NAC Kazatomprom JSC
Integrated Annual Report 2022

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MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS

GRI 2-22

Dear Shareholders,

I am pleased to present our Integrated Annual Report for the year 2022 delineating Kazatomprom's foremost activities and achievements during the reporting period, as well as strategic priorities and further development prospects.

Despite many difficulties and challenges, we have had a very successful year in 2022. Our overall safety performance has seen significant improvement and we have set out a forward plan for our long-term sustainability and growth in our environmental management. We exceeded our financial targets.

Unprecedented global economic uncertainty and significant geopolitical events in 2022 have become a test for Kazatomprom's internal risk management systems and practices, which over the period proved their robustness and reliability.

At the end of February 2022, the escalation of the Russia-Ukraine conflict led to the outbreak of hostilities on the territory of Ukraine. The Russia-Ukraine conflict, along with its humanitarian consequences, has exacerbated the concerns of market participants regarding the potential risks of the nuclear fuel availability that occurred earlier due to interruptions in the uranium supply related to COVID-19. Sanctions imposed by Western countries on Russia have resulted in a number of restrictions and bans on entities and individuals, import-export of certain goods and services, and freezing of foreign assets.

Kazatomprom closely monitored this situation, assessing the potential impact of these sanctions on the transportation of our end products through the territory of the Russian Federation. During the past year, by careful management and implementation of contingency plans, there were no significant restrictions related to end products supply to Kazatomprom’s customers around the world. During the reporting period Kazatomprom shipped contracted volumes via its regular route without any interruptions or significant difficulties. In December 2022, Kazatomprom successfully carried out the physical supply of natural uranium via the alternative Trans-Caspian International Transport Route, therefore, we have been successful in our efforts to minimize risks and protect the interests of all our stakeholders.

Despite the challenges, governments around the world continue to focus on the promotion of nuclear energy as part of their strategies for the long-term energy security, diversification of generation sources and decarbonisation.

Being the world leader in the uranium mining industry, Kazatomprom fosters the transition to clean energy using carbon-free base capacities. Natural uranium goes through several stages of production and processing before generating clean nuclear energy for the planet. At the same time, uranium mining is the most economically attractive segment of the nuclear fuel cycle. Currently, a quarter of the world's uranium comes from 14 subsidiaries and affiliates of Kazatomprom.

We continue to pay special attention to sustainable development issues throughout our activities. When determining our priority areas in sustainable development, we are guided by the principles of the UN Global Compact and the UN 2030 Agenda on Sustainable Development Goals, as well as the provisions of other international standards and initiatives in the field of sustainable development.

Kazatomprom's accession to the UN Global Compact in 2022 confirms our commitment to the ten principles of the UN Global Compact and support for the UN global agenda, goals and initiatives in the field of sustainable development.

In 2022, Kazatomprom developed a Strategy for decarbonisation and carbon neutrality by 2060, aimed at systematically reducing Scope 1 and Scope 2 emissions.

Kazatomprom is acknowledged for using in-situ leaching method of uranium extraction, which minimizes the adverse impact on the environment, biodiversity, water resources and public health. We integrate social value into decisions we make by contributing to sustainable growth and socio-economic welfare of the regions of presence aiming at advancing the standard of living for both the current and

future generations. Minimizing and mitigating the impact of our production activities, the development and allocation of new environmentally friendly technologies and processes that comply with the best international practices is a fundamental component of our Development Strategy.

In December 2022, the international rating agency S&P Global Ratings assigned Kazatomprom its first independent ESG rating at a score of 51. The current ESG rating is the result of Kazatomprom's relative exposure to ESG risks and opportunities according to the rating agency's opinion, as well as its assessment of our long-term sustainability and readiness for new trends and potential disruptions. Noteworthy, the current global maximum ESG evaluation score among Metal & Mining sector companies is 68 (of 100) with a global Metal & Mining sector average of 50 (of 100).

In 2022, the Board of Directors and the Management Board of the Company has undergone a number of changes. In July, the Chairman of the Management Board of Kazatomprom Mr. Mazhit Sharipov left his post, after having carried out effective management of the Company during its recovery from the pandemic and current geopolitical risks and uncertainty. Mr. Sharipov's significant experience in the nuclear fuel cycle played an essential role in the successful commissioning and launch of Ulba-FA industrial production, a new Kazatomprom plant supplying fuel assemblies to China. Also, under his leadership, the first uranium fund in the region was launched on the international platform of the Astana International Finance Centre.

In line with the succession plan, Mr. Yerzhan Mukanov was appointed as the Chairman of Kazatomprom's Management Board in September 2022. Mr. Mukanov brings significant expertise in his new role and contributes to further strengthening Kazatomprom's leading position in the international nuclear fuel market with23 years of experience in the nuclear industry.

Positions of Chief Financial Officer and Chief Commercial Officer have also changed. On behalf of the Board of Directors, I express my gratitude to those who left the Company in 2022, for their significant contribution to its development and success. I am confident that the expertise and experience of the new Management Board members will contribute to the ongoing implementation of our strategy of creating long-term market value.

In 2022, a number of pivotal events occurred for the Company. First delivery of Kazakh nuclear fuel from the new Ulba-FA plant for the NPP in China took place. The implementation of an innovative project on the production of nuclear fuel for NPPs is an example of Kazatomprom's contribution to mitigating the effects of global climate change and achieving the global goal of low–carbon development. The Ulba-FA plant allowed Kazatomprom to diversify production, expanding the line and producing high-tech, export-oriented uranium products with high added value. The successful delivery of products to Chinese partners confirmed Kazatomprom's reputation as a reliable and preferred supplier in the global nuclear fuel market.

Furthermore, Kazatomprom has initiated project development for a new sulphuric acid plant. The project implementation will run between 2022 and 2026. The plant will be located in the Sozak district of Turkestan region, in close vicinity to mines, which will significantly reduce the delivery routes to consumers. As part of the project additional jobs shall be provided in the region – engaging about 800 people in the construction, thus contributing to the welfare and improvement of life quality of the local population.

Despite global geopolitical uncertainty and economic volatility, Kazatomprom managed to achieve outstanding financial and operational results during the reporting period. The volume of dividends paid to our shareholders in 2022, following the results of operations in 2021, exceeded the total amount of dividend payments in 2021 by more than 50%. These results demonstrate Kazatomprom's continuous devotion to its strategy, including value creation for all stakeholders.

The Board of Directors will continue to work hard ensuring that a high level of governance, strategy deployment and safety performance are achieved in the coming years.

On behalf of the Board of Directors, I would like to thank all shareholders, employees, customers, partners and other stakeholders of Kazatomprom for their long-term trust and support in the company.

Chairman of the Board of Directors
Independent Director of NAC Kazatomprom JSC
Neil Longfellow

MESSAGE FROM THE CHAIRMAN OF THE MANAGEMENT BOARD

GRI 2-22

Dear colleagues, partners, and investors,

We are happy to present Kazatomprom Integrated Annual Report 2022, which outlines the financial, operational and sustainability performance of the national nuclear holding.

In the early days of 2022, our country, the largest producer of natural uranium, faced tragic events that still resonate with every national of Kazakhstan. Kazatomprom promptly took every step to prevent the destabilisation of production and ensure the safety and security of its employees, so that these developments had no tangible impact on the Company's operations and all our facilities operated without interruption.

The developments made all companies in Kazakhstan pay special attention to the welfare and safety of workers, who have always been Kazatomprom's core asset. The Company works consistently to create good working conditions and offer decent pay. We also work to provide all employees of subsidiaries and affiliates with quality protective clothing, and improve catering and medical care for production personnel. The Company strives to maximise its contribution to the sustainable social and economic development of the regions where it operates to improve the living standards of local communities by implementing socially important projects, such as community improvement, construction of modern playgrounds and sports grounds, and financial assistance to socially vulnerable groups.

This demonstrates that sustainable development lies at the core of Kazatomprom's development strategy, and achieving the goals and objectives associated with the global ESG agenda is an integral part of the Company's plans. Kazatomprom places sustainable growth in the limelight, ensuring the safest possible production and reducing the environmental footprint of its operations.

In particular, the Company developed its Decarbonisation and Carbon Neutrality Strategy 2060 in 2022. According to the projected emissions in a realistic scenario, the total CO2 emissions would reach 1,009,000 tonnes by 2025, 622,000 tonnes by 2035, and 251,000 tonnes by 2045. We are set to become carbon neutral by 2060.

The health and safety of workers remains No. 1 priority for Kazatomprom. Strengthening occupational safety and considering car accidents among the nuclear holding's employees, 2022 was declared the Year of Motor Vehicle Safety across the Company. The Lost Time Injury Frequency Rate (LTIFR) also showed a downturn by 5 times. In the meanwhile, we regret to confirm there was 1 fatal accident last year. We express our deepest condolences to the family and friends of the deceased. Recognising the health and safety challenges and committing to finding solutions, Kazatomprom will continue to improve the welfare and safety of its employees.

Despite the challenges of 2022, unprecedented global economic uncertainty, and significant geopolitical developments, Kazatomprom has demonstrated robust operational and financial performance and cemented its role as a global bellwether in the natural uranium production and sales.

In 2022, production slightly dropped against 2021 due to the impact of the COVID-19 pandemic on well development in 2021.

The dividends paid to shareholders in 2022 based on the Company's 2021 performance made KZT 227.4 billion, up by 50% year on year. As previously reported, the total amount of dividends for 2022, payable in 2023 upon approval by shareholders at the Meeting on 25 May 2023 will be about KZT 200.97 billion, or KZT 774.88 per ordinary share.

Successfully implementing its projects, Kazatomprom made the first delivery of Kazakh nuclear fuel from Ulba FA plant to China. The project is a good example of successful multilateral cooperation of the world's nuclear industry leaders. To produce fuel assemblies, we use uranium raw materials mined in Kazakhstan and processed by Ulba Metallurgical Plant. The first shipment of finished products

marked the start of regular shipments, a landmark event for Kazakhstan and China in the development of peaceful nuclear energy.

In 2022, Kazatomprom continued to strengthen international cooperation with the global nuclear leaders. The Company's management held pivotal meetings with representatives of the uranium industry from India, France, Canada, the United States, and Japan to discuss mutually beneficial cooperation and further cooperation prospects in various areas of the nuclear fuel cycle. They signed strategic documents underlying the long-term bilateral cooperation and seeking to expand the partnership to implement promising projects in the uranium industry.

On behalf of the entire Kazatomprom senior management, I express confidence that our Company will continue to pioneer the global uranium mining market, achieving strong performance and remaining committed to a strategy of creating long-term value for all stakeholders with the continued support of our shareholders and partners.

Yerzhan Mukanov
Chairman of the Management Board
NAC Kazatomprom JSC

25 YEARS OF SUSTAINABLE GROWTH

NAC Kazatomprom JSC marked its 25th anniversary in July 2022.

The first commercial deposit in Kazakhstan (Korday) was discovered in 1951, with the most important discoveries coming later. In particular, in the 1960-1970s, a uranium deposits were discovered in Shu-Sarysu, Ili and Syrdariya regions in southern Kazakhstan, which became the world's largest uranium ore reserve. These discoveries made Kazakhstan the second largest country in uranium reserves and explored resources. Kazatomprom has become a global leader in uranium mining. Over 25 years, the company has been showing a continuous growth.

Key stages in the development of the Soviet nuclear industry in the territories of present-day Kazakhstan, which laid the foundations for the Company's establishment:
1948 *— Volkov Geological Exploration Expedition established (now — Volkovgeologia JSC)*
1949 *— first (thorium oxalate) output of the 2a Plant (later Ulba Metallurgical Plant)*
1951 *— the first uranium deposit, Kurday, discovered in Kazakhstan*
1957 *— the Institute of Nuclear Physics (INP) of Kazakh SSR SA established based on Physics and Technology Institute of Kazakh SSR SA*
1967 *— the VVR-K research nuclear reactor put into operation at the Institute of Nuclear Physics*
1972 *— the world's first experimental industrial fast breeder reactor BN-350 put into operation in Aktau*
1991 *– President of the Republic of Kazakhstan Nursultan Nazarbayev signed a decree to close the Semipalatinsk nuclear test site*

16 December 1991 – the Republic of Kazakhstan declared its independence.
1992 – the Government of the Republic of Kazakhstan resolved to merge all the enterprises of the industry into Kazakh State Corporation for Atomic Power and Industry (KATEP).
14 July 1997 – President of the Republic of Kazakhstan Nursultan Nazarbayev signed the Decree *On Establishment of the National Atomic Company Kazatomprom on the basis of KATEP*. Kazatomprom included Volkovgeologia Geological Exploration Company, three mining administrations (Stepnoye, Tsentralnoye, and Shestoye), and Ulba Metallurgical Plant (UMP).
1999 – Kazakhstan won an anti-dumping process in the United States. Kazatomprom was the first company from the former Soviet Union that had restrictions on the sale of Kazakh uranium to US markets fully lifted.
2000 – Kazatomprom became the world's sixth largest producer of natural uranium, up from 13th place in 1997.
2000 – Ulba Metallurgical Plant relaunched tantalum production. The plant refocused its beryllium production to peaceful products.
2001 – Kazatomprom earned its first net profit based on the 2000 performance.
2009 – Kazakhstan successfully met the production target of 13,500 tonnes of uranium, becoming the world's No. 1 uranium producer.
2011 – the Great Earthquake in Japan and the accident at the Fukushima nuclear power plant, a subsequent crisis in the natural uranium market
2016 – TH Kazakatom AG trading company was established. 20 non-core businesses were divested to increase Kazatomprom's value.
2017 – the IAEA Low Enriched Uranium (LEU) Bank opened at Ulba Metallurgical Plant.
2018 – Kazatomprom's IPO on the Astana International Finance Centre (AIX) and the London Stock Exchange (LSE).
2019 – Kazatomprom paid first KZT 80 billion in dividends after the IPO and has continued to pay healthy dividends every year.
2021 – Kazatomprom's subsidiary launched fuel production for nuclear power plants.
2021 – Kazatomprom signed an agreement to invest in ANU Energy OEIC Ltd, a new physical uranium fund established on the Astana International Financial Centre platform (AIFC).
2021 – Kazatomprom's corporate governance rating was upgraded to "A"
2022 – Kazatomprom joined the UN Global Compact.
2022 – Kazatomprom made the first delivery of fuel assemblies from Ulba FA LLP to a nuclear plant in China.
2022– Kazatomprom delivered natural uranium owned by Kazatomprom and JV Inkai LLP via the Trans-Caspian International Transport Route (TITR).

