RUSAL

MORE THAN ALUMINIUM

Annual report 2022

CONTENTS

ACCOUNTABILITY

Honesty with partners, customers, and the Company

FINANCIAL AND PRODUCTION INDICATORS

USD million (unless otherwise specified)	2022	2021	2020	2019	2018
Revenue	13,974	11,994	8,566	9,711	10,280
Adjusted EBITDA	2,028	2,893	871	966	2,163
Adjusted EBITDA Margin	14.5%	24.1%	10.2%	9.9%	21.0%
EBIT	1,316	2,079	279	87	1,481
Share of Profits from Associates and Joint Ventures	1,555	1,807	976	1,669	955
Pre-Tax Profit	2,166	3,641	716	1,054	1,953
Profit	1,793	3,225	759	960	1,698
Profit Margin	12.8%	26.9%	8.9%	9.9%	16.5%
Adjusted Net Profit/(Loss)	725	1,536	60	(270)	856
Adjusted Net Profit/(Loss) Margin	5.2%	12.8%	0.7%	(2.8%)	8.3%
Recurring Net Profit	2,165	3,298	990	1,273	1,695
Basic Earnings Per Share (in USD)	0.118	0.212	0.050	0.063	0.112
Total Assets	24,631	20,906	17,378	17,814	15,777
Equity Attributable to Shareholders of the Company	12,307	10,524	6,543	6,747	5,209
Net Debt	6,261	4,749	5,563	6,466	7,442

KEY FACTS

5.6% of the world's aluminium output

4.5% of the world's alumina production

IN THE WORLD

11[1] aluminium smelters
9 – in Russia
1 – in Sweden
1 – in Nigeria

9[2] alumina refineries
4 – in Russia
1 – in Ireland
1 – in Ukraine[3]
1 – in Jamaica
1 – in Guinea

7 bauxite mines
2 – in Russia
1 – in Jamaica
3 – in Guinea
1 – in Guyana

4 foil mills
3 – in Russia
1 – in Armenia

1 plant in Germany producing foundry alloys, slugs and carbon products

IN RUSSIA

2 powder plants

2 silicon factories

2 wheels factories

1 nepheline mine

RUSAL's ordinary shares are listed on the Hong Kong Stock Exchange (stock code: 486) and the Moscow Exchange (ticker: RUAL)

[1] *10 aluminium smelters in operation (Alscon in Nigeria is mothballed)*

[2] *8 alumina refineries in operation (Eurallumina in Italy is mothballed)*

[3] *Since March 2022, production at Mykolaiv alumina refinery has been suspended*

GLOBAL REACH

Company's operations in the world

ALUMINIUM SMELTERS

- Boguchansky Aluminium Smelter ("BEMO", Boguchanskoye Energy & Metals project, Taezhny)
- Bratsk Aluminium Smelter (BrAZ, Bratsk)
- Irkutsk Aluminium Smelter (IrkAZ, Irkutsk)
- Kandalaksha Aluminium Smelter (KAZ, Kandalaksha)
- Khakas Aluminium Smelter (Sayanogorsk)
- Krasnoyarsk Aluminium Smelter (KrAZ, Krasnoyarsk)
- Novokuznetsk Aluminium Smelter (NkAZ, Novokuznetsk)
- Sayanogorsk Aluminium Smelter (SAZ, Sayanogorsk)
- Taishet Aluminium Smelter (Tayshet)
- Volgograd Aluminium Smelter (VgAZ, Volgograd)
- Nadvoitsy Aluminium Smelter (Nadvoitsy)
- ALSCON (1) (Ikot Abasi)
- KUBAL (Sundsvall)
- Aluminium Rheinfelden Alloys, Semis (Rheinfelden)

ALUMINA REFINERIES

- Pikalevo alumina refinery (Pikalevo)
- Achinsk Alumina Refinery (Achinsk)
- Boksitogorsk Alumina Refinery (BoAZ, Boksitogorsk)
- Urals Alumina Refinery (UAZ, Kamensk-Uralsky)
- Queensland Alumina Ltd. [2] (Gladstone)
- Friguia Bauxite & Alumina Complex (Fria)
- Aughinish Alumina Refinery (Aughinish)
- Eurallumina[3] (Portovesme)
- Windalco (Ewarton, Kirkvine)
- Mykolaiv Alumina Refinery[4] (Mykolaiv)

SILICON

- Silicon (AO Kremniy) (Shelekhov)
- Urals Silicon (Kamensk-Uralsky)

BAUXITE

- North Urals Bauxite Mine (Severouralsk)
- Timan Bauxite (Kniazhpogostsky region)
- Compagnie des bauxites de Kindia (CBK) (Conakry)
- Bauxite Company of Guyana (BCGI) (Georgetown)
- Dian Dian Project (Boke region)

FOIL

- Sayana Foil (Dmitrov)
- SAYANAL (Sayanogorsk)
- Urals Foil (Mikhailovsk)
- Armenal (Yerevan)

OTHER BUSINESS

- Boguchanskaya HPP ("BEMO", Boguchanskoye Energy & Metals project, Kodinsk)
- LLP Bogatyr Komir[5] (Ekibastuz)
- Aluminium Rheinfelden Carbon (Rheinfelden)

POWDERS

- Krasnoturyinsk Powder Metallurgy (Krasnoturyinsk)
- Shelekhov Powder Metallurgy (Shelekhov)
- Volgograd Powder Metallurgy (Volgograd)

NEPHELINE ORE

- Kia-Shaltyr Nepheline Mine (Belogorsk)

WHEELS

- SKAD wheels factory (Krasnoyarsk)

Russia
Guinea
Jamaica
Armenia
Ukraine
Ireland
Sweden
Germany
Italy
Kazakhstan
Nigeria
Guyana
Australia

[1] Production is mothballed

[2] In April 2022, Australian government imposed a ban on exports of alumina and aluminum ores, including bauxite, to Russia

[3] Production is mothballed

[4] Production is mothballed from March 2022

[5] Joint venture

SCALE

Architecture of an international corporation

GENERAL INFORMATION ON THE COMPANY

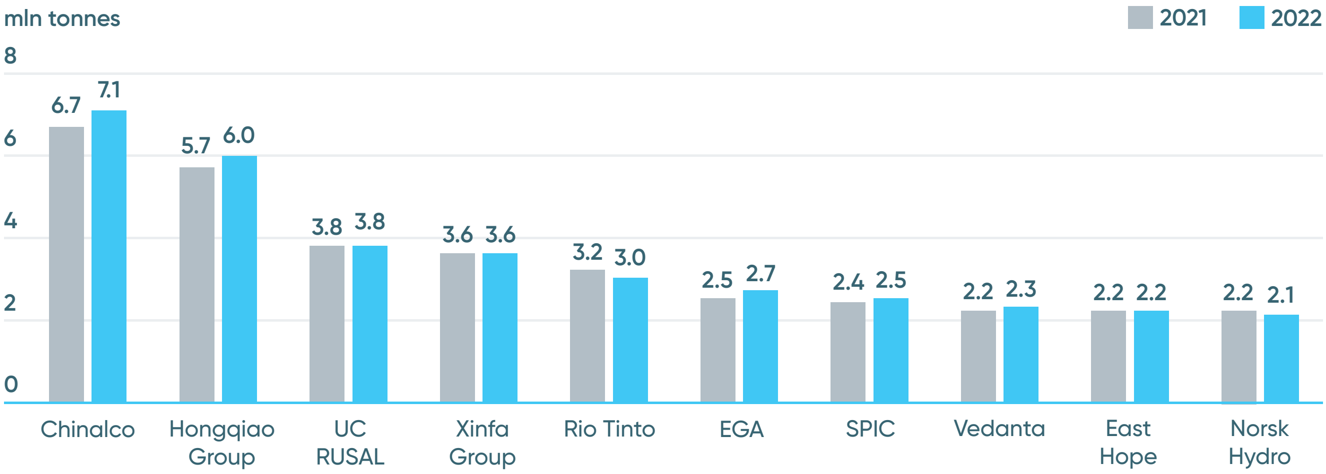
Company Position in the Industry

The Company is principally engaged in the holding activities related to participation in the authorised capital of business entities operating in the field of bauxite and nepheline mining, alumina production, electrolytic production of primary aluminium, value-added aluminium products, including those associated with the management of these companies, and also financial activities.

At the same time, the activities of the Group may have an impact on the activities of the Company and the performance of its obligations with respect to securities, and therefore information on the priority areas of business is described for the Group as a whole.

RUSAL is a low-cost vertically integrated aluminium producer with core smelting operations located in Siberia, Russia. In 2022, RUSAL remained among the largest producers of primary aluminium and alloys globally.

RUSAL's production chain includes bauxite and nepheline ore mines, alumina refineries, aluminium smelters and casting houses, foil mills, packaging and wheels production centres.



** Since 2019, Chinalco has consolidated production of Chalco and Yunnan Aluminium Co., Ltd.*

Source: Based on RUSAL's internal company report and peer companies' publicly available results, announcements, reports, and other information.

Secured access to green renewable electricity

Electricity is a key component of the aluminium production process. RUSAL's core smelting operations are favourably located close to the Siberian hydropower plants sourcing approximately 94% of the Group's total electricity needs. The Company has long-term agreements with the region's hydropower energy suppliers. Using renewable and environmentally friendly hydro-generated electricity, RUSAL is targeting to become the lowest carbon (CO_2) footprint player in the industry.

Captive raw material supplies

RUSAL's alumina production capacities[1] are located in Russia and abroad. They cover about 75% of the Group's total alumina needs.

Over 85% of RUSAL alumina refineries'[2] ore needs are covered with supplies from the Group's bauxite and nepheline mining operations. RUSAL's existing bauxite resource base is sufficient to supply for over 100 years of operations.

[1] *Taking into account the shutdown of alumina production at the Nikolaev Alumina Plant and the ban of the Australian government on the export of alumina and aluminium ores to Russia.*

[2] *Taking into account the shutdown of alumina production at the Nikolaev Alumina Plant and the ban of the Australian government on the export of alumina and aluminium ores to Russia.*

Efficient midstream, in-house R&D and internal EPCM expertise

RUSAL's aluminium smelting operations go through regular upgrades. RUSAL has developed its own in-house R&D and engineering centres, and RA-300, RA-400 and Green Soderberg smelting technologies. A new energy efficient and environmentally friendly RA-550 smelting technology has been designed and is currently under RUSAL's testing, targeting the best energy efficiency yields in the industry.

RUSAL is actively developing a ground-breaking inert anode technology. Introducing this state-of-the-art technology into the production process will lead to complete elimination of greenhouse gas and polyaromatic hydrocarbon emissions. The pilot electrolysis site has already produced 3,960 tonnes of aluminium with the lowest carbon footprint in the world using the inert anode technology.

Cost efficiency

The efficient smelting technologies together with low-cost input material and utilities mix secure the Company's global leadership on the cost curve.

Focus on higher margin downstream business

RUSAL has a diversified product mix with a strong share of VAP in the portfolio (1,702 thousand tonnes per annum out of 3,896 thousand tonnes of total sales in 2022).

Diversified sales geography

RUSAL's sales geography is represented by a diversified portfolio of regions. The Company delivers aluminium products to the domestic market and across all key global consuming regions (Europe, South and North America, and South East Asia).

Growth potential of RUSAL platform

The BEMO project (by RUSAL and RusHydro JV) includes the 3,000 MW Boguchanskaya Hydro Power Plant ("**BEMO HPP**") and Boguchansky aluminium smelter in the Krasnoyarsk region of Russia with a capacity of 292 thousand tonnes per year.

One of RUSAL's other major projects is Taishet aluminium smelter in the Irkutsk region. The first stage of Taishet aluminium smelter was opened in the end of 2021. The production capacity of the first line is 428.5 thousand tonnes.

Implementing environmental initiatives

RUSAL was one of the first Russian companies that joined the UN Global Compact.[3] By following its environmental policy and undertaking to regularly review and update its provisions, the Company is constantly developing and improving its environmental management system and implementing its principles at all production facilities.

Climate goals

In December 2022, the Board of RUSAL approved the updated Climate Strategy until 2032 with a perspective up to 2050. Under the baseline scenario, RUSAL intends to reduce greenhouse gas emissions intensity per tonne of metal from all production facilities by at least 25% by 2032, and by at least 47% by 2050, compared to 2018.

Modernisation Project

In June 2021, RUSAL announced an intention to implement a Modernisation Project, which means creation of new production facilities on the sites of its existing workshops of aluminium smelters. The intention is to significantly improve the production technology and environmental sustainability of the plants.

As part of the Modernisation Project, Krasnoyarsk, Bratsk, Irkutsk and Novokuznetsk aluminium smelters will partially replace electrolysis cells and infrastructure operating Soderberg production technology with the pre-baked anode technology.

Diversification through investments

As at the Latest Practicable Date, RUSAL owned a 26.39% interest in Norilsk Nickel, the world's largest palladium producer, the largest high-grade nickel producer and one of the leading producers of platinum, copper and cobalt.[4]

RUSAL's 50/50 LLP Bogatyr Komir coal joint venture in the Ekibastuz coal basin, one of the largest coal basins in the CIS, is an additional source of energy for RUSAL's enterprises.

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3 *The UN Global Compact is an international corporate social responsibility and sustainability initiative.*

4 *Source: www.nornickel.com.*

DETERMINATION

Perseverance in moving forward

CHAIRMAN'S STATEMENT

Dear Shareholders,

The Company's 2022 Annual Report comes at a time of global changes in our social and economic reality, and this process is far from completion or stabilisation. This also determines the high level of uncertainty that global markets and economic entities, including, of course, RUSAL, are experiencing today.

Serious external challenges have been testing the Company to the limit for the past several years. During all these years, RUSAL has been showing a proven track record and high adaptability due to its stable corporate architecture, well-tuned production structure, and most importantly, the true professionalism and high responsibility of our team, which unites almost 60,000 employees on five continents. That is why, even in the most difficult external environment, the Company always ensures unconditional performance of its obligations to business partners and customers.

In the future, we will not only maintain what we have achieved, but also look for breakthrough solutions to create a more efficient model of cooperation with global aluminium market players. For this purpose, in 2022 we revised a number of policies and standards, which are fundamental to the Company's long-term strategy of operation and development, to improve the quality of RUSAL's environmental, social and corporate governance matters, namely: the Biodiversity Policy, the Waste Management Strategy, the Occupational Health and Safety Strategy, and the Environmental Policy. The Board of Directors also adopted a new Code of Corporate Ethics replacing the previous Code which had been in force since 2005. We are shaping new horizons for sustainable development and laying the foundation for a renewed corporate culture that encourages searches for outstanding solutions in new conditions.

The carbon footprint of RUSAL's products has been recognised by international experts as one of the lowest in the world's practice of metal production. Today, the Company supplies low-carbon aluminium under the ALLOW brand all over the world. Although these results give us reasons to be proud of the quality we have achieved, we are striving for new benchmarks. In the Climate Strategy that RUSAL adopted last year, and we set a goal to reduce specific greenhouse gas emissions from all operations by at least 25% by 2032, and by at least 47% per tonne of metal by 2050 compared to that of in 2018. The Company plans to achieve this primarily through further implementation of advanced reduction technologies, energy efficiency improvement programmes at all production stages, further conversion of its facilities to carbon-free energy sources, implementation of circular economy principles, and expansion of secondary aluminium consumption.

Strong relationships with our customers around the world are our greatest asset. As before, we are ready to provide stable supplies of high-quality products to current and new customers anywhere in the world and fully contribute to the prosperity of our customers' business. RUSAL was, is, and will continue to be a corporation open to long-term cooperation.

I thank all our team members for their focus on results, passion for their job and efficiency of those business solutions that we undertake.

On behalf of the Board, I would like to express gratitude to our Shareholders for their continued trust and constant support.

I am convinced that the difficulties and challenges will not be an obstacle in achieving the Company's long-term goals. We are ready to move forward with confidence, relying on our experience in overcoming obstacles and a high quality of strategic solutions in non-standard conditions. New challenges are also new opportunities!

Bernard Zonneveld
Chairman of the Board

COMPETENCE

Combination of knowledge
and experience to achieve goals

GENERAL DIRECTOR'S REVIEW

Dear Shareholders,

As you know, 2022 presented multiple challenges for our industry and the world, and forced RUSAL to transform its business models amid a deteriorating geopolitical situation and anti-Russian sanctions.

The disruption in global value chains was unparalleled in its speed and scale. The Company found itself restricted in access to foreign raw materials and equipment. It also experienced a change in priority sales markets, softening demand, and rising production cash costs. All of these negatively affected the Company.

However, the Company has rallied against these challenges. RUSAL has been able to redesign supply and logistic chains, and to successfully redirect product flows to domestic and Asian markets.

By effectively managing business operations, the Company was able to keep the EBITDA margin at the same level as other leading global companies, and to maintain the trust of the financial sector. During the Review Period, the Company successfully repaid USD3.6 billion of loans and, at the same time, raised over USD6 billion of long-term financing from the external market.

Despite the storm of difficult economic developments, our team of many thousands of employees has remained at the centre of our attention. Our people are at the core of RUSAL's business model and our corporate ideology. Amid the changing environment, RUSAL has continued to fulfil all of its social obligations to its employees. Despite the overall turbulence, the Company fulfils the full range of obligations to employees and implements both measures of social support for the teams of all of our enterprises (including salary increases, social packages, benefits, training programmes) and investments in the social infrastructure in the regions of Company's responsibility.

Decarbonisation remains a goal that we relentlessly pursue. RUSAL continues to be a leading global producer of low-carbon aluminium. In addition, decreasing negative environmental impacts are an integral part of the Company's day-to-day operations and long-term planning.

To illustrate this, in June 2022 RUSAL approved a strategy for the management of production wastes adopting a zero waste-to-landfill approach by 2030 at its core, which was truly ambitious for the mining and metals sector. It is planned to ensure by 2030 the return into the economic cycle and recycling of at least 95% of waste from aluminium and silicon production and of at least 65% of wastes from the Alumina Division would be achieved, which would be over 2.5 times more than the targets set in 2020.

Making RUSAL's business safer for the environment and public health is also an aim of our strategy of the digitalisation of production and business processes across the Company. New digital solutions are making the Company more effective and profitable, and widen our modernisation potential.

Finally, I would like to thank RUSAL's team for their daily work, dedication and professionalism. We continue to pass the resilience test and have gained new and invaluable experience, which makes it possible for RUSAL to grow stronger, discover new potential for growth, and continue to build a new vision for our development.

Evgenii Nikitin
General Director

DEDICATION

Investment of best efforts in the common cause

BUSINESS OVERVIEW

Priority Areas of Business

The Company is principally engaging in the holding activities related to participation in the authorised capital of business entities operating in the field of bauxite and nepheline mining, alumina production, electrolytic production of primary aluminium, value-added aluminium products, including those associated with the management of these companies, and also financial activities.

At the same time, the activities of the Group may have an impact on the activities of the Company and the performance of its obligations with respect to securities, and therefore the description of the information on the position in the industry is given for the Group as a whole.

Aluminium

RUSAL owns 11[8] aluminium smelters which are located in three countries: Russia (nine plants), Sweden (one plant) and Nigeria (one plant). Its core asset base is located in Siberia, Russia, and accounts for approximately 93% of the Company's aluminium output in 2022. Among those, BrAZ and KrAZ together account for more than half of RUSAL's aluminium production. The Company owns 85% of the smelter located in Nigeria.

During 2022, RUSAL continued to implement the comprehensive programme designed to control costs and optimise production process to strengthen the Company's position as one of the world's most cost-efficient aluminium producers.

The table below[9] provides an overview of RUSAL's aluminium smelters (including capacity) as of 31 December 2022.

Production facility	Location	Holding, %	Nameplate capacity (approved casting capacity for 2022), thousand tonnes	Capacity utilisation rate, %
Siberia				
Bratsk Aluminium Smelter	Russia	100%	1,009	100%
Krasnoyarsk Aluminium Smelter	Russia	100%	1,019	100%
Sayanogorsk Aluminium Smelter	Russia	100%	542	99%
Novokuznetsk Aluminium Smelter	Russia	100%	215	99%
Khakas Aluminium Smelter	Russia	100%	297	103%
Irkutsk Aluminium Smelter	Russia	100%	422	100%
Taishet Aluminium Smelter[10]	Russia	100%	428	18%
Russia (other than Siberia)				
Kandalaksha Aluminium Smelter	Russia	100%	76	84%
Volgograd Aluminium Smelter	Russia	100%	69	107%
Other countries				
KUBAL	Sweden	100%	128	94%
ALSCON	Nigeria	85%		
Total			**4,205**	**90%**

[8] *Ten aluminium smelters in operation (Alscon is mothballed).*

[9] *The table presents total nameplate capacity of the plants, each being a subsidiary of the Group.*

[10] *Pre-process inspections and tests began in December of 2021.*

BEMO

BEMO Project involves construction of the 3,000 MW Boguchanskaya Hydro Power Plant ("**BEMO HPP**") and BEMO aluminium smelter in the Krasnoyarsk region in Siberia.

The construction of BEMO aluminium smelter is divided into two stages (each stage with a capacity of 298 thousand tonnes of aluminium per annum). The first part of the first stage (149 thousand tonnes of aluminium per annum, 168 pots) was launched in 2015; and the second part of the first stage was launched in March 2019. In May 2019, the first stage of the smelter reached its design capacity. In 2022, 298 thousand tonnes of aluminium and alloys were produced, which is 6 thousand tonnes more than that in 2021.

The second stage of BEMO smelter is to be considered by a strategic partner, RusHydro, subject to market situation and availability of project financing.

Taishet aluminium smelter

Construction of Taishet aluminium smelter was started in 2006. Due to unfavourable market conditions, RUSAL decided to suspend the project in 2009. After the economic recovery and market conditions improvement in 2016, the Board decided to resume construction of LC-1 (first series) of the Taishet aluminium smelter and approved start of preparatory work to resume the construction. Actual construction of Taishet aluminium smelter resumed in 2017.

On 16 December 2021, the first pots were put into pilot operation.

Alumina

As of the end of 2022, the Group owned nine alumina plants. RUSAL alumina refinery plants are located in six countries: Ireland (one plant), Jamaica (two plants, one legal entity), Ukraine (one plant), Italy (one plant), Russia (four plants) and Guinea (one plant). In addition, the Company owned a 20% participation share in the QAL alumina refinery plant located in Australia. Most of the Group's alumina refinery plants have quality management systems certified according to the ISO 9001 standard. Achinsk Alumina Refinery Plant, Nikolaev Alumina Refinery Plant, Aughinish Alumina Refinery Plant; Eurallumina and QAL alumina refinery plant are certified for compliance with the ISO 14001-2015 standard of their environmental management systems. Ural Alumina Refinery Plant, JSC "Timan Bauxite" and Aughinish Alumina Refinery Plant are certified according to the standards ASI Performance Standard and ASI Chain of Custody, and in January 2022 Aughinish Alumina Refinery Plant was added to the ASI certification area of the Company. Aughinish Alumina Refinery Plant has an ISO 50001 certificate, which allows the organisation to follow a systematic approach in achieving consistent improvement of the energy system, including energy efficiency, energy security and energy consumption. In 2022, Achinsk Alumina Refinery Plant was recertified according to ISO 9001, ISO 14001-2015 and ISO 45001-2018 standards, which corresponds to high standards for occupational health and safety at the workplace.

The table below provides an overview[11] of RUSAL alumina refinery plants (including capacity) as of 31 December 2022.

[11] *The calculation is based on the proportional share of the Group's participation in the capital of the respective alumina plants (QAL).*

Company	Location	Participation share, %	Rated capacity, thousand tonnes	Capacity utilization factor, %
Achinsk Alumina Refinery Plant	Russia	100%	1,069	85%
Bogoslovsk Alumina Refinery Plant	Russia	100%	1,030	96%
Ural Alumina Refinery Plant	Russia	100%	900	102%
PGLZ Alumina Refinery	Russia	100%	265	97%
Friguia Bauxite & Alumina Complex	Guinea	100%	650	52%
QAL	Australia	20%	3,950	5%
Eurallumina	Italy	100%	1,085	0%
Aughinish Alumina Refinery Plant	Ireland	100%	1,990	82%
Windalco	Jamaica	100%	1,210	35%
Nikolaev Alumina Refinery Plant	Ukraine	100%	1,759	17%
Rated capacity, total			**13,908**	**43%**
Capacity per RUSAL			**10,748**	**55%**

Bauxite

The Group operates seven bauxite mining enterprises. RUSAL's bauxite enterprises are located in four countries: in Russia (two enterprises), Jamaica (one enterprise), Guyana (one enterprise) and Guinea (three enterprises). The availability of a sufficient raw material base helps to provide the Company with sufficient resources for the potential development of alumina capacities. Bauxite is sold to third parties in insignificant volumes.

The tables below provide an overview of RUSAL's bauxite plants (including capacity and measured reserves) as of 31 December 2022.

Company	Location	Participation share, %	Annual capacity, million tonnes	Capacity utilization factor, %
"Timan Bauxite"	Russia	100%	3,300	107%
North Ural Bauxite Mine ("**NUBM**")	Russia	100%	3,000	75%
Kindia Bauxite Company	Guinea	100%	3,500	24%
Friguia Bauxite & Alumina Complex	Guinea	100%	2,100	60%
Guyana Bauxite Company[12]	Guyana	90%	1,700	0%
Windalco	Jamaica	100%	4,000	41%
"Dian-Dian" Bauxite Company	Guinea	100%	3,000	94%
Rated power, total			**20,600**	**60%**

Company	Measured ore reserves, million tonnes	Identified ore reserves,[(1)] million tonnes	Estimated ore reserves, million tonnes	Total ore reserves, million tonnes
"Timan Bauxite"	9.3	152.5	7.0	168.8
North Ural Bauxite Mine ("**NUBM**")	16.9	204.8	145.5	367.2
Kindia Bauxite Company	31.6	66.5	20.4	118.5
Friguia Bauxite and Alumina Complex	26.2	142.7	152.6	321.5
Guyana Bauxite Company	31.2	13.5	4.1	48.8
Windalco[(2)]	46.2	36.2	0.0	82.4
"Dian-Dian" Bauxite Company	445.9	111.2	216.6	773.7
Total	**607.3**	**727.4**	**546.2**	**1,880.9**

[12] *Canned in February 2020.*

Notes:

(1) Mineral resources:

- are recorded on an attributable basis, in terms of 100% ownership;
- taken into account in dry weight (without moisture).

The tonnage of mineral reserves includes the tonnage of ore resources.

(2) Windalco's resources include, in particular, 38.1 million tonnes under the Kirkwine SML 161 license, which was revoked by the Ministry of Transport and Mining of Jamaica in 2019. RUSAL considered these actions illegal and challenged the revocation of the license in court. The hearing took place in mid-2020. There are no changes in the status of the court's decision for today.

Energy assets

BEMO Project

Boguchanskaya Hydro Power Plant ("**BEMO HPP**") is the fourth step of the Angara hydroelectric power chain, the biggest major project for hydropower plant construction completed in Russia. The construction was suspended in Soviet times due to the lack of financing and resumed in May 2006 by RUSAL and RusHydro following the conclusion of their agreement to jointly implement BEMO Project comprising BEMO HPP (the average annual electricity output reaching 17.6 billion kWh) and an aluminium smelter capable of producing 600 thousand tonnes of metal per annum.

The BEMO Project's 79 m-high and 2,587 m-long composite gravity and rock-fill dam was completed at the end of 2011, and nine 333 MW hydropower units of BEMO HPP commenced operation during 2012 through 2014. Total installed capacity of all nine hydro units in operation amounts to 2,997 MW.

The hydropower plant started commercial supply to the wholesale electricity and capacity market on 1 December 2012. In 2022, the hydropower plant delivered 20,040 TWh to the wholesale electricity and capacity market, which is higher than its electricity output in 2021 by 16.9%, or 2.9 TWh.

Mining assets

RUSAL's mining assets comprise 15 mines and mine complexes, including bauxite mines (the resources of which are described above), two quartzite mines, one fluorite mine, two coal mines, one nepheline syenite mine and two limestone mines.

The long position in alumina capacity is supported by the Company's bauxite and nepheline syenite resource base.

The Company jointly operates two coal mines with Samruk-Energo, an energy division of Samruk-Kazyna under a 50/50 joint venture, Bogatyr Coal.

Bogatyr Coal

Bogatyr Coal, which is located in Kazakhstan, is a 50/50 joint venture between the Company and Samruk-Energo.

Bogatyr Coal produced approximately 42.47 million tonnes of coal in 2022. As of 31 December 2022, the volume of balance coal reserves of 1,2, 3 layers by LLP Bogatyr Komir was at the level of 1.997 billion tonnes. Bogatyr Coal generated sales of approximately USD241 million in 2021 and USD247 million in 2022. Russian and Kazakh customers contribute to approximately 33% and 67% of their sales.

Investment in Norilsk Nickel

Norilsk Nickel is the world's largest palladium producer, the largest high-grade nickel producer, and one of the leading producers of platinum, copper and cobalt. RUSAL held a 26.39% shareholding stake in Norilsk Nickel as at the Latest Practicable Date. The cost of acquisition was USD13,230 million. The carrying value of investment in Norilsk Nickel comprised 17% of total consolidated assets of RUSAL as at 31 December 2022.

RUSAL's shareholding in Norilsk Nickel allows for significant diversification of earnings through Norilsk Nickel's exposure to PGMs[13] and non-ferrous metals (nickel, copper, cobalt) and broadens RUSAL's strategic opportunities.

Company Profile and Financial Results[14]

Norilsk Nickel's resource base in the Taimyr and Kola Peninsulas as at 31 December 2021 consisted of 1,293 million tonnes of Proven and Probable Ore Reserves and 1,824 million tonnes of Measured and Indicated Mineral Resources. In 2021, Proven and Probable Ore Reserves in Taimyr and Kola Peninsula increased significantly (from 743 million tonnes as of 31 December 2021), mainly due to new mining project launches and the development of design documents.

Its key assets are located in Russia (Norilsk region, Kola Peninsula and Trans-Baikal Territory) and in Finland (Norilsk Nickel Harjavalta).

In 2022, Norilsk Nickel produced 219 thousand tonnes of nickel (+13% compared to 2021), 433 thousand tonnes of copper (+6% compared to 2021), 2,790 thousand troy ounces of palladium (+7% compared to 2021) and 651 thousand troy ounces of platinum (+2% compared to 2021).

Metals production in 2022 (compared to 2021) increased mainly due to the low production base of the previous year as a result of natural groundwater inflow at Oktyabrsky and Taimyrsky underground mines and an accident at Norilsk Concentrator.[15]

Norilsk Nickel's metal sales are highly diversified by regions:

	Revenue from metal sales	
USD million	**Year ended 31 December 2022**	**Year ended 31 December 2021**
Europe	7,522	9,036
Asia	4,966	4,688
North and South America	2,335	2,647
Russia and the CIS	1,250	732
	16,073	**17,103**

The market value of RUSAL investment in Norilsk Nickel amounted to USD8,775 million as at 31 December 2022, which decreased in comparison with the market value as at 31 December 2021 (USD12,395 million). Significant decrease in the market value of Norilsk Nickel was due to geopolitical tensions and economic restrictions imposed on Russia by a group of countries.

According to IFRS for the year ended 31 December 2022, Norilsk Nickel has the following key financial indicators:

[13] *PGMs means platinum group metals.*

[14] *Production, financial and operational data in this section are derived from https://nornickel.com/.*

[15] *Norilsk Concentrator is one of the production units of Norilsk Nickel.*

USD million (unless otherwise specified)	Year ended 31 December 2022	Year ended 31 December 2021	Change (2022/2021)
Revenue	16,876	17,852	-5%
EBITDA	8,697	10,512	-17%
EBITDA Margin (%)	52%	59%	-7 p.p.
Net Profit	5,854	6,974	-16%
Capital Expenditures	4,298	2,764	+55%
Net Working Capital	4,003	1,269	3x
Net Debt[16]	9,835	4,914	2x
Net Debt/EBITDA (1x)	1.1x	0.5x	+0.6x

Capital Expenditures increased by 55% up to USD4,298 million in 2022 (compared to 2021), which was driven by the growth of investments in key projects (Sulphur Programme,[17] investments in Kola MMC[18] and Talnakh Concentrator[19] expansion). Another significant Capital Expenditure growth factor was an increase in capital repairs, improvement of industrial safety and modernisation of core assets.

Net Working Capital increased from USD1,269 million in 2021 to USD4,003 million in 2022, mainly due to restrictive measures against the Russian Federation resulted in decrease in advances received from customers, accumulation of finished metal products.

Company's Strategy and Key Investment Projects

On 29 November 2021, Norilsk Nickel presented an update of its new strategy, Navigating the Transition to a Net Zero World, with the following strategic priorities. In 2022, Norilsk Nickel did not update its strategy.

(1) Sustainable development:

a. maintaining the industry's lowest carbon footprint: reducing carbon intensity (-16%) and maintaining absolute emissions (~10 million tonnes of CO_2-equivalent);

b. the Sulphur Programme 2.0 in Norilsk Division[20] entered the active construction phase (staged sulphur dioxide emissions reduction in Norilsk Division from a 2015 baseline: -45% in 2023, -90% in 2025, -95% in 2030+);

c. clean-up and collection of legacy waste in Norilsk area: demolition of 467 abandoned buildings and structures, collection of over 2 million tonnes of waste and over 600 thousand tonnes of metal scrap;

d. social: (1) investing into local communities and charity, (2) a major renovation programme for the city of Norilsk until 2035 (renovation/development of housing and social infrastructure, landscaping, utilities upgrade, etc.; RUB81 billion will be contributed by Norilsk Nickel).

(2) Production development: (1) concentration facilities upgrade (Talnakh Concentrator: Phase 3, new Norilsk Concentrator), (2) expansion of Nadezhda smelter (new third furnace), (3) evolution of refining capacities.

(3) Infrastructure development: (1) expanded and accelerated energy infrastructure modernisation, (2) logistics infrastructure development.

(4) Area for strategic consideration: targeting a substantial market share in the battery segment through supply agreements and deeper integration into the European battery value chain.

[16] *The calculation of Net Debt includes lease obligations: USD235 million in 2021 and USD233 million in 2022.*

[17] *The Sulphur Programme is part of Norilsk Nickel's environmental programme.*

[18] *Kola MMC is one of the production units of Norilsk Nickel (part of Kola Division).*

[19] *Talnakh Concentrator is one of the production units of Norilsk Nickel.*

[20] *Norilsk Division is one of the Norilsk Nickel Group's divisions (a flagship asset).*

Settlement with Interros in Relation to Norilsk Nickel

On 10 December 2012, key shareholders of Norilsk Nickel entered into an agreement (the "**Agreement**") to improve the existing corporate governance and transparency of the Norilsk Nickel Group, maximise profitability and shareholder value, and settle the disagreements of RUSAL and Interros in relation to the Norilsk Nickel Group.

In 2015, Norilsk Nickel's commitments pertaining to special dividends were fulfilled in advance (special dividends were paid out during 2014 to 2015, including dividend pursuant to Norilsk Nickel's shareholder resolution taken at the annual general meeting on 13 May 2015).

On 5 April 2016, the Company entered into a side letter with the parties to the Agreement pursuant to which the Agreement was further amended (the "**Amendments**"), among others, to the following effect on the dividend policy of Norilsk Nickel.

The Agreement expired on 1 January 2023.

Dividend Policy of Norilsk Nickel

Starting in 2017 and each subsequent year during the term of the Agreement, annual dividends payable by Norilsk Nickel were determined on the basis of the ratio of Norilsk Nickel's Net Debt to EBITDA as at 31 December of the preceding year as follows:

1) 60% of EBITDA, if the ratio is 1.8 and less;

2) 30% of EBITDA, if the ratio is 2.2 and more; and

3) if the ratio falls between 1.8 and 2.2, a percentage of EBITDA to be paid as dividends to be calculated as follows: X% = 60% – (Net Debt/EBITDA – 1.8)/0.4x30%.

Starting in 2018, the minimal amount of annual dividends payable by Norilsk Nickel was at least USD1 billion.

After the expiration of the Agreement, the only document that regulates dividend payments is the Dividend Policy Regulation (the "**Regulation**"), according to which the amount of annual dividends on shares of Norilsk Nickel is to be at least 30% of EBITDA. Additionally, according to the Regulation, it is not recommended to pay dividends if it is economically unjustified (e.g., insufficient profit, insufficient cash flow, non-fulfilment of the investment programme, exceeding target debt level, etc.).

Corporate Strategy and Development Prospects

The key Company business activities are mining of bauxite and nepheline ore, alumina refining, primary aluminium smelting, as well as casting and production of value-added and downstream aluminium products: rolling, extrusion, forging and foundry.

The main goal of the Company's 2030 Strategy is to develop RUSAL into the world's largest producer of low-carbon aluminium with a major share of high value-added products.

In order to achieve this goal, RUSAL works to accomplish the following strategic objectives:

1. develops and implements new projects in the field of primary aluminium smelting;
2. develops and implements new projects for in-house production of alumina;
3. carries out VAP casting capacity construction projects;
4. develops downstream products, modernises and expands casting, extrusion and foil production, and the wheels business;
5. implements projects in the field of aluminium scrap recycling and increases sales of low carbon aluminium with recycled content;
6. continues ongoing improvement of RUSAL's production system with the goal to keep the position as one of the most efficient producers;
7. ensures 100% of the needs of metallurgical production in raw materials, including alumina, anodes, coke, pitch and other components of the raw material basket;
8. merges innovations and the production process, develops new products and technologies, for instance, the inert anode, high-amperage reduction cells, new alloys, own production of master alloys, and additive technologies;
9. reduces greenhouse gas emissions intensity per tonne of metal from all production facilities (Scope 1 and Scope 2) by at least 25% by 2032, and by at least 47% by 2050, compared to 2018 in accordance with the approved RUSAL's Climate Strategy (excluding the effect from carbon emissions neutralisation projects); and
10. implements sustainable development projects in the ESG field.

ANTICIPATION

Managing risks for future generations

SUSTAINABLE DEVELOPMENT

Sustainable Development Strategy

RUSAL is one of the first Russian corporations who joined the UN Global Compact as early as 2002 and launched its non-financial reporting covering environmental, social and corporate governance performance as of 2005.

RUSAL's ESG Strategy today, at a new stage of the Company's evolution, is about further business transformation aiming at creating by 2035 a new class of assets in the non-ferrous metallurgy sector — future fit to meet the low carbon and circular economy demands, carbon neutral by 2050 and reasonably well balanced between primary and secondary material sourcing, based on sustainable value chain and progressive technological solutions.

ESG transformation of the business is focused on a number of priority projects aiming at minimising the Company operations' environmental footprint, social development and sustainable living in the territories where the Company operates, and further improvement of the corporate governance. Successful delivery of the priority projects addresses expectations of the key stakeholders who redefine material factors for the Company's sustainability on a regular basis, and brings significant contribution to help achieving seven out of 17 UN Sustainable Development Goals, namely: SDG 3 "Good Health and Well-being", SDG 8 "Decent Work and Economic Growth", SDG 11 "Sustainable Cities and Communities", SDG 12 "Responsible Consumption and Production", SDG 13 "Climate Action", SDG 15 "Life on Land", and SDG 17 "Partnership for the Goals".

Sustainability and climate performance recognition

RUSAL aims to take an active part in international processes of sustainable development, and implements best global practices and international standards bringing operations and production in line with the sustainable development principles.

RUSAL's sustainability and climate performance are widely recognised with reliable global and national ratings like e.g., CDP Climate (A-, highest across the aluminium sector, 2021), Forbes Russia's 2022 Top Employer Rating ("gold", some of the highest across the mining and metallurgy sector), RBC 2022 Best Russian Employers Rating (top 10 among all sectors) or EcoVadis Sustainability Rating ("silver", or top 25% of the global suppliers, 2021).

As of late 2015, RUSAL joined the Aluminium Stewardship Initiative (ASI). ASI is a global non-profit standard setting and certification organisation in the area of responsible management of aluminium production and use. ASI's main commitment is to maximise the contribution of aluminium to the sustainable development of society.

As part of its interaction and work with ASI, a number of RUSAL's representatives have joined the ASI Standards Committee and regularly participate in working groups focused on the topics of nature positive, climate change, human rights, and circular economy aiming at ASI Standards upgrade and update.

Implementing ASI Standards[21] that cover the entire value chain — from ore mining to aluminium production — is one of RUSAL's tools for adapting the best world practices of sustainable development. By the middle of 2022, 13 RUSAL production and office sites will have been successfully re-audited against the ASI Performance Standard and the ASI Chain of Custody Standard.

[21] *The ASI Performance Standard requirements cover 11 groups of criteria ranging from business ethics, corporate governance, environmental performance, and human rights to social practices. The ASI Chain of Custody Standard was developed to support businesses in the aluminium value chain that aim to provide their customers and stakeholders with independent assurance behind the responsible production and sourcing of aluminium.*

Environmental Policy and Goals

Operating on five continents and being involved in the metal production and processing, mining and power generation industries, RUSAL shares responsibility for addressing regional and global environmental issues and finding innovative approaches to solve them. The Company sees its environmental protection activities as an inherent part of its business, as well as its contribution to sustainable development.

In 2022, the Board adopted an updated environmental policy (the "**Environmental Policy**"). According to the Environmental Policy, the Company keeps embedding green economy principles into its operations aiming at the rational consumption of primary natural resources and building the circular economy, decreasing its environmental footprint and bringing it to the carbon neutrality (as a balance of greenhouse gases emissions and absorption) by 2050, rehabilitation of disturbed lands and assistance in biodiversity conservation.

Any management decisions at all levels across all of the Company's operations systematically follow the core sustainability principles:

- ***Measurability and Evaluation:*** establish, measure and evaluate environmental indicators and assess compliance with environmental legislation in the countries where RUSAL operates and with voluntary environmental commitments assumed by the Company;
- ***Risk Management:*** define and assess environmental risks, set targets and plan work taking into account environmental risk management issues;
- ***Prevention:*** apply the best available technologies and methods to prevent pollution and minimise risks of environmental accidents and other negative impacts on the environment;
- ***Compliance:*** comply with environmental and climate regulatory requirements of the countries where RUSAL operates, as well as comply with voluntary environmental and climate commitments assumed by the Company;
- ***Transparency:*** openly demonstrate the Company's environmental performance and plans, among other channels, through public reports issued by the Company and the dialogue with key stakeholders, including in the regions where RUSAL operates;
- ***Expertise:*** train employees, suppliers and contractors of the Company about environmental and climate factors and risks relevant to their business areas to give them a better understanding of their opportunities and accountability, as well as of environmental consequences should such requirements not be met; and
- ***Partnership:*** establish environmental and climate requirements when selecting suppliers and contractors and assist them in complying with those requirements.

Key environmental goals of RUSAL include:

- rational consumption of the primary natural resources (resource efficiency) and building the circular economy;
- consequent reduction of the Company's environmental footprint through cutting off air pollutant emissions, waste water discharges, safe treatment of post-industrial waste, as well as elimination of resistant organic matters, ozone depleting substances and other hazardous chemicals;
- reaching the carbon neutrality (as a balance of greenhouse gases emissions and absorption) by 2050;
- rehabilitation of the disturbed lands and assistance in the maintenance of biodiversity; and
- creating corporate systems to manage environmental aspects and risks.

By following the Environmental Policy and being committed to undertake regular reviews and updates of its provisions, the Company has tasked itself to constantly developing and improving its environmental management system and implementing its principles at all production facilities, including all those operating and those still under construction.

As part of achieving its objectives of continuous development and improvement of the environmental management system, the Company pays special attention to certifying its production sites as compliant with ISO 14001-2015, the international standards for environmental management systems, by 2025. All RUSAL's aluminium smelters, as well as automobile wheel disks, aluminium foil and powder production sites, and the metal silicon production site (located in Shelekhov, Russia) are certified as ISO 14001-2015 compliant.

Environmental Performance and Safety

Environmental charges for air emissions and discharges of liquids and other substances amounted to USD13.1 million in 2020, USD12.6 million in 2021, and USD11.4 million[22] in 2022.

There were no material environmental pollution incidents reported at any of the Company's sites or facilities during the year ended 31 December 2022.

Post-Production Waste Treatment Strategy

On 18 May 2022, the Board adopted a Strategy of Post-Production Waste Treatment (the "**Strategy**") until 2030. It is based on a "Zero Waste to Landfill" approach, quite ambitious one for the mining and metallurgy sectors.

The Strategy aims at further decrease (or even elimination) of wastes generated in the production processes. It has to be achieved through embedding the best available technologies, consequent increase of repurposing, reusing and recycling of material resources. This approach well positions the Company to ensure repurpose, reuse and recycling by 2030 of minimum 95% wastes post aluminium and silicon production (a 20% increase against 2020 baseline) and of minimum 15% of alumina production (2.5 times increase against 2020 baseline).

On top of this, the Strategy includes a plan on total elimination by 2025 of the equipment and wastes containing polychlorinated biphenyls (PCB) which are associated with A hazard category. This ambition is fully aligned with the Stockholm Convention on Persistent Organic Pollutants dated 2001.

The search for ways to dispose of or utilise red mud continues. RUSAL Aughinish and RUSAL ETC are key participants in the European Removal project, within which RUSAL has developed a technology for reducing red mud residual alkali content down to 0.5%, making it suitable for creating products from red mud in various industries (construction materials, production of Fe-Si alloys, cement additives, rare elements, mineral fillers and heat insulations). The project completed pilot tests at the Aughinish and Aluminium of Greece production facilities in 2022, confirmed the reduction of Na_2O content from 4-5% to ≤ 0.5% and achieved technology targets: moisture ≤ 25%; lime consumption ≤ 160 kg. De-alkalised mud batches were tested by other participants of the European Removal project to produce construction materials and other products.

Climate Goals

RUSAL adopted its first set of climate goals as early as 2007 within the framework of its safe future strategy and, thanks to consecutive efforts to achieving those, brought overall direct greenhouse gas emissions from its aluminium production down by 53%.

[22] *The assessment of environmental payments for 2022 is preliminary, since the deadline for submitting a Declaration of Payment for negative environmental impact in the Russian Federation is 10 March 2023 (clause 8 of Article 16.4 of the Federal Law No.7- FZ "On Environmental Protection").*

In 2015 that marked the Paris Agreement on Climate, the Company published a new set of climate goals, including the ambition to stop using fossil fuels by 2025, which had been already met by 2022 with more than 99% of electricity for aluminium production sourced from either carbon-less or low-carbon energy (primarily, from hydro energy).

More than ten years of efforts on decarbonisation let the Company launch by 2017 its own low carbon aluminium brand ALLOW on the global market (less than 2.4 tonnes of CO_2 equivalent per tonne of aluminium,[23] which is approximately 4 to 5 times lower than industry average). Carbon footprint of the ALLOW aluminium undergoes independent audit tracing back to every aluminium smelter on an annual basis. Between 2017 and 2022, such independent audits were conducted by reliable international organisations.

The Company applies its internal carbon price (USD20 per tonne of CO_2 equivalent) to have all newly developed projects assessed as of 2017.

In 2021, En+ Group published its 2050 NetZero Strategy to substantiate its Pathway to 2050 NetZero which covered the Metals segment (RUSAL) operations. On 13 December 2022, the Board of UC RUSAL adopted a new set of climate goals addressing the Net Zero ambition. RUSAL aims at decreasing the carbon intensity across all operations not less than by 25% (Scopes 1 and 2) by 2032, and not less than by 47% by 2050 (CO_2 equivalent per tonne of metal versus the 2018 baseline, carbon credits excluded).

Compliance Policy

The Company has implemented an internal compliance control system designed to ensure compliance with the regulatory requirements and, also, effective management of compliance risks, including sanction, corruption, conflict of interest, personal data disclosure, and anti-monopoly risks. Key elements of the system include implementation of the following measures.

1. Internal regulations comprise the Code of Ethics, the Compliance Policy, the Anti-Corruption Policy, the Gifts and Business Hospitality Policy, the Charity and Sponsorship Policy, the Sanction Policy, the Code of Business Partner Policy and the Fraud Reporting Policy. These documents set out the most important values and fundamental principles underlying the compliance function, internal control procedures and the functioning of the compliance system components. In 2022, the Code of Ethics was updated to make it aligned with the Company's current strategy and operational principles.

2. With the risk assessment system, the Company is able to analyse causes, sources, potential damage and probability of risks, and to develop risk mitigation activities.

3. The compliance procedures implemented in the Company are highly automated and help identify, reduce or prevent compliance risks at the operational and management levels. All counterparties are subject to "Know-your-client" procedures and all transactions executed by the Group are checked for the key risk factors with the help of the e-document system.

4. The Compliance Directorate conducts regular training and awareness campaigns, face-to-face or online, aiming to achieve wider accessibility of the policies and procedures, and to improve awareness among the employees of the Company at all levels. In 2022, particular focus was on the sanction and anti-corruption risks. Training was conducted at all management levels, from head-office top management to local site compliance officers. A compliance portal and a Telegram channel were created to facilitate information sharing.

5. The SignAl hotline is a tool to receive reports on potential violations, including such related to corruption or conflict of interest, 24/7, on a confidential basis. Every report gets checked and investigated, and actions are taken to prevent recurrence.

[23] *Scopes 1 (direct emissions from aluminium production) and 2 (non-direct energy emissions), according to 2021.*

The Company has a Compliance Committee of the Executive Committee and a Compliance Committee of the Board. Monitoring results and reporting produced by the compliance system are regularly formalised and communicated to the management bodies.

Compliance Committee

The Compliance Committee was set up to build in the Group a system to manage compliance with applicable regulatory requirements and obligations, to enhance control over compliance risks and to create appropriate business processes and procedures, to formalise positions on and approaches to the most important aspects of the Company's operations with an aim of removing any compliance risks, and to coordinate and assess performance of the compliance system.

Members of the Compliance Committee:

- Christopher Burnham (Committee chair, independent non-executive Director);
- Kevin Parker (independent non-executive Director);
- Bernard Zonneveld (independent non-executive Director).

In 2022, the Compliance Committee held four meetings, where it considered matters related to formation and development of the compliance system in the Company and results achieved by the compliance team, and also made recommendations as to how to strengthen the role of compliance procedures in the Company's activities.

Social Investments and Charity

In 2022, UC RUSAL's sustainability team developed a corporate **Social Investment Strategy until 2035** that was approved by the Social Policy Committee and the Strategy and New Project Funding Committee. The strategy aims at delivering a step change in **Values** and **Habitat** and unlocking the **Potential** of the localities which are affected by the Company via its operations. It also aims at contributing to the delivery of Global Goal (SDG) 11 "Sustainable Cities and Communities".

A fundamental change in the approach taken by the Company under the new strategy is the new tool to assess the return on social investment, the City Sustainability Index developed by RUSAL throughout 2022 and being embedded into the corporate practices in 2023. The index reflects the dynamics of environmental, social and economic well-being of cities, communities and other localities based on an integral score of 12 key indicators (such as social activity and public safety, work and life balance and access to recreational facilities and areas, overall, life satisfaction (**Values**); urban realm and living conditions, environment and health (**Habitat**); education, mobility, decent income and jobs, civil rights (**Potential**)). For each of the 21 cities and localities selected to be indexed, social investment focus areas and social impact KPIs are developed in line with the index results which will be updated once in two years.

Achievement of social investment goals is based on a program-project approach, including, but not limited to, public-private partnership mechanisms, agreements for socio-economic collaboration between the Company's affiliates and municipal and regional authorities, and competitive selection of projects as part of the Company's social grant schemes.

In 2022, the Company implemented the following core social programmes to achieve its Values, Habitat, and Potential development areas of focus:

1. **Values** (programmes designed to build social trust and solidarity, activate social initiatives and volunteerism, drive conscious and responsible consumption):

"Helping is Easy" programme for driving corporate and local community volunteerism

The programme provides grants for competitions, volunteer communities development at UC RUSAL's production sites and offices, implementation of cross-regional volunteer initiatives and city charity events, aiming at unlocking the resourcefulness, cohesion and engagement both of the Company's employees and the local communities.

In 2022, as part of the programme, the following initiatives took place:

- *"Helping is Key" selective grant competition for NGOs and welfare facilities* offering social services to the most vulnerable groups in the localities where the Company operates. The total amount of the grant funds was about RUB35 million, of which not more than RUB2 million were directed to 19 projects in ten cities;
- *"Green Wave" city environmental action* involving more than 1,000 volunteers from 13 cities, who planted 1,316 trees and brush wood;
- *"River Day" corporate environmental action (eco-marathon)* involving 1,617 volunteers who cleaned up riversides near 13 localities and ensured separate collection of 31 tonnes of household wastes, with not less than ten tonnes of which were for recycling.;
- *a series of local fundraising events:* "Energy of Our Hearts" sports festival in Achinsk, "Help-Games" charity festival in Novokuznetsk, "Global Jam" action in Kamensk-Uralsky, "White Cross" charity run in Krasnoturyinsk involving RUSAL's volunteers, school and university students, active citizens and local business communities;
- *"New Year Marathon" charity action* implemented in two steps: first, by September 2022, installation of sports equipment, climbing frames and inclusive playgrounds in social care centres under patronage selected as a result of 2021 round, with a total value of RUB3.5 million; and the second round involving 481 corporate volunteers from 21 cities (including, first time ever, En+ Group volunteers) as of November 2022;
- *"Inspire and Act" project competition* that provided the corporate volunteers with an opportunity to participate in as many as 26 mini projects with a total value of RUB1.2 million to support foster-children in social care centres, employees in need and long-service employees of the production sites.

2. **Habitat** (programmes aiming at building and upgrading the social infrastructure, improving the quality of environment and comfort of urban realm, engaging the local communities in taking decisions on the infrastructural development of their territories):

"RUSAL's Territory" Sustainable Development Program

The programme aims at driving sustainable development and sustainable living in the territories where the Company operates through increased social activity and entrepreneurship of the local authorities, support and promotion of their socially relevant initiatives, as well as through implementation of large-scale projects designed to develop urban and socio-cultural realm.

In 2022, 11 projects designed to develop open city spaces and selected by the Company as a result of "RUSAL Territory" 2020 competition kept being implemented. Total value of the project funding between 2020 and 2022 amounted up to RUB1.1 billion (including RUSAL's donation and co-funding by public budgets of different levels). This became possible because RUSAL, under time pressure, assisted in development of concepts, design and engineering papers, and submission filing to make sure those projects took part in the All-Russian Competition of the Best Projects to Create Comfortable Urban Realm in Local Towns and Heritage Settlements, and in the Krasnoyarsk Regional Competition of the Best Projects to Create Comfortable Urban Realm.

At the end of 2022, the following projects were completed:

- "Landscaping and Infrastructural Development of Victory Park" in Achinsk (Krasnoyarsk region);
- "Recreational Space of Three Squares" in Sayanogorsk (Republic of Khakassia);
- "Landscaping and Infrastructural Development of Irkutsk City Park" in Taishet (Irkutsk region);
- "'Dream' Recreation and Leisure Park" in Tayozhny (Krasnoyarsk region);
- "Kamensk 'Arbat'" in Kamensk-Uralsky (Sverdlovsk region).

In 2023, the following projects will continue:

- "Children's Play Park" in Shelekhov (Irkutsk region);
- "Improvement of the Turya River Waterways" in Krasnoturyinsk (Sverdlovsk region);
- "'Cultural Environment' Space Creation" in Severouralsk (Sverdlovsk region);

- "Improvement of the Pedestrian and Park Area of Krupskaya Street" in Bratsk (Irkutsk region);
- "Improvement of Kirovskaya Alley Street" in Kandalaksha (Murmansk region).

The project of "Tractor" stadium reconstruction in Volgograd was put on hold in 2022 because of its integration with a new project of Sports Combat Centre construction planned for implementation in 2023, which required rework of design and engineering documentation and revisiting of the approaches.

On top of this, in 2022, RUSAL kept implementing, through collaboration with the National Center for Public-Private Partnership, a programme "**New Tools for City Infrastructure Development**" designed to offering support to municipal initiatives aimed at taking part in the federal programmes of city communal, social and tourism infrastructure development.

In 2021–2022, as a result of this programme, 11 municipal teams submitted their project ideas for the Company's review to see if they might be funded or co-funded. The scope of initiatives included communal infrastructure modernisation, sports and culture facilities building and upgrade, landscaping and improvement of the city spaces. In 2023, the winning projects to get funding from RUSAL will be defined based on the top priorities of the territories' sustainable development.

"Sustainable Development of the Territories of Responsibility" (as of 2023, "Sustainable Cities of RUSAL") Production Sites' Social Investment Program

The programme is aimed at a step change in the local communities' living standards and the level of the communities needs satisfaction. It is implemented through the socio-economic partnership with territorial and municipal authorities, and in the form of initiatives shaped as a result of the local communities' and NGOs' feedback.

In 2022, RUSAL production sites signed 29 agreements on socio-economic partnership with municipal and territorial authorities and social care centres in as many as 25 cities and localities with a total value exceeding RUB5.2 billion. Based on those agreements, more than 95 projects were funded with a total value of RUB2.7 billion.

The largest scale project in 2022 became the Company's initiative to construct wrestling sports centres in ten cities: Achinsk, Bratsk, Divnogorsk, Krasnoturyinsk, Krasnoyarsk, Sayanogorsk, Severouralsk, Shelekhov, Taishet, and Volgograd. At the end of 2022, the projects were almost completed in three cities: Bratsk, Sayanogorsk, and Taishet, while the project implementation will continue between 2023 and 2025 in seven other cities.

In addition, the reconstruction of Gorky Park in Krasnoyarsk continued. A number of new projects were launched, including the reconstruction of Troitsky Park in Achinsk, the reconstruction of two facilities in Taishet, namely a sports ground of secondary school No. 14 and a building to accommodate a branch of the Irkutsk National Research Technical University, the design of two facilities in the village of Tayozhny, namely a sports and recreation complex with a swimming pool and a ski lodge, the creation of a Leisure and Development Centre in Sayanogorsk, and other projects.

Meanwhile, RUSAL initiated and funded urban realm development programmes for cities of Achinsk, Bratsk, Taishet, and settlements of Tayozhny and Boguchany (Krasnoyarsk region). The programmes were designed by KB Strelka consultancy.

3. **Potential** (programmes focused on shaping long term competitive advantages and talent base of the territories while improving their appeal for new-comers through better transport accessibility and mobility, educational services quality and stronger scientific, educational and cultural potential, and wider access for citizens to leveraging their civil rights on the local level):

En+ RUSAL Scholarship Programme

The En+ RUSAL Scholarship Programme launched since 2021, was initially focused on metallurgy and power sectors covering 23 institutions of tertiary education (75 majors/areas of expertise). In 2022, the programme was extended with pedagogics and medicine sectors. The programme currently covers 50 institutions of tertiary education (202 majors/areas of expertise) across 16 cities in ten territories of Russia. Overall, 561 applications were submitted for the scholarship competition in 2022, and 179 students were granted the scholarship.

Driving a balance of monetary and non-monetary motivation of the students as part of the programme provides the Group with a transparent and efficient tool to ensure its local production sites of a sufficient pipeline of highly qualified engineering talent while capable medical and pedagogical personnel are supplied to the local cities.

"Leaders of Urban Change"

The programme provides for upskilling of the city activists in the areas of social design, business project management, corporate volunteerism, and urban realm development.

In 2022, the programme hosted 25 educational events covering a total of 681 attendees, including five online training modules on "Social Design", "Social Entrepreneurship", "Corporate Volunteerism", "Communities and Public Spaces" and "Time to Act Environmentally", as well as an online conference dedicated to "Best Practices of the Animal Shelter Development" that alone attracted 200 attendees from 85 Russian cities.

In October 2022, the second round of "Volunteer School" took place representing a series of educational online meetings for RUSAL employees. Through the series of meetings which were held twice a week for three weeks, corporate volunteers met the school experts and examined topics associated with occupational burnout, EQ and special skills to work with foster-children. 337 people attended the "Volunteer School", including 169 who were actively participated in the entire process of education (i.e. never missed any online meetings and completed all assessments), with 22 participants scored 100% on the online meeting attendance and homework completion.

A total value of funding directed by United Company RUSAL to social investments and charitable projects in 2022 amounts up to RUB2.2 billion.

For further information on the environment, social and governance of the Company, please refer to the Sustainability Report by accessing the website of the Stock Exchange and the Company's website at https://rusal.ru/en/sustainability/ under section Sustainability reports.

DISCOVERIES

World-changing ideas

INNOVATIONS AND SCIENTIFIC PROJECTS

New super-high amperage and energy-efficient pots

The Company actively develops environment-friendly and energy-efficient pots. The RA-550 super-high amperage pots successfully operate in a pilot potroom of the Sayanogorsk Aluminium Smelter and demonstrate high energy efficiency (the power consumption being less than 12,800 kWh per tonne), high productivity (the current efficiency being over 95%) and environmental friendliness (the level of fluoride emissions being less than 0.15 kg per tonne). Several expert assessments (including dry autopsies) have confirmed a long service life. For the digital transformation of control systems, tests were conducted and automated process control solutions were implemented: a Big Data-based autonomous parameter control system, a dynamic digital process twin (Virtual Pot) and others. With its unique busbar and cathode designs, it achieves high process stability at ultra-high amperage.

Continuing the development of super-high amperage pots, the Company, for the sake of ensuring the possibility of building new facilities with low CAPEX and OPEX and the best environmental parameters, has developed conceptual design solutions for the world's most powerful pot, RA-800+, including options of arranging for a pilot site.

Successfully tested RA-550, engineering solutions are currently deployed across existing pre-baked pots of the Company. Energy-efficient and environmentally friendly superstructures have been tested and implemented in RUSAL's high-amperage pots in Sayanogorsk, Krasnoyarsk, and Irkutsk, which has not only reduced power consumption by 500-800 kWh per tonne of aluminium, but also improved gas removal efficiency and reduced emissions into the environment of the potroom by 30%.

The Company continues its programme to switch existing pot designs to energy-efficient designs using an environment-friendly lining with unshaped recyclable materials. Over 4,600 (70%) pots have already been converted to energy-efficient designs and over 3,900 pots have been lined with environmentally friendly unshaped materials. The upgraded pots proved not only the environmental effect of the lining (reduction in the amount of spent aluminosilicates by 60-80%, replacement of aluminosilicate with recyclable carbon materials and their subsequent recycling), but also the economic efficiency with the cost of relining reduced by 20-30%.

Environmental approach

At Krasnoyarsk aluminium smelter (KraZ), which has successfully completed conversion to the Green Søderberg technology, new environmental solutions are currently introduced: a machine vision system monitoring open pots, which has reduced twofold the time when pots are open, advanced surface area filter bags and improved designs of gas removal systems for afterburning CO in exhaust gases. The technology is to be further developed by improving the machine vision system that monitors the anode surface and deviations in the anode formation process. To improve the gas removal system's design, enhance its corrosion resistance and reduce production costs at RUSAL's iron casting facilities, the centralised production of the gas removal system based on developed corrosion-resistant alloys and casting technologies is currently expanded to all RUSAL's smelters.

The Company has continued to install the latest gas treatment systems designed by RUSAL at its aluminium smelters. RUSAL has developed and implemented an innovative gas treatment system based on the adsorption of fluorides by alumina using a unique adsorber-reactor, which ensures that the captured fluorides can be returned to the process. The treatment of exhaust gases is carried out in two stages: dry plus wet, which is the most efficient method in the world. The scheme allows the Company to capture not only fluorides, but also sulphur (SO_2). RUSAL has developed technologies in generating a commercial product, a sodium sulphate mixture, with an aim to minimise and utilise the captured sulphur.

To ensure the availability and security of raw materials and confirm the status of Eco-Søderberg as an environment-friendly technology, a process of producing compound eco-pitch with oil ingredients and a low content of coke-chemical products is continued to be implemented. A technology has been developed (now in testing) to use 100% petroleum pitch in anode and stud hole pastes, in which (petroleum pitch) the benzo(a)pyrene content is 100 times lower than in coal tar pitch. Now, there are no similar technologies in the world, which significantly reduce the content of benzo(a) pyrene as this one, by fully replacing coal tar pitch with petroleum components. At KrAZ and BrAZ, the stud hole paste and partially the anode paste (KrAZ) were switched to eco-pitch.

To improve the consistency of the quality of anode paste, a blending screw with a flow divider was installed on line 5 at the anode paste production facility in BrAZ in 2022. Its purpose is to have a well-blended dry aggregate. After testing in 2023, a decision will be made on whether to deploy this solution across other lines.

The Company is making efforts to achieve the lowest carbon footprint in the industry. For this purpose, the testing of the inert anode pot design has continued at KrAZ. Pilot pots with inert anodes successfully produce aluminium with the world's lowest carbon footprint, which is sold under the ALLOW INERTA brand.

Product engineering

Investigations related to the possibility of implementation secondary alloys into the production of casted wheels were successfully finished. Created technology allows to produce castings, which are fully in accordance with Russian and international specifications for such types of products. As an additional benefit, the products casted using this technology have lower carbon footprint.

The production of pressed profiles made of alloy 1581 and welded shipbuilding panels made by friction welding with mixing has been mastered. Panels made using alloy 1581 have been certified by the Russian Classification Society and approved for use in river and sea-river class vessels.

1407 alloy plates were used for the assembly of railway tanks for concentrated nitric acid. Currently, certification of such railway tanks is being executed according to the applicable rules for the permission for service on railways.

New aluminium alloy for additive technologies has been developed, the feature of which has increased heat resistance, which makes it indispensable in the space industry, and increased plasticity allows it to be used for 3D printing. The rate of thermal expansion of the new alloy is 1.7 times lower than that of conventional aluminium alloys, and is almost equal to that of steel and nickel alloys.

The new alloy is of greater importance for the development of satellite elements and electronics that operate in extreme conditions with large temperature differences.

Innovations and research projects in alumina production

A technology for extracting a new product — scandium oxide — from red mud is being developed. A full-cycle large-scale laboratory facility has been built at RUSAL Krasnoturyinsk to promote further validation and optimisation of the Sc_2O_3 production technology under industrial conditions. The facility is currently in operation. In 2022, various modes of scandium recovery from red mud were tested on a pilot scale, which enabled to improve scandium recovery and significantly reduce specific consumption of red mud. Moreover, scandium oxide concentration and refining modes were fine-tuned. Based on the elaborated technology, a process flow sheet was developed and a design of the pilot industrial plant was started having a capacity of 700 kg Sc_2O_3 with further possibility of scaling up to meet the needs of the market.

The Company implemented several projects to boost the efficiency of its existing alumina refineries. Industrial prototypes were developed and validated within projects to reduce the steam and fuel flow rates at the alumina refineries:

- At Achinsk Alumina Refinery (AGK), a system was installed to feed white mud to the calcium desilication additive preparation unit for the entire green liquor flow, which increased the efficiency of the deep desilication stage of the green liquor. As a result, lime milk consumption was reduced by 22% (32,000 tonnes of lime per year). This resulted in an economic benefit of USD2 million per year and a reduction in CO_2 emissions of 14,000 tonnes per year.

These developments are planned for implementation at the Company's alumina refineries.

Technical solutions and design parameters have been developed to increase alumina output at the PGLZ Alumina Refinery.

Filtration pilot tests were carried out using the filter press form the mud from the second desilication stage at AGK. Based on the tests, a financial economic model was developed proving the high efficiency of upgrading the white mud regeneration unit to replace the existing inefficient equipment with filter presses.

The technology and working documentation for the carbonisation of aluminate liquor with furnace gases at AGK were developed to improve the sinter's quality and the sintering furnaces' operation. Implementation of the carbonisation technology into the production process will ensure an additional output. The hardware and technological scheme and working documentation for improving the scheme of grinding bauxite-lime pulp on BAZ have been developed.

An improved hardware and technological scheme of the UAZ autoclave battery No. 4 with the technology of six-fold separation of boiled pulp has been developed. The introduction of a modified technological scheme will increase battery performance.

In 2022, tests of PrecipExpert's particle size control system was carried out at precipitation area No. 10 at RUSAL Kamensk-Uralsky. PrecipExpert uses a mixed optimisation algorithm based on the Levenberg-Marquardt method and genetic search to quickly find optimal solutions for problems with dozens of non-linear parameters. The change in fractional composition is predicted using a model based on recurrent neural networks. PrecipExpert is integrated into the process computer control system of the production facility and sends recommendations on process management to managerial\operating personnel on a daily basis.

The developed system reduces the amplitude of fluctuations in the fractional composition of aluminium hydroxide and aluminium oxide. Moreover, it increases the precipitation yield.

The pilot operation of the SODA Decision Support System has been completed. The system calculates an end-to-end mass balance for the soda ash shop, recommending equipment utilisation factor, flow distribution, and process conditions. In 2022 SODA Decision Support System was put into commercial full-scale operation. Ongoing system support by RUSAL ETC has been organised. The data acquisition unit was reconstructed to receive signals from the Honeywell MES, which is now operational at the production facility.

Computational Fluid Dynamics (CFD) methods make it possible to analyse the advantages and drawbacks of alumina production equipment and to find technical solutions to increase its efficiency. In 2022, a new design of an airlift agitator for UAZ precipitators (950–1,150 m^3) was developed enabling to reduce the consumption of compressed air by at least 30% while maintaining the same capacity. This year, it will be tested on precipitation unit No. 10/3. As part of the project aiming to reduce the consumption of compressed air at UAZ, the operation of top- and bottom-discharge pneumatic chamber pumps was analysed. Deficiencies in the existing design of chamber feeders were identified and recommendations for their replacement were made. Technical solutions to reduce the wear rate of the heating tubes have been developed for the production units of the concentrating evaporation trains of the AGK soda ash shop. The simulation allowed determining the cause of the local wear of tubes in the central area of the tube bundle. Design changes to the apparatus have been developed. Changes to the design of the apparatus and tests to confirm the effect are scheduled for 2023. For Ewarton refinery, a new feedwell design for red mud washers was developed that incorporated a unit for the natural dilution of the fed slurry with a clarified liquor to improve slurry flocculation and intensify mud settling. The proposed design of the feedwell will reduce the specific consumption of the flocculant (by at least 15%) and increase the efficiency of the units.

Modernisation and development

The Company continues to invest in the main areas of development:

1) environmental modernisation;
2) increase in raw material independence;
3) cutting costs and boosting production efficiency;
4) development of new types of products demanded by the market.

Environmental modernisation of aluminium smelters

Engineering designs and environmental impact assessments were finalised under the environmental modernisation projects for Krasnoyarsk, Bratsk, Irkutsk, and Novokuznetsk Aluminium Smelters, as part of the Company's strategy for modernising its production facilities. Positive resolutions were obtained from the State Environmental Expertise on the design documentation developed by the Company for these projects. The Bratsk Aluminium Smelter environmental modernisation project is undergoing the Main State Expertise. Early preparatory work, contracting for equipment, and construction design development are being actively carried out.

Raw material independence

As part of its strategy to reach raw material security and to reduce primary aluminium production costs, the Company is continuing its investment project to construct the Taishet Anode Factory (TAF-1) with a capacity of approximately 400 thousand tonnes of pre-baked anodes per year.

At present, the project is going through a stage of active implementation. Major process equipment is being delivered, and construction and installation works are in progress at the major production, auxiliary, and infrastructural facilities of this state-of-the-art green-field project.

In 2022, basic elements of the coke calcination kilns were installed in the petroleum coke calcining area, and equipment was also mounted in the anode baking shop. Work is underway to build a waste heat boiler at the factory's waste treatment area. The plan for this year is to begin the installation of major process equipment in the green anodes area.

The Sayanogorsk Aluminium Smelter has successfully completed the second stage of the modernisation of baked anode production, which includes the sequential modernisation of three baking furnaces with a capacity of 160,000 tonnes of baked anodes per year. Baking furnace No. 2 was put into operation, enabling to produce elongated anodes.

Cutting costs and boosting production efficiency

A comprehensive programme is continued to deploy the Eco-Søderberg production process across the aluminium smelters of the Company:

- all pots with self-baking anodes were switched to the new technology at KrAZ;
- the modernisation of eleven potrooms at Bratsk Aluminium Smelter has been started (205 pots were modernised in 2022);
- pilot testing has also switched to the large-scale implementation of the state-of-the-art technology in their potrooms of Irkutsk, Novokuznetsk and Volgograd Aluminium Smelters. In 2021, 92 pots were modernised at IrkAZ, 63 pots at NkAZ, and 20 pots at VgAZ.

The deployment of the Eco-Søderberg process reduces emissions into the environment to levels compliant with environmental regulations, reduces power consumption, significantly reduces the metal inventory, and increases the service life of pots.

In 2022, the obsolete anode butt pre-treatment machine at area 1.16 at Sayanogorsk Aluminium Smelter was replaced with a more advanced system. The installation, commissioning and start-up of the Techmo equipment were carried out under sanctions restrictions using in-house resources and local contractors.

To optimise production processes and reduce consumption of electricity and raw materials (alumina, anode paste, fluoride salts), the long-term programme for the retrofitting of automated control systems for aluminium smelter reduction facilities continues. The SAAT process control system is being implemented in seven potrooms at NkAZ and BrAZ. Design work has been completed for two KAZ potrooms and the design of another two KAZ potrooms is in progress. This state-of-the-art automated system is also being implemented for the RA-400 high-amperage pots at TaAZ.

An automated control system for reduction operations is being developed on the Russian Regul equipment platform as part of the import substitution programme.

The AlecSys digital ecosystem has been developed and is now in test operation. In 2023, the Company will start implementing it at the Company's smelters (NkAZ, SAZ, KrAZ, TaAZ, BoAZ and BrAZ). At all aluminium smelters, the ELTM proactive system for monitoring the potroom technology was introduced, and its development is in progress.

