership but has not retained control. Control is retained if the counterparty does not have the practical ability to sell the asset in its entirety to an unrelated third party without needing to impose additional restrictions on the sale.

Impairment

The Group assesses the expected credit losses associated with its financial assets carried at amortised cost. The impairment provisions for financial assets are based on assumptions about risk of default and expected loss rates. The Group uses judgement in making these assumptions and selecting the inputs to the impairment calculation. This judgement is based on the Group's past history, existing market conditions as well as forward looking estimates at the end of each reporting period.

1. Principal accounting policies (continued)

Inventories

Inventories are valued at the lower of cost and net realisable value. Cost of inventory is determined on a weighted average basis.

Cost includes all costs incurred in the normal course of business in bringing each product to its present location and condition. Cost for raw materials, consumable stores and other inventories is purchase price or extraction cost.

Cost for work in progress and finished goods is the cost of production, including the appropriate proportion of depreciation and overheads based on normal operating capacity, but excluding borrowing costs. Net realisable value is based on estimated selling price in the ordinary course of business less any further costs expected to be incurred to completion and disposal.

Trade and other receivables

Trade and other receivables (other than provisionally priced receivables which are carried at fair value through profit or loss) are recognised initially at fair value and subsequently carried at amortised cost using the effective interest method less provision for impairment.

The Group applies the simplified approach to providing for expected credit losses, which permits the use of the lifetime expected loss provision for all trade receivables. In calculating the expected credit loss rates for trade receivables, the Group considers historical loss rates for each category of counterparties, and adjusts for forward looking macroeconomic data. The accounts receivables have been divided in aging buckets and based on a historical analysis on defaults and recovery rates, a percentage for expected credit losses has been determined. The movement in the provision for impairment from the previous reporting period is recognised in the Consolidated income statement.

Subsequent recoveries of the amounts previously written off are credited against general and administrative expenses in the Consolidated income statement.

Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks and other short-term highly liquid investments with original maturities of three months or less.

Balances restricted from being exchanged or used to settle a liability for at least 12 months after the balance sheet date are included in other financial non-current assets, while balances restricted for more than three months but less than 12 months after the balance sheet date are included in trade and other receivables. Restricted balances are excluded from cash and cash equivalents in the Consolidated cash flow statement.

Financial liabilities

Classification

The Group classifies its financial liabilities into the following measurement categories: financial liabilities at fair value through profit or loss and other financial liabilities measured at amortised cost. Management determines the classification of its financial liabilities at initial recognition.

Non-derivative financial liabilities

The Group measures non-derivative financial liabilities at amortised cost. The non-derivative financial liabilities (including borrowings) are initially recorded at fair value less any directly attributable transaction costs.

1. Principal accounting policies (continued)

Borrowings are subsequently measured at amortised cost using the effective interest method. Amortised cost is calculated by taking into account any issue costs and any discount or premium on settlement.

Any difference between the proceeds net of transaction costs and the redemption value is recognised in the Consolidated income statement over the period of the borrowings using the effective interest method.

Where a loan is obtained at interest rates different from market rates, the loan is remeasured at origination to its fair value, which is calculated as future interest payments and principal repayments discounted at market interest rates for similar loans. The difference between the fair value of the loan at origination and its cost (fair value of the contribution to the borrower, net of transaction costs) represents an origination gain or loss.

The origination gain or loss is recorded in the Consolidated income statement within finance income/cost unless it qualifies for recognition as an asset, liability or a charge to equity in accordance with the substance of the arrangement. Subsequently, the carrying amount of the borrowing is adjusted for amortisation of the origination gain or loss and the amortisation is recorded as finance income/cost using the effective interest method.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the balance sheet date.

Derivative financial liabilities

Derivative instruments are measured at fair value through profit or loss, and are held for trading or designated as cash flow hedges relating to highly probable forecast transactions.

The effective portion of a change in fair value of a derivative contract designated as a cash flow hedge is recognised in other comprehensive income until the hedged transaction occurs; any ineffective portion is recognised in the Consolidated income statement.

The amount in accumulated other comprehensive income is reclassified to income when the hedged transaction is recognised in the Consolidated income statement. Cost of hedging deferred in a separate reserve in equity is transferred to the Consolidated income statement only when the hedged transactions occurs.

Derivatives embedded within contracts that are not already required to be recognised at fair value, and that are not closely related to the host contract in terms of economic characteristics and risks, are separated from their host contract and recognised at fair value; associated gains and losses are recognised in the Consolidated income statement.

Derecognition

A financial liability is derecognised when the obligation under the liability is discharged, cancelled or expired.

Where there has been an exchange between an existing borrower and lender of debt instruments with substantially different terms, or there has been a substantial modification of the terms of an existing financial liability, this transaction is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. A gain or loss from extinguishment of the original financial liability is recognised in the Consolidated income statement.

1. Principal accounting policies (continued)

When an existing financial liability is replaced by another one from the same lender on not substantially different terms, or the terms of an existing liability are not substantially modified, such an exchange or modification is not treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the Consolidated income statement.

Trade and other payables

Trade and other payables are accrued when the counterparty performs its obligations under the contract and are carried at amortised cost using the effective interest method.

Provisions for liabilities and charges

Provisions for liabilities and charges are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount can be made. Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as a part of finance cost.

Asset retirement obligations and other environmental provisions

An obligation to incur asset retirement costs occurs when environmental disturbance is caused by exploration, evaluation, development or ongoing production. Costs are estimated on the basis of a formal closure plan and are subject to a regular review. The estimates are based on Management's interpretation of compliance with current environmental legislation in the country of operation.

Asset retirement costs arising from the installation of a plant and other site preparation work, discounted to their net present value, are provided when the obligation to incur such costs arises and are capitalised into the cost of the related asset. These costs are charged to the Consolidated income statement through depreciation of the asset and unwinding of the discount on the provision.

Depreciation is included in operating costs while the unwinding of the discount is included as a finance cost.

Changes in the measurement of a liability relating to the decommissioning or site rehabilitation of a plant and other site preparation work are added to, or deducted from, the cost of the related asset.

Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction, net of tax from the proceeds.

Dividends are recognised as a liability and deducted from equity at the balance sheet date only if they have been approved before or on the balance sheet date.

Dividends are disclosed when they have been proposed before the balance sheet date or when declared after the balance sheet date, but before the Consolidated financial statements are authorised for issue.

2. Critical accounting estimates and judgements in applying principal accounting policies

The Group makes judgements in the process of applying accounting policies. The Group also makes estimates and assumptions concerning the future. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates may differ from the related actual results.

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year and areas of judgements that have a significant effect on the amounts recognised in the Consolidated financial statements are discussed below.

Ore reserve estimates

Ore reserve estimates are calculated based on Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves of December 2012 (the 'JORC code') which requires the use of reasonable assumptions, including:

- future production estimates, including proved and probable reserves, resource estimates and committed expansions;
- expected future commodity prices based on current market prices, forward prices and the Group's assessment of the long-term average prices; and
- future cash costs of production, capital expenditure and rehabilitation obligations.

The Group's ore reserves are based on its best estimate of product that can be economically and legally extracted from the relevant mining properties.

Estimates are developed after taking into account a range of factors including quantities, ore grades, production techniques and recovery rates, forecast commodity prices and production costs.

Estimates are normally supported by drilling samples and geological studies by independent mining engineering consultants. Significant judgement is required to generate an estimate based on the geological data available.

Ore reserve estimates may change from period to period. This may impact the Group's financial results. Changes in these estimates may impact depreciation charges, impairment charges on individual assets and CGUs, and asset retirement obligation provisions.

Life of mines

Contracts for subsurface use expire between 2023 and 2050. The Group expects that the subsurface use contracts will be extended at nominal cost until the end of the lives of the related mines. Any changes in these assumptions may impact depreciation charges, impairment charges on individual assets and CGUs and asset retirement obligations, as these items have been measured using the assumption that the subsurface use contracts will be extended until the end of the mine life.

Going concern

Note 1 provides details of going concern assessment for the Group.

Asset retirement obligations

Provision is made for asset retirement obligations when the related environmental disturbance takes place. Decommissioning and rehabilitation expenditure is largely expected to take place at the end of the respective mine lives.

2. Critical accounting estimates and judgements in applying principal accounting policies (continued)

Provisions are measured using the net present value of the expected costs as outlined in notes 1 and 24 to the Consolidated financial statements.

The provision represents Management's best estimate of the costs that will be incurred based on legislative and regulatory requirements. Significant judgement is required as many of these costs will not crystallise until the end of the life of the mine.

In 2021, a new version of Kazakhstani environmental code was adopted requiring decommissioning of certain assets. Decommissioning would be subject to the relevant assets' nature and potential environmental impact. The Group recognised US\$58 million within capitalisation of asset decommissioning costs as a part of the asset retirement obligation (refer to note 24) based on the current interpretation of the code and technical analysis performed. Since the code's requirements are new and there are uncertainties in the certain aspects of the code's application, the Group applied significant judgement in assessing related liabilities. Any future changes to the code and its interpretation and practice of application could impact judgements and estimates made by the Group, therefore could potentially result in revision of the relevant asset decommissioning obligations. The Group is currently discussing potential amendments to the Environmental code, including the method and timing of funding the liability.