2022 – S&P Global Ratings assigned Kazatomprom an ESG score of 51/100 for the first time (with a global mining industry average of 50).

HIGHLIGHTS 2022

Indicator	2022
Production highlights	
Uranium output (in proportion to the shareholding)	11,373 tonnes
Niobium product output	7.9 tonnes of Nb
Beryllium product output	1,295.4 tonnes of Be
Tantalum product output	165.3 tonnes of Ta
Fuel pellet output	198.2 tonnes
Financial highlights	
Group revenue, KZT billion	1,001
Operating profit, KZT billion	472.9
Net debt/adjusted EBITDA	0.05
Earnings per share, KZT/share	1,342
Dividends paid, KZT billion	227.4
Sustainable development	
Headcount across the Holding, employees	20,813
Female share of total headcount, %	17
Contributions to budgets for the social and economic development of the regions where the Company operates, KZT million	2,625
LTIFR (per 1 million man-hours)	0.11
Gross direct GHG emissions	97,256 tonnes CO_2 eq.
Awards and ratings	
ESG score of 51/100 assigned by S&P Global Ratings for the first time, with the global mining industry average being 50.	
Best ESG Disclosure Leader by PWC	
Kazatomprom Integrated Annual Report 2021 won top MarCom Platinum Award	
Kazatomprom Integrated Annual Report 2021 received the highest score, 5 stars, from the RAEX annual report rating	
Kazatomprom Integrated Annual Report 2021 recognised as the Best 2021 Annual Report in the Non-Financial Sector and the Best Interactive Version of the 2021 Annual Report by Kazakhstan Stock Exchange (KASE)	
Kazatomprom received a special award "For Transparency Aspirations" upstaging the other listed companies in non-financial sector based on the 2021 performance	
Kazatomprom ranked 3rd in three categories of the Gold Hephaestus national industry contest among mining complexes: Best digital solution in MMC — Predictive Maintenance Project; Best ESG strategy — Green Mindset Project; Best project of the year — Reuse of materials and equipment	

MILESTONES 2022

March

- Kazatomprom joined the UN Global Compact.
- The Company invested USD 24.25 million in ANU Energy OEIC Ltd, a physical uranium storage fund. This was a 32.7% share of the joint investment by ANU Energy investors.

May

- The first delivery of natural uranium concentrates to ANU Energy OEIC Ltd. as part of the first phase of the uranium fund development.

July

- Kazatomprom paid KZT 227.4 billion in dividends for 2021.
- Kazatomprom announced the resignation of Mazhit Sharipov as Chairman of the Management Board.

September

- Yerzhan Mukanov was appointed as Chairman of Kazatomprom's Management Board.

October

- Kazatomprom held its first Analyst Day since the COVID-19 pandemic began, as well as a study tour around the Company's production facilities and mines in South Kazakhstan.
- The Company announced the commencement of a project to build a sulphuric acid plant in Turkistan Region.

December

- Kazatomprom made the first delivery of fuel assemblies (FAs) of the AFA 3G TM design manufactured by Ulba-FA LLP to China. The nuclear power plant accepted the FAs.
- Kazatomprom completed a physical delivery of natural uranium, using the Trans-Caspian International Transport Route (TITR).
- S&P Global Ratings assigned the first ESG score to Kazatomprom.
- Kazatomprom was recognised the Best ESG Disclosure Leader by PriceWaterhouseCoopers.

BUSINESS LINES

GRI 2-6

- natural uranium mining
- making uranium products
- prospecting and exploration
- producing rare metals

MISSION AND VALUES

Mission
To sustainably develop our uranium deposits and their value chain components in order to create long-term value for all Company's stakeholders in line with the principles of sustainable development.

Vision
To be the Partner of Choice for the global nuclear fuel industry.

Values

- Team
- Security and safety
- Professionalism
- Responsibility
- Development

BUSINESS MODEL

CAPITAL	STRATEGIC GOALS	OPERATIONAL CYCLE		COMPETITIVE ADVANTAGES	VALUE CREATION
Financial capital	Focus on the core business	**MINING**		World's largest uranium producer	Revenues – **KZT 1,001 billion** Dividends paid – **KZT 227.4 billion**
Natural resources	Streamline mining, processing, and sales based on market conditions	**NATURAL URANIUM:** U_3O_8 88% Company's revenue **RARE METALS:** Nb_{41} Be_4 Ta_{73}	**26 deposits/blocks >mining assets** **PRIMARY URANIUM MINING** Current line of business	Effective and environmentally efficient mining technologies	Environmental protection – **KZT 1,075 million** Energy efficiency – **KZT 1,142 million**
Production capital	Create value by enhancing our marketing function and expanding sales channels	**PROCESSING**		Kazakhstan's national operator	Capital expenditures – **KZT 146.5 billion**[1] Procurements – **KZT 277.2 billion**
Intellectual property	Introduce best practice business processes	**REFINING AND CONVERSION** New business line **RECONVERSION, PRODUCTION OF URANIUM DIOXIDE POWDER AND FUEL PELLETS** Current business	**PRODUCTION OF URANIUM OXIDE** Current business line **PRODUCTION OF NUCLEAR FUEL**	Successful implementation of partnership projects	Training expenses – **KZT 1.8 billion**[2] R&D – **KZT 6.829 billion**

[1] Includes unconsolidated entities — joint ventures and associates on a 100% basis, as well as liquidation funds and liquidation costs.
[2] Includes expenses for employee professional development, training and retraining, knowledge retention and sharing within the Group.

		line	Current business line		
Human capital	Develop a corporate culture appropriate to an industry leader	**DISTRIBUTION**		Responsible approach to business	H&S investments – **KZT 8.08 billion** Headcount – **20,813**
Social capital and reputation		Sales of uranium products: under long-term and short-term contracts, as well as in the spot market through its Switzerland-based trading subsidiary China, Southeast Asia, North America, Europe	**DISTRIBUTION** Current business line **TRANSPORTATION** Current business line	Risk management	Contributions to regional development – **KZT 2.625 billion**

1. OPENING UP NEW OPPORTUNITIES

It was a challenging turbulent year, but we managed to cement the Company's leading role in sales and profitability in the market, as well as to grow our contract portfolio. Despite all the challenges, Kazatomprom expanded the geography of supplies: we promptly transported Kazakhstani uranium to Canada using the alternative Trans-Caspian route. Therefore, we did not only meet our commitments, but also delivered an effective diversification of logistics routes even in a challenging geopolitical environment.

In the past year, the Company successfully invested in Kazakhstan's first uranium fund and earned a high ESG rating in the sector. Thanks to our effective marketing strategy and high quality products, we remain a leading player in the uranium market.

Alisher Taizhanov
Chief Commercial Officer

2022 was a landmark year at NAC Kazatomprom JSC as the Company successfully delivered the first batch of fuel assemblies (FAs) containing just over 30 tonnes of low-enriched uranium to a nuclear power plant in China. The FAs were manufactured in Kazakhstan by Ulba-FA LLP, a joint venture between Ulba Metallurgical Plant and CGNPC-URC, a Chinese nuclear energy corporation.

All fuel assemblies were manufactured using French Framatome technology (AFA3GTM design) and supplied to the CGNPC nuclear power plant in China under a long-term contract. They passed quality control and were accepted by the customer. Fuel pellets made by Ulba Metallurgical Plant from Kazakh uranium are used in the production of fuel assemblies.

This project enabled Kazatomprom to start new production in the country in the pre-reactor nuclear fuel cycle (NFC) chain, create new jobs, acquire new knowledge and competencies and, most importantly, diversify production, expanding the range and producing high-tech, export-oriented uranium products. This project succeeded thanks to the coordinated efforts of Chinese, French, and Kazakh experts. The best practices of the global leaders adopted in Kazakhstan will undoubtedly improve the competences of Kazakhstani specialists.

Having cemented its leadership in the mining market, Kazatomprom is working towards building new production facilities for higher value-added uranium products, which helps the Company strengthen its position in the global nuclear market in the long term and expand its presence in other stages of the pre-reactor nuclear fuel cycle and sales channels.

In 2023, we are set to ramp up the production and sales of fuel assemblies made by Ulba-FA LLP to reach an annual output of 200 tonnes of low-enriched uranium in 2024.

Dosbolat Sarymsakov
Chief Nuclear Fuel Cycle (NFC) Officer

1.1. About the Company

GRI 2-6

Kazatomprom is the largest global producer of natural uranium with priority access to one of the world's largest uranium reserves.

The assets of the national atomic company include the entire range of enterprises involved in the product chain — from prospecting and exploration, uranium mining, nuclear fuel cycle products to science, social welfare and staff training.

The company employs over 21,000 people. Kazatomprom is committed to sustainable development and international standards of corporate social responsibility. The company's achievements have been recognised with international and national awards.

Kazatomprom is:

- the world's largest uranium producer responsible for over 20% of the global uranium production
- owner of the largest uranium reserves with priority access to a high-quality resource base
- low-cost and easy-to-scale uranium mining by in-situ recovery
- industry leader in operational efficiency, occupational health and safety as well as environmental protection
- a leader in the development of strategies for the sustainable, long-term future of the uranium market.

1.2. Company's Asset Structure

14 mining assets operating in 26 deposits/blocks located in Kazakhstan, using the in-situ recovery (ISR) mining method, including:

- 2 wholly owned uranium mining subsidiaries operating at 5 uranium deposits/blocks
- 12 uranium mining companies partly owned by Kazatomprom that operate in 21 uranium deposits/blocks

Kazatomprom's key assets in 2022

Company	Asset description
Subsoil use	
Subsoil use contracts that grant the Group's subsidiaries mining rights in relation to 17 uranium deposits/blocks located in Shu-Sarysu and Syrdariya regions of Kazakhstan	Proven and probable ore reserves: 335,100 tonnes of UME Measured and indicated mineral resources: 482,800 tonnes of UME
Subsoil use contracts that grant Group's joint ventures and associates mining rights in relation to 9 uranium deposits/blocks in the Shu-Sarysu, Syrdariya, and North Kazakhstan regions	Proven and probable ore reserves: 253,700 tonnes of UME Total mineral resources (including measured, indicated, and inferred resources): 278,800 tonnes of UME
Production	
Ulba Metallurgical Plant JSC	Productivity in 2022: • 3,940.2 tonnes of U_3O_8 • 1,295.4 tonnes of beryllium products • 165.3 tonnes of tantalum products • 7.9 tonnes of niobium products • 152.4 tonnes of hydrofluoric acid
Commerce	
Trade House KazakAtom TH AG	Uranium trading
Ancillary businesses	
SKZ-U LLP SSAP LLP	680,000 tonnes of sulphuric acid – total annual production capacity
Volkovgeologia JSC	Prospecting and drilling company
KAP Logistics (formerly known as Trade and Transport Company LLP)	Transport and logistics company serving production assets
Qorgan-Security LLP	Security services for Kazatomprom, its subsidiaries, and affiliates
KAP Technology LLP	Ensures local and corporate telephone communications, data transmission, and VHF radio communications services to Kazatomprom's entities
Uranenergo LLP	Electricity transmission and distribution, operations of power grid and stations, reliable and uninterrupted power supply to uranium mining enterprises of Kazatomprom
Science, Engineering and Education	
Institute of High Technology LLP	Addresses strategic objectives in Kazakhstan's nuclear sector to drive its innovative development, technological upgrade, palpable improvement in the quality and competitiveness of knowledge-intensive products, conducts R&D activities, works to introduce innovations in the sector, employees training and retraining

1.3. Geography and Market Presence

GRI 2-1

Mineral assets

Company's mineral assets are located in four key administrative districts of Kazakhstan:

- Kyzylorda Region (Shieli and Zhanakorgan districts)
- Turkistan Region (Sozak and Otyrar districts)
- North Kazakhstan Region (Ualikhanov District)
- Akmola Region (Enbekshilder District)

Kazakhstan's uranium provinces and distribution of uranium reserves based on the State Commission on Mineral Reserves standard[3]

Province	Reserves
Caspian	2.9%
North Kazakhstan	12.1%
Shu-Sarysu	69.7%
Pribalkhashskaya	0.6%
Syrdarya	9.1%
Ili	5.6%

[3] State Commission on Mineral Reserves. Distribution of uranium reserves, in percent. Information as of 1 January 2022.

1.4. Analysis of Performance Dynamics

1.4.1. Production highlights

GRI 2-6, SASB EM-MM-000.A

Kazatomprom is a national operator for the export and import of uranium and its compounds. This grants the Company certain privileges, including the possibility to enter into subsoil use contracts through direct negotiations with the authorised body of the Republic of Kazakhstan. This ensures priority access to the high-quality natural uranium deposits in Kazakhstan using the in-situ recovery (ISR) mining method. In 2022, about 29,000 tonnes of uranium were mined globally using the ISR method, of which approximately 74% came from the Holding's mines in Kazakhstan.

Kazatomprom's share in the global natural uranium mining market (based on its attributable share of production), %

2022	22
2021	24

In 2022, Kazatomprom retained its position as the world's largest uranium producer (based on its attributable share of production). According to UxC, the Company's uranium output reached 22% of the total global primary uranium production in 2022. Kazakhstan accounted for about 42% of global uranium production in 2022.