The projects "Container Targeted Storage System" and "Wagon Loading Control System" using machine vision technology were launched at KrAZ. A video-environmental monitoring system and an Information and Logistics System of Transport Movement Control are being replicated at BrAZ.

The ETC experts have developed and are implementing an automated control system for PLA-8 casting machine at KrAMZ. RUSAL's gas treatment plants at BrAZ, NkAZ and IrkAZ use in-house automatic control systems developed by the Engineering and Technology Centre.

To reduce power consumption and improve the performance of alumina refineries, several measures were taken in 2022:

- Bogoslovsky Aluminium Smelter (RUSAL Krasnoturyinsk) continued to implement a project to put into operation a new cyclone calcination furnace to be completed in the forth quarter of 2023. This will reduce the environmental and climate impact on the environment by reducing dust, NO_x, and CO_2 emissions, and reduce the cost of alumina for the smelter by reducing gas consumption for calcination and repair costs.

- Urals Aluminium Smelter (RUSAL Kamensk-Uralsky) replaced an obsolete and spent vacuum filter with a state-of-the-art drum vacuum filter BON20-2,6-5U with peripheral equipment. Thus, the moisture content of the hydrate feedstock fed in the calcination furnaces was reduced by 15%, which resulted in fuel savings.

Development of new types of products demanded by the market

In 2022, RUSAL's Engineering and Technology Centre has established a new production facility of master alloys for the Company. Its annual capacity is up to 5,000 tonnes. The first 50-tonne batch of AlSr10 has already been shipped to smelters. The project will make it possible to produce strontium-, manganese-, titanium- and scandium-added products for sale on the Russian and international markets.

The start of RUSAL own master alloy production will allow the Company to launch innovative types of alloys, reduce its carbon footprint by using secondary aluminium in the production of master alloys, as well as reduce supply risks. Due to availability of rare-earth and rare elements, for example, cerium, erbium, yttrium and ytterbium at the new site, UC RUSAL can produce types of master alloys that no one else in the world makes. Such foundry alloys are used to produce high-tech alloys.

The first industrial module for the production of a high-margin product using RUSAL's own technology — fine precipitated aluminium hydroxide (VOGA) used as a flame retardant — was put into commercial operation at AGK. The product quality indicators at the level of world best products have been achieved. VOGA is used as a raw material for non-flammable cables. Using this technology, another product for the fabrication of catalysts, GAK with a bayerite content of over 90% has also been developed.

PGLZ has mastered the production of a new special grade of alumina RT-1 (raw material for the production of tabular alumina) and produced 18,000 tonnes in 2022.

R&D on white fused alumina of a non-isometric shape, which is used as a raw material for abrasives, has been completed, and pilot batches have been sent to consumers.

Other high-margin products continue to be developed (R&D stage):

- low alkali ground alumina is a raw material for refractories;

- ground aluminium hydroxide is the raw material for laminate;

- pseudoboehmite is a raw material for catalyst carriers in the oil refining industry.

ACCURACY

Clear principles of effective work

MANAGEMENT DISCUSSION AND ANALYSIS

Overview of Trends in the Aluminium Industry and Business Environment

Global aluminium demand

2022 has been a year full of challenges for the aluminium industry. Whilst the global economy has not yet recovered fully after pandemic, continued struggling with rising inflation, the energy crisis, which started to emerge in Europe in autumn 2021, have clouded a perspective of economic growth. The conflict in Ukraine and political tensions have added uncertainty in sustainable power supply and sent gas price into skyrocketing rise. Power cost became a trigger for rapidly growing costs of production of energy intensive industries and logistic, boosting the inflation. Zero-COVID policy,[24] drought and power shortage in China kept constraints in the global supply chain. Fears of an approaching recession became more and more vocal in the second half of the year.

Amid negative macro environment, aluminium demand stayed relatively healthy, supported by new demand in electromobility, renewable energy infrastructure, packaging, all applications, related to green energy transition and sustainable development. Global demand for primary aluminium in 2022 increased by 0.3% year-on-year to 69 million tonnes, where China contributed to 0.3% year-on-year to 40.6 million tonnes and RoW to 0.3% year-on-year to 28.4 million tonnes.

In 2022, the automotive industry has reconfirmed its status of the largest sector of aluminium consumption, and amounted to 24% of global aluminium demand. The sector recorded a 2.7% growth and was driven mainly by rapid increase of electric vehicle production and gaining share by the SUV segment, where aluminium content is above industry average.

Aluminium consumption in the construction, second largest sector of aluminium demand, decreased by 3.9% globally. Price pressures, rising interest rates and supply chain issues have all weighed heavily on construction volumes, leading to delays and higher costs of new projects. In the US real estate market, the abrupt end of a two-year construction boom has resulted in excessive building stocks, a freeze on current projects, and a decline in investor interest.

The demand in packaging sector has increased by 4.6% globally, reflecting on ongoing process of industry transition from plastic and glass to aluminium along with general increasing consumption of bottled or canned drinks per capita. The use of aluminium in the packaging industry is expanding as environmentally friendly and sustainable packaging solutions become a core strategy of global brands, supported by end-consumers preferences, and stimulated by regulators.

[24] ZERO-COVID policy – Zero-COVID, also known as COVID-Zero and "Find, Test, Trace, Isolate, and Support" (FTTIS), is a public health policy that has been implemented by some countries, especially China, during the COVID-19 pandemic.

Aluminium demand in the electric sector grew by 9.4%, driven by expanding of renewable energy capacity, particularly solar and wind power generation, and updating the old transmission infrastructure. The REPowerEU programme and the Inflation Reduction Act (IRA) in the USA aim to reduce dependence on gas and stimulate investments into green technology starting from power generation and transmission to charging infrastructure for electrical vehicle. Those initiatives create a solid ground for further aluminium demand growth in electrical sector.

Global aluminium supply

The worldwide supply of primary aluminium was up by 1.4% year-on-year in 2022 to 68.1 million tonnes. The Rest of the World (World ex-China, the "**RoW**") production declined by 0.8% to 28.0 million tonnes. High gas prices in Europe have caused significant disruption to the aluminium smelting production due to smelters' negative cash margins. Nine European smelters with 1.63 million tonnes per annum capacity executed or announced approximately 1 million of operating aluminium capacity cuts starting from the fourth quarter of 2021. At the same time, since EU gas prices declined significantly by end of 2022 thus with current aluminium price level and lower costs, some smelters might consider restarts in the first half of 2023.

Aluminium production in China increased by 3% year-on-year in 2022 at 40.1 million tonnes and expected to grow further in 2023 as still new capacity will come online. In China, despite power supply tightness in certain provinces, Chinese aluminium industry registered around 2.6 million tonnes of net capacity increase by end of 2022 as 2.1 million tonnes of new capacity and additional restart of previously closed production.

Overall, global aluminium market was in 0.9 million tonnes of deficit during 2022, with 0.4 million tonnes of deficit in the RoW and 0.5 million tonnes in China.

China shipped out a record volume of aluminium to the RoW in 2022. China's exports of unwrought aluminium, alloy and aluminium products rose by 17.6% year-on-year to 6.6 million tonnes in 2022. This result was largely due to attractive export arbitrage, rising overseas demand and tightened global supply. At the same time, China's imports of unwrought aluminium and alloy fell during 11 months of 2022 by 31.6% year-on-year to approximately 1.7 million tonnes.

During 2022, aluminium inventories in the LME dropped to their lowest level since 1990 in August, and after rising in October, ended the year at 447 thousand tonnes, also their multi-year low. Metal held outside of LME warehouses (off-warrant reported stocks) wavered during the year and fell to 189 thousand tonnes at the end of November and rebounded to 297 thousand tonnes at the end of December 2022.

Overall, regional aluminium premiums were rising during the first half of 2022, but during the second half of 2022 were mostly falling due to bearish sentiment amid the LME prices falling and rising fears of global economy recession. In December 2022, premiums have stabilised and rose to approximately USD200-230 per tonne for European P1020 Duty Unpaid premium at warehouse Rotterdam and approximately 23-25 cent per lb for U.S. Midwest aluminium premium amid improving sentiment, low LME stocks and high near-by contango on the LME.

RUSAL's Aluminium Production Results

The Group's primary aluminium production for the year ended 31 December 2022 was stable as compared to the previous year and totalled 3,835 thousand tonnes.

Production facility	Holding	Year ended 31 December		Changes as compared to the previous year
(thousand tonnes)	(%)	2022	2021	(%)
Russia (Siberia)				
Bratsk Aluminium Smelter	100%	1,005	1,009	(0.4%)
Krasnoyarsk Aluminium Smelter	100%	1,017	1,019	(0.1%)
Sayanogorsk Aluminium Smelter	100%	539	536	0.5%
Novokuznetsk Aluminium Smelter	100%	213	215	(1.0%)
Irkutsk Aluminium Smelter	100%	424	424	(0.1%)
Khakas Aluminium Smelter	100%	306	303	0.8%
Taishet Aluminium Smelter	100%	78	0	0.0%
Russia (other than Siberia)				
Kandalaksha Aluminium Smelter	100%	64	63	1.2%
Volgograd Aluminium Smelter	100%	70	70	0.2%
Nadvoitsy Aluminium Smelter	100%			
Other countries				
KUBAL (Sweden)	100%	120	124	(3.8%)
Total – RUSAL		**3,835**	**3,764**	**1.9%**

Production

- BrAZ, NkAZ, IrkAZ and VgAZ continued pot retrofitting switching them to the Green Søderberg technology. In 2022, such retrofit of 286 pots has been completed. In total, 1,189 pots were switched to the Green Søderberg technology.
- One dry GTC (1 IrkAZ) was put into operation in 2022. 17 dry GTCs were put into operation since the start of retrofitting.
- RUSAL Sayanogorsk is completing the modernisation of anode baking furnace No. 2 with a design capacity of 182.5 thousand tonnes per year. The furnace commissioning is planned for the first quarter of 2023.

Energy efficiency

- 509 energy efficient pots of various types were commissioned at smelters of the Aluminium Division in 2022.
- By implementing energy-saving actions at smelters of the Aluminium Division, the specific total energy consumption in 2022 reduced by 459 kWh per tonne as compared to 2013 (the year when the projects were initiated).

Alloys development

- Production technology at KAZ for 1350-O and 1370-O at grade annealed wire rod has been developed and tested. Mass production has already started.
- Mass production of 8176-O grade wire rod with a diameter of 9.0 mm has started via the method of thermostatic control in heat-insulated chambers of KAZ own manufacture.
- IrkAZ has produced Castasil-37, Rheinfelden proprietary alloy.
- IrkAZ has completed the qualification inspection for industrial production of Silafont-36, Rheinfelden proprietary alloy.
- KrAZ has produced a trial lot of wheels alloys with 19% content of recycled post-consumer scrap.
- KrAZ has adopted the production of rolling ingots 7072 alloys.

Digitalisation

- Digitalisation is undergoing active development: 20 projects aimed at improving the decision-making quality and production efficiency are being implemented at Aluminium Division facilities.

- The following production management systems are being implemented as part of the "End-to-End Automation" programme:

– Unified Automated System of Casting Production Management (UASCPM) – in 2022 it was implemented at six facilities, with implementation at three more planned for 2023;

– Unified Automated System for Electrolysis Production Management (UASEPM) – in 2022 it was implemented at five facilities, with implementation at four more planned for 2023;

– Unified Platform for Working with Production and Process Data (End-to-End MES Functionality) – in 2022 it was put into pilot operation at one facility, with implementation at seven more planned for 2023.

- Automated equipment maintenance and repair system (SAP Maintenance and Repair (TORO)) of the main production facility is being replicated for implementation at seven Aluminium Division facilities.

Health, safety and environment

- In 2022, in accordance with the certification schedule, re-certification audit for the compliance with the Aluminium Stewardship Initiative standards (ASI Performance Standard and ASI Chain of Custody Standard) was performed at three Aluminium Division facilities, with three more to be certified in 2023.

- In 2022, in accordance with the certification schedule for RUSAL Bratsk, the facility has passed certification of its occupational health and safety management system in accordance with the requirements of the updated version of the international standard ISO 45001:2018; certification of three more enterprises is planned for 2023.

- In 2022, the Company continued the global transformation at the Siberian aluminium smelters (RUSAL Krasnoyarsk, RUSAL Bratsk, branch of RUSAL Bratsk in Shelekhov and RUSAL Novokuznetsk), during which it is planned to create new productions using the baked anode technology and furnished with advanced and environment-friendly RA-550, RA-300, RA-167 pots developed by RUSAL. The project is planned for ten years.

- Following the audits conducted by the certification body URS – Russia Ltd in 2022, the current environmental management system of the Aluminium Division's smelters was recognised compliant with the requirements of ISO 14001-2015.

- As part of the Aluminium Stewardship Initiative, six plants were certified in accordance with the ASI Performance Standard and ASI Chain of Custody Standard – Branch of RUSAL Bratsk in Shelekhov, RUSAL Bratsk, RUSAL Krasnoyarsk, RUSAL Sayanogorsk, Boguchany Aluminium Smelter, RUSAL Kandalaksha and Kubal. By the end of 2023, three more facilities (RUSAL Novokuznetsk, RUSAL Volgograd and RUSAL Taishet) are scheduled to undergo the certification.

Alumina Production Results

RUSAL's total alumina production amounted to 8,304 thousand tonnes in 2021 and 5,953 thousand tonnes in 2022. The decrease in production volume by 28.3% was due to:

- stopping the production of alumina at Nikolaev Alumina Refinery Plant, in connection with the introduction of martial law on the territory of Ukraine;
- the introduction of sanctions by the Australian government, which resulted in the inability to supply alumina from Queensland Alumina Ltd to the Company's enterprises;

Calculated on the basis of the proportional participation share of the Company (and its subsidiaries) in the corresponding alumina refinery plants.

Asset	Share of participation	Year ended 31 December		Change from last year
(thousand tonnes)	(%)	2022	2021	(%)
Ireland				
Aughinish Alumina Refinery Plant	100%	1,629	1,878	(13.3%)
Jamaica				
Windalco	100%	422	448	(5.8%)
Ukraine				
Nikolaev Alumina Refinery Plant	100%	300	1,769	(83%)
Italy				
Eurallumina	100%	–	–	–
Russia				
Bogoslovsk Alumina Refinery Plant	100%	994	977	1.7%
Achinsk Alumina Refinery Plant	100%	913	907	0.7%
Ural Alumina Refinery Plant	100%	917	917	0%
Boksitogorsk Alumina Refinery Plant	100%	–	–	–
PGLZ Alumina Refinery	100%	256	253	1.2%
Guinea				
Friguia Alumina Refinery	100%	340	414	(17.9%)
Australia (JV)				
Queensland Alumina Ltd.[25]	20%	182	742	(75.5%)
Total production volume		**5,953**	**8,304**	**(28.3%)**

[25] *The proportional share in the volume of production attributed to the share of RUSAL.*

The main factors that influenced the Group's production performance:

- **Achinsk Alumina Refinery Plant.** The Company implements various programmes to improve the efficiency and reliability of equipment. The projects of the sintering shop were implemented to reduce unscheduled shutdowns of sintering furnaces due to the running gear, to increase the efficiency of scrubber electrostatic precipitators. Optimisation of work processes at most stages, such as the raw material shop, the sintering and hydrochemistry shop, reduced the risk of deviations from technological indicators.

- **Bogoslovsk Alumina Refinery Plant.** To ensure the current volume of alumina production and the efficient operation of the decomposition conversion, a project to improve the efficiency of battery No. 10 was implemented. A project is being implemented to reduce the cost of repairing raw mills by reducing the abrasion rate of the lining by optimally selecting the grade of balls and increasing the productivity of mills. The Company is continuing construction of a new cyclone calcination furnace, which will allow two existing horizontal drum-type calcination furnaces to be withdrawn from production, while not reducing alumina production volumes, but reducing greenhouse gas emissions into the atmosphere and the specific gas consumption per furnace.

- **Ural Alumina Refinery Plant.** The efficiency of ball mills of the grinding department of section No. 1, leaf filters, thickening and flushing devices of section No. 8 (sintering technology) has been increased. Industrial tests of dry flocculant preparation plants and dry types of flocculants, which show more effective indicators, are carried out at the central air supply flushing units of the central air supply system. The project "Improving the efficiency of the soda filtration unit of site No. 11" was implemented, which allowed to reduce the consumption of gas, selected steam and alkali. Technical re-equipment of the boiler unit of the boiler and turbine shop was carried out. After the complete replacement of the electro filter, the sintering furnace No. 2 was put into operation (the degree of dust removal is 99.8%). The project of organising a closed water circulation system of section No. 6 is ongoing, the completion of which is scheduled for the second quarter of 2023. A new card No. 1 of the sludge dump No. 4 has been put into effect.

- **Aughinish Alumina Refinery Plant.** Taking into account the cost of energy resources, as well as to reduce the risks of reducing production volumes at the enterprise, the possibility of technical transition to alternative fuels (fuel oil) was realised. To avoid dilution, an automatic water supply system is implemented at the large seed washing unit. The modernisation of the conveyors for the supply of crushed bauxite was carried out, including the installation of a scraper system eliminating spillage and ore losses. The Company is also implementing a project to introduce a boiler powered by renewable energy sources, which helps to reduce the impact of production on the environment.

- **Friguia Bauxite Alumina Complex.** In order to maintain the technology and stabilise the process, modernisation and repair of technological equipment is carried out. Restoration of the technical characteristics of the equipment for the processing of crushing and averaging of bauxite with the connection of the crushing and averaging unit to anexternal power source has been organised. Unstable operation of the CHP, as well as the unsatisfactory technical condition of boilers No. 1, 2 and 4 led to a decrease in production in 2022. In this connection, boiler No. 4 was repaired. Major repairs of boilers No. 1 and 2 will be implemented in 2023–2024. In order to increase production efficiency, it is planned to put into operation the "Mangamori" bauxite deposit in 2023, which provides design indicators.

- **Windalco.** To maintain and restore the production capacity of the enterprise, the following measures were implemented: the repair of the turbine generator No. 2 was carried out, and the installation of a vacuum installation at the calcination site was carried out to eliminate the loss of finished products. The repair of the turbine generator No. 1 will be completed in 2023. Prolonged downtime of power equipment in capital and emergency repairs, as well as deterioration in the quality of bauxite from the design led to a decrease in production in 2022. In order to increase production volumes, it is planned to put into operation the deposit of high-quality bauxite SML-174 in 2023.

Bauxite mining results

The total production volume of RUSAL bauxite in 2022 amounted to 12,319 thousand tonnes compared to 15,031 thousand tonnes in 2021.

The main reason for the decline in production is the decrease in the need for bauxite with a drop in alumina production (the suspension of alumina production at Nikolaev Alumina Refinery).

The table below shows the contribution of each enterprise.

Bauxite mines	Share of participation	Year ended 31 December		Change from last year
(thousand tonnes of wet raw materials)	(%)	2022	2021	(%)
Jamaica				
Windalco	100%	1,631	1,863	(12.4%)
Russia				
Northern Urals (North Ural Bauxite Mine ("**NUBM**"))	100%	2,238	2,274	(1.6%)
"Timan Bauxite"	100%	3,542	3,405	4.0%
Guinea				
Friguia	100%	1,253	1,544	(18.9%)
Kindia	100%	831	2,652	(68.7%)
Dian-Dian	100%	2,825	3,293	(14.2)%
Guyana				
Guyana Bauxite Company (BCGI)	90%	0	0	0.0%
Total production volume		**12,319**	**15,031**	**(18.0%)**

The main factors that influenced the production performance:

- **"Timan Bauxite".** In 2020, an additional siding was built on the "Timan Bauxite" railway, which allowed to increase the monthly capacity of the railway branch. In April 2021, mining operations began at quarry No. 4 of the Vezhayu-Vorykvinsky field. In 2022, mining and capital works began on the Northern deposits of the Verkhne-Shchugorskoye field.

- **Windalco.** In order to maintain the required quality indicators of the extracted bauxite, the license was transferred from exploration to production in 2022.

- **Guyana Bauxite Company (GBC).** The shutdown of the main consumer of bauxite Nikolayev Alumina Refinery Plant in connection with the introduction of martial law on the territory of Ukraine, which led to a decrease in exports from the GBC enterprise.

- **Friguia.** Reduction of the need for bauxite by Friguia Bauxite & Alumina Complex. In order to maintain the technology and production capacities, the bauxite crushing complex has been overhauled, and the commissioning of the high-quality bauxite deposit "Mangamori" is also being developed.

- **Dian-Dian.** In 2022, a partial replacement of the failed mining equipment was carried out in order to achieve the indicators planned for 2023. The reconstruction of the railway crossing has been organised, which allows increasing the capacity of the rail track.

- Bauxite mining in Guyana has been terminated at the end of 2019.

Providing bauxite in sufficient volumes and at competitive prices for alumina enterprises is an important task for the Company. Exploration activities are underway to discover new bauxite deposits, both at the Group's existing development sites with bauxite deposits and at the sites of new projects. Each mining asset of the Group is developed under one or more licenses.

As of 31 December 2022, the Group had a raw material base with bauxite volumes of 880.9 million tonnes, according to JORC (Joint Committee on Ore Reserves, Australia), of which 607.3 million tonnes were measured, 27.4 million tonnes were identified and 46.2 million tonnes were estimated.

Extraction of nepheline ore

The total volume of production[26] of nepheline syenites of RUSAL in 2022 amounted to 4,363 thousand tonnes compared to 4,390 thousand tonnes in 2021.

Nepheline mines (Achinsk)	Share of participation	Year ended 31 December		Change from last year
(thousand tonnes of wet raw materials)	**(%)**	**2022**	**2021**	**(%)**
Kiya-Shaltyrsk nepheline mine	100%	4,363	4,390	(0.6%)
Total production volume		**4,363**	**4,390**	**(0.6%)**

[26] *Total production of nepheline syenites: specified as wet weight (including moisture).*

Foil and packaging productions

In 2022, the Downstream Division produced 111.3 thousand tonnes of foil, which amounts to a 2.47 thousand tonnes or 2.3% increase from 2021.

The domestic supply of plain foil, converted foil and tape increases by 3.97 thousand tonnes or 6.0% due to the demand growth.

At the same time, the output of plain foil for export by the Downstream Division went down by 1.59 thousand tonnes or 3.7% compared with 2021 due to a decrease in demand for foil from the manufacturer of the Russian Federation.

Overall output of Sayanal Foil grew by 87% year-on-year as a result of equipment productivity and business processes efficiency improvement due to the development of a new line of activity: industrial recycling of the tape.

The decrease of Armenal, Sayanal, Ural Foil output by 2.45 thousand tonnes (2.4% vs 2021) was due to the more marginal thin foil share increase.

Foil mills	Share	Year ended 31 December			Change year-on-year
(thousand tonnes)		2022	2021	Deviation	(%)
Domestic market (Russia and the CIS)		**70.1**	**66.13**	**3.97**	**6.0%**
Sayanal	100%	37.42	34.04	3.38	9.9%
including converted foil		12.35	12.68	(0.33)	(2.6%)
Ural Foil	100%	21.77	26.32	(4.55)	(17.3%)
Sayanal Foil	100%	10.57	5.66	4.91	87%
Armenal	100%	0.08	0.11	(0.03)	(27.3%)
Export		**41.18**	**42.71**	**(1.59)**	**(3.7%)**
Sayanal	100%	1.60	5.22	(3.62)	(69.3%)
Ural Foil	100%	7.23	4.06	3.17	78.2%
Armenal	100%	32.61	33.4	(0.82)	(2.5%)
Total production		**111.30**	**108.83**	**2.47**	**2.3%**
including:					
Sayanal	100%	39.03	39.26	(0.23)	(0.6%)
Ural Foil	100%	29.01	30.38	(1.37)	(4.5%)
Sayana Foil	100%	10.57	5.66	4.91	86.8%
Armenal	100%	32.69	33.54	(0.85)	(2.5%)

Wheel business

Production, thousand wheels	Year ended 31 December			Change year-on-year
	2022	2021	Deviation	(%)
Aluminium wheels	1,667	3,034	(1,367)	(46%)

Wheel production fell by 46% in 2022 due to a sharp demand drop in the main consumption channels.

Production drop paired with disruption of spare parts supply chains, which continued in 2022, reduced new passenger car sales by 59% in 2022.

Sales of new cars are the main driver for the consumption of wheels, thus the after-market demand dropped by 49%.

Despite the above, thanks to diversification of the product mix (new products), SKAD increased its share in the RF after-market from 45% in 2021 to 56% in 2022.

Other business

	Year ended 31 December		Change year-on- year
(thousand tonnes)	2022	2021	(%)
Secondary alloys	15.8	15.3	3.3%
Silicon	44.0	34.5	27.5%
Powders	29.1	30.3	(4.0%)
Coal (50%)	21,237	22,316	(4.8%)
Transport (50%)	606	1.371	(55.8%)

Secondary alloys

The amount of dross and aluminium-containing waste that is converted into secondary aluminium increased in 2022 by 0.4 thousand tonnes or 3.3% from the previous year due to the growth of the volume of waste received for processing from the Company's enterprises.

Powder production

The volume of aluminium powder production in 2022 decreased by 4% compared to 2021 due to a decrease in market demand for powders and gas-forming agents. EBITDA exceeded the previous year by 29.5% due to the sale of high-margin products and the growth of product premiums.

Silicon production

Compared to 2021, in 2022, the production volumes increased due to resuming silicon production at RUSAL Kremny Ural LLC since 1 July 2021.

Downstream projects

One of the key activities of the New Projects Directorate is the search for, development and implementation of projects aimed to establish new productions in order to increase consumption of aluminium and alloys in upstream and other sectors. The key facilities for implementation of new projects are mothballed plants:

- Bogoslovsk Cable Plant LLC (BKZ) is a joint venture for the production of cable and wire products in Krasnoturyinsk founded in December 2016. Since April 2017, BKZ has been a resident of the priority social and economic development area.

In 2022, the production and sales of high-margin flexible cable ELKAFLEX was increased from 117 to 193 tonnes.

The production of a new type of cable and wire products was mastered — AVBV armoured power wire, and supplies to RUSAL plants were expanded up to 40 tonnes (19.3 tonnes in 2021).

- The implementation of the project for the manufacture of household aluminium radiators is underway at the industrial site of Nadvoitsy aluminium smelter. As part of 2022, the partnership interest of ELSO was bought out and the plant became 100% consolidated in RUSAL Group. As part of the New Projects Directorate structure, an in-house sales department was created.

The facility is a resident of the Priority Social and Economic Development Area in the Republic of Karelia.

Coal production results

Coal production, which accounts for 50% of the Group's share in LLP Bogatyr Komir, decreased by 4.8% to 21,237 thousand tonnes in 2022 from 22,316 thousand tonnes in 2021 due to a decrease in shipments.

Transportation results

The volume of products transported by JV LLP Bogatyr Trans, in which the Company has a 50% share, decreased by 55.8% to 606 thousand tonnes in 2022 from 1,371 thousand tonnes in 2021 due to decrease in demand in Russia and increase in the duration of transportation.

Information concerning usage of energy resources

The Company is principally engaged in the holding activities related to participation in the authorised capital of business entities operating in the field of bauxite and nepheline mining, alumina production, electrolytic production of primary aluminium, value-added aluminium products, including those associated with the management of these companies, and also financial activities. With regard to the activities operated by the Company, there was no use of energy resources during the Review Period.

At the same time, the activities of the Group companies may have an impact on the activities of the Company and the performance of its obligations with respect to securities, and therefore the description of the information on the usage of energy resources is given for the Group as a whole.

While manufacturing products during the Review Period, RUSAL has used the following types of energy resources. As per the table below, the energy resources used in 2022 in physical and monetary terms are as follows.

	In physical terms	Tonnes of standard fuel	Cost, USD
Electrical energy, MWh	67,759,710.46	8,334,444.39	2,498,099,014.03
Heat energy, Gcal	873,284.76	124,757.46	14,190,497.80
Natural gas, thousand m^3	3,245,220.86	3,745,003.48	802,856,015.15
Motor petrol, tonnes	853.27	1,262.45	617,831.55
Kerosene, tonnes	129.98	191.07	108,284.62
Charcoal, tonnes	32,569.41	30,289.55	18,709,199.98
Diesel fuel, tonnes	97,135.68	140,882.54	107,086,624.48
Heating oil, tonnes	588,068.84	805,654.31	262,071,146.57
Coal, tonnes	3,572,423.30	2,348,254.78	144,123,647.79
Wood chips, tonnes	18,075.66	6,507.24	1,206,298.80
Liquefied propane and butane, tonnes	9,764.86	15,330.84	4,766,157.76
Coke, tonnes	25,010.13	24,760.03	5,665,582.84

Other energy sources such as atomic energy, electromagnetic energy, oil, oil shale, and peat were not used by the Group during the Review Period.

Financial Overview

Revenue

	Year ended 31 December 2022			Year ended 31 December 2021		
	USD million	thousand tonnes	Average sales price (USD/tonne)	USD million	thousand tonnes	Average sales price (USD/tonne)
Sales of primary aluminium and alloys	11,593	3,896	2,976	9,966	3,904	2,553
Sales of alumina	550	1,169	470	610	1,677	364
Sales of foil and other aluminium products	581	–	–	515	–	–
Other revenue	1,250	–	–	903	–	–
Total revenue	**13,974**			**11,994**		

Total revenue increased by USD1,980 million or by 16.5% to USD13,974 million in 2022 as compared to USD11,994 million in 2021.

	Six months ended 31 December		Change half-year on half-year, % (2H to 2H)	Six months ended 30 June	Change half-year on half-year, % (2H to 1H)	Year ended 31 December		Change year-on-year, %
	2022 (unaudited)	2021 (unaudited)		2022 (unaudited)		2022	2021	
Sales of primary aluminium and alloys								
USD million	5,661	5,392	5.0%	5,932	(4.6%)	11,593	9,966	16.3%
Thousand tonnes	2,133	1,904	12.0%	1,763	21.0%	3,896	3,904	(0.2%)
Average sales price (USD/tonne)	2,654	2,832	(6.3%)	3,365	(21.1%)	2,976	2,553	16.6%
Sales of alumina								
USD million	251	334	(24.9%)	299	(16.1%)	550	610	(9.8%)
Thousand tonnes	545	847	(35.7%)	624	(12.7%)	1,169	1,677	(30.3%)
Average sales price (USD/tonne)	461	394	17.0%	479	(3.8%)	470	364	29.1%
Sales of foil and other aluminium products (USD million)	**295**	**283**	**4.2%**	**286**	**3.1%**	**581**	**515**	12.8%
Other revenue (USD million)	614	536	14.6%	636	(3.5%)	1,250	903	38.4%
Total revenue (USD million)	**6,821**	**6,545**	**4.2%**	**7,153**	**(4.6%)**	**13,974**	**11,994**	**16.5%**

Revenue from sales of primary aluminium and alloys increased by USD1,627 million, or by 16.3%, to USD11,593 million in 2022, as compared to USD9,966 million in 2021, primarily due to 16.6% increase in the weighted-average realised aluminium price per tonne (to an average of USD2,976 per tonne in 2022 from USD2,553 per tonne in 2021) driven by an increase in the LME aluminium price (to an average of USD2,707 per tonne in 2022 from USD2,475 per tonne in 2021), while sales volumes remained almost flat in the compared periods.

Revenue from sales of alumina decreased by 9.8% to USD550 million for the year ended 31 December 2022 from USD610 million for the year ended 31 December 2021 due a decrease in the alumina sales volume by 30.3% which was partially offset by a 29.1% increase in the average sales price.

Revenue from sales of foil and other aluminium products increased by USD66 million, or by 12.8%, to USD581 million in 2022, as compared to USD515 million in 2021, due to an increase in revenue from sales of foil by 26.2% between the comparable periods.

Revenue from other sales, including sales of other products, bauxite and energy services increased by 38.4% to USD1,250 million for the year ended 31 December 2022 as compared to USD903 million for the previous year, due to a 40.9% increase in sales of other materials (such as anode blocks by 73.6%, aluminium powder 20.7%, silicon by 22.2%, hydrate by 19.0%) that was a result both by the increase in sales volume along with the increase in average sales price.

Cost of sales

The following table demonstrates the breakdown of RUSAL's cost of sales for the year ended 31 December 2022 and 2021, respectively:

(USD million)	Year ended 31 December		Change year-on-year, %	Share of costs, %
	2022	2021		
Cost of alumina	1,847	741	149.3%	17.1%
Cost of bauxite	331	506	(34.6%)	3.1%
Cost of other raw materials and other costs	3,835	3,387	13.2%	35.6%
Purchases of primary aluminium from joint ventures	940	696	35.1%	8.7%
Energy costs	2,658	2,070	28.4%	24.7%
Depreciation and amortisation	481	572	(15.9%)	4.5%
Personnel expenses	781	618	26.4%	7.3%
Repairs and maintenance	532	407	30.7%	4.9%
Net change in provisions for inventories	171	28	510.7%	1.6%
Change in finished goods	(806)	(752)	7.2%	(7.5%)
Total cost of sales	**10,770**	**8,273**	**30.2%**	**100.0%**

Total cost of sales increased by USD2,497 million, or by 30.2%, to USD10,770 million for the year ended 31 December 2022, as compared to USD8,273 million for the year ended 31 December 2021.

The cost of alumina increased by USD1,106 million, or by 149.3%, to USD1,847 million in 2022 as compared to USD741 million in 2021 primarily due to the increase in alumina purchase price by 14.9% as well as the increase in alumina purchase volume by 263.4% between the periods following the ban of Australian government for the export of alumina and bauxite to Russia introduced in March 2022 and temporary suspension of production at Mykolaiv Alumina Refinery Company Ltd due to developments in Ukraine starting from 1 March 2022.

The cost of raw materials (other than alumina and bauxite) and other costs increased by 13.2% for the year ended 31 December 2022 as compared to the same period of 2021, due to an increase in raw materials purchase price (price for the raw petroleum coke increased by 52.9%, pitch by 33.7%, anode blocks by 63.8% and caustic soda by 87.9%).

Energy costs increased by USD588 million, or by 28.4%, to USD2,658 million for the year ended 31 December 2022, as compared to USD2,070 million for the year ended 31 December 2021 due to an increase by 23.2% in the average electricity tariff between the comparable periods (US3.69 cent/kWh[27] in 2022 as compared to US3.00 cent/kWh in 2021) that was caused by both a 14.7% change in electricity tariffs in Ruble equivalent and a 6.9% strengthening of the Ruble exchange rate against the US dollar during the reporting period.

The finished goods mainly consisted of primary aluminium and alloys (approximately 96%). The dynamic of change between the reporting periods was driven by the fluctuations of primary aluminium and alloys physical inventory between the reporting dates: 33.3% increase in 2022 and 96.9% increase in 2021.

Gross profit

As a result of the foregoing factors, RUSAL reported a gross profit of USD3,204 million for the year ended 31 December 2022 as compared to USD3,721 million for the year ended 31 December 2021, representing gross margins over the periods of 22.9% and 31.0%, respectively.

Distribution, administrative and other expenses

Distribution expenses increased by 13.0% to USD697 million for the year ended 31 December 2022 from USD617 million for the year ended 31 December 2021 following by the increase in transport tariffs.

Administrative expenses increased to USD769 million in 2022 as compared to USD603 million in 2021 primarily due to increase in personnel costs.

Adjusted EBITDA and Results from operating activities

(USD million)	Year ended 31 December		Change year-on-year, %
	2022	2021	
Reconciliation of Adjusted EBITDA			
Results from operating activities	1,316	2,079	(36.7%)
Add:			
Amortisation and depreciation	503	596	(15.6%)
Impairment of non-current assets	196	209	(6.2%)
Loss on disposal of property, plant and equipment	13	9	44.4%
Adjusted EBITDA	**2,028**	**2,893**	**(29.9%)**

27 *"kWh" means kilowatt hour.*

Adjusted EBITDA, defined as results from operating activities adjusted for amortisation and depreciation, impairment charges and loss on disposal of property, plant and equipment, decreased to USD2,028 million for the year ended 31 December 2022, as compared to USD2,893 million for the year ended 31 December 2021. The factors that contributed to the decrease in Adjusted EBITDA margin were the same as those influenced the operating results of the Company.

Finance income and expenses

(USD million)	Year ended 31 December		Change, year-on-year, %
	2022	2021	
Finance income			
Interest income on third party loans and deposits	79	43	83.7%
Dividends from other investments	36	20	80.0%
Revaluation of investments measured at fair value through profit and loss, incl. forex income	18	–	100.%
	133	**63**	**111.1%**
Finance expenses			
Interest expense on bank loans and company loans, bonds and other bank charges, including	(421)	(359)	17.3%
Interest expense	(372)	(329)	13.1%
Bank charges	(49)	(30)	63.3%
Change in fair value of derivative financial instruments, including:	(191)	(352)	(45.7%)
Change in fair value of embedded derivatives	(8)	21	NA
Change in other derivatives instruments	(183)	(373)	(50.9%)
Net foreign exchange loss	(219)	(29)	655.2%
Interest expense on provisions	(1)	(8)	(87.5%)
Revaluation of investments measured at fair value through profit and loss	–	(47)	(100.0%)
Other finance costs	(2)	–	100.0%
Lease interest cost	(4)	(5)	(20.0%)
	(838)	**(800)**	**4.8%**

Finance income increased by USD70 million, or 111.1% to USD133 million for the year ended 31 December 2022 compared to USD63 million for the year ended 31 December 2021 primarily due to an increase in the amounts of dividends from other investments and a profit from revaluation of investments measured at fair value through profit and loss as compared to the loss on this item between the comparable periods.

Finance expenses increased by USD38 million or by 4.8% to USD838 million in 2022 as compared to USD800 million in 2021 primarily due to an increase in net foreign exchange loss which was offset by a decrease in the net loss from change in fair value of derivative financial instruments between the comparable periods.

Share of profits of associates and joint ventures

(USD million)	Year ended 31 December		Change, year-on-year, %
	2022	2021	
Share of profits of Norilsk Nickel,	1,440	1,762	(18.3%)
with Effective shareholding of	26.39%	26.39%	
Share of profits of associates	**1,440**	**1,762**	**(18.3%)**
Share of profits of joint ventures	**115**	**45**	**155.6%**

The Company's share of profits of associates for the years ended 31 December 2022 and 2021 amounted to USD1,440 million and USD1,762 million, respectively. Share in results of associates in both periods resulted primarily from the profit from the Company's investment in Norilsk Nickel.

The market value of the investment in Norilsk Nickel as at 31 December 2022 was USD8,775 million as compared to USD12,395 million as at 31 December 2021.

Share of profits of joint ventures was USD115 million for the year ended 31 December 2022 as compared to USD45 million for the same period in 2021. This represents the Company's share of profits in joint ventures, namely BEMO (the companies comprising the Boguchanskoye Energy and Metals Complex), LLP Bogatyr Komir and Mega Business and Alliance (coal and transportation business in Kazakhstan).

Profit before income tax

RUSAL earned a profit before income tax in an amount of USD2,166 million for the year ended 31 December 2022, as compared to a profit before income tax in an amount of USD3,641 million for the year ended 31 December 2021 due to reasons set out above.

Income tax

The Company recognised an income tax expense in amount of USD373 million in 2022 as compared to USD416 million in 2021.

Current tax expense decreased by USD29 million, or 8.6%, to USD310 million for the year ended 31 December 2022, as compared to USD339 million for the previous year due to a decrease in taxable profit.

The Company recognised deferred tax expense in amount of USD63 million in 2022 as compared to USD77 million for the previous year primarily due to the tax effect of accruals of certain temporary differences related to positive exchange rate differences on claims and liabilities.

Profit for the period

As a result of the above, the Company recorded a profit of USD1,793 million in 2022, as compared to USD3,225 million in 2021.

Adjusted and Recurring Net Profit

	Six months ended 31 December		Change half-year on half-year, % (2H to 2H)	Six months ended 30 June	Change half-year on half-year, % (2H to 1H)	Year ended 31 December		Change year-on-year, %
	2022	2021		2022		2022	2021	
(USD million)	*unaudited*	*unaudited*		*unaudited*				
Reconciliation of Adjusted Net Profit								
Net profit for the period	113	1,207	(90.6%)	1,680	(93.3%)	1,793	3,225	(44.4%)
Adjusted for:								
Share of profits and other gains and losses attributable to Norilsk Nickel, net of tax effect	(123)	(638)	(80.7%)	(1,317)	(90.7%)	(1,440)	(1,762)	(18.3%)
Change in the fair value of derivative financial liabilities, net of tax (20%)	(127)	134	NA	303	NA	176	356	(50.6%)
Impairment of non-current assets	173	154	12.3%	23	652.2%	196	209	(6.2%)
Gain from partial disposal of investment in associate	**–**	**–**	**0.0%**	**–**	**0.0%**	**–**	**(492)**	**(100.0%)**
Adjusted Net Profit	**36**	**857**	**(95.8%)**	**689**	**(94.8%)**	**725**	**1,536**	**(52.8%)**
Add back:								
Share of profits of Norilsk Nickel, net of tax	123	638	(80.7%)	1,317	(90.7%)	1,440	1,762	(18.3%)
Recurring Net Profit	**159**	**1,495**	**(89.4%)**	**2,006**	**(92.1%)**	**2,165**	**3,298**	**(34.4%)**

Adjusted Net Profit/(Loss) for any period is defined as the net profit/(loss) adjusted for the net effect of the Company's investment in Norilsk Nickel, the net effect of derivative financial instruments and the net effect of non-current assets impairment. Recurring Net Profit/(Loss) for any period is defined as Adjusted Net Profit/(Loss) plus the Company's net effective share in Norilsk Nickel results.

Assets and liabilities

RUSAL's total assets increased by USD3,725 million, or 17.8%, to USD24,631 million as at 31 December 2022 as compared to USD20,906 million as at 31 December 2021. The increase in total assets was driven primarily by the increase in interests in associates, inventories, trade and other receivables, cash and cash equivalents.

Total liabilities increased by USD1,942 million, or 18.7%, to USD12,324 million as at 31 December 2022 as compared to USD10,382 million as at 31 December 2021 mainly due to the increase in the Company's outstanding financial debts.

Cash flows

The Company used the net cash in operating activities in the amount USD412 million for the year ended 31 December 2022 as compared to net cash generated from operating activities USD1,146 million for the previous year that was caused by the same factors that led to the decrease in Adjusted EBITDA between the comparable periods.

The Company generated USD472 million net cash from investing activities for the year ended 31 December 2022 as compared to USD490 million in the previous year primarily due to dividends received from associates and joint ventures in amount of USD1,639 million in 2022 along with proceeds from a partial disposal of associate in amount USD1,421 million in 2021.

The Company generated USD1,415 million net cash from financing activities for the year ended 31 December 2022 as compared to USD1,891 million net cash used in the financing activities in the previous year primarily due to the net proceeds from borrowings of USD2,391 million for the year ended 31 December 2022 as compared to net repayment of borrowings of USD1,162 million for the preceding year.

Segment reporting

The Group has four reportable segments, as described in the annual report of the Company, which are the Group's strategic business units: Aluminium, Alumina, Energy and Mining and Metals. These business units are managed separately and results of their operations are reviewed by the General Director of the Company on a regular basis.

The core segments are Aluminium and Alumina.

(USD million)	Year ended 31 December			
	2022		2021	
	Aluminium	Alumina	Aluminium	Alumina
Segment revenue				
Thousand tonnes	3,693	5,373	3,590	7,554
USD million	10,962	2,620	9,102	2,649
Segment result	2,526	(77)	2,817	(72)
Segment result margin	23.0%	(2.9%)	31.0%	(2.7%)
Segment EBITDA[28]	2,872	2	3,139	113
Segment EBITDA margin	26.2%	0.1%	34.5%	4.3%
Total capital expenditure	**(768)**	**(311)**	**(700)**	**(234)**

The Company presents two metrics for Aluminium segment: (1) total segment information and (2) information on own aluminium production. The difference between two metrics relates to the intersegment margins, sales of third parties' metal and related costs and other non-production costs and expenses. Segment information for the year ended 31 December 2022 presented above relates to own aluminium production that is different from the relevant segment information presented in the Company's consolidated financial statements for the year ended 31 December 2022.

Key drivers for the decrease in margin in the aluminium segment are disclosed in "Revenue", "Cost of sales" and "Adjusted EBITDA and results from operating activities" sections above. Detailed segment reporting can be found in the consolidated financial statements for the year ended 31 December 2022.

Capital expenditure

RUSAL recorded a total capital expenditure of USD1,239 million for the year ended 31 December 2022. RUSAL's capital expenditure in 2022 was aimed at maintaining existing production facilities.

[28] *Segment EBITDA for any period is defined as segment result adjusted for amortisation and depreciation for the segment.*

(USD million)	Year ended 31 December	
	2022	2021
Development CAPEX	410	399
Maintenance		
Pot rebuilds costs	206	143
Re-equipment	623	650
Total Capital Expenditures	**1,239**	**1,192**

The BEMO project companies utilised the project financing proceeds to make necessary contributions to the ongoing construction projects and did not require contributions from the joint venture partners at this time.

Consolidated financial statements

The following section contains the audited consolidated financial statements of RUSAL for the year ended 31 December 2022 which were reviewed by the Audit Committee, preliminary reviewed and noted by the Board on 16 March 2023 and recommended for the shareholders' approval.

The full set of audited consolidated financial statements of RUSAL, together with the report of the independent auditor is available on RUSAL's website at: http://www.rusal.ru/en/investors/financial_stat.aspx.

Purchase, sale or redemption of Rusal's listed securities

Save as the redemption of bonds as disclosed in note 19(b) to the consolidated financial statements, neither the Company nor any of its subsidiaries repurchased, sold or redeemed any of their securities during the financial year ended 31 December 2022.

Corporate Governance Code

RUSAL adopted a corporate code of ethics that sets out RUSAL's values and principles for many of its areas of operations.

The Directors adopted a corporate governance code which is based on the HKSE CG Code. The Directors consider that save for code provision C.5.7 (physical board meetings at which Directors have material interests) and C.1.6 (attendance of Directors at annual general meeting), for reasons set out below and also on pages 92 to 93 of RUSAL's interim report for the six months ended 30 June 2022, RUSAL has complied with the provisions as set out in the HKSE CG Code during the period from 1 January 2022 to 31 December 2022.

The Board endeavoured throughout the twelve-month period ended 31 December 2022 to ensure that it did not deal with business by the way of written resolution where a substantial shareholder of the Company or a Director had disclosed an interest in a matter to be considered by the Board which the Board determined to be material. As a result, there were no occurrence (out of the 27 instances of absentee voting of the Board during the period) when urgent business was dealt with by the Board by way of written resolution where a material interest of a substantial shareholder of the Company or a Director was stated to have been disclosed.

Of the seven Board meetings held in presentia in the twelve-month period ended 31 December 2022 where one or more Directors had disclosed a material interest, all the independent non-executive Directors were present at six of the Board meetings held.

Of the 37 Board meetings held, there were seven occasions where executive Director/non-executive Director(s) might have a material interest in the relevant transactions. On such occurrences, those executive Director/non-executive Director(s) abstained from voting and the resolutions approving entry into such transactions were passed by the requisite majority excluding those executive Director/non-executive Director(s) who might have a material interest.

Certain executive Directors, non-executive Directors and independent non-executive Directors were unable to attend the AGM and EGMs held in 2022 due to conflicting business schedules.

Audit Committee

The Board established an Audit Committee to assist it in providing an independent view of the effectiveness of the Company's financial reporting process, risk management and internal control systems, and internal audit function, to oversee the audit process and to perform other duties and responsibilities as are assigned to the Audit Committee by the Board. The Audit Committee is assisted by the Company's internal audit function which undertakes both regular and ad hoc reviews of risk management, internal controls and procedures, the results of which are reported to the Audit Committee. The Audit Committee consists of independent non-executive Directors. The members are as follows: Mr. Kevin Parker (chairman of the committee, independent non-executive Director), Ms. Anna Vasilenko (independent non-executive Director), and Mr. Bernard Zonneveld (independent non-executive Director).

On 15 March 2023, the Audit Committee has reviewed the financial results of the Company for the year ended 31 December 2022.

Loans and Borrowings

The nominal value of the Group's loans and borrowings was USD4,883 million as at 31 December 2022, not including bonds, which amounted to an additional USD4,567 million.

Below is an overview of certain key terms of the selected facilities in the Group's loan portfolio as at 31 December 2022:

Facility/Lender	Principal amount outstanding as at 31 December 2022	Tenor/Repayment schedule	Pricing
Credit facilities			
PXF Facilities	USD848 million	Until November 2024, equal quarterly repayments starting from January 2022	3 month LIBOR plus 1.7% – 2.1% p.a.
Russian Bank Loans[1]	CNY8.2 billion	bullet repayment at final maturity dates, the last repayment – July 2025	3.75% – 4.2% p.a.
	USD2.1 billion	December 2027, quarterly repayments starting from September 2024	3 month LIBOR plus 3.0% p.a.
	RUB31.2 billion	quarterly repayments, the last repayment – December 2035	Key rate of the Bank of Russia plus 1.9% – 3.15% p.a.

Facility/Lender	Principal amount outstanding as at 31 December 2022	Tenor/Repayment schedule	Pricing
Bonds			
Eurobonds[2]	USD943 million	2023, repayment at final redemption date	4.85% – 5.3% p.a.
RUB bonds	RUB28.5 billion	3 tranches, the last repayment is May 2030, repayments at final redemption dates, subject to bondholders' put option	6.5% – 9.5%
CNY bonds	CNY22.9 billion	9 tranches, the last repayment is July 2027, repayments at final redemption dates	3.75% – 3.9% p.a./LPR1Y+0.2% p.a.

(1) In February 2023, RUSAL entered into a new credit facility with a Russian bank in the total amount up to USD4.4 billion and maturity – 24 December 2027. On 3 February 2023 the funds in the amount of 15.8 billion Chinese yuan were partially drawdown with an interest rate 4.75% and were used to refinance the principal outstanding under the existing debt with a Russian bank

(2) On 8 February 2023 pursuant to the extraordinary resolution of the noteholders Rusal redeemed the Eurobond with a coupon 4.85% to noteholders who hold Eurobond through NSD and other Russian custodians being the NSD direct participants in the amount of USD418 million.

The average maturity of the Group's debt as at 31 December 2022 was 2.3 years.

Security

As of 31 December 2022, the Group's debt (save for several unsecured loans and bonds) is secured, among others, by assignment of receivables under specified contracts, certain pledges of shares and interest of a number of the Group's subsidiaries, designated accounts, shares in Norilsk Nickel (representing 25% +1 share of Norilsk Nickel's total nominal issued share capital).

Financial Ratios

Gearing

The Group's gearing ratio, which is the ratio of total debts (including both long-term and short-term borrowings and bonds outstanding) to the total assets, as at 31 December 2022 was 38.4% (as at 31 December 2021 – 32.2%, as at 31 December 2020 – 44.8%as at 31 December 2019 – 46.3%, as at 31 December 2018 – 52.5%).

Return on Equity

The Group's return on equity, which is the amount of net profit as a percentage of total equity, as at 31 December 2022 was 14.6% (as at 31 December 2021 – 30.6%, as at 31 December 2020 – 11.6%, as at 31 December 2019 – 14.2%, as at 31 December 2018 – 32.6%).

Interest Coverage Ratio

The Group's interest coverage ratio, which is the ratio of earnings before interest and taxes to net interest (excluding bank costs and interest expense on provision), for the year ended 31 December 2022 was 8.2 (for the year ended 31 December 2021 – 13.5, for the year ended 31 December 2020 – 2.8, for the year ended 31 December 2019 – 3.2, for the year ended 31 December 2018 – 5.6)

VALUE

The main asset of the company

EMPLOYEES

The table below presents information about the number of employees (full time equivalent) in each Division of the Group as of 31 December 2021 and 2022.

Division	As of 31 December 2021	As of 31 December 2022
Aluminium	20,520	20,968
Alumina	24,923	25,505
Engineering and Construction	1,479	1,427
Energy	19	20
Packaging	4,694	4,667
Management Company	713	743
Technical Directorate	1,788	1,943
Other	3,797	4,190
Total	**57,933**	**59,463**

Remuneration and benefit policies

The fundamental principle of RUSAL Remuneration Policy is creating a remuneration structure to ensure that a highly professional team is formed and efficiently works, which contributes to the dynamic development of the Company and achievement of its strategic goals.

Remuneration structure:

1. Remuneration for work

The Company has built a comprehensive personnel incentive system, the main component of which is a monetary remuneration for work. Such monetary remuneration for work is defined depending of the employee's skills, complexity, quantity, quality and conditions of the work performed, regional and industrial specifics, it comprises compensation and incentive components.

1.1 The key purposes of the Company's personnel incentive system:

- Encouraging employees to achieve the Company's goals;
- Raising the labour productivity, improving the quality of produced products;
- Continuous improvement of the production and business processes and systems, promoting innovations;
- Compliance with the internal corporate regulations, performance discipline, standards and requirements in the field of health, occupational and fire safety;
- Recruiting and retaining key and highly-skilled employees;
- Developing the potential of employees, professional and personal competencies;
- Providing financial stability for employees of the Company and their families.

1.2 When managing the employee remuneration, the Company adheres to the following principles:

- Full compliance with the applicable laws of the regions where the Company operates;
- Impartiality and fairness of any decisions made;
- Clarity and transparency of any applied tools and systems;
- Dependence of the remuneration on individual and collective performance;
- Competitiveness of the remuneration structure and amount in the regions where the Company operates;
- Focus on the best market practices.

2. Benefits and compensations

2.1 RUSAL, being a socially oriented Company, together with mandatory compensations (prescribed by the applicable laws), also provides its employees with a wide list of additional benefits and compensations, being guided by the following key principles:

- Connection of the benefits with the social priorities of the Company: social stability and protection of employees, opportunities for personal and professional development, healthy lifestyle;
- Targeted nature of the benefits (the Company provides an employee with a benefit, not a cash compensation);
- Loyalty to internal corporate suppliers of services and products;
- Competitiveness of the benefits in the regions where the Company operates;
- Focus on the best market practices.

2.2 Out of the most significant benefits in the Company's social package, there are the following benefits provided in addition to those prescribed by the laws:

- Shift/daily meal allowance that provides an employee with a hot three-course lunch during a business day;
- Possibility to engage in sports and participate in sporting events free of charge;
- Free of charge corporate medical services based on LLC RUSAL Medical Centre;
- Subsidised vouchers for health resort treatment and rehabilitation in health centres located in the Russian Federation;
- Possibility to purchase voluntary medical insurance policies at subsidised prices both for employees and their family members;
- Festivals devoted to anniversaries of production facilities and the professional holiday, Metal Industry Day. There are annual New Year celebrations for children of employees, where each child is presented with a gift from the Company;
- Financial aid to pensioners, who worked at the Company's production facilities before and are registered with charity foundations, as well as to WWII Veterans, Survivors of Siege, Prisoners and Home Front Workers.
- Corporate housing programme that enables employees to purchase housing on subsidised conditions.

3. Bonuses based on results of the year

3.1 For employees of the White-Collar Workers (WCW) category:

The main tool to manage the performance of WCW is the system applicable in the Company for setting personal key performance indicators for employees and assessing their achievement.

3.2 For employees of the Workers category:

Bonuses are paid to workers for fulfilment of the production programme pro rata to the time worked in the year (including the absence in regular vacations and business travels).

Creating a new generation of highly-skilled professionals (making and developing an external succession pool)

In 2022, the Company continued to actively train and develop internal and external succession pool, provide vocational guidance to schoolchildren and implement special projects promoting a brand of RUSAL, being an appealing employer.

Number of students of the target recruitment programme:

Universities, Institutes and Colleges	Number of people			
	2019	2020	2021	2022
Siberian Federal University				
(students from Krasnoyarsk, Sayanogorsk, Achinsk and Bratsk)	19	12	9	21
Irkutsk State Technical University (students from Bratsk and Irkutsk)	9	2	1	1
Ural Federal University				
(students from Krasnoturyinsk, Mikhailovsk and Kamensk-Uralsk)	2	2	14	11
Branch of the Ural Federal University in Kamensk-Uralsk (students from Kamensk-Uralsk)	8	8	0	0
Ural State Mining University				
(students from Severouralsk, Mikhailovsk and Kamensk-Uralsk)	18	12	11	9
Kamensk-Uralsk Polytechnic College				
(students from Kamensk-Uralsk)	18	14	18	11
Russian State Professional and Pedagogy University	5	3	0	0
Krasnoyarsk Industrial and Metallurgical College (students from Krasnoyarsk)	15	22	16	41
Divnogorsk Hydropower Technical School (students from Divnogorsk)	11	3	2	15
Volgograd State Technical University (students from Volgograd)	8	5	0	0
Volgograd College of Management and New Technologies	20	18	0	0
Achinsk College of Industry Technologies and Business	0	0	49	24
Peter the Great St. Petersburg Polytechnic University	0	0	3	1
Krasnoyarsk College of Radio Electronics and Information Technologies	0	0	0	4
"FGBOU VO" St. Petersburg State University of Industrial Technologies and Design	0	0	0	1
Total	**133**	**101**	**123**	**139**

The internship programme called "**New Generation**" was launched in 2017 as part of the development of an external succession pool. The programme is mainly aimed at rejuvenating the Company's workforce by attracting young professionals with high potential. Participants were selected from among the best graduates of target schools with high average grades (at least 4.5 professionals and employees), English language skills, ready to relocate, etc. A mentor is assigned to each trainee, who then develops an individual development plan and helps the student to adapt to the new environment, as well as to set professional goals and achieve them. The internship lasts from six to 12 months, during which the participants undertake interesting and intricate projects, and then present them in front of their department and the head of HR. If they succeed, they might become fully employed. In 2022, 238 interns were admitted as part of the programme.

In 2022, the Company continued to implement the "**RUSAL Laboratory**" project online. The new season of the RUSAL Laboratory competition started on 1 November 2021. The competition spreads over five areas: reduction production; casting and innovative alloys; process modelling; environment and safety; and aluminium processing. 104 students from leading technical universities, technical schools, colleges and professional schools of Russia participated in the competition. Leading scientists and engineers of RUSAL provide their supportive expertise in each area.

In 2022, the "**Alchemy of the Future**" competition for schoolchildren, where RUSAL is the general partner, continues to expand. To hold the competition in the 2021–2022 academic year, 76 schools and five universities were involved as partners. The competition brought together 6,107 schoolchildren of 5–11 grades from over 200 settlements in 70 regions of the Russian Federation. There is an active campaign being carried out in 15 target cities (where RUSAL operates): social media postings; search engine advertising; placement of interactive posters on the official websites of schools, media, institutions of supplementary education and development centers for schoolchildren.

In 2022, the Company continued to actively support scientific competitions among university students. RUSAL became the general partner of the CASE IN and METALCUP engineering championships. More than 800 students from 35 technical universities across Russia took part in the championships.

Foreign students

In 2022, as part of the training programme for engineering personnel at the Company's enterprises in Africa, 68 students from Guinea continued their bachelor degree studies in six universities of the Russian Federation. Twenty Jamaican students entered related departments of the Siberian Federal University after having completed preparatory Russian language courses.

In 2022, 50 Guinean students arrived in Krasnoyarsk as part of the project sponsored by the Company to help African citizens enter the Krasnoyarsk State Medical University. At the first stage, they will take preparatory courses in the Russian language and related classes such as chemistry and biology. After they pass entrance exams successfully, the students will start studying the main medical disciplines: nursing, dentistry, paediatrics and therapy.

Creating and developing an internal succession pool

In 2022, the Company approved a list of reserved positions and formed a pool of successors as part of a new approach to the succession pooling and competency modelling:

- TOP Management succession pool members – 85 people,
- Medium Management succession pool members – 483 people,
- Linear Management succession pool members – 1,708 people.

Managerial competences of all succession pool members (2,276 people) were tested and assessed online.

The applicable Managerial Competences Guide was updated and its English version was made and implemented into business processes.

Trainings for the succession pool are diversified by management levels.

Succession pool training programmes were developed and approved. In addition, a cross-functional interaction training was developed and implemented as part of the Supervisor's School/Manager's School.

A total of 2,516 employees completed succession pool trainings in 2022:

- TOP Management succession pool members – 0 people;
- Medium Management succession pool members – 421 people;
- Linear Management succession pool members – 2,095 people.

Succession pool members improved such competences as "Motivation and Team Building", "Systemic and

Strategic Thinking", "Persistent Communication", "Control of Execution" and other.

As part of the succession pool trainings and in order to identify managerial potential and transfer expertise, the Company assessed and conducted modular trainings for quality experts, 13 people were trained.

TRIZ trainings were conducted for 489 people. Of them:

- TRIZ Basics – 315 people;
- TRIZ 100 – 49 people;
- TRIZ Project Manager – 26 people;
- TRIZ practicum – 99 people.

The Business System (BS) training was completed by 931 people. Of them: BS Basics – 727 people, BS 250 – 204 people. In 2022, 58 people, who completed this programme, were appointed to higher positions.

81 employees from the succession pool were appointed to a higher position over the past year. In total, the Company made 482 appointments.

Fifty-seven per cent of those appointed to key positions from grade 8 and above were in the succession pool.

At the end of 2022, the Company launched the "Leaders of RUSAL" programme. Its key goal is to prepare future leaders for the Company's key projects, as well as to prepare future leaders for key businesses. Projects will be the key development tool for these people. At the end of 2022, the "Leaders of RUSAL" programme designed 25 projects for the development of succession pool members and selected a list of candidates – 267 people.

Personnel trainings

In 2022, as part of advanced and professional training, 26,641 employees were trained, of whom: 79 employees were top managers, 8,790 employees were middle managers and specialists, 17,772 employees were blue collars. The main source of training programmes are internal licensed professional training programmes. In addition, the Company hires external providers and experts to improve skills of its employees.

One of the main focuses was development of digital competencies. In particular, the Digital Aluminium course was developed, which was completed by 2,621 people.

Also, the Company developed and implemented a training programme "Blockchain Technology, Cryptocurrencies" for the top management and financial middle managers.

Procurement, legal and financial employees received additional training on the topic "Import and export operations with China: cooperating with Asian partners." For the second year, the Company initiates training in Skolkovo under the programme "Digital Strategic Technologies" for Managers and General Directors of productions, as well as for Directors of the Head Office.

Training of personnel as part of functional academies

Functional academies became one of the development programmes for Company's employees. The goal of functional academies in RUSAL is to ensure a systematic approach to training and development, accumulate professional expertise from internal and external sources and create centers of expertise in each area. Professional competencies development programmes are broken down into professional areas. Trainings analyse the needs of the function and the current development status of employees. Training is preceded by a comprehensive assessment of professional competencies with the help of Technical Basic Courses (special tests). Based on the results of the assessment, a training programme is developed together with key function managers. For this, the knowledge and skills required for the job are analysed. When forming the programme, a modular approach is laid and intermodular work is planned to consolidate the training result. Functional academies are formed according to the principle of continuity within the function, internal teachers cascade knowledge and pass expertise. Comprehensive development of professional competencies of employees takes place in accordance with the goals and strategy of the Company.

In 2022, training programmes were developed (including, but not limited to) for the functional academies of the Procurement, Resource Protection Team, Environment Team, PR, GR, Legal Team, Quality Management System, metrologists and power engineers. In total, 3,157 employees were trained in the functional academies.

Training of process personnel

- In 2022, process engineers of the Aluminium Division, as well as employees of the technical team completed

Higher Aluminium Courses. Over 200 employees were trained in three areas: reduction production, anodes and casting. The training was conducted with the involvement of internal experts of the Company, as well as professors from the Siberian Federal University.

- Workers of the Company's productions took tests to see their knowledge of standard operational procedures. The main purpose is to test not only their knowledge of main processes, but also the basics of quality and safety. In 2022, 8,456 workers passed the test.
- More than 30 process-related basic courses were developed for white collars, including supervisors, senior supervisors and their replacements at main productions of the Aluminium and Alumina Divisions, the Downstream Division and the new projects team. The purpose of such courses was to assess knowledge of the processes and internal regulations. Over 2,000 white collars at productions passed the tests. Based on the test results, more trainings and advanced courses will be developed.
- In 2022, the Company brought into effect a training module for production mentors. 485 mentors completed full-time training at enterprises. The main topics of the training were the role of a mentor and the stages of the mentoring process, features of adult trainings, key tools for a mentor, control and feedback. In addition, an electronic course and a mentor's guide were designed, which would become mandatory study for a person appointed as a mentor.
- There were 17,772 workers of the Company, who completed vocational training and improved their skills under internal educational licenses of enterprises over the past year.

Training of personnel as part of the Institute of Internal Coaches

In 2022, the Company launched a project to develop the Institute of Internal Coaches. More than 700 employees were trained by internal experts in topics such as interviews on competencies, effective communication, emotional burnout, adaptation of employees during transfers within the Company, etc. Development of trainings with involvement of internal experts is becoming one of its goals.

Training of Company's employees in universities and institutes at bachelor, master degree and postgraduate courses

- The Company implements modular programmes for mandatory training of workers and employees to obtain a bachelor's degree in the branches of the Ural Federal University, the Siberian Federal University, the Siberian State Aerospace University named after academician M.F. Reshetnev and Volgograd State Technical University majoring in the following areas: metallurgy, process machines and equipment, power engineering, process and production automation, standardization and metrology, automatic control systems, etc. As of 2022, more than 256 RUSAL employees continued to study undergraduate courses.
- Managers of the Company continue attending training in order to obtain master's degrees from the Ural State Mining University, the Siberian Federal University and the Irkutsk National Research Technical University majoring in metallurgy, thermal power engineering and heat engineering, materials science and materials technology, heat engineering, heat power engineering and mechanical engineering. As of 2022, 164 RUSAL employees continue their education in their master's courses.
- 31 employees continue improving their education in order to obtain diplomas from the Ural State Mining University, St. Petersburg Mining University and Irkutsk National Research Technical University majoring in mining and customs.
- During the year, the basic department of the Irkutsk National Research Technical University (IrNITU) in Shelekhov, the basic department of the Siberian Federal University in Bratsk and the Ural State Mining University in Severouralsk functioned successfully.

The Company is working on its Youth Policy and Regulations and organizing events of its Youth Councils. Under the Regulation, each production developed its action plans, which were fulfilled throughout the year.

The budget amounted to RUB 6,500,000. In 2022, a Youth Forum was organised and held jointly with En+. It accommodated 134 young specialists of RUSAL and 99 young specialists of En+.

In 2022, the Youth Councils organised and held 956 events in the following areas: career guidance, cultural, sports, volunteering.

The events covered 167,000 people.

In 2022, three Youth Councils were established: SibVAMI JSC, Ural Foil JSC. There are 22 Youth Councils in the Company, in total.

Distant Learning System (DLS)

In 2022, the UNIVER platform was visited by 65,765 unique users. The platform automates 8 unified and standardized HR processes of the two Groups of Companies, RUSAL and En+: adaptation, training, including compulsory, vocational, periodic and remote training and testing, personnel assessment (PIF, Delta, 360), succession pooling and building individual development plans, budgeting, goal setting and goal assessment. Sixty per cent of portal visitors use the distant learning and testing functions, and the remaining 40% participate in other processes.

Since the beginning of 2022, 17,606 people have been trained using electronic courses. (+22%), and – 177,742 (+764%) people have been tested. For employees of RUSAL Group, 130 e-learning courses were developed and posted in the DLS on the following topics: production processes, mentoring, procurement, sustainable development, etc. Users give an average rating of 9.09 to the courses on the portal.

Description	2016	2017	2018	2019	2020	2021	2022
Number of productions and departments using Distant Learning	62	67	69	57	58	59	110
Number of students using Distant Learning	57,257	33,649	90,806	36,835	25,571	69,650	70,668
Number of PC trainings (courses)	**over 400**	**over 500**	**528**	**over 550**	**over 560**	**over 670**	**over 800**

Occupational safety and health and environmental protection policies

RUSAL's activities to provide safe working conditions for employees and reduce occupational diseases and injuries are governed by the 2030 Occupational Health and Safety Strategy (adopted by the Board on 22 September 2022), the Corporate Occupational Health and Safety Policy, as well as the Declaration on Industrial and Fire Safety Policy. The Company's efforts in this area are integrated into the Occupational Health and Safety Management System, which is one of the crucial management systems within RUSAL's operations, and is approved by DNV[29] as compliant with ISO 45001-2018.

The Company has the following health and safety objectives:

- to strive for zero injuries, zero emergencies and zero fires;
- to ensure the compliance of equipment and production processes with legal and regulatory requirements for occupational health, industrial and fire safety;
- to ensure personnel safety and health in the workplace and improve workplace environment on an ongoing basis in order to increase the level of safety and to prevent occupational diseases;
- to prevent occupational diseases.

The Occupational Health and Safety Management System is deployed at every production facility. It includes a risk management system, emergency

[29] *Det Norske Veritas (DNV GL), an international accredited registrar and classification organization.*

response plans, budgeting of health and safety measures, as well as embedding the Safety Culture, personnel training based on national and corporate requirements, including a corporate e-learning system. Occupational health and fire safety measures are financed strictly on a timely basis to provide for identification of hazards and development of procedures to improve working conditions.

RUSAL pays special attention to maintaining constructive dialogue with state authorities, employees, business partners, the general public and expert organisations to jointly resolve health and safety issues. The Company's experts participate in the legislative process through the Occupational Health, Safety and Environmental Committee of the Russian Union of Industrialists and Entrepreneurs, Russian Duma Committees, federal ministries and agencies, the Russian Chamber of Industry and Commerce, the Russian Association of Mining Industrialists, and other non-profit organisations and partnerships.

The universally accepted health and safety management systems is a system based on the ISO 45001-2018. Regular audits of this system at RUSAL are strengthened by numerous regular internal audits, which qualitatively and quantitatively assess key elements of the system, identify deficiencies and develop effective corrective measures to manage risks and prevent failures and injuries.

Occupational Health and Safety Performance

In 2022, the LTIFR was 0.15, which has decreased as compared to the same indicator in 2021 (0.18) and is lower than the global average for the aluminium industry (according to the International Aluminium Institute, 2021).

Business risks

The Company gives particular emphasis to implementation and development of an effective risk management system in order to mitigate negative impact of potential risks and to ensure stable sustainable development of the business.

Risk identification and risk analysis performed by the owners of the Company's business processes as well as development, implementation and monitoring of risk mitigation actions are the key elements of the risk management system.

The Directorate for Control, Internal Audit, and Business Coordination (the "**Control Directorate**") is responsible for methodological support to the risk management system, consolidation and analysis of the Company' risk portfolio.

Key internal document governing the risk management system is a risk management and internal control policy, which generally defines the concept, roles and responsibilities of the Company's employees at each management level and regulates risk management process, key risk assessment tools and techniques, procedures to evaluate risk mitigation effectiveness and to report risks.

Key actions and procedures to ensure effective and efficient risk management

- quarterly monitoring of the Company's risk portfolio by risk owners and update of the corporate risk map and risk register;
- monthly discussion of Company's businesses key risks at management meetings;
- quarterly review of the most significant risks by management Executive Committee and Audit Committee;
- internal audits of the effectiveness and efficiency of internal control systems in order to analyse and mitigate risks of ineffective and inefficient production setup, distribution and sales, supply chain, personnel management, risks of loss or fraud to Company's assets as well as risks of other business processes;
- regular risk audits of the Company's production facilities are regularly conducted by independent risk surveyors and by risk surveyors of insurance companies to analyse risks of physical damage and business interruption and to leverage the Company's insurance programme;
- refinement of risk assessment techniques and enhancement of the automated risk reporting system;
- regular training in risk management principles and procedures for employees and management of the Company.

Monitoring, reporting and evaluation of the risk management system

The Control Directorate provides quarterly reports on the most significant risks to the Audit Committee. Such reports provide an overview of the Company's consolidated risk portfolio and its dynamics, the most significant realised risks, recently identified risks as well as the efficiency of management' risk mitigation actions.

The Audit Committee oversees the effectiveness of the Company's risk management system and compliance with the Company's risk management policies and procedures.

In 2022, the Company determined the following most important risk factors that mostly are inherent to the industry and nature of its business operations:

1. The Company operates in a cyclical industry under inherent volatility of prices and demand depending on a vast variety of macroeconomic factors, most of which are out of the Company's control. Prices for aluminium has significantly changed and may further change in the future especially taking into account current unstable geopolitical situation, risks of global and/or regional economic recession and associated significant volatility of commodity, currency and securities markets. Such volatility has and may continue to have a significant negative impact on the efficiency and financial results of the Company.

2. Stronger control and growing attention from the authorities and the public to the environmental safety issues, including stricter control over compliance with and possible revision of emission and discharge regulations or operational waste storage and disposal rules and conditions, as well as uncertainty surrounding the introduction of carbon tax on the Company's products and pathway to green power generation.

3. Hard-to-predict change in demand for primary metals and alloys, the risks of reducing consumption and risks of sales margin squeeze due to the imposed sanctions and trade restrictions against the economy, the Central Bank, the Ministry of Finance, the National Welfare Fund of the Russian Federation, a number of industries, individual enterprises and individuals of the Russian Federation, as well as uncertainty regarding further geopolitical developments, the introduction of additional restrictive and sanctions measures, their content and scope, both by Russian Federation and by other countries.

4. Retaining control by the Company over assets and businesses outside Russian Federation, especially over those based in "unfriendly" jurisdictions, in case of further extension and toughening of sanctions and limitations by the authorities of corresponding countries.

5. The Company's competitive position in the global aluminium sector depends to a great extent on unrestricted access to uninterrupted power supply and on long-term power supply contracts, in particular. Growing power prices as well as power supply interruptions may have substantial negative impact on the business, financial position and performance results of the Company.