Estimates are reviewed annually and based on Management's interpretation of compliance with current environmental legislation in the country of operation. Significant changes in environmental legislation, restoration techniques and estimates of contamination will result in changes to provisions from period to period.

The long-term inflation rates currently applied in the calculations are disclosed in note 24 being the estimates of the rate of inflation over the mine lives. The discount rates currently applied in the calculation are disclosed in note 24 being the estimates of the risk-free, pre-tax interest rates for long-term government securities.

Impairment of assets

The Group considers, at least annually, the recoverability of all assets if there have been any indications of impairment.

Non-current assets

Note 1 outlines the Group's policy for impairment of long-term non-financial assets and goodwill. Significant judgement is used to determine the present value of cash flows used (including the estimated quantum and timing) in the Group's impairment models.

Judgement is also employed in the assessment of the value of an asset or a group of assets prior to the receipt of a confirmed offer as well as for the estimation of future cash flows required to determine value in use.

The Group is currently capital constrained which limits its ability to develop its assets in the most effective manner and maximise their value.

As a result, where impairment indicators have been identified, 2022 impairment reviews have been performed on the basis of fair value less costs of disposal taking into account of how a less capital constrained market participant would develop the assets held by the Group.

2. Critical accounting estimates and judgements in applying principal accounting policies (continued)

The valuations have been carried out using a combination of techniques (classified as level 3 under the fair value hierarchy).

The cash flow projections utilised in impairment models were based on the Group's long-term strategic plans. The long-term US inflation rate has been used as the assumed growth rate, which was applied for the years where no direct input was available.

The price assumptions were based on forecasts by independent experts and internal management five-year forecasts for commodity prices, which were then benchmarked with external sources of information to ensure that they were within the range of available analyst forecasts.

Key assumptions which formed the basis of forecasting future cash flows in the impairment models are:

- commodity prices, which are based on internal forecasts by the management of the Group's sales and marketing business as well as on forecasts by independent experts. The main sources for inputs into internal forecasts are Bloomberg, CRU, Wood Mackenzie, Platts and Metal Bulletin. These internal forecasts are comparable to the forecasts of industry market researchers;
- long-term costs are set in line with current operational performance, as adjusted for future inflation rates in countries of operation and, where applicable, the expected movements in key input costs;
- successful extraction, processing and sale of the reserves and resources in accordance with the quantities described in the report on Ore Reserves and Mineral Resources and companies' long-term mine plans;
- compliance with regulations in the area of licencing to ensure maintenance and retention of tenure and permits. The legal system and dispute resolution mechanisms in some countries may be uncertain so that we may be unable to enforce our understanding of our title, permits or other rights. Changes to the laws or their more stringent enforcement or restrictive interpretation could cause additional expenditure to be incurred or impose suspensions of licenses;
- a long-term US inflation rate average of 2.0% (2021: 2.0%) per annum and a long-term Kazakhstani inflation rate average of 4.0% (2021: 5.5%), in line with external forecasts;
- in determining the discount rate to be applied to the future cash flows, the Group used the post-tax Weighted Average Cost of Capital ('WACC'), adjusted for the country risk premium for each CGU accordingly. The rates used were in the range of 9.50% - 13.25% (2021: 10.3% - 11.5%); and
- KZT/US\$ long- term exchange rate used is KZT510/US\$ (2021: KZT444/US\$).

As a result of the annual impairment testing, Management do not believe that the carrying value of long-term non-financial assets was impaired at 31 December 2022, except for the CGUs where impairments have been identified which are further discussed in note 9.

Contingent liabilities

The Group exercises judgement in measuring and recognising the exposure to contingent liabilities related to pending litigation or other outstanding claims subject to negotiated settlement, mediation, arbitration or government regulation, as well as other contingent liabilities (refer to note 28).

Judgement is necessary in assessing the likelihood that a pending claim will succeed, or a liability will arise, and to quantify the possible range of the financial settlement. Because of the inherent uncertainty in this evaluation process, actual losses may be different from the originally estimated provision.

2. Critical accounting estimates and judgements in applying principal accounting policies (continued)

Taxation

The Group is subject to the taxation requirements in the jurisdictions in which the Group operates.

Significant judgement is required in determining the position for income taxes across these jurisdictions owing to the complexity of tax laws, frequent changes in tax laws and regulations, and the manner of their implementation. Judgement must also be exercised whilst interpreting the interaction between different taxes and interaction between tax rules of different jurisdictions.

Tax provisions are recognised in accordance with tax laws enacted or substantively enacted by the tax authorities in the jurisdictions in which the Group operates, and in accordance with requirements of the applicable accounting standards.

Note 14 contains information on current period tax charges, prior period adjustments, current and deferred tax assets and liabilities including, where appropriate, provisions against uncertain tax positions.

Functional currency

Management exercised judgment in determining the functional currency of the Company (the ultimate holding company) and intermediate holding companies of the Group. The selection of the functional currency has an effect for the recognition or non-recognition of foreign exchange gains and losses on external and intra-group borrowings.

Based on the analysis performed, Management concluded that the US dollar ('US\$') is the functional currency of the Company and the intermediate holding companies of the Group.

The Group developed an accounting policy for the determination of the functional currency of the ultimate holding company based on the company's own operations.

The Company does not perform operational activities, thus the analysis of the primary indicators is not applicable.

The analysis of the secondary indicators supported the conclusion that the US\$ is the functional currency of the Company as its share capital, intra-group liabilities, and investments are denominated predominantly in US\$ and the external financing provided to its non-autonomous operations is denominated predominantly in US\$.

The functional currency of the intermediate holding companies of the Group was assessed based on the fact that none of them are autonomous, therefore Management has concluded that their functional currency is the same as the functional currency of the ultimate parent company, the US\$.

Long-term incentive plan

In 2017 the Company entered into a remuneration plan with some key management personnel. As part of this remuneration plan, the Company granted long-term incentives that are conditional to some vesting conditions including the occurrence of a liquidity event (including the sale or partial sale of the Group), the payment of dividends above a limit or the achievement of other financial targets by the Group. These incentives had, initially to be achieved before the end of 2019 with an option to extend until the end of 2021 but were subsequently extended to the end of 2027 (this extension took place on 20 August 2021, with a new agreed due date for the end of 2027 and an option to extend to the end of 2029). Amounts which have crystallised under these arrangements are set out at note 4.

2. Critical accounting estimates and judgements in applying principal accounting policies (continued)

If further of these incentives were to crystallise then amounts payable by the Company under these schemes may represent a material amount for the Company and the Group and will depend upon the amount of any proceeds arising from a sale or partial sale or other liquidity event. Determination of the liability depends on several assumptions, such as (i) the probability of occurrence of a triggering event and (ii) estimation of the payout.

Management best estimation at 31 December 2022 is that none of the triggering events will occur within the time frames, as defined in the employment agreements, and therefore no liability or expense has been recognised in the Consolidated financial statements for this plan (except as detailed at note 4).

3. Divisional information

Management has determined the operating divisions based on the reports reviewed and used by the Board of Managers to make strategic decisions.

The divisional Underlying EBITDA includes items directly attributable to the operating division, as well as those that can be allocated on a reasonable basis.

The disclosure of divisional information is not required by IFRS and is presented to provide users of the Consolidated financial statements with additional information.

The Group is organised on the basis of six (2021: six) operating divisions:

- Ferroalloys – comprises extraction and sale of chrome ore, as well as production and sale of ferrochrome and other ferroalloys;
- Iron Ore – comprises extraction of iron ore, production and sale of iron ore concentrate and pellets, and exploration and development of assets in Brazil;
- Alumina and Aluminium – comprises extraction of bauxite, as well as production and sale of alumina and aluminium;
- Copper, Cobalt and Other Non-ferrous – comprises extraction of cobalt and copper, production and sale of copper and cobalt products, and exploration and development of assets in Africa;
- Energy – comprises extraction and sale of coal, as well as production and sale of semi-coke and electricity; and
- Logistics and Other Business – comprises provision of logistical services to Eurasia based Group operations as well as freight forwarding to third parties. Other Business includes entities providing such operations as repair services, metal products and waste processing, production of non-core goods, etc.

3. Divisional information (continued)

Internal charges between divisions have been reflected in the performance of each operating division. The Group has a number of activities that exist principally to support the metals operations, including power generation, coal mining and transportation. Inter-division transfers or transactions are performed under a cost-plus pricing structure. The revenue generated from third parties is measured in a manner consistent with that in the Consolidated income statement. The identified operating and reportable divisions of the Group are the same as those that applied to the Group's Annual Report and Accounts for the year ended 31 December 2021.