Kazatomprom's uranium output (attributable share of production), tonnes

2022	11,373
2021	11,858

Compared to 2021, the output was 1% lower in 2022 because of the COVID-19 pandemic impact on well exploration in 2021. As a rule, eight to ten months elapse between well exploration and uranium production using the in-situ recovery (ISR) mining method. Delays and/or limited access to certain key materials and equipment in 2021 affected the well commissioning schedule, resulting in lower output in 2022 compared to 2021. The sale of a 49% interest of ME ORTALYK LLP to CGN Mining UK Limited in July 2021 also affected output volumes in proportion to the shareholding.

Niobium product output, tonnes of Nb

2022	7.9
2021	14.2

In 2022, niobium production decreased by 44.37% compared to 2021, in response to a change in demand for niobium products.

Beryllium product output, tonnes of Be

2022	1,295.4
2021	1,402.6

Compared to 2021, the output of beryllium products in volume terms decreased by 7.64% in the reporting period, in response to a decrease in demand for beryllium products.

Tantalum product output, tonnes of Ta

2022	165.3
2021	163.3

Compared to 2021, the output of tantalum products in volume terms increased by 1.22% in the reporting period in response to an increased demand from customers.

Fuel pellet output, tonnes

2022	198.2
2021	43.5

The volume of fuel pellets production in 2022 amounted to 198.2 tonnes. Compared to 2021, a significant increase in production of fuel pellets occurred in the reporting period in response to an increase in production volumes for Ulba-FA LLP and CJNF (China).

1.4.2. Financial highlights

Group revenue, KZT billion	
2022	1,001.1
2021	691.0

Group revenues were KZT 1,001,171 million in 2022, a 45% YOY increase, mainly due to an increase in the average realization price spurred by a rising market spot price for U_3O_8 and the weakening of the tenge against the US dollar. The sales volumes in 2022 were comparable to 2021. The increase in revenues includes an increase in the UMP segment revenue of KZT 61,179 million, including revenue from other segments.

Dividends paid, KZT billion	
2022	227.4
2021	150.1

In July 2022, the Company paid dividends of KZT 227,388 billion to its shareholders based on its 2021 performance. An increase of 52% compared to 2021 when it paid dividends of KZT 150,082 million to the shareholders based on the 2020 performance. The increase resulted from higher operating cash flows and inclusion of proceeds from the Group's 2021 sale of its interest in ME ORTALYK LLP into the calculation of consolidated free cash flow in line with the Company's dividend policy. There were no arrangements under which a shareholder has waived or agreed to waive any dividends.

Net profit, KZT billion	
2022	472.9
2021	220.0

Net profit in 2022 was KZT 472.963 million, an increase of 115% against 2021. Net profit percentage increase is in line with the growth in operating profit in 2022.

Operating profit, KZT billion	
2022	455.9
2021	238.2

Operating profit in 2022 was KZT 455,962 million, an increase of 91% compared to 2021 due to an increase in revenues as explained above.

Net debt/adjusted EBITDA	
2022	0.05
2021	0.33

In 2022, the net debt to adjusted EBITDA ratio decreased by 0.28 from 2021 to 0.05. Adjusted EBITDA in 2022 was KZT 630,898 million, up by 80% year on year due to higher operating profit. Increase in EBITDA in proportion to the shareholding was KZT 495,357 million, up by 79% year on year, mainly from higher operating profit and an increase in EBITDA of JVs and associates.

Earnings per share, KZT/share	
2022	1,342
2021	543

Earnings per share in 2022 were 147% higher than in 2021 and reached KZT 1,342 per share.

Adjusted earnings per share, KZT/share	
2022	1,794
2021	848

In 2022, the adjusted earnings per share was KZT 1,794 per share in line with the increase in adjusted net earnings[4] for the year. In 2022, there was no temporary effect affecting net earnings

[4] For more details, see the Operating and Financial Review section, Consolidated Financial Indicators subsection.

1.5. Development Strategy

In 2018, the Company adopted a new development strategy, focusing on five strategic goals for 2018-2028:

- Focus on the core business
- Streamline mining, processing and sales volumes based on market conditions
- Create value by enhancing our marketing function and expanding sales channels
- Introduce best-practice business processes
- Develop industry leader corporate culture

Strategy Implementation in 2022

Strategic goals	Key results
Focus on the core business	• In 2022 Kazatomprom retained its position of the leading global uranium producer (on respective production share basis). As per data provided by UxC Kazatomprom's uranium production in 2022 made 22% of the total global primary supply. Whereas the share of the Holding, which comprises all the uranium supply by Kazakhstan as a country amounted to 42% of the global share of uranium supply in 2022. • In early December 2022, Ulba-FA LLP delivered the first batch of fuel assemblies (about 30 tonnes of low-enriched uranium). All fuel assemblies in the first delivery passed acceptance control and were accepted by the Chinese nuclear power plant.
Streamline mining, processing and sales based on market conditions	• Kazatomprom's production expectations remain in line with the market-oriented strategy and the intent to reduce production by 20% in 2023 and 10% in 2024 compared to the planned production levels under subsoil use contracts.
Create value by enhancing our marketing function and expanding sales channels	• Successful operation of THK, Kazatomprom's trading subsidiary. • The signed framework agreement establishes the first uranium fund ANU Energy OEIC Ltd in the AIFC jurisdiction, where Kazatomprom acts as a key supplier and one of the main investors.
Introduce best practice business processes	• Targeted IT security processes implemented in the parent company. • Implementation of the project "Improving the efficiency of strapping during mining development" to increase the production efficiency and reduce the output cost. Optimisation benefits amounted to KZT 2.4 billion for 2022. • Implementation of the project "Improvement of material and equipment reuse during mine development" to reduce the investment costs for mine development, minimise scrap metal waste and costs for elimination of technological blocks, and reduce greenhouse gas emissions within Scope 3. • Implementation of the project "Digitalisation of the pumping and compressor fleet at JV Inkai LLP" (Predictive Maintenance). • A process for measuring and improving the quality of geological and geophysical data at mining enterprises implemented and launched. The initiative has developed automated checks on data completeness and quality in geological databases, and systematic efforts improve data quality. • A unified corporate geo-information system "KAP-MAP" developed and measures taken to unify approaches to enterprise mapping data management. Standardisation and digitisation of mapping data in Baiken-U LLP, JV Khorasan-U LLP, ME ORTALYK LLP, RU-6 LLP, Kazatomprom-SaUran LLP performed as part of the project activities and an interactive web portal developed. • In 2022, a 2D geological modelling tool was developed and implemented to promptly define orebody occurrences based on geostatistical models

	and machine learning at JV Khorasan-U LLP, Baiken-U LLP, Semizbay-U LLP. • In June 2022, we updated and approved Kazatomprom's Occupational Safety Policy. • In July 2022, Kazatomprom confirmed its TÜV International Certification (Germany) for compliance with international requirements and standards on health care, occupational safety and environmental management. • In November 2022, we developed and approved Kazatomprom's Carbon Neutrality Strategy 2060. • In 2022, information on identified hazardous conditions, dangerous actions, and potentially dangerous situations (Near Miss) was provided on an ongoing basis. All the data is available at the eKAP information system. Freedom of expression in relation to occupational safety was promoted. The Chairman's Award for Excellence in Occupational Safety was presented to particularly distinguished subsidiaries and affiliates, as well as their employees. • The practice of informing all Kazatomprom employees of incidents via newsletters was introduced. Behavioural safety audits and cascade communications were conducted. All Kazatomprom Senior Managers have signed and made personal commitments as part of the Vision Zero concept, which aims to reduce occupational injuries to zero.
Develop a corporate culture appropriate to an industry leader	• Implementation of the Green Mindset ideology project aimed at raising awareness among employees of the production sector at the Company's enterprises to implement projects, activities and actions aimed at Green Economy development and decarbonisation.

Key risks of Strategy implementation

- Major accidents in the nuclear industry may lead to a decline in uranium prices.
- Nuclear energy competes with a number of other energy sources, and stable and lower prices for alternative energy sources could lead to a reduction in demand for nuclear feedstock, reductions in nuclear power development and nuclear power plant construction programs and, consequently, a reduction in demand for uranium and its market price.
- Nuclear energy is subject to public opinion risks, which could have a material adverse effect on the demand for nuclear energy and lead to increased regulation of nuclear energy industry
- The Group's profitability is directly linked to the uranium market price. The volatility of uranium prices may have a material adverse effect on the Group.
- The Group faces competition from other uranium suppliers and may lose end users of uranium products.
- The Group currently depends on a small number of customers who purchase a significant share of the Group's uranium, and any loss of important customers could have a material adverse effect.
- Some of the Group's customers and business partners may be subject to international sanctions and, if so, this might have a material adverse effect.
- The complex and non-quantifiable risks that are associated with the sanctions against Russia and the current situation in Ukraine could undermine the Group's financial stability and trigger social tensions.
- The Group is a major taxpayer and thus exposed to tax risks, including changes in the uranium extraction tax rate and transfer pricing within the limitation period as the most significant risks
- The United States or other uranium importers may impose tariffs or quotas on uranium imports
- The Group may continue to hold significant U_3O_8 reserves throughout the entire U_3O_8 price cycle.
- The Group's uranium mining and transportation operations are subject to operational risks, hazards, and unforeseen disruptions that could cause delays in the production and delivery of the Group's uranium and uranium products, increase the Group's production costs or lead to accidents on the Group's mining sites.

- The availability and cost of sulphuric acid significantly affects the continuity and commercial viability of the Group's operations, as the Group uses significant quantities of sulphuric acid to extract uranium.
- The Group may encounter difficulties in utilising railway lines connecting Kazakhstan with neighbouring countries or other transport infrastructure.
- The Group may see unfavourable outlooks regarding its current ore reserves or the discovery of new ore reserves; therefore, estimates or classifications of the Group's uranium ore reserves may be underestimated due to inherent uncertainties in the estimation of ore reserves.
- The Group may be unable to obtain, on commercially acceptable terms, or may not obtain at all, the necessary financing for its operations, strategy, business expansion and local infrastructure.
- The Group is exposed to various financial risks related to compliance with certain financial and other restrictive covenants, fluctuations in interest rates and exchange rates, liquidity restrictions or inability to obtain necessary financing, counterparty defaults.
- The Group may face arbitration or litigation to which it is not a party, legal consequences of non-compliance / misinterpretation of laws.
- The Group's insurance coverage may not be sufficient to cover losses arising from potential operational risks and unforeseen interruptions.
- Any failures of the Group's IT systems or cyber-attacks could adversely affect results.
- Failure to meet targets for uranium (U_3O_8) production, output, sales, cost of products and services.
- Failure to improve corporate governance, safety and environmental performance.
- Failure to meet targets of fuel assembly production in the Republic of Kazakhstan.
- The Group is highly dependent on the macroeconomic, social and political conditions prevailing in Kazakhstan and may be subject to adverse sovereign action by local authorities or be subject to extensive government regulations and laws.
- The Group may be affected by labour unrest or rising social tension in Kazakhstan, which could have a material adverse effect on the Group's business and reputation.
- The Group's results of operations are subject to economic, political and legal developments in China, India, and South East Asia.
- Unexpected catastrophic events, including acts of vandalism and terrorism, could adversely affect the Group's business.
- Deterioration of the epidemiological situation due to COVID-19 pandemic in Kazakhstan may undermine the Group's financial stability and increase social tension.

Kazatomprom's key initiatives in 2023

1. Construction of a sulphuric acid plant with an annual production capacity of 800,000 tonnes

Construction of a sulphuric acid plant with a production capacity of 800,000 tonnes per annum is underway in the village of Taikonur in Suzak District, Turkistan region. The project is expected to be completed in 2026.

Outcomes of the Initiative:

- Creation of jobs (800 people in construction, 500 people in operation)
- Annual tax deductions of about KZT 4 billion
- Reducing dependence on sulphuric acid imports
- Elimination of sulphuric acid deficit risk: an expected sulphuric acid deficit in the Republic of Kazakhstan by 2025 will amount to 1,516 thousand tonnes
- Associated power generation of 30 MW
- Socio-economic development of the region and SMEs
- Introduction of new advanced technologies for sulphuric acid production in line with international environmental and energy saving standards
- Retaining competitive advantage of low-cost uranium industry in the world

Construction and design timeframes: 2022 - 2026.

2. Uranium Oxide Refining plant construction — UMP JSC

Construction of uranium refinery with annual capacity of 6,000 tonnes in line with global environmental and energy saving standards. Share in the project — 100%. Portfolio company — UMP JSC. Creation of jobs after commissioning of the plant.

Outcomes of the Initiative:

- Creation of jobs
- Increase in tax deductions to the state budget
- Increase of Kazakhstan's share in raw material processing in the global market
- Increase of natural uranium production from 3,600 tonnes up to 6,000 tonnes per annum

Construction and design timeframes: 2020 - 2026.

3. Supply of domestic raw materials for tantalum and beryllium production by Ulba Metallurgical Plant JSC

Provision of existing tantalum and beryllium production facilities of Ulba Metallurgical Plant JSC with domestic mineral raw materials (Verkhniy Irgiz tantalum deposit, Karajal beryllium deposit) also search for other potential domestic deposits for further developmentto meet Ulba Metallurgical Plant's production needs.

Outcomes of the Initiative:

- Reduction in cost of production of finished products from tantalum-niobium and beryllium, elimination of dependence on imported minerals, creation of new jobs, improvement of production efficiency of UMP JSC.

Implementation timeframes: 2023 - 2029.

4. Introducing non-financial disclosure practices within the CSI in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) of the London Stock Exchange, and the SASB standard.