6. The Company relies on uninterrupted transportation services and access to infrastructure necessary to transport its raw materials, consumables and finished products over long distances, which is outside the Company's control; the Company is dependent on prices for such services (rail tariffs, freight rates), which may increase taking into account the ongoing crisis of global logistics chains, as well as sanctions restrictions imposed by a number of countries on Russian ships and vehicles.

7. Provisions of the credit facilities impose certain limits on dividends paid by the Company. Failure by the Company to comply with such provisions may have serious implications for the Company and its shareholders.

8. The Company is exposed to exchange rate fluctuations, which may have influence on its financial results.

9. Negative media coverage, claims and other public statements may significantly affect the Share price in a harmful manner.

10. The Company's business operations may be affected by manpower problems, lack of qualified workforce, and labour cost inflation.

11. The Company relies on third party vendors for some raw materials and consumables.

12. Equipment breakdowns, impossibility or delays in supply of equipment and/or components and spare parts due to sanctions, trade or logistics restrictions may result in decline of production or business interruption.

13. The Company is required to follow certain Russian anti-monopoly regulations.

14. The Company operates in an industry with distinctive inherent risks of environmental and public health damage.

15. Data on ore and mineral reserves is approximate and, by definition, uncertain, and such reserves of ore and minerals may be depleted sooner than expected.

16. The Company's ore exploration and mining licenses and concessions may be suspended, modified, or terminated prior to their expiry, or may not be extended.

17. The Company is exposed to the risks from regulatory, social, legal, tax and political environments in a number of jurisdictions where the Company operates.

Contingencies

The Board has reviewed and considered the contingent liabilities of the Company and disclosed information concerning such contingent liabilities in note 24 to the consolidated financial statements. Accordingly, for detailed information about contingent liabilities, please refer to note 24 to the consolidated financial statements. Details of the amounts of provisions are also disclosed in note 20 to the consolidated financial statements.

Tax contingencies

The controlled foreign company ("**CFC**") rules have been introduced in Russia starting from 1 January 2015. The rules apply to undistributed profits of non-Russian CFC controlled by Russian tax-resident Shareholders. Although the Company has become a Russian tax-resident in 2020 as part of its Continuance, it qualifies for an exemption from the CFC rules for public international companies until 1 January 2029. Hence, the CFC rules shall not directly apply to the Group in relation to any of its non-Russian affiliates. The CFC rules may apply to Russian tax-resident controlling Shareholders of the Company, where such Shareholder controls more than 25% or 10% where all Russian tax-resident Shareholders together control more than 50%. The rules also introduce certain reporting requirements for such Russian tax-resident controlling Shareholders of the Company in relation to non-Russian affiliates of the Group where such Shareholders directly or indirectly control more than 10% of those affiliates.

Legal contingencies

The Group's business activities expose it to a variety of lawsuits and claims which are monitored, assessed and contested on an ongoing basis. Where management believes that a lawsuit or claim would result in the outflow of the economic benefits for the Group, a best estimate of such outflow is included in provisions in the consolidated financial statements (refer to note 20 of the consolidated financial statements). As at 31 December 2022 the amount of claims, where management assesses outflow as possible approximates USD33 million (31 December 2021: USD21 million).

COHESION

The power of team unity

PROFILES OF THE BOARD MEMBERS, THE GENERAL DIRECTOR AND SENIOR MANAGEMENT

Profiles of the Board Members

Executive Directors

Evgenii Nikitin

aged 57 (General Director, Executive Director)
Year of birth: 1966

Mr. Nikitin was appointed as an executive Director on 28 June 2018. Mr. Nikitin was appointed as the Chief Executive Officer of the Company in November 2018 and became the General Director with effect from 25 September 2020. Mr. Nikitin has also been the General Director of JSC "RUSAL Management" since 2019. Before that, he held position of acting CEO of the Company since May 2018 and RUSAL's Head of Aluminium Division since January 2014. Prior to that, he held positions of director of Aluminium Division East since October 2013. Prior to that appointment, Mr. Nikitin was the managing director of KrAZ, one of the world's largest aluminium production facilities. From 2008 to 2010, he was managing director of SAZ after beginning his career with the Group as a pot operator in 1993.

Mr. Nikitin was born on 11 March 1966. He graduated from the Moscow State Technical University of Civil Aviation in 1989 and from Lomonosov Moscow State University with a master's degree in business management (MBA) – production systems in 2009.

Mr. Nikitin was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Nikitin did not directly or indirectly own the Company's Shares. Mr. Nikitin did not conclude any transactions with the Company's Shares throughout the Review Period.

Evgeny Kuryanov

aged 42 (Executive Director)
Year of birth: 1980

Mr. Evgeny Kuryanov was appointed as an executive Director with effect from 14 February 2019. Mr. Kuryanov was born on 10 June 1980. Mr. Kuryanov graduated from Irkutsk State Technical University with Metallurgy of Non-Ferrous Metals (cum laude). From February 2000 to May 2004, Mr. Kuryanov was the salt operator and calcination operator of RUSAL Bratsk. From August 2004 to November 2005, Mr. Kuryanov was the salt operator of the reduction area of RUSAL Krasnoyarsk. From November 2005 to August 2010, Mr. Kuryanov was the potline supervisor/senior potline supervisor of RUSAL Krasnoyarsk. From June 2010 to December 2015, Mr. Kuryanov was the head of reduction area of RUSAL Krasnoyarsk. From December 2015 to August 2016, Mr. Kuryanov was the general director of Shelekhov branch of RUSAL Bratsk. Since September 2016, Mr. Kuryanov has served as the managing director of RUSAL Krasnoyarsk.

Mr. Kuryanov was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Kuryanov did not directly or indirectly own the Company's Shares. Mr. Kuryanov did not conclude any transactions with the Company's Shares throughout the Review Period.

Evgenii Vavilov

aged 38 (Executive Director)
Year of birth: 1984

Mr. Evgenii Vavilov was appointed as an executive Director on 28 June 2018. Mr. Vavilov graduated from the Siberian Federal University, program of study "Machines and technologies of foundry production". Since November 2013, Mr. Vavilov has been the senior master of the foundry directorate of JSC "RUSAL Krasnoyarsk". From September 2010 to November 2013, Mr. Vavilov was the master of production technology of the foundry directorate of JSC "RUSAL Krasnoyarsk". Mr. Vavilov was the master of DpIP shift of the foundry directorate of JSC "RUSAL Krasnoyarsk" from November 2009 to August 2010, the acting master of the shift of the foundry directorate of JSC "RUSAL Krasnoyarsk" from April 2009 to October 2009, and the foundry man of non-ferrous metals of the foundry directorate of JSC "RUSAL Krasnoyarsk" from August 2007 to March 2009. Under the leadership of Mr. Vavilov, projects such as "Reducing the formation of process waste from aircraft No. 16 in LO No. 1 at JSC "RUSAL Krasnoyarsk" and "Increasing the release of alloys during the overhaul of the M10 mixer from 3 to 4 melts" were launched and implemented.

Mr. Vavilov was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Vavilov did not directly or indirectly own the Shares. Mr. Vavilov did not conclude any transactions with the Shares throughout the Review Period.

Non-executive Directors

Mikhail Khardikov

aged 40 (Non-executive Director)
Year of birth: 1982

Mr. Mikhail Khardikov was appointed as a non-executive Director with effect from 23 June 2022. Mr. Khardikov joined JSC "EuroSibEnergo" (a subsidiary of EN+) in 2010 as Director of Investor Relations, and then later held the position of Director of Corporate Finance. In 2014, Mr. Khardikov was appointed Finance Director, and in 2018 as General Director of JSC "EuroSibEnergo".

In 2019, Mr. Khardikov was appointed Deputy General Director – Financial Director of EN+, and in 2022 - as Deputy General Director – Operating Director of EN+.

In February 2023 Mr. Khardikov was appointed as chairman of the board of directors of LLC "Vostsibugol".

Prior to joining the EN+ Group, Mr. Khardikov worked in senior positions at JSC "Bashkirenergo", JSC "OGK-3", METALLOINVEST MC LLC and COALCO LLC.

In 2009, Mr. Khardikov graduated from the postgraduate course of the Russian Academy of Public Administration under the President of the Russian Federation, receiving the degree of Candidate of Economic Sciences. In 2007, Mr. Khardikov graduated from the Russian Presidential Academy of National Economy and Public Administration with a degree in organisation management.

Save as disclosed in this Annual Report, Mr. Khardikov was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Khardikov did not directly or indirectly own the Shares. Mr. Khardikov did not conclude any transactions with the Shares throughout the Review Period.

Vladimir Kolmogorov

aged 70 (Non-executive Director)
Year of birth: 1953

Mr. Vladimir Kolmogorov was appointed as a non-executive Director with effect from 18 May 2019. Since 2019 Mr. Kolmogorov has been the First Deputy CEO for Technical Policy and since 2020 - executive officer of International limited liability company En+ Holding (former En+ Holding Limited) and was appointed Deputy CEO - executive officer of En+ in 2020.

Since 2016, Mr. Kolmogorov has been the Head of Technical Supervision of JSC "EuroSibEnergo". Mr. Kolmogorov started his career as a foremaster at Krasnoyarsk HPP in 1975, which was later followed by his employment with Sayano-Shushenskaya HPP as Deputy Head (for Automated Control Systems) of Electrical Shop, and Chief Engineer of Taymyr HPP Cascade since 1982. From 1983 to 2014, Mr. Kolmogorov held senior management positions with various energy sector companies. In 2013, Mr. Kolmogorov was a First Deputy General Director of PJSC "IDGC of Siberia". From 2011 to 2012, Mr. Kolmogorov served as a Chairman of CJSC Distributed Energy. From 2009 to 2011, Mr. Kolmogorov was a General Director of JSC

"OGK-3". From 1989 to 2006, Mr. Kolmogorov occupied position of General Director of such companies as EuroSibEnergoengineering LLC, JSC Irkutskenergo, Siberian Energy Company LLC, Krasnoyarskenergo JSC, JSC Krasnoyarsk HPP and also the position of chief engineer of SibirEnergo representative office of PJSC RAO UES.

Mr. Kolmogorov graduated from the Novosibirsk Electrotechnical Institute, Electrical Energy Industry Faculty, in 1975. Mr. Kolmogorov received his Doctor of Business Administration from the Russian Presidential Academy of National Economy and Public Administration in 2007. Mr. Kolmogorov has a PhD in Economics and PhD in Electrical Engineering. Mr. Kolmogorov was awarded the titles of the "Honoured Energy Industry Worker of the Russian Federation", "Honoured Energy Industry Worker" and "Merited Worker of Fuel and Energy Complex".

Save as disclosed in this Annual Report, Mr. Kolmogorov was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the end of the Review Period.

Mr. Kolmogorov did not directly or indirectly own the Shares. Mr. Kolmogorov did not conclude any transactions with the Shares throughout the Review Period.

Marco Musetti

aged 53 (Non-executive Director)
Year of birth: 1969

Mr. Marco Musetti was appointed as a non-executive Director with effect from 15 December 2016.

Mr. Musetti served as a member of the board of directors of Sulzer AG from 2011 to April 2021. Mr. Musetti became a board member of Medmix AG from 30 September 2021.

From 2013 until April 2019, Mr. Musetti was a member of the board of directors of Schmolz + Bickenbach AG. From 2007 until April 2018, Mr. Musetti was managing director of investments at Renova Management AG, based in Zurich, Switzerland. Mr. Musetti was a member of the board of directors of CIFC Corp. From January 2014 to November 2016, Mr. Musetti was chief operating officer and deputy chief executive officer of Aluminium Silicon marketing (SUAL Group) from 2000 to 2007, head of metals and structured finance desk for Banque Cantonale Vaudoise from 1998 to 2000, and deputy head of metals desk for Banque Bruxelles Lambert from 1992 to 1998.

Mr. Musetti holds a Master of Science in Accounting and Finance from the London School of Economics and Political Science, United Kingdom, and a Major degree in Economics from University of Lausanne, Switzerland.

Save as disclosed in this Annual Report, Mr. Musetti was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the end of the Review Period.

Mr. Musetti did not directly or indirectly own the Shares. Mr. Musetti did not conclude any transactions with the Shares throughout the Review Period.

Vyacheslav Solomin

aged 47 (Non-executive Director) (Ceased to be a non-executive Director with effect from 23 June 2022)

Mr. Vyacheslav Solomin retired as a non-executive Director with effect from 23 June 2022. Reference may be made to his profile information in the Company's annual report for the financial year ended 31 December 2021.

Independent Non-executive Directors

Christopher Burnham

aged 66 (Independent nonexecutive Director)
Year of birth: 1956

Mr. Christopher Burnham was appointed as an independent non-executive Director with effect from 14 February 2019.

Mr. Burnham has served as a member of the board of directors of En+ since 28 January 2019 as an independent director. Mr. Burnham has been the senior independent director of En+ from 2019 until March 2022. Mr. Burnham was elected as the chairman of the board of directors of En+ from 25 March 2022.

Since 2013 Mr. Burnham has been the chairman and chief executive officer of Cambridge Global Capital, and from 2013 to 2022, Mr. Burnham was the chairman of its affiliated strategic advisory firm, Cambridge Global Advisors, headquartered in Washington, D.C. Mr. Burnham cofounded Cambridge after a distinguished career in government, diplomacy, banking and private equity. Mr. Burnham has served as Under Secretary General for Management of the United Nations, Under Secretary of State for Management (acting), Assistant Secretary of State for Resource Management and chief financial officer of the U.S. Department of State, Treasurer of the State of Connecticut, and a three-term

Member of the Connecticut House of Representatives where he was elected by his colleagues as Assistant Minority Leader after only one-term. In addition, Mr. Burnham served as Vice Chairman of Deutsche Bank Asset Management, global co-head of private equity, and served as a member of the asset management Global Operating Committee and chairman of the Global Governance Committee. Earlier in his career, Mr. Burnham served as chief executive officer of PIMCO's largest equity subsidiary, Columbus Circle Investors, and International Vice Chairman of PIMCO Funds Distribution Company.

Mr. Burnham led reforms of the Connecticut Treasury including turning around the worst performing state pension system in the nation, eliminating the USD7 billion unfunded liability within the Connecticut workers compensation system, and modernisation of the financial and reporting systems.

At the U.S. Department of State, Mr. Burnham built and led the implementation of performance measures down to the mission level while modernizing the global reporting system across 270 offices in 170 countries. As the chief operating officer of the United Nations and a member of the cabinet of Kofi Annan, Mr. Burnham instituted sweeping governance reforms including the establishment of the first United Nations Ethics Office, the first United Nations Independent Audit Advisory Committee, the adoption of new International Public Sector Accounting Standards, the first comprehensive consolidated annual report in the history of the United Nations and a new whistleblower protection policy that received independent recognition as the "gold standard". Mr. Burnham also implemented best-in-class financial disclosure reporting by senior United Nations officials and staff based on the U.S. government model, a first ever sexual harassment policy and initiated a taskforce to investigate corruption within United Nations procurement that led to prosecutions and convictions by the U.S. District Attorney's office of the Southern District of New York.

Mr. Burnham has been confirmed twice by the United States Senate.

From 2006 to December 2012, Mr. Burnham was the vice chairman and managing director of Deutsche Asset Management where he co-founded and led Deutsche Bank 's direct private equity group, RREEF Capital Partners, the bank's re-entry into private equity after an eight-year absence. Mr. Burnham also chaired Deutsche Bank's asset management governance committee in Germany. Mr. Burnham is a globally recognised expert in the implementation of accountability and transparency, and the implementation of best practice in government, corporations, and inter-governmental organisations. Earlier in his career, Mr. Burnham worked as an investment banker in the public power and corporate group of First Boston, and at Advest, Inc.

A combat veteran of the United States Marine Corps (Reserve) who retired at the rank of Lieutenant Colonel, Mr. Burnham volunteered for active duty in 1990 and served as an infantry platoon commander in the Gulf War. Mr. Burnham his men were part of the lead Allied forces to reach and liberate Kuwait City.

Mr. Burnham is a senior advisor at the Center for Strategic and International Studies where he has served on the development assistance reform committee. Mr. Burnham has been a board member of the Marine Corps Law Enforcement Foundation since 1995, and an advisory board member of the Rothermere American Institute at Oxford University. Mr. Burnham is a past member of the advisory committee of the World Bank Global Emerging Market Local Currency Bond program (GEMLOC), Treasurer and board member of the Meridian International Center, member of the Council on Foreign Relations, and numerous other volunteer and philanthropic boards. In addition, from 2017 to May 2022, Mr. Burnham has served on the board of Blue Water Defense located in Puerto Rico, a textile manufacturing firm.

Mr. Burnham studied national security policy at Georgetown University graduate program in National Security Studies, and is a graduate of Washington and Lee University and earned a M.P.A. from Harvard University in 1990.

Mr. Burnham was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Burnham did not directly or indirectly own the Shares. Mr. Burnham did not conclude any transactions with the Shares throughout the Review Period.

Lyudmila Galenskaya (alternatively spelled as Liudmila Galenskaia)

aged 64 (Independent non-executive Director)
Year of birth: 1958

Ms. Liudmila Galenskaia was appointed as an independent non-executive Director with effect from 23 June 2022. Ms. Galenskaia is an independent non-executive director of En+. Ms. Galenskaia has been the Head of the Service for Environmental Security and Rational Use of Natural Resources of Baikal Energy Company LLC (a company controlled by En+) since 2020. From 2003 until 2020, Ms. Galenskaia was the Head of the Service for Environmental Security and Rational Use of Natural Resources of JSC Irkutskenergo (a company controlled by En+). From 2002 to 2003, Ms. Galenskaia was the Engineer of the 1st category of manufacturing and technical Service of JSC Irkutskenergo.

From 1997 until 2002, Ms. Galenskaia held position of the Deputy Head of the Laboratory of JSC "Angarsk Polymer Plant", and from 1980 to 1997, she held positions of Chemical analysis laboratory assistant of the 4th category, laboratory engineer, the Deputy head of the shop of Angarsk Production Association Angarsknefteorgsintez.

Ms. Galenskaia graduated from the Irkutsk State University named after Zhdanov in 1980.

Save as disclosed in this Annual Report, Ms. Galenskaia was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Ms. Galenskaia did not directly or indirectly own the Shares. Ms. Galenskaia did not conclude any transactions with the Shares throughout the Review Period.

Nicholas Jordan

aged 63 (Independent nonexecutive Director) (Ceased to be an independent non-executive Director with effect from 23 June 2022)

Mr. Nicholas Jordan retired as an independent non-executive Director with effect from 23 June 2022. Reference may be made to his profile information in the Company's annual report for the financial year ended 31 December 2021.

Kevin Parker

aged 63 (Independent non-executive Director)
Year of birth: 1959

Mr. Kevin Parker was appointed as an independent non-executive Director with effect from 14 February 2019.

Mr. Parker is the managing partner of Sustainable Insight Capital Management, the New York based global asset management firm that launched in 2013. Mr. Parker has over 35 years of investment experience. Prior to that, Mr. Parker was a member of the management board of Deutsche Bank for 10 years and the former global head of Deutsche Asset Management from 2004 to 2012.

Mr. Parker is also the owner of Chateau Maris, named one of the five most environmentally friendly wineries in the world by Wine Spectator Magazine.

Mr. Parker received a BS Finance from New York University in 1981. After attending New York University, Mr. Parker joined EF Hutton and later Morgan Stanley where he was appointed head of the firm's equity derivatives business in Japan and Asia in 1988, based in Tokyo. Mr. Parker became a managing director in 1991 and held a variety of positions including head of Asian derivatives, global head of equity derivatives trading and chief information officer. Mr. Parker joined Deutsche Bank in June 1997, serving in a variety of roles before moving to Deutsche Asset Management as its head in 2004.

Mr. Parker was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Parker did not directly or indirectly own the Shares. Mr. Parker did not conclude any transactions with the Shares throughout the Review Period.

Randolph N. Reynolds

aged 81 (Independent non-executive Director)
Year of birth: 1941

Mr. Randolph N. Reynolds was appointed as an independent non-executive Director with effect from 14 February 2019.

Mr. Reynolds is a co-founder and principal of Reynolds Development.

Mr. Reynolds served as a vice chairman and executive officer and was a member of the board of directors of Reynolds Metals Company. Mr. Reynolds was also a member of the office of the chief executive and served on Reynolds Metals Company's strategic guidance committee and on the boards of directors of a number of subsidiary companies.

Mr. Reynolds currently serves as a trustee of the Richard S. Reynolds Foundation and as its vice president/treasurer.

In 1969, Mr. Reynolds joined Reynolds Metals Company as a salesman in the metal field sales department in Louisville, Kentucky. In 1972, Mr. Reynolds began his career as national accounts manager for the chemical sales division. Mr. Reynolds was assigned the additional responsibility of worldwide sales in 1974 and was named general manager of the division in 1977. Mr. Reynolds was elected president of Reynolds International, Inc. in 1980. Mr. Reynolds previously served on the boards of First Union National Bank, Ma'aden Aluminium Company and Novolipetsk Steel (NLMK). Mr. Reynolds graduated from Bellarmine University.

Mr. Reynolds was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Reynolds did not directly or indirectly own the Shares. Mr. Reynolds did not conclude any transactions with the Shares throughout the Review Period.

Evgeny Shvarts

aged 64 (Independent non-executive Director)
Year of birth: 1958

Dr. Evgeny Shvarts was appointed as an independent non-executive Director with effect from 20 April 2020.

Dr. Shvarts has been an independent non-executive director of PJSC "MMC "NORILSK NICKEL" since 2019, and was a member of its Strategy Committee till 27 May 2020 and was a member of its Corporate Governance, Nomination and Remuneration Committee till June 2022 and is a member of its Sustainable Development and Climate Change Committee. Dr. Shvarts has been a member of the board of the Charity Foundation, Biodiversity Conservation Centre (BCC) since 1993, a Lead Scientist of Institute of Geography, the Russian Academy of Sciences (RAS) in Moscow, a Head of Center for responsible use of natural resources, Institute of Geography, RAS in Moscow since 2021, and a J. William Fulbright Foreign Scholarship Fellow (2019-2020) in University of Washington (Seattle, WA) and in Bowdoin College (ME). Dr. Shvarts was a former director of Conservation/director of Conservation Policy of WWF-Russia (1998-2019). Dr. Shvarts holds a PhD degree (1987) and a Habilitation degree (Doctor of Sciences, 2003). Dr. Shvarts was Senior Fellow and Member of the Academic Board of the Institute of Geography, RAS (1990-1998) and he was elected to the Academic Board of the Institute of Geography, RAS in 2021, the chairman of the board of the Biodiversity Conservation Center (1992-1998), and the manager of the Protected Areas Component of the GEF/WB "RF Biodiversity Conservation Project" (1996-1998). Since November 2021, Dr. Shvarts has been a professor at the Faculty of Geography and Geoinformation Technologies, National Research University Higher School of Economics.

Dr. Shvarts has authored 11 books and 179 articles, and was awarded the Title "Emeritus Ecologist", granted by President of Russian Federation and Distinguished (Honorary) public figure of Nature Conservation, Ministry of Nature Resources (2006).

Dr. Shvarts was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Dr. Shvarts did not directly or indirectly own the Shares. Dr. Shvarts did not conclude any transactions with the Shares throughout the Review Period.

Anna Vasilenko

aged 49 (Independent non-executive Director)
Year of birth: 1973

Ms. Anna Vasilenko was appointed as an independent non-executive Director with effect from 24 June 2021.

Ms. Vasilenko is an independent director of PJSC "Inarctica" (before August 2022 - PJSC "Russian Aquaculture") from 30 June 2021. Ms. Vasilenko has been the Chief Executive Officer of EM (a strategic advisory and communications firm) from April 2021. Ms. Vasilenko worked at the Moscow Exchange from 2014 until 2020 and was the Managing Director, Head of Primary Markets & Client Service Development. Ms. Vasilenko was largely responsible for primary market activity and Moscow IPOs and helped bring more companies to the

Moscow Exchange. Ms. Vasilenko has been credited as being a key player in the effort to end the notion that Russian companies needed a foreign share listing when going public, and during her time at the Moscow Exchange, more companies sought a sole listing on Russia's main stock exchange.

From 2006 to 2012, Ms. Vasilenko was the Head of Equity Finance, director, Chief Operations Officer, business manager of equity structure products group of Renaissance Capital in Moscow. From 2003 to 2006, Ms. Vasilenko was the Deputy Head of Securities Department, Associate Director and Deputy Head of Investor Relations Department of Lukoil, Moscow. Ms. Vasilenko was the Head of Operations of Credit Suisse, Moscow from 1997 to 2003.

Ms. Vasilenko completed an EMBA at the Moscow School of Management Skolkovo, and obtained a Master degree in economy from Lomonosov Moscow State University.

Ms. Vasilenko was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during Review Period.

Ms. Vasilenko did not directly or indirectly own the Shares. Ms. Vasilenko did not conclude any transactions with the Shares throughout the Review Period.

Dmitry Vasiliev

aged 59 (Independent nonexecutive Director) (Ceased to be an independent non-executive Director with effect from 19 August 2022)

Mr. Dmitry Vasiliev retired as an independent non-executive Director with effect from 19 August 2022. Reference may be made to his profile information in the Company's annual report for the financial year ended 31 December 2021.

Bernard Zonneveld

aged 66 (Independent non-executive Director, Chairman)
Year of birth: 1956

Mr. Bernard Zonneveld was appointed as an independent non-executive Director with effect from 24 June 2016 and was appointed as Chairman of the Board with effect from 6 March 2019.

Since February 2017, Mr. Zonneveld has been non-executive partner of Capitalmind, a corporate finance advisory firm of the Netherlands.

From August 2014 until 1 January 2015, Mr. Zonneveld served as the head of ING Eurasia at ING Bank 's Commercial banking division in Amsterdam. In May 2007, Mr. Zonneveld was appointed as managing director/global head of structured metals & energy finance at ING Bank's Commercial banking division in Amsterdam. Mr. Zonneveld joined ING Group in 1993 and since then he has held various senior positions, including managing director/global co-Head of commodities group, managing director/global head of structured commodity finance and product development and director/head of structured commodity & export finance. Mr. Zonneveld has served as chairman of the Netherlands-Russian Council for Trade Promotion and a member of the Dutch Trade Board. Mr. Zonneveld holds a master's degree in business law from Erasmus University in Rotterdam.

Mr. Zonneveld was an independent non-executive director of Vimetco N.V., a company whose global depositary receipts are listed on the London Stock Exchange, from July 2007 to June 2013.

Mr. Zonneveld was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Zonneveld did not directly or indirectly own the Shares. Mr. Zonneveld did not conclude any transactions with the Shares throughout the Review Period.

The table below provides membership information of the committees on which each Board member serves.

Board Committee / Directors	Audit Committee	Corporate Governance & Nomination Committee	Remuneration Committee	Health, Safety and Environmental Committee*	Compliance Committee
Mr. Christopher Burnham		X	X		C
Ms. Liudmila Galenskaia				X	
Mr. Kevin Parker	C			X	X
Mr. Randolph N. Reynolds		X	X		
Dr. Evgeny Shvarts				C	
Ms. Anna Vasilenko	X		C		
Mr. Bernard Zonneveld	X	C			X
Mr. Mikhail Khardikov				X	
Mr. Vladimir Kolmogorov					
Mr. Marco Musetti					
Mr. Evgeny Kuryanov					
Mr. Evgenii Nikitin					
Mr. Evgenii Vavilov					

Notes:–
C – Chairman
X – member
** – This Board committee also consist of non-Board members*

General Director (sole executive body)

Evgenii Nikitin

aged 57 (General Director, Executive Director)
Year of birth: 1966

Mr. Nikitin was appointed as an executive Director on 28 June 2018. Mr. Nikitin was appointed as the Chief Executive Officer of the Company in November 2018 and became the General Director with effect from 25 September 2020. Mr. Nikitin has also been the General Director of JSC "RUSAL Management" since 2019. Before that, he held position of acting CEO of the Company since May 2018 and RUSAL's Head of Aluminium Division since January 2014. Prior to that, he held positions of director of Aluminium Division East since October 2013. Prior to that appointment, Mr. Nikitin was the managing director of KrAZ, one of the world's largest aluminium production facilities. From 2008 to 2010, he was managing director of SAZ after beginning his career with the Group as a pot operator in 1993.

Mr. Nikitin was born on 11 March 1966. He graduated from the Moscow State Technical University of Civil Aviation in 1989 and from Lomonosov Moscow State University with a master's degree in business management (MBA) – production systems in 2009.

Mr. Nikitin was independent from and not related to any other Directors, members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Mr. Nikitin did not directly or indirectly own the Company's Shares. Mr. Nikitin did not conclude any transactions with the Company's Shares throughout the Review Period.

The collective executive body of the Company has not been formed in accordance with the Company's Charter.

Senior Management of the Group

Alexandr Popov

aged 52 (Chief Financial Officer)
Year of birth: 1971

Mr. Alexandr Popov was appointed as RUSAL's Chief Financial Officer since January 2020. He is responsible for the financial planning, auditing and preparation of financial reports and the execution of the Company's investment programs.

Prior to that appointment Mr. Popov was independent consultant for business turnaround and bankruptcy procedures. From 2007 to 2017, Mr. Popov held the position of chief financial officer in companies such as En+ Group, Kolmar coal company, NIAEP-ASE, Freight Link.

Between April 2008 and November 2011, Mr. Popov was a member of the Board.

From 2000 till 2006, Mr. Popov worked at PJSC LUKOIL, Moscow, Russia as a Head of US GAAP consolidated corporate reporting.

From 1994 till 2000, he was audit manager at PricewaterhouseCoopers, Moscow, Russia.

Mr. Popov graduated from the Bauman Moscow Technical University, Moscow, Russia, with Engineer for robots and automation qualification.

In 1994, he graduated from the Togliatty Politechnical University, Togliatty, Russia with degree of Master of Science: Automobile engineer.

In 1996, Mr. Popov received a degree of Bachelor of Arts: Accounting and Audit in Saratov academy of economics, Saratov, Russia.

Mr. Popov is a member of American Institute of Certified Public Accountants (AICPA), USA.

Kommersant ranked him among the top 100 Russian chief financial officer in 2017.

Save as disclosed in this Annual Report, Mr. Popov was independent from and not related to the Directors, any other members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during of the Review Period.

Vladimir Berstenev

aged 73 (Deputy General Director for Operations)
Year of birth: 1950

Mr. Vladimir Berstenev was appointed as Deputy General Director for Operations in April 2019.

Mr. Berstenev has been Deputy General Director for Operations at Moscow Branch of the US RUSAL IPJSC since June 2020.

Mr. Berstenev was also appointed as Director for Security and Protection of State Secrets of JSC "RUSAL Management" in October 2020.

Mr. Berstenev started his career as a pot operator in Krasnoyarsk smelter, which represents a true example of promotion from within along all stages of professional growth within the Company.

From 2016 to 2019, Mr. Berstenev was the Advisor of Aluminium Division of RUSAL. Mr. Berstenev was responsible for expert advice to division management on complex production and management issues.

From 2011 to 2015, Mr. Berstenev successfully performed as the chief executive officer of Irkutsk aluminium plant.

From 2007 to 2011, Mr. Berstenev was in a role of Production Director at RUSAL Global Management B.V.

Before that, since 2002, Mr. Berstenev worked as chief executive officer of Bratsk aluminium smelter.

Mr. Berstenev has the professional degree as an engineer in metallurgy, graduated from Siberian Metallurgical Institute.

Mr. Berstenev was independent from and not related to the Directors, any other members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Georgy Borisov

aged 51, (Chief Legal Officer)
Year of birth: 1971

Mr. Georgy Borisov was appointed as the Chief Legal Officer in June 2022. Prior to that, he was Chief Compliance Officer of En+.

Within the scope of his responsibilities, Mr. Borisov was responsible for coordinating legal functions of the Group, overall management of the legal department, monitoring compliance with the Group's internal policies, standards and regulatory obligations, providing guidance on business operations and ensuring compliance with legal and regulatory requirements.

Mr. Borisov is a transactional lawyer with more than 25 years of post-qualification experience, holding Russian and US law degrees. For many years prior to joining En+ and UC RUSAL, he practiced law as an associate and later as a partner at various international law firms, including Baker Botts, Latham Watkins and K&L Gates.

He graduated from the international law faculty of the Moscow State Institute of International Relations in 1995, and received his LLM degree in 1996 from the John Marshall Law School in Chicago, Illinois, USA.

Aleksey Gordymov

aged 51 (Head of Supply Chain)
Year of birth: 1972

Mr. Aleksey Gordymov was appointed as RUSAL's Head of Business Support in November 2017. In this position, Mr. Gordymov supervises supplies of RUSAL's operations and support of the sales team through streamlining logistics and transportation as well as deliveries of key raw materials and consumables. Mr. Gordymov has also been Director for business support at Moscow Branch of the Company since June 2020.

Mr. Gordymov worked as Deputy Head of Alumina Division from 2014 to 2017. From 2008 to 2014, he was the Head of Bauxite & Alumina Supply Department.

Between 2005 and 2008, Mr. Gordymov ran Alumina Company of Guinea in West Africa, Bauxite Company of Guyana and RUSAL Jamaica.

Mr. Gordymov studied and majored in transportation, metals & mining and economics.

Mr. Gordymov was independent from and not related to the Directors, any other members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Yakov Itskov

aged 56 (Head of Alumina Division)
Year of birth: 1966

Mr. Yakov Itskov was appointed as RUSAL's head of Alumina Division in September 2014.

From December 2012 to September 2014, Mr. Itskov was the Deputy Branch Director for business support of the Branch of RUSAL Global Management B.V.

Prior to that, Mr. Itskov worked as a head of RUSAL's International Alumina Division from February 2010. The International Alumina Division included the western bauxite mining and alumina production facilities: the Guinea based Friguia Alumina Refinery and Compagnie des Bauxites de Kindia, the Bauxite Company of Guyana, Aughinish Alumina in Ireland, Eurallumina in Italy, Alpart and Windalco in Jamaica and Queensland Alumina in Australia. The key objective of the International Alumina Division was the mining of bauxite and production of high quality alumina for the Company's smelters and sales in the global market. This required considerable flexibility and an ability to meet each customer's specific demands.

Mr. Itskov became the first vice president of RussNeft in 2009 and held that position until 2010. From 2008 to 2009, he was the general director of BazelDorStroy LLC and between 2007 and 2008 he was the general director of the project and construction company Transstroy LLC. He was also the managing director of Basic Element LLC from 2006 to 2007 and, prior to this, he was the general director of Soyuzmetallresurs CJSC from 2001 to 2006.

From 2000 to 2001, Mr. Itskov was the deputy commercial director of JSC Russian Aluminium.

Mr. Itskov holds a degree in Mining Machines and Complexes from Moscow State Mining University. He also holds a PhD in Economics.

Mr. Itskov was independent from and not related to the Directors, any other members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Victor Mann

aged 64 (Technical Director)
Year of birth: 1958

Mr. Victor Mann has been technical director of the Company since 2005, in charge of research and development, engineering, design, process management, technical development and modernisation of production facilities, and start-up and commissioning of green-field and upgraded capacities.

From 2002 to 2005, Mr. Mann was the head of RUSAL's Engineering and Technology Center.

From 1998 to 2002, Mr. Mann was the deputy technical director of the Krasnoyarsk smelter.

From 1991 to 1998, Mr. Mann was promoted from a design engineer to the head of automation at the Krasnoyarsk smelter.

Mr. Mann was awarded the Order of Merit for the Fatherland and is on the list of Honorable Metallurgists of Russia.

Mr. Mann graduated from Krasnoyarsk State University, Applied Mathematics Faculty.

Mr. Mann was independent from and not related to the Directors, any other members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Natalia Albrekht

aged 50 (Deputy General Director for Human Resources)
Year of birth: 1972

Ms. Natalia Albrekht was appointed as the Deputy General Director for Human Resources at RUSAL in June 2020. From October 2019 to May 2020 she was the Human Resources Advisor to the General Director at RUSAL.

From September 2019, Ms. Albrekht is the Deputy General Director for Human Resources at International limited liability company En+ Holding (former En+ Holding Limited).

From 2013 to 2019, Ms. Albrekht was the Executive Vice President for Organisational Development and Human Resources at PJSC VimpelCom.

From 2012 to 2013, Ms. Albrekht held the position of Vice President of PJSC Rostelecom.

From 2009 to 2012, she was Deputy General Director for Organisational Development, Human Resources and Administrative Issues in STS Media holding.

In 2002, Ms. Albrekht served as the Director of the Subscription Services Department at OJSC NTV Plus, later the Deputy Director General for Sales and Development of the Federal Sales Center CJSC (part of IES Holding), and the General Director of Integrated Settlement Center LLC.

Ms. Albrekht graduated from Bauman Moscow State Technical University, majoring in Applied Mechanics.

Natalia Albrekht has an international CIPD certification in HR management.

Save as disclosed in this Annual Report, Ms. Albrekht was independent from and not related to the Directors, any other members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Alexey Grenkov

aged 47 (Head of Corporate Finance)
Year of birth: 1976

Mr. Alexey Grenkov joined RUSAL Group in March 2021. Mr. Grenkov holds the position of Head of Corporate Finance of the Company.

From March 2021, Mr. Grenkov has been the Head of Corporate Finance in EN+ Holding.

Mr. Grenkov is responsible for the Company's capital markets strategy, optimisation of the cost and structure of debt and cooperation with banks, state development institutions and financial institutions.

Mr. Grenkov has over 20 years of experience in the financial sector. Prior to joining the Group, he worked for over 10 years at PJSC Sberbank, where he held the position of the Vice President, Head of Key Client Coverage.

Prior to joining PJSC Sberbank, since 2000, Mr. Grenkov held various positions in the Unicredit banking group.

In 1997, Mr. Grenkov graduated from the Faculty of Economics of Lomonosov Moscow State University (MSU). In 2015, he completed the Executive MBA programme at London Business School (UK).

Save as disclosed in this Annual Report, Mr. Grenkov was independent from and not related to the Directors, any other members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Company during the Review Period.

Irina Bakhtina

aged 47 (Chief Sustainability Officer)
Year of birth: 1975

Ms. Irina Bakhtina joined RUSAL as its Chief Sustainability Officer in July 2021 who is responsible for corporate sustainability strategy development and implementation and leads the areas of environment, climate regulation, labour, industrial and fire safety, social policy, non-financial reporting, and overall ESG transformation of the business.

Before Ms. Bakhtina joined the Group, she served as the Deputy Prime Minister of the Komi Republic being accountable for the development and implementation of social-economic development strategy, investment, industrial and environment policies for the region.

Before the public service, Ms. Bakhtina spent a total of 20 years in international companies of the consumer goods sector – Philip Morris International Russia and Belarus and Unilever NAMET RUB.

Ms. Bakhtina graduated from the Far-Eastern State University with a specialty of a journalist ("foreign affairs reporter") in 1992, as well as completed her graduate studies in strategic management from INSEAD Business School in 2016. She had post-graduate studies in economics from the Graduate School of Management under the Saint Petersburg State University (2019).

Ms. Bakhtina was independent from and not related to the Directors, any other members of senior management of the Group, Substantial Shareholders or Controlling Shareholders of the Group during the Review Period.

Alexander Pakhomov

aged 49 (Head of Compliance)
Year of birth: 1973

Mr. Alexander Pakhomov was appointed RUSAL's Head of Compliance in July 2022.

From 2020 to 2021, Mr. Pakhomov held the positions of the head of the law-drafting department and the head of the administrative department at the Power Ministry of the Russian Federation.

Between 2017 to 2020, Mr. Pakhomov was the executive director at SIS Management B.V. (the Netherlands).

From 2003 to 2016, Mr. Pakhomov held management positions at large power holding INTER RAO, public joint-stock company.

From 2012, Mr. Pakhomov has been on the Executive Committee, with responsibility for legal matters, at INTER RAO, public joint-stock company.

Mr. Pakhomov was a member of collective management bodies at major Russian and foreign power companies, including the board of directors of Irkutskenergo OJSC, Sangtudinskaya HPP-1 OJSC (Tajikistan), and Rus Gas Turbines Holdings B.V. (the Netherlands).

Mr. Pakhomov is a graduate of the Military University of the Russian Ministry of Defense, and of the Presidential Russian Academy of State Service, majoring in legal sciences.

Mr. Pakhomov holds the honorary title of Honorary Power Sector Professional.

Save as disclosed in this Annual Report, Mr. Pakhomov was independent from the Directors, the senior management of the Group, the Substantial and Controlling shareholders of the Company, and was not related to them during the Review Period.

Elias Sarkis

aged 53 (CEO Rusal Marketing and Export Sales Director)
Year of birth: 1970

Mr. Elias Sarkis was appointed the chief executive officer of Rusal Marketing in September 2022 and Rusal Export Sales Director in June 2022.

From April 2013 to May 2022, Mr. Sarkis was the Vice President Commercial for Ma'aden Aluminium, Saudi Arabia.

From November 2011 to March 2013, Mr. Sarkis was the Founder and Managing Director of Roadhouse Consulting, Bahrain.

From August 2010 to November 2011, Mr. Sarkis was the chief executive officer of ArcelorMittal Jubail, Saudi Arabia.

From August 2007 to August 2010, Mr. Sarkis was the Vice President Strategy and Business Development of Vought Aircraft Industries, USA.

From April 2004 to July 2007, Mr. Sarkis was the Vice President Commercial of Alcan Rolled Products, USA.

Mr. Sarkis graduated from Ecole Centrale Lille, France, majoring in Industrial Engineering. He is fluent in English, French, Spanish and Arabic.

Except as disclosed in this Annual Report, as at the end of the financial year, Mr. Sarkis is independent and unrelated to the Directors, any other members of the Group's senior management, Substantial Shareholders or Controlling Shareholders of the Company.

Corporate Secretary

Sergey Bazanov

aged 43 (Corporate Secretary)
Year of birth: 1980

With effect from 25 September 2020, Mr. Sergey Bazanov was appointed as the Corporate Secretary of the Company. Before that, he held the position of Secretary of the Board since 2017.

Mr. Bazanov joined RUSAL in 2007. From 2007 to 2020, he consecutively held the positions of a manager, head of direction and head of the Board relations and coordination department, and was responsible, among other things, for the development and control of corporate governance procedures, information and organisational support for the work of the Company's management bodies, including the Board.

Prior to joining RUSAL, Mr. Bazanov held the positions of a consultant and senior consultant at IBM Business Consulting Services, as well as a consultant in the management consulting department of IBS.

Sergey Bazanov graduated from the London School of Economics and Political Science with a Bachelor's degree in Economics in 2002.

Mr. Bazanov did not directly or indirectly own the Company's Shares. Mr. Bazanov did not conclude any transactions with the Shares throughout 2022.

RELIABILITY

Efficiency of long-term solutions

REPORT OF THE BOARD OF DIRECTORS

The Board is pleased to present the 2022 Annual Report and the audited consolidated financial statements of UC RUSAL, international public joint-stock company for the year ended 31 December 2022.

1. Principal activities

The principal activities of the Group are the production and sale of aluminium (including alloys and value-added products, such as aluminium sheet, ingot, wire rod, foundry aluminium alloy, aluminium billet and others). Within its upstream business, the Group has secured substantial supplies of bauxite and has the capacity to refine bauxite into alumina, key raw material for aluminium production. The Company also holds strategic investments, including its investment in Norilsk Nickel and coal business. There has been no significant change in those activities throughout the financial year.

2. Financial summary

The results of the Group for the year ended 31 December 2022 are set out in the consolidated financial statements on pages 164 to 248.

3. Business Review

Please refer to the section headed "Business Overview" and "Management Discussion and Analysis" on pages 24 to 73 for further information on the review of the Group's business.

4. Dividends

Under the requirements of the Charter, the Shareholders may resolve to distribute (declare) dividends upon recommendation of the Board. The Shareholders resolved at the EGM on 30 September 2022 to distribute dividends on ordinary shares of the Company based on the results of the first half of the year 2022 in cash in the amount of USD0.02 per each ordinary share of the Company, out of the profit for the six months ended 30 June 2022, upon recommendation of the Board of Directors. The interim dividend was paid in cash in November 2022.

5. Reserves

The transfer of USD633 million from reserves is proposed to be made within the meaning of Schedule 4 to the Companies Ordinance (Chapter 622 of the Laws of Hong Kong). The amount of the reserves available for distribution to shareholders as at 31 December 2022 was USD18,263 million.

6. Fixed assets

Information relating to significant changes in the fixed assets of the Company or of any of its subsidiaries that have occurred during the financial year is set out in note 13 to the consolidated financial statements.

7. Donation

During the year ended 31 December 2022, the Group made charitable donations of approximately USD34 million.

8. Share capital

Share repurchases

Save as the redemption of bonds as disclosed in note 19(b) to the consolidated financial statements, neither the Company nor any of its subsidiaries repurchased, sold or redeemed any of their securities during the financial year ended 31 December 2022.

Share issues

No Shares were issued/allotted by the Company during the financial year ended 31 December 2022.

Debenture issued

Save for the bonds as disclosed in note 19(b) to the consolidated financial statements, no debenture was issued by the Company during the financial year ended 31 December 2022.

9. General mandate granted to the Directors in respect of the issuance of Shares

There was no general mandate granted to the Directors to issue Shares in effect during the financial year.

The Board is authorised according to the Charter to approve the increase in the Company's charter capital through the placement by the Company of additional ordinary shares within the limits of the number and categories (types) of authorised shares or issue-grade securities convertible into ordinary shares by public offering (if the number of securities is 25% or less of the corresponding previously placed shares). In case the amount of increase or issue-grade exceeds 25% of the previously placed shares such increase shall be subject to preliminary approval by the GSM.

10. Shareholders' agreements

(a) Shareholders' Agreement with the Company

The principal terms of this agreement are described in Appendix A.

At the time of entering of the Shareholders' Agreement with the Company, the parties to the agreement included the Major Shareholders, namely En+, SUAL Partners, Glencore and Onexim.

The impact of the Shareholding Changes in 2018 and the Shareholding Changes in 2019 to the Shareholders' Agreement with the Company is described in Appendix A.

(b) Shareholders' Agreement between Major Shareholders only

The Shareholders' Agreement between Major Shareholders only, which has not been amended since the Listing Date, only sets out certain agreed matters between the Major Shareholders in relation to Board appointments, Board committees, voting, transfers of Shares and certain other matters. The principal terms of the Shareholders' Agreement between Major Shareholders only are described in Appendix B.

The impact of the Shareholding Changes in 2018 and the Shareholding Changes in 2019 to the Shareholders' Agreement among Major Shareholders only is described in Appendix B.

11. Management contracts

Other than the full-time employment contracts, the Company has not entered into any contract with any individual, firm or body corporate to manage or administer the whole or any substantial part of any business of the Company during the year 2022.

12. Connected transactions

(I) The transactions and arrangements summarised below were entered into by members of the Group with its connected persons (including their respective associates) prior to and subsisting during the financial year ended 31 December 2022, and are required to be disclosed by the Company in compliance with Rules 14A.49, 14A.71 and 14A.72 of the HKSE Listing Rules and, where applicable, were disclosed by the Company in accordance with the requirements of Chapter 14A of the HKSE Listing Rules.

Continuing connected transactions disclosed in the Report of the Board of Directors section of this Annual Report differ from the related party transaction disclosures included in note 5, note 6 and note 25 of the consolidated financial statements. Differences arise as the definition of continuing connected transactions does not include operations with Glencore, save as disclosed below under "Aluminium Sales Contract with Glencore", or operations with associates of the Group, while these transactions are treated as related party transactions in the consolidated financial statements of the Group. Save as disclosed in this section, none of the related party transactions in note 5, note 6 and note 25 of the consolidated financial statements constituted a connected transaction or continuing connected transaction subject to independent shareholders' approval, annual review and all disclosure requirements in Chapter 14A of the HKSE Listing Rules. The Company confirms that it has complied with the disclosure requirements in accordance with Chapter 14A of the HKSE Listing Rules. Additionally, transactions that are considered immaterial and meet the definition of de minimis are not included in the disclosure of continuing connected transactions.

The independent non-executive Directors consider that each of the transactions below have been entered into and are conducted:

(a) in the ordinary and usual course of business of the Group;

(b) on normal commercial terms or better; and

(c) in accordance with the relevant agreement governing them on terms that are fair and reasonable in the interests of the Company and its shareholders as a whole.

The Company's auditors were engaged to report on the Group's continuing connected transactions for the year ended 31 December 2022 in accordance with the

Hong Kong Standard on Assurance Engagements 3000 "*Assurance Engagements Other Than Audits or Reviews of Historical Financial Information*" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The Board confirmed that auditors have issued an unqualified letter in accordance with Rule 14A.56, containing their confirmation that nothing has come to their attention that caused them to believe that the continuing connected transactions as disclosed by the Group in the annual report (i) have not been approved by the Board; (ii) were not, in all material respects, in accordance with the pricing policies of the Group if the transactions involve the provision of goods or services by the Group; (iii) were not entered into, in all material respects, in accordance with the relevant agreement governing the transactions; and (iv) have exceeded the cap.

A.Electricity and Capacity Supply Contracts

During the Review Period, En+ was the Controlling Shareholder of the Company. Accordingly, the electricity and capacity supply and transmission contracts between members of the Group and companies controlled by En+ referred to below constituted continuing connected transactions for the Company under the HKSE Listing Rules.

Long-term electricity and capacity supply contracts

The Group through its three wholly-owned subsidiaries, KrAZ, BrAZ and RUSAL Ural JSC (formerly JSC "**SUAL**") entered into three long-term electricity and capacity supply contracts on 4 December 2009, 1 December 2009 and 15 November 2009 respectively. Under each of these contracts, 50% of the price must be paid before the 15th day of the month of supply and the remaining 50% of the price must be paid before the 25th day of the month of supply. The amount to be paid is satisfied in cash via wire transfer and is based on the estimated consumption of the Group as mutually agreed between the parties. The final settlement is made by the parties in the month following the month of supply. RUSAL Ural JSC and BrAZ each concluded the contracts with PJSC "Irkutskenergo" for the period from 2010 to 2018. On 31 December 2014, RUSAL Ural JSC, BrAZ and PJSC "Irkutskenergo" entered into an addendum pursuant to which all rights and obligations under the contract dated 15 November 2009 were transferred from JSC "RUSAL Ural" to BrAZ. KrAZ concluded the contract with Krasnoyarskaya HPP for the period from 2010 to 2020. The cost of electricity supplied by PJSC "Irkutskenergo" and Krasnoyarskaya HPP is based on a fixed formula which is tied to the market prices of electricity and the prices of aluminium quoted on the LME. For details of the formula, please refer to the Company's circular dated 13 December 2013. As mentioned in the announcement dated 19 November 2014, Krasnoyarskaya HPP suspended the supply of electricity in the amount required by KrAZ under the contract since October 2014.

As mentioned in the Company's circulars dated 11 October 2016, 18 October 2019, and 30 November 2022 (the "**Circulars**"), certain members of the Group entered into three new long-term electricity supply agreements to replace the abovementioned long-term electricity and capacity supply contracts, the details of which are as follows:

(i) BrAZ and PJSC "Irkutskenergo" entered into a long-term electricity purchase contract pursuant to which BrAZ agreed to purchase electricity from JSC Irkutskenergo for a period of ten years from 1 January 2017 to 31 December 2026;

(ii) BrAZ (Branch of PJSC "RUSAL Bratsk" in Shelekhov) and PJSC "Irkutskenergo" entered into a long-term electricity purchase contract pursuant to which BrAZ agreed to purchase electricity from PJSC "Irkutskenergo" for a period of ten years from 1 January 2017 to 31 December 2026; and

(iii) RUSAL Energo, a subsidiary of the Company, and EuroSibEnergo JSC, a power generating company controlled by En+ as to more than 30% of its issued share capital) entered into a long-term electricity purchase contract pursuant to which RUSAL Energo agreed to purchase electricity from EuroSibEnergo JSC for a period from 1 November 2016 to 31 December 2025.

Under each of these new long-term electricity and capacity contracts, preliminary payments for electricity supplied shall be paid not later than 14th day and 28th day of the reporting period, respectively. Final payment for electricity supplied shall be made before the 21st day of the month following the reporting period. The cost of electricity to be supplied is satisfied in cash via wire transfer. The prices of electricity supplied under these new long-term electricity and capacity contracts were agreed between the parties and were determined based on a formula which is tied to the market prices of electricity at discount. For details of the formula, please refer to the Circulars.

As mentioned in the announcement dated 29 November 2017, as part of a reorganisation of the En+ group companies and for the purpose of replacing Irkutskenergo in the original contracts with another subsidiary of En+ for that reorganisation, on 28 November 2017, the original contracts with Irkutskenergo have been terminated and new replacement electricity and capacity contracts have been entered into between the respective members of the Group which were parties to the original contracts and LLC "EuroSibEnergo-Hydrogeneration" ("**EuroSibEnergo-Hydrogeneration**", a wholly-owned subsidiary of En+), as the seller. The term of the new contracts will cover the remaining term of the original contracts. All other material terms and conditions under the new contacts remain the same as the material terms and conditions under the original contracts after the replacement, including those as set out in the Circulars such as the pricing formula, annual contractual amount of electricity to be supplied and payment timeframe, guarantee arrangements and the annual caps.

The actual monetary value of electricity and capacity purchased for the year ended 31 December 2022 under the contract between BrAZ and PJSC "Irkutskenergo"/ EuroSibEnergo-Hydrogeneration (which replaced PJSC "Irkutskenergo") was USD242.4 million.

The actual monetary value of electricity and capacity purchased for the year ended 31 December 2022 under the contract between BrAZ (which replaced JSC "RUSAL Ural" (formerly JSC "SUAL") pursuant to an addendum dated 31 December 2014) and PJSC "Irkutskenergo"/ EuroSibEnergo-Hydrogeneration (which replaced PJSC "Irkutskenergo") was USD85.8 million.

The actual monetary value of electricity purchased for the year ended 31 December 2022 under the contract between RUSAL Energo and EuroSibEnergo JSC was USD216.3 million.

Short-term electricity and capacity supply contracts

On 27 March 2014, the framework agreements (as mentioned on pages 11 and 23 of the circular of the Company dated 13 December 2013), governing (i) the transactions under the short-term electricity and capacity supply contracts with En+'s associates and the miscellaneous electricity and capacity transmission contracts with En+'s associates (as further discussed below); and (ii) the transactions under certain aluminium sales contracts with Mr. Deripaska's associates (as further discussed below) respectively, were signed. Such agreements were respectively extended to cover three years ending 31 December 2019 by an addendum entered on 27 December 2016. On 12 December 2019, a new framework agreement was entered into with En+ to cover electricity and capacity supply contracts with En+'s associates, including long-term electricity and capacity supply contracts, short-term electricity and capacity supply contracts, miscellaneous electricity and capacity supply contracts, long-term capacity RSE contracts (as defined below) and long term mandatory agreements for the purchase of capacity of retrofitted generating facilities (as mentioned in the circular of the Company dated 18 October 2019).

Members of the Group, including BrAZ, SAZ, NkAZ, JSC "RUSAL Ural" and RUSAL Energo have entered into, from time to time in the financial year ended 31 December 2022 as part of their ordinary course of business, short-term electricity and capacity supply contracts with duration not exceeding one year with the companies controlled by En+, including PJSC "Irkutskenergo", LLC "Avtozavodskaya CHP", JSC "EuroSibEnergo" and EuroSibEnergo-Hydrogeneration and LLC "BEC". The electricity and capacity supplied under these short-term electricity and capacity supply contracts are derived from the plants operated by PJSC "Irkutskenergo", LLC "Avtozavodskaya CHP", JSC "EuroSibEnergo", "EuroSibEnergoHydrogeneration" and LLC "BEC".

The prices of electricity and capacity supplied (excluding electricity and capacity supplied to residential users) were determined under a competitive procedure (involving bidding and tendering by suppliers and customers of electricity and capacity) through the "Trading System Administrator of Wholesale Electricity Market Transactions" (TSA), a commercial operator and facilitator of transactions which matches suppliers and customers, and prices determined through such competitive procedure were generally considered as market prices. The parties to these short-term electricity and capacity contracts receive information relating to prices of electricity and capacity directly from the

TSA and this is consistent with normal market practice whereby prices are provided to each participant of the market individually.

The mechanism for the determination of market prices of electricity and capacity through the TSA is approved by, and is in compliance with statutory requirements stipulated in applicable regulations of, the Government of the Russian Federation, and the Group may only enter into short-term E&C Contracts (with independent third parties or connected persons) through the TSA.

Under the terms of the short-term electricity and capacity contracts, payments due to be paid by members of the Group shall be made in installments in accordance with the regulations of the Non-Commercial Partnership Market Council (**Market Council**), and all payment amounts shall be satisfied by the relevant members of the Group in cash via bank transfer.

In addition, members of the Group, including LLC "RUSAL Silicon Ural", JSC "RUSAL SAYANAL", JSC "Ural Foil" have entered into, from time to time as part of their ordinary course of business, the additional agreements to the original short-term electricity and capacity supply contracts not exceeding three years with LLC "MAREM+" (formerly CJSC "MAREM+" until 3 August 2015), a company controlled by En+, for the supply of electricity and capacity purchased at the wholesale energy and capacity market.

The purchase of electricity and capacity at the wholesale market is effected at a price which is determined daily (for electricity) and monthly (for capacity), based on the trading results at the wholesale market, and subject to unpredictable external fluctuations (including, without limitation, weather factors, river stream flow rates, hydro-power plant output storage, transborder crossflow planning, provision for reserves by power generation facilities, scheduled equipment repairs, fuel price fluctuations, details of fuel regime for "endpoint" power generation facilities, economic efficiency of bids submitted by producers, technological processes of power generation facilities' equipment, and effect of state regulation on the market model).

The prices of electricity and capacity under these contracts/addendums were derived from the wholesale market price regulated by regulations prescribed by the Government of the Russian Federation. Payments due by members of the Group shall be made in accordance with tentatively scheduled installments during each month, and the final payment shall be made in the middle of the month following the month of billing, and all payment amounts shall be satisfied by the relevant members of the Group in cash via bank transfer.

During 2022, members of the Group have also from time to time entered into the additional agreements to the original short-term electricity and capacity supply contracts with LLC "Irkutskaya Energosbytovaya Company" (**LLC "Irkutskenergosbyt"**), a company controlled by En+ as to more than 30%, for the supply of electricity and capacity purchased at the wholesale electricity market and supplied to the consumers in the retail market on normal commercial terms (including the pricing terms) regulated under the regulations of the Government of the Russian Federation. Payments due by members of the Group under each of these short-term electricity and capacity supply contracts shall be made by installments during each month of supply, and all payment amounts shall be satisfied by the relevant members of the Group in cash via bank transfer.

The actual monetary value of electricity and capacity purchased for the year ended 31 December 2022 under the contracts/addendums with LLC "Avtozavodskaya CHP", LLC MAREM+ (including LLC "MAREM+K", which is a subsidiary of LLC MAREM+), JSC "EuroSibEnergo", EuroSibEnergo-Hydrogeneration, LLC "Irkutskenergosbyt" and LLC "BEC" was USD325 million.

Miscellaneous electricity and capacity transmission contracts

The Group has also entered into miscellaneous electricity and capacity transmission contracts and/or addendums to those contracts with Joint Stock Company "Irkutsk Electronetwork Company" (**JSC "IENC"**), a company controlled by En+ as to more than 30% of its issued share capital, from time to time during the year ended 31 December 2022.

The prices of electricity transmission under such miscellaneous electricity and capacity transmission contracts (and addendums thereto) were based on tariff rates stipulated by the Tariff Service of the Irkutsk region (an executive authority of the Irkutsk region in the sphere of government regulation of tariffs including electricity and capacity transmission tariffs), and on terms which are the same for all consumers (tariffs are differentiated depending on voltage levels). Payments under these miscellaneous electricity and capacity transmission contracts (and addendums thereto) were made in accordance with tentatively scheduled instalments during each month, with the final payment effected in the middle of the month following the month of billing, and all payment amounts were satisfied in cash via bank transfer.

The actual monetary value of electricity and capacity transmission purchased and sold for the year ended 31 December 2022 under these contracts with companies controlled by En+ was USD158.3 million.

Long-term capacity RSE contracts

The Group also entered into long-term capacity supply from renewable sources of energy (**RSE**) contracts with a term of 15 years with companies controlled by En+ as sellers, including EuroSibEnergo-Hydrogeneration and Krasnoyarskaya HPP (which was replaced by LLC "Abakanskaya SPS" in 2017), from time to time during the year ended 31 December 2022.

The entering into of these long-term capacity RSE contracts is compulsory for participants of the wholesale electric energy market under the capacity-based renewable energy support scheme of the Russian Federation. Under applicable regulations of the Government of the Russian Federation, participants in the electricity energy wholesale market must purchase capacity by entering into standard form of contracts, the terms and conditions (including the mechanics of price determination and duration of contract to be of 180 months) of which are determined by the Market Council and published on the website of the Market Council. Such terms and conditions prescribed by the Market Council may not be amended by the supplier or buyer entering into the long-term capacity RSE contracts. The exact capacity volume to be supplied under the contract and its value are determined by the TSA.

The price of capacity to be sold under long-term capacity RSE contracts is determined by the TSA in accordance with procedures established by the rules of determination of the price of capacity of generating facilities using renewable energy sources approved by relevant legislation of the Government of the Russian Federation and the Wholesale Market Rules, details of which were set out in the Circulars. Payment for the supply of capacity is made by the buyer of capacity via bank transfer using designated bank accounts it maintains pursuant to the TSA's instructions, and the buyer is only notified of the volume supplied for the payments made at a later stage.

On 30 March 2016, the TSA on behalf of RUSAL Energo entered into the long-term capacity RSE contract with Krasnoyarskaya HPP (which was replaced by LLC "Abakanskaya SPS" in 2017).

The actual monetary value of electricity and capacity purchased for the year ended 31 December 2022 under the long-term capacity RSE contracts with LLC "Abakanskaya SPS" was USD0.7 million.

Long-term mandatory agreements for purchase of capacity of retrofitted generating facilities

Members of the Group are current participants (entities) on the wholesale electricity and capacity market, and purchase electricity and capacity on the wholesale electricity and capacity market.

Activity on the wholesale electricity and capacity market is regulated by legislation of the Russian Federation currently in effect (in particular, Resolution No. 1172 of the Government of the Russian Federation "On approving Rules for the wholesale electricity and capacity market and on making changes to some acts of the Government of the Russian Federation regarding the arrangement of functioning of the wholesale electricity and capacity market"). The wholesale electricity and capacity market operating principle is ensured by infrastructure organisations including the Market Council, the TSA, the "Financial Settlement Center" (the single settlement center of the wholesale electricity and capacity market) and "System Operator of the United Power System", Joint-stock Company, an office performing a centralized operational and dispatching management of the unified energy system of the Russian Federation, conferred, among others, with the authority to issue instructions compulsory to all subjects and consumers of the electric energy which influence the whole energy system (the "**System Operator**").

The aforementioned legislation of the Russian Federation introduced to the current wholesale electricity and capacity market model a procedure for selecting projects for the retrofitting of generating facilities of thermal power plants on the wholesale electricity and capacity market during the period from 2019 through 2027 (inclusively). This procedure guarantees the refund of cash spent for retrofitting thermal power plants at the expense of wholesale electricity and capacity market consumers.

As such, a new type of mandatory agreements for the purchase and sale (supply) of capacity of retrofitted generating facilities ("**KOMMod agreements**") has been introduced on the Russian wholesale electricity and capacity market in 2019.

System Operator and the Government Commission for Electric Power Industry Development select projects for retrofitting thermal power plant generating facilities on an annual basis. According to the selection results, based on commercial representation agreements as an agent, the "Financial Settlement Center" concludes KOMMod agreements with selected suppliers on behalf of wholesale electricity and capacity market participants, with a delivery period of 16 years.

According to results of a selection of projects for retrofitting of thermal power plant generating facilities carried out in 2019, Decree of the Government of the Russian Federation No.1713-r dated 2 August 2019 approved a list of generating facilities the capacity of which are to be supplied under KOMMod agreements. Projects for retrofitting of thermal power plant facilities owned by PJSC "Irkutskenergo", were included in the list of selected projects.

In accordance with wholesale electricity and capacity market regulations, the "Financial Settlement Center", as agent, is obliged to conclude KOMMod agreements on behalf of members of the Group participating in the Russian wholesale electricity and capacity market based on a commercial representation agreement. As such, the Company could neither participate nor exert control over conclusion of KOMMod agreements.

Members of the Group may not impede the conclusion of KOMMod agreements since this type of agreement is obligatory for conclusion by all wholesale electricity and capacity market members. If wholesale electricity and capacity market rules are not observed, members of the Group will be stripped of the wholesale electricity and capacity market entity status which will result in a significant growth in electricity and capacity purchase costs.

In September 2019, the "Financial Settlement Center" concluded KOMMod agreements on behalf of certain members of the Group (which are participants of the wholesale electricity and capacity market) with PJSC "Irkutskenergo", a company controlled by En+, as the counterparty/supplier. The obligations of the parties under these agreements (supply and payment) will commence from August 2022 at the earliest. Amounts payable by members of the Group under these KOMMod agreements shall be made in cash via bank transfer on payment terms prescribed by regulations of the Market Council.

According to results of a selection of projects for retrofitting of thermal power plant generating facilities carried out in 2019, Decree of the Government of the Russian Federation No.232-r dated 7 February 2020 approved a list of generating facilities the capacity of which is to be supplied under KOMMod agreements. In March 2020 the "Financial Settlement Center" concluded KOMMod agreements on behalf of certain members of the Group (which are participants of the wholesale electricity and capacity market) with PJSC "Irkutskenergo" (as replaced by LLC "BEC" in 2020) and LLC "Avtozavodskaya CHP", companies controlled by En+, as the counterparty/supplier. The obligations of the parties under these agreements (supply and payment) will commence from 2025 at the earliest.

It is expected that members of the Group will enter into KOMMod agreements with associates of En+ from time to time in the future on the same terms as described in the circulars of the Company dated 18 October 2019 and 30 November 2022.

As the obligations of the parties under the KOMMod agreements will commence from November 2022 at the earliest, the actual monetary value of electricity and capacity purchased for the year ended 31 December 2022 under the KOMMod agreements with PJSC "Irkutskenergo" was USD nil.

The aggregate consideration for the long-term and short-term electricity and capacity supply contracts, long-term capacity RSE contracts, KOMMod agreements together with the miscellaneous electricity and capacity transmission contracts between the Group and the associates of En+ for the year ended 31 December 2022 was USD1,028.5 million, which is within the annual cap of USD1,220 million (net of VAT) as approved by the independent shareholders of the Company for such type of continuing connected transactions for the year ended 31 December 2022.

B. Aluminium Sale Contracts

Members of the Group have from time to time entered into aluminium sales contracts with associates of En+.

Aluminium Sales Contract with the associates of En+

During the Review Period, "KraMZ" Ltd. was an indirect subsidiary of En+ and was therefore an associate of En+. "KraMZ" Ltd. was therefore an associate of En+ and a connected person of the Company under the HKSE Listing Rules. Accordingly, the contracts between members of the Group on one part and "KraMZ" Ltd. on the other, as described below, constituted continuing connected transaction for the Company under the HKSE Listing Rules.

Regarding the contract dated 30 December 2021 below, in accordance with the Order of Federal Antimonopoly Service of the Russian Federation, members of the Group do not have the right to unduly refuse to supply aluminium products to the buyers and are obliged to organise the work in such a way as to ensure the satisfaction of the needs of the buyers of aluminium products in the Russian market subject to the availability of the relevant production capacities, therefore the contract was entered into. Regarding the contract dated 22 March 2022 below, the customer was the only offer received due to the specifics of the chemical composition and remains of non-sortable aluminium waste trimmings, therefore the contract was entered into. Pursuant to these contracts, "KraMZ" Ltd. was to buy primary aluminium/aluminium scraps from the members of the Group. These contracts were concluded on arms-length commercial terms. The consideration for these contracts were satisfied in cash via wire transfer.

Details of these contracts are set out in the table below:

Contractor (associate of En+)	Customer (member of the Group)	Date of contract	Term of contract	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
"KraMZ" Ltd.	JSC "UC RUSAL TH"	30.12.2021	Up to 31.12.2022	Within 65 calendar days from the date of shipment of the goods.	209.4
"KraMZ" Ltd.	Limited Liability Company "Light Materials and Technologies Institute"	22.3.2022	Up to 31.12.2022	100% prepayment	–
Total:					**209.4**

The aggregate consideration for primary aluminium sale contracts provided by the associates of En+ during the year ended 31 December 2022 amounted to USD209.4 million, which was within the maximum aggregate consideration of USD286.669 million for 2022 as disclosed in the announcement dated 23 March 2022. For details, please refer to the aforementioned announcement.

Aluminium Sales Contracts under the Glencore sales contract

On 13 December 2019, the Board approved that Rusal Marketing GmbH (or another member of the Group) (the "**Seller**"), enter into the sales contract in relation to the sale of primary aluminium to Glencore International AG (the "**Purchaser**"), a subsidiary of Glencore, as the purchaser. The sale contract has a term from 1

September 2020 to 31 December 2024 and can be extended to 31 December 2025. This sales contract was approved by the independent shareholders of the Company at the general meeting held on 13 May 2020. The sales contract grants an option (the "**Purchaser Call Option**") exercisable by the Purchaser between the financial year ended 31 December 2021 and the financial year ended 31 December 2024 to require the Seller to sell to the Purchaser up to an additional 200,000 tonnes a year of primary aluminium with an aggregate amount under the term of the sales contract being up to 800,000 tonnes of primary aluminium. As (i) the sales contract includes (among other things) the Purchaser Call Option; (ii) the Purchaser has granted the Sual a call option to SUAL Partners which require the Purchaser to sell primary aluminium to SUAL partners or any of its associates (the "**SUAL Call Option**"), a connected person of the Company; and (iii) the exercise of the SUAL Call Option is a condition precedent to the exercise of the Purchaser Call Option by the Purchaser, the Purchaser has been deemed by the Hong Kong Stock Exchange to be a connected person of the Company at the point in time of entering the sales contract pursuant to Rule 14A.20 of the HKSE Listing Rules. The sales contract was entered into on 17 July 2020.

As such, the transactions contemplated under the sales contract constituted continuing connected transactions of the Company under the HKSE Listing Rules.

The total consideration for the aluminium supplied under the abovementioned sales contract with the Purchaser during the year ended 31 December 2022 amounted to USD2,293 million, which is within the annual cap of USD3,764 million as approved by the independent shareholders of the Company for such continuing connected transactions for the year ended 31 December 2022.

C. Transportation Contracts with the associates of En+

As mentioned in the Company's announcement dated 21 December 2022, KraMZ-Auto was acquired by member of the Group in December 2022. Prior to completion of the said acquisition, KraMZ-Auto was held by En+ as to more than 30% of the issued share capital and therefore was an associate of En+. During the Review Period, En+ held more than 30% of the issued share capital of JSC Otdeleniye Vremennoy Expluatatsii ("**OVE**"), thus OVE was also an associate of En+. Each of KraMZ-Auto (prior to the acquisition) and OVE was therefore an associate of En+ and a connected person of the Company under the HKSE Listing Rules. Accordingly, the contracts between members of the Group on one part and KraMZ-Auto (prior to the acquisition) or OVE on the other, as described below, constitute continuing connected transactions for the Company under the HKSE Listing Rules. Pursuant to these contracts, KraMZ-Auto and OVE were to provide various transportation services to members of the Group. All these transportation contracts were concluded on arms-length commercial terms. The consideration for each of these contracts was satisfied in cash via wire transfer or set-off of obligations.