Year ended 31 December 2022 US\$ million	Ferroalloys Division	Iron Ore Division	Alumina and Aluminium Division	Copper, Cobalt and Other Non- ferrous Division	Energy Division	Logistics and Other Business Division	Corporate and Shared Services Division	Intra Group Eliminations	Total
Revenue	2,810	1,110	1,154	2,392	383	75	-	-	7,924
Inter-division revenue	3	12	24	-	274	228	-	(541)	-
Divisional revenue	2,813	1,122	1,178	2,392	657	303	-	(541)	7,924
Divisional operating profit/(loss)	1,326	(143)	252	663	104	(13)	(209)	-	1,980
Finance income									292
Finance cost									(613)
Profit before income tax									1,659
Income tax expense									(710)
Profit for the year									949
Depreciation and amortisation	(150)	(110)	(60)	(350)	(88)	(27)	(8)	-	(793)
Impairment	(5)	(344)	-	-	-	(48)	-	-	(397)
Unrealised (loss)/gain on derivatives	-	(117)	-	13	-	-	-	-	(104)
Other	16	(7)	9	(28)	(4)	2	(106)	-	(118)
Underlying EBITDA (note 29)	1,465	435	303	1,028	196	60	(95)	-	3,392
Average number of employees	19,950	14,925	10,390	3,871	7,816	9,400	2,924	-	69,276

Year ended 31 December 2021 US\$ million (restated)	Ferroalloys Division	Iron Ore Division	Alumina and Aluminium Division	Copper, Cobalt and Other Non- ferrous Division	Energy Division	Logistics and Other Business Division	Corporate and Shared Services Division	Intra Group Eliminations	Total
Revenue	2,480	2,068	973	2,637	318	54	-	-	8,530
Inter-division revenue	4	12	13	-	273	171	-	(473)	-
Divisional revenue	2,484	2,080	986	2,637	591	225	-	(473)	8,530
Divisional operating profit/(loss)	1,248	1,107	349	1,074	68	4	(232)	-	3,618
Finance income									135
Finance cost									(640)
Profit before income tax									3,113
Income tax expense									(856)
Profit for the year									2,257
Depreciation and amortisation	(153)	(111)	(58)	(354)	(98)	(19)	(10)	-	(803)
Impairment	-	(1)	(2)	27	(52)	(8)	-	-	(36)
Unrealised gain on derivatives	-	327	-	20	-	-	-	-	347
Other	1	5	(4)	(11)	(2)	-	(89)	-	(100)
Underlying EBITDA (note 29)	1,400	887	413	1,392	220	31	(133)	-	4,210
Average number of employees	19,120	15,963	10,343	3,447	7,814	8,010	2,132	-	66,829

3. Divisional information (continued)

Revenue decreased primarily due to decrease in price of copper and iron ore.

Revenue consists of sales of goods recognised at a point in time – 98% (2021: 99%). Revenue includes US\$317 million revenue from sources other than from contracts with customers (2021: US\$442 million charge).

Comparative information restatement impact is set out below.

Year ended 31 December 2021 (restatement) US\$ million	Ferroalloys Division	Iron Ore Division	Alumina and Aluminium Division	Copper, Cobalt and Other Non- ferrous Division	Energy Division	Logistics and Other Business Division	Corporate and Shared Services Division	Intra Group Eliminations	Total
Revenue	22	3	–	–	–	(28)	3	–	–
Inter-division revenue	6	2	27	–	–	(73)	8	30	–
Divisional revenue	28	5	27	–	–	(101)	11	30	–
Divisional operating profit/(loss)	2	(8)	3	–	–	37	(34)	–	–
Profit for the year									–
Depreciation and amortisation	–	–	–	–	–	6	(6)	–	–
Impairment	–	(8)	–	–	–	8	–	–	–
Underlying EBITDA	2	–	3	–	–	23	(28)	–	–

4. Transactions and balances with related parties

Transactions incurred in the ordinary course of business with related parties in the years ended 31 December 2022 and 31 December 2021 were as follows:

US\$ million	Sales	Purchases	Net finance income
Class B Managers			
2022	1	(93)	6
2021	–	(85)	6
Other			
2022	–	(1)	–
2021	–	(1)	–

'Class B Managers' category is made of Class B Managers and all entities under their control. Purchases in 'Class B Managers' category include reimbursement of business travel costs to represent the Group and defence of reputation costs.

Outstanding balances with related parties at 31 December 2022 and 31 December 2021 were as follows:

US\$ million	Other financial assets	Trade and other receivables	Borrowings	Trade and other payables	Cash and cash equivalents
Class B Managers					
2022	47	6	(11)	(23)	549
2021	32	4	(9)	(79)	819
Other					
2022	–	–	(6)	–	–
2021	–	–	(6)	–	–

4. Transactions and balances with related parties (continued)

Tables above exclude transactions and balances with the DRC Government and the Republic of Kazakhstan Government. The details of transactions with the government bodies are presented below.

Class B Managers and all entities under their control are related parties of the Group as a result of Class B Managers' indirect interests in the ordinary shares of the Company. Class B Managers of the Company are Mr. Alexander Machkevitch, Mr. Patokh Chodiev and Mr. Shukhrat Ibragimov.

Transactions and balances with Government

The Government of the Republic of Kazakhstan and related entities are related parties of the Group as a result of the Government's 40% shareholding in the Company. The Group has a number of transactions with the Government of the Republic of Kazakhstan and related entities, including but not limited to:

- social investment and donations amounted to US\$2 million in 2022 (2021: US\$10 million);
- services received in relation to transportation of electricity and energy and in relation to supply and transportation of fuel and oil-associated gas, national railway services and a variety of other services that amounted to US\$254 million in 2022 (2021: US\$223 million);
- taxation and similar payments (including royalties and mineral extraction taxes) in accordance with the tax legislation of the Republic of Kazakhstan;
- trade and other receivables include term deposits of US\$161 million with the Development Bank of Kazakhstan (2021: US\$ nil million);
- loan agreements with the Development Bank of Kazakhstan;
- lease liability of US\$62 million for attracted right of use assets amounted to US\$90 million as per lease agreements with NC Kazakhstan Temir Zholy JSC; and
- distributions payable was US\$366 million at 31 December 2022 (2021: US\$166 million).

The DRC Government and its entity, La Générale des Carrières et des Mines ("Gecamines"), are related parties based on their participation set out below:

- the DRC Government holds 5% interest in Metalkol and Frontier;
- Gecamines holds 49% interest in Boss Mining;
- Gecamines holds 25% interest in Swanmines.

The Group had a number of transactions with the DRC Government and its entities, including, but not limited, services relating to the supply of energy, taxation and similar payments (such as royalties) in accordance with the DRC laws and regulations.

Key management compensation

Key management are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly.

Compensation for key management personnel (excluding the Managers of the Company and excluding long-term incentive plan disclosed in a corresponding section below) is set out in the table below:

US\$ million	Year ended 31 December	
	2022	2021
Salary and other short-term benefits	113	53
Long-term benefits	1	—
Total	114	53

4. Transactions and balances with related parties (continued)

Balances outstanding with key management arising from key management compensation and representing accrued but unpaid bonuses and amounts accrued under other long-term benefits were US\$9 million as at 31 December 2022 (accrued but unpaid bonuses as at 31 December 2021: US\$26 million). US\$4 million was paid in respect of other long-term benefits for the year ended 31 December 2022 (2021: US\$22 million).

Board of Managers compensation

Compensation payable to the Managers of the Company is for services performed for the Group. US\$0.3 million was paid to the Managers for the year ended 31 December 2022 (2021: US\$0.4 million).

Long-term incentive plan

US\$36 million was accrued for the year ended 31 December 2022 under the long-term incentive remuneration plan in respect of dividend targets met (2021: US\$15 million) and no accruals were made for the year ended 31 December 2022 under the long-term incentive remuneration plan in respect of Net debt to EBITDA target met (2021: US\$88 million) with certain key management personnel. US\$79 million had been paid at 31 December 2022 (2021: US\$11 million).

5. Cost of sales

US\$ million	Year ended 31 December	
	2022	2021
Materials and components used	(1,447)	(1,052)
Staff costs	(778)	(624)
Depreciation and amortisation	(727)	(729)
Mineral extraction tax, royalties and other taxes	(336)	(368)
Mining services	(226)	(303)
Power and energy	(221)	(200)
Repairs and maintenance	(212)	(173)
Changes in inventories	315	175
Other	(327)	(230)
Total cost of sales	(3,959)	(3,504)

6. Distribution costs

US\$ million	Year ended 31 December	
	2022	2021
Transportation costs	(171)	(153)
Taxes and duties	(69)	(64)
Agency and commission fees	(17)	(14)
Staff costs	(13)	(9)
Other	(45)	(41)
Total distribution costs	(315)	(281)

7. General and administrative expenses

US\$ million	Year ended 31 December	
	2022	2021
Staff costs	(347)	(333)
Professional and other services	(134)	(152)
Sponsorship and donations	(102)	(72)
Allowance for receivables	(47)	(6)
Business travel	(35)	(29)
Depreciation and amortisation	(26)	(31)
Taxes and duties	(9)	(13)
Other	(94)	(75)
Total general and administrative expenses	(794)	(711)

Contributions to a number of different non-recurring individual social development infrastructure projects at the national level in Kazakhstan amounted to US\$75 million (2021: US\$37 million), and primarily related to healthcare, education, cultural and recreation projects.