The TCFD is dictated by the requirement of the London Stock Exchange, where Kazatomprom is listed. The SASB standard implementation is based on demands of the times, the desire to improve sustainable development disclosure practices, as well as in accordance with the expectations of stakeholders and the investment community.

Outcomes of the Initiative:

- Proactivity, transparency and improved non-financial disclosure practices that can improve the independent ESG assessment in the coming years.

Implementation timeframe: 2023.

5. Implementation of the corporate Well-being programme

Implementation of the Well-being programme activities in 4 aspects: physical health and wellness, financial well-being, mental well-being, career and social well-being. The programme activities are aimed at improving the health of employees, enhancing their well-being, creating conditions for high performance, and growing employee satisfaction, allowing the employee to reach his/her potential for the benefit of himself/herself and the Company.

Outcomes of the Initiative:

- Reduction of risks of social instability
- Prevention of risks related to poor health of employees
- Increase of employees' welfare
- Increase of employees' engagement and loyalty

Implementation timeframes: 2023 – 2026.

6. Igilik social project

The Company's social project aimed at social and economic, infrastructural development, resolving social problems in the regions of the Company's presence as well as improving working conditions at the production facilities based on the submitted initiatives and suggestions from the Company's employees, subsidiaries and affiliates as well as local communities.

Outcomes of the Initiative:

- Reduction of risks of social tension
- Forming a positive image among local communities in the regions
- Employer brand development

Implementation timeframes: annual

7. Further development of alternative transport routes

The initiative is aimed at further development of alternative transport routes considering the geopolitical situation.

Outcomes of the Initiative:

- Stronger transport capacities of Kazatomprom
- More opportunities for uranium product export from Kazakhstan

1.6. Sales and distribution

1.6.1. Sales of uranium products

GRI 2-6

In 2022, the Company sold uranium products directly and through its subsidiary, Trade House KazakAtom AG (THK), registered in Switzerland to 24 customers in eleven countries (21 customers in eight countries in 2021).

The table below provides data on the geographical distribution of the Group's sales:

Consolidated sales* of Kazatomprom uranium products by region, %[5]

Region	2020	2021	2022
America	24%	32%	28%
Asia	43%	41%	46%
Europe	33%	27%	26%

**Include sales of uranium products to joint venture partners.*

Including data on the geographical distribution of customers for the Company's uranium products:

Sales of uranium products (U_3O_8) by the Company and THK by region

(% of sales volume* U_3O_8)

Region	2020	2021	2022
America	16%	23%	23%
Asia	49%	48%	50%
Europe	35%	29%	27%

**The Company's sales volume (accounted for in the Group): includes total sales volumes to external buyers of the Company and THK. Intra-group transactions between the Company and THK are not considered.*
Source: Data by the Company. Figures are rounded.

1.6.2. Transportation

Kazatomprom deploys safe, secure, and reliable logistics solutions to deliver uranium products to its customers across the globe. Uranium products are shipped by rail and/or sea in 20-foot containers. All shipments are insured against any risks associated with the transportation of uranium products.

In December 2022, Kazatomprom delivered the first batch of fuel assemblies (FAs) of the AFA 3G TM design manufactured by Ulba-FA LLP to China. The nuclear power plant accepted the FAs. Railway platforms with 34 shipping containers containing one reload of fuel assemblies (about 30 tonnes of low-enriched uranium), accompanied by specialised guards, were delivered to the nuclear power plant in China and accepted by CGNPC-URC, the Chinese nuclear corporation.

Natural uranium was also physically delivered via the Trans-Caspian International Transport Route (TITR). Part of the Kazatomprom-owned cargo arrived at the port of Poti in the third quarter and was awaiting the arrival of additional material by JV Inkai LLP for consolidation and loading onto a charter vessel for further transportation to the destination. The cargo, which included uranium both from Kazatomprom and JV Inkai LLP, successfully arrived at the Canadian port.

In 2022, Kazatomprom delivered U_3O_8 and finished uranium products to various destinations, depending on customer needs and requirements including:

Converters. The Group transported U_3O_8 to licensed conversion facilities owned by companies such as Honeywell (US), Cameco (Canada), and Orano Cycle (France), first by rail from the Company's operations in Kazakhstan most commonly to the port of St. Petersburg in Russia, then by sea to various ports in the US, Canada and Europe. Afterwards, the supplies were moved by rail or road to processing facilities and transferred to processing facilities.

[5] Source: Data by Kazatomprom.

China. When transporting material to China, Company delivered its cargo to the Alashankou railway station.

Russia. When shipping to the Russian Federation (recipients include Siberian Chemical Combine JSC), the Company delivered its cargo by rail to Tomsk-2 Railway Station in Russia.

Argentina. When delivering to Argentina, the customer took ownership at the port. The average cost of shipping products to destinations shown on the map ranges from USD 0.5 to USD 3.5 per kilo of U_3O_8. The Group also enters into swap agreements to minimise delivery times and transportation costs and to reduce risks associated with the transportation of uranium products.

1.7. Uranium products market overview and competitive environment

Highlights 2022

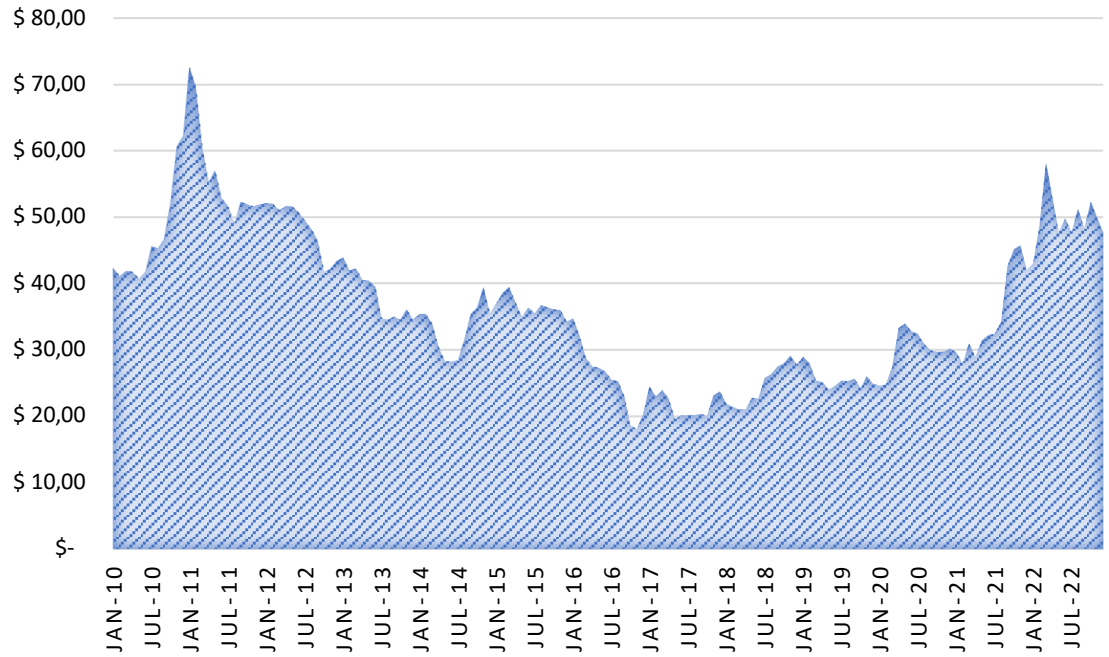
Global uranium demand with regards to nuclear power plant reactor needs and commercial and strategic reserves	74.3 k tU
Global uranium supply	72.1 k tU
Global natural uranium production	50.0 k tU
Average spot quotes	$49.61 (w) / $49.81 (m)

Significant developments in the global uranium market

Global geopolitical issues	The Russia-Ukraine conflict, in addition to its humanitarian consequences, has exacerbated market participants' concerns about potential nuclear fuel availability risks from previous disruptions in uranium supplies related to COVID-19. Although no restrictions related to nuclear fuel have been imposed, there is growing uncertainty about future access to Russian fuel, which has raised concerns among Western energy companies about security of supplies.
South Korea	The President of South Korea Yoon Suk Yeol has announced a new energy strategy aimed at reducing the use of fossil fuels and reversing the previous administration's intention to phase out nuclear power capacity. According to the plan, nuclear power will account for at least 30 per cent of the country's energy mix in 2030, including the completion of Units 3 and 4 at the Shin-Hanul nuclear power plant. The former President Moon Jae-In suspended their construction in 2017.
Japan	The Japanese government has approved a plan to revive nuclear power. Under the new policy, the country has announced that it will "maximise the use of available nuclear capacity" by accelerating the restart of suspended reactors. This will cancel the nuclear phase-out plan adopted after the Fukushima nuclear accident. The Government has also announced its intention to extend the maximum lifetime of nuclear reactors (the current maximum lifetime is 60 years) and develop advanced reactors to replace decommissioned reactors.
United States	The Inflation Reduction Act (IRA) passed in the US includes both extensive technology-neutral tax credits for low-carbon energy sources and tax credits for operating nuclear power plants. The law also provides USD 700 million support package to develop a domestic source for High-Assay Low-Enriched Uranium (HALEU) and nearly USD 400 billion for clean energy and climate change initiatives in the United States. IRA also offers incentives for the development of small modular and advanced reactors, encouraging the construction of such nuclear installations to replace decommissioned coal and other fossil fuel power plants.
Global Climate Strategy	The UN Climate Change Conference (COP-27) took place in Sharm el-Sheikh to discuss measures to meet the global climate goals set out in the Paris Agreement. The COP-27 produced a draft agreement emphasising the role of multilateralism in tackling climate change and reaffirming the conclusions of all previous meetings of the conference. It is also worth noting that the

	agreement calls for "increasing the share of renewable energy we use" as part of the "diversification of energy mixes and systems". Technological inclusion in decarbonising global energy system enhances the development of all low-carbon energy sources, including nuclear power.

Uranium prices, 2010–2022, USD, per lb U_3O_8[6]



Uranium output in 2022

GRI 2-6

In 2022, Kazatomprom produced 11,4 tonnes of uranium, which equals 22% of global production. In the context of continued production cuts by a number of key competitors, by the end of 2022, Kazatomprom ranks first in the world in natural uranium mining.

In August 2022, Kazatomprom announced its intention to reduce production by 10% in 2024 against targets under subsoil use contracts. The decision to cut production for another year will reduce the projected global primary uranium output by 3,500 tonnes in 2024. Although the expected increase in annual production in 2024 compared to 2023 is modest, given the current disruptions in the global supply chain, any increase in production beyond this level could be challenging.

Reactors commissioning and decommissioning in 2022

6 nuclear reactors with a total capacity of 7.4 GW were put into operation	
2	China
1	South Korea
1	Finland
1	Pakistan
1	UAE
5 nuclear reactors with a total capacity of 2.6 GW were phased out	
3	United Kingdom
1	United States
1	Belgium
Construction of 8 nuclear reactors with a total capacity of 9.3 GW began	

[6] Source: TradeTech, UxC

5	China
2	Egypt
1	Turkey

MINING ASSETS

ME ORTALYK LLP

Subsidiary
Company owns a 51% interest in the authorized capital of ME ORTALYK LLP (China National Nuclear Energy Group owns CGNM UK Limited 49%). The LLP operates at the central block of the Mynkuduk deposit and at the Zhalpak deposit in the Suzak District of Turkistan Region.

Deposit
The Mynkuduk deposit was discovered in 1973, and the commercial operation of the central block began in 2008. A subsoil use contract No. 1796 to develop the Central Mynkuduk deposit block was concluded on 8 July 2005. The rights to the exploration, production and marketing of uranium are valid until 2033.

Pilot production was conducted at the Zhalpak deposit. The exploration contract No. 4 996 was concluded on 14 December 2021. In the event of successful production, full-scale production will begin in 2042.

As of 1 January 2023, the total volume of ore reserves of the deposits (including annual depletion) was 35,400 tonnes. Total mineral resources (including reserves) stood at 35,400 tonnes.

Features

Year of creation	23.02.2011
Production	1,650 tonnes (Central Mynkuduk production capacity – 2,000 t/year, Zhalpak - 900 t/year)
Location	Republic of Kazakhstan, Turkistan Region, Suzak District
Number of employees	576
CEO	Samat Tagibergenuly Imankulov[7]
Date of the subsoil use contracts	2000-2043
Group's ownership interest	51%
Deposit	1. Mynkuduk, central block 2. Zhalpak

[7] Yerlan Lesbekovich Tashimov since 16 January 2023.

KAZATOMPROM-SAURAN LLP

Subsidiary
Company is the only participant at Kazatomprom-SaUran LLP.

In November 2018, Company transferred to Kazatomprom-SaUran LLP its rights and obligations under subsoil use contracts for the Kanzhugan deposit, the south part of block No. 1 (South) and the north part of block No. 3 (Central) of the Moinkum deposit, the Vostochny block of the Mynkuduk deposit and the Uvanas deposit, together with related manufacturing assets.

Deposit
The Kanzhugan deposit was discovered in 1972; commercial operation began in 1997. A subsoil use contract to develop the Kanzhugan deposit was concluded on 27 November 1996. The rights to the exploration, production, and sale of uranium are valid until 31 December 2047[8].

The south part of block No. 1 (South) of the Moinkum deposit was discovered in 1976, the north part of block No. 3 (Central) in 1974. Commercial operation of the southern part of block No. 1 began in 1997, and the northern part of block No. 3 in 2017.

A subsoil use contract for the south part of block No. 1 (South) was concluded on 26 September 2000. The rights to the extraction, exploration, and sale of uranium are valid until 26 September 2021.

A subsoil use contract for the north part of block No. 3 (Central) was concluded on 31 May 2010. The rights to the extraction, exploration, and sale of uranium are valid until 31 May 2041.

The Uvanas deposit was discovered in 1963, and commercial operation began in 1997. A subsoil use contract to develop the Uvanas block was concluded on 27 November 1996. The rights to the exploration, production, and sale of uranium to be valid until 15 November 2022.