Details of these contracts are set out in the table below:

Service provider (associate of En+)	Customer (member of the Group)	Date of contract	Term of contract	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
KraMZ-Auto	LLC "SVRZ"	01.01.2021	Up to 31.12.2023	Payment is made within 10 calendar days from the receipt of the invoice	–
KraMZ-Auto	LLC "SVRZ"	01.01.2021	Up to 31.12.2023	Payment is made within 10 banking days from the receipt of the invoice	–
KraMZ-Auto	RUSAL Bratsk PJSC	01.01.2021	Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services	3.4

Service provider (associate of En+)	Customer (member of the Group)	Date of contract	Term of contract	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
KraMZ-Auto	RUSAL Bratsk PJSC (Shelekhov)	01.01.2021	Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services	4.8
KraMZ-Auto	RUSAL Bratsk PJSC (Shelekhov)	01.01.2021	Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services	0.2
KraMZ-Auto	JSC RUSAL Krasnoyarsk	28.12.2020 (the terms of the contract commenced on 01.01.2021)	Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services	2.4
KraMZ-Auto	JSC RUSAL Krasnoyarsk	28.12.2020 (the terms of the contract commenced on 01.01.2021)	Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services	0.8
KraMZ-Auto	JSC RUSAL SAYANAL	23.12.2020 (the term of this contract commenced on 1/1/2021)	"Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services in the absence of motivated objections to the certificate	–
KraMZ-Auto	JSC RUSAL SAYANAL	23.12.2020 (the term of this contract commenced on 1/1/2021)	Up to 31.12.2023	Payment is made within 10 calendar days from the date of receipt of the invoice issued and presented to the charterer on the basis of the certificate of services signed by the parties and in the absence of reasoned objections to the certificate.	0.1
KraMZ-Auto	JSC RUSAL Sayanogorsk	23.12.2020 (the term of this contract commenced on 1/1/2021)	Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services	3.6
KraMZ-Auto	JSC RUSAL Sayanogorsk	23.12.2020 (the term of this contract commenced on 1/1/2021)	Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services	0.2
KraMZ-Auto	JSC RUSAL Sayanogorsk	23.12.2020 (the term of this contract commenced on 1/1/2021)	Up to 31.12.2023	Payment is made within 10 working days from the receipt of the original of invoice on the basis of the signed certificate of rendered services	0.4
KraMZ-Auto	LLC RUSAL Taishet	24.12.2021	Up to 31.12.2023	Payment to be made within 10 days of receipt of the original invoice	0.3

Service provider (associate of En+)	Customer (member of the Group)	Date of contract	Term of contract	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
OVE	JSC RUSAL SAYANAL	28.12.2021, which is an additional agreement to the contracts dated 31.12.2019 and 23.12.2020 (the term of the contract commenced on 1.1.2021)	Up to 31.12.2022	Payment to be made within 10 days after the receipt of the VAT invoice	–
OVE	JSC RUSAL Sayanogorsk	28.12.2021	Up to 31.12.2022	Payment to be made every ten days within 10 working days from the date of receipt of the invoice	5
KraMZ-Auto LLC	JSC "Kremniy"	1.1.2022	Up to 31.12.2022	Payment to be made within 30 days after receiving the invoice	–
KraMZ-Auto LLC	LLC "SUAL-PM"	28.12.2021 (supplementary agreement to the contract dated 23.12.2020)	Up to 31.12.2022	Payment to be made within 10 days of receipt of the invoice	–
KraMZ-Auto LLC	LLC UC RUSAL Anode Plant	18.2.2022	Up to 31.12.2023	Payment to be made within 30 calendar days from the date of receipt of the original invoice	–
KraMZ-Auto LLC	RUSAL Medical Center LLC	18.2.2022	Up to 31.12.2022	Payment to be made within 10 calendar days from the date of receipt of the original invoice	0.1
KraMZ-Auto LLC	LLC "United Company RUSAL Industrial Technological Development"	22.3.2022	Up to 31.12.2022	Payment to be made within 30 calendar days from the date of receipt of the invoice	–
KraMZ-Auto LLC	LLC "United Company RUSAL Engineering and Technology Center"	22.3.2022 (supplementary agreement to the contract dated 23.7.2020)	Up to 31.12.2022	Payment to be made within 10 calendar days from the date of receipt of the invoice	–
KraMZ-Auto LLC	PJSC RUSAL Bratsk	23.8.2022	Up to 31.12.2022	100% of the consideration to be paid upon the provision of services within 30 calendar days from the date of signing of the acts of acceptance	0.1
KraMZ-Auto LLC	JSC "RUSAL Sayanogorsk"	5.9.2022, which is a supplementary agreement to the contract dated 1.1.2021	Up to 31.12.2022	Payment to be made within 10 banking days from the date of receipt of the original of the invoice issued on the basis of the act of acceptance of services rendered, signed by the parties	–
KraMZ-Auto LLC	PJSC RUSAL Bratsk	25.11.2022	Up to 31.12.2022	Payment within 10 calendar days from receipt of invoice	–
KraMZ-Auto LLC	UC RUSAL Anode Plant LLC	1.12.2022	Up to 31.12.2023	Payment within 30 calendar days from the date of signing by the parties of the certificate of acceptance of services rendered	–
Total:					**21.4**

The aggregate consideration for the transportation services provided by the associates of En+ during the year ended 31 December 2022 amounted to USD21.4 million, which was within the maximum aggregate consideration of USD22.895 million for 2022 as disclosed in the announcement dated 2 December 2022.

D.Heat Supply Contracts with the associates of En+

During the Review Period, each of the issued share capital of Limited Liability Company "Irkutskenergosbyt", Baykalenergo JSC, JSC Irkutskenergo, LLC BEC, Baikal Energy Company LLC and Khakass Municipal Systems LLC was held by En+ (being a substantial shareholder of the Company) as to more than 30%, and was therefore an associate of En+. Each of Limited Liability Company "Irkutskenergosbyt", Baykalenergo JSC, JSC Irkutskenergo, LLC BEC, Baikal Energy Company LLC and Khakass Municipal Systems LLC was thus a connected person of the Company under the HKSE Listing Rules. Accordingly, the contracts below constituted continuing connected transactions of the Company. Pursuant to these contracts, the associates of En+ were to supply heat (including heat energy and heat power in the form of steam and hot water) to members of the Group. All of these heat supply contracts were entered into on arms-length commercial terms. The consideration for each of these contracts was satisfied in cash via wire transfer or set-off of obligations.

Supplier (associate of En+)	Customer (member of the Group)	Date of contract	Term of contract	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
Limited Liability Company "Irkutskenergosbyt"	Limited Liability Company "United Company RUSAL Anode Plant"	29.8.2019, which is an additional agreement to the original contract dated 22.5.2019 (the terms of this additional agreement commenced on 3.6.2019)	Up to 31 May 2022	On or before the 18th day of the current accounting period, the consumer shall pay 35% of the heat energy cost as approved by the parties; on or before the last day of the current accounting period the consumer shall pay 50% of the heat energy cost as approved by the parties; on or before the 10th day of the month following the accounting period, the consumer shall pay the balance between of actual consumed heat energy as registered by metering instruments readings or based on the calculation if a metering instrument is not available, and the amount already paid by the consumer	–
Baykalenergo JSC	Limited Liability Company RUSAL Taishet Aluminium Smelter	1.1.2020	Up to 31 December 2022	First payment (35% of the planned total cost of heat) shall be paid no later than the 18th of the month. Second payment (50% of the planned total cost of heat) shall be paid no later than the last day of the month. Final payment (for the heat actually consumed, taking into account earlier payments) shall be paid no later than the 10th day of the following month.	–
JSC Irkutskenergo	PJSC "RUSAL Bratsk" (Shelekhov)	18.2.2020	Up to 31 December 2022	Payment to be made monthly no later than the 10th day of the month following the reporting period	–

Supplier (associate of En+)	Customer (member of the Group)	Date of contract	Term of contract	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
LLC BEC	PJSC RUSAL Bratsk (Shelekhov branch)	1.1.2021	Up to 31.12.2023	The first term of payment is not later than the 18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and the third term payment is not later than the 10th day of the month following the reporting month	1.3
LLC BEC	PJSC RUSAL Bratsk (Shelekhov branch)	1.1.2021	Up to 31.12.2023	The first term of payment is not later than the 18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and a third term payment is not later than the 10th day of the month following the reporting month	0.7
Baykalenergo JSC	LLC RUSAL Taishet Aluminium Smelter	28.12.2020 (the term of this contract commenced on 1.1.2021)	Up to 31.12.2023	The first term of payment is not later than the 18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and a third term payment is not later than the 10th day of the month following the reporting month.	0.1
Khakass Municipal Systems LLC	JSC RUSAL SAYANAL	28.12.2020 (the term of this contract commenced on 1.1.2021)	Up to 31.12.2023	Payment is made no later than on the 10th day of the month following the billing period	0.4
LLC BEC	Joint Stock Company "SibVAMI"	19.2.2021 (the term of the contract commenced on 1.12.2020)	Up to 31.12.2023. Agreement is considered to be extended for the next calendar year and on the same terms, if before the end of its validity period, any of the parties declare neither its termination or modification, or the conclusion of the agreement on other terms	Advance payment of 35% of the total price on the 18th day of the current month and 50% by the last day of the current month, with the remaining 15% being payable by the 10th day of the next month	–
Khakass Municipal Systems LLC	JSC RUSAL SAYANAL	22.3.2021, which is an additional agreement to the original contract dated 28.12.2020	Up to 31.12.2023	First payment term (payment period): no later than the 20th day of the month of the current billing period (month), on the basis of the invoice issued payment of 50% of the total cost of the amount of thermal energy agreed by the parties. Second payment term (payment period): no later than the 20th day of the month following the billing period (month), payment of the difference between the cost of the actual amount of heat energy received, determined on the basis of the readings of metering devices, or by calculation in the absence of metering devices, and the amount paid earlier. If there is any overpayment, it is credited as an advance payment for the cost of thermal energy in subsequent billing periods (months).	–

Supplier (associate of En+)	Customer (member of the Group)	Date of contract	Term of contract	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
Khakass Utility Systems LLC	JSC "RUSAL Sayanogorsk"	1.1.2022	Up to 31.12.2022	First payment: no later than the 20th day of the month of the current billing period (month), on the basis of the invoice issued, payment of 85% of the total cost of the amount of thermal energy agreed by the parties. Second payment: no later than the 10th day of the month following the billing period (month), payment of the difference between the cost of the actual amount of heat energy received, determined on the basis of meter readings, or by calculation in the absence of metering devices, and the amount paid earlier.	2.8
Khakass Utility Systems LLC	JSC "RUSAL Sayanogorsk"	1.1.2022	Up to 31.12.2022	First payment: no later than the 20th day of the month of the current billing period (month), on the basis of the invoice issued, payment of 85% of the total cost of the amount of thermal energy agreed by the parties. Second payment: no later than the 10th day of the month following the billing period (month), payment of the difference between the cost of the actual amount of heat energy received, determined on the basis of meter readings, or by calculation in the absence of metering devices, and the amount paid earlier.	2.5
Baikal Energy Company LLC	PJSC RUSAL Bratsk	1.1.2022	Up to 31.12.2024	Advance payments of 35% of the consideration to be paid on the 18th of the month; payment of 50% of the consideration to be paid on the last day of the month; the balance to be paid on the 10th day of the month following the billing month.	–
JSC "Baikalenergo"	UC RUSAL Anode Plant LLC	28.12.2020	Up to 31.12.2022	Payment to be made before the 10th day of the month following the billing period.	–
JSC "Baikalenergo"	RUSAL Sayanogorsk JSC	30.12.2021	Up to 31.12.2022	Payment to be made before the 10th day of the month following the billing period.	–
JSC "Baikalenergo"	RUSAL Sayanogorsk JSC	1.1.2022	Up to 31.12.2022	Payment to be made before the 10th day of the month following the billing period.	–
JSC "Baikalenergo"	Limited Liability Company RUSAL Taishet Aluminium Smelter	1.4.2022	Up to 31.12.2022	Advance payment of 35% of the consideration to be paid on the 18th of the month; payment of 50% of the consideration to be paid on the last day of the month; the balance (payment for thermal power actually consumed after deducting earlier payments) to be paid on the 10th day of the month following the billing month.	0.2
Total:					**8**

The aggregate consideration for the heat supply provided by the associates of En+ during the year ended 31 December 2022 amounted to USD8 million, which was within the maximum aggregate consideration of USD8.683 million for 2022 as disclosed in the announcement dated 4 April 2022.

E. Repair Services Contracts with the associates of En+

During the Review Period, each of the issued share capital of KraMZ-Auto LLC (prior to the acquisition as mentioned above), LLC Irkutskenergoremont, JSC "Irkutsk electronetwork company", JSC "Baikalenergo", "BEC-repair" LLC and Limited Liability Company "Eurosibenergo Service Company" was directly or indirectly held by En+ as to more than 30%, each of them was therefore an associate of En+ and thus is a connected person of the Company under the HKSE Listing Rules.

Accordingly, the transactions entered into between members of the Group as customers and KraMZ-Auto LLC (prior to the acquisition as mentioned above), JSC "Irkutsk electronetwork company", JSC "Baikalenergo", "BEC-repair" LLC or Limited Liability Company "Eurosibenergo Service Company" (formerly LLC Irkutskenergoremont) as contractors constituted continuing connected transactions of the Company under the HKSE Listing Rules. The consideration for the repair services under each of these contracts were determined on an arm's length basis. The consideration for each of these contracts was satisfied in cash via wire transfer or set-off of obligations.

Details of these transactions are set out in the table below:

Date of contract	Customer (member of the Group)	Contractor (associate of En+)	Term of contract	Repair services	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
28.5.2021	Joint Stock Company "RUSAL Krasnoyarsk"	KraMZ-Auto	Up to 31.3.2022	Maintenance and repair of vehicles used for the transportation of people, materials, tools by maintenance and repair of railway tracks located within the territory of the plant	Payment is made within 10 calendar days from the date of receipt of the invoice issued and presented to the customer on the basis of the certificate of acceptance signed by the parties	–
26.11.2021	JSC "RUSAL Krasnoyarsk"	KraMZ-Auto	Up to 31.12.2022	Maintenance services for tractors with trailer devices	Payment to be made within 10 calendar days from the date of receipt of the invoice issued	0.2
28.12.2021	BrAZ	JSC "Irkutsk electronetwork company"	Up to 31.12.2022	Technical maintenance of equipment (electric networks)	Payment to be made within 5 calendar days of receipt of the invoice for the current month. The invoice to be issued no later than the 25th of the current month and the amount to be paid shall be in equal installments in the amount of 1/12 of the annual consideration.	0.7

Date of contract	Customer (member of the Group)	Contractor (associate of En+)	Term of contract	Repair services	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
29.12.2021	JSC RUSAL Achinsk	LLC Irkutskenergoremont	Up to 31.12.2022	Maintenance of combined heat-and-power plant's equipment	Advance payment of 50% of the total price of the work to be performed will be made as per the monthly financial schedule by the 5th day of the current month. The remaining 50% will be paid within 10 calendar days from the date of receipt of the original invoices	9.6
14.1.2022	JSC RUSAL Achinsk	LLC Irkutskenergoremont	Up to 31.12.2022	Capital repair of boiler unit of combined heat and power plant's equipment	Advance payment of 50% of the total price of the work to be performed will be made as per the monthly financial schedule by the 5th day of the current month. The remaining 50% will be paid within 10 calendar days from the date of receipt of the original invoices	3.4
14.1.2022	BrAZ	"BEC-repair" LLC	Up to 31.12.2022	Production equipment maintenance and repair works	Payment to be made within 60 calendar days of signature by the customer of the performed works certificate based on an invoice	3.2
14.2.2022	Societe Anonyme "FRIGUIA"	LLC Irkutskenergoremont	Up to 31.12.2022	Purchase of services for the repair of steam boiler	Advance payment for the construction and installation work in the amount of 15% will be made within 10 days from the date of signing the contract. Final payments will be made monthly within 30 days after the signing of the work acceptance certificate. Advance payment for the equipment in the amount of 30% will be made within 10 days from the date of signing the contract. The final payment in the amount of 70% will be made within 60 days from the date of delivery of the equipment. Payment for the services in the amount of 100% will be made within 60 days after signing the acceptance certificate	2.1
1.4.2022	JSC "RUSAL Sayanogorsk"	JSC "Baikalenergo"	Up to 31.12.2022	Services for maintenance and routine repair of fuel oil pumping station equipment	Payment to be made within 60 calendar days after receipt of invoice	–

Date of contract	Customer (member of the Group)	Contractor (associate of En+)	Term of contract	Repair services	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
14.4.2022 (additional agreement to the contract dated 14.1.2022)	PJSC RUSAL Bratsk	"BEC-repair" LLC	Up to 31.12.2022	Production equipment maintenance and repair works	Payment to be made within 60 calendar days of signature by the customer of the performed works certificate based on an invoice	–
14.4.2022	"RUSAL Sayanogorsk"	JSC "Baikalenergo"	Up to 31.12.2022	Service to the external heat networks and industrial plant wiring	Payment to be made within 60 calendar days after receipt of invoice	0.1
14.4.2022 (additional agreement to the contract dated 21.7.2021)	JSC RUSAL Achinsk	LLC Irkutskenergoremont	Up to 31.12.2022	Equipment repair services	Payment within 10 calendar days from the end of the reporting month	–
14.4.2022	JSC RUSAL Achinsk	LLC Irkutskenergoremont	Up to 31.12.2022	Capital repair of boiler	Advance payment of 50% of the total price of the work to be performed to be paid by the 5th day of the current month. The remaining 50% will be paid within 10 calendar days from the date of receipt of the original invoice	3.1
31.5.2022	JSC "RUSAL Krasnoyarsk"	KraMZ-Auto LLC	Up to 31.3.2023	Maintenance and repair of vehicles on which people, materials, tools are delivered during the maintenance and repair of railway tracks	Payment within 10 calendar days from the date of receipt of the invoice on the basis of the service acceptance act signed by the parties	–
25.7.2022	JSC RUSAL Achinsk	LLC Irkutskenergoremont	Up to 31.12.2022	Capital repair of boiler of combined heat-and-power plant	Advance payment of 50% of the total price of the work to be performed to be paid by the 5th day of the current month. The remaining 50% will be paid within 10 days from the date of receipt of the original invoice	1.8

Date of contract	Customer (member of the Group)	Contractor (associate of En+)	Term of contract	Repair services	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
23.8.2022 (Additional agreements to the contract dated 14.01.2022)	PJSC RUSAL Bratsk	"BEC-repair" LLC	Up to 31.12.2022	Production equipment maintenance and repair works	Payment to be made within 60 calendar days of signature by customer of the performed works certificate based on an invoice	–
19.9.2022 (additional agreement to the contract dated 29.12.2021)	JSC RUSAL Achinsk	LLC Irkutskenergoremont	Up to 31.12.2022	Maintenance of the combined heat-and-power plant's equipment	Advance payment of 50% of the total price of the work to be performed to be made as per the monthly financial schedule by the 5th day of the current month. The remaining 50% will be paid by the customer within 10 calendar days from the date of receipt of the original invoices.	–
25.11.2022	JSC RUSAL Krasnoyarsk	KraMZ-Auto LLC	Up to 31.12.2022	Purchase of services for maintenance of tractors	Payment within 60 calendar days from the date of receipt of the invoice issued and presented to the customer on the basis of the certificate of services rendered signed by the parties.	–
25.11.2022	RUSAL Krasnoturyinsk	Limited Liability Company "Eurosibenergo Service Company"	Up to 31.5.2023	Purchase of services for capital repair of steam turbine	Payment within 60 calendar days after the signing of the work acceptance certificate.	–
Total:						**24.2**

The aggregate consideration for the repair services provided under these contracts by the associates of En+ during the year ended 31 December 2022 amounted to USD24.2 million which was within the maximum aggregate consideration of USD24.540 million for 2022 as disclosed in the announcement dated 28 November 2022.

F. Connection of electrical grid by the associate of En+

During the Review Period, the issued share capital of JSC "IENC" was held by En+ as to more than 30% of the issued share capital and was therefore an associate of En+ and thus was a connected person of the Company under the HKSE Listing Rules. Accordingly, the transactions entered into between the members of the Group as customer and JSC "IENC" as service provider constituted continuing connected transactions of the Company under the HKSE Listing Rules. The consideration for the electrical grid connection services under the contracts was determined on an arm's length basis. The consideration for the contracts was satisfied in cash via bank transfer.

Details of the transactions are set out in the table below:

Date of contract	Customer (member of the Group)	Service provider (associate of En+)	Term of contract	Payment terms	Actual consideration for the year ended 31 December 2022 USD million (excluding VAT)
1.12.2021 (supplementary agreement to the original contract dated 3.10.2017 (as amended by additional agreement dated 29.4.2019)	"RUSAL Taishet Aluminium Smelter" LLC	JSC "IENC"	30.11.2024 if neither party declares its intention to terminate the contract in writing no later than 30 calendar days prior to its expiration	The payment of consideration will be made monthly against the invoices issued by JSC "IENC" and the subsequent work acceptance certificates based on stages.	12.4
24.6.2022	"RUSAL Taishet Aluminium Smelter" LLC	JSC "IENC"	31.12.2023	10% of contract price to be paid within 15 days of the contract date, 30% of contract price to be paid within 60 days of the contract date, 20% of contract price to be paid within 180 days of the contract date, 30% of contract price to be paid within 15 days of the actual connection date, 10% of contract price to be paid within 10 days of the acceptance certificate date.	–
24.6.2022	LLC Engineering Construction Company	JSC "IENC"	31.12.2022	100% advance payment within 15 days after contract signing.	–
24.6.2022	LLC Engineering Construction Company	JSC "IENC"	31.12.2024 The term for the implementation of measures for the technological connection of electrical grids is 2 years. Services are carried out in 2 stages and are closed by two acts of acceptance in 2022 and 2023, respectively. JSC "IENC" does not plan to provide services in 2024, but the deadline is specially specified until 2024, taking into account the deadline for the implementation of the measures for the technological connection of electrical grids provided by the contract.	75% advance payment within 30 working days after contract signing, and the remaining 25% to be paid by 1 October 2022.	–
Total:					**12.4**

The aggregate consideration for the electrical grid connection services provided under the above contract by the associate of En+ during the year ended 31 December 2022 amounted to USD12.4 million which was within the maximum aggregate consideration of USD27.315 million for 2022 as disclosed in the announcement dated 27 June 2022.

(II) The transactions and arrangements summarised below were entered into by members of the Group on or prior to 31 December 2022 and are in relation to transactions for the year ending 31 December 2023 and subsequent years (and not for the year ended 31 December 2022):

A. Transportation Contracts with the associates of En+

As discussed above, OVE has been an associate of En+, and therefore is a connected person of the Company under the HKSE Listing Rules. Accordingly, the transactions entered into between members of the Group on one part, and OVE on the other, constitute continuing connected transactions of the Company under the HKSE Listing Rules.

During 2022, members of the Group, as customers, entered into the following transportation contract with particulars set out below:

Date of contract	Customer (member of the Group)	Service provider (associate of En+)	Transportation services	Estimated consideration for the relevant year payable excluding VAT (USD)	Scheduled termination date	Payment terms
16.12.2022	JSC RUSAL Sayanogorsk	OVE	Transportation and provision of railway transport services	2023: 5,027,389	31 December 2023	Payment every 10 days within 10 working days from the date of receipt of the invoice

The consideration under these transportation contracts is to be paid in cash via wire transfer or set-off of mutual obligations.

B. Heat Supply Contracts with the associates of En+

As discussed above, each of LLC BEC, Khakass Municipal Systems LLC, JSC "Baykalenergo" and Baikal Energy Company LLC has been an associate of En+, and is thus a connected person of the Company under the HKSE Listing Rules.

Accordingly, the transactions entered into between members of the Group on one part and LLC BEC, Khakass Municipal Systems LLC, JSC "Baykalenergo" or Baikal Energy Company LLC on the other, as discussed below, constitute continuing connected transactions of the Company under the HKSE Listing Rules.

During 2022 or previous years, members of the Group, as purchasers, entered into the following heat supply contracts with particulars set out below:

Date of contract	Purchaser (member of the Group)	Supplier (associate of En+)	Form of heat	Estimated amount of heat to be supplied for the relevant year	Estimated consideration payable for the relevant years excluding VAT (USD)	Payment terms
1.1.2021 (Note 1)	PJSC RUSAL Bratsk (Shelekhov branch)	LLC BEC	Purchase of heat energy in hot water	Heat: 2023: 128,978 Gcal Chemical purified water: 2023: 196,202 m3	2023: 1,909,935	The first term of payment is not later than the 18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and the third term payment is not later than the 10th day of the month following the reporting month
1.1.2021 (Note 1)	PJSC RUSAL Bratsk (Shelekhov branch)	LLC BEC	Purchase of heat energy in steam	Heat: 2023: 30,382 Gcal Chemical purified water: 2023: 42,145 m3	2023: 607,573	The first term of payment is not later than the 18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and a third term payment is not later than the 10th day of the month following the reporting month

Date of contract	Purchaser (member of the Group)	Supplier (associate of En+)	Form of heat	Estimated amount of heat to be supplied for the relevant year	Estimated consideration payable for the relevant years excluding VAT (USD)	Payment terms
28.12.2020 (the term of this contract commenced on 1.1.2021) (Note 1)	LLC RUSAL Taishet Aluminium Smelter	JSC Baykalenergo	Purchase of heat	Heat 2023: 4,341.08 Gcal Coolant: 2023: 250.12 m3	2023: 17,050	The first term of payment is not later than the 18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and a third term payment is not later than the 10th day of the month following the reporting month
28.12.2020 (the term of this contract commenced on 1.1.2021) (Note 1)	JSC RUSAL SAYANAL	Khakass Municipal Systems LLC	Purchase of heat and chemically purified water	Heat: 2023: 34,000 Gcal Chemical purified water: 2023: 77,000 m3	2023: 555,235	Payment is made no later than on the 10th day of the month following the billing period
19.2.2021 (the term of the contract commenced on 1.12.2020) (Note 2)	Joint Stock Company "SibVAMI"	LLC BEC	The acquisition of thermal energy to provide heat and hot water for the building of JSC SibVAMI	2023: 1,700 Gcal	2023: 32,349	Advance payment of 35% of the total price on the 18th day of the current month and 50% by the last day of the current month, with the remaining 15% being payable by the 10th day of the next month
22.3.2021, which is an additional agreement to the original contract dated 28.12.2020 (Note 1)	JSC RUSAL SAYANAL	Khakass Municipal Systems LLC	Purchase of heat and chemically purified water	Heat: 2023: 34,000 Gcal Chemical purified water: 2023: 77,000 m3	2023: 555,235	First payment term (payment period): no later than the 20th day of the month of the current billing period (month), on the basis of the invoice issued payment of 50% of the total cost of the amount of thermal energy agreed by the parties. Second payment term (payment period): no later than the 20th day of the month following the billing period (month), payment of the difference between the cost of the actual amount of heat energy received, determined on the basis of the readings of metering devices, or by calculation in the absence of metering devices, and the amount paid earlier. If there is any overpayment, it is credited as an advance payment for the cost of thermal energy in subsequent billing periods (months)
1.1.2022 (Note 3)	PJSC RUSAL Bratsk	Baikal Energy Company LLC	Purchase of thermal energy in hot water	Thermal energy: 2023: 330 Gcal 2024: 330 Gcal Coolant: 2023: 559 tonnes 2024: 559 tonnes	2023: 4,797 2024: 4,988	Advance payments of 35% of the consideration to be paid on the 18th of the month; payment of 50% of the consideration to be paid on the last day of the month; the balance to be paid on the 10th day of the month following the billing month.
16.12.2022 (Note 1)	JSC RUSAL Sayanogorsk	"Baikalenergo" JSC	Purchase of thermal energy in hot water	Thermal energy: 4,198 Gcal Coolant: 49,826 m3	2023: 141,056	Payment is made monthly, until the 10th day of the month following the reporting one.
16.12.2022 (Note 1)	JSC RUSAL Sayanogorsk	"Baikalenergo" JSC	Purchase of thermal energy in hot water	Thermal energy: 428 Gcal Heat carrier: 12 m3	2023: 12,629	Payment is made monthly, until the 10th day of the month following the reporting one.

Date of contract	Purchaser (member of the Group)	Supplier (associate of En+)	Form of heat	Estimated amount of heat to be supplied for the relevant year	Estimated consideration payable for the relevant years excluding VAT (USD)	Payment terms
16.12.2022 (Note 1)	JSC RUSAL Sayanogorsk	Khakass Utility Systems LLC	Purchase of thermal energy in hot water	Thermal energy: 254,040 Gcal Chemically purified water: 1,350,000 m3	2023: 3,035,598	First payment no later than the 20th day of the current billing period (month), on the basis of the invoice, of 85% of the total cost of the amount of heat energy agreed by the parties. Second payment no later than the 10th day of the month following the billing period (month), of the difference between the cost of the amount of thermal energy actually received, determined on the basis of meter readings (or by calculation in the absence of metering devices), and the amount paid earlier.
16.12.2022 (Note 1)	JSC RUSAL Sayanogorsk	Khakass Utility Systems LLC	Purchase of thermal energy in steam	Thermal energy: 106,730 Gcal	2023: 2,464,016	First payment no later than the 20th day of the current billing period (month), on the basis of the invoice, of 85% of the total cost of the amount of heat energy agreed by the parties. Second payment no later than the 10th day of the month following the billing period (month), of the difference between the cost of the amount of thermal energy actually received, determined on the basis of meter readings (or by calculation in the absence of metering devices), and the amount paid earlier.
16.12.2022 (Additional Agreement to the contract dated 28.12.2020) (Note 1)	UC RUSAL Anode Plant LLC	JSC "Baikalenergo"	Purchase of heat (water, steam)	Thermal energy: 1,333.7178 Gcal	2023: 30,633	The first term of payment is not later than the18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and the third term payment is not later than the 10th day of the month following the reporting month.
16.12.2022 (the term of this contract will commence on 1.1.2023) (Note 3)	RUSAL Taishet LLC	JSC "Baikalenergo"	Purchase of heat (water, steam)	Thermal energy: 2023: 4,269.2 Gcal 2024: 4,269.2 Gcal Heat carrier: 2023: 248.08 m3 2024: 248.08 m3	2023: 98,628 2024: 102,669	The first term of payment is not later than the18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and the third term payment is not later than the 10th day of the month following the reporting month.
16.12.2022 (the term of this contract will commence on 1.1.2023) (Note 3)	RUSAL Taishet LLC	JSC "Baikalenergo"	Purchase of heat (water, steam)	Thermal energy: 2023: 5,311.85 Gcal 2024: 5,311.85 Gcal Heat carrier: 2023: 121 m3 2024: 121 m3	2023: 129,884 2024: 130,662	The first term of payment is not later than the18th day of the current month in the amount of 35% of the amount, the second payment period is not later than the last day of the current month in the amount of 50% and the third term payment is not later than the10th day of the month following the reporting month.

1. *The scheduled termination date of the contract is 31 December 2023.*
2. *The scheduled termination date of the contract is 31 December 2023. Agreement is considered to be extended for the next calendar year and on the same terms, if before the end of its validity period, any of the parties declare neither its termination or modification, or the conclusion of the agreement on other terms.*
3. *The scheduled termination date of the contract is 31 December 2024.*

C. Repair Services Contracts with associates of En+

As discussed above, LLC Irkutskenergoremont has been an associate of En+, and is thus a connected person of the Company under the HKSE Listing Rules.

Accordingly, the transaction entered into between a member of the Group on one part and LLC Irkutskenergoremont on the other, as discussed below, constitute continuing connected transactions of the Company under the HKSE Listing Rules.

During 2022, members of the Group, as customer, entered into the following repair services contracts with particulars set out below:

Date of contract	Customer (member of the Group)	Contractor (associate of En+)	Repair services	Scheduled termination date	Estimated consideration payable for the relevant year USD	Payment terms
19.9.2022 (additional agreement to the contract dated 14.2.2022)	Societe Anonyme "FRIGUIA"	LLC Irkutskenergoremont	Purchase of services for the repair of steam boiler	Up to 31.12.2023	2023: 433,777	Advance payment for works in the amount of 15% within 10 days from the date of signing the contract. Final settlement monthly within 30 days after signing the work acceptance certificate. 100% payment for services within 60 days after signing the act of acceptance.

The consideration under the repair services contracts is to be paid in cash via wire transfer.

D.Connection of electrical grid by the associate of En+

As discussed above, JSC "IENC" has been an associate of En+ and thus is a connected person of the Company under the HKSE Listing Rules. Accordingly, the transactions entered into between members of the Group and JSC "IENC" constitute continuing connected transactions of the Company under the HKSE Listing Rules.

During 2022, members of the Group, entered into the following contracts with JSC "INEC" with particulars set out below:

Member of the Group)	Associate of En+	Date of contract	Subject matter	Term of contract	Payment terms	Estimated consideration payable for the relevant year, excluding VAT (USD)
"RUSAL Taishet Aluminium Smelter" Limited Liability Company	JSC "IENC"	24.6.2022	Technological connection to the electrical grid	Up to 31.12.2023	10% of contract price to be paid within 15 days of the contract date, 30% of contract price to be paid within 60 days of the contract date, 20% of contract price to be paid within 180 days of the contract date, 30% of contract price to be paid within 15 days of the actual connection date, 10% of contract price to be paid within 10 days of the acceptance certificate date.	2023: 121,996

Member of the Group)	Associate of En+	Date of contract	Subject matter	Term of contract	Payment terms	Estimated consideration payable for the relevant year, excluding VAT (USD)
LLC Engineering Construction Company	JSC "IENC"	24.6.2022	Technological connection to the electrical grid	Up to 31.12.2024 The term for the implementation of measures for the technological connection of electrical grids is 2 years. Services are carried out in 2 stages and are closed by two acts of acceptance in 2022 and 2023, respectively. JSC "IENC" does not plan to provide services in 2024, but the deadline is specially specified until 2024, taking into account the deadline for the implementation of the measures for the technological connection of electrical grids provided by the contract.	75% advance payment within 30 working days after contract signing, and the remaining 25% to be paid by 1 October 2022.	2023: 70,312

E. Aluminium Sales Contract with the associates of En+

As discussed above, "KraMZ" Ltd. has been an associate of En+ and thus is a connected person of the Company under the HKSE Listing Rules. Accordingly, the transactions entered into between members of the Group and "KraMZ" Ltd. constitute continuing connected transactions of the Company under the HKSE Listing Rules.

During 2022, members of the Group, entered into the following contracts to sell aluminium/aluminium scraps with "KraMZ" Ltd. with particulars set out below:

Contractor (associate of En+)	Customer (member of the Group)	Date of contract	Term of contract	Payment terms	Estimated consideration payable for the year ending 31 December 2023 USD million (excluding VAT)
"KraMZ" Ltd.	JSC "UC RUSAL TH"	Addendum dated 23.12.2022, which is an addendum to the contract dated 30.12.2021 as mentioned in the Company's announcement dated 30.12.2021	Up to 31.12.2023	Within 58 calendar days from the date of shipment of the goods.	179,166,667
"KraMZ" Ltd.	Limited Liability Company "Light Materials and Technologies Institute"	23.12.2022	Up to 28.2.2023	100% prepayment.	7,002

The consideration is to be settled in cash via bank transfer.

13. Agreements subject to change of control provisions

The following agreements with the Company contain (or contained as the case may be) change of control provisions allowing the other parties under such agreements to cancel their commitments in full and declare (or which action would result in) all outstanding loans immediately due and payable in the relevant event:

(a) The PXF Facility 2019 – as at 31 December 2022, the outstanding nominal value of debt was USD723 million and the final maturity of the debt is 7 November 2024.

(b) Up to USD200,000,000 aluminium pre-export finance term facility agreement dated 28 January 2021 – the outstanding nominal value of debt as of 31 December 2022 is USD125 million and the final maturity of the debt is 29 January 2024.

(c) Standard loan agreements #1, 2, 3 dated 28 April 2020 entered into between the Company as guarantor, UC RUSAL Anode Plant LLC as borrower and the lender – as at 31 December 2022, the outstanding nominal value of debt was equal to EUR6.6 million and the final maturity of the debt is 1 December 2029.

(d) Standard loan agreement #4 dated 4/5 August 2021 entered into between the Company as guarantor, JSC "RUSAL Sayanogorsk Aluminium Smelter" as borrower and the lender – as at 31 December 2022, the outstanding nominal value of debt was equal to EUR1.3 million and the final maturity of the debt is 9 February 2027.

(e) Standard loan agreement #5 dated 8 September 2021 entered into between the Company as guarantor, JSC "RUSAL Sayanogorsk Aluminium Smelter" as borrower and the lender – as at 31 December 2022, the current outstanding nominal value of debt was equal to EUR4.7 million and the final maturity of the debt is 15 February 2032.

14. Major customers and suppliers

The largest customer and the five largest customers of the Group accounted for 16.5% and 30.7%, respectively, of the Group's total sales for the year ended 31 December 2022.

The amount of purchases from the largest supplier and the five largest suppliers of the Group accounted for 8.78% and 29.5%, respectively, of the Group's total cost of sales for the year ended 31 December 2022.

No Director or their respective close associates (as defined in the HKSE Listing Rules) or any Shareholders (which to the knowledge of the Directors own more than 5% of the share capital of the Company), save as disclosed in paragraph 12 Connected transactions section of the Report of the Board of Directors of this Annual Report, had any interests in the Group's five largest customers at any time during 2022.

15. Directors

The following individuals served as Directors during the Review Period:

Name	Position at year end (unless specified otherwise)
Evgeny Kuryanov	Executive Director
Evgenii Nikitin	Executive Director
Evgenii Vavilov	Executive Director
Mikhail Khardikov	Non-executive Director (appointed with effect from 23 June 2022)
Vladimir Kolmogorov	Non-executive Director
Marco Musetti	Non-executive Director
Christopher Burnham	Independent non-executive Director
Liudmila Galenskaia	Independent non-executive Director (appointed with effect from 23 June 2022)
Kevin Parker	Independent non-executive Director
Randolph N. Reynolds	Independent non-executive Director
Evgeny Shvarts	Independent non-executive Director
Anna Vasilenko	Independent non-executive Director
Bernard Zonneveld	Independent non-executive Director
Vyacheslav Solomin	Non-executive Director (retired with effect from 23 June 2022)
Nicholas Jordan	Independent non-executive Director (retired with effect from 23 June 2022)
Dmitry Vasiliev	Independent non-executive Director (resigned with effect from 19 August 2022)

A. Particulars of appointments of Directors

Executive Directors

Pursuant to the Charter, any member of the Board is elected by the GSM for the term until the next AGM and may be re-elected for any number of times provided such re-election is not contradictory to requirements of the applicable listing rules. Pursuant to the Charter, the powers of all members of the Board may be terminated earlier by a resolution of the GSM. The power of the Board expires at the AGM each year. In case no AGM was held until established deadline, the Board will only have authority to convene and hold an AGM for election of the Board.

Executive Directors

The appointment of each executive Director is subject to the provisions of the Charter.

Non-executive Directors and independent non-executive Directors

Appointment of a non-executive Director and an independent non-executive Director may be terminated in accordance with the Charter. Each of the non-executive Directors and the independent non-executive Directors is entitled to a fixed director's fee.

Paragraph B.2.2 HKSE CG Code provides that every Director, including those appointed for a specific term, should be subject to retirement by rotation at least once every three years. The Company has addressed this requirement in Article 24.1 of the Charter which provides that each member of the Board is elected by the GSM for the period until the next AGM.

Other than the employment contract of Mr. Evgenii Nikitin as General Director of the Company which came into force on 25 September 2020 and does not have a fixed term, there are no service contracts of the Company with any Directors who may be proposed for re-election at the forthcoming AGM that are not determinable by the Company within one year from the date of such contract without payment of compensation (other than statutory compensation if any).

B. Confirmation of Independence

The Company has received from each of the independent non-executive Directors an annual confirmation of independence pursuant to Rule 3.13 of the HKSE Listing Rules and considers all the independent non-executive Directors to be independent. The Board considers that all independent non-executive Directors are independent by reference to the factors stated in the HKSE Listing Rules.

C. Change of particulars of Directors

Mr. Christopher Burnham ceased to be the chairman of the strategic advisory firm, Cambridge Global Advisors, since 2022. He also ceased to serve on the board of Blue Water Defense located in Puerto Rico, a textile manufacturing firm, since May 2022. He also ceased to be a member of the board of Defence Business Board since 2021.

Dr. Evgeny Shvarts ceased to be a member of the corporate governance, nomination and remuneration committee of Norilsk Nickel since June 2022 and became a member of sustainable development and climate change committee of Norilsk Nickel.

Mr. Randolph N. Reynolds has joined the Board of a charity organisation, Companions for Heroes, in 2022 but has no supervisory or controlling responsibilities in that position. His participation is solely on a charitable basis.

Mr. Kevin Parker ceased to be an independent board member at Arena Investments since June 2022.

D. Retirement/resignation of Directors

Mr. Nicholas Jordan, an independent non-executive Director, retired as a Director and ceased to be a member of any committee of the Board with effect from 23 June 2022; and Mr. Vyacheslav Solomin, a non-executive Director, retired as a Director and ceased to be a member of any committee of the Board with effect from 23 June 2022, as each of them did not offer himself for re-election.

Mr. Dmitry Vasiliev, an independent non-executive Director, resigned as a Director and ceased to be a member of any committee of the Board with effect from 19 August 2022 due to his other business commitments.

E. Appointment of Directors

Mr. Evgeny Kuryanov, Mr. Evgenii Nikitin and Mr. Evgenii Vavilov (being executive Directors), Mr. Mikhail Khardikov, Mr. Vladimir Kolmogorov and Mr. Marco Musetti (being non-executive Directors), Mr. Christopher Burnham, Ms. Liudmila Galenskaia, Mr. Kevin Parker, Mr. Randolph N. Reynolds, Dr. Evgeny Shvarts, Ms. Anna Vasilenko, Mr. Dmitry Vasiliev and Mr. Bernard Zonneveld (being independent non-executive Directors), were elected and appointed in the AGM 2022 held on 23 June 2022 for the term until the next AGM.

F. Changes to the composition of Board Committees

Ms. Liudmila Galenskaia was appointed as a member of the Health, Safety and Environmental Committee of the Company in 2022.

Mr. Mikhail Khardikov was appointed as a member of the Health, Safety and Environmental Committee of the Company in 2022.

Ms. Anna Vasilenko was appointed as the Chairman of the Remuneration Committee of the Company and Mr. Evgeny Shvarts was appointed as the Chairman of the Health, Safety and Environmental Committee of the Company in 2022.

Mr. Christopher Burnham was appointed as a member of the Remuneration Committee of the Company in 2023.

Mr. Bernard Zonneveld was appointed as the chairman of the Corporate Governance & Nomination Committee of the Company in 2023.

(I) Directors' and General Director's interests in Shares and in shares of associated corporations of the Company

As at 31 December 2022, none of the Directors or the General Director had any interest or short position, whether beneficial or non-beneficial, in the Shares, underlying Shares and debentures of the Company as recorded in the register required to be kept pursuant to section 352 of the SFO or otherwise notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code (as incorporated by the Company in the Code for Securities Transactions – for further information, please refer to the section "Corporate Governance Report").

Interests and short positions in underlying Shares and in the underlying shares of the associated corporations of the Company

As at 31 December 2022, none of the Directors or the General Director had any interest or short position, whether beneficial or non-beneficial, in the Shares, underlying shares and debentures in any of its associated corporations (within the meaning of Part XV of the SFO) which were notified to the Company or the Hong Kong Stock Exchange and entered into the register required to be kept under section 352 of the SFO, or which were notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code.

(II) Directors' interests in businesses that may compete with the Company

None of the Directors have any interest in business, apart from the Company's business, that competes or is likely to compete directly or indirectly with the Company's business.

(III) Substantial Shareholders' Interests

As at 31 December 2022, so far as the Directors are aware based on their understanding and based on notifications made to the Company pursuant to the provisions of Divisions 2 and 3 of Part XV of the SFO and recorded in the register (of interests in shares and short positions as stated on the disclosure of interests forms received) required to be kept by the Company under section 336 of the SFO, the following persons had interests or short positions in the Shares or underlying Shares (unless specified otherwise):

Interests and short positions in Shares

Name of Shareholder	Capacity	Number of Shares held as at 31 December 2022	Percentage of issued share capital as at 31 December 2022
Oleg Deripaska	Beneficiary of a trust *(Note 1)*	8,641,888,022 (L)	56.88%
	Beneficial owner	1,669,065 (L)	0.01%
	Total	**8,643,557,087 (L)**	**56.89%**
Fidelitas Investments Ltd. ("**Fidelitas Investments**") *(Note 1)*	Interest of controlled corporation	8,641,888,022 (L)	56.88%
B-Finance Ltd. ("**B-Finance**") *(Note 1)*	Interest of controlled corporation	8,641,888,022 (L)	56.88%
En+*(Note 1)*	Beneficial owner	8,641,888,022 (L)	56.88%
Access Aluminum Holdings Ltd. ("**Access Aluminum**") *(Note 2)*	Interest of controlled corporation	4,967,738,987 (L) 1,017,931,998 (S) *(Note 2)*	33.20% 6.70%
Access Industries Holdings LLC ("**Access Holdings**") *(Note 2)*	Interest of controlled corporation	4,967,738,987 (L) 1,017,931,998 (S) *(Note 2)*	32.70% 6.70%

Name of Shareholder	Capacity	Number of Shares held as at 31 December 2022	Percentage of issued share capital as at 31 December 2022
Access Industries Holdings (BVI) L.P. ("**Access BVI**")	Interest of controlled corporation	4,967,738,987 (L) 1,017,931,998 (S) *(Note 2)*	32.70% 6.70%
Access Industries LLC ("**Access Industries**") *(Note 2)*	Interest of controlled corporation	4,967,738,987 (L) 1,017,931,998 (S) *(Note 2)*	32.70% 6.70%
GPTC LLC *(Note 2)*	Interest of controlled corporation	4,967,738,987 (L) 1,017,931,998 (S) *(Note 2)*	32.70% 6.70%
TCO Holdings Inc. ("**TCO**") *(Note 2)*	Interest of controlled corporation	3,907,527,611 (L) *(Note 2)*	25.72 %
SUAL Partners *(Note 2)*	Beneficial owner	3,907,527,611 (L) *(Note 2)*	25.72 %
Victor Vekselberg ("**Mr. Vekselberg**")	Beneficiary of a trust	3,907,527,611 (L)	25.72 %

(L) Long position
(S) Short position
Notes – see notes on page 132-133.

Other than the interests disclosed above and the notes set out below, so far as the Directors are aware based on their understanding, as at 31 December 2022, the Company has not been notified of any other notifiable interests or short positions in Shares or underlying Shares. The Company has no information on the interests in Shares in excess of five percent of the issued Shares, other than those disclosed above. The following notes are based on the Directors' knowledge and understanding as described and specified below:

(Note 1)

Based on the disclosure of interests forms filed on the Hong Kong Stock Exchange, Mr. Oleg Deripaska was the founder and a beneficiary of a private discretionary trust which held 86.33% of the share capital of Fidelitas International Investments Corp. (formerly Fidelitas Investments Ltd.), which in turn held 99.99% of the share capital of B-Finance, which in turn held 44.95% of the share capital of En+. Each of B-Finance, Fidelitas International Investments Corp., and Mr. Oleg Deripaska was deemed to be interested in the Shares and underlying Shares held by En+ by virtue of the SFO.

(Note 2)

Based on the disclosure of interests forms filed on the Hong Kong Stock Exchange, as of 28 March 2022, SUAL Partners as a beneficial owner was interested in 3,907,527,611 Shares (long position), representing 25.72% of the issued share capital of the Company. Based on the filed disclosure of interests forms, SUAL Partners was owned as to 36.39% by Renova Metals & Mining Ltd ("***Renova Metals***"), which in turn was wholly-owned by Renova Holding Ltd. ("***Renova Holding***"). Renova Holding was controlled by TZ Columbus Services Limited ("***TZC***") as to 100% and TZC was in turn wholly-owned by TCO. Each of Renova Metals, Renova Holding, TZC and TCO were deemed to be interested in the Shares held by SUAL Partners by virtue of the SFO, except that wholly-owned entities are not required under Part XV of the SFO to make disclosure filings if the relevant interests have been disclosed by their ultimate direct or indirect 100% parent.

Based on the disclosure of interests forms filed, SUAL Partners agreed to terminate the securities borrowing and lending agreements with Zonoville Investments Limited ("***Zonoville***") in respect of 1,147,016,472 Shares. Those Shares were kept by SUAL Partners to set off the debts owed by Zonoville to SUAL Partners, and Zonoville agreed to sell 478,636,119 Shares to SUAL Partners. As a result and due to cessation of interests held through a concert party agreement under section 317 of the SFO with SUAL Partners, Zonoville did not hold any interest in any Shares following the relevant event on 28 February 2022.

Based on the disclosure of interests forms filed on the Hong Kong Stock Exchange, each of Access Aluminum, Access Holdings, Access BVI, Access Industries and GPTC LLC held their interests in the Company through Zonoville, being a controlled corporation of those entities (as Zonoville was held as to 40.32% by Access Aluminum, which was held as to 98.48% by Access Holdings, which is in turn wholly-held by Access BVI, which is in turn held as to 67.16% by Access Industries, which is in turn held as to 69.70% by GPTC LLC). However, no filings were made by these entities concerning any change of interests in the Company held by them following the reduction of interests that was disclosed by way of disclosure filing concerning the relevant event on 28 February 2022.

As of the Latest Practicable Date, none of the Major Shareholders have or will have different voting rights attached to the Shares they hold in the Company.

(IV) Pre-emptive rights

There are no applicable statutory pre-emption rights which apply to the Company, and according to the Charter, the Shareholders shall have no pre-emptive right to purchase the Shares, with exception to the pre-emptive right to purchase additional Shares and other securities converted to Shares placed by the Company by subscription in an amount proportional to the number of Shares of this category (type) that they hold.

There are, however, certain restrictions and preferential terms and conditions relating to sales and acquisitions of certain Shares held by the Major Shareholders, that are provided in the Shareholders' Agreement between Major Shareholders. The principal terms of the Shareholders' Agreement between Major Shareholders only are described in Appendix B.

(V) Emolument policy

There are no arrangements under which a Director has waived or agreed to waive any emoluments due by the Group.

The aggregate remuneration that the Directors have received (including fees, salaries, bonus, contributions to defined contribution benefit plans (including pension), housing and other allowances, and other benefits in kind) for the financial year ended 31 December 2022 was approximately USD7.8 million. The aggregate remuneration was calculated in accordance with HKSE Listing Rules and included the remuneration received by the Directors from the Group as a whole.

Basis for Compensation of Directors and senior management

Remuneration policies of the Company are considered by the Remuneration Committee on the basis of an employee's qualifications and performance, as well as the complexity of his or her job. Wages for each employee are generally reviewed annually and revised in accordance with a performance assessment and local labour market conditions:

1. Chairman of the Board of Directors

The Chairman of the Board was entitled to receive a chairman's fee of EUR1,430,000 annually (before tax) to be paid monthly in equal installments.

2. Non-Executive Directors

(a) Non-executive Directors were entitled to EUR215,000 annually (before tax) to be paid monthly in equal installments;

(b) Board committee chairmen were entitled to EUR26,000 per annum (before tax) for membership per one committee to be paid monthly in equal instalments;

(c) Members of Board committees were entitled to EUR18,000 per annum (before tax) for membership per one committee to be paid monthly in equal installments.

B. General Director

The annual compensation of the General Director which was paid in 2022 comprised the following:

(a) RUB86 million per annum base salary, paid monthly;

(b) Annual discretionary bonus of USD1,286,347, in total, determined by the Remuneration Committee on the basis of the performance results of the General Director for 2021 and approved by the Board;

(c) Other ancillary benefits and compensations.

No emoluments have been paid to the Directors as an inducement to join or upon joining the Group or as compensation for loss of office during the Review Period.

Pursuant to code provision E.1.5 of the HKSE CG Code, the remuneration of the members of the senior management of the Group by band for the year ended 31 December 2022 is set out as below:

	Number of individuals
Nil – HKD7,830,000 (Nil – USD1,000,000)	7
HKD7,830,001- HKD44,660,000 (USD1,000,001 – USD5,704,000)	5

The total remuneration, including the basic salary, performance-linked salary, incentive-linked salary and bonus of the Directors in 2022 amounted to approximately USD7.8 million. All non-executive Directors are entitled to receive Director's fees and additional fees for being a member of a Board committee or chairing a Board committee. The executive Directors are not entitled to a director's fee, and they are entitled to a salary pursuant to their respective employment with the Group, which is determined with reference to the relevant experience, duties and responsibilities with the Group and bonus is to be paid on the basis of achievement of performance targets.

Directors' remuneration for the year ended 31 December 2022 are as follows:

	Directors' fees	Salaries, allowances, benefits in kind*	Discretionary bonuses	Total
	USD thousand	USD thousand	USD thousand	USD thousand
Executive Directors				
Evgeny Kuryanov	–	303	244	547
Evgenii Nikitin	–	1,670	1,286	2,956
Evgenii Vavilov	–	53	11	64
Non-executive Directors				
Mikhail Khardikov (a)	143	–	–	143
Vladimir Kolmogorov	225	–	–	225
Marco Musetti	277	–	–	277
Vyacheslav Solomin (b)	139	–	–	139
Independent Non-executive Directors				
Christopher Burnham	274	–	–	274
Liudmila Galenskaia (c)	123	–	–	123
Nicholas Jordan (d)	143	–	–	143
Kevin Parker	297	–	–	297
Randolph N. Reynolds	266	–	–	266
Evgeny Svarts	269	–	–	269
Anna Vasilenko	269	–	–	269
Dmitry Vasiliev (e)	200	–	–	200
Bernard Zonneveld (Chairman)	1,625	–	–	1,625
	4,250	**2,026**	**1,541**	**7,817**

* *Information includes payments received by the Directors from the Group as a whole.*

a. Mikhail Khardikov was appointed as a non-executive Director with effect from 23 June 2022.

b. Vyacheslav Solomin retired with effect from 23 June 2022.

c. Liudmila Galenskaia was appointed as a non-executive Director with effect from 23 June 2022.

d. Nicholas Jordan retired with effect from 23 June 2022.

e. Dmitry Vasiliev resigned with effect from 19 August 2022.

Information on the remuneration of five individuals with the highest emoluments for the year ended 31 December 2022:

	USD thousand
Salaries	21,926
Discretionary bonuses	16,871
Retirement scheme contributions	2,145
	40,942

Further particulars regarding Directors' emoluments and the five highest paid employees as required to be disclosed pursuant to Appendix 16 to the HKSE Listing Rules are also detailed in notes 9 and 10 to the consolidated financial statements for the year ended 31 December 2022 as disclosed in this Annual Report.

(VI) Pension schemes

Information on the Company's pension schemes is set out in note 20(a) to the consolidated financial statements.

(VII) Sufficiency of public float

The Hong Kong Stock Exchange has granted the Company a waiver from strict compliance with Rule 8.08(1)(a) of the HKSE Listing Rules. As a result, the Hong Kong Stock Exchange accepted a lower public float percentage of the Company, i.e. the higher of: (i) 10% of the Shares, and (ii) the percentage of public shareholding that equals HKD6 billion at the Listing Date, shall be the minimum percentage of public float of the Company. From the information publicly available to the Company and within the knowledge of the Directors as at the date of this Annual Report, the Company has sufficiently maintained the abovementioned public float.

(VIII) Auditors

The consolidated financial statements have been audited by TSATR – Audit Services LLC (formerly "**Ernst & Young LLC**") as a sole auditor who retire and, being eligible, offer themselves for re-appointment as the Company's sole auditor. A resolution for the reappointment of TSATR – Audit Services LLC as sole auditor of the Company is to be proposed at the forthcoming AGM. TSATR – Audit Services LLC was approved as the auditor of the Company for the year ended 31 December 2022 by the resolution of the AGM 2022. Prior to the annual general meeting of the company held on 24 June 2021, JSC "KPMG" had been the auditor of the Company for the year ended 31 December 2020.

(IX) Amendments to the constitution

The Charter provides that the Charter can be amended or a new version of the Charter can be approved by the decision of a GSM adopted by three-quarters majority of votes of the Shareholders holding voting shares and participating in the GSM. A notice of holding the GSM is to be given not later than 21 days prior to the GSM.

(X) Litigation

Information of the litigation in which the Company and its subsidiaries are involved in are set out in notes 20(c) (provisions for legal claims) and 24(c) (legal contingencies) to the consolidated financial statements.

(XI) Social investments and charity

The main goal of the Company's social strategy is to create a favourable social environment for production activities through the implementation of sustainable social investment in a comprehensive socio-economic development of territories where the Company operates, with a wide participation of stakeholders – in this way, the implementation of the Company's contribution to the achievement of the Sustainable Development Goal #11 is aimed at ensuring inclusiveness, safety, resilience and sustainability of cities and human settlements. In 2022, the Company allocated more than USD34 million to social programmes and charity projects.

(XII) Post balance sheet events

The details of the events subsequent to the balance sheet date up to the date of the Group's and the Company's consolidated financial statements presented in this Annual Report, are disclosed in note 28 to the consolidated financial statements.

(XIII) Directors' interests in contracts

Save as disclosed in section 12 (Connected transactions) above, there has been no contract of significance to the Group, subsisting during or at the end of 2022 in which a Director is or was materially interested, either directly or indirectly.

(XIV) Directors' Indemnification

During the Review Period and as of the date of this Annual Report, the Company purchased D&O liability insurance policies to cover the Company for its obligation to the Directors and officers to be indemnified against claims alleging wrongful acts (acts, errors or omissions in their capacity as Directors and/or officers of the Company), subject to the terms and conditions of the policies. The insurance premium under the D&O insurance policy for the Review Period was USD1,659,134.

On behalf of the Board

Bernard Zonneveld

Chairman of the Board

ADAPTABILITY

Finding growth points in changes

CORPORATE GOVERNANCE REPORT

1. Corporate governance practices

The Company adopts internationally recognised standards of corporate governance. The Company and the Board believe that high quality corporate governance leads to successful business development and increases the investment potential of the Company, providing more security for shareholders, partners and customers as well as reinforcing the Company's internal control systems. The Company developed and adhered its corporate governance standards, based on the principles of transparent and responsible business operations. The Company adopted a corporate code of ethics that sets out the Company's values and principles for many of its areas of operations.

The Company and the Board believe that the Company has complied with the code provisions of the HKSE CG Code during the Review Period, other than as described in paragraphs 3(d) and 3(e) of this Corporate Governance Report. The Company and the Board are committed to upholding the corporate governance of the Company to ensure that formal and transparent procedures are in place to protect and maximise the interests of the shareholders.

The Company aims to comply with the applicable Russian Laws, the MoEx Listing Rules, as well as the recommendations of the Russian CG Code. In its corporate governance practices the Company is guided by the MoEx Listing Rules, the HKSE CG Code and the HKSE Listing Rules. The Company's corporate governance structure consists of the following key elements: general shareholders meeting, the Board and the General Director.

Set out below is a detailed discussion of the corporate governance practices adopted and observed by the Company during the Review Period. Report on compliance with the Russian CG Code is indicated in Appendix C of this Annual Report.

2. General Shareholders Meeting

The general shareholders meeting ("**GSM**") is the supreme management body of the Company, which operates in accordance with the laws of the Russian Federation and the Company's Charter and considers the most significant issues. Voting at the GSM is carried out on a 'one ordinary share – one vote' principle.

The Company shall hold an AGM once a year. The AGM shall be held not earlier than two months and not later than six months after the end of a reporting year.

The AGM shall resolve on the following matters, inter alia: election of the Board, internal audit committee; approval of the Company's auditor; approval of annual accounting (financial) statements of the Company; distribution of profits, including payment (declaration) of dividends.

All other GSMs held by the Company are extraordinary general shareholders meetings ("**EGMs**").

Matters falling within the competence of the GSM are listed in the Charter and may not be transferred to discretion of the Board of Directors or the General Director.

The GSM is not entitled to consider and make decisions on issues that are not within its competence under the Russian Federal Law "On Joint Stock Companies", as applicable, and the Charter. As long as the Company's Shares are admitted to trading on the HKSE, the GSM competence is also subject to the HKSE Listing Rules requirement (as provided for the Charter).

AGM 2022 was held on 23 June 2022 in a hybrid format due to the COVID-19 pandemic and the resulting restrictions. There were four EGMs during the Review Period, which were held on 10 January 2022, 14 March 2022, 30 September 2022 and 22 December 2022 in a hybrid format, respectively.

Shareholders' Right

Right to convene an extraordinary general meeting

According to the Charter, Shareholder(s) holding in aggregate not less than 5% of the voting shares of the Company have the right to demand from the Board the convocation of an EGM. If within the term specified in the existing laws of the Russian Federation and the Charter the decision to convene the EGM or the decision to refuse to convene that meeting is not made by the Board, the Shareholder(s) shall have the right to (i) submit a matter to arbitration with a request to compel the Company to hold the EGM; or (ii) to convene it on its(their) own.

According to Article 15.4 of the Charter, the Board shall not be entitled to amend the wordings of items of the agenda, wordings of resolutions on such items of the EGM convened at the request of Shareholder(s) holding at least 5% of the voting shares of the Company.

According to Article 15.5 of the Charter, a resolution to convene the EGM or to reject to convene it shall be adopted by the Board within 5 days from the date of submission of the request of Shareholder(s) who own(s) at least 5% of the voting Shares of the Company.

According to Article 15.6 of the Charter, the EGM convened upon demand of the Shareholder(s) who own(s) at least 5% of the voting Shares of the Company shall be held within 40 days from the date of submission of the request to convene the EGM.

Putting forward proposals at general meetings

According to Article 11.3 of the Charter, Shareholder(s) jointly holding at least 2% of the Company's voting Shares may no later than 30 days from the end of the Company's reporting year include issues in the agenda of the AGM.

According to Article 11.4 of the Charter, proposal for additional issues to be included in the agenda of the GSM shall be made in writing containing the wording of the issue, the name of the Shareholder(s) submitting the issue, number and category (type) of the Shares owned by him/her and shall be signed by the Shareholder(s). Proposal on introducing issues to the agenda of the GSM may contain the wording of resolution on each proposed issue.

Company's contact details

Any proposal to convene an EGM, to put forward a proposal at a general meeting and any general enquiries of the Board should be sent to the Company at the following address: Office 410, 8, Oktyabrskaya street, Kaliningrad, Kaliningrad region, 236006, Russian Federation.

3. Board of Directors

The Board is a governing body of the Company and according to the Charter it shall consist of fourteen Board members. As at the date of this Report, the Board comprises a combination of three executive, three non-executive and seven independent non-executive Directors.

(a) Board functions and duties

The Board is responsible for the overall management of the Company. The matters specifically reserved for the Board under the Charter include, inter alia, the following:

- determination of priority areas of the Company's activities
- approval of the Company's strategy and development program, risk management policy, long-term and annual budgets
- convening annual and extraordinary general meeting of the shareholders, approval of GSM agenda
- establishment and dissolution of committees, commissions, councils and other internal bodies of the Board, approval of their personnel composition and approval of provisions on their work
- preliminary review and approval of the annual report, annual accounting (financial) statements of the Company
- recommendations on the remuneration and compensation paid to the members of the internal audit committee of the Company
- approval of terms and conditions of the contract with the General Director
- approval of transactions with a value exceeding USD75,000,000 (seventy-five million)
- recommendations on the amount of the dividend on shares, the procedure for its payment, setting the date on which the persons entitled to receive dividends are determined
- approval of certain internal documents of the Company on the matters that are within the competence of the Board
- approval of the register holder of the Company.

The general executive function rests with the office of General Director of the Company. The executive committee now functions as an advisory body reporting to the General Director and assisting the General Director and the Board in implementing the strategy of the Group and monitoring its performance as well as with a day-to day business.

(b) Election of Directors

Authority of every Director (including non-executive Director) expires at the annual general meeting each year and each of them may be subject for re-election, provided such re-election is not contradictory to applicable requirements of the HKSE Listing Rules and MoEx Listing Rules.

(c) Independent non-executive Directors

The current composition of the Board represents an appropriate mix of Directors which offers sufficient independent checks and balances and an appropriate governance structure for the Company. As at the Latest Practicable Date, 7 out of 13 Directors are independent non-executive Directors.

Both HKSE Listing Rules and MoEx Listing Rules require the composition of the Board to be balanced and consist of independent directors. The Board believes that all independent non-executive Directors have appropriate and sufficient industry or finance experience and qualifications to carry out their duties so as to protect the interests of the Shareholders. Each of the independent non-executive Directors has undertaken to inform the Hong Kong Stock Exchange and the Securities and Futures Commission as soon as practicable if there is any subsequent change of circumstances which may affect their independence.

The Company has also received a written confirmation from each of the independent non-executive Directors in respect of their independence. The Board considers that all independent non-executive Directors are independent by reference to the factors stated in the HKSE Listing Rules.

The Board has also recognised that all independent non-executive Directors comply with the independence criteria set out in the Russian CG Code and MoEx Listing Rules, including Mr. Nicholas Jordan (ceased to be a Director with effect from 23 June 2022), Mr. Christopher Burnham and Ms. Liudmila Galenskaia regardless the existence of formal criterion of association with the Company. The Company complies with applicable requirements concerning the number of independent directors on the Board.

(d) Composition of the Board and attendance at Board meetings, Board committee meetings and GSMs

During the Review Period, the Board consisted of the Directors listed below and their attendance record for the Board meetings, Board committee meetings, the GSMs is as follows:

Attendance and number of meetings

	Board	Corporate Governance and Nomination Committee	Remuneration Committee	Audit Committee
Total meetings in 2022	37	4	2	8
Personal attendance	10	4	2	8
Absentee voting	27	0	0	0
Executive Directors				
Evgeny Kuryanov	36	–	–	–
Evgenii Nikitin	36	–	–	–
Evgenii Vavilov	35	–	–	–
Non-executive Directors				
Mikhail Khardikov (appointed with effect from 23 June 2022)	25	–	–	–
Vladimir Kolmogorov	33	–	–	–
Marco Musetti	35	–	–	–
Vyacheslav Solomin (retired with effect from 23 June 2022)	12	–	–	–
Independent non-executive Directors				
Christopher Burnham	36	4	–	–
Liudmila Galenskaia (appointed with effect from 23 June 2022)	25	–	–	–
Nicholas Jordan (retired with effect from 23 June 2022)	10	–	1	–
Kevin Parker	34	–	–	8
Randolph N. Reynolds	37	4	2	–
Evgeny Shvarts	33	–	–	–
Anna Vasilenko	29	–	1 (appointed with effect from 23 June 2022)	8
Dmitry Vasiliev (resigned with effect from 19 August 2022)	17	3	1	5
Bernard Zonneveld *(Chairman)*	37	4	–	8

	Health, Safety and Environmental Committee	Compliance Committee	General Meeting of shareholders				
			AGM 2022	EGM 2022 January	EGM 2022 March	EGM 2022 September	EGM 2022 December
	8	4	1	1	1	1	1
	4	3	1	1	1	1	1
	4	1	0	0	0	0	0
	–	–	–	1 (via teleconference)	1 (via teleconference)	–	1 (via teleconference)
	–	–	1	1 (via teleconference)	–	1 (via teleconference)	1 (via teleconference)
	–	–	–	–	–	1 (via teleconference)	1 (via teleconference)
	5	–	1 (via teleconference)	–	–	–	1 (via teleconference)
	–	–	–	1 (via teleconference)	–	1 (via teleconference)	1 (via teleconference)
	–	–	1 (via teleconference)	1 (via teleconference)	–	1 (via teleconference)	–
	2	–	–	–	–	–	–
	–	4	1 (via teleconference)	1 (via teleconference)	1 (via teleconference)	–	1 (via teleconference)
	6	–	1 (via teleconference)	–	–	1 (via teleconference)	1 (via teleconference) –
	2	1	–	–	–	–	–
	7	4	1 (via teleconference)	–	–	1 (via teleconference)	1 (via teleconference)
	–	–	1 (via teleconference)	1 (via teleconference)	1 (via teleconference)	1 (via teleconference)	1 (via teleconference)
	8	–	1 (via teleconference)	1 (via teleconference)	–	–	–
	–	–	1 (via teleconference)	1 (via teleconference)	–	–	–
	3	–	1 (via teleconference)	1 (via teleconference)	1 (via teleconference)	–	–
	–	4	1 (via teleconference)	1 (via teleconference)	1 (via teleconference)	1 (via teleconference)	1 (via teleconference)

Biographical details of the Directors are set out in the section headed Profiles of the Board members, the General Director and Senior Management on pages 88 to 101 of this Annual Report.

Changes in the composition of the Board that took place in the Review Period are set out in the section headed Report of the Board of Directors on pages 104 to 137 of this Annual Report.

C.1.6 of the HKSE CG Code provides that generally independent non-executive Directors and other non-executive Directors should attend general meetings of Shareholders. Certain executive Directors, non-executive Directors and independent non-executive Directors were unable to attend the AGM 2022, the EGM 2022 January, the EGM 2022 March, the EGM 2022 September and/or the EGM 2022 December respectively due to conflicting business schedules.

(e) Board meetings

During 2022, the Board held 37 meetings, with 10 of them in person and 27 in the form of absentee voting.

The schedule for Board meetings for the year 2022 was approved by the Board. The Directors are provided on a timely basis with the relevant documents and copies of the draft resolutions to be considered at that particular meeting.

Key agenda items reviewed by the Board of Directors during the Review Period

In 2022, the Board considered issues connected with, inter alia, 2021 financial results, 2021 Annual Report, transactions with related parties, achievement of target KPIs for 2021 by the General Director, results of the Board and Board Committees self-assessment and debt capital market financing.

All Directors are given an opportunity to include matters in the agenda for the Board meeting and have access to the Corporate Secretary to ensure that all Board procedures and all applicable rules are followed. The Board also enables the Directors to seek independent professional advice at the Company's expense in appropriate circumstances.

Self-Assessment of the Board of Directors performance

The Board annually conducts a self-assessment of its activities according to set of criteria and indicators approved by the Board annually by means of questionnaires.

At the Board meeting held on 23 June 2022, the Board considered the results of the self-evaluation process. The key conclusions of the consideration were as follows:

- the Board has appropriate skills and expertise to face issues arising in the course of the Company's business;
- the Board is mostly satisfied with the range of issues discussed at the Board meetings; and
- the Board is satisfied with operation of its committees of the Board.

While the Board concluded that its' performance in 2022 was adequate, the Directors concluded that one of the potential areas of further improvement of the Board's performance in 2023 could be more active involvement in determination of the Company's strategy.

Board meetings at which Directors have material interests

In relation to compliance with Code Provision C.5.7 of the HKSE CG Code, the Board endeavoured throughout the twelve-month period ended 31 December 2022 to ensure that it did not deal with business by the way of written resolution where a Substantial Shareholder of the Company or a Director had disclosed an interest in a matter to be considered by the Board which the Board determined to be material. As a result, there were no occurrence (out of the 27 instances of absentee voting of the Board during the period) when urgent business was dealt with by the Board by way of written resolution where a material interest of a Director was stated to have been disclosed. Of the 7 Board meetings held in the twelve-month period ended 31 December 2022 where one or more Directors had disclosed a material interest, all the independent non-executive Directors were present at 6 of the Board meetings held.

Of the 37 Board meetings held, there were 7 occasions where executive Director/non-executive Director(s) might have a material interest in the transaction. On such occurrences, those executive Director/non-executive Director(s) abstained from voting and the resolutions approving entry into such transactions were passed by the requisite majority excluding those executive Director/non-executive Director(s) who might have a material interest.

(f) Relationships among members of the Board

Please refer to the section Profiles of the Board members, the General Director and Senior Management for more information about the relationships among members of the Board.

(g) Shareholders' Agreements

The Shareholders' Agreement with the Company and the Shareholders' Agreement between Major Shareholders only were both entered into on 22 January 2010 and are still in force. For brief details of these shareholders' agreements, please see Appendix A and Appendix B.

(h) Directors' securities transactions

The Company has adopted a Code for Securities Transactions in respect of the Directors. The Code for Securities Transactions was based on the Model Code as set out in Appendix 10 to the HKSE Listing Rules but it was made more exacting than the required standard set out in Appendix 10. Having made specific enquiry of all Directors, all Directors confirmed that they had fully complied with the required standard set out in the Model Code and the Code for Securities Transactions throughout the Review Period.

The Company has not been notified of any other transaction by the Directors in respect Shares in the Review Period.

The Directors do not directly or indirectly own the Shares.

(i) Directors' continuous professional development

Pursuant to Code Provision C.1.4 of the HKSE CG Code, all Directors should participate in continuous professional development to develop and refresh their knowledge and skills. During the Review Period, all Directors (namely, Mr. Evgeny Kuryanov, Mr. Evgenii Nikitin, Mr. Evgenii Vavilov, Mikhail Khardikov, Mr. Vladimir Kolmogorov, Mr. Marco Musetti, Mr. Vyacheslav Solomin (retired with effect from 23 June 2022), Mr. Christopher Burnham, Ms. Liudmila Galenskaia, Mr. Nicholas Jordan (retired with effect from 23 June 2022), Mr. Kevin Parker, Mr. Randolph N. Reynolds, Dr. Evgeny Shvarts, Ms. Anna Vasilenko, Mr. Dmitry Vasiliev (resigned with effect from 19 August 2022) and Mr. Bernard Zonneveld), received regular briefings and updates on the Group's business, operations, risk management and corporate governance matters.

4. Chairman and General Director

The roles of the Chairman of the Board and the General Director are segregated and are independent to each other.

Chairman of the Board

The Chairman (being Mr. Bernard Zonneveld) is chiefly responsible for maintaining the effective operation of the Board. The Chairman is also responsible for chairing Board meetings, briefing Board members on issues discussed at Board meetings and ensuring good corporate governance practices and procedures are established. The Chairman is also responsible for leadership of the Board and for creating the conditions necessary to allow the Board and individual Directors to operate effectively. According to the Charter, the Chairman shall arrange the work of the Board, convene and chair the Board meetings, ensure that the minutes of the meetings of the Board are properly kept.

General Director – Sole executive body

The Charter of the Company operates with the concept of General Director who acts as the sole chief executive body of the Company and manage the Company's activities on a day-to-day basis. The General Director enjoys all executive powers that are not within the exclusive authority of the GSM or the Board. Those powers include, inter alia:

- acting on behalf of the Company without a power of attorney (including by representing the Company and entering into transactions on its behalf)
- representing the Company in the Russian Federation and abroad
- ensuring the implementation of the plans for current and future activities of the Company
- preparation of the necessary materials and proposals to the Board and the GSM and ensures the implementation of their resolutions
- appointment and dismissal of heads of branches and representative offices, approval of the terms of contracts with them
- issuing powers of attorney, authorising their holders to represent the Company
- employment and dismissal of the Company's employees

The Board has assessed the achievement by the General Director of his key performance indicators, which represent the evaluation of the General Director's performance, based on the recommendation of the Remuneration Committee.

Biographical details of the General Director (Mr. Evgenii Nikitin) are set out in the section headed Profile of the General Director on page 96 of this Annual Report.

The General Director does not directly or indirectly own the Shares.