8. Research, business development and exploration costs

US\$ million	Year ended 31 December	
	2022	2021
Staff costs	(60)	(35)
Professional and other services	(46)	(28)
Exploration costs	(23)	(18)
Other	(35)	(19)
Total research, business development and exploration costs	(164)	(100)

9. Impairment

US\$ million	Year ended 31 December	
	2022	2021
SSGPO	(369)	–
Eurasian Energy Corporation	–	(52)
Comide/Swanmines	–	27
Other	(28)	(11)
Total impairment	(397)	(36)

Impairment of SSGPO CGU (Iron Ore Division) results from decreased sales volume forecasts in 2023 and 2024, and on-going pressure on costs. Suspended shipments to one of the largest customer were redistributed to other markets and customers, particularly in China and in Kazakhstan. The CGU is valued using DCF and has a recoverable amount of US\$1,071 million, which is its fair value less costs of disposal. The discount rate used is 12.25%. US\$369 million impairment loss relates to the impairment of goodwill and property, plant and equipment. Recoverable amount of SSGPO CGU could be sensitive to changes in applicable sales volume where 1% volume decrease could potentially result in additional impairment loss of approximately US\$88 million.

10. Other operating income and expense

US\$ million	Year ended 31 December	
	2022	2021
Foreign exchange gain	533	238
Tax refund	71	—
Penalties for breach of contract terms	26	—
Legal fees compensation	23	—
Unrealised gain on derivatives	—	347
Realised gain on derivatives	—	38
Other	93	73
Total other operating income	746	696
Foreign exchange loss	(577)	(231)
Realised loss on derivatives	(185)	(582)
Unrealised loss on derivatives	(104)	—
Depreciation and amortisation	(39)	(41)
Staff costs	(33)	(16)
Other	(123)	(106)
Total other operating expense	(1,061)	(976)

Realised loss on derivatives resulted from increased realised commodity market prices. Unrealised loss on derivatives resulted from increased forecast iron ore market prices.

11. Employee benefit expense

US\$ million	Year ended 31 December	
	2022	2021
Wages and salaries	(1,136)	(923)
Compulsory social security costs	(88)	(63)
Contributions to defined contribution plans	(3)	(11)
Expense related to employee benefit plans	(5)	(3)
Total employee benefit expense	(1,232)	(1,000)

Defined benefit obligations relate to lump sum payments upon retirement and other payments to pensioners. Other actuarial employee benefit obligations relate to non-pensioners and include lump sum payments for anniversaries, injuries and other financial aid.

12. Finance income

US\$ million	Year ended 31 December	
	2022	2021
Foreign exchange gain	158	70
Gain on modification of borrowings	107	47
Interest income	17	9
Other	10	9
Total finance income	292	135

Gain on modification of borrowings resulted from assignment and revision of certain credit facility agreements (refer to note 23).

13. Finance cost

US\$ million	Year ended 31 December	
	2022	2021
Interest expense on borrowings	(400)	(473)
Foreign exchange losses	(95)	(67)
Unwinding of discount	(63)	(60)
Loss on borrowings	(39)	(21)
Other	(43)	(30)
	(640)	(651)
Less: amounts capitalised on qualifying assets	27	11
Total finance cost	(613)	(640)

Loss on borrowings resulted from revision of estimated future cash payments.

14. Income tax

US\$ million	Year ended 31 December	
	2022	2021
Current income tax expense	(751)	(916)
Deferred income tax credit	41	60
Total income tax expense	(710)	(856)

Statutory income tax rate is 20% in the Republic of Kazakhstan, where the majority of the Group's operations are located.

US\$ million	Year ended 31 December	
	2022	2021
Profit before income tax	1,659	3,113
Notional tax charge at 20%	(332)	(623)
Unrecognised tax losses	(174)	(150)
Non-deductible expenses	(131)	(20)
Prior period charges	(68)	(10)
Effect of tax rates in other jurisdictions	(38)	(83)
Other	33	30
Income tax expense	(710)	(856)

14. Income tax (continued)

US\$ million	Mineral rights	Accelerated capital allowances	Tax losses	Other	Total
At 1 January 2021	(1,063)	(226)	60	73	(1,156)
Credited/(charged) to profit	4	29	(8)	35	60
Credited to other comprehensive income	–	–	–	21	21
Exchange differences	15	6	(1)	–	20
At 31 December 2021	(1,044)	(191)	51	129	(1,055)
Credited/(charged) to profit	53	17	(32)	3	41
Charged to other comprehensive income	–	–	–	(22)	(22)
Transfers	–	(11)	–	11	–
Exchange differences	1	15	–	(3)	13
At 31 December 2022	(990)	(170)	19	118	(1,023)
Deferred tax liability					(1,179)
Deferred tax asset					124
At 31 December 2021					(1,055)
Deferred tax liability					(1,112)
Deferred tax asset					89
At 31 December 2022					(1,023)

No deferred tax assets were recognised with respect to available tax losses and deductible temporary differences, which would expire as follows:

US\$ million	31 December	
	2022	2021
Unlimited	1,351	1,189
10 years	513	513
Total	1,864	1,702

Deferred tax liability was not recognised for taxable temporary differences associated with investments in subsidiaries of US\$1,737 million (2021: US\$1,259 million).

As at 31 December 2022, the Group was in ongoing disputes with certain tax authorities in respect of the application and interpretation of the tax laws, the ultimate outcome of which remains uncertain. In order not to prejudice seriously the Group's position on these matters, detailed information is not disclosed in these Consolidated financial statements.

15. Property, plant and equipment

US\$ million	Land	Buildings and mining assets	Mineral rights	Plant and equipment	Vehicles	Assets under construction	Total
Cost							
At 1 January 2021	38	2,276	4,531	4,350	821	1,488	13,504
Additions	3	45	21	92	38	573	772
Change in asset retirement costs (note 24)	–	3	–	1	–	–	4
Transfers	–	133	–	448	57	(638)	–
Net transfers (to)/from current assets	–	(1)	–	4	–	28	31
Disposals	–	(47)	(30)	(68)	(27)	(2)	(174)
Exchange differences	(1)	(40)	(64)	(62)	(17)	(33)	(217)
At 1 January 2022	40	2,369	4,458	4,765	872	1,416	13,920
Additions	1	30	1	127	205	1,000	1,364
Change in asset retirement costs (note 24)	–	69	–	1	–	14	84
Transfers	–	143	–	216	97	(456)	–
Net transfers (to)/from current assets	–	(2)	–	2	–	(11)	(11)
Disposals	–	(9)	–	(66)	(43)	(4)	(122)
Exchange differences	(1)	(105)	(54)	(168)	(46)	(56)	(430)
At 31 December 2022	40	2,495	4,405	4,877	1,085	1,903	14,805
Accumulated depreciation and impairment							
At 1 January 2021	–	(1,100)	(416)	(1,552)	(379)	(9)	(3,456)
Disposals	–	31	–	55	24	2	112
Depreciation charge	–	(163)	(69)	(491)	(80)	–	(803)
Transfers	–	(5)	–	(2)	–	7	–
Impairment charge (note 9)	–	3	17	(44)	(2)	(2)	(28)
Exchange differences	–	14	6	28	6	1	55
At 1 January 2022	–	(1,220)	(462)	(2,006)	(431)	(1)	(4,120)
Disposals	–	7	–	62	25	–	94
Depreciation charge	–	(141)	(59)	(507)	(90)	–	(797)
Transfers	–	24	–	4	–	(28)	–
Impairment charge (note 9)	–	(97)	(203)	(17)	(10)	(22)	(349)
Exchange differences	–	40	14	83	19	(1)	155
At 31 December 2022	–	(1,387)	(710)	(2,381)	(487)	(52)	(5,017)
Carrying value							
At 31 December 2021	40	1,149	3,996	2,759	441	1,415	9,800
At 31 December 2022	40	1,108	3,695	2,496	598	1,851	9,788

Additions to assets under construction included US\$27 million of capitalised borrowing costs (2021: US\$11 million). The average capitalisation rate was 6% (2021: 5%). Right of use assets mainly consist of vehicles. Carrying value of right of use assets was US\$168 million at 31 December 2022 (2021: US\$143 million) that includes US\$213 million cost (2021: US\$217 million) and US\$45 million accumulated depreciation (2021: US\$74 million). Additions to right of use assets were US\$110 million (2021: US\$29 million), and depreciation charge was US\$21 million (2021: US\$22 million).

15. Property, plant and equipment (continued)

Capital expenditure commitments at 31 December 2022 amounted US\$878 million (2021: US\$943 million).