The Mynkuduk deposit was discovered in 1973, and commercial operation of the Vostochny block began in 1997. A subsoil use contract to develop the Vostochny block of the Mynkudyk deposit was concluded on 27 November 1996. The rights to the exploration, production, and sale of uranium are valid until 31 December 2027[9].

Currently, uranium mining in the southern part of block No. 1 (South) of the Moinkum deposit and the Uvanas deposit has been suspended due, to a depletion of reserves. Work is underway to return the territories to the state.

As of 1 January 2023, the total volume of ore reserves of deposits (including annual depletion) was 21,600 tonnes of uranium. Total mineral resources (including reserves) stood at 23,800 tonnes of uranium.

Features

Year of creation	2015
Production	1,273 tonnes
Location	Republic of Kazakhstan, Turkistan Region, Suzak District
Number of employees	957
CEO	Askar Kadyrbekovich Nurgaliyev[10]
Date of the subsoil use contracts	1996–2047
Group's ownership interest	100%

[8] Decision of the Ministry of Energy of Kazakhstan according to Minutes No. 2/1 of the meeting of the Subsoil Use Expert Commission dated 13 January 2023.
[9] Decision of the Ministry of Energy of Kazakhstan according to Minutes No. 2/1 of the meeting of the Subsoil Use Expert Commission dated 13 January 2023.
[10] Askar Aitzhanuly Zhubanov since 22 February 2023.

Deposit	1. Kanzhugan (including the Kainarsky block) 2. Moinkum, block No. 1 (South), the southern part 3. Moinkum, block No. 3 (Central), northern part 4. Uvanas 5. Mynkuduk, East block

RU-6 LLP

Subsidiary
Company is the only participant at RU-6 LLP.

In November 2018, Company transferred to RU-6 LLP its rights and obligations under a subsoil use contract to develop the North Karamurun and South Karamurun deposits in the Shieli District of Kyzylorda Region.

Deposit
The North Karamurun and South Karamurun deposits were discovered in 1979, and commercial operation began in 1997.

A subsoil use contract to develop the North Karamurun and South Karamurun deposits was concluded on 27 November 1996. The rights to the exploration, production, and marketing of uranium are valid until 31 November 2040[11].

As at 1 January 2023, the total amount of ore reserves in the deposits (including annual depletion) was 12,700 tonnes of uranium. Total mineral resources (including reserves) stood at 12,700 tonnes of uranium.

Features

Year of creation	1983
Production	833 tonnes
Location	Republic of Kazakhstan, Kyzylorda Region, Shieli District
Number of employees	441
CEO	Daurzhan Mukhamedzhanovich Iskakov
Date of the subsoil use contract	1996–2022
Group's ownership interest	100%
Deposit	1. North Karamurun 2. South Karamurun

[11] Decision of the Ministry of Energy of Kazakhstan according to Minutes No. 21/5 of the meeting of the Subsoil Use Expert Commission dated 11 January 2023.

APPAK LLP

Subsidiary
Company holds a 65% interest in the charter capital of APPAK LLP (Sumitomo Corporation holds 25%, Kansai Electric Power Co., Inc. holds 10%).

The joint venture operates in the Western block of the Mynkuduk deposit in the Suzak District of Turkistan Region.

Deposit
The Mynkuduk deposit was discovered in 1973, commercial operation of the Zapadnoye block began in 2008.

A subsoil use contract was signed on 8 July 2005 to develop the Zapadnoye block of the Mynkuduk deposit. The rights to the exploration, production, and marketing of uranium are valid until 8 July 2035.

As of 1 January 2023, the total amount of ore reserves in the deposits (including annual depletion) was 15,400 tonnes of uranium. Total mineral resources (including reserves) stood at 15,400 tonnes of uranium.

Features

Year of creation	2005
Production	803 tonnes
Location	Republic of Kazakhstan, Turkistan Region, Suzak District
Number of employees	354
CEO	Darkhan Kairatovich Abdimoldayev
Date of the subsoil use contract	2005–2035
Group’s ownership interest	65%
Deposit	West Mynkuduk

JV INKAI LLP

Subsidiary
Company owns a 60% interest in the charter capital of JV Inkai LLP (Cameco holds 40%).

The joint venture operates at block No. 1 of the Inkai deposit in the Suzak District of Turkistan Region.

Deposit
The Inkai deposit was discovered in 1976 and testing of block No. 1 began in 2002.

A subsoil use contract was signed on 13 July 2000 to develop the Inkai deposit, block No. 1. The rights to the exploration, production, and marketing of uranium are valid until 13 July 2045.

As of 1 January 2023, the total volume of ore reserves of deposits (including annual depletion) was 127,700 tonnes of uranium. Total mineral resources (including reserves) stood at 148,000 tonnes of uranium.

Features

Year of creation	1996
Production	3,201 tonnes
Location	Republic of Kazakhstan, Turkistan Region, Suzak District
Number of employees	744
CEO	Elnar Kairatuly Pernesh[12]
Date of the subsoil use contract	2000–2045
Group's ownership interest	60%
Deposit	Inkai, block No. 1

[12] Askar Kadyrbekovich Nurgaliyev since 22 February 2023.

BAIKEN-U LLP

Subsidiary
Baiken-U LLP is owned 52.5% by the Company, with a direct share of 5% and 47.5% through Energy Asia (BVI) Limited.

The joint venture operates at the Kharasan-2 block of the North Kharasan deposit in the Zhanakorgan District of Kyzylorda Region.

The deposit is the deepest uranium deposit in Kazakhstan mined using the ISR method.

Deposit
The North Kharasan deposit was discovered in 1972, and commercial operation of the block began in 2010.

A subsoil use contract to develop the Kharasan-2 block of the North Kharasan deposit was concluded on 1 March 2006. The rights to the exploration, production, and marketing of uranium are valid until 1 March 2055.

As of 1 January 2023, the total volume of ore reserves of the deposits (including annual depletion) was 15,600 tonnes. Total mineral resources (including reserves) stood at 15,600 tonnes.

Features

Year of creation	2006
Production	1,315 tonnes
Location	Republic of Kazakhstan, Kyzylorda Region, Zhanakorgan district
Number of employees	439
CEO	Zhumagali Dzhumataevich Markenbayev
Date of the subsoil use contract	2006–2055
Group's ownership interest	52.5%
Deposit	North Kharasan, Kharasan-2 block

SEMIZBAI-U LLP

Joint venture
Company holds a 51% interest in the charter capital of Semizbai-U LLP (Chinese National Nuclear Power Group holds 49%).

The joint venture operates at the Irkol deposit in the Shielinsky District of Kyzylorda Region and at the Semizbai deposit in the Birzhan Sal district of Akmola Region.

Deposit
The Irkol deposit was discovered in 1976, commercial operation began in 2008. A subsoil use contract to develop the Irkol deposit was concluded on 14 July 2005. The rights to the exploration, production, and marketing of uranium are valid until 4 March 2030.

The Semizbai deposit was discovered in 1973, commercial operation began in 2009. A subsoil use contract to develop the Semizbai deposit was concluded on 2 June 2006. The rights to the exploration, production, and sale of uranium are valid until 2 June 2031.

As of 1 January 2023, the total amount of ore reserves in the deposits (including annual depletion) was 8,600 tonnes of uranium. Total mineral resources (including reserves) stood at 20,200 tonnes of uranium.

Features

Year of creation	2006
Production	940 tonnes
Location	Republic of Kazakhstan, Kyzylorda Region, Shielinsky District and Akmola Region, Birzhan Sal district
Number of employees	575
CEO	Almas Abdillauly Mailybayev[13]
Date of the subsoil use contracts	2005–2030
Group's ownership interest	51%
Deposit	1. Irkol 2. Semizbai

[13] Almat Kudaibergenovich Berdigulov since 6 April 2023.

KARATAU LLP

Joint operations
Company and Uranium One Netherlands B.V. (part of Rosatom Group) each hold a 50% interest in the charter capital of Karatau LLP.

The LLP operates at block No. 2 of the Budenovskoye deposit in the Suzak District of Turkistan Region.

Deposit
The Budenovskoye deposit was discovered in 1979, and the commercial operation of block No 2 began in 2008.

A subsoil use contract was signed on 8 July 2005 to develop block No. 2 of the Budenovskoye deposit. The rights to the exploration, production, and marketing of uranium are valid until 8 July 2040.

As of 1 January 2023, the total amount of ore reserves in the deposits (including annual depletion) was 35,900 tonnes of uranium. Total mineral resources (including reserves) stood at 35,900 tonnes of uranium.

Features

Year of creation	2005
Production	2,560 tonnes
Location	Republic of Kazakhstan, Turkistan Region, Suzak District
Number of employees	564
CEO	Saken Kazbekovich Kalibekov
Date of the subsoil use contract	2005–2040
Group's ownership interest	50%
Deposit	Budenovskoye, block No. 2

JV KHORASAN-U LLP

Subsidiary
Company holds a 50% interest in the charter capital of JV Khorasan-U LLP (Uranium One Utrecht B.V. (part of Rosatom group) holds 30%, Energy Asia Holdings Ltd holds 20%).

The JV operates at the Khorasan-1 block of the North Khorasan deposit in the Zhanakorgan district of Kyzylorda Region.

Deposit
The North Khorasan deposit was discovered in 1972, and commercial operation of the Kharasan-1 block began in 2008.

A subsoil use contract to develop the Khorasan-1 block of the North Khorasan deposit was concluded on 8 July 2005. The rights to the exploration, production, and sale of uranium are valid until 8 July 2058.

As of 1 January 2023, the total amount of ore reserves in the deposits (including annual depletion) was 34,800 tonnes of uranium. Total mineral resources (including reserves) stood at 34,800 tonnes of uranium.

Features

Year of creation	2014
Production	1,580 tonnes
Location	Republic of Kazakhstan, Kyzylorda Region, Zhanakorgan district
Number of employees	14
CEO	Adai Esirkepovich Umirbekov
Date of the subsoil use contract	2005–2058
Group's ownership interest	50%
Deposit	North Kharasan, Kharasan-1 block

JV AKBASTAU JSC

Joint operations
Kazatomprom and Uranium One Amsterdam B.V. (Part of Rosatom Group) each hold a 50% interest in JV Akbastau JSC.

The JSC operates at blocks No. 1, No. 3 and No. 4 of the Budenovskoye deposit in the Suzak District of Turkistan Region.

Deposit
The Budenovskoye deposit was discovered in 1976 and commercial operation of blocks No. 1, No. 3, and No. 4 began in 2012.

Subsoil use contracts to develop blocks No. 1, No. 3 and No. 4 of the Budenovskoye deposit were concluded on 20 November 2007. The rights to the exploration, production, and marketing of uranium in area No. 1 are valid until 20 November 2037, and in blocks No. 3 and No. 4 until 20 November 2038.

As of 1 January 2023, the total volume of ore reserves of the deposits (including annual depletion) was 36,200 tonnes. Total mineral resources (including reserves) stood at 36,200 tonnes.

Features

Year of creation	2006
Production	1,545 tonnes
Location	Republic of Kazakhstan, Turkistan Region, Suzak District
Number of employees	52
CEO	Kuanysh Altynbekovich Omarbekov
Date of the subsoil use contracts	2007–2038
Group’s ownership interest	50%
Deposit	Budenovskoye, blocks No. 1, No. 3, No. 4

JV ZARECHNOYE JSC

Associate
Company and Uranium One Holland B.V. (part of the Rosatom group) each own 49.98% of the shares of JV ZARECHNOYE JSC, and Karabaltinsky Mining Plant JSC owns 0.04%.

The joint venture operates in the Zarechnoye deposit in the Otyrar district of Turkistan Region.

Deposit
The Zarechnoye deposit was discovered in 1977, and commercial operation of the deposit began in 2007.

A subsoil use contract to develop the Zarechnoye deposit was concluded on 23 September 2002. The rights to the exploration, production, and marketing of uranium are valid until 23 September 2025.

As of 1 January 2023, the total amount of ore reserves in the deposits (including annual depletion) was 4,200 tonnes of uranium. Total mineral resources (including reserves) stood at 4,800 tonnes of uranium.

Features

Year of creation	2001
Production	741 tonnes
Location	Republic of Kazakhstan, Turkistan Region, Otyrar District
Number of employees	369
CEO	Zhandos Nurlanovich Bekbaev
Date of the subsoil use contract	2002–2025
Group's ownership interest	49.98%
Deposit	Zarechnoye

JV KATCO LLP

Associate
Company holds a 49% interest in the charter capital of JV Katco LLP, (Orano (formerly AREVA) holds 51%).

The joint venture operates in the northern part of block No. 1 (South) and at block No. 2 (Tortkuduk) of the Moinkum deposit in the Suzak District of Turkistan Region.

Deposit
The Moinkum deposit was discovered in 1976, the commercial operation of block No. 1 began in 2001.

A subsoil use contract to develop the northern part of block No. 1 (South) and block No. 2 (Tortkuduk) of the Moinkum deposit was concluded on 3 March 2000. The rights to the exploration, production, and sale of uranium are valid until 4 March 2039.

As of 1 January 2023, the total volume of the ore reserves of deposits (including annual depletion) was 51,100 tonnes of uranium. Total mineral resources (including reserves) stood at 56,100 tonnes of uranium.

Features

Year of creation	1996
Production	2,564 tonnes
Location	Republic of Kazakhstan, Turkistan Region
Number of employees	1,245
CEO	Pascal Bastien
Date of the subsoil use contract	2000–2039
Group's ownership interest	49%
Deposit	1. Moinkum, block No. 1 (South), the northern part 2. Moinkum, block No. 2 (Tortkuduk)

JV SOUTHERN MINING AND CHEMICAL COMPANY LLP

Associate
Company holds a 30% interest in the charter capital of JV Southern Mining and Chemical Company LLP (Uranium One Rotterdam B.V. (part of Rosatom Group) holds 70%).