5. Board Committees

As at the date of this Report, the following committees assisted the Board in exercising its functions:

1. Corporate Governance and Nomination Committee
2. Remuneration Committee
3. Audit Committee
4. Health, Safety and Environmental Committee
5. Compliance Committee

Corporate Governance and Nomination Committee

The Company established the corporate governance and nomination committee with written terms of reference in compliance with the HKSE CG Code and the Russian CG Code.

The primary functions of the Corporate Governance and Nomination Committee are, among other things, to develop, review at least once a year and make recommendations to the Board in relation to corporate governance principles and policies of the Company and its consolidated subsidiaries, to oversee corporate governance matters, to review and monitor the training and continuous professional development of Directors, to develop, review and monitor the Company's code of conduct applicable to employees and Directors, reviewing the Company's compliance with the HKSE CG and disclosure in the Corporate Governance Report. The Corporate Governance and Nomination Committee is provided with sufficient resources to discharge its duties and its terms of reference also permit it to obtain access to a legal adviser.

In recommending a candidate for election to the Board, the Corporate Governance and Nomination Committee is required to determine criteria, objectives and procedures for selecting Board members, including factors such as independence (in the case of independent directors), diversity, age, future succession planning, integrity, skills, expertise, experience, knowledge about the Company's business and industry, and willingness to devote adequate time and effort to Board responsibilities. In identifying suitable candidates, the Corporate Governance and Nomination Committee is required to use open advertising or the services of external advisers to facilitate the search, consider candidates from a wide range of backgrounds and consider candidates on merit against objective criteria, taking care that appointees have enough time to devote to the position.

The Corporate Governance and Nomination Committee consists exclusively of independent Directors. The members are as follows:

- Mr. Christopher Burnham *(independent non-executive Director)*
- Mr. Randolph N. Reynolds *(independent non-executive Director)*
- Mr. Bernard Zonneveld *(chairman of the committee, independent non-executive Director)*

The Corporate Governance and Nomination Committee held 4 meetings during the Review Period. There were no meetings in a form of absentee voting. At these meetings, the Corporate Governance and Nomination Committee considered, amongst other things, recommendations on nomination of Directors, composition of the Board Committees, results of the Board and Board Committees self-assessment process.

The members of the Corporate Governance and Nomination Committee have regularly attended and actively participated in meetings. For the attendance record of the meetings held by the Corporate Governance and Nomination Committee during 2022, please refer to paragraph 3(d) of this Corporate Governance Report.

Diversity

With a view to achieving a sustainable and balanced development, the Company recognises increasing diversity at the Board level as an essential element in supporting the attainment of its strategic objectives and its sustainable development. In designing the Board's composition, Board diversity has been considered from a number of aspects, including but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service. All Board appointments are based on meritocracy, and candidates will be considered against objective criteria, having due regard for the benefits of diversity on the Board.

The Company recognises and embraces the benefits of having a diverse Board to enhance the quality of its performance. The current mix of skills, experience and other diversity criteria of directors, including but not limited to gender, age, nationality, cultural and educational background, provides for a balanced composition of the Board.

The Corporate Governance and Nomination Committee also monitors the implementation of the Board diversity policy of the Company.

The Board currently comprises two female Directors and 11 male Directors.

For the gender ratio in the workforce of the Group, including senior management, as of 31 December 2022, please refer to our Sustainability Report for details. To achieve diversity at workforce level, the Group has put in place appropriate recruitment and selection practices such that a diverse range of candidates are considered.

During Review Period, the Board was not aware of any mitigating factors or circumstances which make achieving gender diversity across the workforce (including senior management) more challenging or less relevant.

Remuneration Committee

The Company has established the Remuneration Committee governed by the written terms of reference in compliance with the HKSE CG Code and the Russian CG Code. The primary functions of the Remuneration Committee are, among other things, to prepare and revise remuneration policy, to make recommendations to the Board on the remuneration package of the Directors, the General Director, the Corporate Secretary and senior management, and to assist the Board in overseeing the administration of the Company's compensation and benefits plans.

Remuneration policies are determined on the basis of an employee's qualifications and performance, as well as the complexity of his or her job. Wages for each employee are generally reviewed annually and revised in accordance with a performance assessment and local labour market conditions.

The Remuneration Committee consists exclusively of independent non-executive Directors. The members are as follows:

- Mr. Christopher Burnham *(independent non-executive Director)*
- Mr. Randolph N. Reynolds *(independent non-executive Director)*
- Ms. Anna Vasilenko *(chairman of the committee, independent non-executive Director)*

The Remuneration Committee held 2 meetings during the Review Period. There were no meetings in a form of absentee voting. At those meetings, the Remuneration Committee considered, amongst other things, the issues related to achievement of the target KPIs for 2021 by the General Director, and target KPIs of the General Director for 2022. For details of the Company's emolument policy, please refer to section 15 of the Report of the Board of Directors. The members of the Remuneration Committee have regularly attended and actively participated in meetings. For the attendance record of the meetings held by the Remuneration Committee during 2022, please refer to paragraph 3(d) of this Corporate Governance Report.

Audit Committee

The Company established the Audit Committee of the Board with written terms of reference in compliance with the HKSE CG Code and the Russian CG Code.

The primary duties of the Audit Committee are to assist the Board in providing an independent view of the effectiveness of the Company's financial reporting process, risk management and internal control systems, and internal audit function, to oversee the audit process and to perform other duties and responsibilities as are assigned to the Audit Committee by the Board. The Audit Committee is assisted by the Company's internal audit function that undertakes both regular and ad hoc reviews of risk management, internal controls and procedures, the results of which are reported to the Audit Committee.

The Audit Committee consists of independent Directors. The current members are as follows:

- Mr. Kevin Parker *(chairman of the committee, independent non-executive Director)*
- Mr. Bernard Zonneveld *(independent non-executive Director)*
- Ms. Anna Vasilenko *(independent non-executive Director)*

During the Review Period, the Audit Committee held 8 meetings. There were no meetings in a form of absentee voting. The Company's external auditors are regularly invited to attend meetings of the Audit Committee. At the meeting held on 25 March 2022, members of the Audit Committee reviewed the consolidated financial statements for the year ended 31 December 2021. At the meeting held on 10 August 2022, members of the Audit Committee reviewed the interim condensed financial statements as at and for the three and six months ended 30 June 2022, and at the meeting held on 15 March 2023, members of the Audit Committee reviewed the consolidated financial statements for the year ended 31 December 2022. The Audit Committee is of the opinion that such consolidated financial statements have complied with the applicable accounting standards, the HKSE Listing Rules, other legal requirements and that adequate disclosures have been made. Minutes of Audit Committee meetings were taken, recorded and kept.

The Audit Committee reviews the Company's financial and accounting policies and practices, meets the external auditors on a regular basis, and reviews all connected transactions before the Board's consideration. The Audit Committee also reviews the Company's financial controls, internal control and risk management system, and the Company's internal audit function on a quarterly basis.

The Audit Committee reviewed and concurred with the management confirmation that for the year ended 31 December 2022, the Group's risk management and internal control systems were effective and adequate. The Audit Committee is satisfied that the Company has complied satisfactorily with the requirements of the HKSE CG Code in respect of risk management and internal control systems.

The members of the Audit Committee have regularly attended and actively participated in meetings. For the attendance record of meetings held by the Audit Committee during 2022, please refer to paragraph 3(d) of this Corporate Governance Report.

Health, Safety and Environmental Committee

Health, Safety and Environmental Committee was established by the Board of Directors in order to ensure that the Company undertakes and conducts, in compliance with Company policies, its operations in a socially and environmentally responsible manner, pursuing sustainable business. Primary duties of Health, Safety and Environmental Committee include, inter alia, review of health, safety and environmental audits carried out in terms of both legal and Company requirements and annual report on the health, safety and environmental performance of the Company, as well as preparing recommendations to the Board for the formulation and setting of objectives to be achieved in the field of health, safety and environmental management.

The composition of the Health, Safety and Environmental Committee is as follows:

- Ms. Liudmila Galenskaia *(independent non-executive Director)*
- Mr. Kevin Parker *(independent non-executive Director)*
- Dr. Evgeny Shvarts *(chairman of the committee, independent non-executive Director)*
- Mr. Mikhail Khardikov *(non-executive Director)*

In 2022, the Health, Safety and Environmental Committee held 8 meetings out of which 4 were in a form of absentee voting. At those meetings, the Committee considered, amongst other things, issues related to achievement of the Company's environmental targets, health and safety report, and CDP Report. For the attendance record of meetings held by the Health, Safety and Environmental Committee during 2022, please refer to paragraph 3(d) of this Corporate Governance Report.

Compliance Committee

The Compliance Committee was established following the removal of the Company from OFAC's SDN list. The primary responsibilities of the Compliance Committee are, inter alia, ensuring the formation of a compliance management system within the Group, taking part in the development of policies and other internal regulations of the Company relating to matters of compliance, and consistently following up on their observance, ensuring that adequate compliance control is in place at the Group, conducting due diligence in the event of any reasonable doubt regarding observance of compliance requirements and the provisions of compliance documents.

The Compliance Committee consists of the following members:

- Mr. Christopher Burnham *(chairman of the committee, independent non-executive Director)*
- Mr. Kevin Parker *(independent non-executive Director)*
- Mr. Bernard Zonneveld *(independent non-executive Director)*

In 2022, the Compliance Committee held 4 meetings out of which 1 was in a form of absentee voting and considered the issues related to the development of the Company's compliance system. For the attendance record of meetings held by the Compliance Committee during 2022, please refer to paragraph 3(d) of this Corporate Governance Report.

6. Corporate Secretary

According to Company's Charter and taking into account the recommendations set out in the Russian CG Code, the Corporate Secretary has been appointed in order to, among other functions, ensure the operation of the Board and committees of the Board. The Corporate Secretary performs the functions of the Board secretary. Biographical details of the Corporate Secretary are set out in the section headed Profiles of the Board Members, the General Director and Senior Management on page 101 of this Annual Report.

7. Company Secretary

The Company engages Ms. Lam Yuen Ling Eva from an external service provider as its Company secretary in Hong Kong to ensure the compliance with the HKSE Listing Rules. The primary contact person in the Company in Hong Kong is Mr. Eugene Choi, authorised representative of the Company acting on behalf of the power of attorney.

8. Auditors' remuneration in respect of audit and non-audit services

For the year ended 31 December 2022, the total fees paid or payable in respect of audit and non-audit services provided by the Group's external auditor, TSATR – Audit Services LLC (before 12 April 2022 – Ernst & Young LLC), are set out below:

	For the year ended 31 December 2022 USD'000
Audit services	
Annual audit services	4,159
Annual non-audit services	780

The non-audit services mainly comprised tax compliance and certain agree-upon-procedure work.

The responsibilities of TSATR – Audit Services LLC with respect to the 2022 consolidated financial statements are set out in the "Independent Auditors' Report" on pages 159 to 163.

External auditor is appointed by the GSM by a simple majority for one year based upon the recommendations of the Company's Audit Committee.

The choice of an audit organisation was carried out according to the following criteria:

- the range of services offered;
- business reputation;
- price policy.

The Company selects an auditor (audit organisation) through a closed competitive selection on an annual basis. The Company sends a request to submit a proposal for the provision of audit services to leading audit companies. The main conditions for a closed competitive selection are the compliance of the auditor (audit organisation) with the requirements established by applicable law for persons providing audit services, as well as the compliance of the auditor (audit organisation) with the list of criteria established by the Company for external auditors. The Company chooses the winner based on the results of consideration of proposals (technical and financial) and presentations of the participants.

The Audit Committee has considered the external audit process as effective based on the provided auditor's report.

9. Responsibility Statement for the Consolidated Financial Statements

The members of the Board acknowledge that, it is their responsibility to prepare the consolidated financial statements for the year ended 31 December 2022 and to the best of their knowledge, the consolidated financial statements for the year ended 31 December 2022, were prepared in accordance with applicable law and IFRS, and that these consolidated financial statements give true and fair view of the state of affairs of the Group and of the results and cash flow for that period. The consolidated financial statements have been prepared in accordance with IFRS. The reporting responsibility of the external auditors of the Company on the financial statements of the Group are set out in the independent auditors' report on pages 159 to 163 of this Annual Report.

10. Risk Management and Internal Control

The Company's risk management and internal control system (hereinafter referred to as the "**System**") assures that the Company's operations are effective, efficient and well aligned with its strategic and business objectives. The System is designed to determine the nature and extent of risks, to safeguard the assets of the Company, to ensure correct, reliable, complete and timely financial reporting. The System promotes ethical values, good corporate governance and ensures regulatory compliance.

Roles and responsibilities

The System stipulates the following roles and responsibilities:

– Owners of the Company's business processes (hereinafter referred to as "**Process owners**");

– Directorate for Control, Internal Audit and Business Coordination (hereinafter referred to as "**Directorate for Control**");

– Audit Committee.

Process owners are responsible for running specific business processes in compliance with the System, for identification and analysis of the risks inherent in the process, development and implementation of the risk mitigation activities.

The Directorate for Control is responsible for methodological support and independent assessment of the System. The Directorate for Control performs internal audits and revisions to assess the effectiveness and efficiency of the business processes and the applicable controls. Thus, the System design is based on both best practices suggested by Process owners and recommendations developed by the Directorate for Control as the result of the internal audits and revisions.

The Directorate for Control reports the results of audits and revisions, as well as other activities related to internal controls and risk management, to the Audit Committee on a quarterly basis.

The Audit Committee is responsible for oversight of the financial reporting process, the audit process as well as the Company's system of risk management and internal controls.

In accordance with HKSE CG Code, the Audit Committee reviews the Company's risk management and internal control systems, the effectiveness of the issuer's internal audit function, and its other duties under the HKSE CG Code. The Audit Committee approves the annual schedule of audits and revisions to be performed by the Directorate for Control, though the scope of the Directorate's activities is not limited to scheduled audits – the Audit Committee and the Company's management can initiate additional unscheduled activities.

The Board approves the risk management policy, reviews the policy's performance results and determines the Company's principles and approaches to risk management, internal control and internal audit. The Board considers the results of the effectiveness of the risk management and internal control system regularly. In 2022 there were no issues identified in the functioning of the risk management and internal control system reported to the Board.

Risk management system

The Company aims to promote a risk-aware culture among all its employees, including those directly engaged in day-to-day operations. Such attitude to risk management improves risk awareness and enables the Company to respond to changes in the business environment on a timely basis.

However, it is important to note that the System is designed to manage rather than eliminate the risk of failure to achieve business objectives, and can only provide reasonable assurance against material misstatement or loss.

The Company faces the following types of risks:

Operational risks are those related to direct or indirect damages incurred within the Company's core operating activities due to inefficient or ineffective business processes, systems or human error.

Financial and market risks are those related to financing the Company's activities and volatility on global markets including commodity prices, interest rates and foreign currency rates.

Corporate risks are those related to business environment affecting financial results of the Company, including political, legal and other risks.

Project risks are those faced by the Company due to implementation of investment projects and minor continuous improvement projects.

All material risks are consolidated under the Company's Risk Register monitored at all management levels. There is a specific employee, a risk-owner, responsible for managing each risk. The Directorate for Control verifies risk analysis and risk management tools applied by risk-owner to each material risk.

The Audit Committee and Directorate for Control aim to regularly improve and enhance the Company's internal controls and risk management processes. The results of the Audit Committee's quarterly reviews of the System in 2022 are as follows:

Key improvements of internal controls:

During 2022, improvements were implemented to the Internal Control System in the procurement process, including for working with the electronic tender portal according to the Company's procurement regulations, procurement automation, integration of the document management system and the electronic tender portal. Changes have been made to the process of interaction with counterparties, new controls have been added to the credit policy, the process of claim work and enforcement proceedings. Changes in the internal control system have occurred in the process of inventory management: goals for the year have been formulated, emergency and insurance stocks are formed annually, an illiquid base has been created.

Key elements of risk management system:

- quarterly reports on Company's risk management activities and consolidated risk portfolio to executive management and the Audit Committee;
- risk management procedure with the focus on risk analysis and risk mitigation activities;
- risk management trainings for the Aluminium, Alumina and Downstream Divisions covering key smelters as well as trade, service and management companies;
- distinct link between process' and risk owners KPIs and effectiveness and efficiency of risk management under their responsibility;
- continuous improvement of automated risk management system (ARMS);
- independent risk audits of Company's production facilities conducted by independent risk surveyors to assess risks and enhance the Company's insurance programs.

It is important to note that the Directorate for Control did not identify in the year 2022 any significant violations of operational, financial or compliance controls nor any significant risks such as those that may potentially give rise to uncertainties about ability of the Company to continue to operate as a going concern except for those described in Note 1(e) to the consolidated financial statements disclosed on pages 164 to 248 of the Annual report.

The Company considers the risk management and internal control systems of the Company are effective and adequate.

Information Disclosure

Since the Listing, the Company has been subject to requirements relating to continuous disclosure obligations, including determination and disclosure of inside information. The Company has established the disclosure committee with authority to assess whether information constitutes inside information, whether it is subject to immediate disclosure or whether any safe harbour provisions may apply; to determine the timing and format of disclosure; to appoint officers responsible for collection, preliminary analysis and processing of the information within various business subdivisions of the Group; to appoint the Company's authorised representatives to the HKSE; and to decide on trading halts and other issues. At the same time, an internal policy regulating the treatment of inside information was adopted within the Group. The internal control system applied in the Group with respect to inside information ensures that any piece of information that may constitute inside information is promptly escalated to the disclosure committee and, should it constitute inside information, is disclosed.

Being a Russian issuer, the Company is subject to disclosure requirements of Russian legislation and MoEx Listing Rules.

Disclosure of information is made through the tools available to the Company under applicable legislation of HKSE Listing Rules and MoEX Listing Rules in order to ensure that all shareholders have equal access to the disclosed information:

Website of the HKSE: *(available in English and Chinese language only)*	https://www.hkexnews.hk https://www.hkexnews.hk/index_c.htm
Interfax newswire and the Company's dedicated page *(available in Russian language only)*	https://www.e-disclosure.ru/portal/company.aspx?id=38288
Company's corporate website *(available in Russian, English and Chinese languages)*	http://rusal.ru/investors/info/moex/ https://rusal.ru/en/investors/info/hkse/ https://rusal.ru/cn/investors/info/hkse/

11. Relevant Officers' Securities Transactions

The Company has also adopted the Relevant Officers Code. The Relevant Officers Code was based on Appendix 10 to the HKSE Listing Rules but it was made more exacting. It applies to any employee of the Company or a director or employee of a subsidiary of the Company who, because of such office or employment, is likely to be in possession of unpublished price sensitive information in relation to the Company or its securities.

12. Going Concern

Consolidated financial statements for the year ended 31 December 2022 have been prepared assuming that the Group will continue as a going concern. Accordingly, these statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts, the amounts and classification of liabilities or any other adjustments that might result in the Group being unable to continue as a going concern.

Ban of Australian government for the export of alumina and bauxite to Russia introduced in March 2022 and temporary suspension of production at Mykolaiv Alumina Refinery Company Ltd due to developments in Ukraine starting from 1 March 2022 influenced the availability of alumina and bauxite or increase the purchase prices for the Group. Difficulties with logistics caused the Group to rebuild the supply and sales chains and lead to additional logistics costs. If the situation in Ukraine and overall geopolitical tension persists or continues to develop significantly, including the loss of significant parts of foreign markets, which cannot be reallocated to new markets, it may affect the Group's business, financial condition, prospects and results of operations.

Potentially the Group may have difficulties with equipment deliveries that may postpone realisation of some investment projects and modernisation programs for existing production facilities.

The facts described above, as well as the volatility of commodity markets, stock, currency markets and interest rates, create material uncertainty in the Group's ability to meet its financial obligations on time and continue as a going concern entity. Management constantly evaluates the current situation and prepares forecasts taking into account different scenarios of the events and conditions development. The Group's management expects that prices on the world commodity markets will grow and improve the results of operating activities. The Group is also revising supply and sales chains, ensuring an optimal equity and debt ratio, searching for resolutions of logistic difficulties, as well as the ways to service its obligations in order to adapt the current economic changes to maintain the continuance of the Group's operations (please refer to Note 28 of Consolidated financial statements on pages 164 to 248).

13. Investor Relations

The Company has established a designated department for investor relations, which is responsible for matters concerning investor relations and has developed its own systems and process for communications with investors. The Company's management also maintains close communication with investors, analysts and the media.

The Company considers that effective communication with its shareholders is essential for enhancing investor relations and investor understanding of the Group's business performance and strategies. The Company endeavours to maintain an on-going dialogue with its shareholders and in particular, through annual general meetings and other general meetings, publishing corporate communications such as interim results and annual results, financial reports, announcements and circulars.

In addition, all corporate communications and regulatory announcements were published by the Company on its website and the website of the HKSE in a timely manner. The Company considers that the shareholders communications is effective during the year ended review.

The Charter was not amended during 2022.

14. Loans

In 2022, no loans have been issued by the Company (or any Group company) to members of the Board or the General Director.

OBJECTIVITY

Open to present the actual results

FINANCIAL STATEMENTS

Statement of Management's Responsibilities

The following statement, which should be read in conjunction with the auditor's responsibilities stated in the auditor's report on the audit of the consolidated financial statements set out on pages 159-163, is made with a view to distinguishing the respective responsibilities of management and those of the auditors in relation to the consolidated financial statements of United Company RUSAL, international public joint-stock company and its subsidiaries.

Management is responsible for the preparation of the consolidated financial statements for the year ended 31 December 2022 in accordance with International Financial Reporting Standards ("**IFRS**") and in accordance with the disclosure requirements of the Hong Kong Companies Ordinance.

In preparing the consolidated financial statements, management is responsible for:

- selecting appropriate accounting principles and applying them consistently;
- making judgements and estimates that are reasonable and based on supportable assumptions;
- stating whether International Financial Reporting Standards have been followed, subject to any material departures disclosed and explained in the consolidated financial statements; and
- preparing the consolidated financial statements on a going concern basis, unless it is inappropriate to presume that the Group will continue in the business for the foreseeable future.

Management, within its competencies, is also responsible for:

- designing, implementing and maintaining an effective system of internal controls throughout the Group;
- maintaining statutory accounting records in compliance with local legislation and accounting standards in the respective jurisdictions in which the Group operates;
- taking steps to safeguard the assets of the Group; and
- detecting and preventing fraud and other errors.

Independent auditor's report

To the Shareholders and Board of Directors of IPJSC UC RUSAL

Opinion

We have audited the consolidated financial statements of IPJSC UC RUSAL and its subsidiaries (hereinafter collectively referred to as the "**Group**"), which comprise the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of financial position as at 31 December 2022, and consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2022 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' (IESBA) International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Russian Federation, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Material uncertainty related to going concern

We draw attention to Note 1 of the consolidated financial statements as of 31 December 2022, which indicates that the geopolitical tensions and sanctions imposed by a range of countries, accompanied by the volatility of commodity, stock and currency markets, may significantly affect operational, investing and financing activity of the Group. As stated in Note 1, these events or conditions, along with other matters as set forth in Note 1 of the consolidated financial statements, indicate that material uncertainty exists that may cast significant doubt about the Group's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. In addition to the matters described in the Material uncertainty related to going concern section we have determined the matter described below to be the key audit matter to be communicated in our report. This matter was addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on this matter. For the matter below, our description of how our audit addressed this matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report, including in relation to this matter. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matter below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

Key audit matter	How our audit addressed the key audit matter
Impairment analysis of property, plant and equipment	
Impairment analysis of property, plant and equipment was a key audit matter due to the significance of property, plant and equipment balance in the consolidated financial statements, high subjectivity of judgments and estimates underlying the impairment analysis used by management. Current global market conditions, including fluctuations in LME aluminium prices, market premiums and alumina purchase prices together with their long-term forecasts, increase of logistics costs may indicate that some cash generating units (CGU) may be subject to either impairment loss or full or partial reversal of previously recognized impairment. Evaluation of the recoverable amount of fixed assets is based on the higher of the fair value less cost to sell and value in use. As of the reporting date management makes an assessment of value-in-use based on the discounted cash flow models. Information on the results of the impairment testing is provided in Note 13 (vii) to the consolidated financial statements.	We analyzed management's assessment of whether indicators for potential impairment or reversal of impairment previously recorded exist. For the impairment tests performed our procedures included, among others: • Comparison of key assumptions such as production volumes, forecasted aluminium sales prices, forecasted alumina and bauxites purchase prices, forecasted costs inflation, forecasted currency exchange rates, discount rates, used in the Group's financial model with published macroeconomic indicators and forecast data. • Assessing the historical accuracy of management's budgets and forecasts by comparing them to actual performance. • Checking the arithmetic accuracy of the impairment model and assessing a sensitivity analysis of value-in-use to changes in key assumptions. With assistance of our internal valuation experts we analyzed the Group's management calculations of the recoverable amount of fixed assets. We assessed the impairment related disclosures in the consolidated financial statements, including the key assumptions used and the sensitivity of the consolidated financial statements to these assumptions.

Other information included in the Annual Report

Other information consists of the information included in the Annual Report other than the consolidated financial statements and our auditor's report thereon. Management is responsible for the other information. The Annual Report is expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we will 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 when it becomes available 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.

Responsibilities of management and the Board of Directors for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRSs, and for such internal control as management 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, management 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 management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Board of Directors is responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives 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 auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs 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 ISAs, we exercise professional judgment and maintain professional skepticism 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 management.

- Conclude on the appropriateness of management's 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 auditor's 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 auditor's 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 or 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 the Board of Directors 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.

We also provide the Board of Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Board of Directors, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The partner in charge of the audit resulting in this independent auditor's report is Mikhail Khachaturian.

M.S. Khachaturian

General director of TSATR – Audit Services Limited Liability Company,

partner in charge of the audit resulting in this independent auditor's report

(main registration number 21906108270)

16 March 2023

Details of the auditor

Name: TSATR – Audit Services Limited Liability Company
Record made in the State Register of Legal Entities on 5 December 2002, State Registration Number 1027739707203.
Address: Russia 115035, Moscow, Sadovnicheskaya naberezhnaya, 77, building 1.
TSATR – Audit Services Limited Liability Company is a member of Self-regulatory organization of auditors Association "Sodruzhestvo". TSATR – Audit Services Limited Liability Company is included in the control copy of the register of auditors and audit organizations, main registration number 12006020327.

Details of the audited entity

Name: IPJSC UC RUSAL
Record made in the State Register of Legal Entities on 25 September 2020, State Registration Number 1203900011974.
Address: Russia 236006, Kaliningrad, Oktyabrskaya street, Office 410, b. 8.

Consolidated Statement of Income

FOR THE YEAR ENDED 31 DECEMBER 2022

	Note	Year ended 31 December	
		2022	**2021**
		USD million	**USD million**
Revenue	5	13,974	11,994
Cost of sales	6(a)	(10,770)	(8,273)
Gross profit		**3,204**	**3,721**
Distribution expenses	6(b)	(697)	(617)
Administrative expenses	6(b)	(769)	(603)
Impairment of non-current assets	6(b), 13	(196)	(209)
Expected credit losses	6(b), 17(a)	(163)	(60)
Net other operating expenses	6(b)	(63)	(153)
Results from operating activities		**1,316**	**2,079**
Finance income	7	133	63
Finance expenses	7	(838)	(800)
Share of profits of associates and joint ventures	15	1,555	1,807
Gain from partial disposal of investment in associate	15	–	492
Profit before taxation		**2,166**	**3,641**
Income tax	8	(373)	(416)
Profit for the year		**1,793**	**3,225**
Attributable to Shareholders of the Company		1,793	3,225
Profit for the year		**1,793**	**3,225**
Earnings per share			
Basic and diluted earnings per share (USD)	12	0.118	0.212
Adjusted EBITDA	4, 6(d)	2,028	2,893

The consolidated statement of income is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 171 to 248.

Consolidated Statement of Comprehensive Income
FOR THE YEAR ENDED 31 DECEMBER 2022

		Year ended 31 December	
		2022	2021
	Note	USD million	USD million
Profit for the year		1,793	3,225
Other comprehensive income or loss			
Items that will never be reclassified subsequently to profit or loss			
Actuarial gain/(loss) post retirement benefit plans	20	8	(8)
		8	**(8)**
Items that are or may be reclassified subsequently to profit or loss			
Reclassification of accumulated foreign currency translation loss to Statement of Income due to partial disposal of investment in associate	15	–	613
Change in fair value of cash flow hedges	21	(131)	(28)
Foreign currency translation differences for equity-accounted investees	15	369	21
Foreign currency translation differences on foreign subsidiaries		48	29
		286	**635**
Other comprehensive income for the year, net of tax		294	627
Total comprehensive income for the year		**2,087**	**3,852**
Attributable to:			
Shareholders of the Company		2,087	3,852
Total comprehensive income for the year		**2,087**	**3,852**

There was no significant tax effect relating to each component of other comprehensive income or loss.

The consolidated statement of comprehensive income is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 171 to 248.

Consolidated Statement of Financial Position
AS AT 31 DECEMBER 2022

	Note	31 December 2022 USD million	31 December 2021 USD million
Assets			
Non-current assets			
Property, plant and equipment and investment properties	13	5,829	5,350
Intangible assets	14	2,605	2,411
Interests in associates and joint ventures	15	5,174	4,014
Deferred tax assets	8	58	113
Derivative financial assets	21	90	22
Investments in equity securities measured at fair value through profit and loss	17(g)	458	315
Other non-current assets	17(f)	302	245
Total non-current assets		**14,516**	**12,470**
Current assets			
Inventories	16	4,489	3,692
Short-term investments	17(h)	89	167
Trade and other receivables	17(a)	1,286	1,019
Prepayments and input VAT	17(b)	763	611
Current income tax receivables		214	16
Dividends receivable		–	827
Derivative financial assets	21	78	120
Cash and cash equivalents	17(e)	3,196	1,984
Total current assets		**10,115**	**8,436**
Total assets		**24,631**	**20,906**

	Note	31 December 2022 USD million	31 December 2021 USD million
Equity and liabilities			
Equity	18		
Share capital		152	152
Share premium		15,786	15,786
Other reserves		2,682	2,805
Currency translation reserve		(9,033)	(9,450)
Retained earnings		2,720	1,231
Total equity		**12,307**	**10,524**
Non-current liabilities			
Loans and borrowings	19	6,910	4,839
Provisions	20	278	378
Deferred tax liabilities	8	427	429
Derivative financial liabilities	21	–	61
Other non-current liabilities		118	83
Total non-current liabilities		**7,733**	**5,790**
Current liabilities			
Loans and borrowings	19	2,547	1,894
Trade and other payables	17(c)	1,439	1,111
Advances received	17(d)	237	1,116
Other tax payable		243	181
Derivative financial liabilities	21	–	145
Provisions	20	125	145
Total current liabilities		**4,591**	**4,592**
Total liabilities		**12,324**	**10,382**
Total equity and liabilities		**24,631**	**20,906**
Net current assets		**5,524**	**3,844**
Total assets less current liabilities		**20,040**	**16,314**

Preliminary reviewed, approved and authorised for issue by the board of directors on 16 March 2023.

Evgenii V. Nikitin
General Director

Alexander V. Popov
Chief Financial Officer

The consolidated statement of financial position is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 171 to 248.

Consolidated Statement of Changes in Equity
FOR THE YEAR ENDED 31 DECEMBER 2022

	Note	Share capital	Share premium	Other reserves	Currency translation reserve	Retained earnings/ (accumulated losses)	Total equity
		USD million	USD million	USD million	USD million	USD million	USD million
Balance at 1 January 2022		**152**	**15,786**	**2,805**	**(9,450)**	**1,231**	**10,524**
Profit for the year		–	–	–	–	1,793	1,793
Other comprehensive (loss)/ income for the year		–	–	(123)	417	–	294
Total comprehensive (loss)/ income for the year		**–**	**–**	**(123)**	**417**	**1,793**	**2,087**
Dividends	11	–	–	–	–	(304)	(304)
Balance at 31 December 2022		**152**	**15,786**	**2,682**	**(9,033)**	**2,720**	**12,307**

	Note	Share capital	Share premium	Other reserves	Currency translation reserve	Retained earnings/ (accumulated losses)	Total equity
		USD million	USD million	USD million	USD million	USD million	USD million
Balance at 1 January 2021		**152**	**15,786**	**2,841**	**(10,113)**	**(2,123)**	**6,543**
Profit for the year		–	–	–	–	3,225	3,225
Other comprehensive (loss)/ income for the year		–	–	(36)	663	–	627
Total comprehensive (loss)/ income for the year		**–**	**–**	**(36)**	**663**	**3,225**	**3,852**
Share of equity transactions of an associate	15	–	–	–	–	129	129
Balance at 31 December 2021		**152**	**15,786**	**2,805**	**(9,450)**	**1,231**	**10,524**

The consolidated statement of changes in equity is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 171 to 248.

Consolidated Statement of Cash Flows
FOR THE YEAR ENDED 31 DECEMBER 2022

	Note	Year ended 31 December 2022 USD million	2021 USD million
Operating activities			
Profit for the year		**1,793**	**3,225**
Adjustments for:			
Depreciation	6, 13	491	589
Amortisation	6, 14	12	7
Impairment of non-current assets	6(b)	196	209
Impairment of trade and other receivables	6(b)	163	60
Write-down of inventories to net realisable value		171	28
Pension provision	20, 6(c)	4	3
Provision for legal claims	20	2	6
Change in fair value of derivative financial instruments	7	191	352
Net foreign exchange loss	7	219	29
Loss on disposal of property, plant and equipment	6(b)	13	9
Interest expense	7	428	372
Interest income	7	(79)	(43)
Income tax expense	8	373	416
Dividends from other investments		(36)	(20)
Revaluation of investments measured at fair value through profit and loss	17(g)	(18)	47
Share of profits of associates and joint ventures	15	(1,555)	(1,807)
Gain on partial disposal of investment in associate	15	–	(492)
Cash from operating activities before changes in working capital and provisions		**2,368**	**2,990**
Increase in inventories		(1,245)	(1,387)
Increase in trade and other receivables and advances paid		(325)	(528)
(Decrease)/increase in trade and other payables and advances received		(846)	394
Decrease in provisions		(6)	(16)
Cash (spent)/generated from operations before income tax paid		**(54)**	**1,453**
Income tax paid	8(d)	(358)	(307)
Net cash (spent)/generated from operating activities		**(412)**	**1,146**

The consolidated statement of cash flows is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 171 to 248.

		Year ended 31 December	
		2022	2021
	Note	USD million	USD million
Investing activities			
Proceeds from disposal of property, plant and equipment		3	10
Interest received		70	37
Acquisition of property, plant and equipment		(1,202)	(1,164)
Dividends from associates and joint ventures		1,639	620
Dividends from other investments		32	20
Acquisition of intangible assets		(37)	(28)
Cash paid for investments in equity securities measured at fair value through profit and loss		(113)	(291)
Cash received from/(paid for) other investments		97	(50)
Cash outflow from disposal of subsidiary		(16)	–
Prepayment for and acquisition of subsidiaries		–	(85)
Change in restricted cash		(1)	–
Proceeds from partial disposal of associate		–	1,421
Net cash generated from investing activities		**472**	**490**
Financing activities			
Proceeds from borrowings		6,036	918
Repayment of borrowings		(3,645)	(2,080)
Refinancing fees and other expenses		(17)	(34)
Interest paid		(428)	(380)
Settlement of derivative financial instruments		(229)	(315)
Dividends paid	11	(302)	–
Net cash used in financing activities		**1,415**	**(1,891)**
Net increase/(decrease) in cash and cash equivalents		**1,475**	**(255)**
Cash and cash equivalents at the beginning of the year	17(e)	1,982	2,216
Effect of exchange rate fluctuations on cash and cash equivalents		(264)	21
Cash and cash equivalents at the end of the year	17(e)	**3,193**	**1,982**

Restricted cash amounted to USD3 million and USD2 million at 31 December 2022 and 31 December 2021, respectively.

The consolidated statement of cash flows is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 171 to 248.

Notes to the Consolidated Financial Statements

FOR THE YEAR ENDED 31 DECEMBER 2022

1. Background

(a) Organisation

United Company RUSAL, international public joint-stock company (United Company RUSAL Plc prior to 25 September 2020) ("**UC RUSAL IPJSC**", the "**Company**" or "**UC RUSAL**") was established by the controlling shareholder of RUSAL Limited ("**RUSAL**") as a limited liability company under the laws of Jersey on 26 October 2006. On 27 January 2010, the Company successfully completed a placing on the Main Board of The Stock Exchange of Hong Kong Limited ("**Hong Kong Stock Exchange**") and changed its legal form from a limited liability company to a public limited company.

On 23 March 2015, the shares of the Company were admitted to listing on PJSC Moscow Exchange MICEX-RTS ("**Moscow Exchange**") in the First Level quotation list. The trading of shares on Moscow Exchange commenced on 30 March 2015. There was no issue of new shares.

The extraordinary general meeting of the Company held on 1 August 2019 approved the application by the Company to the regulatory authorities in Russia for continuance as a company with the status of an International Company established under the laws of Russia (the "**Redomiciliation**"). On 25 September 2020 UC RUSAL changed its domicile to the Russian Federation as UC RUSAL IPJSC.

The Company's registered office as at 31 December 2022 is Oktyabrskaya st. 8, office 410, Kaliningrad, Kaliningrad Region, 236006, Russian Federation (prior to 25 September 2020: 3rd floor, 44 Esplanade, St Helier, Jersey, JE4 9WG, Channel Islands).

The Company directly or through its wholly owned subsidiaries controls a number of production and trading entities engaged in the aluminium business and other entities, which together with the Company are referred to as "the Group".

The shareholding structure of the Company as at 31 December 2022 and 2021 was as follows:

	31 December	
	2022	**2021**
EN+GROUP IPJSC ("**EN+**", formerly En+ Group Plc)	56.88%	56.88%
SUAL PARTNERS ILLC ("SUAL PARTNERS", formerly SUAL Partners Limited)	25.52%	21.52%
Zonoville Investments Limited ("**Zonoville**")	–	4.00%
Mr. Oleg V. Deripaska	0.01%	0.01%
Publicly held	17.59%	17.59%
Total	**100.00%**	**100.00%**

At 31 December 2022 and 2021 the immediate parent of the Group was EN+ GROUP International public joint-stock company (EN+GROUP IPJSC) with the registered office at Oktyabrskaya st. 8, office 34, Kaliningrad, Kaliningrad Region, 236006, Russian Federation.

Based on the information provided by EN+, at the reporting date there is no individual that has an indirect prevailing ownership interest in EN+ GROUP IPJSC exceeding 50%, who could exercise voting rights in respect of more than 35% of EN+ GROUP IPJSC's issued share capital or has an opportunity to exercise control over EN+ GROUP IPJSC. As at 31 December 2022 and 31 December 2021 Mr. Oleg Deripaska beneficially controls and exercises voting rights in respect of 35% of the voting shares of EN+ GROUP IPJSC and cannot exceed his direct or indirect shareholding over 44.95% of the shares of the EN+ GROUP IPJSC.

In 2022 SUAL Partners Limited re-domiciled to Russian Federation and changed its' name to SUAL PARTNERS International Limited Liability Company. According to the information disclosed at the Stock Exchange of Hong Kong Limited Zonoville Investments Limited and SUAL PARTNERS were associates. Major ultimate beneficiaries of SUAL PARTNERS are Mr. Victor Vekselberg and Mr. Len Blavatnik.

Related party transactions are disclosed in note 25.

(b) Operations

The Group operates in the aluminium industry primarily in the Russian Federation, Ukraine, Guinea, Jamaica, Ireland, Italy and Sweden and is principally engaged in the mining and refining of bauxite and nepheline ore into alumina, the smelting of primary aluminium from alumina and the fabrication of aluminium and aluminium alloys into semi-fabricated and finished products. The Group sells its products primarily in Europe, Russia, other countries of the Commonwealth of Independent States ("**CIS**"), Asia and North America.

(c) Business environment in emerging economies

The Russian Federation, Ukraine, Jamaica and Guinea have been experiencing political and economic changes that have affected, and may continue to affect, the activities of enterprises operating in these environments. Consequently, operations in these countries involve risks that typically do not exist in other markets, including reconsideration of privatisation terms in certain countries where the Group operates following changes in governing political powers.

The imposition of economic sanctions on Russian individuals and legal entities by the European Union, the United States of America, Japan, Canada, Australia and others, as well as counter sanctions imposed by the Russian government, has resulted in increased economic uncertainty including more volatile equity, commodity and currency markets. The longer term effects of implemented sanctions, as well as the threat of additional future sanctions, are difficult to determine.

The consolidated financial statements reflect management's assessment of the impact of the Russian, Ukrainian, Jamaican and Guinean business environments on the operations and the financial position of the Group. The future business environment may differ from management's assessment.

(d) OFAC Sanctions

On 6 April 2018, the U.S. Department of the Treasury's Office of Foreign Assets Control ("**OFAC**") designated, amongst others, the Company, as a Specially Designated National ("**SDN**") (the "**OFAC Sanctions**").

As a result, all property or interests in property of the Company and its subsidiaries located in the United States or in the possession of U.S. Persons were blocked, must have been frozen, and could not be transferred, paid, exported, withdrawn, or otherwise dealt in. Several general licenses were issued at the time of the designation and later on authorizing certain transactions with the Company, its majority shareholder EN+ GROUP IPJSC ("**EN+**", former En+ Group Plc), and with their respective debt and equity.

On 27 January 2019 OFAC announced removal of the Company and En+ from OFAC's SDN List with immediate effect. The removal was subject to and conditional upon the satisfaction of a number of conditions including, but not limited to, corporate governance changes, including, inter alia, overhauling the composition of the Board to ensure that independent directors constitute the majority of the Board, stepping down of the Chairman of the Board, and ongoing reporting and certifications by the Company to OFAC concerning compliance with the conditions for removal.

(e) Going concern

These consolidated financial statements have been prepared assuming that the Group will continue as a going concern. Accordingly, these statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts, the amounts and classification of liabilities or any other adjustments that might result from the Group being unable to continue as a going concern.

Ban of Australian government for the export of alumina and bauxite to Russia introduced in March 2022 and temporary suspension of production at Mykolaiv Alumina Refinery Company Ltd due to developments in Ukraine starting from 1 March 2022 influenced the availability of alumina and bauxite or increase the purchase prices for the Group. Difficulties with logistics caused the Group to rebuild the supply and sales chains and lead to additional logistics costs. If the situation in Ukraine and overall geopolitical tension persists or continues to develop significantly, including the loss of significant parts of foreign markets, which cannot be reallocated to new markets, it may affect the Group's business, financial condition, prospects and results of operations.

Potentially the Group may have difficulties with equipment deliveries that may postpone realization of some investment projects and modernization programs for existing production facilities.

The facts described above, as well as the volatility of commodity markets, stock, currency markets and interest rates, create material uncertainty in the Group's ability to meet its financial obligations on time and continue as a going concern entity. Management constantly evaluates the current situation and prepares forecasts taking into account different scenarios of the events and conditions development. The Group's management expects that prices on the world commodity markets will grow and improve the results of operating activities. The Group is also revising supply and sales chains, ensuring an optimal equity and debt ratio, searching for resolutions of logistic difficulties, as well as the ways to service its obligations in order to adapt the current economic changes to maintain the continuance of the Group's operations (note 28).

2. Basis of preparation

(a) Statement of compliance

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("**IFRSs**"), which collective term includes all International Accounting Standards and related interpretations, promulgated by the International Accounting Standards Board ("**IASB**"), and the disclosure requirements of the Hong Kong Companies Ordinance.

These consolidated financial statements also comply with the applicable disclosure provisions of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited. Preparation of these consolidated financial statements is also regulated by Russian Federal Law 208-FZ dated 27 July 2010 *On consolidated financial statements* and Russian Federal Law 290-FZ dated 3 August 2018 *On international companies and international funds*.

Certain reclassifications have been made to the prior periods' consolidated financial statements to conform to the current year presentation. Such reclassifications affect the presentation of certain items in the consolidated statement of financial position, consolidated statement of comprehensive income, consolidated statement of cash flows and notes to the consolidated financial statements and have no impact on net income or equity.

(b) Standards issued but not effective

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's financial statements are disclosed below. The Group intends to adopt these new and amended standards and interpretations, if applicable, when they become effective.

- IFRS 17 *Insurance Contracts*;
- Amendments to IAS 1: *Classification of Liabilities as Current or Non-current*;

- Amendments to IAS 1: *Non-current Liabilities with Covenants*;
- *Definition of Accounting Estimates* – Amendments to IAS 8;
- *Disclosure of Accounting Policies* – Amendments to IAS 1 and IFRS Practice Statement 2;
- *Deferred Tax related to Assets and Liabilities arising from a Single Transaction* – Amendments to IAS 12;
- Amendments to IFRS 16: *Lease Liability in a Sale and Leaseback*.

The Group is currently assessing the impact the amendments will have on current practice, when they become effective.

3. Significant accounting policies

(a) New and amended standards and interpretations adopted by the Group

The Group applied for the first-time certain standards and amendments, which are effective for annual periods beginning on or after 1 January 2022 (unless otherwise stated).

- *Onerous Contracts – Costs of Fulfilling a Contract* – Amendments to IAS 37;
- *Reference to the Conceptual Framework* – Amendments to IFRS 3;
- *Property, Plant and Equipment: Proceeds before Intended Use* – Amendments to IAS 16;
- IFRS 1 *First-time Adoption of International Financial Reporting Standards* – Subsidiary as a first-time adopter;
- IFRS 9 *Financial Instruments* – Fees in the '10 per cent' test for derecognition of financial liabilities.

These amendments had no impact on the consolidated financial statements of the Group

(b) Basis of measurement

The consolidated financial statements have been prepared in accordance with the historical cost basis except as set out in the significant accounting policies in the related notes below.

(c) Functional and presentation currency

The Company's functional currency is the United States Dollar ("**USD**") because it reflects the economic substance of the underlying events and circumstances of the Company. The functional currencies of the Group's significant subsidiaries are the currencies of the primary economic environment and key business processes of these subsidiaries and include USD, Russian Roubles ("**RUB**"), Ukrainian Hryvna, Chinese Yen ("**CNY**") and Euros ("**EUR**"). The consolidated financial statements are presented in USD, rounded to the nearest million, except as otherwise stated herein.

The functional currencies of investments in associates and joint ventures are RUB, Kazakhstani tenge and Australian dollar.

(d) Use of judgements, estimates and assumptions

The preparation of consolidated financial statements in conformity with IFRSs requires management to make judgements, estimates and assumptions that affect the application of accounting policies and reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the consolidated financial statements, and the reported revenue and costs during the relevant period.

Management bases its judgements and estimates on historical experience and various other factors that are believed to be appropriate and reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions and conditions.

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

Judgements made by management in the application of IFRSs that have a significant effect on the consolidated financial statements and estimates with a significant risk of material adjustment in the next year relate to:

- Measurement of recoverable amount of property, plant and equipment (note 13) and goodwill (note 14);
- Measurement of net realizable value of inventories (note 16);
- Measurement of recoverable amount of investments in associates and joint ventures (note 15);
- Measurement of recoverable amount of deferred tax assets (note 8);
- Estimates in respect of legal proceedings, restoration and exploration, taxation and pension reserve (note 20);
- Measurement of fair value of derivative financial instruments (note 21);
- Measurement of expected credit losses on financial assets (note 17).

(e) Basis of consolidation

(i) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed, 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. When assessing whether the Group has power, only substantive rights (held by the Group and other parties) are considered.

An investment in a subsidiary is consolidated into the consolidated financial statements from the date that control commences until the date that control ceases. Intra-group balances, transactions and cash flows and any unrealised profits arising from intra-group transactions are eliminated in full in preparing the consolidated financial statements. Unrealised losses resulting from intra-group transactions are eliminated in the same way as unrealised gains but only to the extent that there is no evidence of impairment.

When the group loses control of a subsidiary, it is accounted for as a disposal of the entire interest in that subsidiary, with a resulting gain or loss being recognised in profit or loss. Any interest retained in that former subsidiary at the date when control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset or, when appropriate, the cost on initial recognition of an investment in an associate or joint venture.

(ii) Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

(f) Foreign currencies

(i) Foreign currency transactions

Transactions in foreign currencies are translated into the respective functional currencies of Group entities at the exchange rates ruling at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between the amortised cost in the functional currency at the beginning of the period, adjusted for effective interest and payments during the period, and the amortised cost in foreign currency translated at the exchange rate at the end of the reporting period. Non-monetary items in a foreign currency are measured based on historical cost and translated using the exchange rate at the date of transaction. Foreign currency differences arising on retranslation are recognised in the statement of income, except for differences arising on the retranslation of qualifying cash flow hedges to the extent the hedge is effective, which is recognised in the other comprehensive income.

(ii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated from their functional currencies to USD at the exchange rates ruling at the reporting date. The income and expenses of foreign operations are translated to USD at exchange rates approximating exchange rates at the dates of the transactions.

Foreign currency differences arising on translation are recognised in the statement of comprehensive income and presented in the currency translation reserve in equity. For the purposes of foreign currency translation, the net investment in a foreign operation includes foreign currency intra-group balances for which settlement is neither planned nor likely in the foreseeable future and foreign currency differences arising from such a monetary item are recognised as part of other comprehensive income in the statement of comprehensive income.

When a foreign operation is disposed of, such that control, significant influence or joint control is lost, the cumulative amount of the currency translation reserve is transferred to the statement of income as part of the gain or loss on disposal. When the Group disposes of only part of its interest in a subsidiary that includes a foreign operation while retaining control, the relevant proportion of the cumulative amount is reattributed to non-controlling interests. When the Group disposes of only part of its investment in an associate or joint venture that includes a foreign operation while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to the statement of income.

4. Segment reporting

(a) Reportable segments

An operating segment is a component of the Group that engages in business activities from which it may earn revenue and incur expenses, including revenue and expenses that relate to transactions with any of the Group's other components. All operating segments' operating results are reviewed regularly by the Group's CEO to make decisions about resources to be allocated to the segment and assess its performance and for which discrete financial information or statements are available.

Individually material operating segments are not aggregated for financial reporting purposes unless the segments have similar economic characteristics and are similar in respect of the nature of products and services, the nature of production processes, the type or class of customers, the methods used to distribute the products or provide the services and the nature of the regulatory environment. Operating segments which are not individually material may be aggregated if they share a majority of these criteria.

The Group has four reportable segments, as described below, which are the Group's strategic business units. These business units are managed separately and the results of their operations are reviewed by the CEO on a regular basis.

Aluminium. The Aluminium segment is involved in the production and sale of primary aluminium and related products.

Alumina. The Alumina segment is involved in the mining and refining of bauxite into alumina and the sale of alumina.

Energy. The Energy segment includes the Group companies and projects engaged in the mining and sale of coal and the generation and transmission of electricity produced from various sources. Where the generating facility is solely a part of an alumina or aluminium production facility it is included in the respective reportable segment.

Mining and Metals. The Mining and Metals segment includes the equity investment in PJSC MMC Norilsk Nickel ("**Norilsk Nickel**").

Other operations include manufacturing of semi-finished products from primary aluminium for the transportation, packaging, building and construction, consumer goods and technology industries; and the activities of the Group's administrative centres. None of these segments meet any of the quantitative thresholds for determining reportable segments in 2022 and 2021.

The Aluminium and Alumina segments are vertically integrated whereby the Alumina segment supplies alumina to the Aluminium segment for further refining and smelting with limited sales of alumina outside the Group. Integration between the Aluminium, Alumina and Energy segments also includes shared servicing and distribution.

(b) Segment results, assets and liabilities

For the purposes of assessing segment performance and allocating resources between segments, the Group's senior executive management monitor the results, assets and liabilities attributable to each reportable segment on the following bases:

Segment assets include all tangible, intangible assets and current assets with the exception of income tax assets and corporate assets. Segment liabilities include trade and other payables attributable to the production and sales activities of the individual segments. Loans and borrowings are not allocated to individual segments as they are centrally managed by the head office.

Revenue and expenses are allocated to the reportable segments with reference to sales generated by those segments and the expenses incurred by those segments or which otherwise arise from the depreciation or amortisation of assets attributable to those segments excluding impairment.

The measure used for reporting segment results is the statement of income before income tax adjusted for items not specifically attributed to individual segments, such as finance income, costs of loans and borrowings and other head office or corporate administration costs. The segment profit or loss is included in the internal management reports that are reviewed by the Group's CEO. Segment profit or loss is used to measure performance as management believes that such information is the most relevant in evaluating the results of certain segments relative to other entities that operate within these industries.

In addition to receiving segment information concerning segment results, management is provided with segment information concerning revenue (including inter-segment revenue), the carrying value of investments and share of profits/(losses) of associates and joint ventures, depreciation, amortisation, impairment and additions of non-current segment assets used by the segments in their operations. Inter-segment pricing is determined on a consistent basis using market benchmarks.

Segment capital expenditure is the total cost incurred during the year to acquire property, plant and equipment and intangible assets other than goodwill.

(i) Reportable segments

Year ended 31 December 2022

	Aluminium	Alumina	Energy	Mining and Metals	Total segment result
	USD million	USD million	USD million	USD million	USD million
Revenue from external customers	11,751	1,194	–	–	12,945
Inter-segment revenue	354	3,640	–	–	3,994
Total segment revenue	**12,105**	**4,834**	**–**	**–**	**16,939**
Segment profit	**2,282**	**(501)**	**–**	**–**	**1,781**
Depreciation/amortisation	(374)	(106)	–	–	(480)
Segment EBITDA	**2,656**	**(395)**	**–**	**–**	**2,261**
Reversal of impairment/(impairment) of non-current assets	(6)	(83)	–	–	(89)
Share of profits of associates and joint ventures	–	–	115	1,440	1,555
Non-cash expense other than depreciation	(34)	(97)	–	–	(131)
Capital expenditure	(768)	(311)	–	–	(1,079)
Non-cash additions to non-current segment assets related to site restoration	3	90	–	–	93
Segment assets	11,110	2,230	–	–	13,340
Interests in associates and joint ventures	–	–	889	4,285	5,174
Total segment assets					**18,514**
Segment liabilities	(1,030)	(619)	(15)	–	(1,664)
Total segment liabilities					**(1,664)**

Year ended 31 December 2021

	Aluminium	Alumina	Energy	Mining and Metals	Total segment result
	USD million	USD million	USD million	USD million	USD million
Revenue from external customers	10,054	1,014	–	–	11,068
Inter-segment revenue	365	2,796	–	–	3,161
Total segment revenue	**10,419**	**3,810**	**–**	**–**	**14,229**
Segment profit	**2,494**	**96**	**–**	**–**	**2,590**
Depreciation/amortisation	(348)	(212)	–	–	(560)
Segment EBITDA	**2,842**	**308**	**–**	**–**	**3,150**
Reversal of impairment/(impairment) of non-current assets	623	(797)	–	–	(174)
Share of profits of associates and joint ventures	–	–	81	1,762	1,843
Non-cash expense other than depreciation	(8)	(16)	–	–	(24)
Capital expenditure	(700)	(234)	–	–	(934)
Non-cash additions to non-current segment assets related to site restoration	(62)	–	–	–	(62)
Segment assets	9,477	2,055	–	–	11,532
Interests in associates and joint ventures	–	–	738	3,274	4,012
Total segment assets					**15,544**
Segment liabilities	(1,095)	(758)	(14)	–	(1,867)
Total segment liabilities					**(1,867)**

(ii) Reconciliation of reportable segment revenue, profit or loss, assets and liabilities

	Year ended 31 December	
	2022	2021
	USD million	USD million
Revenue		
Reportable segment revenue	16,939	14,229
Elimination of inter-segment revenue	(3,994)	(3,161)
Unallocated revenue	1,029	926
Consolidated revenue	**13,974**	**11,994**

	Year ended 31 December	
	2022	2021
	USD million	USD million
Profit		
Reportable segment profit	1,781	2,590
Impairment of non-current assets	(196)	(209)
Share of profits of associates and joint ventures	1,555	1,807
Loss on disposal of property, plant and equipment	(13)	(9)
Finance income	133	63
Finance expenses	(838)	(800)
Gain from partial disposal of investment in associate	0	492
Unallocated profit/(loss)	(256)	(293)
Consolidated profit before taxation	**2,166**	**3,641**

	Year ended 31 December	
	2022	2021
	USD million	USD million
Adjusted EBITDA		
Reportable segment EBITDA	2,261	3,150
Unallocated depreciation	23	36
Unallocated profit/(loss)	(256)	(293)
Consolidated adjusted EBITDA	**2,028**	**2,893**

	31 December	
	2022	2021
	USD million	USD million
Assets		
Reportable segment assets	18,514	15,544
Unallocated assets	6,117	5,362
Consolidated total assets	**24,631**	**20,906**

	31 December	
	2022	2021
	USD million	USD million
Liabilities		
Reportable segment liabilities	(1,664)	(1,867)
Unallocated liabilities	(10,660)	(8,515)
Consolidated total liabilities	**(12,324)**	**(10,382)**

(iii) Geographic information

The Group's operating segments are managed on a worldwide basis, but operate in four principal geographical areas: the CIS, Europe, Africa and the Americas. In the CIS, production facilities operate in Russia. In Europe, production facilities are located in Italy, Ireland and Sweden. African production facilities are represented by bauxite mines and an alumina refinery in Guinea. In the Americas the Group operates one production facility in Jamaica.

The following table sets out information about the geographical location of (i) the Group's revenue from external customers and (ii) the Group's property, plant and equipment, intangible assets and interests in associates and joint ventures ("**specified non-current assets**"). The geographical location of customers is based on the location at which the services were provided or the goods were delivered. The geographical location of the specified non-current assets is based on the physical location of the asset. Unallocated specified non-current assets comprise mainly goodwill and interests in associates and joint ventures.

	Revenue from external customers	
	Year ended 31 December	
	2022	2021
	USD million	USD million
Russia	3,746	3,389
South Korea	1,184	314
China	1,122	772
Turkey	1,011	1,108
Japan	963	744
Netherlands	884	443
USA	645	741
Germany	406	325
Poland	384	328
Mexico	354	280
Greece	339	367
Italy	299	260
Norway	248	267
Sweden	238	209
France	223	247
Ireland	221	148
Other countries	1,707	2,052
	13,974	**11,994**

	Specified non-current assets	
	31 December	31 December
	2022	2021
	USD million	USD million
Russia	10,370	8,697
Ireland	94	82
Guinea	237	232
Ukraine	2	6
Sweden	53	68
Unallocated	3,760	3,385
	14,516	**12,470**

5. Revenue

Accounting policies

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised.

The details of significant accounting policies in relation to the Group's various goods and services are set out below:

Sales of goods: comprise sale of primary aluminium, alloys, alumina, bauxite and other products. Customers obtain control of the goods supplied when the goods are delivered to the point when risks are transferred based on Incoterms delivery terms stated in the contract, legal title to the asset and physical possession of the asset is transferred. Invoices are generated and revenue is recognised at that point in time. Invoices are usually payable within 60 days or in advance. Under certain Group sale contracts the final price for the goods shipped is determined a few months later than the delivery took place. Under current requirements the Group determines the amount of revenue at the moment of recognition based on estimated selling price at the date of the invoice issued. At price finalisation the difference between estimated price and actual one is recognised as other revenue.

Rendering of transportation services: as part of sales of goods the Group also performs transportation to the customer under contract terms. In certain cases the control for goods delivered is transferred to customer at earlier point than the transportation is completed. In these cases rendering of transportation services from when the control of goods has transferred is considered as a separate performance obligation.

Rendering of electricity supply services: The Group is involved in sales of energy to 3rd and related parties. Invoices are issued once a month at the end of month and paid within 30 days. Revenue is recognised over time during the month of energy supply.

Disclosures

	Year ended 31 December	
	2022	2021
	USD million	USD million
Revenue from contracts with customers	**13,974**	**11,994**
Sales of products	**13,585**	**11,702**
Sales of primary aluminium and alloys	11,593	9,966
Sales of alumina and bauxite	557	612
Sales of foil and other aluminium products	581	515
Sales of other products	854	609
Provision of services	**389**	**292**
Supply of energy	310	226
Provision of transportation services	8	7
Provision of other services	71	59
Total revenue by types of customers	**13,974**	**11,994**
Third parties	12,967	11,083
Related parties – companies capable of exerting significant influence	235	320
Related parties – companies related through parent company	235	223
Related parties – associates and joint ventures	537	368
Total revenue by primary regions	**13,974**	**11,994**
Europe	4,989	4,401
CIS	4,074	3,903
America	1,035	1,087
Asia	3,762	2,461
Other	114	142

Revenue from sale of primary aluminium and alloys relates to aluminium segment (note 4). Revenue from sales of alumina and bauxite relates to alumina segment which also includes sale of other products.

Revenue from sale of foil and other aluminium products and other products and services relates mostly to the revenue of non-reportable segments.

6. Cost of sales and operating expenses

(a) Cost of sales

	Year ended 31 December	
	2022	2021
	USD million	USD million
Cost of alumina, bauxite and other materials	**(5,364)**	**(3,693)**
Third parties	(5,311)	(3,638)
Related parties – companies capable of exerting significant influence	(30)	(24)
Related parties – companies related through parent company	(12)	(13)
Related parties – associates and joint ventures	(11)	(18)
Purchases of primary aluminium	**(1,164)**	**(1,229)**
Third parties	(220)	(517)
Related parties – companies related through parent company	(4)	(16)
Related parties – associates and joint ventures	(940)	(696)
Energy costs	**(2,658)**	**(2,070)**
Third parties	(1,538)	(1,288)
Related parties – companies capable of exerting significant influence	(48)	(33)
Related parties – companies related through parent company	(1,027)	(714)
Related parties – associates and joint ventures	(45)	(35)
Personnel costs	**(781)**	**(618)**
Depreciation and amortisation	**(481)**	**(572)**
Change in finished goods	**806**	**752**
Other costs	**(1,128)**	**(843)**
Third parties	(1,066)	(702)
Related parties – companies related through parent company	(32)	(30)
Related parties – associates and joint ventures	(30)	(111)
	(10,770)	**(8,273)**

(b) Distribution, administrative and other operating expenses, impairment of non-current assets and expected credit losses

	Year ended 31 December	
	2022	2021
	USD million	USD million
Transportation expenses	(538)	(443)
Personnel costs	(404)	(301)
Impairment of non-current assets	(196)	(209)
Expected credit losses	(163)	(60)
Consulting and legal expenses	(94)	(86)
Packaging materials	(58)	(38)
Taxes other than on income	(56)	(50)
Security	(55)	(33)
Customs duties	(48)	(99)
Repair and other services	(40)	(25)
Charitable donations	(34)	(45)
Depreciation and amortization	(22)	(24)
Loss on disposal of property, plant and equipment	(13)	(9)
Short-term lease and variable lease payments	(8)	(5)
Auditors' remuneration	(5)	(6)
Provision for legal claims	(2)	(6)
Other expenses	(152)	(203)
	(1,888)	**(1,642)**

On 28 April 2022 the Group sold its subsidiary Rusal America Corporation (RAC) to its local management for US$15 million. Following this transaction the Group has also recorded a realized gain of USD121 million related to the selling prices of inventory held by RAC at the date of demerger.

(c) Personnel costs

Accounting policies

Personnel costs comprise salaries, annual bonuses, annual leave, cost of non-monetary benefits and social contributions. Salaries, annual bonuses, paid annual leave and cost of non-monetary benefits are accrued in the year in which the associated services are rendered by employees. Where payment or settlement is deferred and the effect would be material, these amounts are stated at their present values.

The employees of the Group are also members of retirement schemes operated by local authorities. The Group is required to contribute a certain percentage of their payroll to these schemes to fund the benefits. The Group's total contribution to those schemes charged to the statement of income during the years presented is shown below.

The Group's net obligation in respect of defined benefit pension and other post-retirement plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value and the fair value of any plan assets are deducted. The discount rate is the yield at the reporting date on government bonds that have maturity dates approximating the terms of the Group's obligations. The calculation is performed using the projected unit credit method. When the calculation results in a benefit to the Group, the recognised asset is limited to the net total of any unrecognised past service costs and the present value of any future refunds from the plan or reductions in future contributions to the plan.

Where there is a change in actuarial assumptions, the resulting actuarial gains and losses are recognised directly in other comprehensive income.

When the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognised in the statement of income on a straight-line basis over the average period until the benefits become vested. To the extent that the benefits vest immediately, the expense is recognised immediately.

The Group recognises gains and losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs.

The gain or loss on curtailment comprises any resulting change in the fair value of plan assets, any change in the present value of the defined benefit obligation, any related actuarial gains and losses.

Disclosures

	Year ended 31 December	
	2022	**2021**
	USD million	**USD million**
Contributions to defined contribution retirement plans	244	193
Contributions to defined benefit retirement plans	4	3
Total retirement costs	**248**	**196**
Wages and salaries	937	723
	1,185	**919**

(d) EBITDA and operating effectiveness measures

Adjusted EBITDA is the key non-IFRS financial measure used by the Group as reference for assessing operating effectiveness.

	Year ended 31 December	
	2022	**2021**
	USD million	**USD million**
Results from operating activities	1,316	2,079
Add:		
Amortisation and depreciation	503	596
Impairment of non-current assets	196	209
Loss on disposal of property, plant and equipment	13	9
Adjusted EBITDA	**2,028**	**2,893**

7. Finance income and expenses

Accounting policies

Finance income comprises interest income on funds invested, changes in the fair value of financial assets at fair value through profit or loss and foreign currency gains. Interest income is recognised as it accrues, using the effective interest method.

Finance expenses comprise interest expense on borrowings, unwinding of the discount on provisions, foreign currency losses and changes in the fair value of investments measured at fair value through profit or loss, derivative financial instruments. All borrowing costs are recognised in the statement of income using the effective interest method, except for borrowing costs related to the acquisition, construction and production of qualifying assets which are recognised as part of the cost of such assets.

Foreign currency gains and losses are reported on a net basis. Foreign exchange loss on loans and borrowing for the year ended 31 December 2022 equalled to USD156 million (31 December 2021: loss in the amount of USD3 million).

Disclosures

	Year ended 31 December	
	2022	**2021**
	USD million	**USD million**
Finance income		
Interest income on third party loans and deposits	79	43
Dividends from other investments	36	20
Revaluation of investments measured at fair value through profit and loss, incl. forex income	18	–
	133	**63**
Finance expenses		
Interest expense on bank loans and bonds wholly repayable within 5 years and other bank charges	(421)	(284)
Interest expense on bank loans and bonds wholly repayable after 5 years	–	(75)
Change in fair value of derivative financial instruments (refer to note 21)	(191)	(352)
Net foreign exchange loss	(219)	(29)
Interest expense on provisions	(1)	(8)
Revaluation of investments measured at fair value through profit and loss, incl. forex income	–	(47)
Other finance costs	(2)	–
Leases interest costs	(4)	(5)
	(838)	**(800)**

8. Income tax

Accounting policies

Income tax expense comprises current and deferred tax. Income tax expense is recognised in the statement of income and other comprehensive income except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for the following temporary differences: the initial recognition of goodwill, the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that they probably will not reverse in the foreseeable future. New information may become available that causes the Company to change its judgement regarding the adequacy of existing tax liability. Such changes to tax liabilities will impact tax expenses in the period that such a determination is made. Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset when they relate to income taxes levied by the same taxation authority and the Group has both the right and the intention to settle its current tax assets and liabilities on a net or simultaneous basis.

A deferred tax asset is recognised to the extent that it is probable that future taxable profits will be available against which temporary differences can be utilised. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Additional income taxes that arise from the distribution of dividends are recognised at the same time as the liability to pay the related dividends is recognised.

Disclosures

(a) Income tax expense

	Year ended 31 December	
	2022	2021
	USD million	USD million
Current tax		
Current tax for the year	310	339
Deferred tax		
Origination and reversal of temporary differences	63	77
Actual tax expense	**373**	**416**

The Company is considered a Russian tax resident with an applicable corporate tax rate of 20%, for dividend income of the Company tax rate is 0%. Subsidiaries pay income taxes in accordance with the legislative requirements of their respective tax jurisdictions. For subsidiaries domiciled in Russia, the applicable tax rate is 20%; in Ukraine of 18%; Guinea of 0% to 35%; China of 25%; Kazakhstan of 20%; Australia of 30%; Jamaica of 25%; Ireland of 12.5%; Sweden of 20.6% and Italy of 27.9%. For the Group's subsidiaries domiciled in Switzerland the applicable tax rate for the period is the corporate income tax rate in the Canton of Zug, Switzerland, which may vary depending on the subsidiary's tax status. The rate consists of a federal income tax and cantonal/communal income and capital taxes. The latter includes a base rate and a multiplier, which may change from year to year. Applicable income tax rate are 9.06% and 11.8% for Swiss subsidiaries. For the Group's significant trading companies, the applicable tax rate is 0%. The applicable tax rates for the year ended 31 December 2021 were the same as for the year ended 31 December 2022 except for tax rates for subsidiaries domiciled in Switzerland which amounted to 9.55% and 11.85% subsequently, subsidiary domiciled in Italy which amounted to 26.9% and subsidiaries domiciled in Guinea of 0% to 30%.

	Year ended 31 December			
	2022		2021	
	USD million	%	USD million	%
Profit before taxation	**2,166**	**100**	**3,641**	**100**
Income tax at tax rate applicable to the tax residence of the Company	433	20	728	20
Effect of different income tax rates	143	7	106	3
Effect of changes in investment in Norilsk Nickel	(288)	(13)	(451)	(12)
Change in unrecognised deferred tax assets	125	6	72	1
Effect of reversal/accrual of impairment	18	–	(42)	(1)
Other non-taxable income and non-deductible expenses	(58)	(3)	3	–
Actual tax expense	**373**	**17**	**416**	**11**

(b) Recognised deferred tax assets and liabilities

Deferred tax assets and liabilities are attributable to the following temporary differences:

	Assets		Liabilities		Net	
USD million	31 December 2022	31 December 2021	31 December 2022	31 December 2021	31 December 2022	31 December 2021
Property, plant and equipment	100	85	(582)	(551)	(482)	(466)
Inventories	38	67	(37)	(19)	1	48
Trade and other receivables	72	52	(52)	(30)	20	22
Trade and other payables and advances received	18	17	–	–	18	17
Derivative financial assets/ (liabilities)	–	3	–	(5)	–	(2)
Tax loss carry-forwards	129	54	–	–	129	54
Others	90	100	(145)	(89)	(55)	11
Deferred tax assets/ (liabilities)	447	378	(816)	(694)	(369)	(316)
Set-off of deferred taxation	(389)	(265)	389	265	–	–
Net deferred tax assets/ (liabilities)	**58**	**113**	**(427)**	**(429)**	**(369)**	**(316)**

Movement in deferred tax assets/(liabilities) during the year

USD million	1 January 2021	Recognised in profit or loss	Foreign currency translation	31 December 2021
Property, plant and equipment	(510)	33	11	(466)
Inventories	46	1	1	48
Trade and other receivables	10	12	–	22
Trade and other payables and advances received	24	(7)	–	17
Derivative financial assets/(liabilities)	2	(4)	–	(2)
Tax loss carry-forwards	173	(122)	3	54
Others	1	10	–	11
Total	**(254)**	**(77)**	**15**	**(316)**

USD million	1 January 2022	Recognised in profit or loss	Foreign currency translation	31 December 2022
Property, plant and equipment	(466)	(21)	5	(482)
Inventories	48	(47)	–	1
Trade and other receivables	22	(2)	–	20
Trade and other payables and advances received	17	1	–	18
Derivative financial assets/(liabilities)	(2)	2	–	–
Tax loss carry-forwards	54	73	2	129
Others	11	(69)	3	(55)
Total	**(316)**	**(63)**	**10**	**(369)**

Recognised tax losses expire in the following years:

	31 December 2022	31 December 2021
Year of expiry	**USD million**	**USD million**
Without expiry	129	54
	129	**54**

(c) Unrecognised deferred tax

At 31 December 2022 and 2021 the Group has not recognized deferred tax in respect to temporary differences associated with investments in subsidiaries as the Group is able to control the timing of reversal of those investments and does not intend to reverse them in the foreseeable future.

At 31 December 2022 and 2021 the Group has not recognized deferred tax in respect to temporary differences associated with investments in associates and joint ventures as both distribution of dividends and profit on sales are non-taxable.