16. Intangible assets

US\$ million	Goodwill	Concession	Internally generated	Other	Total
At 1 January 2021	79	—	28	30	137
Additions	—	6	14	1	21
Amortisation	—	—	(8)	(7)	(15)
Impairment charge	(8)	—	—	—	(8)
Exchange differences	(2)	—	(1)	(1)	(4)
At 31 December 2021	69	6	33	23	131
Additions	—	35	25	5	65
Amortisation	—	—	(4)	(6)	(10)
Impairment charge (note 9)	(23)	—	(25)	—	(48)
Exchange differences	(5)	—	(1)	(1)	(7)
At 31 December 2022	41	41	28	21	131

Goodwill of US\$3 million, US\$25 million, and US\$11 million is attributed to iron ore, ferroalloys, and alumina and aluminium divisions, respectively (2021: US\$29 million, US\$27 million, and US\$11 million, respectively).

In 2021, the Group signed a 35-year concession agreement to finalise the construction, operate, and maintain the first 537 km stretch of Brazilian East-West integration railway (Ferrovia de Integração Oeste-Leste, or FIOL Railway). Remuneration is based on the concession agreement, and would arise from transportation fares from users, which are regulated by the grantor. The Group is under obligation to deliver the concession assets to the Federal Government of Brazil at the end of the concession period.

17. Other non-current assets

US\$ million	31 December	
	2022	2021
Prepayments for property, plant and equipment	227	172
Other	11	5
Total other non-current assets	238	177

18. Inventories

US\$ million	31 December	
	2022	2021
Consumable stores	525	417
Finished goods	507	286
Work-in-progress	307	260
Raw materials	284	276
Other	259	194
Less write-down for obsolete and slow-moving inventory	(120)	(104)
Total inventories	1,762	1,329

Inventories increased primarily due to ongoing measures to secure alternative iron ore sales channels. Inventory write-down of US\$51 million (2021: reversal of inventory write-down of US\$4 million) is recognised within cost of sales, and US\$5 million (2021: reversal of inventory write-down of US\$1 million) is recognised within other operating expense.

19. Trade and other receivables

US\$ million	31 December	
	2022	2021
Trade receivables provisionally priced	366	293
Trade receivables	333	277
Term deposits	164	10
Other receivables	32	48
Restricted cash	16	71
Derivatives	—	126
Other	21	19
Loss allowance	(44)	(14)
Total financial assets	888	830
Other taxes	305	226
Advances to suppliers	202	103
Prepaid expenses	110	181
Impairment	(5)	(5)
Total non-financial assets	612	505
Total trade and other receivables	1,500	1,335

Loss allowance of trade and other receivables at amortised cost:

US\$ million	31 December					
	2022			2021		
	Gross	Loss allowance	Net	Gross	Loss allowance	Net
Current and not past due	396	(5)	391	284	(2)	282
Within 3 months overdue	59	(1)	58	53	(1)	52
3 to 6 months overdue	8	-	8	18	-	18
6 to 12 months overdue	53	(3)	50	4	-	4
Over 12 months overdue	23	(8)	15	62	(7)	55
Individually impaired	27	(27)	-	4	(4)	-
Total trade and other receivables at amortised cost	566	(44)	522	425	(14)	411

19. Trade and other receivables (continued)

Movements of loss allowance for trade and other receivables at amortised cost:

US\$ million	2022	2021
At 1 January	14	15
Charged	39	14
Uncollectable written off	(5)	(5)
Unused amounts reversed	(3)	(10)
Exchange differences	(1)	—
At 31 December	44	14

20. Cash and cash equivalents

	31 December	
US\$ million	2022	2021
Short-term deposits	507	692
Cash at bank and on hand	276	831
Total cash and cash equivalents	783	1,523
Bank overdrafts	(21)	—
Net cash and cash equivalents	762	1,523

Certain term deposits are convertible into cash within a three day period of notice.

21. Cash generated from operating activities

US\$ million	note	Year ended 31 December	
		2022	2021
Cash flow from operating activities			
Profit before income tax		1,659	3,113
Adjustments for:			
Depreciation and amortisation		793	803
Impairment		397	36
Net finance cost	12, 13	321	505
Write-down/(reversal of write-down) of inventories		56	(5)
Allowance for receivables		47	6
Net operating foreign exchange loss/(gain)		44	(7)
Other		(16)	24
		3,301	4,475
Changes in inventories		(525)	(388)
Changes in trade and other receivables		(401)	(429)
Changes in other taxes payable		(34)	32
Changes in asset retirement obligations		(4)	(6)
Changes in trade and other payables		362	(166)
Changes in employee benefit obligations		12	(4)
Cash generated from operating activities		2,711	3,514

22. Capital and dividend

	Par value of each share	Number (issued and fully paid)	Ordinary shares US\$'000
At 31 December 2022	US\$1	77,500	78
At 31 December 2021	US\$1	77,500	78

22. Capital and dividend (continued)

Capital reserve is a capital contribution by the shareholders of the Company.

Fully paid ordinary shares carry one vote per share and carry the right to dividends as declared from time to time.

The Company declared dividend as set out below:

	2022		2021	
	US\$/share	US\$ million	US\$/share	US\$ million
Dividend (Final 2021)	6,452	500	1,677	130
Interim dividend	–	–	2,194	170
Total		500		300

23. Borrowings

	31 December	
US\$ million	2022	2021
Non-current		
Bank borrowings	6,584	6,505
Lease	41	88
Term borrowings	14	13
Total third party	6,639	6,606
Bank borrowings	246	197
Lease	68	21
Total related party	314	218
Total non-current	6,953	6,824
Current		
Bank borrowings	122	400
Lease	26	40
Bank overdrafts	21	–
Term borrowings	–	4
Total third party	169	444
Bank borrowings	52	160
Lease	20	5
Total related party	72	165
Total current	241	609
Total	7,194	7,433

23. Borrowings (continued)

US\$ million	currency	maturity	interest rate	31 December	
				2022	2021
Non-current					
Bank borrowings	US\$	2028 - 2030	5.10%	3,467	3,339
Bank borrowings	US\$	2025 - 2030	4.50% - 5.75%	2,500	2,306
Bank borrowings	US\$	2030	4.50% + 3M SOFR	364	284
Bank borrowings	EUR	2024	5.80%	178	259
Bank borrowings	US\$	2026	6.75%	75	85
Lease	KZT	2023 - 2028	2.00% - 7.40%	21	61
Lease	US\$	2024	7.50%	18	26
Term borrowings	US\$	n/a	n/a	14	13
Lease	EUR	2027	n/a	2	—
Bank borrowings	US\$	2022	4.78%+1M SOFR	—	232
Lease	ZAR	2022	n/a	—	1
Total third party				6,639	6,606
Bank borrowings	US\$	2026	6.30%-6.72%	95	102
Lease	KZT	2023 - 2067	n/a	68	21
Bank borrowings	US\$	2025	4.00%	64	95
Bank borrowings	US\$	2027	5.55%	46	—
Bank borrowings	US\$	2029	7.30%	41	—
Total related party				314	218
Total non-current				6,953	6,824
Current					
Bank borrowings	EUR	2024	5.80%	105	69
Bank borrowings	US\$	2026	6.75%	17	10
Bank overdrafts	US\$	2023	8.75%	21	—
Lease	KZT	2023 - 2028	2.00% - 7.40%	16	31
Lease	US\$	2024	7.50%	9	8
Lease	KZT	2023 - 2027	n/a	1	1
Bank borrowings	US\$	2022	4.50% - 5.75%	—	171
Bank borrowings	US\$	2022	4.78%+1M SOFR	—	67
Bank borrowings	US\$	2022	5.10%	—	46
Bank borrowings	US\$	2022	4.50% + 3M SOFR	—	37
Term borrowings	KZT	2022	4.00%	—	4
Total third party				169	444
Bank borrowings	US\$	2025	4.00%	33	33
Bank borrowings	US\$	2027	5.55%	10	—
Lease	KZT	2023 - 2067	n/a	20	5
Bank borrowings	US\$	2026	6.30%-6.72%	7	127
Bank borrowings	US\$	2029	7.30%	2	—
Total related party				72	165
Total current				241	609
Total				7,194	7,433

23. Borrowings (continued)

In 2022, US\$2,981 million was assigned from RCB Bank Limited and CQUR Bank LLC to VTB Bank (PJSC).

In 2022, US\$60 million was assigned from an affiliate of Sberbank of Russia (PJSC) to Sberbank of Russia (PJSC).

The Group repaid US\$283 million in connection with early termination of prepayment facility arrangement with an affiliate of the Sberbank of Russia (PJSC) in 2022.

The Group repaid US\$55 million to RCB Bank and US\$34 million to the lessor Rail Leasing LLP for railcars in 2022.

Principal and interest payments under the existing facility agreements with VTB Bank (PJSC) and Sberbank of Russia (PJSC) were deferred for a period of minimum one year and up to three years and applicable interest rate under the existing facility agreement with Sberbank of Russia (PJSC) was reduced by 0.38% from April 2022.

In 2022, the Group signed a credit facility agreement with Eurasian Development Bank for up to US\$55 million at a market interest rate. The loan term is 5 years. US\$55 million was drawn down.