The joint venture operates at the Akdala deposit and at block No. 3 of the Inkai deposit in the Suzak District of Turkistan Region.

Deposit
The Akdala deposit was discovered in 1982, and commercial operation began in 2004. A subsoil use contract to develop the Akdala deposit was concluded on 28 March 2001. The rights to the extraction, exploration, and sale of uranium are valid until 28 March 2026.

The Inkai deposit was discovered in 1976, and commercial operation of block No. 4 began in 2007. A subsoil use contract was signed on 8 July 2005 to develop block No. 4 of the Inkai deposit. The rights to the exploration, production and sale of uranium are valid until 8 July 2029.

As of 1 January 2023, the total amount of ore reserves in the deposits (including annual depletion) was 75,400 tonnes of uranium. Total mineral resources (including reserves) stood at 77,600 tonnes of uranium.

Features

Year of creation	2014
Production	2,225 tonnes
Location	Republic of Kazakhstan, Turkistan Region, Suzak District
Number of employees	879
CEO	Aleksandr Vladimirovich Pylnoi
Date of the subsoil use contract	2001–2029
Group's ownership interest	30%
Deposit	1. Akdala 2. Inkai, block No.4

JV Budenovskoye LLP

Joint venture
Company holds a 51% interest in the charter capital of JV Budenovskoye LLP (Limited Liability Partnership Stepnogorsk Mining and Chemical Plant holds 49%)[14].

The joint venture operates at block No. 6 and 7 of the Budenovskoye deposit in the Suzak District of Turkistan Region. A subsoil use contract for the development of Blocks 6 and 7 of Budenovskoye deposit was made on 16 October 2020. Uranium production and marketing rights are valid until 16 October 2045.

Deposit
The Budenovskoye deposit was discovered in 1976, and commercial operation of block No. 6 and 7 is planned in 2023.

As of 1 January 2023, the total amount of ore reserves in the deposits (including annual depletion) was 114,200 tonnes of uranium. Total mineral resources (including reserves) stood at 120,100 tonnes of uranium.

Features

Year of creation	2016
Production	–
Location	Republic of Kazakhstan, Turkistan Region, Suzak District
Number of employees	48
CEO	Rustam Kolybekovich Medeo[15]
Date of the subsoil use contract	2020–2045
Group's ownership interest	51%
Deposit	Budenovskoye, block No. 6, 7

[14] As part of the audited financial statements of JV Budenovskoye LLP based on the results of 2022, information was received from JV Budenovskoye LLP on a change in the composition of the participants of Stepnogorsk Mining and Chemical Plant LLP, which includes Uranium One Group JSC and NFC Logistics JSC.

[15] Mukhtar Yermekovich Kalmataev since 24 March 2023.

2. OPERATING AND FINANCIAL REVIEW

In 2022, our Company showed good financial performance. Our consolidated revenues reached KZT 1,001.2bn, an increase of 45% compared to 2021, while uranium oxide sales across the Group were similar to those of 2021. Operating profit soared by 91% to KZT 456.0 billion. Net profit showed a strong growth of 115% to KZT 473 billion. We paid out a record dividend of KZT 227 billion to shareholders since IPO, up by 52% year on year. This impressive performance showcases a significant improvement in the uranium market as well as Management's success in implementing the Company's strategy.

Ruslan Beketayev
Chief Financial Officer

2.1. Significant factors affecting the Group`s results of operations

The significant factors that affected the Group's results of operations during 2022 and 2021, and which the Company expects to continue to affect the Group's results of operations in the future, include:

- the price received for the sale of natural uranium and changes in natural uranium product prices;
- changes in the Group structure;
- the impact of changes in foreign exchange rates;
- taxation, including mineral extraction tax;
- the cost and availability of sulphuric acid;
- pandemic-related costs, as well as availability of critical operating materials caused by supply-chain disruption;
- impact of changes in ore reserves estimates; and
- transactions with subsidiaries, JVs, JOs and associates.

2.1.1 Geopolitical developments

In 2022, significant geopolitical events occurred in Kazakhstan and in Russia/Ukraine. These events have not had a material impact on the Group's operations to date although the resulting market uncertainty has caused significant volatility in the tenge exchange rate and traded price of the Company's securities. Management is unable to predict the consequences or future impacts of these events, if any, on the Group's financial position or operating performance. Management will continue to monitor the potential impact of the above events and will take all necessary steps to mitigate the risks and prevent adverse business impacts.

(a) January 2022 civil unrest in Kazakhstan

On 2 January 2022, protests triggered by a rise in fuel prices began in the Mangistau region of Kazakhstan which spread to other regions in the country. The protestors demanded a number of social, economic and political reforms. Although the Government took measures to respond to these demands, including a decrease in fuel prices, the protests escalated into significant social unrest in Almaty and southern regions of the country.

As a result, on 5 January 2022, a state of emergency was declared until 19 January 2022, and restrictions were imposed on communication and transportation of people and vehicles, including railway and airline carriage.

By the end of January 2022, the situation in all regions of the country stabilised, and the state of emergency was lifted. The functioning of utilities and infrastructure were fully restored, and restrictions on communication and transportation were removed.

(b) Events in Ukraine

On 24 February 2022, the Russian President announced that Russia would recognise independency of the Luhansk People's Republic and Donetsk People's Republic and the Russian military mobilised its troops over the border of Ukraine. As a response to the Russian actions, the United States, the European Union and a number of other countries imposed sanctions against Russia including the disconnection of a number of Russian financial institutions from SWIFT.

The Group's financial position and results are currently unaffected by the events in Ukraine. The majority of Group revenues is earned in US dollars and funding is also raised in US dollars, creating a natural hedging effect on foreign exchange risk. Accordingly, fluctuations in the exchange rate of the national currency do not have a significant impact on the financial performance of the Group.
In connection with the Russian/Ukraine conflict and its consequences, the Tenge exchange rate began to be more volatile and the annual inflation rate was 20.3% in 2022. To date, the National Bank of the Republic of Kazakhstan has taken a number of measures to maintain the stability of the Kazakhstan financial system.

Due to active international sanctions processes against Russian banks, including Sberbank, VTB Bank and other organisations, it is inappropriate for the Group to service or interact with these banks and their subsidiaries. The Group has taken measures to redistribute funds to banks that are not under current sanctions.

The Group has a Uranium Processing Agreement with the Uranium Enrichment Center (UEC) (a

resident of the Russian Federation). At the date of the financial statements, the Group anticipates that provision of services under this agreement will continue. A high-priority risk analysis is being carried out on a continuous basis with respect to compliance with the sanctions.

Some of the Group's exported products are transported through the Russian Federation and, accordingly, there are risks associated with the transit through the territory of Russia, shipping insurance, and the delivery of cargo by sea vessels. The Group constantly monitors the situation with sanctions against Russia and the potential impact on the transportation of finished products. At the date of financial statements, there are no restrictions on the Group's activities related to the supply of the Group's products to end customers.

As part of its ongoing risk assessment program, management is reviewing the impact of anti-Russian sanctions on the Group's operations. To date, the sanctions have not had a significant impact on the Group's operations, although the resulting market uncertainty caused by the conflict between Russia and Ukraine has led to significant volatility in the spot uranium price, the exchange rate of the national currency and the quotations of the Company's securities. During 2022, the Company experienced some difficulties with certain bank payments, as described in Section 2.5**.3 Working capital** and 2.5.4.1 Cash **Flows from Operating Activities**, which were resolved in January 2023.

2.1.2 Price received for the sale of natural uranium and changes in natural uranium product prices

Spot market prices for U_3O_8, which is the main marketable product of the Group, have the most significant effect on the Group's revenue. The majority of the Group's revenue is derived from sales of U_3O_8 under contracts with price formulae containing a reference to spot price. In addition to spot prices, the Group's effective realized price depends on the proportion of contracts in the portfolio with a fixed price component in a given period. The average realized price for each period can therefore deviate from the prevailing spot market price. More information regarding the impact of spot market prices on average realized price is provided in Section 2.7.1 Uranium sales **price sensitivity analysis**.

Average spot price and average sales price per pound U_3O_8

Indicator		2021	2022	Change
Average weekly spot price (per lb U_3O_8)[16]	USD	35.05	49.61	42%
	KZT	14,932	22,863	53%
Average realized price of the Group (per lb U_3O_8)	USD	33.11	43.44	31%
	KZT	14,108	20,021	42%
Average realized price of Kazatomprom (per lb U_3O_8)	USD	32.33	42.50	31%
	KZT	13,776	19,587	42%

The Company's current overall contract portfolio price correlates to current uranium spot prices (see Section 2.7.1 Uranium sales **price sensitivity analysis**). However, the increase in average realized prices in 2022 was lower than the increase in the spot market price for uranium due to the significant spot price volatility in the uranium market in 2021-2022; during 2022, many deliveries were based on contract price mechanisms that established a contract price for the delivery, set earlier in the year when the market price was lower and prior to the sharp increase in the market price in September 2021.

For additional details related to specific market developments that influenced the pricing of uranium in 2022, please see the *Kazatomprom 4Q2022 Operations and Trading Update*, available on the corporate website.

2.1.3 Changes in the Group structure

In 2022 and 2021, the Group completed several transactions including:
In 2022:

- According to the Framework Agreement signed on November 22, 2021, between the Group and Genchi Global Limited on participation in ANU Energy, established on the basis of the Astana International Financial Center (AIFC). The purpose of ANU Energy is to store physical uranium as a long-term investment. The Group made an investment of USD 24.25 million in March 2022 (equivalent to KZT 12,368 million), which constitutes 32.7% of the entity's equity. The Group does not have representation in the governing body of the entity and does not take

[16] Prices per UxC LLC.

part in decision-making of the entity. Accordingly, the Group does not have a significant influence on the management operations of the entity, and the Group therefore recognizes this investment at fair value through profit or loss. As at 31 December 2022, the Group classifies ANU Energy as “other investments” within other financial assets in the consolidated financial statements. In accordance with the Framework Agreement, the Group and ANU Energy signed a short-term contract for the sale and purchase of natural uranium concentrates, under which the Group delivered natural uranium concentrates on 12 May 2022.

- On 31 January 2022, payment was made for 30% of the total amount of shares held by the Company in Caustik JSC owned by the Company. As a result, Trading House United Chemical Technologies LLP's ownership interest in Caustik JSC rose by 12% (30% of 40% of shares held by the Company in Caustik JSC). The remaining Kazatomprom’s shareholding in Caustik JSC is placed under trust management of United Chemical Technologies Trading House LLP until full payment, which took place on 11 April 2023.

In 2021:

- Under the terms of several cooperation agreements between Kazatomprom and China General Nuclear Power Corporation (“CGNPC”), the parties agreed to construct a fuel assembly plant (Ulba-FA) at the Ulba Metallurgical Plant. CGNPC provided a guarantee that Ulba-FA’s production will be purchased by CGNPC in exchange for Kazatomprom agreeing to sell a 49% interest in the Company’s wholly owned subsidiary, ORTALYK LLP, to a subsidiary of CGNPC (the “Transaction”). In April 2021, a Sale and Purchase agreement was signed and the parties agreed to the valuation determined by one of the four major international advisory and professional services firms, whereby a 49% share of the operation was assessed a value of approximately USD 435 million (equivalent to KZT 185,858 million). The transaction has closed, with government approvals in place and all conditions being met. Re-registration of the entity has been completed and CGN Mining UK Limited (a CGNPC subsidiary) is now a full participant in ORTALYK LLP. Kazatomprom retains a controlling 51% interest and CGN Mining UK Limited holds a 49% interest, with each partner purchasing a proportionate share of uranium production from the operation according to its interest.
- In accordance with Comprehensive Privatization Plan for 2021–2025, approved by the Government of the Republic of Kazakhstan, the Company had planned to divest its interest in a number of non-core assets, as presented in the Company’s 2018 IPO Prospectus. This included entities of the KazPV project: “Astana Solar” LLP, “Kazakhstan Solar Silicon” LLP and MK KazSilicon LLP. In 2021, the Group sold its 100% interest in each of the following entities: “Kazakhstan Solar Silicon” LLP for KZT 323 million (completed 12 July 2021), Astana Solar LLP for KZT 380 million (completed 23 August 2021) and “MK KazSilicon LLP” for KZT 652 million (completed 19 November 2021).

In total, the number of the Group’s subsidiaries, JVs, JOs, associates and other equity investments remained 35 as at 31 December 2022.

2.1.4. Impact of Changes in Exchange Rates

The Group's exposure to currency fluctuations is associated with sales, purchases and loans in foreign currencies. Significant cash flows of the Group are in USD due to:

- uranium is generally priced in USD, therefore most of the Group’s consolidated sales revenue is generated in USD (90% in 2022, 94% in 2021);
- the Company purchases uranium and uranium products from its JVs and associates pursuant to KZT-denominated contracts, with the prices determined by reference to prevailing spot market prices of U_3O_8, which are in USD;
- most of the Group’s borrowings are denominated in USD (95% in 2022, 88% in 2021), which is the principal currency of the Group’s revenue.

A significant portion of the Group’s expenses, including its operating, production and capital expenditures, are denominated in KZT. Accordingly, as most of the Group’s revenue is denominated in USD, while a significant share of its costs is KZT-denominated, the Group generally benefits from appreciation of USD against KZT, which subsequently has a positive effect on the Group’s financial performance. However, the positive effect of an appreciating USD may be fully or partially offset given that the Group has outstanding USD-denominated liabilities, although the amounts of such liabilities at 31 December 2022 and 2021 are not significant. In addition, the Company purchases uranium and uranium products from its JVs and associates pursuant to KZT-denominated contracts, with the prices

determined by reference to prevailing spot market prices of U_3O_8, which are denominated in USD. Accordingly, a significant appreciation of USD would result in a corresponding increase in the KZT-denominated price of such contracts.