Deferred tax assets have not been recognised in respect of the following items:

Year of expiry	31 December 2022 USD million	31 December 2021 USD million
Deductible temporary differences	993	972
Tax loss carry-forwards	451	347
	1,444	**1,319**

Deferred tax assets have not been recognised in respect of these items because it is not probable that future taxable profits will be available against which the Group can utilise the benefits therefrom. Tax losses expire in the following years:

Year of expiry	31 December 2022 USD million	31 December 2021 USD million
Without expiry	448	347
From 6 to 10 years	3	–
	451	**347**

(d) Current taxation in the consolidated statement of financial position represents

	31 December 2022 USD million	31 December 2021 USD million
Net income tax receivable at the beginning of the year	**(24)**	**4**
Income tax for the year	(310)	(339)
Income tax paid	358	307
Translation difference	18	4
	42	**(24)**
Represented by:		
Current tax liabilities (note 17(c))	(172)	(40)
Prepaid income tax	214	16
Net income tax (payable)/receivable	**42**	**(24)**

9. Directors' remuneration

Directors' remuneration disclosed pursuant to section 383(1) of the Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of information about Benefits of Directors) Regulations are as follows:

	Year ended 31 December 2022			
	Directors'fees	Salaries, allowances, benefits in kind	Discretionary bonuses	Total
	USD thousand	USD thousand	USD thousand	USD thousand
Executive Directors				
Evgenii Nikitin	–	1,670	1,286	2,956
Evgenii Vavilov	–	53	11	64
Evgeny Kuryanov	–	303	244	547
Non-executive Directors				
Marco Musetti	277	–	–	277
Vyacheslav Solomin (a)	139	–	–	139
Vladimir Kolmogorov	225	–	–	225
Independent Non-executive Directors				
Bernard Zonneveld (Chairman)	1,625	–	–	1,625
Christopher Burnham	274	–	–	274
Nicholas Jordan	143	–	–	143
Kevin Parker	297	–	–	297
Evgeny Svarts	269	–	–	269
Randolph Reynolds	266	–	–	266
Dmitry Vasiliev(b)	200	–	–	200
Anna Vasilenko (c)	269	–	–	269
Mikhail Khardikov(d)	143	–	–	143
Lyudmila Galenskaya(d)	123	–	–	123
	4,250	**2,026**	**1,541**	**7,817**

	Year ended 31 December 2021			
	Directors'fees	Salaries, allowances, benefits in kind	Discretionary bonuses	Total
	USD thousand	USD thousand	USD thousand	USD thousand
Executive Directors				
Evgenii Nikitin	–	1,433	992	2,425
Evgenii Vavilov	–	41	5	46
Evgeny Kuryanov	–	262	232	494
Non-executive Directors				
Marco Musetti	306	–	–	306
Vyacheslav Solomin	324	–	–	324
Vladimir Kolmogorov	259	–	–	259
Independent Non-executive Directors				
Bernard Zonneveld (Chairman)	1,562	–	–	1,562
Christopher Burnham	305	–	–	305
Nicholas Jordan	322	–	–	322
Elsie Leung Oi-Sie (e)	149	–	–	149
Kevin Parker	336	–	–	336
Evgeny Svarts	307	–	–	307
Randolph Reynolds	295	–	–	295
Dmitry Vasiliev	348	–	–	348
Anna Vasilenko (c)	151	–	–	151
	4,664	**1,736**	**1,229**	**7,629**

a. Vyacheslav Solomin resigned from his position as Non-executive Director in June 2022.
b. Dmitry Vasiliev resigned from his position as Non-executive Director in August 2022.
c. Anna Vasilenko was appointed as Independent Non-executive Directors in June 2021.
d. Mikhail Khardikov and Lyudmila Galenskaya were appointed as Independent Non-executive Directors in June 2022
e. Elsie Leung Oi-Sie resigned from her position as Independent Non-executive Director in June 2021.

The remuneration of the executive directors disclosed above includes compensation received starting from the date of the appointment and/or for the period until their termination as a member of the Board of Directors.

Executive directors remuneration for the year ended 31 December 2022 includes contributions to the state pension funds in the following amounts: Mr. Nikitin – USD286 thousand, Mr. Vavilov – USD7 thousand, Mr. Kuryanov – USD22 thousand. Executive directors remuneration for the year ended 31 December 2021 includes contributions to the state pension funds in the following amounts: Mr. Nikitin – USD225 thousand, Mr. Vavilov – USD8 thousand, Mr. Kuryanov – USD49 thousand.

10. Individuals with highest emoluments

	Year ended 31 December	
	2022	2021
	USD thousand	USD thousand
Salaries	21,926	16,601
Discretionary bonuses	16,871	11,833
Retirement scheme contributions	2,145	2,165
	40,942	**30,599**

The emoluments of individuals with the highest emoluments are within the following bands:

	Year ended 31 December	
	2022	2021
	Number of individuals	Number of individuals
HK$36,000,001-HK$36,500,000 (US$4,600,001 – US$4,700,000)	–	1
HK$38,000,001-HK$38,500,000 (US$4,800,001 – US$4,900,000)	–	1
HK$39,000,001-HK$39,500,000 (US$4,900,001 – US$5,000,000)	–	1
HK$44,500,001-HK$45,000,000 (US$5,700,001 – US$5,800,000)	1	–
HK$47,500,001-HK$48,000,000 (US$6,000,001 – US$6,100,000)	1	–
HK$54,000,001-HK$54,500,000 (US$6,900,001 – US$7,000,000)	1	–
HK$56,500,001-HK$57,000,000 (US$7,200,001 – US$7,300,000)	–	1
HK$69,000,001-HK$69,500,000 (US$8,800,001 – US$8,900,000)	–	1
HK$73,000,001-HK$73,500,000 (US$9,300,001 – US$9,400,000)	1	–
HK$100,500,001-HK$101,000,000 (US$12,800,001 – US$12,900,000)	1	–

No emoluments have been paid to these individuals as an inducement to join or upon joining the Group or as compensation for loss of office during the years presented.

The remuneration for the years ended 31 December 2022 and 31 December 2021 includes contributions to the state pension funds.

11. Dividends

On 30 September 2022 the Board of Directors of the Company approved an interim dividend in the aggregate amount of USD304 million (USD0.02 per ordinary share) for the financial year ending 31 December 2022. The interim dividend was paid in cash in November 2022.

No dividends were declared and paid by the Company during the year ended 31 December 2021.

The Company is subject to external capital requirements (refer to note 22(f)).

12. Earnings per share

The calculation of earnings per share is based on the profit attributable to ordinary equity shareholders of the Company and the weighted average number of shares in issue during the years ended 31 December 2022 and 31 December 2021. Weighted average number of shares:

	Year ended 31 December	
	2022	**2021**
Issued ordinary shares at beginning of the year	15,193,014,862	15,193,014,862
Effect of treasury shares	–	–
Weighted average number of shares at end of the year	**15,193,014,862**	**15,193,014,862**
Profit for the year, USD million	1,793	3,225
Basic and diluted earnings per share, USD	**0.118**	**0.212**

There were no outstanding dilutive instruments during the years ended 31 December 2022 and 2021.

13. Property, plant and equipment and investment properties

Accounting policies

Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the asset to a working condition for its intended use, the costs of dismantling and removing the items and restoring the site on which they are located and capitalised borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

The cost of periodic relining of electrolysers is capitalised and depreciated over the expected production period.

Gains or losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognised net within gain/(loss) on disposal of property, plant and equipment in the statement of income.

(ii) Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in the statement of income as incurred.

(iii) Exploration and evaluation assets

Exploration and evaluation activities involve the search for mineral resources, the determination of technical feasibility and the assessment of commercial viability of an identified resource. Exploration and evaluation activities include:

- Researching and analysing historical exploration data;
- Gathering exploration data through topographical, geochemical and geophysical studies;
- Exploratory drilling, trenching and sampling;
- Determining and examining the volume and grade of the resource;
- Surveying transportation and infrastructure requirements; and
- Conducting market and finance studies.

Administration costs that are not directly attributable to a specific exploration area are charged to the statement of income.

License costs paid in connection with a right to explore in an existing exploration area are capitalised and amortised over the term of the permit.

Exploration and evaluation expenditure is capitalised as exploration and evaluation assets when it is expected that expenditure related to an area of interest will be recouped by future exploitation, sale, or, at the reporting date, the exploration and evaluation activities have not reached a stage that permits a reasonable assessment of the existence of commercially recoverable ore reserves. Capitalised exploration and evaluation expenditure is recorded as a component of property, plant and equipment at cost less impairment losses. As the asset is not available for use, it is not depreciated. All capitalised exploration and evaluation expenditure is monitored for indications of impairment. Where there are indicators of potential impairment, an assessment is performed for each area of interest in conjunction with the group of operating assets (representing a cash-generating unit) to which the exploration is attributed. Exploration areas at which reserves have been discovered but which require major capital expenditure before production can begin are continually evaluated to ensure that commercial quantities of reserves exist or to ensure that additional exploration work is underway or planned. To the extent that capitalised expenditure is not expected to be recovered it is charged to the statement of income.

Exploration and evaluation assets are transferred to mining property, plant and equipment or intangible assets when development is sanctioned.

(iv) Stripping costs

Expenditure relating to the stripping of overburden layers of ore, including estimated site restoration costs, is included in the cost of production in the period in which it is incurred.

However, to the extent the benefit is improved access to ore, the Group recognises these costs as a non-current asset, if only: (a) it is probable that the future economic benefit (improved access to the ore body) associated with the stripping activity will flow to the entity; (b) the entity can identify the component of the ore body for which access has been improved; and (c) the costs relating to the stripping activity associated with that component can be measured reliably.

(v) Mining assets

Mining assets are recorded as construction in progress and transferred to mining property, plant and equipment when a new mine reaches commercial production.

Mining assets include expenditure incurred for:

- Acquiring mineral and development rights;
- Developing new mining operations.

Mining assets include interest capitalised during the construction period, when financed by borrowings.

(vi) Depreciation

The carrying amounts of property, plant and equipment (including initial and any subsequent capital expenditure) are depreciated to their estimated residual value over the estimated useful lives of the specific assets concerned, or the estimated life of the associated mine or mineral lease, if shorter. Estimates of residual values and useful lives are reassessed annually and any change in estimate is taken into account in the determination of remaining depreciation charges. Leased assets are depreciated over the shorter of the lease term and their useful lives. Freehold land is not depreciated.

The property, plant and equipment is depreciated on a straight-line or units of production basis over the respective estimated useful lives as follows:

•	Buildings	30 to 50 years;
•	Plant, machinery and equipment	5 to 40 years;
•	Electrolysers	4 to 15 years;
•	Mining assets reserves;	Units of production on proven and probable
•	Other (except for exploration and evaluation assets)	1 to 20 years.

On 1 January 2022, the Group revised the residual useful lives for items of property, plant and equipment that expire in the next 24 months, and the Group has plans to continue using them after that period. For the movables (machinery and equipment, other fixed assets), the useful lives were extended by an average of 2 years, for the immovables (buildings) – by an average of 5 years. In this regard, depreciation expenses for 2022 decreased by USD22 million.

The effect of the adjustment for the movables (machinery and equipment, other fixed assets) for the next 2 years amounts to USD21 million, the effect for the immovables (buildings) for the next 5 years amounts to USD1 million.

Investment properties

Investment properties is property held by the Group to earn rental income or for capital appreciation, or both, and is not occupied by the Group. Investment properties is measured initially at cost, including transaction costs. Subsequently investment properties is measured at historical cost less accumulated depreciation and impairment. If any indication exists that investment properties may be impaired, the Group estimates the recoverable amount as the higher of value in use and fair value less costs to sell. The carrying amount of investment properties is written down to its recoverable amount through a charge to profit or loss for the period. An impairment loss recognised in prior periods is reversed if there has been a subsequent change in the estimates used to determine the asset's recoverable amount. If an investment property becomes owner-occupied, it is reclassified to land and buildings.

Disclosures

USD million	Land and buildings	Machinery and equipment
Cost/deemed cost		
Balance at 1 January 2021	**3,735**	**6,760**
Additions	230	31
Acquired through business combination	8	6
Disposals	(54)	(71)
Transfers	121	431
Foreign currency translation	(19)	(15)
Balance at 31 December 2021	**4,021**	**7,142**
Balance at 1 January 2022	**4,021**	**7,142**
Additions	6	53
Acquired through business combination	8	19
Disposals	(12)	(61)
Transfers	106	313
Foreign currency translation	23	33
Balance at 31 December 2022	**4,152**	**7,499**
Accumulated depreciation and impairment losses		
Balance at 1 January 2021	**2,159**	**5,182**
Depreciation charge	108	313
Impairment loss/(reversal) of impairment loss	143	436
Disposals	(6)	(61)
Transfers	–	30
Foreign currency translation	(20)	(19)
Balance at 31 December 2021	**2,384**	**5,881**
Balance at 1 January 2022	**2,384**	**5,881**
Depreciation charge	106	237
Impairment loss/(reversal) of impairment loss	6	111
Disposals	(5)	(51)
Transfers	–	–
Foreign currency translation	5	16
Balance at 31 December 2022	**2,496**	**6,194**
Net book value		
At 31 December 2021	**1,637**	**1,261**
At 31 December 2022	**1,656**	**1,305**

Electro-lysers	Other	Mining assets	Construction in progress	Total
2,868	**268**	**467**	**2,248**	**16,346**
143	1	63	874	1,342
–	1	–	–	15
–	(1)	(1)	(6)	(133)
35	(106)	9	(490)	–
(14)	4	(9)	(8)	(61)
3,032	**167**	**529**	**2,618**	**17,509**
3,032	**167**	**529**	**2,618**	**17,509**
–	–	21	1,162	1,242
–	10	–	–	37
(16)	(2)	(122)	(8)	(221)
295	14	5	(733)	–
(13)	2	3	8	56
3,298	**191**	**436**	**3,047**	**18,623**
2,536	**153**	**424**	**1,037**	**11,491**
164	3	29	–	617
(15)	26	68	(474)	184
–	(1)	–	–	(68)
–	(30)	–	–	–
(13)	1	(10)	(4)	(65)
2,672	**152**	**511**	**559**	**12,159**
2,672	**152**	**511**	**559**	**12,159**
169	4	2	–	518
(4)	5	(87)	146	177
(12)	(2)	(8)	–	(78)
–	–	–	–	–
(11)	1	2	5	18
2,814	**160**	**420**	**710**	**12,794**
360	**15**	**18**	**2,059**	**5,350**
484	**31**	**16**	**2,337**	**5,829**

Depreciation expense of USD465 million (2021: USD565 million) has been charged to cost of goods sold, USD4 million (2021: USD3 million) to distribution expenses and USD18 million (2021: USD21 million) to administrative expenses.

During the year ended 31 December 2022 interest expense of USD36 million was capitalised in the course of active construction at several projects. The average capitalisation rate was 6.47% (2021: USD7 million; 1.95%).

Included into land and buildings at 31 December 2022 is investment property of USD73 million. The amount at 31 December 2021 was USD72 million.

Included into construction in progress at 31 December 2022 and 2021 are advances to suppliers of property, plant and equipment of USD133 million and USD157 million, respectively.

The carrying value of property, plant and equipment subject to lien under loan agreements was USD4 million as at 31 December 2022 (31 December 2021: USD29 million), refer to note 19.

(vii) Impairment

In accordance with the Group's accounting policies, each asset or cash generating unit is evaluated every reporting period to determine whether there are any indications of impairment. If any such indication exists, a formal estimate of recoverable amount is performed and an impairment loss recognised to the extent that the carrying amount exceeds the recoverable amount. The recoverable amount of an asset or cash generating group of assets is measured at the higher of fair value less costs to sell and value in use.

Fair value is determined as the amount that would be obtained from the sale of the asset in an arm's length transaction between knowledgeable and willing parties and is generally determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset, including any expansion prospects, and its eventual disposal.

Value in use is also generally determined as the present value of the estimated future cash flows, but only those expected to arise from the continued use of the asset in its present form and its eventual disposal. Present values are determined using a risk-adjusted pre-tax discount rate appropriate to the risks inherent in the asset. Future cash flow estimates are based on expected production and sales volumes, commodity prices (considering current and historical prices, price trends and related factors), bauxite reserve estimate, operating costs, restoration and rehabilitation costs and future capital expenditure.

Bauxite reserves are estimates of the amount of product that can be economically and legally extracted from the Group's properties. In order to calculate reserves, estimates and assumptions are required about a range of geological, technical and economic factors, including quantities, grades, production techniques, recovery rates, production costs, transport costs, commodity demand, commodity prices and exchange rates. The Group determines ore reserves under the Australasian Code for Reporting of Mineral Resources and Ore Reserves September 1999, known as the JORC Code. The JORC Code requires the use of reasonable investment assumptions to calculate reserves.

Management identified that significant increase of aluminium prices as a result of LME appreciation indicated that for a number of Group's cash-generating units previously recognised impairment loss may require reversal. At the same time due to significant increase of oil and gas prices and overall market instability impairment loss may be recognised for a number of cash-generating units. For alumina cash generating units, major influence was from unfavourable dynamics in prices of energy resources being a significant part of cash cost.

Based on results of impairment testing as at 31 December 2022, management has concluded that an impairment loss relating to property, plant and equipment of Sayanal and PGLZ in the amount of USD85 million should be recognised in these consolidated financial statements.

Based on results of impairment testing as at 31 December 2021, management has concluded that a reversal of previously recognised impairment loss relating to property, plant and equipment should be recognised in these consolidated financial statements in respect of KAZ, VgAZ, Kubal and Taishet aluminium smelters (the latter aluminium smelter under construction) in the amount of USD699 million. Additionally management concluded that at the same date an impairment loss relating to property, plant and equipment of Mykolaiv alumina refinery and Aughinish Alumina in the amount of USD693 million should be recognised in these consolidated financial statements.

For the purposes of impairment testing the recoverable amount of each cash generating unit was determined by discounting expected future net cash flows of the cash generating unit. Assumptions used to determine the recoverable amount of the cash generating units are the same as disclosed in note 14(vi). Values assigned to key assumptions and estimates used to measure the units' recoverable amount was based on external sources of information and historic data. Management believes that the values assigned to the key assumptions and estimates represented the most realistic assessment of future trends. The pre-tax discount rates applied to the above mentioned cash generating units, estimated in nominal terms based on an industry weighted average cost of capital, are presented in the table below.

	Year ended 31 December	
	2022	2021
Taishet aluminium smelter	16.0%	11.2%
RUSAL Sayanal	14.3%	20.0%
PGLZ	14.3%	13.0%

The recoverable amount of a number of the cash generating units tested for impairment are particularly sensitive to changes in forecast aluminium and alumina prices, foreign exchange rates and applicable discount rates.

The results of impairment testing of Taishet aluminium smelter are particularly sensitive to the following key assumptions:

- Five percent reduction in the projected aluminium price level will result in a decrease in the recoverable amount of Taishet aluminium smelter and will lead to an additional impairment in the total amount of USD323 million;

- One percent increase in the discount rate applied will result in a decrease in the recoverable amount of Taishet aluminium smelter and will lead to an additional impairment in the total amount of USD161 million.

Additionally, management identified specific items of property, plant and equipment that are no longer in use and therefore are not considered to be recoverable amounting to USD99 million at 31 December 2022 (2021: USD190 million). These assets have been impaired in full. No further impairment of property, plant and equipment or reversal of previously recorded impairment was identified by management.

(viii) Leases

The Group assesses whether a contract is or contains a lease based on whether the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration. At inception or on reassessment or modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices. However, for the leases of properties in which Group acts as a lessee, the Group does not separate non-lease components and account for the lease and non-lease components as a single lease component.

The Group applies judgement to determine the lease term for some lease contracts in which it is a lessee that include renewal options, the assessment of whether the Group is reasonably certain to exercise such options impacts the lease term, which significantly affects the amount of lease liabilities and right-of-use assets recognised.

In determining the enforceable period (i.e. the maximum lease term), the Group considers whether both it and the lessor has a right to terminate the lease without permission from the other party and, if so, whether that termination would result in more than an insignificant penalty. If a more than insignificant penalty exists, then the enforceable period extends until the point at which a no more than an insignificant penalty exists.

The Group leases many assets, including land, properties and production equipment. The Group recognises a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost and subsequently measured at cost less any accumulated depreciation and impairment losses and adjusted for certain remeasurements of the lease liability as required by IFRS 16.

The cost comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset is depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The Group presents right-of-use assets as part of property plant and equipment, the same line item as it presents underlying assets of the same nature that it owns. Additions to right-of-use assets were in the amount of USD33 million during the year ended 31 December 2022 (31 December 2021: USD22 million). The carrying amounts of right-of-use assets are presented below.

USD million	Property, plant and equipment		
	Land and buildings	Machinery and equipment	Total
Balance at 1 January 2022	11	11	22
Balance at 31 December 2022	**11**	**22**	**33**

Total depreciation charges related to the right-of-use assets for the year ended 31 December 2022 amount to USD14 million (31 December 2021: USD13 million).

USD(2) million of impaired right-of-use assets have been reversed during the year ended 31 December 2022 (31 December 2021: USD15 million impaired). The Group's total cash outflow for leases was in the amount of USD17 million for the year ended 31 December 2022 (31 December 2021: USD20 million).

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

In accordance with IFRS 16 variable payments which do not depend on index or rate, e.g. which do not reflect changes in market rental rates, should not be included in the measurement of lease liability. In respect of municipal or federal land leases where lease payments are based on cadastral value of the land plot and do not change until the next revision of that value or the applicable rates (or both) by the authorities, the Group has determined that, under the current revision mechanism, the land lease payments cannot be considered as either variable that depend on index or rate or in-substance fixed, and therefore these payments are not included in the measurement of the lease liability. Future cash outflows to which the Group is potentially exposed that are not recognised in right-to-use assets and are not reflected in the measurement of lease liabilities and which arise from variable lease payments not linked to index or rate are in the amount of USD57 million as at 31 December 2022 (31 December 2021: USD63 million).

The lease liability is subsequently increased by the interest cost on the lease liability and decreased by lease payment made. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, a change in the estimate of the amount expected to be payable under a residual value guarantee, or as appropriate, changes in the assessment of whether a purchase or extension option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised.

The Group presents lease liabilities as part of other payables and other non-current liabilities in the statement of financial position depending on the period to which future lease payments relate. Total non-current part of lease liabilities as at 31 December 2022 amounted to USD27 million (31 December 2021: USD35 million).

Total interest costs on leases recognised for the year ended 31 December 2022 amount to USD4 million (31 December 2021: USD5 million).

The Group does not recognise right-of-use assets and lease liabilities for some leases of low-value assets and short-term leases. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term. The expense relating to short-term and low-value leases in the amount of USD25 million is included in cost of sales or administrative expenses depending on type of underlying asset for the year ended 31 December 2022 (31 December 2021: USD15 million).

When the Group is an intermediate lessor the sub-leases are classified with reference to the right-of the use asset arising from the head lease, not with reference to the underlying asset.

14. Intangible assets

Accounting policies

(i) Goodwill

On the acquisition of a subsidiary, an interest in a joint venture or an associate or an interest in a joint arrangement that comprises a business, the identifiable assets, liabilities and contingent liabilities of the acquired business (or interest in a business) are recognised at their fair values unless the fair values cannot be measured reliably. Where the fair values of assumed contingent liabilities cannot be measured reliably, no liability is recognised but the contingent liability is disclosed in the same manner as for other contingent liabilities.

The Group accounts for business combinations using the acquisition method when the acquired set of activities and assets meets the definition of a business and control is transferred to the Group. In determining whether a particular set of activities and assets is a business, the Group assesses whether the set of assets and activities acquired includes, at a minimum, an input and substantive process and whether the acquired set has the ability to produce outputs.

The Group has an option to apply a 'concentration test' that permits a simplified assessment of whether an acquired set of activities and assets is not a business. The optional concentration test is met if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If concentration test is met the acquired set of activities and assets is not a business.

Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group.

Goodwill arises when the cost of acquisition exceeds the fair value of the Group's interest in the net fair value of identifiable net assets acquired. The Group measures goodwill at the acquisition date as the fair value of the consideration transferred plus the recognised amount of any non-controlling interests in the acquiree less the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed. The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognised in profit or loss. Transaction costs, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred.

Goodwill is not amortised but is tested for impairment annually. For this purpose, goodwill arising on a business combination is allocated to the cash-generating units expected to benefit from the acquisition and any impairment loss recognised is not reversed even where circumstances indicate a recovery in value.

When the fair value of the Group's share of identifiable net assets acquired exceeds the cost of acquisition, the difference is recognised immediately in the statement of income.

In respect of associates or joint ventures, the carrying amount of goodwill is included in the carrying amount of the interest in the associate and joint venture and the investment as a whole is tested for impairment whenever there is objective evidence of impairment. Any impairment loss is allocated to the carrying amount of the interest in the associate and joint venture.

(ii) Research and development

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognised in the statement of income when incurred.

Development activities involve a plan or design for the production of new or substantially improved products and processes. Development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the Group intends to and has sufficient resources to complete development and to use or sell the asset. The expenditure capitalised includes the cost of materials, direct labour and overhead costs that are directly attributable to preparing the asset for its intended use and capitalised borrowing costs. Other development expenditure is recognised in the statement of income when incurred.

Capitalised development expenditure is measured at cost less accumulated amortisation and accumulated impairment losses.

(iii) Other intangible assets

Other intangible assets that are acquired by the Group, which have finite useful lives, are measured at cost less accumulated amortisation and accumulated impairment losses.

(iv) Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognised in the statement of income when incurred.

(v) Amortisation

Amortisation is recognised in the statement of income on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use. The estimated useful lives are as follows:

• Software	5 years;
• Other	2-8 years.

The amortisation method, useful lives and residual values are reviewed at each financial year end and adjusted if appropriate.

Disclosures

	Goodwill	Other intangible assets	Total
	USD million	USD million	USD million
Cost			
Balance at 1 January 2021	**2,722**	**561**	**3,283**
Additions	2	28	30
Disposals	–	(2)	(2)
Foreign currency translation	(6)	3	(3)
Balance at 31 December 2021	**2,718**	**590**	**3,308**
Balance at 1 January 2022	**2,718**	**590**	**3,308**
Additions	135	37	172
Disposals	–	(5)	(5)
Foreign currency translation	30	9	39
Balance at 31 December 2022	**2,883**	**631**	**3,514**
Amortisation and impairment losses			
Balance at 1 January 2021	**(449)**	**(427)**	**(876)**
Amortisation charge	–	(7)	(7)
Disposals	–	–	–
Impairment loss	–	(14)	(14)
Balance at 31 December 2021	**(449)**	**(448)**	**(897)**
Balance at 1 January 2022	**(449)**	**(448)**	**(897)**
Amortisation charge	–	(16)	(16)
Disposals	–	4	4
Impairment loss	–	–	–
Balance at 31 December 2022	**(449)**	**(460)**	**(909)**
Net book value			
At 31 December 2021	**2,269**	**142**	**2,411**
At 31 December 2022	**2,434**	**171**	**2,605**

The amortisation charge is included in cost of sales in the consolidated statement of income.

Goodwill recognised in these consolidated financial statements as at 31 December 2022 initially arose on the formation of the Group in 2000-2003. The amount of goodwill was principally increased in 2007 as a result of the acquisition of certain businesses of SUAL Partners and Glencore.

(vi) Impairment

For the purposes of impairment testing, the entire amount of goodwill is allocated to the aluminium segment of the Group's operations. The aluminium segment represents the lowest level within the Group at which the goodwill is monitored for internal management purposes. The recoverable amount represents value in use as determined by discounting the future cash flows generated from the continuing use of the plants within the Group's aluminium segment.

Similar considerations to those described above in respect of assessing the recoverable amount of property, plant and equipment apply to goodwill.

At 31 December 2022, management analysed changes in the economic environment and developments in the aluminium industry and the Group's operations since 31 December 2021 and performed an impairment test for goodwill at 31 December 2022 using the following assumptions to determine the recoverable amount of the segment:

- Total production was estimated based on average sustainable production levels of 3.8 million metric tonnes of primary aluminium, of 5.4 million metric tonnes of alumina and of 16.5 million metric tonnes of bauxite. Bauxite and alumina will be used primarily internally for production of primary aluminium;

- The aluminium and alumina prices were based on the long-term aluminium and alumina price outlook derived from available industry and market sources and were as follows:

	2023	2024	2025	2026	2027
Aluminium sales prices, based on the long-term aluminium price outlook, USD per tonne	2,422	2,512	2,588	2,606	2,571
Alumina sales prices, based on the long-term alumina price outlook, USD per tonne	324	331	341	349	360
Nominal foreign currency exchange rates, RUB per 1USD	70.5	71.9	73.3	75.4	76.9
Inflation in RUB	7.0%	7.0%	6.0%	5.0%	4.0%
Inflation in USD	4.3%	2.2%	1.9%	2.0%	2.0%

- Operating costs were projected based on the historical performance adjusted for inflation. Nominal foreign currency exchange rates applied to convert operating costs of the Group denominated in RUB into USD and inflation in RUB and USD assumed in determining recoverable amounts were as above;

- The pre-tax discount rate was estimated in nominal terms based on the weighted average cost of capital basis and was 17.5%;

- A terminal value was derived following the forecast period assuming a 2.0% annual growth rate.

Values assigned to key assumptions and estimates used to measure the units' recoverable amount were based on external sources of information and historic data. Management believes that the values assigned to the key assumptions and estimates represented the most realistic assessment of future trends. The results were particularly sensitive to the following key assumptions:

- A 5% reduction in the projected aluminium and alumina price levels would result in a decrease in the recoverable amount by 13% but would not lead to an impairment;

- A 5% increase in the projected level of electricity and alumina costs in the aluminium production would have resulted in a 6% decrease in the recoverable amount but would not lead to an impairment;

- A 1% increase in the discount rate would have resulted in a 8% decrease in the recoverable amount but would not lead to an impairment.

Based on results of impairment testing of goodwill, management concluded that no impairment should be recorded in the consolidated financial statements as at 31 December 2022.

At 31 December 2021, management analysed changes in the economic environment and developments in the aluminium industry and the Group's operations since 31 December 2020 and performed an impairment test for goodwill at 31 December 2021 using the following assumptions to determine the recoverable amount of the segment:

- Total production was estimated based on average sustainable production levels of 3.8 million metric tonnes of primary aluminium, of 8.4 million metric tonnes of alumina and of 16.7 million metric tonnes of bauxite. Bauxite and alumina will be used primarily internally for production of primary aluminium;
- The aluminium and alumina prices were based on the long-term aluminium and alumina price outlook derived from available industry and market sources and were as follows:

	2023	2024	2025	2026	2027
Aluminium sales prices, based on the long-term aluminium price outlook, USD per tonne	2,623	2,476	2,371	2,375	2,411
Alumina sales prices, based on the long-term alumina price outlook, USD per tonne	345	319	316	320	352
Nominal foreign currency exchange rates, RUB per 1USD	72.2	74.7	76.8	79.2	80.7
Inflation in RUB	6.6%	4.5%	3.6%	4.2%	3.3%
Inflation in USD	4.0%	2.1%	2.1%	2.0%	2.1%

- Operating costs were projected based on the historical performance adjusted for inflation. Nominal foreign currency exchange rates applied to convert operating costs of the Group denominated in RUB into USD and inflation in RUB and USD assumed in determining recoverable amounts were as above;
- The pre-tax discount rate was estimated in nominal terms based on the weighted average cost of capital basis and was 11.5%;
- A terminal value was derived following the forecast period assuming a 2.0% annual growth rate.

Values assigned to key assumptions and estimates used to measure the units' recoverable amount were based on external sources of information and historic data. Management believes that the values assigned to the key assumptions and estimates represented the most realistic assessment of future trends. The results were particularly sensitive to the following key assumptions:

- A 5% reduction in the projected aluminium and alumina price levels would result in a decrease in the recoverable amount by 18% but would not lead to an impairment;
- A 5% increase in the projected level of electricity and alumina costs in the aluminium production would have resulted in a 6% decrease in the recoverable amount but would not lead to an impairment;
- A 1% increase in the discount rate would have resulted in a 9% decrease in the recoverable amount but would not lead to an impairment.

Based on results of impairment testing of goodwill, management concluded that no impairment should be recorded in the consolidated financial statements as at 31 December 2021.

15. Interests in associates and joint ventures

Accounting policies

An associate is an entity in which the Group or Company has significant influence, but not control or joint control, over its management, including participation in the financial and operating policy decisions.

A joint venture is an arrangement whereby the Group or Company and other parties contractually agree to share control of the arrangement, and have rights to the net assets of the arrangement.

An investment in an associate or a joint venture is accounted for in the consolidated financial statements under the equity method, unless it is classified as held for sale (or included in a disposal group that is classified as held for sale). Under the equity method, the investment is initially recorded at cost, adjusted for any excess of the Group's share of the acquisition-date fair values of the investee's identifiable net assets over the cost of the investment (if any). Thereafter, the investment is adjusted for the post acquisition change in the Group's share of the investee's net assets and any impairment loss relating to the investment. Any acquisition-date excess over cost, the Group's share of the post-acquisition, post-tax results of the investees and any impairment losses for the year are recognised in the consolidated statement of income, whereas the Group's share of the post-acquisition post-tax items of the investees' other comprehensive income is recognised in the other comprehensive income, the Group's share of the post-acquisition results recorded directly in the statement of changes in equity is recognized in the consolidated statement of changes in equity as the share of other changes in equity of associate.

When the Group's share of losses exceeds its interest in the associate or the joint venture, the Group's interest is reduced to nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the investee.

Unrealised profits and losses resulting from transactions between the Group and its associates and joint venture are eliminated to the extent of the group's interest in the investee, except where unrealised losses provide evidence of an impairment of the asset transferred, in which case they are recognised immediately in profit or loss.

In accordance with the Group's accounting policies, each investment in an associate or joint venture is evaluated every reporting period to determine whether there are any indications of impairment after application of the equity method of accounting. If any such indication exists, a formal estimate of recoverable amount is performed and an impairment loss recognised to the extent that the carrying amount exceeds the recoverable amount. The recoverable amount of an investment in an associate or joint venture is measured at the higher of fair value less costs to sell and value in use.

Similar considerations to those described above in respect of assessing the recoverable amount of property, plant and equipment apply to investments in associates or joint venture. In addition to the considerations described above the Group may also assess the estimated future cash flows expected to arise from dividends to be received from the investment, if such information is available and considered reliable.

Disclosures

	31 December	
	2022	2021
	USD million	USD million
Balance at the beginning of the year	**4,014**	**3,822**
Group's share of profits	1,555	1,807
Group's share of equity transactions	–	129
Partial disposal of investment in associate	–	(313)
Dividends	(764)	(1,452)
Foreign currency translation	369	21
Balance at the end of the year	**5,174**	**4,014**
Goodwill included in interests in associates	2,404	2,300

The following list contains only the particulars of associates and joint ventures, all of which are corporate entities, which principally affected the results or assets of the Group.

			Ownership interest		
Name of associate/joint venture	**Place of incorporation and operation**	**Particulars of issued and paid up capital**	**Group's effective interest**	**Group's nominal interest**	**Principal activity**
PJSC MMC Norilsk Nickel	Russian Federation	153,654,624 shares, RUB1 par value	26.39%	26.39%	Nickel and other metals production
Queensland Alumina Limited	Australia	2,212,000 shares, AUD2 par value	20%	20%	Production of alumina under a tolling agreement
BEMO project	Cyprus, Russian Federation	BOGES Limited, BALP Limited - 10,000 shares EUR1.71 each	50%	50%	Energy/Aluminium production

The summary of the consolidated financial statements of associates and joint ventures for the year ended 31 December 2022 is presented below:

	PJSC MMC Norilsk Nickel		Queensland Alumina Limited		BEMO project		Other joint ventures	
	Group share*	100%	Group share*	100%	Group share*	100%	Group share*	100%
Non-current assets	6,614	17,392	182	1,053	1,367	2,559	211	432
Current assets	2,218	8,403	27	163	201	391	88	175
Non-current liabilities	(2,517)	(9,539)	(92)	(495)	(808)	(1,616)	(98)	(195)
Current liabilities	(2,029)	(7,689)	(117)	(653)	(33)	(66)	(40)	(79)
Net assets	**4,286**	**8,567**	**–**	**68**	**727**	**1,268**	**161**	**333**

- *Groups share of assets and liabilities attributable to shareholders of the parent company.*

	PJSC MMC Norilsk Nickel		Queensland Alumina Limited		BEMO project		Other joint ventures	
	Group share*	100%	Group share*	100%	Group share*	100%	Group share*	100%
Revenue	4,454	16,876	110	550	678	1,356	133	266
Profit/(loss) from continuing operations	1,440	5,854	–	(20)	102	210	13	26
Other comprehensive income	336	920	–	(25)	29	56	4	11
Total comprehensive income	**1,776**	**6,774**	**–**	**(45)**	**131**	**266**	**17**	**37**

- *Groups share of profit/(loss) and other comprehensive income attributable to shareholders of the parent company.*

The summary of the consolidated financial statements of associates and joint ventures for the year ended 31 December 2021 is presented below:

	PJSC MMC Norilsk Nickel		Queensland Alumina Limited		BEMO project		Other joint ventures	
	Group share*	100%	Group share*	100%	Group share*	100%	Group share*	100%
Non-current assets	5,590	13,565	185	933	1,362	2,548	214	433
Current assets	2,605	9,870	34	176	152	293	61	122
Non-current liabilities	(2,788)	(10,564)	(103)	(448)	(862)	(1,724)	(90)	(180)
Current liabilities	(2,133)	(8,083)	(116)	(580)	(57)	(115)	(40)	(81)
Net assets	**3,274**	**4,788**	**–**	**81**	**595**	**1,002**	**145**	**294**

- *Groups share of assets and liabilities attributable to shareholders of the parent company.*

	PJSC MMC Norilsk Nickel		Queensland Alumina Limited		BEMO project		Other joint ventures	
	Group share*	100%	Group share*	100%	Group share*	100%	Group share*	100%
Revenue	4,711	17,852	111	555	487	974	133	266
Profit/(loss) from continuing operations	1,762	6,974	–	(30)	58	97	(13)	49
Other comprehensive income	24	98	–	(5)	(3)	(7)	–	(3)
Total comprehensive income	**1,786**	**7,072**	**–**	**(35)**	**55**	**90**	**(13)**	**46**

- *Groups share of profit/(loss) and other comprehensive income attributable to shareholders of the parent company.*

(i) PJSC MMC Norilsk Nickel

In 2021 the Group has participated in the repurchase of Norilsk Nickel shares to raise additional funds to finance its own investment programme. The Group sold 3,691,465 shares for RUB27,780 per share, with the aggregate consideration of USD1,418 million. The carrying value of the shares sold amounted to USD313 million, and USD613 million of currency translation reserve attributed to the shares sold was reclassified to profit/(loss) for the period, resulting in net gain of USD492 million recognised in the consolidated statement of income. The effective interest in Norilsk Nickel held by the Group after the transaction comprised 26.39%, the average effective interest for the year 2021 was 27.11%.

The Group's investment in Norilsk Nickel is accounted for using equity method and the carrying value as at 31 December 2022 and 31 December 2021 amounted USD4,286 million and USD3,274 million, respectively. The Group's share of profit of Norilsk Nickel was USD1,440 million, the foreign currency translation gain was USD336 million for the year ended 31 December 2022.

As at 31 December 2020 Group's associate PJSC MMC Norilsk Nickel recognized a liability on the execution of a put option held by owners of 13.3% non-controlling interest in the share capital in LLC "GRK "Bystrinskoye" in the amount of USD428 million. Since the non-controlling interest owners did not exercise their right under the put option before its expiry date of 31 December 2021, PJSC MMC Norilsk Nickel derecognised the liability on the execution of the put option as at 31 December 2021. PJSC MMC Norilsk Nickel recorded derecognition of the liability directly in the consolidated statement of changes in equity as Other effects related to transactions with non-controlling interest owners in the amount of USD490 million, which was its fair value at 31 December 2021 immediately before derecognition. The Group recognized its share of this change of interest in the net assets of the associate directly in the consolidated statement of changes in equity as Share of other effects of associate recognized in the equity in the amount USD129 million.

The fair value of the investment amounted USD8,775 million and USD12,395 million as at 31 December 2022 and 31 December 2021, respectively, and is determined by multiplying the quoted bid price per share on the Moscow Exchange on the year-end date by the number of shares held by the Group.

(ii) Queensland Alumina Limited ("QAL")

The carrying value of the Group's investment in Queensland Alumina Limited as at both 31 December 2022 and 31 December 2021 amounted to USD nil million. At 31 December 2022 management has not identified any impairment reversal indicators relating to the Group's investment in QAL and as a result no detailed impairment testing was performed in relation to this investment.

(iii) BEMO project

The carrying value of the Group's investment in BEMO project as at 31 December 2022 and 31 December 2021 amounted USD727 million and USD595 million, respectively.

For the purposes of impairment testing, the BEMO project was separated into two cash generating units – the Boguchansky Aluminium Smelter ("**BoAZ**') and the Boguchansky Hydro Power Plant ("**BoGES**"). The recoverable amount was determined by discounting the expected future net cash flows of each cash generating unit.

At 31 December 2022 management has not identified any impairment indicators relating to the Group's investment in BoGES as well as any impairment reversal indicators relating to investments in BoAZ and as a result no detailed impairment testing was performed in relation to this investment.

At 31 December 2022, accumulated losses of USD73 million (2021: USD51 million) related to BoAZ have not been recognised because the Group's investment has already been fully written down to USD nil million.

Summary of the additional financial information of the Group's effective interest in BEMO project for the year ended 31 December 2022 and 31 December 2021 is presented below (all in USD million):

	31 December 2022	31 December 2021
	USD million	USD million
Cash and cash equivalents	78	32
Current financial liabilities	(1)	(25)
Non-current financial liabilities	(633)	(770)
Depreciation and amortisation	(66)	(53)
Interest income	3	1
Interest expense	(6)	(13)
Income tax expense	(25)	(14)

16. Inventories

Accounting policies

Inventories are measured at the lower of cost or net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

The cost of inventories is determined under the weighted average cost method, and includes expenditure incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity.

The production costs include mining and concentrating costs, smelting, treatment and refining costs, other cash costs and depreciation and amortisation of operating assets.

The Group recognises write-downs of inventories based on an assessment of the net realisable value of the inventories. A write-down is applied to the inventories where events or changes in circumstances indicate that the net realisable value is less than cost. The determination of net realisable value requires the use of judgement and estimates. Where the expectation is different from the original estimates, such difference will impact the carrying value of the inventories and the write-down of inventories charged to the statement of income in the periods in which such estimate has been changed.

Disclosures

	31 December 2022	31 December 2021
	USD million	USD million
Raw materials and consumables	1,542	1,363
Work in progress	906	779
Finished goods and goods held for resale	2,041	1,550
	4,489	**3,692**

Inventories at 31 December 2022 and 31 December 2021 are stated at net realizable value.

There are no inventories pledge at 31 December 2022. Inventory with a carrying value of USD781 million was pledged under existing trading contracts at 31 December 2021.

The analysis of the amount of inventories recognised as an expense is as follows:

	Year ended 31 December	
	2022	2021
	USD million	USD million
Carrying amount of inventories sold	10,433	8,182
Write off of inventories	(171)	(28)
	10,262	**8,154**

17. Non-derivative financial instruments

Accounting policies

Non-derivative financial instruments comprise investments in securities, trade and other receivables (excluding prepayments and tax assets), cash and cash equivalents, loans and borrowings and trade and other payables (excluding advances received and tax liabilities).

Non-derivative financial instruments except for trade and other receivables are recognised initially at fair value plus any directly attributable transaction costs. Trade and other receivables are recognised at transaction price.

(i) Non-derivative financial assets

A financial instrument is recognised when the Group becomes a party to the contractual provisions of the instrument. Financial assets are derecognised if the Group's contractual rights to the cash flows from the financial assets expire or if the Group transfers the financial asset to another party without retaining control or substantially all risks and rewards of the asset. Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, to realise the assets and settle the liabilities simultaneously.

(ii) Non-derivative financial liabilities

The Group initially recognises debt securities issued and liabilities on the date that they are originated. All other financial liabilities are recognised initially on the trade date at which the Group becomes a party to the contractual provisions of the instrument.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled or expire.

IFRS 9 *Financial Instruments* sets out requirements for recognising and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. The details of significant accounting policies are set out below.

Classification and measurement of financial assets and financial liabilities

IFRS 9 contains such classification and measurement approach for financial assets that reflects their cash flow characteristics and the business model in which assets are managed.

IFRS 9 contains three principal classification categories for financial assets: measured at amortised cost, fair value through other comprehensive income ("**FVOCI**") and fair value through profit or loss ("**FVTPL**"). The classification of financial assets under IFRS 9 is generally based on its contractual cash flow characteristics and on the business model in which a financial asset is managed. Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification.

The Group's financial assets mostly fall within category of financial assets measured at amortised cost. The only exception is derivative financial assets measured at fair value through profit or loss (note 21), cash flow hedges accounted through other comprehensive income (note 21) and other investments measured at fair value through profit or loss (note 17(g)). The Group's financial liabilities fall within category of financial assets measured at amortised cost.

Disclosures

As 31 December 2022 the Group presented non-derivative financial and non-financial assets and liabilities separately. Balances for 31 December 2021 were presented respectively for comparative purposes.

(a) Trade and other receivables

	31 December 2022	31 December 2021
	USD million	USD million
Trade receivables from third parties	1,067	757
Impairment loss on trade receivables	(75)	(17)
Net trade receivables from third parties	**992**	**740**
Trade receivables from related parties, including:	**94**	**184**
Related parties – companies capable of exerting significant influence	*45*	*105*
Impairment loss on trade receivables from related parties – companies capable of exerting significant influence	–	*(1)*
Net trade receivables from related parties – companies capable of exerting significant influence	45	104
Related parties – companies related through parent company	48	64
Related parties – associates and joint ventures	1	16
Other receivables from third parties	211	163
Impairment loss on other receivables	(16)	(71)
Net other receivables from third parties	**195**	**92**
Other receivables from related parties, including:	**5**	**3**
Related parties – companies related through parent company	*28*	*22*
Impairment loss on other receivables from related parties – companies related through parent company	*(23)*	*(19)*
Net other receivables to related parties – companies related through parent company	5	3
	1,286	**1,019**

All of the trade and other receivables are expected to be settled within one year or are repayable on demand.

(i) Ageing analysis

Included in trade and other receivables are trade receivables (net of loss allowance for expected credit losses) with the following ageing analysis as of the reporting dates:

	31 December 2022	31 December 2021
	USD million	USD million
Current (not past due)	**890**	**896**
1-30 days past due	122	16
31-60 days past due	42	–
61-90 days past due	1	1
More than 90 days past due	31	11
Amounts past due	**196**	**28**
	1,086	**924**

Ageing analysis is performed based on number of days receivable is overdue. Trade receivables are on average due within 60 days from the date of billing. The receivables that are neither past due nor impaired (i.e. current) relate to a wide range of customers for whom there was no recent history of default.

Receivables that were past due but not impaired relate to a number of customers that have a good track record with the Group. The Group does not hold any collateral over these balances. Further details of the Group's credit policy are set out in note 22(e).

(ii) Impairment of trade receivables

Under IFRS 9, loss allowances are measured on either of the following bases:

- *12-month ECLs:* these are ECLs that result from possible default events within the 12 months after the reporting date; and
- *Lifetime ECLs:* these are ECLs that result from all possible default events over the expected life of a financial instrument.

The Group measures loss allowances at an amount equal to lifetime ECLs, except for bank balances and loans and borrowings for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition. The Group measures loss allowances for trade receivables at an amount equal to lifetime ECLs.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Group considers a financial asset to be in default when:

- The borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- The financial asset is more than 90 days past due, but additional analysis is conducted for each such receivable and assessment is updated accordingly.

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset in case of long-term assets.

At each reporting date, the Group assesses whether financial assets carried at amortised cost are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets. Impairment losses related to trade and other receivables are presented as part of net other operating expenses.

The following analysis provides further detail about the calculation of ECLs related to trade receivables. The Group uses an allowance matrix to measure the ECLs of trade receivables from the customers.

Loss rates are calculated using a 'roll rate' method based on the probability of a receivable progressing through successive stages of delinquency to write-off. The ECLs were calculated based on actual credit loss experience over the past two years. The Group performed the calculation of ECL rates separately for the customers of each key trading company of the Group. Exposures within each trading company were not further segmented except for individually significant customers which bear specific credit risk depending on the repayment history of the customer and relationship with the Group.

The following table provides information about determined ECLs rates for trade receivables both as at 1 January 2022 and 31 December 2022.

	Weighted-average loss rate		Credit-impaired
	31 December 2022	1 January 2022	
Current (not past due)	1%	1%	No
1-30 days past due	10%	18%	No
31-60 days past due	50%	45%	No
61-90 days past due	48%	52%	No
More than 90 days past due	38%	63%	Yes

The group directly reduce the gross carrying amount of trade receivable when there is no reasonable expectations of recovering a financial assets in its entirety or a portion thereof.

The movement in the allowance for credit losses during the period is as follows:

	Year ended 31 December	
	2022	2021
	USD million	USD million
Balance at the beginning of the year	**(18)**	**(24)**
(Impairment loss recognised)/reversal of impairment	(57)	7
Uncollectible amounts written off	–	(1)
Balance at the end of the year	**(75)**	**(18)**

(b) Prepayments and input VAT

	31 December 2022	31 December 2021
	USD million	USD million
VAT recoverable	509	382
Impairment loss on VAT recoverable	(60)	(25)
Net VAT recoverable	**449**	**357**
Advances paid to third parties	297	118
Impairment loss on advances paid	(9)	(1)
Net advances paid to third parties	**288**	**117**
Advances paid to related parties, including:	2	110
Related parties – companies related through parent company	**2**	**1**
Related parties – associates and joint ventures	87	109
Impairment loss on advances paid from related parties – associates and joint ventures	(87)	–
Net advances paid to related parties – associates and joint ventures	–	109
Prepaid expenses	**7**	**8**
Prepaid other taxes	**17**	**19**
	763	**611**

(c) Trade and other payables

	31 December 2022	31 December 2021
	USD million	USD million
Accounts payable to third parties	**865**	**742**
Accounts payable to related parties, including:	**175**	**154**
Related parties – companies capable of exerting significant influence	6	6
Related parties – companies related through parent company	61	51
Related parties – associates and joint ventures	108	97
Other payables and accrued liabilities to third parties	**224**	**171**
Other payables and accrued liabilities to related parties, including:	**3**	**4**
Related parties – companies related through parent company	3	4
Current tax liabilities	**172**	**40**
	1,439	**1,111**

All of the trade and other payables are expected to be settled or recognised as income within one year or are repayable on demand.

Included in trade and other payables are trade payables with the following ageing analysis as at the reporting date. Ageing analysis is performed based on number of days payable overdue.

	31 December 2022	31 December 2021
	USD million	USD million
Current	**906**	**738**
Past due 0-90 days	99	139
Past due 91-120 days	2	2
Past due over 120 days	33	17
Amounts past due	**134**	**158**
	1,040	**896**

Lease liabilities that are expected to be settled within one year for the amount of USD21 million are included in other payables and accrued liabilities as at 31 December 2022 (31 December 2021: USD8 million).

(d) Advances received

	31 December 2022	31 December 2021
	USD million	USD million
Advances received	**223**	**1,115**
Advances received from related parties, including:	**14**	**1**
Related parties – companies related through parent company	1	1
Related parties – associates and joint ventures	13	–
	237	**1,116**

Advances received represent contract liabilities to perform obligations under contracts with customers. Advances received are short-term and revenue in respect of the contract liabilities recognized as at the reporting date is fully recognized during next twelve months.

(e) Cash and cash equivalents

	31 December 2022	31 December 2021
	USD million	USD million
Bank balances, USD	116	549
Bank balances, RUB	1,390	167
Bank balances, EUR	79	83
Bank balances, CNY	110	–
Bank balances, other currencies	20	74
Cash in transit	17	–
Short-term bank deposits, USD	700	830
Short-term bank deposits, RUB	17	270
Short-term bank deposits, EUR	89	5
Short-term bank deposits, CNY	626	–
Other cash equivalents	29	4
Cash and cash equivalents in the consolidated statement of cash flows	**3,193**	**1,982**
Restricted cash	3	2
	3,196	**1,984**

As at 31 December 2022 and 31 December 2021 included in cash and cash equivalents was restricted cash of USD3 million and USD2 million, respectively.

(f) Other non-current assets

	31 December 2022	31 December 2021
	USD million	USD million
Long-term deposits	121	137
Prepayment for subsidiary acquisition	–	73
Other non-current assets	181	35
	302	**245**

(g) Investments in equity securities measured at fair value through profit and loss

During the year 2022 the Group continued to acquire equity securities of RusHydro, 10,893,422,000 shares were bought for a total consideration USD113 million, at the 31 December 2022 RUSAL's investment amounted to 42,320,119,466 shares or 9.7% of RusHydro. Investment is treated as equity securities measured at fair value through profit and loss.

Fair value is estimated in accordance with Level 1 of the fair value hierarchy. The market value was determined by multiplying the quoted bid price per share on the Moscow Exchange on reporting date by the number of shares held by the Group.

(h)Short-term investments

Primarily consist of short-term bank deposits and promissory notes of the company under common control.

(i) Fair value measurement

Management believes that the fair values of financial assets and liabilities approximate their carrying amounts.

18. Equity

(a) Share capital

	31 December 2022		31 December 2021	
	USD	Number of shares	USD	Number of shares
Ordinary shares at the end of the year, authorised	200 million	20 billion	200 million	20 billion
Ordinary shares at 1 January	151,930,148	15,193,014,862	151,930,148	15,193,014,862
Ordinary shares at the end of the year of USD0.01 each, issued and paid	**151,930,148**	**15,193,014,862**	**151,930,148**	**15,193,014,862**

(b) Other reserves

Other reserves include the amounts related to: effect of transaction of reorganization under common control, cumulative unrealised actuarial gains and losses on the Group's defined post retirement benefit plans, the effective portion of the accumulative net change in fair value of cash flow hedges and the Group's share of other comprehensive income of associates.

(c) Distributions

Following Company's redomiciliation in September 2020 (note 1(a)), the Company may distribute dividends from retained earnings and profit for the reporting period in compliance with the current legislation of the Russian Federation and the provisions of its Charter.

(d) Currency translation reserve

The currency translation reserve comprises all foreign exchange differences arising from the translation of the consolidated financial statements of foreign subsidiaries and equity accounted investees. The reserve is dealt with in accordance with the accounting policies set out in note 3(f).

(e) Movement in components of equity within the Company

USD million	Share capital	Reserves	Total
Balance at 1 January 2021	**152**	**16,528**	**16,680**
Profit for the year	–	2,368	2,368
Balance at 31 December 2021	**152**	**18,896**	**19,048**
Balance at 1 January 2022	**152**	**18,896**	**19,048**
Loss for the year	–	(329)	(329)
Dividends	–	(304)	(304)
Balance at 31 December 2022	**152**	**18,263**	**18,415**

19. Loans and borrowings

This note provides information about the contractual terms of the Group's loans and borrowings. For more information about the Group's exposure to interest rate and foreign currency risk refer to notes 22(c)(ii) and 22(c)(iii), respectively.

	31 December 2022	31 December 2021
	USD million	USD million
Non-current liabilities		
Secured bank loans	2,876	3,490
Unsecured bank loans	815	33
Bonds	3,219	1,316
	6,910	**4,839**
Current liabilities		
Secured bank loans	745	343
Unsecured bank loans	385	380
Bonds	1,348	1,118
Accrued interest	69	53
	2,547	**1,894**

(a) Loans and borrowings

Terms and debt repayment schedule as at 31 December 2022

	Total	2023	2024	2025	2026	2027	2028-2035
	USD million	USD million	USD million	USD million	USD million	USD million	USD million
Secured bank loans							
Variable							
USD – 3M Libor + 3.0%	2,100	–	180	423	559	938	–
USD – 3M Libor + 2.1%	718	359	359	–	–	–	–
USD3M Libor + 1.7%	125	100	25	–	–	–	–
RUB KeyRate + 1.9%	254	–	–	–	–	254	–
RUB KeyRate + 3.15%	140	3	11	2	2	3	119
Fixed							
RUB 11%	284	284	–	–	–	–	–
	3,621	**746**	**575**	**425**	**561**	**1,195**	**119**
Unsecured bank loans							
Variable							
EUR – 6M Euribor + (0.45%-0.67%)	40	6	7	7	6	5	9
Fixed							
CNY 3.75%	777	–	–	777	–	–	–
CNY 4.2%	375	375	–	–	–	–	–
RUB other	8	3	–	–	5	–	–
	1,200	**384**	**7**	**784**	**11**	**5**	**9**
Total	**4,821**	**1,130**	**582**	**1,209**	**572**	**1,200**	**128**
Accrued interest	21	21	–	–	–	–	–
Total	**4,842**	**1,151**	**582**	**1,209**	**572**	**1,200**	**128**

As at 31 December 2022 and 31 December 2021 rights, including all monies and claims, arising out of certain sales contracts between the Group's trading subsidiaries and its ultimate customers, were assigned to secure the syndicated Pre-Export Finance Term Facility Agreement (PXF) dated 25 October 2019 and dated 28 January 2021.

As at 31 December 2022 and 31 December 2021 the secured bank loans are secured by certain pledges of shares of a number of Group subsidiaries, 25% +1 share of Norilsk Nickel (Group's associate) and property, plant and equipment with a carrying amount of USD4 million and USD3 million, respectively.

The nominal value of the Group's loans and borrowings was USD4,883 million at 31 December 2022 (31 December 2021: USD4,266 million).

As at 31 December 2022, the amount of accrued interest on unsecured bank loans and secured bank loans was USD4 million and USD17 million, respectively (31 December 2021: USD3 million and USD6 million, respectively).

Terms and debt repayment schedule as at 31 December 2021

	Total	2022	2023	2024	2025	2026	2027-2035
	USD million	USD million	USD million	USD million	USD million	USD million	USD million
Secured bank loans							
Variable							
USD – 3M Libor + 3.0%	**2,098**	–	–	180	423	559	936
USD – 3M Libor + 2.1%	**986**	268	359	359	–	–	–
USD3M Libor + 1.7%	**200**	75	100	25	–	–	–
RUB KeyRate + 1.9%	**240**	–	–	–	–	–	240
RUB KeyRate + 3.15%	**309**	–	4	23	5	5	272
	3,833	**343**	**463**	**587**	**428**	**564**	**1,448**
Unsecured bank loans							
Variable							
EUR – 6M Euribor ++ (0.45%-0.67%)	**38**	5	6	6	6	5	10
Fixed							
USD2.15%	**200**	200	–	–	–	–	–
USD2.25%	**175**	175	–	–	–	–	–
	413	380	6	6	6	5	10
Total	**4,246**	**723**	**469**	**593**	**434**	**569**	**1,458**
Accrued interest	9	9	–	–	–	–	–
Total	**4,255**	**732**	**469**	**593**	**434**	**569**	**1,458**

On 28 January 2021, the Group entered into new three-year sustainability-linked pre-export finance facility for up to USD200 million. The interest rate is subject to a sustainability discount or premium depending on the Company's fulfilment of the sustainability key performance indicators (KPIs). The proceeds were used to refinance the principal outstanding under the existing debt.

During the year Group acquired an investment property with related loan of USD96 million which has been repaid in full.

(f) Bonds

As at 31 December 2022 the Group had outstanding (traded in the market) bonds nominated in roubles, Chinese yuan, eurobonds nominated in US dollars.

Type	Series	The number of bonds traded in the market	Nominal value, USD million	Nominal interest rate	Put-option date	Maturity date
Bond	BO-01	30,263	–	0.01%	–	07.04.2026
Bond	BO-001P-01	3,490,970	49	9.50%	25.10.2023	16.04.2029
Bond	BO-001P-02	15,000,000	213	8.60%	25.01.2023	28.06.2029
Bond	BO-002P-01	10,000,000	142	6.50%	09.06.2023	28.05.2030
Eurobond	–	458,785	459	5.3%	–	03.05.2023
Eurobond	–	484,712	485	4.85%	–	01.02.2023
Bond	BO-05	2,000,000	281	3.90%	05.08.2024	28.07.2027
Bond	BO-06	2,000,000	281	3.90%	05.08.2024	28.07.2027
Bond	BO-001P-01	6,000,000	844	3.75%	–	24.04.2025
Bond	BO-001P-02	1,000,000	141	3.95%	–	23.12.2025
Bond	BO-001P-03	3,000,000	422	LPR1Y + 0.2%	–	24.12.2025
Bond	001PC-01	2,379,660	335	3.75%	–	07.03.2025
Bond	001PC-02	2,352,869	331	3.75%	–	07.03.2025
Bond	001PC-03	2,367,763	333	3.75%	–	07.03.2025
Bond	001PC-04	1,778,060	251	3.75%	–	07.03.2025

On 3 August 2022 the Company placed its exchange-traded non-convertible interest-bearing yuan bonds series BO-05, BO-06 in the total amount of CNY4 billion with a coupon rate fixed at 3.9% p.a. on the Moscow Exchange. Maturity of the bonds is five years, with the put-option in 2 years.

On 27 October 2022 the Company placed its exchange-traded non-convertible interest-bearing yuan bonds series BO-001P-01 in the amount of CNY6 billion with a coupon rate fixed at 3.75% p.a. on the Moscow Exchange. Maturity of the bonds is 2.5 years.

On 27 December 2022 the Company placed its exchange-traded non-convertible interest-bearing yuan bonds series BO-001P-02 in the amount of CNY1 billion with a coupon rate fixed at 3.95% p.a. on the Moscow Exchange. Maturity of the bonds is 3 years.

On 28 December 2022 the Company placed its exchange-traded non-convertible interest-bearing yuan bonds series BO-001P-03 in the amount of CNY3 billion with the floating rate linked to LPR 1Y + 0.2% on the Moscow Exchange. The interest rate for the first coupon period was set at 3.85% p.a. Maturity of the bonds is 3 years.

In November 2022 the Company placed its commercial non-convertible interest-bearing yuan bonds series 001PC-01, 001PC-02, 001PC-03, 001PC-04 in the total amount CNY8,878,352,000 with a coupon rate fixed at 3.75% p.a. Maturity of the bonds is March 2025.

On 8 September 2022 the exchange-traded non-convertible interest-bearing RUB denominated bonds of RUSAL Bratsk series BO-001P-03 were fully repaid.

On 10 November 2022 the exchange-traded non-convertible interest-bearing RUB denominated bonds of RUSAL Bratsk series BO-001P-04 were fully repaid.

As at 31 December 2022, the amount of accrued interest on bonds was USD48 million (31 December 2021: USD44 million).

Total foreign exchange gain on bonds for the year ended 31 December 2022 accounted in other comprehensive loss as part of cash flow hedge result amounted to USD96 million (USD4 million income for the year ended 31 December 2021).

20. Provisions

Accounting policies

A provision is recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance costs.

Disclosures

USD million	Pension liabilities	Site restoration	Provisions for legal claims	Total
Balance at 1 January 2021	**55**	**401**	**17**	**473**
Provisions made during the year	6	–	6	12
Provisions reversed during the year	–	–	–	–
Actuarial loss	8	–	–	8
Provisions utilised during the year	(4)	–	(10)	(14)
Foreign currency translation	1	68	–	69
The effect of the passage of time	–	5	–	5
Change in inflation rate	–	(2)	–	(2)
Discount rate change	–	(28)	–	(28)
Balance at 31 December 2021	**66**	**444**	**13**	**523**
Non-current	*62*	*316*	–	*378*
Current	*4*	*128*	*13*	*145*
Balance at 1 January 2022	**66**	**444**	**13**	**523**
Provisions made during the year	9	–	6	15
Provisions reversed during the year	–	–	(4)	(4)
Actuarial gain	(8)	–	–	(8)
Provisions utilised during the year	(4)	–	(3)	(7)
Foreign currency translation	(3)	(10)	–	(13)
The effect of the passage of time	–	(4)	–	(4)
Change in inflation rate	–	19	–	19
Discount rate change	–	(118)	–	(118)
Balance at 31 December 2022	**60**	**331**	**12**	**403**
Non-current	*55*	*223*	–	*278*
Current	*5*	*108*	*12*	*125*

(a) Pension liabilities

Group subsidiaries in the Russian Federation

The Group voluntarily provides long-term and post-employment benefits to its former and existing employees including death-in-service, jubilee, lump sum upon retirement, material support for pensioners and death-in-pension benefits. Furthermore, the Group provides regular social support payments to some of its veterans of World War II.

The above employee benefit programs are of a defined benefit nature. The Group finances these programs on a pay-as-you-go basis, so plan assets are equal to zero.

Group subsidiaries in Ukraine

Due to legal requirements, the Ukrainian subsidiaries are responsible for partial financing of the state hardship pensions for those of its employees who worked, or still work, under severe and hazardous labour conditions (hardship early retirement pensions). These pensions are paid until the recipient reaches the age of entitlement to the State old age pension (55-60 years for female (dependent on year of birth) and 60 years for male employees). In Ukraine, the Group also voluntarily provides long-term and post-employment benefits to its employees including death-in-service, lump sum benefits upon retirement and death-in-pension benefits.

The above employee benefit programs are of a defined benefit nature. The Group finances these programs on a pay-as-you-go basis, so plan assets are equal to zero.

Group subsidiaries outside the Russian Federation and Ukraine

At its Guinean entities the Group provides a death-in-service benefit and lump-sum benefits upon disability and old-age retirement.

At its Guyana subsidiary, the Group provides a death-in-service benefit.

At its Italian subsidiary (Eurallumina) the Group only provides lump sum benefits upon retirement, which relate to service up to 1 January 2007.

In Sweden (Kubikenborg Aluminium AB), the Group provides defined benefit lifelong and temporary pension benefits. The lifelong benefits are dependent on the past service and average salary level of the employee, with an accrual rate that depends on the salary bracket the employee is in. The liability relates only to benefits accrued before 1 January 2004.

The number of employees in all jurisdictions eligible for the plans as at 31 December 2022 and 2021 was 51,783 and 50,518, respectively. The number of pensioners in all jurisdictions as at 31 December 2022 and 2021 was 39,302 and 42,086, respectively.

The Group expects to pay under the defined benefit retirement plans an amount of USD5 million during the 12 month period beginning on 1 January 2023.

Actuarial valuation of pension liabilities

The actuarial valuation of the Group and the portion of the Group funds specifically designated for the Group's employees were completed by a qualified actuary, Konstantin Kozlov, as at 31 December 2022, using the projected unit credit method as stipulated by IAS 19.

The key actuarial assumptions (weighted average, weighted by DBO) are as follows:

	31 December 2022 % per annum	31 December 2021 % per annum
Discount rate	9.5	7.9
Future salary increases	8.6	8.7
Future pension increases	5.0	4.2
Staff turnover	4.7	4.7
Mortality	USSR population table for 1985, Ukrainian population table for 2000	USSR population table for 1985, Ukrainian population table for 2000
Disability	70% Munich Re for Russia; 40% of death probability for Ukraine	70% Munich Re for Russia; 40% of death probability for Ukraine

As at 31 December 2022 and 31 December 2021 the Group's obligations were fully uncovered as the Group has only wholly unfunded plans.

(b) Site restoration

The mining, refining and smelting activities of the Group can give rise to obligations for site restoration and rehabilitation. Restoration and rehabilitation works can include facility decommissioning and dismantling, removal or treatment of waste materials, land rehabilitation, and site restoration. The extent of work required and the associated costs are dependent on the requirements of law and the interpretations of the relevant authorities.

The Group provides for site restoration obligations when there is a specific legal or constructive obligation for mine reclamation, landfill closure (primarily comprising red mud basin disposal sites) or specific lease restoration requirements. The Group does not record any obligations with respect to decommissioning of its refining or smelting facilities and restoration and rehabilitation of the surrounding areas unless there is a specific plan to discontinue operations at a facility. This is because any significant costs in connection with decommissioning of refining or smelting facilities and restoration and rehabilitation of the surrounding areas would be incurred no earlier than when the facility is closed and the facilities are currently expected to operate over a term in excess of 50-100 years due to the perpetual nature of the refineries and smelters and continuous maintenance and upgrade programs resulting in the fair values of any such liabilities being negligible.

Costs included in the provision encompass obligated and reasonably estimable restoration and rehabilitation activities expected to occur progressively over the life of the operation and at the time of closure in connection with disturbances at the reporting date. Routine operating costs that may impact the ultimate restoration and rehabilitation activities, such as waste material handling conducted as an integral part of a mining or production process, are not included in the provision. Costs arising from unforeseen circumstances, such as the contamination caused by unplanned discharges, are recognised as an expense and liability when the event gives rise to an obligation which is probable and capable of reliable estimation.

Restoration and rehabilitation provisions are measured at the expected value of future cash flows, discounted to their present value and determined according to the probability of alternative estimates of cash flows occurring for each operation. Discount rates used are specific to the country in which the operation is located. Significant judgements and estimates are involved in forming expectations of future activities and the amount and timing of the associated cash flows. Those expectations are formed based on existing environmental and regulatory requirements.

When provisions for restoration and rehabilitation are initially recognised, the corresponding cost is capitalised as an asset, representing part of the cost of acquiring the future economic benefits of the operation. The capitalised cost of restoration and rehabilitation activities is amortised over the estimated economic life of the operation on a units of production or straight-line basis. The value of the provision is progressively increased over time as the effect of discounting unwinds, creating an expense recognised as part of finance expenses.

Restoration and rehabilitation provisions are also adjusted for changes in estimates. Those adjustments are accounted for as a change in the corresponding capitalised cost, except where a reduction in the provision is greater than the unamortised capitalised cost of the whole asset, to which the provision relates, in which case the capitalised cost is reduced to nil and the remaining adjustment is recognised in the statement of income. Changes to the capitalised cost result in an adjustment to future amortisation charges. Adjustments to the estimated amount and timing of future restoration and rehabilitation cash flows are a normal occurrence in light of the significant judgements and estimates involved. Factors influencing those changes include revisions to estimated reserves, resources and lives of operations; developments in technology; regulatory requirements and environmental management strategies; changes in the estimated costs of anticipated activities, including the effects of inflation and movements in foreign exchange rates; and movements in general interest rates affecting the discount rate applied.

The site restoration provision recorded in these consolidated financial statements relates primarily to mine reclamation and red mud basin disposal sites at alumina refineries and is estimated by discounting the risk-adjusted expected expenditure to its present value based on the following key assumptions:

	31 December 2022	31 December 2021
Timing of inflated cash outflows	2023: USD108 million 2024-2028: USD27 million 2029-2038: USD124 million after 2038: USD332 million	2022: USD127 million 2023-2027: USD15 million 2028-2037: USD121 million after 2037: USD298 million
Risk free discount rate after adjusting for inflation(a)	3.6%	1.19%

At each reporting date the Directors have assessed the provisions for site restoration and environmental matters and concluded that the provisions and disclosures are adequate.

(c) Provisions for legal claims

In the normal course of business the Group may be involved in legal proceedings. Where management considers that it is more likely than not that proceedings will result in the Group compensating third parties a provision is recognised for the best estimate of the amount expected to be paid. Where management considers that it is more likely than not that proceedings will not result in the Group compensating third parties or where, in rare circumstances, it is not considered possible to provide a sufficiently reliable estimate of the amount expected to be paid, no provision is made for any potential liability under the litigation but the circumstances and uncertainties involved are disclosed as contingent liabilities. The assessment of the likely outcome of legal proceedings and the amount of any potential liability involves significant judgement. As law and regulations in many of the countries in which the Group operates are continuing to evolve, particularly in the areas of taxation, sub-soil rights and protection

(a) The risk free rate for the year 2021-2022 represents an effective rate, which comprises rates differentiated by years of obligation settlement and by currencies in which the provisions were calculated.

of the environment, uncertainties regarding litigation and regulation are greater than those typically found in countries with more developed legal and regulatory frameworks.

The Group's subsidiaries are subject to a variety of lawsuits and claims in the ordinary course of its business. As at 31 December 2022, there were several claims filed against the Group's subsidiaries contesting breaches of contract terms and non-payment of existing obligations. Management has reviewed the circumstances and estimated that the amount of probable outflow related to these claims should not exceed USD12 million (31 December 2021: USD13 million). The amount of claims, where management assesses outflow as possible approximates USD33 million (31 December 2021: USD21 million).

At each reporting date the Directors have assessed the provisions for litigation and claims and concluded that the provisions and disclosures are adequate.

(d) Tax provisions

The Group's accounting policy for taxation requires management's judgement in assessing whether deferred tax assets and certain deferred tax liabilities are recognised in the statement of financial position. Deferred tax assets, including those arising from carried forward tax losses, capital losses and temporary differences, are recognised only where it is considered more likely than not that they will be recovered, which is dependent on the generation of sufficient future taxable profits. Deferred tax liabilities arising from temporary differences in investments, caused principally by retained earnings held in foreign tax jurisdictions, are recognised unless repatriation of retained earnings can be controlled and is not expected to occur in the foreseeable future.

Assumptions about the generation of future taxable profits and repatriation of retained earnings depend on management's estimates of future cash flows. These depend on estimates of future production and sales volumes, commodity prices, reserves, operating costs, restoration and rehabilitation costs, capital expenditure, dividends and other capital management transactions. Assumptions are also required about the application of income tax legislation. These estimates and assumptions are subject to risk and uncertainty, hence there is a possibility that changes in circumstances will alter expectations, which may impact the amount of deferred tax assets and deferred tax liabilities recognised on the statement of financial position and the amount of other tax losses and temporary differences not yet recognised. In such circumstances, some or all of the carrying amount of recognised deferred tax assets and liabilities may require adjustment, resulting in a corresponding credit or charge to the statement of income.

The Group generally provides for current tax based on positions taken (or expected to be taken) in its tax returns. Where it is more likely than not that upon examination by the tax authorities of the positions taken by the Group additional tax will be payable, the Group provides for its best estimate of the amount expected to be paid (including any interest and/or penalties) as part of the tax charge.

At the reporting date management has assessed the provisions for taxation and concluded that the provisions and disclosures are adequate.

21. Derivative financial assets/liabilities

Accounting policies

The Group enters, from time to time, into various derivative financial instruments to manage its exposure to commodity price risk, foreign currency risk and interest rate risk.

Embedded derivatives are separated from the host contract and accounted for separately if the economic characteristics and risks of the host contract and the embedded derivative are not closely related, a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative and the combined instrument is not measured at fair value through profit or loss.

On initial designation of the derivative as a hedging instrument, the Group formally documents the relationship between the hedging instrument and hedged item, including the risk management objectives and strategy in undertaking the hedge transaction and the hedged risk, together with the methods that will be used to assess the effectiveness of the hedging relationship. The Group makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, of whether the hedging instruments are expected to be highly effective in offsetting the changes in the fair value or cash flows of the respective hedged items attributable to the hedged risk, and whether the actual results of each hedge are within a range of 80-125%. For a cash flow hedge of a forecast transaction, the transaction should be highly probable to occur and should present an exposure to variation in cash flows that ultimately could affect reported profit or loss.