In 2022, the Group signed a credit facility agreement with Development Bank of Kazakhstan for up to US\$78 million at a market interest rate. The loan term is 7 years. US\$43 million was drawn down.

The Group signed a lease agreement for railcars for US\$113 million in 2022. The agreement term is 4 years.

The Group did not make a scheduled payment under the VTB Prepayment Facility to an affiliate of VTB Bank (PJSC) due to sanctions. A waiver with retrospective effect from the date of the breach was obtained in 2022 from the lender which has also introduced a sanctioned compliant payment mechanism for payments due after 31 December 2022.

US\$ million	Carrying values		Fair values	
	2022	2021	2022	2021
Bank borrowings	7,004	7,262	6,990	7,520
Bank overdrafts	21	—	21	—
Term borrowings	14	17	14	17
Total	7,039	7,279	7,025	7,537

US\$ million	2022	2021
At 1 January	(7,433)	(8,383)
Cash movements	672	1,458
Other non-cash movements	(465)	(536)
Exchange gain	32	28
At 31 December	(7,194)	(7,433)

Other non-cash movements include mainly interest expense and unwinding of discount.

The Group's credit facility agreements include a number of financial and non-financial covenants. The Group complied with applicable covenants at 31 December 2022 and 31 December 2021.

23. Borrowings (continued)

The Group had US\$35 million of undrawn committed facilities (2021: US\$550 million).

24. Asset retirement obligations

The Group has a legal obligation to complete landfill site restoration during mining operations and decommission its mining property after closure. The timing of decommissioning activity is subject to reassessment at the same time as the revision of the Group's proved and probable reserves.

US\$ million	31 December	
	2022	2021
Current	6	4
Non-current	182	98
Total asset retirement obligations	188	102

Movements in asset retirement obligations are as follows:

US\$ million	Asset decommissioning costs	Site restoration and re-vegetation	Total
At 1 January 2021	33	63	96
Unwinding of discount	3	6	9
Capitalisation	4	—	4
Acquisition of subsidiary	—	2	2
Exchange difference	—	(2)	(2)
Transfer	—	(1)	(1)
Utilisation	(3)	—	(3)
Production costs	3	(6)	(3)
At 31 December 2021	40	62	102
Unwinding of discount	3	5	8
Capitalisation	71	13	84
Exchange difference	(1)	(3)	(4)
Transfer	(1)	—	(1)
Utilisation	(4)	(3)	(7)
Production costs	5	1	6
At 31 December 2022	113	75	188

In accordance with its subsurface use contracts, the Group makes annual obligatory contributions to a deposit fund for the closure costs which will take effect upon exhaustion of the mineral deposits at the end of the respective mine lives.

The amount of the provision for asset retirement obligations is determined using the nominal prices effective at the reporting date and applying the forecasted rate of inflation for the expected period of the life of the mines. Uncertainties in estimating these costs include potential changes in regulatory requirements, decommissioning and reclamation alternatives, and the level of discount and inflation rates.

Principal assumptions made in the calculations of asset retirement obligations are presented below:

24. Asset retirement obligations (continued)

	31 December			
	2022		2021	
	Kazakhstani entities	African entities	Kazakhstani entities	African entities
Discount rate	10.1%-15.9%	8.0%-13.0%	9.3% - 11.0%	8.0% - 13.26%
Inflation rate	4.0%-9.1%	2.0%-5.0%	4.7% - 8.0%	1.4% - 6.8%

25. Trade and other payables

	31 December	
US\$ million	2022	2021
Trade payables	1,044	666
Distributions payable	366	228
Derivatives	—	114
Other	21	15
Total financial liabilities	1,431	1,023
Employee entitlements	206	216
Advances received	18	16
Other	148	132
Total non-financial liabilities	372	364
Total trade and other payables	1,803	1,387

26. Financial and capital risks management

The Group's activities expose it to a variety of financial risks. Responsibility for management of these risks is allocated between the treasury (foreign exchange risk, credit risk, capital risk, liquidity risk), corporate finance (interest rate risk) and sales and operations planning (commodity price risk) teams, depending on the process ownership and skills required to manage the risk effectively.

Credit risk

Credit risk of the majority of Group sales is covered by letters of credit or cash prepayments against documents. The credit terms are subject to internal policy to ensure credit limits are within the policy. The Group's counterparty Credit Risk Management Policy on managing credit risk arising from granting trade credit to the customers of the Group sets goals, principles and rules, establishing the process for managing credit risk arising from granting trade credit to the Group's customers. For all key Group buyers, credit limits are defined in order to ensure Group credit risk exposure is aligned with approved risk appetite level.

The Group's policy is to invest surplus funds with relationship banks and highly rated liquidity funds. When placing investments and deposits the Group assigns individual counterparty exposure limits based on published credit ratings or an internal credit assessment. Monitoring of these counterparties is carried out on a regular basis to ensure all credit exposures are quantified, and if required, appropriate actions are taken to reduce risk.

The Group placed cash and deposits to financial institutions with credit ratings ranging from A+ to BBB- and from BB+ and lower/unrated in the amount of US\$21 million (2021: US\$29 million) and US\$762 million at 31 December 2022 (2021: US\$1,494 million), respectively.

26. Financial and capital risks management (continued)

The Group has established relationships with a number of international and domestic banks in the areas, where the Group operates.

US\$ million	note	31 December	
		2022	2021
Trade and other receivables	19	888	830
Cash and cash equivalents	20	783	1,523
Other financial assets		118	103
Total maximum credit risk exposure		1,789	2,456

The maximum uncollateralised exposure to credit risk for cash and cash equivalents, trade and other receivables and other financial assets by geographic region is as follows:

US\$ million	31 December 2022			
	Cash and cash equivalents	Trade and other receivables	Other financial assets	Total
Eurasia	593	330	58	981
Africa	57	144	13	214
Europe and Middle East	27	134	47	208
Asia Pacific	2	242	–	244
Rest of the World	104	38	–	142
Total	783	888	118	1,789

US\$ million	31 December 2021			
	Cash and cash equivalents	Trade and other receivables	Other financial assets	Total
Eurasia	1,225	335	43	1,603
Africa	232	77	9	318
Europe and Middle East	55	168	47	270
Asia Pacific	6	150	–	156
Rest of the World	5	100	4	109
Total	1,523	830	103	2,456

Top 10 customers as a proportion of the outstanding balance of trade receivables amounted 82% (2021: 84%).

Liquidity risk

The Group's principal sources of liquidity are cash generated from operations and corporate credit lines. Liquidity risk is the risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. Fluctuations in commodity prices and overall economic uncertainty may have an adverse impact on forecasted cash flows as well as the ability to access capital at reasonable pricing. The Group's approach to managing liquidity is to ensure that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions. This is achieved by close monitoring of the Group's key financial resilience indicators and producing regular cash forecasts as well as securing adequate cash reserves or bank facilities for meeting future liabilities. Liquidity risk is currently identified at all levels (regional and Group) and measured through various term forecast and stress scenario forecasts. The Group's going concern status is discussed in note 1.

26. Financial and capital risks management (continued)

The following tables summarise the Group's financial assets and liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. The amounts disclosed in the tables are the contractual undiscounted cash flows, translated at balance sheet date exchange rates.

Non-derivative financial assets and liabilities

31 December 2022									
US\$ million	note	Carrying value	Contractual cash flows	Less than 1 year	1-2 years	2-3 years	3-4 years	4-5 years	After 5 years
Borrowings	23	(7,194)	(9,659)	(276)	(1,722)	(1,051)	(1,081)	(1,054)	(4,475)
Trade and other payables	25	(1,431)	(1,431)	(1,431)	—	—	—	—	—
Other non-current liabilities		(73)	(87)	—	(23)	(18)	(17)	(16)	(13)
Trade and other receivables	19	888	888	888	—	—	—	—	—
Cash and cash equivalents	20	783	783	783	—	—	—	—	—
Other financial assets		19	24	—	4	4	3	5	8
Net position		(7,008)	(9,482)	(36)	(1,741)	(1,065)	(1,095)	(1,065)	(4,480)

31 December 2021									
US\$ million	note	Carrying value	Contractual cash flows	Less than 1 year	1-2 years	2-3 years	3-4 years	4-5 years	After 5 years
Borrowings	23	(7,433)	(10,204)	(1,052)	(903)	(1,183)	(943)	(971)	(5,152)
Trade and other payables	25	(909)	(909)	(909)	—	—	—	—	—
Other non-current liabilities		(30)	(36)	—	(15)	(6)	(4)	(4)	(7)
Cash and cash equivalents	20	1,523	1,523	1,523	—	—	—	—	—
Trade and other receivables	19	704	704	704	—	—	—	—	—
Other financial assets		18	25	—	5	6	4	3	7
Net position		(6,127)	(8,897)	266	(913)	(1,183)	(943)	(972)	(5,152)

Derivative financial assets and liabilities

31 December 2022						31 December 2021				
US\$ millions	Carrying value	Contractual cash flows	Less than 1 year	1-2 years	2-3 years	Carrying value	Contractual cash flows	Less than 1 year	1-2 years	2-3 years
Commodity derivatives	—	—	—	—	—	(20)	—	—	—	—
Outflow	—	—	—	—	—	—	(146)	(106)	(38)	(2)
Inflow	—	—	—	—	—	—	125	125	—	—
Net position	—	—	—	—	—	(20)	(21)	19	(38)	(2)

Foreign exchange risk

The majority of the Group's production costs are denominated in Kazakhstani tenge (KZT) and US dollars (US\$) while the majority of sales are denominated in US\$. The Group is therefore exposed to the risk that movements in exchange rates will affect both its operating profit and cash flows.