The Group attempts to mitigate the risk of fluctuations in exchange rate, where possible, by matching the currency denomination of its payments with the currency denomination of its cash flows. Through this matching, the Group achieves natural hedging without the use of derivatives.

In 2022, the KZT/USD exchange rate fluctuated between KZT 414.67 and KZT 512.19. Changes in exchange rates had material impact on the Group's financial performance in 2022. The Group's net foreign exchange gain in 2022 amounted KZT 17,304 million (2021: KZT 3,345 million).

The following table provides annual average and year-end closing KZT/USD exchange rates, as reported by the National Bank of the Republic of Kazakhstan (NBK), as of 31 December 2022 and 2021.

Annual average and year-end closing rate for KZT/USD

Indicator		2021	2022	Change
Average exchange rate for the period[17]	KZT / USD	426.03	460.85	8%
Closing exchange rate for the period	KZT / USD	431.67	462.65	7%

2.1.5. Taxation and Mineral Extraction Tax ("MET")

Before 01 January 2023, MET was determined by applying a 29% tax charge to the taxable base related to mining production costs (see footnote under the table below). Taxable expenditures were made up of all direct expenditures associated with mining operations, including wellfield development depreciation charges and any other depreciation charges allocated to direct mining activities, but excluded processing and general and administrative expenses. The MET is calculated separately for each subsoil use license. The resulting MET paid was therefore directly dependent upon the cost of mining operations.

In January 2022, the Government of the Republic of Kazakhstan announced that it intended to update the country's tax code. On 11 July 2022, additions and amendments to the Kazakh tax code were adopted (Laws of the Republic of Kazakhstan "On the Enactment of the Code of the Republic of Kazakhstan "On Taxes and Other Mandatory Payments to the Budget" No. 135-VII LRK), which introduced changes in the MET base and rate for tax calculation. The amended tax code came into force beginning 01 January 2023 and it did not impact 2022 results of the Company. In accordance with the introduced changes, the tax base for MET on uranium is determined as the weighted average price of uranium from public sources for the specific reporting period, multiplied by the amount of uranium mined and a MET rate of 6%. It is expected that the changes in MET calculation will lead to an increase in mineral tax expense due to the incorporation of the spot price into the formula.

Group taxes, KZT million

Indicator	2021	2022	Change
Corporate income tax[18]	85,345	118,853	39%
Mineral extraction tax[19]	23,659	29,616	25%
Other taxes and payments to budget[20]	62,572	111,051	77%
Total tax accrued	**171,576**	**259,520**	**51%**

Total tax accrued increased by 51% in 2022 compared to 2021, mainly due to increases in other taxes and payments to budget and corporate income tax. Corporate income tax expenses increased due to the increase in profit before tax, which was mainly due to growth in the average realized price associated with an increase in the market spot price for U_3O_8 and weakening of the KZT against the USD in 2022

[17] The average rates are calculated as the average of the daily exchange rates on each calendar day.
[18] Applicable rate: 20%; calculation: taxable income (based on tax reporting accounts) multiplied by corporate income tax rate.
[19] Applicable rate and calculation from 2023 and further: 6% × (average month-end spot price for period) × (volume of uranium mined). Previously applicable rate: 18.5% for uranium cost in pregnant solution; calculation: the tax charge is a cost of mining and is based on a deemed 20% profit margin on certain expenditures, and a MET rate of 18.5%. The tax charge of 29% is determined by the following formula: (1 + 20%) × 18.5% ÷ (1 – (1 + 20%) × 18.5%).
[20] Includes: VAT, property tax, land tax, transport tax, social tax, other payments to budget and PIT (on PIT Company acts as a tax agent).

(see Sections Consolidated revenue and other financial metrics and 2.2.9 Profit before tax **and tax expense**). The increase in MET is related to the increase of the mining costs, which was a tax base for the MET in 2022. The increase in other taxes and payments to budget is mostly driven by the increase in VAT expense arising from increased volume of intra-group sales in Kazakhstan.

2.1.6. Cost and availability of sulphuric acid

Extraction of uranium using the ISR mining method requires substantial amounts of sulphuric acid. If sulphuric acid is unavailable, it could impact the Group's production schedule, while higher prices for sulphuric acid could adversely impact the Group's profits.

The Group's weighted average cost of sulphuric acid increased by 33% to KZT 30,263 per tonne in 2022 (2021: from KZT 22,740 per tonne) due to the increase in the price of raw materials and temporary shortages on the Kazakhstan market and the cost is expected to continue increasing in 2023. On average in 2022, expenses on sulphuric acid represented about 12% of the Group's uranium production costs (2021: 13%).

The Group is evaluating sulphuric acid supply options and a potential investment in a new sulphuric acid plant to be constructed to minimize future cost increases and ensure an additional, reliable, long-term source of acid supply is available.

2.1.7 Pandemic-related costs, as well as availability of critical operating materials caused by supply-chain disruption

The extraction of uranium using the ISR mining method requires the import of certain key operating materials and components. These items are either imported into Kazakhstan directly by the Group, or they are imported by local suppliers from whom the Group procures such materials. Due to global pandemic-related shipping constraints and export restrictions imposed by some countries, the Group has encountered delays and/or limited access to some key materials & equipment, such as certain types of pipes and pumps, specialised equipment and drilling rigs.

In some cases, shipping and availability constraints have resulted in a higher cost to acquire the necessary operating materials, including inflationary pressure as a result of commodity price changes, driving an increase in production costs and a negative impact on profitability. In other cases, there has been a near-complete loss of access to certain materials. Pandemic-related supply chain challenges have resulted in limited access to certain key operating materials and equipment, which had a material impact on the Company's wellfield development and production schedules in 2021 and 2022 (see Section 2.2.3.2 Uranium segment **production and sales metrics**). Supply chain challenges are expected to continue in 2023, adding additional risk to production in 2023 (see Section Guidance for 2023). While Kazatomprom will make every effort to meet its uranium production plan, final production volumes for 2023 may still fall short of the target level.

2.1.8 Impact of changes in Ore Reserves estimates

The Group reviews its JORC-compliant estimates of Ore Reserves and Mineral Resources on an annual basis, including a review of the estimates by a qualified third-party. As a result, certain Ore Reserves and Mineral Resources may be reclassified annually in accordance with applicable standards. Such reclassifications may have an impact on the Group's financial statements. For example, if a reclassification results in a change to the Group's life of mine plans, there may be a corresponding impact on depreciation and amortization expenses, impairment charges, as well as mine closure charges incurred at the end of the life of mine.

2.1.9 Transactions with Subsidiaries, JVs, JOs and Associates

The Company purchases U_3O_8 from its subsidiaries, JOs, JVs and associates, principally at spot price with market-based discounts, which may vary by operation. Purchased volumes generally correspond to the Company's interest in the respective selling entities.
The Group's Uranium segment revenue is primarily composed of two streams:

- the sale of U_3O_8 purchased from operations (JVs and associates), third parties, and
- the sale of U_3O_8 produced by the Company and by its consolidated subsidiaries and JOs.

Cost of sales of purchased uranium is equal to the purchase price from JVs and associates, which in most cases is the prevailing spot price with certain applicable discounts. The share of results of JVs and associates represents a significant part of the Group's profits and should be considered in the

assessment of the Group's financial results. In 2022, U_3O_8 was purchased at a weighted average discount of 3.73% (2021: 4.09%) on the prevailing spot price.

When uranium produced by the Company, consolidated subsidiaries and JOs, is sold, the cost of sales is predominantly represented by the cost of production. For those sales, the full margin for uranium products including uranium for export is captured in the consolidated results of the Group.

Volumes of U_3O_8 purchased by the Company, tonnes

Indicator	2021	2022	Change
U_3O_8 purchased from JVs and associate	2,910	2,805	(4%)
U_3O_8 purchased from JOs and subsidiaries	9,211	9,533	3%
Total	**12,121**	**12,338**	**2%**

In 2022, the volume of U_3O_8 purchased from JVs and associates, JOs and Subsidiaries was comparable to 2021 and comprised 12,338 tonnes (2021: 12,121 tonnes).

In addition to the above volumes, the Company (including its trading subsidiary THK) also purchases volumes from third parties at variable prices.

2.2. Key performance indicators analysis

2.2.1 Consolidated financial metrics

The analysis in this section of the report is based on 12 months ended 31 December 2022 compared to 12 months ended 31 December 2021. The table below provides financial information related to the consolidated results of the Group for 2022 and 2021.

Financial indicators, KZT billion, unless otherwise indicated

Indicator	2021	2022	Change
Revenue	**691,011**	**1,001,171**	45%
Cost of sales	(402,967)	(475,097)	18%
Gross profit	**288,044**	**526,074**	83%
Selling expenses	(15,706)	(25,605)	63%
G&A expenses	(34,105)	(44,507)	30%
Operating profit	**238,233**	**455,962**	91%
Other income/(loss), including the following one-time effects:	(8,172)	38,667	>100%
Income from an associate development agreement[21]	-	7,671	100%
Share of results of associates	47,294	75,736	60%
Share of results of JVs	4,289	13,340	211%
Pre-tax income	**281,644**	**583,705**	107%
Corporate income tax	(61,618)	(110,742)	80%
Net profit, attributable to:	**220,026**	**472,963**	115%
- Owners of the Company	140,773	348,048	147%
- Non-controlling interest	79,253	124,915	58%
Earnings per share attributable to owners (basic and diluted), KZT/share[22]	543	1,342	147%
Adjusted Net profit (net of one-time effects)	**220,026**	**465,292**	111%
Adjusted EBITDA[23]	350,294	630,898	80%
Attributable EBITDA[24]	276,510	495,357	79%

2.2.2 Consolidated revenue and other financial metrics

The Group's consolidated revenue was KZT 1,001,171 million in 2022, an increase of 45% compared to 2021, primarily due to an increase in the average realized price associated with an increase in the spot price for U_3O_8 and the weakening of KZT against USD in 2022, whereas sales volume were comparable to 2021 (see Section 2.2.3.2 Uranium segment **production and sales metrics**). An increase in overall revenue includes an increase in revenues from UMP segment (see Section 2.2**.4. UMP Segment** and Note 7 "Segment Information" in Financial Statements) by KZT 61,179 million including revenues from external segments.

Consolidated revenues, KZT million

Indicator				Proportion	
	2021	2022	Change	2021	2022

[21] On 11 August 2022 the JV Katco LLP participants made amendments to the Partnership Agreement on further development of JV Katco LLP, under which the Group became entitled to compensation in the amount of KZT 7,671 million from the second participant of JV Katco LLP, which was recognized as other income in 2022 and other receivables.

[22] Calculated as: Profit for the year attributable to owners of the Company divided by Total share capital from Section **Error! Reference source not found.** shares, rounded to the nearest KZT.

[23] Adjusted EBITDA is calculated by excluding from EBITDA items not related to the main business and having a one-time effect. Calculation: Profit before tax - finance income + finance expense +/- Net FX loss/(gain) + Depreciation and amortisation + Impairment losses - reversal of impairment +/- one-off or unusual transactions.

[24] Attributable EBITDA (previously "Adjusted Attributable EBITDA") is calculated as: Adjusted EBITDA less the share of the results in the net profit in JVs and associates, plus the share of Adjusted EBITDA of JVs and associates engaged in the uranium segment (except JV Budenovskoye LLP's EBITDA due to minor effect it has during each reporting period), less non-controlling share of adjusted EBITDA of Appak LLP, JV Inkai LLP, "Baiken-U" LLP, ORTALYK LLP and JV Khorasan-U LLP, less any changes in the unrealized gain in the Group.

Uranium products (only U_3O_8)[25]	606,109	851,427	40%	88%	85%
Uranium products[26]	18,939	57,806	205%	3%	6%
Beryllium products	26,119	31,986	22%	4%	3%
Tantalum products	15,777	23,171	47%	2%	2%
Others	24,067	36,781	53%	3%	4%
Total Revenue	**691,011**	**1,001,171**	**45%**	**100%**	**100%**

Operating profit in 2022 was KZT 455,962 million, an increase of 91% compared to 2021. The increase was mainly due to an increase in average realized price of uranium sold.

Net profit in 2022 was KZT 472,963 million, an increase of 115% compared to 2021 and the percentage increase is consistent with the increase in the operating profit in 2022. Adjusted net profit for 2022 was KZT 465,292 million, an increase of 111% compared to 2021, which is also due to the increase in the operating profit in 2022. In 2022 the "JV "Katco" LLP participants made amendments to the Partnership Agreement on further development of "JV "Katco" LLP dated 11 August 2022, under which the Group became entitled to compensation in the amount of KZT 7,671 million from the second participant of "JV "Katco" LLP, which was recognized as other income, which is considered as a one-time effect.

Profit for the period attributable to non-controlling interest increased significantly in 2022 compared to 2021, impacted by the sale of a 49% share of "ORTALYK" LLP in July 2021 in addition to the explanations stated above. In 2021, the Company sold 49% of its interest in "ORTALYK" LLP, while Kazatomprom retains a controlling 51% interest, according to which, under IFRS, the financial effect of this transaction is reflected in the Financial Statements in cash flows (see Section 2.5.4.3 Cash **Flows from financing activities**) and equity.

Adjusted EBITDA comprised KZT 630,898 million in 2022, an increase of 80% compared to 2021 due to a higher operating profit. Attributable EBITDA was KZT 495,357 million in 2022, an increase of 79% compared to 2021 mainly due to the higher operating profit, as well as an increase in the EBITDA of JVs and associates. Also, starting from 2022 and until the end of Katco's operations, according to amendments to the Partnership Agreement of the entity, the Group also became entitled to an additional 11% of Katco's annual profit allocation, with the ownership interest being unchanged. This additional 11% impacts the allocation of Katco's dividends, therefore, in the financial statements the Group recognized a share in the results of JV Katco LLP for 2022 in the amount of 60%. Net assets are still recognized as 49% in accordance with the participants initial agreement.