Derivatives are recognised initially at fair value; attributable transaction costs are recognised in the statement of income when incurred. Subsequent to initial recognition, derivatives are measured at fair value.

The measurement of fair value of derivative financial instruments, including embedded derivatives, is based on quoted market prices. Where no price information is available from a quoted market source, alternative market mechanisms or recent comparable transactions, fair value is estimated based on the Group's views on relevant future prices, net of valuation allowances to accommodate liquidity, modelling and other risks implicit in such estimates. Changes in the fair value therein are accounted for as described below.

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognised in the other comprehensive income and presented in the hedging reserve in equity. Any ineffective portion of changes in the fair value of a derivative is recognised in the statement of income.

When the hedged item is a non-financial asset, the amount accumulated in equity is included in the carrying amount of the asset when the asset is recognised. In other cases, the amount accumulated in equity is reclassified to the statement of income in the same period that the hedged item affects profit or loss. If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated or exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. If the forecast transaction is no longer expected to occur, then the balance in equity is reclassified to the statement of income.

Changes in the fair value of separated embedded derivatives and derivative financial instruments not designated for hedge accounting are recognised immediately in the statement of income.

Disclosures

	31 December 2022		31 December 2021	
	USD million		USD million	
	Derivative assets	Derivative liabilities	Derivative assets	Derivative liabilities
Petroleum coke supply contracts and other raw materials	–	–	24	15
Forward contracts for aluminium and other instruments	168	–	118	26
Cross currency swap	–	–	–	165
Total	**168**	**–**	**142**	**206**
Non-current	*90*	–	*22*	*61*
Current	*78*	–	*120*	*145*

Derivative financial instruments are recorded at their fair value at each reporting date. Fair value is estimated in accordance with Level 3 of the fair value hierarchy based on management estimates and consensus economic forecasts of relevant future prices, net of valuation allowances to accommodate liquidity, modelling and other risks implicit in such estimates. The Group's policy is to recognise transfers between levels of fair value hierarchy as at the date of the event or change in circumstances that caused the transfer. The movement in the balance of Level 3 fair value measurements of derivatives is as follows:

	31 December	
	2022	2021
	USD million	USD million
Balance at the beginning of the year	**(64)**	**(135)**
Unrealised changes in fair value recognised in statement of income (finance (expense)/income) during the period	(191)	(352)
Unrealised changes in fair value recognised in other comprehensive income (cash flow hedge) during the period	(131)	(28)
Realised portion of electricity, coke and raw material contracts and cross currency swap	554	451
Balance at the end of the year	**168**	**(64)**

During the year 2022 there have been no changes in valuation techniques used to calculate the derivative financial instruments compared to prior year.

Management believes that the values assigned to the key assumptions and estimates represented the most realistic assessment of future trends. The results for the derivative instruments are not particularly sensitive to any factors other than the assumptions disclosed above.

The Group sells products to various third parties at prices that are influenced by changes in London Metal Exchange aluminium prices. From time to time the Group enters into forward sales and purchase contracts for a portion of its anticipated primary aluminium sales and purchases to reduce the risk of fluctuating prices on these sales. During the year ended 31 December 2022 the Group recognised a total net loss of USD191 million in relation to the above contracts (31 December 2021: loss of USD352 million).

Unrealised changes in fair value recognised in other comprehensive income (cash flow hedge) during the period are fully attributable to cross currency swap (note 19 (b)).

22. Financial risk management and fair values

(a) Fair values

Management believes that the fair values of short-term financial assets and liabilities approximate their carrying amounts.

The methods used to estimate the fair values of the financial instruments are as follows:

Trade and other receivables, cash and cash equivalents, short-term investments, current loans and borrowings and trade and other payables: the carrying amounts approximate fair value because of the short maturity period of the instruments.

Investments in equity securities: measured at fair value through profit and loss, so, its carrying amount is equal its fair value.

Long-term loans and borrowings, other non-current liabilities: the fair values of Eurobonds, RUSAL Bratsk bonds and IPJSC bonds issued are approximate their carrying value, other than other non-current liabilities. The fair value of the loans and borrowings with fixed and floating interest rate as at 31 December 2022, 2021 and 2020 was calculated based on the present value of future principal and interest cash flows, using discount interest rate that take into account the currency of the debt, expected maturity dates and credit risks associated with the Group that existed at the reporting date.

Derivatives: the fair value of derivative financial instruments, including embedded derivatives, is based on quoted market prices. Where no price information is available from a quoted market source, alternative market mechanisms or recent comparable transactions, fair value is estimated based on the Group's views on relevant future prices, net of valuation allowances to accommodate liquidity, modelling and other risks implicit in such estimates. Option-based derivatives are valued using Black-Scholes models and Monte-Carlo simulations. The derivative financial instruments are recorded at their fair value at each reporting date.

The following table presents the fair value of Group's financial instruments measured at the end of the reporting period on a recurring basis, as well as for instruments for which fair value is disclosed, categorised into the three-level fair value hierarchy as defined by IFRS 13 Fair Value Measurement. The level into which a fair value measurement is classified is determined with reference to the observability and significance of the inputs used in the valuation technique as follows:

- Level 1 valuations: fair value measured using only Level 1 inputs i.e. unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2 valuations: fair value measured using Level 2 inputs i.e. observable inputs which fail to meet Level 1, and not using significant unobservable inputs. Unobservable inputs are inputs for which market data are not available.
- Level 3 valuations: fair value measured using significant unobservable inputs.

The Group as at 31 December 2022

		Carrying amount				Fair value			
		Derivatives	Loans and receivables	Other financial assets/(liabilities)	Total	Level 1	Level 2	Level 3	Total
	Note	USD million	USD million	USD million	USD million	USD million	USD million	USD million	USD million
Financial assets measured at fair value									
Petroleum coke supply contracts and other raw materials	21	–	–	–	**–**	–	–	–	**–**
Forward contracts for aluminium and other instruments	21	168	–	–	168	–	–	168	168
Investments in equity securities	17	–	–	458	458	458	–	–	458
		168	**–**	**458**	**626**	**458**	**–**	**168**	**626**
Financial assets not measured at fair value*									
Trade and other receivables	17	–	1,735	–	1,735	–	1,735	–	1,735
Other non-current assets	17	–	–	302	302	–	302	–	302
Short-term investments		–	89	–	89	–	89	–	89
Cash and cash equivalents	17	–	3,196	–	3,196	–	3,196	–	3,196
		–	**5,020**	**302**	**5,322**	**–**	**5,322**	**–**	**5,322**
Financial liabilities measured at fair value									
Cross-currency swaps	21	–	–	–	–	–	–	–	–
Petroleum coke supply contracts and other raw materials	21	–	–	–	–	–	–	–	–
Forward contracts for aluminium and other instruments	21	–	–	–	–	–	–	–	–
		–	**–**	**–**	**–**	**–**	**–**	**–**	**–**
Financial liabilities not measured at fair value*									
Secured bank loans and company loans	19	–	–	(3,690)	(3,690)	–	(3,777)	–	(3,777)
Unsecured bank loans	19	–	–	(1,200)	(1,200)	–	(1,196)	–	(1,196)
Unsecured bond issue	19	–	–	(4,567)	(4,567)	(1,935)	(2,615)	–	(4,550)
Trade and other payables	17	–	–	(1,682)	(1,682)	–	(1,682)	–	(1,682)
		–	**–**	**(11,139)**	**(11,139)**	**(1,935)**	**(9,270)**	**–**	**(11,205)**

* *The Group considers that the carrying amounts of short-term trade receivables and payables are a reasonable approximation of fair values.*

The Group as at 31 December 2021

		Carrying amount				Fair value			
		Derivatives	Loans and receivables	Other financial assets/(liabilities)	Total	Level 1	Level 2	Level 3	Total
	Note	USD million	USD million	USD million	USD million	USD million	USD million	USD million	USD million
Financial assets measured at fair value									
Petroleum coke supply contracts and other raw materials	21	24	–	–	**24**	–	–	24	**24**
Forward contracts for aluminium and other instruments	21	118	–	–	118	–	–	118	118
Investments in equity securities	17	–	–	315	315	315	–	–	315
		142	**–**	**315**	**457**	**315**	**–**	**142**	**457**
Financial assets not measured at fair value*									
Trade and other receivables	17	–	1,376	–	1,376	–	1,376	–	1,376
Other non-current assets	17	–	–	245	245	–	245	–	245
Short-term investments		–	167	–	167	–	167	–	167
Cash and cash equivalents	17	–	1,984	–	1,984	–	1,984	–	1,984
		–	**3,527**	**245**	**3,772**	**–**	**3,772**	**–**	**3,772**
Financial liabilities measured at fair value									
Cross-currency swaps	21	165	–	–	165	–	–	165	165
Petroleum coke supply contracts and other raw materials	21	15	–	–	15	–	–	15	15
Forward contracts for aluminium and other instruments	21	26	–	–	26	–	–	26	26
		206	**–**	**–**	**206**	**–**	**–**	**206**	**206**
Financial liabilities not measured at fair value*									
Secured bank loans and company loans	19	–	–	(3,886)	(3,886)	–	(4,027)	–	(4,027)
Unsecured bank loans	19	–	–	(413)	(413)	–	(409)	–	(409)
Unsecured bond issue	19	–	–	(2,434)	(2,434)	(941)	(1,524)	–	(2,465)
Trade and other payables	17	–	–	(1,292)	(1,292)	–	(1,292)	–	(1,292)
		–	**–**	**(8,025)**	**(8,025)**	**(941)**	**(7,252)**	**–**	**(8,193)**

* *The Group considers that the carrying amounts of short-term trade receivables and payables are a reasonable approximation of fair values.*

(b) Financial risk management objectives and policies

The Group's principal financial instruments comprise bank loans, bonds and trade payables. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various financial assets such as trade receivables and cash and short-term deposits, which arise directly from its operations.

The main risks arising from the Group's financial instruments are interest rate risk, liquidity risk, foreign currency risk and credit risk. Management reviews and agrees policies for managing each of these risks which are summarised below.

The Board of Directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The Board has established a risk management group within its Department of Internal Control, which is responsible for developing and monitoring the Group's risk management policies. The Department reports regularly to the Board of Directors on its activities.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group's Audit Committee oversees how management monitors compliance with the Group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group's Audit Committee is assisted in its oversight role by the Group's Internal Audit function which undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit Committee.

(c) Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising returns.

(i) Commodity price risk

During the years ended 31 December 2022 and 2021, the Group has entered into certain long term electricity contracts and other commodity derivatives contracts in order to manage its exposure of commodity price risks. Details of the contracts are disclosed in notes 21 and 25(c).

(ii) Interest rate risk

The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's long-term debt obligations with floating interest rates (refer to note 19). The Group's policy is to manage its interest costs by monitoring changes in interest rates with respect to its borrowings.

The following table details the interest rate profile of the Group's borrowings at the reporting date.

	31 December 2022		31 December 2021	
	Effective interest rate, %	USD million	Effective interest rate, %	USD million
Fixed rate loans and borrowings				
Loans and borrowings	0.01-11.00%	5,584	0.01-9.00%	2,809
		5,584		**2,809**
Variable rate loans and borrowings				
Loans and borrowings	2.86-9.48%	3,804	0.45-11.65%	3,871
		3,804		**3,871**
		9,388		**6,680**

The following table demonstrates the sensitivity to cash flows from interest rate risk arising from floating rate non-derivative instruments held by the Group at the reporting date in respect of a reasonably possible change in interest rates, with all other variables held constant. The impact on the Group's profit before taxation and equity and retained profits/accumulated losses is estimated as an annualised input on interest expense or income of such a change in interest rates. The analysis has been performed on the same basis for all years presented.

	Increase/decrease in basis points	Effect on profit before taxation for the year	Effect on equity for the year, net of income tax
		USD million	USD million
As at 31 December 2022			
Basis percentage points	+100	(38)	(30)
Basis percentage points	-100	38	30
As at 31 December 2021			
Basis percentage points	+100	(39)	(31)
Basis percentage points	-100	39	31

(iii) Foreign currency risk

The Group is exposed to currency risk on sales, purchases and borrowings that are denominated in a currency other than the respective functional currencies of group entities, primarily USD but also the Russian Rouble, Ukrainian Hryvna and Euros. The currencies in which these transactions primarily are denominated are RUB, USD and EUR.

Borrowings are primarily denominated in currencies that match the cash flows generated by the underlying operations of the Group, primarily USD but also RUB and EUR. This provides an economic hedge.

In respect of other monetary assets and liabilities denominated in foreign currencies, the Group ensures that its net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates when necessary to address short-term imbalances or entering into currency swap arrangements.

The Group's exposure at the reporting date to foreign currency risk arising from recognised assets and liabilities denominated in a currency other than the functional currency of the entity to which they relate is set out in the table below. Differences resulting from the translation of the financial statements of foreign operations into the Group's presentation currency are ignored.

	USD-denominated vs. RUB functional currency		RUB-denominated vs. USD functional currency		EUR-denominated vs. USD functional currency		Denominated in other currencies vs. USD functional currency	
	2022	2021	2022	2021	2022	2021	2022	2021
As at 31 December	USD million	USD million	USD million	USD million	USD million	USD million	USD million	USD million
Non-current assets	–	–	86	38	21	–	–	–
Trade and other receivables	–	2	914	821	219	184	60	69
Cash and cash equivalents	–	–	1,378	428	148	81	683	50
Loans and borrowings	–	–	(684)	(549)	–	(19)	(1,152)	–
Provisions	–	–	(66)	(84)	–	(21)	(17)	(18)
Derivative financial liabilities	–	–	–	(16)	–	–	–	–
Non-current liabilities	–	–	(46)	(1)	(3)	(6)	(2)	–
Income taxation	–	–	(157)	(24)	–	–	–	(1)
Bonds	–	–	(406)	(1)	–	–	(3,219)	–
Trade and other payables	(1)	(1)	(514)	(1,080)	(111)	(104)	(119)	(135)
Net exposure arising from recognised assets and liabilities	**(1)**	**1**	**505**	**(468)**	**274**	**115**	**(3,766)**	**(35)**

Foreign currency sensitivity analysis

The following tables indicate the instantaneous change in the Group's profit before taxation (and accumulated losses) and other comprehensive income that could arise if foreign exchange rates to which the Group has significant exposure at the reporting date had changed at that date, assuming all other risk variables remained constant.

	Year ended 31 December 2022		
	Change in exchange rates	Effect on profit before taxation for the year	Effect on equity for the year
		USD million	USD million
Depreciation of USD vs. RUB	15%	76	76
Depreciation of USD vs. EUR	10%	27	27
Depreciation of USD vs. other currencies	5%	(188)	(188)

	Year ended 31 December 2021		
	Change in exchange rates	Effect on profit before taxation for the year	Effect on equity for the year
		USD million	USD million
Depreciation of USD vs. RUB	15%	(70)	(70)
Depreciation of USD vs. EUR	10%	11	11
Depreciation of USD vs. other currencies	5%	(2)	(2)

Results of the analysis as presented in the above tables represent an aggregation of the instantaneous effects on the Group entities' profit before taxation and other comprehensive income measured in the respective functional currencies, translated into USD at the exchange rates ruling at the reporting date for presentation purposes.

The sensitivity analysis assumes that the change in foreign exchange rates had been applied to re-measure those financial instruments held by the Group which expose the Group to foreign currency risk at the reporting date. The analysis excludes differences that would result from the translation of financial statements of foreign operations into the Group's presentation currency. The analysis has been performed on the same basis for all years presented.

(d) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The group policy is to maintain sufficient cash and cash equivalents or have available funding through an adequate amount of committed credit facilities to meet its operating and financial commitments.

Where the Group enters into financial guarantee contracts to guarantee the indebtedness of other companies, controlled by the shareholder which is a beneficial owner of the Group at the reporting date, the Group considers these to be insurance arrangements and accounts for them as such. In this respect, the Group treats the guarantee contract as a contingent liability until such time as it becomes probable that the Group will be required to make a payment under the guarantee.

The following tables show the remaining contractual maturities at the reporting date of the Group's non-derivative financial liabilities, which are based on contractual undiscounted cash flows (including interest payment computed using contractual rates, or if floating, based on rates current at the reporting date) and the earliest the Group can be required to pay.

	31 December 2022 Contractual undiscounted cash outflow					
	Within 1 year or on demand	More than 1 year but less than 2 years	More than 2 years but less than 5 years	More than 5 years	Total	Carrying amount
	USD million	USD million	USD million	USD million	USD million	USD million
Trade and other payables to third parties	1,504	–	–	–	1,504	1,504
Trade and other payables to related parties	178	–	–	–	178	178
Bonds, including interest payable	1,143	685	2,709	–	4,537	4,567
Loans and borrowings, including interest payable	1,433	839	3,397	230	5,899	4,890
Other contractual obligations	40	79	–	–	119	–
	4,298	**1,603**	**6,106**	**230**	**12,237**	**11,139**

	31 December 2021 Contractual undiscounted cash outflow					
	Within 1 year or on demand	More than 1 year but less than 2 years	More than 2 years but less than 5 years	More than 5 years	Total	Carrying amount
	USD million	USD million	USD million	USD million	USD million	USD million
Trade and other payables to third parties	1,134	–	–	–	1,134	1,134
Trade and other payables to related parties	158	–	–	–	158	158
Bonds, including interest payable	1,234	1,354	–	–	2,588	2,434
Loans and borrowings, including interest payable	945	584	1,919	1,704	5,152	4,299
Other contractual obligations	44	69	–	–	113	–
	3,515	**2,007**	**1,919**	**1,704**	**9,145**	**8,025**

At 31 December 2022 and 31 December 2021 the Group's contractual undertaking to provide loans under the loan agreement between the Group, PJSC RusHydro and BoAZ is included at maximum exposure for the Group in the liquidity risk disclosure above.

(e) Credit risk

The Group trades only with recognised, creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. The majority of the Group's third party trade receivables represent balances with the world's leading international corporations operating in the metals industry. In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to credit loss is not significant. Goods are normally sold subject to retention of title clauses, so that in the event of non-payment the Group may have a secured claim. The Group does not require collateral in respect of trade and other receivables. The details of impairment of trade and other receivables are disclosed in note 17. The extent of the Group's credit exposure is represented by the aggregate balance of financial assets and financial guarantees and loan commitments given.

At 31 December 2022 and 2021, the Group has certain concentration of credit risk as 31.5% and 14.3% of the total trade receivables were due from the Group's five largest customers. With respect to credit risk arising from guarantees, the Group's policy is to provide financial guarantees only to wholly-owned subsidiaries, associates and joint ventures.

(f) Capital risk management

The Group's objectives when managing capital 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.

The Group manages its capital structure and makes adjustments to it, in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

The Board's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board of Directors monitors the return on capital, which the Group defines as net operating income divided by total shareholders' equity, excluding non-controlling interests. The Board of Directors also monitors the level of dividends to ordinary shareholders.

The Board seeks to maintain a balance between higher returns that might be possible with higher levels of borrowings and the advantages and security afforded by a sound capital position.

There were no changes in the Group's approach to capital management during the year.

The Company and its subsidiaries were subject to externally imposed capital requirements in the both years presented in these consolidated financial statements.

(g) Master netting or similar agreements

The Group may enter into sales and purchase agreements with the same counterparty in the normal course of business. The related amount receivable and payable do not always meet the criteria for offsetting in the statement of financial position. This is because the Group may not have any currently legally enforceable right to offset recognised amounts, because the right to offset may be enforceable only on the occurrence of future events.

There are no financial instruments that meet the offsetting criteria in the statement of financial position for the year ended 31 December 2022 and 31 December 2021.

23. Commitments

(a) Capital commitments

The Group has entered into contracts that result in contractual obligations primarily relating to various construction and capital repair works. The commitments at 31 December 2022 and 31 December 2021 approximated USD376 million and USD248 million, including VAT respectively. These commitments are due over a number of years.

(b) Purchase commitments

Commitments with third parties for purchases of alumina, bauxite, other raw materials and other purchases in 2023-2034 under supply agreements are estimated from USD3,450 million to USD5,169 million at 31 December 2022 (31 December 2021: USD2,517 million to USD4,534 million) depending on the actual purchase volumes and applicable prices.

Commitments with related parties for purchases of primary aluminium, alloys and other purchases in 2023-2030 under supply agreements are estimated from USD4,824 million to USD7,283 million at 31 December 2022 (31 December 2021: USD5,733 million to USD7,540 million) depending on the actual purchase volumes and applicable prices. Electricity purchase commitments are disclosed in note 25.

(c) Sale commitments

Commitments with third parties for sales of alumina and other raw materials in 2023-2034 are estimated from USD852 million to USD1,275 million at 31 December 2022 (31 December 2021: from USD1,187 million to USD1,596 million) and will be settled at market prices at the date of delivery. There are no commitments with related parties for sales of alumina as at 31 December 2022.

Commitments with related parties for sales of primary aluminium and alloys in 2023 are estimated from USD305 million to USD373 million at 31 December 2022 (31 December 2021: from USD563 million to USD688 million). Commitments with third parties for sales of primary aluminium and alloys in 2023-2027 are estimated to range from USD5,505 million to USD8,386 million at 31 December 2022 (31 December 2021: from USD8,842 million to USD12,148 million).

(d) Social commitments

The Group contributes to the maintenance and upkeep of the local infrastructure and the welfare of its employees, including contributions toward the development and maintenance of housing, hospitals, transport services, recreation and other social needs of the regions of the Russian Federation where the Group's production entities are located. The funding of such assistance is periodically determined by management and is appropriately capitalised or expensed as incurred.

24. Contingencies

(a) Taxation

Russian tax, currency and customs legislation is subject to varying interpretations, and changes, which can occur frequently. Management's interpretation of such legislation as applied to the transactions and activities of the Group may be challenged by the relevant local, regional and federal authorities. Notably recent developments in the Russian environment suggest that the authorities in this country are becoming more active in seeking to enforce, through the Russian court system, interpretations of the tax legislation, in particular in relation to the use of certain commercial trading structures, which may be selective for particular tax payers and different to the authorities' previous interpretations or practices. Different and selective interpretations of tax regulations by various government authorities and inconsistent enforcement create further uncertainties in the taxation environment in the Russian Federation.

As at 31 December 2021 management considered that there were no significant tax positions taken by the Group where it was reasonably possible (though less than 50% likely) that additional tax may be payable upon examination by the tax authorities or in connection with ongoing disputes with tax authorities. As at 31 December 2022 management considered that are uncertain tax positions in the amount approximately USD40 million where it was reasonably possible (though less than 50% likely) that additional tax may be payable upon examination by the tax authorities or in connection with ongoing disputes with tax authorities.

(b) Environmental contingencies

The Group and its predecessor entities have operated in the Russian Federation, Ukraine, Jamaica, Guyana, the Republic of Guinea and the European Union for many years and certain environmental problems have developed. Governmental authorities are continually considering environmental regulations and their enforcement and the Group periodically evaluates its obligations related thereto. As obligations are determined, they are recognised immediately. The outcome of environmental liabilities under proposed or any future legislation, or as a result of stricter enforcement of existing legislation, cannot reasonably be estimated. Under current levels of enforcement of existing legislation, management believes there are no possible liabilities, which will have a material adverse effect on the financial position or the operating results of the Group. However, the Group anticipates undertaking significant capital projects to improve its future environmental performance and to bring it into full compliance with current legislation.

(c) Legal contingencies

The Group's business activities expose it to a variety of lawsuits and claims which are monitored, assessed and contested on the ongoing basis. Where management believes that a lawsuit or another claim would result in the outflow of the economic benefits for the Group, a best estimate of such outflow is included in provisions in the consolidated financial statements (refer to note 20). As at 31 December 2022 the amount of claims, where management assesses outflow as possible approximates USD33 million (31 December 2021: USD21 million).

(d) Other contingent liabilities

In September 2013 the Group and PJSC RusHydro entered into an agreement with BoAZ to provide loans, if the latter is unable to fulfil its obligations under its credit facilities. The aggregate exposure under the agreement is limited to RUB16.8 billion (31 December 2022 and 2021 USD239 million and USD226 million, respectively) and is split between the Group and PJSC RusHydro in equal proportion.

25. Related party transactions

(a) Transactions with management and close family members

Management remuneration

Key management received the following remuneration, which is included in personnel costs (refer to note 6(c)):

	Year ended 31 December	
	2022	2021
	USD million	USD million
Salaries and bonuses	79	63
	79	**63**

(b) Transactions with associates and joint ventures

Sales to associates and joint ventures are disclosed in note 5, purchases from associates and joint ventures are disclosed in note 6, accounts receivable from associates and joint ventures as well as accounts payable to associates and joint ventures are disclosed in note 17.

(c) Transactions with other related parties

The Group transacts with other related parties, the majority of which are companies related through parent company or under the control of SUAL Partners Limited or its controlling shareholders.

Sales to related parties for the year are disclosed in note 5, purchases from related parties are disclosed in note 6, accounts receivable from related parties as well as accounts payable to related parties are disclosed in note 17, commitments with related parties are disclosed in note 23, directors remuneration in notes 9 and 10 and dividends attributed to shareholders are disclosed in note 11.

Electricity contracts

In November 2016, the Group entered into the new long-term electricity contracts to supply several Group's smelters from En+ subsidiaries over the years 2016-2026. Purchases will be made under a price formula close to market prices. The volumes committed under the long-term electricity contracts are as follows:

Year	2023	2024	2025	2026
Mln kWh	37,598	37,701	37,598	25,194
Mln USD	523	524	523	322

(d) Related parties balances

At 31 December 2022, there are no balances of related parties included in non-current assets (31 December 2021: USD2 million). At 31 December 2022, included in non-current liabilities are balances of related parties – associates and joint ventures of USD16 million (31 December 2021: USD14 million).

At 31 December 2022, included in current assets as short-term investments are balances of related parties – companies related through parent company of USD50 million (31 December 2021: companies related through parent company of USD50 million).

(e) Pricing policies

Prices for transactions with related parties are determined on a case by case basis but are not necessarily at arm's length.

The Group has entered into three categories of related-party transactions: (i) those entered into on an arm's length basis, (ii) those entered into on non-arm's length terms but as part of a wider deal resulting from arms' length negotiations with unrelated third parties, and (iii) transactions unique to the Group and the counterparty.

(f) Connected transactions

Not all the related party transactions and balances disclosed above meet the definition of connected transactions as per Chapter 14A of the Listing Rules of Hong Kong Stock Exchange. For particulars of the continuing connected transactions please refer to the Director's Report section of the Annual Report of the Company for the year ended 31 December 2022.

26. Particulars of subsidiaries

As at 31 December 2022 and 2021, the Company has direct and indirect interests in the following subsidiaries, which principally affected the results, assets and liabilities of the Group:

Name	Place of incorporation and operation	Date of incorporation	Particulars of issued and paid up capital	Attributable equity interest	Principal activities
Compagnie Des Bauxites De Kindia S.A.	Guinea	29 November 2000	2,000 shares of GNF 25,000 each	100.0%	Bauxite mining
Friguia SA	Guinea	9 February 1957	758,966,200,000 GNF	100.0%	Alumina
JSC RUSAL Achinsk	Russian Federation	20 April 1994	4,188,531 shares of RUB1 each	100.0%	Alumina
Mykolaiv Alumina Refinery Company Ltd	Ukraine	16 September 2004	1,524,126,720 UAH	100.0%	Alumina
JSC RUSAL Boxitogorsk Alumina	Russian Federation	27 October 1992	1,012,350 shares of RUB1 each	100.0%	Alumina
Eurallumina SpA	Italy	21 March 2002	10,000,000 shares of EUR1.55 each	100.0%	Alumina
PJSC RUSAL Bratsk	Russian Federation	26 November 1992	5,505,305 shares of RUB0.2 each	100.0%	Smelting

Name	Place of incorporation and operation	Date of incorporation	Particulars of issued and paid up capital	Attributable equity interest	Principal activities
JSC RUSAL Krasnoyarsk	Russian Federation	16 November 1992	85,478,536 shares of RUB20 each	100.0%	Smelting
JSC RUSAL Novokuznetsk	Russian Federation	26 June 1996	53,997,170 shares of RUB0.1 each	100.0%	Smelting
JSC RUSAL Sayanogorsk	Russian Federation	29 July 1999	208,102,580,438 shares of RUB0.068 each	100.0%	Smelting
RUSAL RESAL LLC	Russian Federation	15 November 1994	charter fund of RUB67,706,217.29	100.0%	Processing
JSC RUSAL SAYANAL	Russian Federation	29 December 2001	59,902,661,099 shares of RUB0.006 each	100.0%	Foil
CJSC RUSAL ARMENAL	Armenia	17 May 2000	36,699,295 shares of AMD 1,000 each	100.0%	Foil
RUS-Engineering LLC	Russian Federation	18 August 2005	charter fund of RUB 1,751,832,184	100.0%	Repairs and maintenance
JSC Russian Aluminium	Russian Federation	25 December 2000	23,124,000,000 shares of RUB1 each	100.0%	Holding company
Rusal Global Management B.V.	Netherlands	8 March 2001	charter fund of EUR25,000	100.0%	Management company
JSC United Company RUSAL Trading House	Russian Federation	15 March 2000	163,660 shares of RUB100 each	100.0%	Trading
RS International GmbH	Switzerland	22 May 2007	1 share with nominal value of CHF 20,000	100.0%	Trading
Rusal Marketing GmbH	Switzerland	22 May 2007	Capital quota of CHF2,000,000	100.0%	Trading
RTI Limited	Jersey	27 October 2006	978,492,901 shares of USD1 each	100.0%	Trading
Alumina & Bauxite Company Limited	British Virgin Islands	3 March 2004	231,179,727 shares of USD1 each	100.0%	Trading
JSC Bauxite-Timana	Russian Federation	29 December 1992	44,500,000 shares of RUB10 each	100.0%	Bauxite mining
JSC Severo-Uralsky Bauxite Mine	Russian Federation	24 October 1996	10,506,609 shares of RUB275.85 each	100.0%	Bauxite mining
JSC RUSAL Ural	Russian Federation	26 September 1996	2,542,941,932 shares of RUB1 each	100.0%	Primary aluminum and alumina production

Name	Place of incorporation and operation	Date of incorporation	Particulars of issued and paid up capital	Attributable equity interest	Principal activities
SUAL-PM LLC	Russian Federation	20 October 1998	charter fund of RUB56,300,959	100.0%	Aluminum powders production
JSC Kremniy	Russian Federation	3 August 1998	320,644 shares of RUB1,000 each	100.0%	Silicon production
RUSAL-Kremniy-Ural LLC	Russian Federation	1 March 1999	charter fund of RUB8,763,098	100.0%	Silicon production
UC RUSAL Alumina Jamaica Limited	Jamaica	26 April 2001	1,000,000 shares of JMD1 each	100.0%	Alumina
Kubikenborg Aluminium AB	Sweden	26 January 1934	25,000 shares of SEK 1,000 each	100.0%	Smelting
RFCL Limited (RFCL S.ar.l prior to 28 August 2020)	Cyprus	13 March 2013	90,000,000 RUB	100.0%	Finance services
International LLC AKTIVIUM (Aktivium B.V. prior to 6 December 2019)	Russian Federation	28 December 2010	215,458,134,321 shares of RUB1 each	100.0%	Holding and investment company
Aughinish Alumina Ltd	Ireland	22 September 1977	1,000 shares of EUR2 each	100.0%	Alumina
LLC RUSAL Energo	Russian Federation	26 December 2005	715,000,000 RUB	100.0%	Electric power
Limerick Alumina Refining Ltd.	Ireland	30 March 1995	54,019,819 shares of USD1 each	100.0%	Alumina
JSC RUSAL Management	Russian Federation	26 December 2018	1,000,000 shares of RUB1 each	100.0%	Management company
RUSAL Taishet LLC	Russian Federation	11 September 2006	Charter fund of RUB 12,158,878,747.58	100.0%	Smelting
UC RUSAL Anode Plant LLC	Russian Federation	9 April 2008	Charter fund of RUB1,064,280,000	100.0%	Anodes
RUSAL Products GmbH	Switzerland	27 December 2017	Charter fund of CHF20,000	100.0%	Trading
Casting and mechanical plant "SKAD" Ltd.	Russian Federation	29 August 2002	Charter fund of RUB 468,458,663.94	75.0%	Other aluminum production
"PGLZ" LLC	Russian Federation	4 April 2016	Charter fund of RUB 119,500,000	99.9%	Alumina

Trading entities are engaged in the sale of products to and from the production entities.

27. Statement of Financial Position of the Company as at 31 December 2022

	31 December 2022	31 December 2021
	USD million	USD million
Assets		
Non-current assets		
Investments in subsidiaries	18,479	20,167
Other investments	207	191
Loans to related parties	1,039	1,295
Other non-current assets	131	44
Total non-current assets	**19,856**	**21,697**
Current assets		
Loans to related parties	5,491	1,696
Other receivables	108	112
Cash and cash equivalents	1,446	4
Total current assets	**7,045**	**1,812**
Total assets	**26,901**	**23,509**
Equity and liabilities		
Equity		
Share capital	152	152
Reserves	18,263	18,896
Total equity	**18,415**	**19,048**
Non-current liabilities		
Loans and borrowings	6,734	3,572
Total non-current liabilities	**6,734**	**3,572**
Current liabilities		
Loans and borrowings	909	884
Trade and other payables	843	5
Total current liabilities	**1,752**	**889**
Total liabilities	**8,486**	**4,461**
Total equity and liabilities	**26,901**	**23,509**
Net current assets	**5,293**	**923**
Total assets less current liabilities	**25,149**	**22,620**

28. Events subsequent to the reporting date

In February 2023, RUSAL entered into a new credit facility with a Russian bank in the total amount up to USD4.4 billion and maturity – 24 December 2027. On 3 February 2023 the funds in the amount of 15.8 billion Chinese yuan were partially drawdown with an interest rate 4.75% and were used to refinance the principal outstanding under the existing debt with a Russian bank

On 8 February 2023 pursuant to the Extraordinary resolution of the noteholders Rusal redeemed the Eurobond with a coupon 4.85% to noteholders who hold Eurobond through NSD and other Russian custodians being the NSD direct participants in the amount of USD418 million. The redemption to noteholders who hold Eurobond through foreign clearing and settlement systems will be made in accordance with terms of the Extraordinary resolution of the noteholders.

In February 2023 the High Anticorruption Court of Ukraine decided to transfer the ownership over Mykolaiv Alumina Refinery Company Ltd from the Group in favor of Ukrainian Government. As of the date of authorization of these consolidated financial statements for issue, management of the Group is planning to submit an appeal against the Court's decision. Due to the developments of geopolitical situation so far, the carrying values of assets of Mykolaiv Alumina Refinery Company Ltd were written off as of 31 December 2022.

STATEMENT OF RESPONSIBILITY FOR THIS ANNUAL REPORT

I, Evgenii Nikitin, declare, to the best of my knowledge, that the financial statements contained in this Annual Report have been prepared in accordance with applicable accounting principles and give a true and fair view of the business, results of operations and financial condition of the Company and the other entities to which the financial statements apply, and that the management report (comprising the Business Overview, Management Discussion and Analysis, Report of the Board of Directors and Corporate Governance Report sections) of this Annual Report presents a fair review of developments in the business, results of operations and financial conditions of the Company and the other entities to which the financial statements apply, as well as a description of the main risks and uncertainties that they are facing.

EVGENII NIKITIN
GENERAL DIRECTOR

FORWARD LOOKING STATEMENTS

This Annual Report contains certain statements that are, or may be deemed to be, "forward-looking statements". These forward-looking statements may be identified by the use of forward-looking terminology, including the terms "believes", "estimates", "plans", "projects", "anticipates", "seeks", "expects", "intends", "forecasts", "targets", "may", "will", "should", "could" and "potential" or, in each case, their negative or other variations, or comparable terminology, or by discussions of strategy, plans, objectives, goals, future events or intentions. These forward-looking statements include all matters that are not historical facts. They appear in a number of places throughout this Annual Report and include, but are not limited to, statements regarding the Group's intentions, beliefs or current expectations concerning, among other things, the Group's business, results of operations, financial position, liquidity, prospects, growth, strategies and the bauxite, alumina and aluminium industries.

By their nature, forward-looking statements involve risk and uncertainty because they relate to future events and circumstances. Forward-looking statements are not guarantees of future performance and of the actual results of the Group's operations, financial position and liquidity, and the development of the markets and the industries in which the Group operates may differ materially from the development of those same industries as described in, or suggested by, the forward-looking statements contained in this Annual Report. In addition, even if the Group's results of operations, financial position and liquidity, and the development of the markets and the industries in which the Group operates, are consistent with the forward-looking statements contained in this Annual Report, those results or developments may not be indicative of results or developments in subsequent periods. A number of risks, uncertainties and other factors could cause results and developments to differ materially from those expressed or implied by the forward-looking statements including, without limitation:

- materially adverse changes in economic or industry conditions generally or in the markets served by the Group;
- changes in the supply and demand for and the price of aluminium, alumina, aluminium products and other products;
- fluctuations in inflation, interest rates and exchange rates;
- the Group's ability to repay pursuant to or comply with the terms of its credit facility agreements, or obtain further financing, refinancing or otherwise waiver of forbearance in respect of the Group's payment obligations under its facility of financing;
- changes in the costs of the materials required for the Group's production of aluminium and alumina;
- changes in the Group's operating costs, including the costs of energy and transportation;
- changes in the Group's capital expenditure requirements, including those relating to the Group's potential environmental liabilities or the ability of the Group to fund its capital expenditure requirements through borrowing or otherwise;
- the Group's ability to successfully and timely implement any of its business strategies;
- the Group's ability to obtain or extend the terms of the licences necessary for the operation of the Group's business;
- developments in, or changes to, laws, regulations, governmental policies, taxation or accounting standards or practices affecting the Group's operations;

- the Group's ability to recover its reserves or develop new resources and reserves;
- the Group's success in accurately identifying future risks to its business and managing the risks of the aforementioned factors; and
- other future events, risks, uncertainties, factors and assumptions discussed in the consolidated financial statements and other sections of this Annual Report.

Forward-looking statements may and often do differ materially from actual results. Any forward-looking statements in this Annual Report reflect the Group management's current view with respect to future events and are subject to risks relating to future events and other risks, uncertainties and assumptions relating to the Group's business, results of operations, financial position, liquidity, prospects, growth, strategies and the bauxite, alumina and aluminium industries. Investors should specifically consider the factors identified in this Annual Report, which could cause actual results to differ, before making any investment decision. Subject to the requirements of the applicable listing rules and except as may be required by applicable law, the Company undertakes no obligation to revise any forward-looking statements that appear in this Annual Report to reflect any change in the Company's expectations, or any events or circumstances, that may occur or arise after the date of this Annual Report.

GLOSSARY

"Achinsk Alumina Refinery", **"RUSAL Achinsk"**, **"JSC RUSAL Achinsk"** or **"AGK"** means Joint Stock Company "RUSAL Achinsk Alumina Refinery", a company incorporated under the laws of the Russian Federation, which is an indirect wholly-owned subsidiary of the Company.

"Adjusted EBITDA" for any period means the results from operating activities adjusted for amortisation and depreciation, impairment charges and loss on disposal of property, plant and equipment.

"Adjusted EBITDA margin" is calculated as Adjusted EBITDA to revenue for the relevant period.

"Adjusted Net Profit" for any period is defined as the net profit adjusted for the net effect from share in the results of Norilsk Nickel, the net effect of embedded derivative financial instruments, the difference between effective and nominal interest rate charge on restructured debt and net effect of non-current assets impairment.

"AGM" means annual general shareholders meeting that the Company shall hold once a year between two and six months after the end of a reporting year.

"AGM 2022" means the AGM that the Company held on 23 June 2022.

"Agreed Subsidiaries" means an agreed list of subsidiaries of the Company, as defined in the Shareholders' Agreement between Major Shareholders only.

"Alpart" means Alumina Partners of Jamaica.

"ALSCON" means Aluminium Smelter Company of Nigeria Plc, a company incorporated in Nigeria and in which the Company indirectly holds a 85% interest.

"Aluminium Division" means the Company's division comprising the smelters located in Russia and Sweden.

"Aluminium price per tonne quoted on the LME" or **"LME aluminium price"** represents the average daily closing official LME spot prices for each period.

"Amokenga Holdings" means Amokenga Holdings Limited, a company incorporated in Bermuda and which is a wholly-owned subsidiary of Glencore.

"Annual Report" means this annual report approved by the Board on 12 April 2023.

"Articles of Association" means the articles of association of the Company, conditionally adopted on 24 November 2009, effective on the Listing Date and subsequently amended on 22 November 2017, which was superseded by the Charter on 25 September 2020 after the Continuance.

"Associate(s)" has the meaning ascribed to such expression in the HKSE Listing Rules.

"Audit Committee" means the audit committee of the Board.

"Aughinish Alumina Refinery" means Aughinish Alumina Limited, a company incorporated in Ireland, which is a wholly-owned subsidiary of the Company.

"BAZ" or **"Bogoslovsky aluminium smelter"** means a branch of RUSAL Ural JSC in Krasnoturyinsk, United Company RUSAL Krasnoturyinsk Aluminium Smelter.

"BEMO" means the companies that make up the Boguchanskoye Energy & Metals complex.

"BEMO HPP" or **"BOGES"** means the Boguchanskaya hydro power plant.

"BEMO Project" means the Boguchanskoye Energy & Metals project involving the construction of the BEMO HPP and the Boguchansky aluminium smelter as described at pages 25 and 27 of this Annual Report.

"Big Data" means designation of structured and unstructured data of huge volumes and considerable variety, efficiently processed by horizontally scalable software tools that appeared in the late 2000s and are alternatives to traditional database management systems and Business Intelligence solutions.

"Board" means the board of Directors of the Company.

"Boguchansky aluminium smelter" or **"BEMO aluminium smelter"** or **"BoAZ"** means the aluminium smelter project involving the construction of a 600 thousand tpa greenfield aluminium smelter on a 230 hectare site, located approximately 8 km to the south-east of the settlement of Tayozhny in the Krasnoyarsk region, and approximately 160 km (212 km by road) from the BEMO HPP, as described at pages 27 and 29 of this Annual Report.

"Bratsk aluminium smelter" or **"RUSAL Bratsk"** or **"BrAZ"** or PJSC **"RUSAL Bratsk"** means Public Joint Stock Company "RUSAL Bratsk Aluminium Smelter", a company incorporated under the laws of the Russian Federation, which is a wholly-owned subsidiary of the Company.

"Bogoslovsky Alumina Refinery" or **"Boxitogorsk Alumina Refinery"** or **"JSC RUSAL Boxitogorsk Alumina"** means Joint Stock Company "RUSAL Boxitogorsk Alumina", a company incorporated under the laws of the Russian Federation, which is a wholly-owned subsidiary of the Group.

"Casting and mechanical plant "SKAD" Ltd." or **"SKAD"** means Limited Liability Company "Casting and mechanical plant 'SKAD'" (the short official name is "Casting and mechanical plant 'SKAD' Ltd."), a company incorporated under the laws of the Russian Federation, which is an indirect wholly-owned subsidiary of the Company.

"CAPEX" means capital expenditures.

"C.B.K" or **"Kindia"** means Compagnie des Beauxites de Kindia, located in Guinea.

"CDP Climate" means Carbon Disclosure Project (A United Kingdom-based organisation that supports companies and cities to uncover the environmental impact of large corporations).

"Chairman" or **"Chairman of the Board"** means the chairman of the Board.

"Charter" means the corporate charter of the Company adopted on 24 November 2009, effective on the Listing Date and subsequently amended on 22 November 2017, which were replaced by new Charter effective on the Registration Date.

"Chief Financial Officer" means the chief financial officer of the Company.

"CIS" means the Commonwealth of Independent States.

"CO" means oxide of carbon.

"CO_2" means carbon dioxide or carbon dioxide (chemical formula — CO2) is a chemical compound that is an acidic carbon monoxide consisting of one carbon atom and two oxygen atoms.

"CO_2-eq" means carbon dioxide equivalent CO2-eq: A unit used to compare the emissivity of greenhouse gases with carbon dioxide.

"Code for Securities Transactions" means the Code for Securities Transactions by Directors of the Company adopted by the Board on 9 April 2010 and based on Appendix 10 to the HKSE Listing Rules.

"Company" or **"UC RUSAL"** or **"UC RUSAL, IPJSC"** means United Company RUSAL, international public joint-stock company (UC RUSAL, IPJSC) 俄鋁, a company incorporated under the laws of Jersey with limited liability and continued in the Russian Federation as an international company in accordance with the procedure established by the laws of the Russian Federation, in accordance with the Federal Law of the Russian Federation "On International Companies and International Funds". The full company name in Russian is Международная компания публичное акционерное общество "Объединённая Компания "РУСАЛ"", and the abbreviated company name in Russian is МКПАО "ОК РУСАЛ".

"Connected person(s)" has the meaning ascribed to such expression in the HKSE Listing Rules.

"Connected transaction(s)" has the meaning ascribed to such expression in the HKSE Listing Rules.

"Continuance" means the Company's continuance out of Jersey to the Russian Federation which became effective on the Registration Date.

"Controlling Shareholder" has the meaning ascribed to such expression in the HKSE Listing Rules.

"Corporate Governance and Nomination Committee" means the corporate governance and nomination committee established by the Board.

"Covenant EBITDA" has the meaning given to it in the PXF Facility 2019.

"COVID" means the infectious disease caused by the coronavirus SARS-CoV-2. COVID-19 is an abbreviation of the words coronavirus disease, which means "disease caused by coronavirus", and the number 19 in the name indicates the year of the appearance of the virus. The first cases of the disease were recorded back in December 2019 in Wuhan (China).

"Directors" means the members of the Board of directors of the Company.

"Downstream Division" means the new division of the company "Downstream", which includes enterprises for the production of foil and containers, as well as powders and wheels.

"EBITDA" means earnings before interest, taxes, depreciation, and amortisation.

"EcoVadis Sustainability Rating" means the EcoVadis sustainable procurement rating, which covers a wide range of non-financial management systems, including environmental impact, labor and human rights, ethics, and sustainable procurement.

"EGM" means extraordinary general shareholders meeting that the Company may hold.

"EGM 2022 January" means the EGM that the Company held on 10 January 2022.

"EGM 2022 March" means the EGM that the Company held on 14 March 2022.

"EGM 2022 September" means the EGM that the Company held on 30 September 2022.

"EGM 2022 December" means the EGM that the Company held on 22 December 2022.

"En+" means EN+ GROUP International public joint-stock company, a company registered in accordance with the procedure established by the laws of the Russian Federation, in accordance with the Federal Law of the Russian Federation "On International Companies and International Funds", and which is a Controlling Shareholder of the Company.

"EPCM" means Engineering, Procurement, Construction and Management.

"ESG" means "Environment, Social, Governance". This is the Company's development strategy, which provides for transparency in management, concern for the environment and the people with whom the company comes into contact.

"EUR" means Euros, the lawful currency of the relevant member states of the European Union that have adopted the Euro as their currency.

"Eurallumina" means the alumina refinery located in Portoscuso, on the southwest coast of Sardinia, Italy. During the year ended 31 December 2006, the Group entered into an agreement with Rio Tinto Aluminium Ltd and acquired a 56.2% interest in Eurallumina, the remaining 43.8% interest in Eurallumina was owned by Glencore and was acquired by the Group as part of the acquisition of SUAL and Glencore Businesses during the year ended 31 December 2007.

"Euronext Paris" means the Professional Segment of Euronext Paris.

"Executive Committee" or **"ExCom"** means the Executive Committee, an advisory body to the General Director.

"financial year" means the financial year ended 31 December 2022.

"Forbes Russia's 2022 Top Employer Rating" means rating of the best employers 2022 according of Forbes Russia.

"Friguia" or **"Friguia Alumina Refinery"** means Friguia S.A., a company incorporated in Guinea, which is a wholly owned subsidiary of the Company.

"GBP" means Pounds Sterling, the lawful currency of the United Kingdom.

"Gcal" means this is an off-system unit of power measurement. Unit conversion of gigacalories per hour: 1 gigacalory per hour = 1,163 kilowatts.

"General Director" means the General Director of the Company.

"Glencore" means Glencore Plc, a public company incorporated in Jersey and listed on the London Stock Exchange, with a secondary listing on the Johannesburg Stock Exchange, which was an indirect shareholder of the Company. Pursuant to the press release issued by En+ on 28 January 2019, En+ announced that it had entered into a securities exchange agreement and certain other related agreements with certain subsidiaries of Glencore, pursuant to which Glencore shall transfer the 8.75% of the Company's shares to En+ in consideration for En+ issuing new GDRs to Glencore representing approximately 10.55% of the enlarged share capital of En+. As announced by the Company on 3 February 2020, the aforementioned share swap was completed and Glencore ceased to have any shareholding in the Company.

"Group" or **"RUSAL Group"** or **"RUSAL"** means the Company and its subsidiaries from time to time, including a number of production, trading and other entities controlled by the Company directly or through its wholly-owned subsidiaries.

"GSM" means the general shareholders meeting, being the supreme management body of the Company.

"GTC" means method of dry cleaning of gases from fluoride compounds in gas cleaning plants.

"GWh" means gigawatts hours.

"HKSE CG Code" means the corporate governance code setting out, among others, the principles of good corporate governance practices as set out in Appendix 14 to the HKSE Listing Rules (as amended from time to time).

"Honeywell MES" means Manufacturing Execution System Honeywell.

"Hong Kong" means the Hong Kong Special Administrative Region of the PRC.

"HKD" means Hong Kong dollars, the lawful currency of Hong Kong.

"HKSE Listing Rules" means the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange (as amended from time to time).

"Hong Kong Companies Ordinance" means the Hong Kong Companies Ordinance (Chapter 622 of the Laws of Hong Kong) (as amended from time to time).

"Hong Kong Stock Exchange" or **"HKSE"** means The Stock Exchange of Hong Kong Limited.

"IFRS" means the International Financial Reporting Standards.

"Indicated Mineral Resource" or **"Indicated"** means the part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

"Inferred" means a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.

"Interros" means Interros International Investments Limited.

"Irkutsk aluminium smelter" or **"IrkAZ"** means a branch of RUSAL Bratsk in Shelekhov.

"ISO 14001-2015" means Environmental management systems.

"ISO 45001-2018" means Management systems of occupational health and safety.

"ISO 50001" means Quality management systems – Requirements Quality.

"ISO 9001" means Quality management systems – Requirements.

"IPO" means the initial public offering of the Company on the Hong Kong Stock Exchange and Euronext Paris.

"JORC" means Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists & the Minerals Council of Australia.

"Joint Stock Company "Boksit Timana"', **"JSC "Boksit Timana""**, **"Boksit Timana"** or **"Timan Bauxite"** means Joint Stock Company 'Boksit Timana', a company incorporated under the laws of the Russian Federation, which is a non-wholly owned subsidiary of the Company.

"JSC Irkutskenergo" or **"PJSC Irkutskenergo"** means Irkutsk Public Joint Stock Company of Energetics and Electrification, a power generating company controlled by En+ as to more than 30% of its issued share capital.

"JSC Kremniy" means a company incorporated under the laws of the Russian Federation and a subsidiary of the Company.

JSC "RUSAL SAYANAL" or **"SAYANAL"** or **"Sayanal"** means Joint-Stock Company RUSAL SAYANAL, a company incorporated under the laws of the Russian Federation, which is an indirect wholly-owned subsidiary of the Company.

"JSC Russian Aluminium" means Joint Stock Company "RUSSIAN ALUMINIUM", a company incorporated under the laws of the Russian Federation, which is an indirect wholly-owned subsidiary of the Company.

JSC 'UC RUSAL TH' or **"RUSAL TH**" means Joint-stock company 'United Company RUSAL Trading House', a company incorporated under the laws of the Russian Federation, which is an indirect wholly-owned subsidiary of the Company.

JSC "Ural Foil" or **"Ural Foil"** means Joint-Stock Company "Ural Foil", a company incorporated in Russia, which is an indirect wholly-owned subsidiary of the Company.

"kA" means kilo-amperes.

"Kandalaksha aluminium smelter" means Kandalaksha Aluminium Smelter, a branch of RUSAL Ural, JSC, United Company RUSAL Kandalaksha Aluminium Smelter in Kandalaksha.

"Khakas aluminium smelter" or **"KhAZ"** means Closed Joint Stock Company "Khakas Aluminium Smelter", being merged with Sayanogorsk Aluminum Smelter since 30 July 2015.

"Kirkwine SML 161 license" means Special Mining Lease 161.

"KPIs" means key performance indicators.

"KraMZ" or **""KraMZ" Ltd."** means Limited liability company 'Krasnoyarsk metallurgical plant' ("KraMZ" Ltd.), a company incorporated in the Russian Federation controlled by En+ as to more than 30% of its issued share capital.

"KraMZ-Auto" means KraMZ-Auto LLC, a company incorporated in the Russian Federation.

"Krasnoyarsk aluminium smelter", **"RUSAL Krasnoyarsk"** or **"KrAZ"** means Joint Stock Company "RUSAL Krasnoyarsk Aluminium Smelter", a company incorporated under the laws of the Russian Federation, which is an indirect wholly-owned subsidiary of the Company.

"Krasnoyarskaya HPP" means JSC Krasnoyarsk Hydro-Power Plant, a hydroelectric power station controlled by En+ as to more than 30% of its issued share capital.

"kt" means kilotonnes.

"KUBAL" means Kubikenborg Aluminium AB, a company incorporated in Sweden, which is an indirect wholly-owned subsidiary of the Company.

"KUMZ JSC" or **"OAO KUMZ"** means Kamensk-Uralsky Metallurgical Works Joint Stock Company, a company incorporated under the laws of the Russian Federation.

"kWh" means kilowatt hour.

"Latest Practicable Date" means 31 March 2023, being the latest practicable date prior to the printing of this Annual Report for ascertaining certain information in this Annual Report.

"LIBOR" means in relation to any loan:

(a) the applicable screen rate (being the British Bankers' Association Interest Settlement Rate for dollars for the relevant period, displayed on the appropriate page of the Reuters screen); or

(b) (if no screen rate is available for dollars for the interest period of a particular loan) the arithmetic mean of the rates (rounded upwards to four decimal places) as supplied to the agent at its request quoted by the reference banks to leading banks in the London interbank market, as of the specified time (11:00 a.m. in most cases) on the quotation day (generally two business days before the first day of that period unless market practice differs in the Relevant Interbank Market, in which case the quotation day will be determined by the agent in accordance with market practice in the Relevant Interbank Market) for the offering of deposits in dollars and for a period comparable to the interest period for that loan.

Limited Liability Company "RUSAL Taishet Aluminium Smelter", **"RUSAL Taishet"** LLC, **"Taishet"**, **"Taishet aluminium smelter"** or **"TAZ"** or **"TaAZ"** means Limited Liability Company "RUSAL Taishet Aluminium Smelter", a company incorporated in Russia, which is an indirect wholly-owned subsidiary of the Company.

"Listing" means the listing of the Shares on the Hong Kong Stock Exchange.

"Listing Date" means the date on which the Shares were listed on the Hong Kong Stock Exchange, being 27 January 2010.

"LLP Bogatyr Komir" or **"Bogatyr Coal"** Limited Liability Partnership means the joint venture between the Company and Samruk-Energo producing coal described at page 27 of this Annual Report.

"LME" means the London Metal Exchange.

"LTIFR" means the Lost Time Injury Frequency Rate which was calculated by the Group as a sum of fatalities and lost time injuries per 200,000 man-hours.

"Main State Expertise" means one of the main directions of state regulation in the field of architectural, urban planning and construction activities.

"Major Shareholders" means En+, SUAL Partners, Glencore (until it ceased to be a Shareholder on 3 February 2020) and Onexim (until it ceased to be a Shareholder on 16 January 2018).

"Major Shareholders' Shares" means the Shares held by the Major Shareholders and their respective wholly-owned subsidiaries.

"Management Company" or **"RUSAL Management Company"** means a subsidiary of the Group retained for accounting, general management, administration and secretarial functions.

"Market Council" means the non-commercial organization formed as a result of a non-commercial partnership, which is intended to unite energy market participants and major consumers of electrical energy through membership of that body. The council is intended to ensure the proper functioning of commercial market infrastructure and effective exchanges between the wholesale and retail electrical energy markets. Additionally, it is intended to promote investment in the electrical energy industry by creating a healthy market and even playing field for participants of both the wholesale and retail electrical energy markets, when drafting new rules and regulations concerning the electrical energy industry, and facilitate self-regulation of the wholesale and retail trade in electrical energy, power and other products and services which is permissible in the wholesale and retail electrical energy markets. The council's aim is to ensure the security of energy supply in the Russian Federation, unity within the economic space, economic freedom and competition in the wholesale and retail electrical energy markets, by striking a balance between the interests of suppliers and buyers and the needs of society in general in terms of having a reliable and stable source of electrical energy.

"Measured Mineral Resource" or **"Measured"** means a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

"Memorandum" means the memorandum of association of the Company conditionally adopted on 26 December 2009, and effective on the Listing Date, and subsequently amended on 22 November 2017.

"Moscow Exchange" or **"MOEX"** means Public Joint-Stock Company "Moscow Exchange MICEX-RTS" (short name "Moscow Exchange").

"MoEx Listing Rules" means the Rules Governing the Listing of Securities on the Moscow Exchange (as amended from time to time).

"Mineral Resource" means a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

"Model Code" means the Model Code for Securities Transactions by Directors of Listed Issuers as set out in Appendix 10 to the HKSE Listing Rules.

"mt" means million tonnes.

"MW" means megawatt.

"Net Debt" is calculated as Total Debt less cash and cash equivalents as at 31 December 2022.

"Na_2O" means sodium oxide is a chemical combination with the formula Na_2O. It is used in ceramics and glass.

"Nadvoitsy aluminium smelter" or **"NAZ"** means a branch of RUSAL Ural JSC in Nadvoitsy, United Company RUSAL Nadvoitsy Aluminium Smelter.

"Nikolaev Alumina Refinery" or **"Mykolaiv Alumina Refinery"** or **"NGZ"** means Mykolaiv Alumina Refinery Company Limited, a company incorporated under the laws of the Ukraine, which is a wholly-owned subsidiary of the Company.

"NO_x" means the collective name of nitrogen oxides NO and NO_2, formed in chemical reactions in the atmosphere and during burning.

"Norilsk Nickel" means PJSC "MMC "NORILSK NICKEL", a company incorporated under the laws of the Russian Federation.

"Norilsk Nickel Group" means PJSC "MMC "Norilsk Nickel" and its subsidiaries.

"North Urals" means JSC Sevuralboksitruda, a company incorporated in Russia, which is a wholly-owned subsidiary of the Company.

"Novokuznetsk aluminium smelter" or **"NkAZ"** or **"RUSAL Novokuznetsk"** means Joint Stock Company "RUSAL Novokuznetsk Aluminium Smelter", a company incorporated under the laws of the Russian Federation, which is an indirect wholly -owned subsidiary of the Company.

"OFAC" means the Office of Foreign Assets Control of the Department of the U.S. Treasury.

"OFAC Sanctions" means the designation by OFAC of certain persons and certain companies into the SDN List.

"OHSAS 18001" means Occupational Health and Safety Specification (OHSAS) 18001.

"Onexim" means Onexim Holdings Limited, a company incorporated in Cyprus. According to disclosure of interests notices filed with the Company on 21 February 2018 pursuant to Part XV of the SFO, Onexim sold its entire shareholding in the Company (which represented approximately 6% shareholding in the issued share capital of the Company) and ceased to be a shareholder of the Company on 16 February 2018.

"OPEX" means Operating Expenditures.

"Ore Reserves" means the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.

"Paris Agreement on Climate" means an international treaty on climate change. Adopted in 2015, the agreement covers climate change mitigation, adaptation, and finance.

"PM Krasnoturyinsk" means SUAL-PM-Krasnoturyinsk, a branch of LLC 'SUAL-PM'.

"PRC" means The People's Republic of China.

"Probable Ore Reserve" means the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

"Proved Ore Reserve" means the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

"Prospectus" means the Company's prospectus for the Listing dated 31 December 2009. The Prospectus is available on the Company's website under the link https://rusal.ru/investors/info/docs/PROSPECTUS.pdf

"PXF Facility 2019" means up to USD1,085,000,000 Aluminium Pre-Export Finance Term Facility Agreement dated 25 October 2019, among inter alias, RUSAL as Borrower and ING Bank N.V. as Facility Agent and Security Agent and Natixis as Offtake Agent.

"PXF Facility 2021" means up to USD200 million syndicated aluminium pre-export finance term facility – until January 2024 equal quarterly repayments starting from April 2022.

"QAL" means Queensland Alumina Limited, a company incorporated in Queensland, Australia, in which the Company indirectly holds a 20% equity interest.

"RBC 2022 Best Russian Employers Rating" means Rating of Russian employers.

"RA-550" means one of the world's most powerful electrolyzers, developed by UC RUSAL. RA-550 consumes 10-15% less electricity compared to the electrolyzers of previous generations, about 12.8kW / hour / kg.

"RA-800+" means the model of the electrolyzer, developed by UC RUSAL. This is the most powerful electrolyzer in the world with a unique bushing that allows to eliminate the influence of magnetic fields as much as possible.

"Registration Date" means 25 September 2020, the date when the Company was registered as an international public joint-stock company in the Unified State Register of Legal Entities of the Russian Federation, changed its jurisdiction of incorporation from Jersey to the Russian Federation, changed its corporate name from UC RUSAL Plc to UC RUSAL, IPJSC and when its Memorandum of association and Articles of Association governed by Jersey laws were superseded by the Charter.

"related party" of an entity means a party who is:

(a) directly, or indirectly through one or more intermediates, a party which:

i. controls, is controlled by, or is under common control with, the entity (this includes parents, subsidiaries and fellow subsidiaries);

ii. has an interest in the entity that gives it significant influence over the entity; or

iii. has joint control over the entity;

(b) an associate of the entity;

(c) a joint venture in which the entity is a venturer;

(d) a member of the key management personnel of the entity or its parent;

(e) a close member of the family of any individual referred to in (a) or (b) above;

(f) an entity that is controlled, jointly controlled or significantly influenced by, or for which significant voting power in such entity resides with, directly or indirectly, any individual referred to in (d) or (e) above;

(g) a post-employment benefit plan for the benefit of employees of the entity, or of any entity that is a related party of the entity.

"related party transaction" means a transfer of resources, services or obligations between related parties, regardless of whether the price is charged.

"Recurring Net Profit" for any period means Adjusted Net Profit plus the Company's effective share of Norilsk Nickel's profits, net of tax.

"Relevant Officer" means any employee of the Company or a director or employee of a subsidiary of the Company.

"Relevant Officers Code" means the code for Securities Transactions by Relevant Officers of the Company.

"Remuneration Committee" means the remuneration committee established by the Board.

"Review Period" means the period commencing from 1 January 2022 and ending on 31 December 2022.

"RF" means Russian Federation.

"Risk Map" means a systematic list of all risks of the Company with a description of the each risk, probability of its occurrence, financial assessment of the risk, consequences of its occurrence, responsible persons and risk control procedures.

"RUB" or **"Ruble"** means Rubles, the lawful currency of the Russian Federation.

"RUSAL ARMENAL" CJSC or **"RUSAL ARMENAL"** or **"ARMENAL"** means Closed Joint Stock Company "RUSAL ARMENAL", an indirect wholly-owned subsidiary of the Company.

"RUSAL ETC" means Limited Liability Company "RUSAL Engineering and Technology Centre", an indirect wholly-owned subsidiary of the Company.

"RUSAL Global" or **"RUSAL Global Management B.V."** means RUSAL Global Management B.V., a company incorporated under the laws of the Netherlands, an indirect wholly-owned subsidiary of the Company.

"RUSAL RESAL LLC" means Limited Liability Company "RUSAL RESAL", a company incorporated under the laws of the Russian Federation, which is an indirect wholly-owned subsidiary of the Company.

"RUSAL-Sayana Foil" LLC or **"Sayana Foil"** means Limited Liability Company "RUSAL-Sayana Foil", a company incorporated under the laws of the Russian Federation, an indirect wholly-owned subsidiary of the Company.

"RUSAL Ural JSC" means Joint Stock Company 'United Company RUSAL Ural Aluminium', formerly JSC "Siberian-Urals Aluminium Company" (official short name JSC "SUAL"), a company incorporated under the laws of the Russian Federation, an indirect wholly-owned subsidiary of the Company.

"RUS-Engineering" means RUS-Engineering LLC, a company incorporated under the laws of the Russian Federation, an indirect wholly-owned subsidiary of the Company.

"RusHydro" means PJSC "RusHydro" ("Public Joint-Stock Company Federal Hydro-Generating Company – RusHydro"), a company organised under the laws of the Russian Federation, which is an independent third party.

"Russian CG Code" corporate governance code approved by the Board of Directors of the Bank of Russia on 21 March 2014.

"R&D" means research and development or the Research and Development Centres operated by the Company, as the context requires.

"Samruk-Energo" means Samruk-Energo, a company incorporated in Kazakhstan, which is an independent third party.

"Samruk-Kazyna" means the Kazakhstan state controlled national welfare fund.

"Sayanogorsk aluminium smelter", JSC **"RUSAL Sayanogorsk"** or **"SAZ"** means Joint Stock Company "RUSAL Sayanogorsk", a company incorporated under the laws of the Russian Federation, which is an indirect wholly-owned subsidiary of the Company.

"SDN List" means the Specially Designated Nationals List published by OFAC. U.S. persons are generally prohibited from dealing with assets of persons designated in the SDN List which are subject to the U.S. jurisdiction, subject to certain exemptions and exclusions set out in licenses issued by OFAC.

"SFO" means the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) (as amended from time to time).

"Share(s)" means the ordinary share(s) with nominal value of USD0.01 each in the share capital of the Company. From 25 September 2020 onwards, means ordinary share(s) with nominal value of RUB 0.656517 each in the share capital of the Company.

"Shareholder(s)" means the holders of Shares.

"Shareholders' Agreement between Major Shareholders only" means the shareholders' agreement dated 22 January 2010 between the Major Shareholders.

"Shareholders' Agreement with the Company" means the shareholders' agreement dated 22 January 2010 between the Major Shareholders and the Company.

"Shareholding Changes in 2019" means the following changes to the shareholding in the Company which has been notified to the Company:

En+ announced in its press release dated 28 January 2019 that it had entered into a securities exchange agreement and certain other related agreements with certain subsidiaries of Glencore pursuant to which Glencore shall transfer 8.75% of Shares to En+ (of which En+ announced on 1 February 2019 that approximately 2% has been transferred, and En+ announced on 3 February 2020 that the remaining 6.75% has been transferred) in consideration for En+ issuing new global depositary receipts to Glencore representing approximately 10.55% of the enlarged share capital of En+.

Based on the disclosure of interests notice filed with the Company, the interests of Glencore decreased to approximately 6.78% in the issued share capital of the Company on 31 January 2019. The Company understands that this was due to the transfer of approximately 2% Shares pursuant to the aforementioned securities exchange agreement following the removal of En+ from the SDN List on 27 January 2019.

Based on the disclosure of interests notice filed with the Company, the interests of En+ increased to approximately 56.88% in the issued share capital of the Company on 3 February 2020.

"Shareholding Changes in 2018" means the following change to the shareholding in the Company which has been notified to the Company:

According to disclosure of interests notices filed with the Company on 21 February 2018 pursuant to Part XV of the SFO, Onexim sold its entire shareholding in the Company (which represented approximately 6% shareholding in the issued share capital of the Company) and ceased to be a shareholder of the Company on 16 February 2018.

"SLM printing technology" means selective laser melting 3D metal printing, a technology for manufacturing metal products of complex spatial shapes by melting powder compositions with a laser.

"SO_2" means sulphur oxide (IV) (sulphur dioxide, sulphur dioxide, sulphur dioxide, sulphur dioxide) is a compound of sulphur with oxygen of the composition SO_2. Under normal conditions, it is a colorless gas with a characteristic pungent odor (the smell of a burning match). It is toxic in high concentrations.

"South Ural Cryolite Plant" or **"Cryolite"** means Joint-Stock Company "South Ural Cryolite Plant", an indirect non wholly-owned subsidiary of the Company.

"STIP" means the Company's Short-Term Incentive Program.

"Limited Liability Company 'United Company RUSAL Ural Silicon'" or **"LLC RUSAL Silicon Ural"** means RUSAL Silicon Ural LLC (formerly SU-Silicon LLC), an indirect non wholly-owned subsidiary of the Company.

"SUAL Partners" means SUAL Partners Limited, a company incorporated under the laws of the Bahamas as SUAL Partners Limited and continued in the Russian Federation as an international company in accordance with the procedure established by the laws of the Russian Federation, in accordance with the Federal Law of the Russian Federation "On International Companies and International Funds", which is a Substantial Shareholder of the Company.

"Substantial shareholder(s)" has the meaning ascribed to such expression under the HKSE Listing Rules.

"SUAL – PM" or **"LLC 'SUAL-PM'"** means SUAL-PM LLC, an indirect wholly-owned subsidiary of the Company.

"total attributable alumina output" is calculated based on pro rata share of the Group's ownership in corresponding alumina refineries.

"total attributable bauxite output" is calculated based on pro rata shares of the Group's ownership in corresponding bauxite mines and mining complexes, including the total production of Timan and Bauxite Co. De Guyana., notwithstanding that minority interests in these subsidiaries are held by third parties.

"Total Debt" means the Company's loans and borrowing at the end of the period.

"Total Net Debt" has the meaning given to it in the PXF Facility 2019.

"tpa" means tonnes per annum.

"TRIZ" means a set of methods for solving problems and improving systems. With its help, it is possible to increase efficiency and improve abilities in solving complex problems, while using a creative approach, developing imagination and flexible thinking.

"TSA" means Trading System Administrator of Wholesale Electricity Market Transactions.

"UC RUSAL Anode Plant LLC" means Limited Liability Company United Company RUSAL Anode Plant, a company incorporated in Russia, which is an indirect wholly-owned subsidiary of the Company.

"UN Global Compact" means the international corporate social responsibility and sustainability initiative by the United Nations.

"Urals aluminium smelter", **"Urals Alumina Refinery"**, **"UAZ"** means Urals Aluminium Smelter, a branch of RUSAL Ural JSC.

"US" means the United States of America.

"USD" or **"US dollar"** means United States dollars, the lawful currency of the United States of America.

"U.S. Treasury" means the Treasury of the United States of America.

"VAP" means value added products. VAP include wire rod, foundry alloys, billets, slabs, high purity and other VAP.

"VAT" means value added tax.

"Volgograd aluminium smelter" or **"VgAZ"** means a branch of RUSAL Ural JSC in Volgograd, United Company RUSAL Volgograd Aluminium Smelter.

"Volkhov aluminium smelter" or **"VAZ"** means a branch of RUSAL Ural JSC in Volkhov, United Company RUSAL Volkhov Aluminium Smelter.

"Wholesale Electricity Market" means the wholesale market for the sale of electrical energy and power within the confines of the "Russian United Energy System" in the unified economic space of the Russian Federation. Large suppliers and purchasers of electrical energy and power participate in this market, as well as other participants which have obtained the status of wholesale market participants and act in accordance with the Wholesale Electricity Market Rules.

"Wholesale Electricity Market Rules" means the regulatory act (passed according to the Decree of the Government of the Russian Federation of 27 December 2010 №1172 "On approval of the Rules for the wholesale electricity and capacity market and on amending some acts of the Government of the Russian Federation on the organization of the functioning of the wholesale electricity and capacity market" as specified in the Federal law N 35-FZ "On the Electric Energy Industry" dated 26 March 2003), which regulates the sale of electrical energy and power in the Wholesale Electricity Market.

"Windalco" means West Indies Alumina Company, a company incorporated in Jamaica, in which the Company indirectly holds a 100% interest.

"Working Capital" means trade and other receivables and inventories less trade and other payables.

PARTNERSHIP

Fairness in the exercise of rights

APPENDIX A – PRINCIPAL TERMS OF THE SHAREHOLDERS' AGREEMENT WITH THE COMPANY

The principal terms of the Shareholders' Agreement with the Company are described below. Unless otherwise stated, references to En+, SUAL Partners, Glencore and Onexim are deemed to include reference to other entities controlled by those Major Shareholders (other than any member of the Group).

Right of first refusal – bauxite, alumina, aluminium

The Major Shareholders must offer the Company a right of first refusal in respect of any assets or development opportunities related to the production of bauxite, alumina or aluminium ("**Industrial Assets**") that they wish to acquire where such Industrial Asset or a group of related Industrial Assets has a value in excess of an amount determined by reference to the prevailing LME (high grade premium aluminium three month offer side) price of aluminium at the time of the proposed acquisition. If that LME price is USD1,500 per tonne or less then the trigger value is USD500 million, if it is USD4,500 or more then the trigger price is USD1 billion and if it is between these two prices then the trigger price is prorated on a straight line basis.

Each Major Shareholder must disclose to the Company any opportunity which has come to their (or their associates') respective attentions to acquire Industrial Assets of whatever value.

Relationship between the Company and the Major Shareholders

Each Major Shareholder must ensure that any contract between it or any of its associates and any member of the Group is entered into on an arms' length commercial basis and on terms that are not unfairly prejudicial to the interests of any Major Shareholder or the Group.

If there is a dispute between a Major Shareholder or any of its associates and the Company, that Shareholder will not, and will procure that any Directors appointed by it will not, do anything to prevent or hinder the Company's handling of the dispute.