The Group's foreign currency exposure arises from:

- highly probable forecast transactions (sales/purchases) denominated in foreign currencies; and
- monetary items (mainly intercompany receivables, payables and borrowings) denominated in foreign currencies.

26. Financial and capital risks management (continued)

Foreign exchange exposures are regularly reported and reviewed for any mitigating action that may be required.

The table below summarises the foreign currency exposure on the net monetary position of each Group entity against its respective functional currency, expressed in the Group's presentation currency.

US\$ million	KZT	US\$	EUR	RUB	GBP	ZAR	Other
31 December 2022							
Kazakhstani entities (KZT)	n/a	(2,181)	(274)	(61)	(2)	—	(18)
Marketing and holding entities (US\$)	—	n/a	(5)	1	29	4	1
Marketing Russian entities (RUB)	—	10	—	n/a	—	—	—
UK management entities (GBP)	—	(28)	—	—	n/a	—	—
African entities (primarily US\$)	—	(483)	1	—	(72)	(4)	26
Brazilian entities (BRL)	—	(618)	—	—	—	—	—
Net monetary (liability)/asset position	—	(3,300)	(278)	(60)	(45)	—	9
31 December 2021							
Kazakhstani entities (KZT)	n/a	358	(123)	(55)	—	—	3
Marketing and holding entities (US\$)	—	n/a	(241)	—	73	4	(7)
Marketing Russian entities (RUB)	—	(7)	—	n/a	—	—	—
UK management entities (GBP)	—	(36)	—	—	n/a	—	—
African entities (primarily US\$)	—	(506)	25	—	(85)	(30)	38
Brazilian entities (BRL)	—	(469)	—	—	—	—	—
Net monetary (liability)/asset position	—	(660)	(339)	(55)	(12)	(26)	34

US\$ balances for African entities represent US\$ balances in non-US\$ functional currency entities.

Intercompany balances are included to fully reflect the Group's exposure to foreign currency risk. The principal exchange rates are presented in note 1.

As at 31 December 2022, based on the net monetary position as set out in the previous table, the sensitivity to a reasonable possible change in the US dollar exchange rate of the Group's profit before tax is as follows: if the US dollar had strengthened/weakened by 20% against Kazakhstani tenge with all other variables held constant, the recalculated profit before tax for the year would have been US\$364 million lower and US\$545 million higher (2021: US\$60 million higher and US\$90 million lower based on 20%), mainly as a result of foreign exchange gains/losses on translation of US dollar/Kazakhstani tenge denominated cash and cash equivalents, trade receivables and loans receivable, and foreign exchange losses/gains on translation of US dollar/Kazakhstani tenge denominated trade payables and borrowings. This sensitivity analysis does not include impact on the Group's operating profit.

The Group does not consider the sensitivity to a reasonable possible change in the US dollar exchange rate (15%) against RUB and (5%) against EUR, GBP, ZAR, BRL and other currencies to be significant.

Fluctuations of US dollar exchange rate against RUB does not have a significant impact on the Group's operations as net monetary position in RUB is immaterial.

26. Financial and capital risks management (continued)

Interest rate risk

For interest rate risk the Group measures and monitors the risk using sensitivity analysis. The Group has financial assets and liabilities which are exposed to changes in market interest rates. These assets and liabilities are exposed to fair value interest rate risk or cash flow interest rate risk depending on whether they are subject to fixed or floating rates of interest.

The Group's policy is to maintain a balance between fixed and floating interest rates on long-term borrowings to prevent the debt portfolio being over exposed to interest rate movements. However, during 2022 the interest rate on the long-term debt portfolio was predominately fixed to provide certainty of interest costs.

The Group's significant interest bearing assets and liabilities are as follows:

US\$ million	31 December 2022		31 December 2021	
	Fixed rate	Floating rate	Fixed rate	Floating rate
Cash and cash equivalents	496	15	667	28
Trade and other receivables	163	–	58	1
Other financial assets	50	1	37	6
Borrowings	(6,725)	(364)	(6,773)	(620)
Net position	(6,016)	(348)	(6,011)	(585)
Effect of 1% increase in interest rates on profit before income tax	n/a	(3)	n/a	(6)

All other financial assets and liabilities are non-interest bearing.

All the Group's interest-bearing assets and liabilities are fixed-rate and measured at amortised cost, so not sensitive to interest rate movements.

The impact on equity is the same as the impact on income. This analysis assumes that all other variables, in particular foreign exchange rates, remain constant.

Commodity price risk

The Group adopted hedge accounting of aluminium derivative contracts to manage risk of change in cash flows from highly probable forecast aluminium sales. Possibility remains that hedging instruments chosen may not always provide effective mitigation of the underlying price risk. The hedging instruments available may differ in specific characteristics to the risk exposure to be hedged, resulting in an ongoing and unavoidable basis risk exposure. Hedge accounting is considered an integral part of the Group's risk management activities.

The results of our sensitivity analysis to commodity price risk are mainly impacted by our use of swap and option instruments to manage the risk of these commodity prices. Where hedge accounting is adopted this sensitivity is reported below as an impact in the Consolidated income statement or otherwise in the Consolidated equity statement.

To mitigate commodity price risk, the Group proactively manages price fluctuations for commodities, including monitoring changes in macroeconomic factors, price indices, benchmarks.

The Group's commodity derivatives and trade receivables provisionally priced are exposed to the risk of fluctuations in prevailing market commodity prices.

26. Financial and capital risks management (continued)

Sensitivity on open commodity derivative contracts at 31 December 2022

A ten percent increase in aluminum market prices would decrease profit before tax by US\$nil million (2021: US\$nil million), and would decrease equity by US\$nil million (2021: US\$61 million decrease), and a ten percent decrease in prices would increase profit before tax by US\$nil million (2021: US\$nil million) and would increase equity by US\$nil million (2021: US\$58 million increase).

A ten percent increase in iron ore market prices would decrease profit before tax by US\$nil million (2021: US\$42 million) and a ten percent decrease in prices would increase profit before tax by US\$nil million (2021: US\$42 million), with no additional impact on equity.

A ten percent increase in copper market prices would decrease profit before tax by US\$nil million (2021: US\$31 million) and a ten percent decrease in prices would increase profit before tax by US\$nil million (2021: US\$31 million), with no additional impact on equity.

Commodity derivative contracts were terminated in 2022.

Sensitivity on trade receivables provisionally priced at 31 December 2022

A ten percent increase in ferroalloys market prices would increase profit before tax by US\$26 million (2021: US\$14 million) and a ten percent decrease in prices would decrease profit before tax by US\$26 million (2021: US\$14 million), with no additional impact on equity.

This analysis assumes that all other variables remain constant.

Capital risk management

The Group's objectives in capital management are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to achieve this overall objective, the Group's capital management, among other things, aims to ensure compliance with financial covenants attached to its interest-bearing borrowings that form part of its capital structure (refer to 'Going concern basis' in note 1).

The key financial ratios monitored for covenant compliance are:

- net debt to EBITDA;
- EBITDA to finance charges;
- net debt to equity.

The Group considers the following balances as a part of its capital management:

US\$ million	note	31 December	
		2022	2021
Borrowings	23	7,194	7,433
Capital reserve		3,159	3,159
Reserves		392	288
Total capital		10,745	10,880

The Group manages its capital structure in light of changes in economic conditions and compliance with financial covenants. In order to maintain or adjust the capital structure, the Group may adjust the amount of returned capital to shareholders, issue new shares or sell assets to manage its debt level.

26. Financial and capital risks management (continued)

In June 2022, Standard & Poor's upgraded assigned credit rating to B from B- with stable outlook. The Group concluded to discontinue obtaining a credit rating from Standard and Poor's. At the request by the Group, Standard and Poor's withdrew a credit rating of the Group in March 2023. The outlook was stable at the time of the withdrawal. In December 2022, Moody's affirmed B1 credit rating with the stable outlook.

Fair value of financial instruments

Fair values of derivatives, embedded derivatives, and provisionally priced trade receivables are level 2 measurements derived from standard option pricing models, discounted cash flows models using quoted prices, such as forward commodity prices and US dollar swap curves, based on observable market activity.

Fair values of financial instruments carried at amortised cost are derived from expected cash flows discounted at prevailing interest rates for new instruments with similar credit risks and maturities. Fair value of borrowings excluding leases is level 2 measurement amounting US\$7,025 million (2021: US\$7,537 million). Fair values of other financial assets and liabilities carried at amortised cost approximate their carrying values.