The Major Shareholders agree to act in good faith in relation to the Group and in a manner that is not unfairly prejudicial to the interests of the Shareholders generally, and that the Group will be operated in accordance with the corporate governance standards set out in the HKSE CG Code.

Termination for particular Shareholders

Under the Shareholders' Agreement, upon any Major Shareholder ceasing to hold at least 3% of the total Shares in issue, for whatever reason, it shall lose all of its rights and obligations under the Shareholders' Agreement with the Company.

Effect of Shareholding Changes

As a result of the Shareholding Changes in 2018 and Shareholding Changes in 2019, Onexim and Glencore ceased to have any rights under the Shareholders' Agreement with the Company.

HARMONY

Balance for the Company's benefit

APPENDIX B – PRINCIPAL TERMS OF THE SHAREHOLDERS' AGREEMENT BETWEEN MAJOR SHAREHOLDERS ONLY

The principal terms of the Shareholders' Agreement between Major Shareholders only are described below. Unless otherwise stated, references to En+, SUAL Partners, Glencore and Onexim are deemed to include reference to other entities controlled by those Major Shareholders (other than any member of the Group).

Board of the Company

For as long as En+ holds at least 30% of the Major Shareholders' Shares, the Major Shareholders have agreed to use their respective voting and other rights to procure, so far as they are able, that the Board shall consist of a minimum of 16 and a maximum of 18 Directors and that Directors proposed for nomination or removal under the Articles of Association or otherwise by the shareholders of the Company will be appointed to or removed from the Board to achieve the following:

- For as long as En+ holds at least 40% of the Major Shareholders' Shares, Directors representing at least 50% of the Board shall be Directors proposed by En+ (excluding independent Directors), one of whom shall be the Vice Chairman of the Board. For as long as En+ holds at least 30% of the Major Shareholders' Shares, En+ shall have the right to nominate for appointment and removal the CEO. The appointment of the CEO will be subject to approval by a majority of the Board and the Board will retain the ability to remove the CEO. The number of Directors (other than independent Directors) that En+ is entitled to propose for nomination to and removal from the Board shall reduce by one for as long as its shareholding, as a percentage of the Major Shareholders' Shares, is between 35% and 40%, and by two for as long as such percentage is between 30% and 35%. In addition, En+ shall be entitled to propose for nomination and removal two independent Directors for as long as it holds at least 40% of the Major Shareholders' Shares and one independent Director for as long as that percentage remains between 10% and 40%. En+ shall have the right to veto the appointment of any independent Director nominated by SUAL Partners on the grounds set out in the Shareholders' Agreement among Major Shareholders only.
- For as long as SUAL Partners holds at least 8.6% of the total Shares in issue (or such lesser percentage as results from dilution on a further share issue), SUAL Partners shall have the right to propose for nomination and removal three Directors, one of whom shall be independent, and to veto the appointment of any independent Director nominated by En+ on the grounds set out in the Shareholders' Agreement among Major Shareholders only.
- For as long as En+ holds less than 30% of the Major Shareholders' Shares, the Major Shareholders have agreed to use their respective voting and other rights to procure, so far as they are able, that the Board shall consist of between 15 and 19 directors comprising:
- four independent Directors, to be nominated in accordance with the rights of proposal of En+ and SUAL Partners described above (if relevant) and, to the extent required, by the Corporate Governance and Nomination Committee; and
- Directors (other than independent Directors) who shall be proposed for nomination and removal by the Major Shareholders in proportion to their respective holdings of Shares from time to time.

Boards of Subsidiaries

The Major Shareholders have agreed to use their respective voting and other rights to procure, so far as they are able, that the Directors proposed for nomination or dismissal by the shareholders of the Company will be appointed to or removed from the boards of the Agreed Subsidiaries to achieve the following:

- The board of each of RUSAL Global Management B.V. and RUSAL America Corp. shall comprise:
- four directors proposed by En+, for as long as the shareholding of En+ as a percentage of the Major Shareholders' Shares is at least 40%, provided that the number of directors to be proposed by En+ shall be three where such percentage is between 30% and 40%, shall be two where it is between 20% and 30% and shall be one where it is less than 20%; and
- one director proposed by SUAL Partners, for as long as in each case SUAL Partners holds at least 8.6% of the total Shares in issue (or such lesser percentage as results from dilution on a further share issue).
- The board of each other Agreed Subsidiary shall comprise:
- three directors proposed by En+ for as long as the shareholding of En+ as a percentage of the Major Shareholders' Shares is at least 40%, provided that the number of directors to be proposed by En+ shall be two where such percentage is between 20% and 40% and shall be one where it is less than 20%; and
- one director proposed by SUAL Partners, for as long as SUAL Partners holds at least 8.6% of the total Shares in issue (or such lesser percentage as results from dilution on a further share issue).

Committees of the Board

The Major Shareholders have agreed to procure, so far as they are able, that certain committees of the Board are to be established, as follows:

- An audit committee, remuneration committee and corporate governance and nomination committee, each to be established in accordance with the requirements of the HKSE CG Code.
- A health, safety and environmental committee, whose composition, functions and terms of reference are to be determined from time to time by the Board, a marketing committee and a standing committee.
- Summaries of the functions of these committees are set out in "Corporate Governance Report".

Veto rights

- The Major Shareholders have agreed to exercise their voting rights with a view to giving the Major Shareholders effective veto rights as set out below, by procuring that Directors proposed by them for appointment vote against any resolution in respect of which a Major Shareholder has exercised its "veto":
- Each of En+ and SUAL Partners is given a right of veto in relation to any related party transaction (or amendment to or renewal of an existing related party transaction).
- Each of En+ and SUAL Partners is given a right of veto in respect of any matter proposed to be undertaken by the Company or any of its subsidiaries which would require a special resolution were the Company or the relevant subsidiary incorporated in England and Wales (e.g., alteration of Articles of Association; change of name; re-registration of a private company as a public company; re-registration of an unlimited company as limited; re-registration of a public company as a private company; offer to issue shares or rights to subscribe for shares other than pro rata to existing shareholders by disapplying statutory pre-emption rights; reduction of share capital; to give, revoke, renew or vary the authority for the Company to purchase (off market) shares in itself; and to redeem or purchase own shares out of capital).
- The Company does not believe that these veto rights will have any material impact on the operation of the Company.

Matters inconsistent with the Shareholders' Agreement between Major Shareholders only

The Major Shareholders have agreed that they shall use their voting and other rights available to them to procure that no resolutions are passed or actions taken or refrained from being taken by the Company or any other member of the Group to the extent that they would be inconsistent with the terms of the Shareholders' Agreement between Major Shareholders only.

KraMZ/OAO KUMZ supply agreements and agreements with Glencore

- The Major Shareholders have agreed to use their voting and other rights available to them to procure that all Board and shareholder approvals and resolutions which are required under the HKSE Listing Rules in respect of the supply agreement entered into between the Group and OAO KUMZ, and the supply agreement entered into between the Group and KraMZ group companies, a group of companies are passed in accordance with those laws and rules.

- If the entry into, amendment of or exercise of any rights under any agreements between the Group and Glencore approved by the Board require shareholder approval under the HKSE Listing Rules, the Major Shareholders have agreed to use their voting and other rights available to them to procure that such approvals and resolutions are passed in accordance with those laws and rules.

Dividend policy

The Major Shareholders have agreed to procure compliance by the Group with a dividend policy, to the extent permissible under the terms of the credit facility agreements, under which not less than 50% of the annual consolidated net profits of the Group in each financial year are distributed to Shareholders within four months after the end of the relevant financial year, subject to any applicable legislation.

Rights of first refusal – SUAL Partners Shares

- Subject to certain exceptions, if SUAL Partners wishes to sell any of its holding of Shares in an onmarket transaction, it must serve notice on En+, offering it a right of first refusal. The price at which En+ will be entitled to acquire the Shares offered by SUAL Partners is the volume weighted average price per Share for the three trading days prior to the date on which the relevant notice is sent by SUAL Partners.

- SUAL Partners will not be obliged to offer En+ a right of first refusal in respect of Shares sold by it to the extent that:

- the aggregate number of Shares sold in any one trading day by SUAL Partners does not exceed 20% of the daily average trading volume for the 30 trading days immediately preceding that trading day; and

- the aggregate number of Shares sold within the above limits does not in any period of four months exceed 0.5% of the total Shares in issue at the time of the relevant sale.

Share placing

To the extent that the Company proposes to undertake a bookbuild placing or underwritten offering of Shares of in excess of 1% of the issued share capital of the Company, the Major Shareholders have agreed to use their voting and other rights to procure that the Major Shareholders are also entitled to sell a pro rata proportion of their Shares as part of such placing or offering.

No mandatory offer

The Major Shareholders have agreed not to acquire or dispose of any voting rights which would be exercisable at a general meeting of the Company, if such acquisition or disposal would trigger a mandatory obligation under the Hong Kong Codes on Takeovers and Mergers and Share Repurchases to make an offer for Shares and have undertaken to indemnify each other in the event of a breach of such undertaking.

Termination for particular shareholders

The Shareholders' Agreement between Major Shareholders only shall terminate in respect of the relevant Major Shareholder in the following circumstances:

- Upon SUAL Partners ceasing to hold at least 8.6% of the total Shares in issue (or such lesser percentage as results from dilution on a further share issue) SUAL Partners (as the case may be) shall lose their rights to propose Directors for nomination to the Board, and upon such shareholdings falling below 50% of the relevant minimum shareholding stated above they shall lose their respective veto rights as described above.

- Upon En+ ceasing to hold at least 8.6% of the total Shares in issue (or such lesser percentage as results from dilution on a further share issue), it shall lose any rights to propose Directors for nomination to the Board, and upon such shareholding falling below 50% of the relevant minimum shareholding stated above, it shall lose its veto rights as described above.

- Upon any Major Shareholder ceasing to hold at least 3% of the total Shares in issue, for whatever reason, it shall lose all of its rights and obligations under the Shareholders' Agreement between Major Shareholders only.

Effect of Shareholding Changes

As a result of the Shareholding Changes in 2018, the Shareholders' Agreement among Major Shareholders has terminated in respect of Onexim from the date it ceased to be a Shareholder on 16 January 2018 and Onexim ceased to have any rights or obligations under the Shareholders' Agreement among Major Shareholders only.

Starting 3 February 2020, upon completion of the share swap contemplated by the securities exchange agreement entered into between En+ and Glencore on 28 January 2019, Glencore ceased to have any rights under the Shareholders' Agreement between Major Shareholders only.

RESPONSIBILITY

Adhesion to the standards

APPENDIX C – REPORT ON COMPLIANCE WITH THE RUSSIAN CORPORATE GOVERNANCE CODE

REPORT on Compliance with the Russian CG Code

This Report on Compliance with the Russian Corporate Governance Code, recommended for implementation by the Letter of the Bank of Russia dated 04 April 2014 No. 06-52/2463 (hereinafter – the "**Code**" or "**Corporate Governance Code of the Bank of Russia**") was considered by the Board of Directors of United Company RUSAL, international public joint-stock company (the "**Company**") during the Board of Directors Meeting dated 12 April 2023 (Minutes of the Meeting of the Board of Directors No. 230402 dated 13 April 2023).

The Board of Directors believes that the Company currently complies with the majority of principles and recommendations of the Corporate Governance Code of the Bank of Russia Code. The Board of Directors confirms that the data provided in the present report contain complete and accurate information on the Company's compliance with the Governance Code of the Bank of Russia for 2022.

Most of the cases when the criteria are partially met or not met result, inter alia, from the fact that the Company was registered as an international company in accordance with the Federal Law No. 290-FZ "On international Companies and International Funds" dated 03.08.2018 on 25 September 2020 (hereinafter – the "**Registration Date**"). Taking into account the need to achieve a balance and compliance with all the requirements applicable to the Company whose shares are traded simultaneously on the Moscow and Hong Kong stock exchanges, the assessment, development and implementation of a number of documents and practices requires additional time to assess a range of circumstances in dynamics of development. Explanation of the key reasons, factors and (or) circumstances due to which the Company does not comply or does not fully comply with the principles of corporate governance enshrined in the Russian CG Code, a description of the mechanisms and tools of corporate governance that are used by the Company instead of those recommended by the Russian CG Code, the planned (proposed) actions and measures to improve the model and practice of corporate governance are contained below in the 5th column of the table of the present report.

The compliance assessment against the recommendations of the CG Code is presented below using the table template included in the Bank of Russia's Letter No. IN-06-28/102 dated 27 December 2021 "On disclosure in the annual report of a public joint stock company of a report on compliance with the principles and recommendations of the Corporate Governance Code" and follows the filling out guidelines described in the letter. The result is based on self-assessment, taking into account the existing integrated data on the Company's approach to incorporating Russian CG Code requirements and the reasons for non-compliance (following the "comply or explain" principle).

The Company confirms its commitment to high standards of corporate governance.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
1.1.	**The company will ensure equal and fair treatment of all shareholders when they exercise their right to participate in the management of the company.**			
1.1.1.	The company creates the most favourable conditions for the shareholders to participate in the general meeting, conditions for the development of a reasonable position on the issues on the agenda of the general meeting, coordination of their actions, as well as the opportunity to express their opinion on the issues under consideration.	1. The company provides an available means of communication with the company, such as a "hotline", e-mail or a forum in Internet, which allows the shareholders to express their opinions and send questions regarding the agenda in the course of the preparation for the general meeting. These methods of communication were organised and provided as available to shareholders by the company in the process of preparation of each general meeting held during the reporting period.	**Compliant** Partially compliant Non-compliant	
1.1.2.	The procedure for notification of the general meeting and submission of materials for the general meeting provides the shareholders with the opportunity to properly prepare for the participation in the general meeting.	1. During the reporting period, the notice of the general meeting of shareholders is disclosed (published) on the company's website not later than 30 days prior to the date of the general meeting, unless longer period provided by law. 2. The notice of the meeting indicates the documents required for the access to the premises. 3. The shareholders were provided with access to the information on who had proposed the issues on the agenda and who had nominated candidates to the company's board of directors and the company's internal audit commission (if its creation is required by the charter of the company).	Compliant **Partially compliant** Non-compliant	Criterion 1 is not met. Notice of the general meeting of shareholders is disclosed (published) in accordance with the provisions of the Company's Charter and the applicable requirements of the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange (the "**HKSE Listing Rules**"), by virtue whereof, the recommendation to publish a notice of the general meeting of shareholders on the Company's website no later than 30 days before the date of holding such a meeting is not always possible. During the reporting period, the Company held five general meetings of shareholders – the annual general meeting of shareholders on 23 June 2022 (the "**AGM**") and four extraordinary general meetings of shareholders on 10 January 2022 (hereinafter -the "**EGM 1**"), 14 March 2022 (hereinafter -the "**EGM 2**"), 30 September 2022 (the "**EGM 3**") and 22 December 2022 (hereinafter – the "**EGM 4**"). The Notice of the AGM was disclosed (published) on the Company's website on 31 May 2022, i.e. 23 days prior to the date of the AGM. The notice of the EGM 1 was disclosed (published) on 17 December 2021, i.e. 24 days before the EGM 1. The notice of the EGM 2 was disclosed (published) on 18 February 2022, i.e. 24 days before the EGM 2. The notice of the EGM 3 was disclosed (published) on 8 September 2022, i.e. 22 days before the EGM 3. The Notice of EGM 4 was disclosed (published) on 29 November 2022, i.e. 24 days before EGM 4. Criteria 2 and 3 are fully met.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
1.1.3.	During the preparation and holding of the general meeting, the shareholders had the opportunity to freely and timely receive information on the meeting and materials for the meeting, put questions to the company's executive bodies and the members of the company's board of directors, and communicate with each other.	1. During the reporting period, the shareholders were given the opportunity to put questions to the members of the company's executive bodies and the members of the company's board of directors in preparation of and during the general meeting. 2. The position of the board of directors (including the separate opinions included in the minutes, if there are any) on each item on the agenda of the general meetings held during the reporting period was included in the materials for the general meeting. 3. The company provided the eligible shareholders with access to the list of persons entitled to participate in the general meeting, starting from the date of its receipt by the company, in all cases of holding general meetings in the reporting period.	**Compliant** Partially compliant Non-compliant	
1.1.4.	The exercise of the shareholder's right to request the convening of the general meeting, to nominate candidates for the management bodies and to make proposals for the inclusion in the agenda of the general meeting was not associated with unjustified difficulties.	1. The company's charter stipulates a deadline for submission of proposals for the inclusion in the agenda of the annual general meeting by shareholders, which is within at least 60 days after the end of the relevant calendar year. 2. In the reporting period, the company did not refuse to accept proposals for the agenda or candidates for the company's bodies due to typos and other insignificant shortcomings in the shareholder's proposal.	Compliant **Partially compliant** Non-compliant	Criterion 1 was not met, because the Company's Charter stipulates a deadline for shareholders to make proposals for inclusion on the agenda of the annual general meeting similar to the term, prescribed by para 1 article 53 of the Federal Law dated 26 December 1995 No. 208-FZ "On Joint-Stock Companies" (the "**JSC Law**"). Criterion 2 was fully met.
1.1.5.	Each shareholder had the opportunity to freely exercise the right to vote in the simplest and most convenient way.	1. The company's charter provide the possibility to fill in the electronic form of the ballot on the Internet site, the address of which is specified in the notice of the general meeting of shareholders.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
1.1.6.	The procedure established by the company for conducting the general meeting provides an equal opportunity for all persons present at the meeting to express their opinions and ask questions.	1. When holding general meetings of shareholders in the form of a meeting (physical presence of shareholders) during the reporting period, sufficient time was provided for reports on the issues on the agenda and for discussing these issues and shareholders were given the opportunity to express their opinions and ask questions about the agenda. 2. Candidates for the company's management and control bodies were invited and all necessary measures have been taken to ensure their participation in the general meeting of shareholders, at which their candidacies were put to the vote. Candidates for the company's management and control bodies, participated in the general meeting of shareholders, were available to answers the questions from shareholders. 3. The sole executive body, the person responsible for accounting, the chairman or other members of the audit committee of the board of directors were available to answer the questions from shareholders at general meetings of shareholders held during the reporting period. 4. During the reporting period, the company used telecommunication means to ensure remote access of the shareholders to participate in the general meetings or the board of directors made a reasonable decision on the absence of the need (possibility) to use such means in the reporting period.	Compliant **Partially compliant** Non-compliant	During the reporting period Criteria 1, 2 and 4 were fully met. Criterion 3 is partially met, because the sole executive body, the person responsible for accounting, the Chairman or other members of the Audit committee of the Board of Directors were not available at all three general meetings of the Company's shareholders held during the reporting period.
1.2.	**The shareholders are given an equal and fair opportunity to share the company's profits by receiving dividends.**			
1.2.1.	The company developed and implemented a transparent and comprehensible mechanism for determining the amount of dividends and their payment.	1. The regulations on dividend policy was adopted by the company, approved by the board of directors and disclosed on the company's Internet site. 2. If the company prepares consolidated financial statements and its dividend policy uses the results of the company's financial statements to determine the amount of dividends, the relevant provisions of the dividend policy take into account the consolidated results of financial statements. 3. The substantiation of the proposed distribution of net profit, including the payment of dividends and the company's own needs, and the assessment of its compliance with the dividend policy adopted by the company, with explanations and economic substantiation of the need to distribute a certain portion of net profit to its own were included in the materials for the general meeting of shareholders, the agenda of which includes an item on profit distribution (including the payment (declaration) of dividends) during the reporting period.	Compliant **Partially compliant** Non-compliant	Criteria 1 and 2 were fully met. Criterion 3 was not met.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
1.2.2.	The company does not make a decision to pay dividends if such decision, formally not violating the restrictions established by law, is economically unjustified and may lead to misrepresentation of the company's activities.	1. The company's regulations on dividend policy, in addition to the restrictions imposed by law, defines financial/economic circumstances under which the company will not decide on the payment of dividends.	**Compliant** Partially compliant Non-compliant	
1.2.3.	The company acts without prejudice to the dividend rights of the existing shareholders.	1. In the reporting period, the company acted without prejudice to the dividend rights of the existing shareholders.	**Compliant** Partially compliant Non-compliant	
1.2.4.	The company seeks to exclude the use by its shareholders of other methods of obtaining profit (income) at the company's expense, in addition to dividends and liquidation value.	1. The other methods of obtaining profit (income) at the expense of the company by persons controlling the company other than dividends (for example, through transfer pricing, unjustified provision of services to the company by the controlling person at inflated prices, through internal loans substituting for dividends to the controlling person and (or) his controlled persons) were not used during the reporting period.	**Compliant** Partially compliant Non-compliant	
1.3.	**The corporate governance system and practice ensure equal conditions for all shareholders holding shares of the same category (type), including minority shareholders and foreign shareholders, and equal treatment of them by the company.**			
1.3.1.	The company created conditions for fair treatment of each shareholder by the company's management bodies and controlling persons, including conditions that ensure the prohibition of abuse by major shareholders in relation to minority shareholders.	1. During the reporting period, the company's controlling persons did not abuse the rights with respect to the company's shareholders, and there were no conflicts between the company's controlling persons and the company's shareholders, and the board of directors paid appropriate attention to such incidents, if any.	**Compliant** Partially compliant Non-compliant	
1.3.2.	The company does not take actions that lead or may lead to an artificial redistribution of corporate control.	1. Quasi-treasury shares did not exist or did not participate in voting during the reporting period.	**Compliant** Partially compliant Non-compliant	
1.4.	**Shareholders are provided with reliable and effective methods of accounting for the rights to shares, as well as the possibility of free disposal of their shares without any hindrance**			
1.4.1.	Shareholders are provided with reliable and effective methods of accounting for the rights to shares, as well as the possibility of free disposal of their shares without any hindrance.	1. The technologies and terms of services used by the company's registrar meet the needs of the company and its shareholders, ensure the keeping of records of rights to shares and the realisation of shareholder rights in the most effective way.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.1.	**The board of directors carries out strategic management of the company, determines the main principles and approaches to the organisation of the risk management and internal control system in the company, exercises control over the activities of the company's executive bodies, and performs other key functions.**			
2.1.1.	The board of directors is responsible for making decisions related to the appointment and dismissal of executive bodies, including in connection with the improper performance of their duties. The board of directors also monitors that the company's executive bodies act in accordance with the company's approved development strategy and main activities.	1. The board of directors has the powers stipulated in the Charter to appoint, dismiss and determine the terms and conditions of contracts with respect to members of the executive bodies. 2. During the reporting period, the nomination (appointments, human resources) committee reviewed the compliance of the professional qualifications, skills and experience of the members of the executive bodies with the current and expected needs of the company, dictated by the approved strategy of the company. 3. During the reporting period, the board of directors reviewed the report(s) of the sole executive body and the collegiate executive body (if any) on the implementation of the company's strategy.	Compliant **Partially compliant** Non-compliant	Criterion 1 is partially met. The Company's sole executive body of the Company (the General director) manages day-to-day activity. In accordance with the Charter of the Company, approved by more than 90% of the votes of shareholders, the General director of the Company is appointed by the decision of the general meeting of shareholders of the Company. In accordance with the Company's Charter, the Board of Directors determines the terms of a contract with the sole executive body. The applicable approach is fully compliant with applicable law. Criterion 2 is partially met. The management of the Company's day-to-day activities is performed by the sole executive body of the Company (General director). The General director's professional qualifications, skills and experience are assessed by means of the General director's KPI targets achievement assessment conducted by the remuneration committee and the board of directors on an annual basis. Criterion 3 is partially met. The Board of Directors regularly reviewed the reports of the General director on the company's activities, containing, among other things, information on the achievement of the company's strategic goals. At the same time, during the reporting period, the Board of Directors did not review a separate report on the implementation of the Company's strategy.
2.1.2.	The board of directors sets the main guidelines for the company's long-term activities, evaluates and approves the company's key performance indicators and main business goals, evaluates and approves the company's strategy and business plans for its main activities.	1. During the reporting period, the board of directors considered issues related to the implementation and updating of the strategy, the approval of the company's financial and economic plan (budget), as well as the review of the criteria and indicators (including interim ones) for the implementation of the company's strategy and business plans.	Compliant **Partially compliant** Non-compliant	Criterion 1 is partially met by the Company, since the Board of Directors did not consider issues related to updating the Company's strategy. The Board of Directors regularly reviewed the General directors reports on the Company's activities, which contained, among other things, information on the achievement of the Company's strategic goals, thereby confirming the relevance of the Company's strategy and the lack of the need to update it at the present time. During the reporting period, the Board of Directors considered issues related to the approval of the Company's budget, and the results of the implementation of the Company's business plan.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.1.3.	The board of directors determines the principles and approaches to the organisation of the risk management and internal control system at the company.	1. The principles and approaches to the organisation of the risk management and internal control system at the company determined by the board of directors and adopted in the company's internal documents, which determine risk management and internal control policy of the company. 2. During the reporting period, the board of directors approved (revised) an acceptable amount of risks (risk appetite) of the company or the audit committee and (or) risk committee (if any) considered the expediency of submitting the issue of revising the risk appetite of the Company for consideration by the Board of Directors.	Compliant **Partially compliant** Non-compliant	Criterion 1 is fully met. The Policy "The Risk Management and Internal Control System of the Company" was approved by the resolution of the Board of Directors (Minutes No. 210405 dated "30" April 2021). Criterion 2 is not met. During the reporting period, the question of the advisability of submitting a revision of the risk appetite for consideration by the Board of Directors was not considered, because the approved Policy of the Company's Risk Management and Internal Control System provides for its revision at least once every three years (previously the Policy was revised in 2021 – the year of its initial approval).
2.1.4.	The board of directors determines the company's policy on remuneration and/ or reimbursement of expenses (compensation) to members of the company's board of directors, executive bodies of the company and other key executives of the company.	1. The company developed, approved by the board of directors and implemented the policy(ies) on remuneration and reimbursement of expenses (compensations) to members of the company's board of directors, executive bodies and other key executives. 2. During the reporting period, the board of directors considered issues related to this policy(ies).	Compliant Partially compliant **Non-compliant**	Criteria 1 and 2 are not met, since the Company has no separate policy document in place to regulate remuneration and reimbursement of expenses (compensation) of members of the Board of Directors, executive bodies of the Company and other key executives of the Company. During the reporting period, the Board of Directors made decisions on issues related to the remuneration and reimbursement of expenses (compensation) to the General director of the Company. In accordance with the Company's Charter, during the reporting period the General Meeting of Shareholders made decisions regarding remuneration and reimbursement of expenses (compensations) to members of the Board of Directors. The Company is assessing the viability of implementing such policy taking into account all applicable requirements.
2.1.5.	The board of directors plays a key role in preventing, identifying and resolving internal conflicts between the company's bodies, shareholders and employees.	1. The board of directors plays a key role in preventing, identifying and resolving internal conflicts. 2. The company established the system for identifying transactions involving conflicts of interest and the system of measures aimed at resolving such conflicts	**Compliant** Partially compliant Non-compliant	
2.1.6.	The board of directors plays a key role in ensuring the company's transparency, timely and complete disclosure of information by the company, and easy access of the shareholders to the company's documents.	1. The company's internal documents determine the persons responsible for implementing the information policy.	**Compliant** Partially compliant Non-compliant	
2.1.7.	The board of directors exercises control over the company's corporate governance practices and plays a key role in the company's substantial corporate events.	1. During the reporting period, the board of directors considered the matter of self-assessment and/ or external assessment of the corporate governance practices in the company.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.2.	**The board of directors is accountable to the company's shareholders.**			
2.2.1	Information on the work of the board of directors is disclosed and provided to the shareholders.	1. The company's annual report for the reporting period includes information on the attendance of meetings of the board of directors and committees by each member of the board. 2. The annual report contains information on the main results of the assessment (self-assessment) of quality of the work of the board of directors conducted in the reporting period.	**Compliant** Partially compliant Non-compliant	
2.2.2	The chairman of the board of directors is available for the communication with the company's shareholders.	1. The company has a transparent procedure that provides the shareholders with the opportunity to send requests and receive feedback, related thereto, to the chairman of the board of directors (and, if apply, to the senior independent director).	**Compliant** Partially compliant Non-compliant	
2.3.	**The board of directors is an effective and professional management body of the company, capable of making objective independent judgments and making decisions that meet the interests of the company and its shareholders.**			
2.3.1.	Only persons who have an impeccable business and personal reputation and possess the knowledge, skills and experience necessary for making decisions within the competence of the board of directors and required for the effective performance of its functions are elected members of the board of directors.	1. During the reporting period, the board of directors (or its nomination committee) evaluated candidates for the board of directors in terms of their necessary experience, knowledge, business reputation, lack of conflicts of interest, and etc.	**Compliant** Partially compliant Non-compliant	
2.3.2.	Members of the company's board of directors are elected through a transparent procedure that allows shareholders to obtain sufficient information on the candidates to form an idea of their personal and professional qualities.	1. In all cases of holding the general meeting of shareholders during the reporting period, the agenda of which included the issues of the election of the board of directors, the company provided the shareholders with the biographical data of all candidate members of the board of directors, the results of compliance evaluation of professional qualification, experience and skills of the candidates with current and expected needs of the company, conducted by the board of directors (or its nomination committee), as well as information on whether the candidate meets the criteria of independence, in accordance with recommendations 102-107 of the Russian CG Code and information about presence of the written consent of the candidates to the election to the board of directors.	**Compliant** Partially compliant Non-compliant	
2.3.3.	The composition of the board of directors is balanced, including in terms of the qualifications of its members, their experience, knowledge and business qualities, and enjoys the trust of the shareholders.	1. During the reporting period, the board of directors analysed its needs in the field of professional qualifications, experience and skills, and identified the competencies needed by the board of directors in the short and long term.	Compliant **Partially compliant** Non-compliant	During the reporting period, as part of the self-assessment procedure, the Board of Directors analysed its own professional qualifications, experience and skills needs and concluded that the Board of Directors has the necessary skills and knowledge to solve the tasks facing the Company. The Board of Directors did not assess the competencies required in the long term perspective.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.3.4.	The quantitative composition of the company's board of directors makes it possible to organise the activities of the board of directors in the most effective way, including the possibility of forming committees of the board of directors, and also provides substantial minority shareholders of the company with the opportunity to elect the candidate to the board of directors for whom they vote.	1. During the reporting period, the board of directors considered the issue of whether the quantitative composition of the board of directors met the needs of the company and the interests of its shareholders.	**Compliant** Partially compliant Non-compliant	
2.4.	**The board of directors includes a sufficient number of independent directors.**			
2.4.1.	An independent director is a person who has sufficient professionalism, experience and independence to form his or her own position, is able to make objective and bona fide judgments, independent from the influence of the company's executive bodies, specific groups of shareholders or other interested parties. It should also be noted that under normal conditions, a candidate (an elected member of the board of directors) who is associated with the company, its substantial shareholder, the company's substantial counterparty or competitor or associated with the state may not be considered independent.	1. During the reporting period, all independent members of the board of directors met all the independence criteria specified in recommendations 102-107 of the Russian CG Code, or were recognised as independent by the decision of the board of directors.	**Compliant** Partially compliant Non-compliant	
2.4.2.	The candidates to the board of directors are evaluated for their compliance with the independence criteria, and the independent members of the board of directors are regularly reviewed for their compliance with the independence criteria. When conducting such assessment, the content prevails over the form.	1. During the reporting period, the board of directors (or the nomination committee of the board of directors) formed an opinion on the independence of each candidate to the board of directors and submitted the corresponding opinion to the shareholders. 2. During the reporting period, the board of directors (or the nomination committee of the board of directors) considered at least once the matter on independence of the current members of the board of directors (after their election).. 3. The company developed procedures determining the necessary actions to be taken by a member of the board of directors when such member ceases to be independent, including the obligations to timely notify the board of directors thereof.	**Compliant** Partially compliant Non-compliant	
2.4.3.	Independent directors constitute at least one-third of the elected members of the board of directors.	1. Independent directors constitute at least one-third of the members of the board of directors.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.4.4.	Independent directors play a key role in preventing internal conflicts at the company and carrying out substantial corporate actions by the company.	1. Independent directors (who did not have a conflict of interest) during the reporting period have been evaluating substantial corporate actions related to a possible conflict of interest, and the results of such evaluation were provided to the board of directors.	Compliant **Partially compliant** Non-compliant	Criterion 1 is partially met, since the Company's Charter does not provide for the concept of "substantial corporate actions". Nevertheless, the Charter provide for a special procedure aimed at preventing risks associated with transactions and corporate actions that involve a conflict of interest: in accordance with Section 23.5 of the Charter, a member of the Board of Directors is obliged to promptly inform other members of the Board of Directors about the nature and extent of his/her interest, if he/she has a material interest of any nature (direct or indirect, including, but not limited to, his/her relationship with any of his/her close associates) in a transaction, arrangement or contract with the Company which is significant for the Company's business. Independent directors actively participate in the Board of Directors' review of key issues, including significant transactions.
2.5.	**The chairman of the board of directors contributes to the most effective implementation of the functions assigned to the board of directors.**			
2.5.1.	An independent director was elected as a chairman of the board of directors, or a senior independent director was chosen from among the elected independent directors to coordinate the work of the independent directors and interact with the chairman of the board of directors.	1. The board of directors is chaired by an independent director, or a senior independent director is appointed from among the independent directors. 2. The role, rights and duties of the chairman of the board of directors (and, if applicable, of the senior independent director) are duly set out in the company's internal documents.	Compliant **Partially compliant** Non-compliant	Criterion 1 is met. The Chairman of the Company's Board of Directors is an independent director. The Company formally does not meet Criterion 2, since the Company has no separate internal document in place defining the role, rights and obligations of the Chairman of the Board of Directors. Currently, the role, rights and obligations of the Chairman of the Board of Directors are defined by the Charter of the Company. The Company is assessing the possibility of adopting the relevant internal document.
2.5.2.	The chairman of the board of directors ensures a constructive environment at meetings, free discussion of issues included in the agenda of the meeting, and control over the implementation of decisions taken by the board of directors.	1. The performance of the chairman of the board of directors was evaluated as part of the procedure for assessment (self-assessment) of the effectiveness of the board of directors in the reporting period.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.5.3.	The chairman of the board of directors takes the necessary measures to provide the members of the board of directors with the information necessary for making decisions on the issues on the agenda in a timely manner.	1. The duty of the chairman of the board of directors to take measures to ensure the timely provision of full and accurate information to the members of the board of directors on the issues on the agenda of the meeting of the board of directors is set out in the company's internal documents.	Compliant Partially compliant **Non-compliant**	The Company formally does not meet Criterion 1, since it has no internal document in place to establish the obligation of the Chairman of the Board of Directors to take measures to ensure timely provision of materials to members of the Board of Directors on issues of the agenda of the meeting of the Board of Directors. However, despite the fact that this obligation is not formally established in any internal documents, in practice, the Chairman of the Board of Directors takes such measures. According to the Company's Charter, the Chairman of the Board of Directors organizes the work of the Board of Directors. The Company is assessing the possibility of adopting the relevant internal document.
2.6.	**The members of the board of directors act in good faith and reasonably in the interests of the company and its shareholders on the basis of sufficient information, with due diligence and care.**			
2.6.1.	The members of the board of directors make decisions taking into account all available information, without conflict of interest, subject to equal treatment of the company's shareholders, within the framework of normal business risk.	1. The company's internal documents set out that a member of the board of directors shall notify the board of directors if the member has a conflict of interest in relation to any issue on the agenda of the meeting of the board of directors or the committee of the board of directors, prior to the discussion of the relevant issue on the agenda. 2. The company's internal documents provide that a member of the board of directors shall abstain from voting on any issue in which the member has a conflict of interest. 3. The company established the procedure allowing the board of directors to receive professional advice on issues within its competence at the company's expense.	Compliant **Partially compliant** Non-compliant	The Company formally does not meet criteria 1 and 2, since the Company has no separate internal document in place to regulate these issues. The issues under consideration are partially regulated by the Company's Charter: In accordance with clause 23.5 of the Company's Charter, a member of the Board of Directors is obliged to promptly inform other members of the Board of Directors about the nature and extent of his/her interest, if he/she has a material interest of any nature (direct or indirect, including, but not limited to, his/her relationship with any of his/her close associates) in a transaction, arrangement or contract with the Company which is significant for the Company's business. A member of the Board of Directors does not vote when the Board of Directors makes a decision with respect to any contract, arrangement or any proposal he/she or any close associate of him/her has a significant degree of interest in, except as set forth in the Charter. Criterion 3 is met.
2.6.2.	The rights and obligations of the members of the board of directors are clearly formulated and laid down in the company's internal documents.	1. The company adopted and published an internal document clearly determining the rights and obligations of the members of the board of directors.	Compliant Partially compliant **Non-compliant**	Criterion 1 is formally not met because the Company has no separate internal document in place determining the rights and obligations of members of the Board of Directors. However, the rights and obligations of members of the Board of Directors are determined by the Charter of the Company. The Company is assessing the possibility of adopting the relevant internal document.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.6.3.	The members of the board of directors have sufficient time to perform their duties.	1. Individual attendance at meetings of the board of directors and committees, as well as sufficiency of the time spent for participation in functioning of the board as well as its committees, was analysed by the assessment (self-assessment) of the effectiveness of the board of directors in the reporting period. 2. In accordance with the company's internal documents, the members of the board of directors are obliged to notify the board of directors of their intention to join the management bodies of other organisations (other than controlled organisations of the company), as well as of the fact of such appointment.	Compliant **Partially compliant** Non-compliant	Criterion 1 is met. With regard to Criterion 2, the Company explains that the Company has no document in place regulating the activities of the Board of Directors, except for the Charter. In order to prevent conflicts of interest, the Charter of the Company include provisions on the obligation of a member of the Board of Directors to promptly inform other members of the Board of Directors about the nature and extent of his/her interest. The Company is assessing the possibility of adopting the relevant internal document.
2.6.4.	All members of the board of directors have equal access to the company's documents and information. The newly elected members of the board of directors are provided with sufficient information about the company and the work of the board of directors as soon as possible.	1. In accordance with the company's internal documents, the members of the board of directors have the right to receive information and documents, concerning the company and its controlled organisations and necessary for the members of the board of directors of the company to perform their duties, and the company's executive bodies are obliged to provide access to the relevant information and documents. 2. The company realises a formalised orientation program for newly elected members of the board of directors.	Compliant **Partially compliant** Non-compliant	With regard to Criterion 1, the Company explains that formally, it has no internal document in place to establish the right of the members of the Board of Directors to access information and documents, concerning the company and its controlled organisations, and necessary for the members of the board of directors of the company to perform their duties and the obligation of the Company's executive bodies to provide access to the relevant information and documents. Criterion 2 is met.
2.7.	**Meetings of the board of directors, preparation for and participation of the members of the board of directors in such meetings ensure the effective functioning of the board of directors.**			
2.7.1.	Meetings of the board of directors are held as necessary, taking into account the scope of activities and the tasks the company faces at specific times.	1. The board of directors held at least six meetings in the reporting year.	**Compliant** Partially compliant Non-compliant	
2.7.2.	The company's internal documents set out the procedure for preparing and holding meetings of the board of directors, which provides the members of the board of directors with the opportunity to properly prepare for the meeting.	1. The company approved an internal document defining the procedure for preparing and holding meetings of the board of directors. The document stipulates, among other things, that, as a rule, notification of the meeting will be made at least five days before the date of the meeting. 2. During the reporting period, members of the board of directors who were absent from the place of the meeting were given the opportunity to participate in the discussion of agenda items and voting remotely via conference- and video conference call.	Compliant **Partially compliant** Non-compliant	Criterion 1 is formally not met because the Company has not approved an internal document to establish the procedure for preparing and holding meetings of the Board of Directors. The Charter of the Company establish general provisions for holding meetings of the Board of Directors. Criterion 2 is met.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.7.3.	The form of the meeting of the board of directors is determined taking into account the importance of the issues on the agenda. The most important issues are resolved at meetings held in person.	1. The company's charter or internal document provide that the most important issues (inter alia the list given in recommendation 168 of the Russian CG Code) will be considered at meetings of the board of directors held in person.	Compliant Partially compliant **Non-compliant**	The Company does not meet criterion 1. The Company has not approved any internal document according to which the most important issues (inter alia the list given in recommendation 168 of the Russian CG Code) should be considered at meetings of the Board of Directors held in person. The Charter of the Company also do not contain the relevant provisions. Despite this, in practice, the most important issues are considered at meetings of the Board of Directors held in person.
2.7.4.	Resolutions on the most important issues of the company's activities are approved at a meeting of the board of directors by a special majority or a simple majority of votes of all elected members of the board of directors.	1. The company's charter provide that resolutions on the most important issues, including those are set out in recommendation 170 of the Russian CG Code, will be approved at a meeting of the board of directors by a special majority of at 3/4 of the votes, or by a simple majority of all elected members of the board of directors.	Compliant **Partially compliant** Non-compliant	Criterion 1 is partially met. The Company's Charter do not provide for resolutions on the most important issues, including those are set out in recommendation 170 of the Russian CG Code to be approved at meetings of the Board of Directors by a qualified majority of at least 3/4 of the votes, or by a simple majority of all elected members of the Board of Directors. However, according to clause 26.3 of the Company's Charter, resolutions at meetings of the Board of Directors are approved by votes of at least ten members of the Board of Directors participating in a meeting, except for individual resolutions on issues provided for by this clause of the Charter, on which resolutions are approved by a simple majority of the members of the Board of Directors participating in a meeting.
2.8.	**The board of directors establishes committees for preliminary consideration of the most important issues of the company's activities.**			
2.8.1.	The audit committee consisting of independent directors was established for the preliminary consideration of issues related to the control of the company's financial and economic activities.	1. The board of directors formed an audit committee consisting of independent directors only. 2. The company's internal documents define the tasks of the audit committee, inter alia, the tasks contained in recommendation 172 of the Russian CG Code. 3. At least one member of the audit committee, who is an independent director, has experience and knowledge in the preparation, analysis, evaluation and audit of accounting (financial) statements. 4. Meetings of the audit committee were held at least once a quarter during the reporting period.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.8.2.	The remunerations committee, consisting of independent directors and headed by an independent director who is not the chairman of the board of directors, was established for the preliminary consideration of issues related to the formation of the effective and transparent remuneration practices.	1. The board of directors established the remunerations committee consisting of independent directors only. 2. The chairman of the remunerations committee is an independent director who is not the chairman of the board of directors. 3. The company's internal documents define the tasks of the remunerations committee, including, inter alia, the tasks contained in recommendation 180 of the Russian CG Code, as well as the conditions (events) upon the occurrence of which the remuneration committee considers the issue of revising the company's policy on remuneration of the board of directors members, executive bodies and other key executives	Compliant **Partially compliant** Non-compliant	Criteria 1 and 2 are met. Criterion 3 is partially met. The internal documents of the Company define the tasks of the remuneration committee, as well as the need of periodic review of the Company's policy on remuneration. At the same time, the Company internal documents do not specify the conditions (events) upon the occurrence of which the remuneration committee considers the issue of revising the Company policy on remuneration of the Board of Directors members, executive bodies and other key executives. The Company assesses the possibility of making appropriate changes in the Company's internal documents.
2.8.3.	The nomination committee (the committee for appointments and personnel), most members of which are independent directors, was established for the preliminary consideration of issues related to the implementation of personnel planning (succession planning), professional composition and performance of the board of directors.	1. The board of directors established the nomination committee (or its tasks specified in recommendation 186 of the Russian CG Code are implemented within the framework of another committee), the majority of whose members were independent directors. 2. The company's internal documents define the tasks of the nomination committee (or the relevant committee with combined functions), including, inter alia, the tasks contained in recommendation 186 of the Russian CG Code. 3. In order to form the board of directors that best meets the company's goals and tasks, in the reporting period, the nomination committee independently or jointly with other committees of the board of directors or the company's authorised shareholder relations unit organised interaction with shareholders, not limited to the largest shareholders, in the context of selecting candidates for the company's board of directors.	Compliant **Partially compliant** Non-compliant	Criteria 1 and 2 are met. Criterion 3 is not met. In accordance with the Company's Charter, the Company's shareholders holding in the aggregate at least 2% of the Company's voting shares, are entitled to nominate candidates to the Company's Board of Directors.
2.8.4.	Given the scope of activities and the level of risk, the company's board of directors made sure that the composition of its committees fully met the company's objectives. Additional committees were either formed or were not deemed necessary (strategy committee, corporate governance committee, ethics committee, risk management committee, budget committee, health, safety and environment committee, etc.).	1. During the reporting period, the company's board of directors considered the issue of whether the composition of the board of directors is sufficient for the tasks, the scale and nature of business, aims of activities and needs, and the risk profile of the company. Additional committees were either formed or were not deemed necessary.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
2.8.5.	The composition of the committees is designed so as to allow for a comprehensive discussion of the issues under consideration in advance, taking into account different views.	1. The audit committee, the remuneration committee, the nomination committee (or a corresponding committee with combined functions) were chaired in the reporting period by independent directors. 2. The company's internal documents (policies) provide for that persons who are not members of the audit committee, the nomination committee (or a corresponding committee with combined functions) and the remuneration committee may attend committee meetings only at the invitation of the chairman of the relevant committee.	**Compliant** Partially compliant Non-compliant	
2.8.6.	The chairmen of the committees regularly inform the board of directors and its chairman about the work of their committees.	1. During the reporting period, the chairmen of the committees regularly reported on the work of the committees to the board of directors.	**Compliant** Partially compliant Non-compliant	
2.9.	**The board of directors ensures that the quality of the work of the board of directors, its committees and members of the board of directors is assessed.**			
2.9.1.	The assessment of the quality of the work of the board of directors is aimed at determining the degree of effectiveness of the board of directors, committees and members of the board of directors, the compliance of their work with the company's development needs, at encouraging the work of the board of directors and at identifying the areas in which their work might be improved.	1. The company's internal documents provide procedures for assessment (self-assessment) of quality of the work of the board of directors. 2. The assessment (self-assessment) of quality of the work of the board of directors conducted during the reporting period included the assessment of the work of the committees, individual assessment of each members of the board of directors and the board of directors as a whole. 3. The results of the assessment (self-assessment) of the board of directors conducted during the reporting period were reviewed at a meeting of the board of directors held in person.	Compliant **Partially compliant** Non-compliant	Criterion 1 is not met. The Company does not have internal documents defining the procedures for assessment (self-assessment) of quality of the work of the board of directors. The Company carries out an annual self-assessment of the quality of the Board of Directors' work on the basis of the relevant resolution of the Board of Directors. Criteria 2 and 3 are met.
2.9.2.	The work of the board of directors, committees and members of the board of directors is evaluated on a regular basis at least once a year. An external organisation (advisor) is engaged to conduct an independent evaluation of the quality of the work of the board of directors at least once every three years.	1. During the last three reporting periods, the company engaged an external organisation (advisor) at least once to conduct an independent assessment of the quality of the work of the board of directors.	Compliant Partially compliant **Non-compliant**	The Company does not meet Criterion 1, since during the previous three years, no external organisation has been engaged to assess the performance of the Board of Directors, as the relevant recommendation was not applicable to the Company prior to the Registration Date. The Company is considering the possibility of engaging an external organization to conduct an independent assessment of the quality of the Board of Directors' work for the year 2022. The performance of the Board of Directors, committees and members of the Board of Directors is assessed on a regular basis once a year. The Corporate Governance and Nomination Committee conducts an annual detailed formalised self-assessment or external assessment of the performance of the Board of Directors and its members, as well as the committees of the Board of Directors. If necessary, the committee will engage independent professional consultants to carry out its duties.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
3.1.	**The company's corporate secretary provide effective ongoing interaction with shareholders, coordinates the company's actions to protect the rights and interests of shareholders, and provides support to the effective work of the board of directors.**			
3.1.1.	The corporate secretary has sufficient knowledge, experience and qualification to perform the duties assigned to the corporate secretary, an impeccable reputation and enjoys the trust of shareholders.	1. The company's website and the annual report provide biographical information on the corporate secretary (including information about age, education, qualifications, experience), as well as information about positions in management bodies of other legal entities held by the corporate secretary for at least the last five years.	**Compliant** Partially compliant Non-compliant	
3.1.2.	The corporate secretary has sufficient independence from the company's executive bodies and the necessary powers and resources to perform the tasks assigned to the corporate secretary.	1. The company has adopted and disclosed an internal document – the regulations on the corporate secretary. 2. The board of directors approves the candidate for the position of the corporate secretary and terminates his (her) powers, considers the issue of paying him (her) additional remuneration. 3. The company's internal documents stipulate the corporate secretary's right to request and receive documents and information from the company's management bodies, structural subdivisions and officials (employees).	**Compliant** Partially compliant Non-compliant	
4.1.	**The level of remuneration paid by the company is sufficient to attract, motivate and retain persons with the necessary competence and qualifications for the company. Remuneration is paid to the members of the company's board of directors, executive bodies and other key executives in accordance with the remuneration policy adopted by the company.**			
4.1.1.	The level of remuneration provided by the company to the members of the board of directors, executive bodies and other key executives creates sufficient motivation for their effective work, allowing the company to attract and retain competent and qualified specialists. At the same time, the company avoids a level of remuneration, higher than necessary, as well as an unjustifiably large gap between the remuneration levels of these persons and the company's employees.	1. Remuneration of the members of the board of directors, executive bodies and other key executives is defined taking into account the results of a comparative analysis of the level of remuneration in comparable companies.	**Compliant** Partially compliant Non-compliant	
4.1.2.	The company's remuneration policy was developed by the remunerations committee and approved by the company's board of directors. The board of directors, with the support of the remunerations committee, exercises control over the introduction and implementation of the remuneration policy at the company, and, if necessary, reviews and makes adjustments thereto.	1. During the reporting period, the remunerations committee reviewed the remuneration policy(ies) and (or) its (their) implementation practice, evaluated its effectiveness and transparency and, if necessary, made the relevant recommendations to the board of directors on review of such policy (ies).	Compliant Partially compliant **Non-compliant**	The Company formally does not meet Criterion 1, since the Company has no separate internal document – policy on remuneration. During the reporting period, the Shareholders decided on the amount of remuneration for members of the Board of Directors and committees by the recommendation of the Board of Directors and the Remuneration Committee.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
4.1.3.	The company's remuneration policy contains transparent mechanisms for determining the amount of remuneration payable to the members of the company's board of directors, executive bodies and other key executives, as well as regulates all types of payments, benefits and privileges granted to these persons.	1. The company's remuneration policy (ies) contain(s) transparent mechanisms for determining the amount of remuneration payable to the members of the company's board of directors, executive bodies and other key executives, as well as regulate(s) all types of payments, benefits and privileges granted to these persons.	Compliant Partially compliant **Non-compliant**	The Company formally does not meet Criterion 1, since the Company has no separate internal document – policy on remuneration of members of the Board of Directors, executive bodies, and other key executives of the Company. The decisions adopted by the authorised management bodies of the Company established the amount of remuneration for the Chairman and members of the Board of Directors, chairmen of committees and members of committees of the Board of Directors and the sole executive body, and determined the grounds for bonuses.
4.1.4.	The company determines the policy of reimbursement of expenses (compensation), specifying the list of expenses to be reimbursed, and the level of service which the members of the company's board of directors, executive bodies and other key executives may claim. This policy may be an integral part of the company's remuneration policy.	1. The company's remuneration policy (ies) or other internal documents establish the rules for reimbursement of expenses of the members of the company's board of directors, executive bodies and other key executives.	Compliant **Partially compliant** Non-compliant	The Company partially meets Criterion 1, since the Company does not have a unified remuneration policy. The rules for reimbursing the expenses of members of the Board of Directors are determined based on resolutions of general meetings of the shareholders, and in respect to executive bodies – are determined by the decisions of the Board of Directors of the Company. The rules for reimbursing the expenses of other employees of the Company are established by the decisions of the authorised management bodies of the Company.
4.2.	**The remuneration system for the members of the board of directors ensures that the financial interests of the directors are aligned with the long-term financial interests of the shareholders.**			
4.2.1.	The company pays a fixed annual remuneration to the members of the board of directors. The company does not pay remuneration for participation in specific meetings of the board of directors or committees of the board of directors. The company does not apply forms of short-term motivation and additional financial incentives to the members of the board of directors.	1. During the reported period, the Company paid remuneration for the members of the board of directors in accordance with remuneration policy, adopted by the company. 2. During the reporting period, the company did not apply any forms of short-term incentives or additional financial incentives to the members of the board of directors, which depended on the results (indicators) of the company's activities. Payment of remuneration for participation in specific meetings of the board or committees of the board of directors were not carried out.	Compliant **Partially compliant** Non-compliant	Criterion 1 formally is not met, since the Company has not adopted a separate internal document – the policy on remuneration. In the reporting period, the Company paid remuneration to the members of the Board of Directors in accordance with the resolution of the General Meeting of the Shareholders of the Company. Criterion 2 is met.
4.2.2.	Long-term ownership of the company's shares mostly contributes to the alignment of the financial interests of the members of the board of directors and the long-term interests of the shareholders. At the same time, the company does not condition the right to sell shares by achieving certain performance indicators, and the members of the board of directors do not participate in option programmes.	1. If the internal document(s) – the company's remuneration policy(ies) stipulate(s) that shares are to be provided to the members of the board of directors, clear rules of ownership of shares by members of the board of directors, aimed at encouraging long-term ownership of such shares, will be adopted and disclosed.	Compliant Partially compliant **Non-compliant**	Criterion 1 is not met, since the Company does not have a unified policy on remuneration, envisaging the provision of Company Shares to members of the Board of Directors.
4.2.3.	The company does not provide for any additional payments or compensation in the event of early termination of powers of the members of the board of directors in connection with the transfer of control over the company or other circumstances.	1. The company does not provide for any additional payments or compensation in the event of early termination of powers of the members of the board of directors in connection with the transfer of control over the company or other circumstances.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
4.3.	**The system of remuneration payable to the members of the company's executive bodies and other key executives provides for the dependence of remuneration on the result of the company's work and their personal contribution to achieving this result.**			
4.3.1.	Remuneration payable to the members of the company's executive bodies and other key executives is determined so as to ensure a reasonable and justified ratio of the fixed part of the remuneration and the variable part of the remuneration depending on the company's performance and the employee's personal (individual) contribution to the final result.	1. During the reporting period, annual performance results indicators approved by the board of directors were used to determine the amount of the variable part of remuneration due to members of executive bodies and other key executives of the company. 2. During the latest assessment of the system of remuneration of members of executive bodies and other key executives of the company, the board of directors (remuneration committee) made sure that the company applies efficient ratio of the fixed and variable parts of remuneration. 3. When determining the amount of remuneration to be paid to members of executive bodies and other key executives of the company, the risks borne by the company are taken into account in order to avoid creating incentives for taking excessively risky management decisions.	Compliant **Partially compliant** Non-compliant	The Company partially meets Criterion 1 in terms of remuneration of key executives, since the Board of Directors did not approve list of persons belonging to the category of key executives of the Company. The annual performance indicators approved by the Board of Directors were taken into account in determining the variable remuneration of the General director of the Company. The Company does not meet Criterion 2, since during the reporting period, the Board of Directors did not assess the effectiveness of the ratio of the fixed part of remuneration and the variable part of remuneration of the members of executive bodies and other key executives of the Company. The Company does not meet Criterion 3, since the Company has no established rules for determining the level of remuneration commensurate with the risks that the Company may incur as a result of management decisions.
4.3.2.	The company implemented a long-term incentive programme for the members of the company's executive bodies and other key executives using the company's shares (options or other derivative financial instruments, the underlying asset of which is the company's shares).	1. In case, the company implemented a long-term incentive program for the members of the company's executive bodies and other key executives using the company's shares (financial instruments based on the company's shares), the program provides that the right to sell such shares and other financial instruments arises no earlier than three years after the date of their provision. At the same time, the right to sell shares is conditioned by the achievement of certain performance indicators by the company.	Compliant Partially compliant **Non-compliant**	The Company does not have existing long-term incentive programs, they were terminated in accordance with the terms of the respective plans. The feasibility of introducing new programs is assessed by the Company.
4.3.3.	The amount of compensation (the "**golden parachute**") paid by the company in the event of early termination of powers to the members of the executive bodies or key executives at the initiative of the company and in the absence of unfair actions on their part does not exceed the double amount of the fixed part of the annual remuneration.	1. The amount of compensation (the "**golden parachute**") paid by the company in the event of early termination of powers to the members of the executive bodies or key executives at the initiative of the company and in the absence of unfair actions on their part did not exceed the double amount of the fixed part of the annual remuneration in the reporting period.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
5.1.	**The company established an effective risk management and internal control system aimed at providing reasonable confidence in achieving the company's goals.**			
5.1.1.	The company's board of directors determined the principles and approaches to the organisation of the risk management and internal control system at the company.	1. The functions of the company's various management bodies and business units in the risk management and internal control system are clearly defined in the company's internal documents/ relevant policy approved by the board of directors.	**Compliant** Partially compliant Non-compliant	
5.1.2.	The company's executive bodies ensure the establishment and maintenance of the effective risk management and internal control system in the company.	1. The company's executive bodies ensured the distribution of responsibilities, powers and liability in relation to risk management and internal control among the heads of business units and departments accountable to them.	**Compliant** Partially compliant Non-compliant	
5.1.3.	The company's risk management and internal control system ensures an objective, fair and clear view of the current state and prospects of the company, the integrity and transparency of the company's reporting, and the reasonableness and acceptability of the risks taken by the company.	1. The company approved the anti-corruption policy. 2. The company has arranged for secure, confidential and accessible means (hotline) of notifying the board of directors or the audit committee of the board of directors about violations of the laws, internal procedures, and the company's code of ethics.	**Compliant** Partially compliant Non-compliant	
5.1.4.	The company's board of directors takes the necessary measures to ensure that the company's risk management and internal control system complies with the principles and approaches to its organisation determined by the board of directors and effectively functions.	1. During the reporting period, the board of directors (the audit committee and (or) risk committee (if any)) organised an assessment of the reliability and effectiveness of the company's risk management and internal control system. 2. During the reporting period the board of directors reviewed the results of the assessment of the reliability and effectiveness of the company's risk management and internal control system and the information on results of review were included in the company's annual report.	**Compliant** Partially compliant Non-compliant	
5.2.	**The company organises conducting of an internal audit for a systematic independent evaluation of the reliability and effectiveness of the risk management and internal control system and corporate governance practices.**			
5.2.1.	The company established a separate structural unit or engaged an independent external organisation to conduct an internal audit. The functional and administrative accountability of the internal audit unit are differentiated. The internal audit unit is functionally subordinate to the board of directors.	1. In order to conduct an internal audit, the company established a separate structural internal audit unit that is functionally accountable to the board of directors, or engaged an independent external organisation with the same principle of accountability.	**Compliant** Partially compliant Non-compliant	
5.2.2.	The internal audit unit evaluates the effectiveness of the internal control system, assesses the reliability and effectiveness of the risk management and internal control system, as well as assesses the corporate governance system, applies generally accepted standards of internal audit.	1. In the reporting period, the reliability and effectiveness of the risk management and internal control system was assessed as part of the internal audit. 2. In the reporting period, internal audit assessed corporate governance practices (individual practices), including information interaction procedures (including those related to internal control and risk management) at all management levels of the company, as well as interaction with related parties.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
6.1.	**The company and its activities are transparent to shareholders, investors and other concerned parties.**			
6.1.1.	The company developed and implemented an information policy that ensures effective information interaction between the company, shareholders, investors and other concerned parties.	1. The company's board of directors approved the company's information policy developed subject to the recommendations of the Russian CG Code. 2. During the reporting period, the board of directors (or one of its committees) considered issues related to effectiveness of informational interaction between the company, its shareholders, investors and other related parties, and the feasibility (necessity) of revision of information policy of the company.	Compliant **Partially compliant** Non-compliant	Criterion 1 is partially met. Prior to the Registration Date, the Board of Directors approved the communication policy of the Company, which ensures effective communication between the Company, shareholders, investors and other concerned parties. At the same time, the Russian CG Code was not applicable to the Company prior to the Date of Registration. Criterion 2 is not met by the Company. The Board of Directors of the Company did not consider this issue.
6.1.2.	The company discloses information on the corporate governance system and practices, including detailed information on compliance with the principles and recommendations of the Russian CG Code.	1. The company discloses information on the company's corporate governance system and the general principles of corporate governance applied by the company, including by disclosure on the company's website. 2. The company discloses information on the members of the executive bodies and the board of directors, the independence of the members of the board of directors and their membership in the committees of the board of directors (in accordance with the definition of the Russian CG Code). 3. If there is a person controlling the company, the company publishes a memorandum of the controlling person regarding the plans of this person in relation to the company's corporate governance.	Compliant **Partially compliant** Non-compliant	The Company fully meets Criteria 1 and 2. The Company does not meet Criterion 3, since there is not any controlling entity's memorandums regarding the plans of the controlling entity in relation to corporate governance in the Company.
6.2.	**The company timely discloses complete, up-to-date and reliable information on the company in order to enable the company's shareholders and investors to make informed decisions.**			
6.2.1.	The company discloses information in accordance with the principles of regularity, consistency and efficiency, as well as availability, reliability, completeness and comparability of disclosed data.	1.The company has established a procedure that ensures coordination of the work of all structural subdivisions and employees of the company who are related to information disclosure or whose activities may result in the need to disclose information. 2. If the company's securities are traded in foreign organised markets, the material information is disclosed in the Russian Federation and in such markets on a synchronous and equivalent basis during the reporting year. 3. If foreign shareholders own a substantial number of shares in the company, then during the reporting year, the information was disclosed not only in Russian, but also in one of the most commonly used foreign languages.	**Compliant** Partially compliant Non-compliant	

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
6.2.2.	The company avoids a formal approach by disclosure of information and discloses material information on its activities, even if the disclosure of such information is not provided for by law.	1. The company's information policy defines approaches to the disclosure of information about other events (actions) that have a significant impact on the price or quotation of its securities, the disclosure of which is not required by law.. 2. The company discloses information on the company's capital structure in accordance with Recommendation 290 of the Russian CG Code in the annual report and on the Company's website in the Internet. 3. The company discloses information on the controlled entities, which are significant for it, including the key areas of their activities, mechanisms ensuring accountability of the controlled entities, the authority of the company's board of directors to determine the strategy and assess the results of the controlled entities' activities. 4. The company discloses a non-financial report – a sustainability report, environmental report, corporate social responsibility report or other report containing non-financial information, including factors related to the environment (including environmental factors and factors related to climate change), society (social factors) and corporate governance, except for the issuer of equity securities and the company's annual report.	Compliant **Partially compliant** Non-compliant	Criterion 1 formally is not met. Approaches to the disclosure of information about other events (actions) that have a significant impact on the price or quotations of its securities are set forth in the internal documents at the Group level. The Company discloses information in accordance with the applicable requirements of the Russian Federation regulation and the HKSE Listing Rules. The company partially meets Criterion 2, as in the reporting period the company disclosed information on the capital structure in the Annual Report and on the Company's website, in accordance with the applicable requirements. The Company partially meets Criterion 3. The Company discloses information on controlled entities that are material to the Company in accordance with applicable requirements. The Company fully meets Criterion 4.
6.2.3.	The annual report, being one of the most important tools for information interaction with the shareholders and other concerned parties, contains information that allows to evaluate the company's annual performance.	1. The company's annual report contains information on results of assessment of effectiveness of external and internal audit process, conducted by the audit committee. 2. The company's annual report contains information on the company's policy in environmental protection and social policy.	**Compliant** Partially compliant Non-compliant	
6.3.	**The company provides information and documents as requested by the shareholders in accordance with the principles of equal and unhindered access.**			
6.3.1.	Exercise by shareholders of their right of access to the company's documents and information is not unreasonably difficult.	1. The company's information policy (internal documents, defining informational policy) defines an unhindered procedure for providing by the shareholders' requests access to information and the company's documents. 2. The information policy (internal documents, defining the information policy) contains provisions stipulating that if a shareholder requests information on organisations controlled by the company, the company shall make the necessary efforts to obtain such information from the relevant organisations controlled by the company.	Compliant **Partially compliant** Non-compliant	Criterion 1 is partially met. The Company's Communication policy, which was approved by the Board of Directors prior to the Registration Date, defines an unhindered procedure for providing shareholders with access to information. Currently, the Company provides shareholders with access to information in accordance with the Charter. Criterion 2 is not met. The Company's Charter, approved by more than 90% of the votes of shareholders, contain a list of documents to which the Company provides access at the request of any shareholder.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
6.3.2.	When the company provides information to its shareholders, a reasonable balance is ensured between the interests of specific shareholders and the interests of the company itself, which is interested in maintaining the confidentiality of important commercial information that may have a substantial impact on its competitiveness.	1. During the reporting period, the company did not refuse to satisfy the shareholders' requests for information, or such refusals were reasoned. 2. In cases defined by the company's information policy, the shareholders are warned about the confidential nature of the information and assume the obligation to maintain its confidentiality.	Compliant **Partially compliant** Non-compliant	The Company meets Criterion 1. The Company does not meet Criterion 2, since the cases in which shareholders are warned about the confidential nature of information and assume the obligation to maintain its confidentiality are not defined in the Company's communication policy. Nevertheless, clause 5.5.3 of the Charter stipulates that the shareholders of the Company are obliged to comply with the confidentiality regime with respect to the Company's information that constitutes a trade secret.
7.1.	**Actions that significantly affect or may affect the structure of the company's share capital and its financial condition and, accordingly, the position of its shareholders (substantial corporate actions) are carried out on fair terms that ensure compliance with the rights and interests of the shareholders, as well as other concerned parties.**			
7.1.1.	Substantial corporate actions include the following: reorganisation of the company, acquisition of 30 percent or more of the company's voting shares (takeover), substantial transactions, increase or decrease in the company's registered capital, listing and delisting of the company's shares, as well as other actions that may lead to a substantial change in the rights of the shareholders or violation of their interests. The company's charter define a list (criteria) of transactions or other actions that are substantial corporate actions, and consideration of such actions is within the competence of the company's board of directors.	1. The company's Charter defines the list (criteria) of transactions or other actions that are substantial corporate actions. Making decisions on substantial corporate actions falls within the competence of the board of directors and it is stipulated in the company's charter. In those cases where the implementation of these corporate actions is directly referred by law to the competence of the general meeting of shareholders, the board of directors provides the shareholders with appropriate recommendations.	Compliant **Partially compliant** Non-compliant	The Company partially meets Criterion 1, since the Charter does not provide for the concept of "substantial corporate actions". However, most of the substantial corporate actions listed in the Russian CG Code fall within the competence of the General meeting of shareholders or the Board of Directors of the Company.
7.1.2.	The board of directors plays a key role in making resolutions or making recommendations regarding substantial corporate actions, and the board of directors relies on the position of the company's independent directors.	1. The company provides for the procedure under which independent directors declare their position on substantial corporate actions before their approval.	Compliant Partially compliant **Non-compliant**	The Company formally does not meet Criterion 1, since the Company formally does not have a separate procedure for the independent directors to declare their position on substantial corporate actions prior to their approval. At the same time, the independent directors play a key role in all resolutions of the Board of Directors as 8 out of the 14 members of the Board of Directors are independent directors.

No.	Corporate governance principles	Criteria for evaluating compliance with the corporate governance principle	Status of compliance with the corporate governance principle	Comments
7.1.3.	When carrying out substantial corporate actions affecting the rights and legitimate interests of the shareholders, equal conditions are ensured for all shareholders, and if statutory mechanisms to protect shareholder rights are not sufficient, additional measures are provided for the protection of the rights and legitimate interests of the shareholders. In this case, the company is guided not only by compliance with the statutory formal requirements but also by the corporate governance principles set out in the Russian CG Code.	1. The company's charter, taking into account the specifics of the company's activities, refers to the competence of the board of directors approval of transactions, inter alia those provided for by law, which were material for the company. 2. During the reporting period, all substantial corporate actions were approved prior to their implementation.	Compliant **Partially compliant** Non-compliant	The Company partially meets Criterion 1. Due to the fact that the Company was registered as an international company in accordance with the procedure stipulated by the Federal Law No. 290-FZ of 03.08.2012 "On International Companies and International Funds" the provisions of Jersey law and the HKSE Listing Rules are applicable to the Company. Despite the fact that the Company is not subject to the provisions of the JSC Law on approval of interested-party transactions and major transactions, the Charter stipulates that consideration of transactions amounting up to USD75 million to which the Company is a party, as well as consideration of any transactions of the members of the Company's Group that are recognised as connected transactions in terms of the HKSE Listing Rules is within the authority of the Board of Directors. Criterion 2 is not met on formal grounds, since the Company's Charter do not provide for the concept of "substantial corporate actions".
7.2.	**The company ensures the procedure for implementing substantial corporate actions that allows its shareholders to receive full information on such actions in a timely manner, provides them with the opportunity to influence the implementation of such actions, and guarantees compliance and an adequate level of protection of their rights when implementing such actions.**			
7.2.1.	Information on the substantial corporate actions is disclosed with an explanation of the reasons, conditions and consequences of such actions.	1. In case, during the reporting period, there were substantial corporate actions, the company disclosed detailed information on these actions in a timely and detailed manner, including the causes and conditions of realisation of such actions, and consequences for the shareholders.	**Compliant** Partially compliant Non-compliant	
7.2.2.	The rules and procedures related to the company's substantial corporate actions are set out in the company's internal documents.	1. The company's internal documents determine events and procedure for engaging an appraiser to determine the value of property to be disposed of or acquired under a major transaction or a interested-party transaction. 2. The company's internal documents provide for the procedure for engaging an appraiser to assess the cost of the acquisition and buyback of the company's shares. 3. In the absence of formal interest of a member of the board of directors, sole executive body, member of collegial executive body of a company or a person who is a controlling person of a company or a person having the right to give instructions binding for a company, in transactions of a company, but in case of presence of conflict of interests or their other actual interest, internal documents of a company stipulate that such persons shall not participate in voting on approval of such transaction.	Compliant **Partially compliant** Non-compliant	Criterion 1 is not applicable to the Company, the Company meets criterion 2 partially, since the Company is not subject to the provisions of the JSC Law regarding the approval of interested-party transactions and major transaction, as well as buyback of shares at the shareholders' request. However, internal documents and procedures stipulate the need to engage an independent appraiser (independent financial advisor) to carry out the required evaluations. Internal documents regulate an extended list of grounds on which persons are recognised as related parties to the Company's transactions. Meanwhile, the provisions of the JSC Law regarding the approval of interested-party transactions are not applicable for the Company. Criterion 3 is met.

INFORMATION ON THE COMPANY

UNITED COMPANY RUSAL, INTERNATIONAL PUBLIC JOINT-STOCK COMPANY

(Incorporated under the laws of Jersey with limited liability and continued in the Russian Federation as an international company)

BOARD OF DIRECTORS

Executive Directors

Mr. Evgeny Kuryanov
Mr. Evgenii Nikitin *(General Director)*
Mr. Evgenii Vavilov

Non-executive Directors

Mr. Mikhail Khardikov
Mr. Vladimir Kolmogorov
Mr. Marco Musetti

Independent non-executive Directors

Mr. Christopher Burnham
Ms. Liudmila Galenskaia
Mr. Kevin Parker
Mr. Randolph N. Reynolds
Dr. Evgeny Shvarts
Ms. Anna Vasilenko
Mr. Bernard Zonneveld *(Chairman of the Board)*

REGISTERED OFFICE IN RUSSIA

Office 410, 8, Oktyabrskaya street,
Kaliningrad region,
Kaliningrad 236006,
Russian Federation

PLACE OF BUSINESS IN HONG KONG

17/F., Leighton Centre,
77 Leighton Road, Causeway Bay,
Hong Kong

HONG KONG COMPANY SECRETARY

Ms. Lam Yuen Ling Eva

17/F., Leighton Centre,
77 Leighton Road, Causeway Bay,
Hong Kong

AUDITORS

TSATR – Audit Services LLC

Public Interest Entity Auditor recognised in accordance with the Accounting and Financial Reporting Council Ordinance
Russian Federation, 115035, Moscow,
Sadovnicheskaya naberezhnaya, 77, building 1

AUTHORISED REPRESENTATIVES

Mr. Evgenii Nikitin
Ms. Lam Yuen Ling Eva
Mr. Eugene Choi

PRINCIPAL SHARE REGISTRAR

Joint Stock Company "Interregional Registration Center"

Podsosensky pereulok, 26, str.2, Moscow, 105062,
Russian Federation

HONG KONG BRANCH SHARE REGISTRAR

Hongkong Managers and Secretaries Limited,
Units 1607-8, 16/F, Citicorp Centre,
18 Whitfield Road, Causeway Bay,
Hong Kong.

AUDIT COMMITTEE MEMBERS

Mr. Kevin Parker *(Chairman)*
Ms. Anna Vasilenko
Mr. Bernard Zonneveld

CORPORATE GOVERNANCE AND NOMINATION COMMITTEE MEMBERS

Mr. Christopher Burnham
Mr. Randolph N. Reynolds
Mr. Bernard Zonneveld *(Chairman)*

REMUNERATION COMMITTEE MEMBERS

Mr. Christopher Burnham
Mr. Randolph N. Reynolds
Ms. Anna Vasilenko *(Chairman)*

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UC RUSAL, IPJSC

APPROVAL OF THE REPORT

This Annual Report was approved by the Board on 12 April 2023 (Minutes No. 230402 dated 13 April 2023). In accordance with the requirements of the Hong Kong Stock Exchange, this Annual Report must be disclosed by 30 April 2023 (subject to clause 35.5 of the Company's Charter). Approval of this Annual Report by the General Meeting of Shareholders is scheduled for June 2023 (the final date of the meeting will be disclosed in due course).

RUSAL