27. Auditor's remuneration

US\$ million	Year ended 31 December	
	2022	2021
Fees payable to the Company's auditor for the audit of the Company and Consolidated financial statements	1.7	1.5
Audit of the Company's subsidiaries	3.9	3.7
Other assurance services	0.3	0.1
Total	5.9	5.3

28. Contingencies

Between 2011 and 2013, ENRC Limited ("ENRC") was engaged in an internal investigation into certain matters, including allegations concerning its African and Kazakhstan businesses. Throughout that period, ENRC voluntarily provided the Serious Fraud Office ('SFO') with a considerable volume of information resulting from this investigation. In late April 2013, the SFO decided to open a formal investigation into ENRC. In 2015 and on some later occasions the SFO has confirmed that it was 'not at present actively investigating' the Company's operations in Kazakhstan. ENRC has provided a further substantial volume of documentation to the SFO, both voluntarily and in response to formal statutory requests. To date, the SFO has not indicated to ENRC the precise scope of their investigation. ENRC is not privy to the SFO's intended timeline for the investigation and has no visibility on whether the investigation will be resolved before the end of 2023. ENRC is represented by specialist external counsel.

28. Contingencies (continued)

The Group exercises judgement in measuring and recognising the exposure to risks and related contingent liabilities arising from, inter alia, pending litigation or other outstanding claims, tax and other governmental audits such as currency control, hedging, risks of the breach of sanctions or uncertainties in respect to interpretation and application of taxation legislation. These matters can be subject to negotiated settlement, mediation, arbitration or government regulation, and therefore judgement is necessary in assessing the likelihood whether a liability will arise, and to quantify the possible range of the financial outflow.

The Group is routinely subject to tax audits by the Kazakhstan and African tax authorities. The outcome of these audits and assessments is uncertain. However, the Group believes that the final outcome of any audit pending assessment is not likely to have any material impact on these Consolidated financial statements.

29. Reconciliation of non-GAAP measure

Underlying EBITDA

US\$ million	note	Year ended 31 December	
		2022	2021
Profit for the year		949	2,257
Adjustments for:			
Depreciation and amortisation		793	803
Income tax expense	14	710	856
Finance cost	13	613	640
Impairment	9	397	36
Unrealised loss/(gain) on derivatives	10	104	(347)
Finance income	12	(292)	(135)
Other		118	100
Underlying EBITDA		3,392	4,210

30. Non-controlling interests

Transactions with non-controlling interests in 2022:

- acquisition of outstanding non-controlling interest of 1.84% in SSGPO JSC;
- acquisition of outstanding non-controlling interest of 1.71% in Aluminium of Kazakhstan JSC.

US\$ million	Non-controlling interests	Cash paid	Retained earnings
SSGPO JSC	(83)	46	37
Aluminium of Kazakhstan JSC	(2)	3	(1)
Other	(2)	—	2
	(87)	49	38

30. Non-controlling interests (continued)

Non-controlling interests are set out below:

US\$ million	31 December	
	2022	2021
Metalkol	78	66
TNC Kazchrome JSC	21	27
Shubarkol komir JSC	14	18
Chambishi Metals PLC	(29)	(29)
SSGPO JSC	–	79
Other	(18)	(16)
Total	66	145

Other comprises subsidiaries in which no individual balance attributable to non-controlling interests is material.

Information below is before intercompany eliminations.

Summarised balance sheet.

US\$ million	Metalkol	TNC Kazchrome JSC	Shubarkol komir JSC	Chambishi Metals PLC
31 December 2022				
Non-current assets	3,518	2,683	496	6
Current assets	798	1,162	63	22
Total assets	4,316	3,845	559	28
Non-current liabilities	1,464	2,517	277	305
Current liabilities	1,169	477	95	14
Total liabilities	2,633	2,994	372	319
Net assets/(liabilities)	1,683	851	187	(291)
Non-controlling interests	78	21	14	(29)
Non-controlling interests %	5.00%	0.66%	1.76%	10.00%

US\$ million	Metalkol	TNC Kazchrome JSC	SSGPO JSC	Shubarkol komir JSC	Chambishi Metals PLC
31 December 2021					
Non-current assets	3,636	3,071	1,175	393	4
Current assets	770	1,321	1,247	383	23
Total assets	4,406	4,392	2,422	776	27
Non-current liabilities	1,461	2,371	710	267	295
Current liabilities	1,498	332	316	77	23
Total liabilities	2,959	2,703	1,026	344	318
Net assets/(liabilities)	1,447	1,689	1,396	432	(291)
Non-controlling interests	66	27	79	18	(29)
Non-controlling interests %	5.00%	0.65%	1.84%	1.76%	10.00%

30. Non-controlling interests (continued)

Summarised income statement.

US\$ million	Year ended 31 December 2022			
	Metalkol	TNC Kazchrome JSC	Shubarkol komir JSC	Chambishi Metals PLC
Revenue	1,732	2,814	254	4
Expenses	(1,406)	(1,729)	(257)	(4)
Profit/(loss) for the year	326	1,085	(3)	-
Profit attributable to non-controlling interests	16	7	-	-
Comprehensive income/(expense) for the year	326	948	(35)	-
Comprehensive income/ (expense) attributable to non-controlling interests	16	6	(1)	-

US\$ million	Year ended 31 December 2021				
	Metalkol	TNC Kazchrome JSC	SSGPO	Shubarkol komir JSC	Chambishi Metals PLC
Revenue	1,537	2,484	1,849	203	10
Expenses	(1,178)	(1,520)	(1,020)	(151)	(26)
Profit/(loss) for the year	359	964	829	52	(16)
Profit/(loss) attributable to non- controlling interests	18	6	15	1	(2)
Comprehensive income/(expense) for the year	359	926	803	42	(16)
Comprehensive income/ (expense) attributable to non-controlling interests	18	6	15	1	(2)

Summarised cash flows.

US\$ million	Year ended 31 December 2022				Year ended 31 December 2021			
	Operating	Investing	Financing	Net decrease in cash and cash equivalents	Operating	Investing	Financing	Net increase in cash and cash equivalents
Metalkol	346	(92)	(390)	(136)	693	(78)	(497)	118
TNC Kazchrome JSC	1,221	192	(1,746)	(333)	688	(309)	(6)	373
SSGPO JSC	-	-	-	-	978	(724)	(114)	140
Shubarkol komir JSC	64	146	(220)	(10)	110	169	(279)	-
Chambishi Metals PLC	(1)	-	1	-	(1)	(1)	2	-

31. Principal subsidiaries

The Group comprises a large number of subsidiaries and it is not practical to include all of them in a list in these Consolidated financial statements. Therefore, the Group discloses only those subsidiaries that have a more significant impact on the profit or assets of the Group. A full list of subsidiaries is filed along with these Consolidated financial statements to Registre de Commerce et des Sociétés in Luxembourg.

31. Principal subsidiaries (continued)

31 December 2022					
Subsidiary	Principal activity	Country of incorporation	Proportion of equity interest held by the Parent Company (%)	Effective proportion of ordinary shares/ equity interest held by the Group (%)	Proportion of preference shares held by the Group (%)
TNC Kazchrome JSC	Mining and processing	Kazakhstan	-	99.99	92.85
SSGPO JSC	Mining and processing	Kazakhstan	-	100.00	-
Kachary Ruda JCS	Mining and processing	Kazakhstan	-	100.00	-
Kazakhstan Aluminium Smelter JCS	Metals processing	Kazakhstan	-	100.00	-
Aluminium of Kazakhstan JSC	Mining and processing	Kazakhstan	-	100.00	-
Shubarkol komir JSC	Mining and processing	Kazakhstan	-	100.00	46.39
Eurasian Energy Corporation JSC	Power generation	Kazakhstan	-	100.00	-
TransCom LLP	Logistics	Kazakhstan	-	100.00	-
Frontier	Mining and processing	DRC	-	95.00	-
Boss Mining	Mining and processing	DRC	-	51.00	-
Comide SARL	Mining	DRC	-	100.00	-
Metalkol	Mining and processing	DRC	-	95.00	-
Swanmines	Mineral exploration	DRC	-	75.00	-
Bahia Mineração S.A.	Mineral exploration	Brazil	-	100.00	-
ERG Sales AG	Sales and marketing	Switzerland	-	100.00	-
ERG Sales Africa DMCC	Sales and marketing	United Arab Emirates	-	100.00	-
ERG B.V.	Holding	Netherlands	100	-	-
ENRC N.V.	Holding	Netherlands	-	100.00	-
ENRC Limited	Holding	United Kingdom	-	100.00	-

32. Events after the balance sheet date

Tailings mining permit was successfully renewed by Metalkol triggering a 5% equity of Metalkol transfer to the DRC Government in accordance with the mining code of the DRC, subject to a request of the DRC Government in accordance with law. The renewal results in recognition of non-controlling interests and property, plant and equipment related to mineral rights.