2.2.3. Uranium segment

2.2.3.1 Uranium segment financial metrics

Uranium segment financial metrics (KZT million unless noted)

Indicator		2021	2022	Change
Uranium segment revenue[27]		621,706	920,093	48%
Including U_3O_8 sales proceeds (across the Group)[28]		606,109	851,427	40%
Average exchange rate for the period	KZT/USD	426.03	460.85	8%
Share of a revenue from uranium products	%	88%	85%	(3%)

Consolidated U_3O_8 sales were KZT 851,427 million in 2022, an increase of 40% compared to 2021, mainly due to a higher spot price for U_3O_8 and weakening of the KZT against the USD in 2022, which resulted in a higher average realized price, while sales volume in 2022 were comparable with 2021.

2.2.3.2 Uranium segment production and sales metrics

Indicator	2021	2022	Change

[25] Includes only U_3O_8 sales proceeds (across the Group).
[26] Includes, but is not limited to production and sales of UO_2 powder and fuel pellets by "UMP" JSC.
[27] Calculated from Financial Statements Note 7 "Segment Information" as a sum of external revenue and revenues from other segments for uranium segment.
[28] Includes only U_3O_8 sales proceeds (across the Group).

Production volume of U_3O_8 (100% basis)[29]	tU	21,819	21,227	(3%)
Production volume of U_3O_8 (attributable basis)	tU	11,858	11,373	(4%)
U_3O_8 sales volume (consolidated)	tU	16,526	16,358	(1%)
Including KAP U_3O_8 sales volume[30],[31]	tU	13,586	13,572	(0%)
Group inventory of finished goods (U_3O_8)	tU	8,824	9,352	6%
Including KAP inventory of finished goods (U_3O_8)[32]	tU	7,724	7,749	0%
Group average realized price	KZT/kg	36,677	52,051	42%
Group average realized price	USD/lb	33.11	43.44	31%
KAP average realized price[33]	USD/lb	32.33	42.50	31%
Average weekly spot price	USD/lb	35.05	49.61	42%
Average month-end spot price[34]	USD/lb	35.28	49.81	41%

All annual operational and sales results in the uranium segment were in line with the updated guidance provided for 2022, which was adjusted in the Company's Third Quarter 2022 Operations and Trading Update.

Production volumes on a 100% basis and attributable basis for both fourth quarter of 2022 and throughout 2022 were slightly lower compared to 2021, as the COVID-19 pandemic had an impact on wellfield development in 2021. This had a lagged effect on production in 2022, it usually takes from eight to ten months between wellfield development and the resulting uranium extraction by in-situ recovery. As a consequence, delays and/or limited access to certain materials and equipment in 2021, resulted in lower production in 2022 compared to the same period in 2021. Additionally, attributable production was impacted by the sale of a 49% share of ORTALYK LLP to CGN Mining UK Limited in July 2021.

Uranium sales at the Group and KAP levels in 2022 were on the same level as in 2021. Shipments through the TITR (that included the JV Inkai-owned portion of material) were successfully delivered in 2022.

Consolidated Group inventory of finished U_3O_8 products amounted to 9,352 tonnes as at 31 December 2022, which was 6% higher than at 31 December 2021. At the Company level, inventory of finished U_3O_8 products was 7,749 tonnes and were comparable to 2021. Consistent with the Company's value strategy, Kazatomprom's inventory levels vary based on the timing of customer requirements and the resulting differences in the timing of deliveries and mining and sales volumes, in alignment with changing market conditions.

The Group's average realized price in KZT in the 2022 was KZT 52,051 per kg (43.44 USD/lb), an increase of 42% compared to 2021 due to an increase in the average spot price for uranium products, and the weakening of the KZT against the USD. The average sales prices at the KAP level were also higher and for the same reasons.

The Company's current overall contract portfolio price is correlated to uranium spot prices (see Section 2.7.1 Uranium sales **price sensitivity analysis**). However, the increase in average realized prices in 2022 was lower than the increase in the spot market price for uranium due to the spot price volatility in the uranium market in 2022 and 2021: low of 42.48 USD/lb and high of 63.75 USD/lb (2021: low of 27.35 USD/lb and high of 50.38 USD/lb). For short-term deliveries to end-user utilities, the spot price can vary between the time contract pricing is established according to Kazakh transfer pricing

[29] The Production volumes of U_3O_8 (attributable basis) is not equal to the volumes purchased by Company and THK in the Section 2.1.9 Transactions with Subsidiaries, JVs, **JOs and Associates**.
[30] KAP U_3O_8 sales volume (incl. in Group): includes only the total external sales of KAP HQ and THK. Intercompany transactions between KAP HQ and THK are not included.
[31] Group sales volume and KAP sales volume (incl. in Group) does not include approximately 32 tU equivalent sold as UF_6 in 2Q22 and 225 tU equivalent sold as UF_6 in 4Q21.
[32] KAP inventory of finished goods (incl. in Group): includes the inventories of KAP HQ and THK.
[33] KAP average realized price: the weighted average price per pound for the total external sales of KAP and THK. The pricing of intercompany transactions between KAP and THK are not included.
[34] Source: UxC, TradeTech. Values provided represent the average of the uranium spot prices quoted at month end, and not the average of each weekly quoted spot price, as contract price terms generally refer to a month-end price.

regulations, and the spot price in the general market when the actual delivery takes place. The impact of market volatility during the time lag between price-setting and delivery becomes more pronounced as volatility increases, in both rising and falling market conditions. In addition, some long-term contracts incorporated a proportion of fixed pricing negotiated prior to the sharp increase in spot price in the second half of 2021. As a result, increases in both the Group and KAP's average realised prices in 2022 compared to 2021 were lower than the increases in the spot market price for uranium over the same intervals.

2.2.3.3 Uranium segment production by operation

The information presented in the table below provides the total uranium production level at each asset (100% basis). The impact of delays and/or limited access to some key materials & equipment in 2021 and 2022 (see Section 2.1.7 Pandemic-related costs, as well as availability of critical operating materials caused **by supply-chain disruption**) and the reduction in wellfield development activity due to the COVID-19 pandemic in 2020-2021 (see Section 2.2.3.2 Uranium segment **production and sales metrics**), were not equal across all operations due to the nature of the ISR mining process, and differences in the mine plans and development phase at each operation.

Production volume of uranium oxide concentrate, (U_3O_8 tonnes)

Enterprise	Ownership	2021	2022	Change
Kazatomprom-SaUran LLP	100%	1,493	1,273	(15%)
RU-6 LLP	100%	800	830	4%
Appak LLP	65%	805	803	(0%)
JV Inkai LLP[35]	60%	3,449	3,201	(7%)
Baiken-U LLP	52.5%	1,230	1,315	7%
ORTALYK LLP[36]	51%	1,579	1,650	4%
Semizbay-U LLP	51%	962	940	(2%)
Karatau LLP	50%	2,561	2,560	(0%)
JV Akbastau JSC	50%	1,545	1,545	0%
JV Khorassan-U LLP	50%	1,579	1,580	0%
JV Zarechnoye JSC	49.98%	655	741	13%
JV Katco LLP	49%	2,840	2,564	(10%)
JV SMCC LLP	30%	2,321	2,225	(4%)
Total		**21,819**	**21,227**	**(3%)**

2.2.4. UMP Segment

In 2022, the fuel pellets output was 198.2 tonnes, up significantly from 2021 thanks to higher production for Ulba-FA LLP and CJNF (China).

2.2.4.1 UMP segment uranium product sales

UO_2, uranium powder and fuel pellets

Indicator	2021	2022	Change
Fuel pellets	43.5	198.2	>100%
Uranium powder	10.7	88.9	>100%
Uranium dioxide from scraps	50.6	22.8	(55%)

The increase in sales of fuel pellets soared to 198.2 tonnes due to an increase in sales to Ulba-FA LLP and CJNF (China). The increase in uranium powder sales in 2022 resulted from a contract made with PJSC MSZ (Russia) for the sale of uranium powders in 2022-2023.

Uranium dioxide from scrap was sold in accordance with customer demand.

2.2.4.2 UMP segment rare metal product sales

Rare metals products

[35] For JV Inkai LLP annual share of production on attributable basis is determined as per Implementation Agreement as disclosed in IPO Prospectus. Company's annual attributable share of production in 2022 comprised 1,600 tU (2021: 1,400 tU).
[36] 2021: ownership changed due to the sale of 49% share of ORTALYK LLP to CGN Mining UK Limited in July 2021; Company's annual attributable share of production in 2021 comprised 1,247 tU.

Indicator		2021	2022	Change
Beryllium products	Sales, tonnes	1,529.31	1,332.46	(13%)
	KZT/kg	17,074	24,005	41%
Tantalum products	Sales, tonnes	165.40	165.52	0%
	KZT/kg	95,351	139,990	47%
Niobium products	Sales, tonnes	8.24	13.45	63%
	KZT/kg	20,655	24,572	19%

Sales volume of beryllium products decreased by 13% in 2022 compared to 2021, due to a decrease in the number of orders from customers. Realized price increased by 41% in 2022 mainly related to the product mix changing to highly refined products, higher price in the non-ferrous metal market as well as the weakening of KZT against USD.

Realized prices for tantalum products were higher in 2022 compared to 2021, mainly related to product mix that changed to more highly refined products at higher prices, higher price in the non-ferrous metal market and the weakening of KZT against USD.

Sales volumes and prices for niobium products in 2022 increased compared to 2021 due to an increase in the quantity of orders for niobium hydroxide, also in 2022 higher prices in the non-ferrous metal products market resulted in a higher selling price.

2.2.5 Cost of sales

Group's prime cost, KZT million

Indicator				Proportion	
	2021	2022	Change	2021	2022
Materials and supplies	241,695	261,825	8%	60%	55%
Depreciation and amortisation	66,429	79,037	19%	17%	17%
Wages and salaries	33,294	49,348	48%	8%	10%
Taxes other than income tax	25,474	32,216	26%	6%	7%
Processing and other services	17,404	31,361	80%	4%	7%
Other	18,671	21,310	14%	5%	4%
Cost of Sales	**402,967**	**475,097**	**18%**	**100%**	**100%**

Cost of sales totalled KZT 475,097 million in 2022, an increase of 18% compared to 2021.

The cost of materials and supplies was KZT 261,825 million in 2022, an increase of 8% compared to 2021 due to increase in the purchase price of materials and supplies as a result of an increased inflationary pressure. In 2022 the purchase price of uranium from JVs and associates, as well as from third parties was higher than in 2021 caused by an increase in the spot price for U_3O_8 and the weakening of KZT against USD in 2022. When such uranium is sold, the cost of sales is predominantly represented by the cost of purchased uranium (accounted in materials and supplies) at the prevailing spot price with certain applicable discounts.

Depreciation and amortisation totalled KZT 79,037 million in 2022, an increase of 19% compared to 2021, mainly due to an increase in the costs of repayment of the PGR and increased number of wells commissioned in 2022 (see Section Capital expenditures review).

Payroll costs totalled KZT 49,348 million in 2022, an increase of 48% compared to 2021, mainly due to an increase in the payroll of main production personnel and introduced standardisation of remuneration packages across the Group as well as an increase in the proportion of sales in 2022 of uranium produced by consolidated subsidiaries.

The taxes other than income tax totalled KZT 32,216 million, which is comprised mostly of MET, increased by 26% compared to 2021 due to an increase in cost of production as well as an increase in the proportion of sales of uranium produced by consolidated subsidiaries.

The cost of processing and other services was KZT 31,361 million in 2022, an increase

of 80% compared to 2021, mainly due to a significant increase in volumes of processed U_3O_8 required for production of fuel pellets from KAP's U_3O_8.

The other categories of costs totalled KZT 21,310 million in 2021, an increase of 14% compared to 2021 due to an increase in maintenance and repair and other overheads.

2.2.5.1 Uranium segment C1 cash cost, all-in sustaining cash cost, and capital expenditures

Indicator		2021	2022	Change
C1 Cash cost (attributable basis)	USD/lb	8.80	10.25	16%
Capital cost (attributable basis)	USD/lb	3.83	5.94	55%
All-in sustaining cash cost (attributable C1 + capital cost)	USD/lb	12.63	16.19	28%
Capital expenditures of mining companies (100% basis)[37]		91,087	146,499	61%

Compared to 2021, in 2022 C1 Cash cost (attributable) increased by 16% mainly due to an increase in the cost of materials driven by inflationary pressure and increase in payroll of production personnel. All-in-sustaining cash costs ("AISC") (attributable C1 + capital cost) increased by 28% in USD equivalent in 2022 due to an increase in capital expenditures of mining companies (see Section Capital expenditures review). The results were within the guidance ranges provided for 2022 (guidance of US$9.50 – 11.00 for attributable C1 cash cost, US$16.00 – 17.50 for AISC).

Capital expenditures of mining companies (100% basis) comprised KZT 146,499 million, an increase of 61% compared to 2021, primarily due to a shift in wellfield development activities, as well as higher purchase prices for materials, supplies, equipment and cost of drilling.

Kazatomprom's attributable C1 cash cost categories are generally broken down as follows (proportions vary year-to-year, and vary between operations, deposits and regions):

General Attributable Cash cost (C1) Categories

Indicator	2021	2022
Material and supplies	22%	24%
MET	21%	22%
Processing and other services	17%	15%
Wages and salaries	17%	19%
General and administrative expenses	8%	7%
Selling expenses	3%	3%
Others	12%	10%
Total	**100%**	**100%**

2.2.6. Distribution expenses

Selling expenses, KZT million

Indicator				Proportion	
	2021	2022	Change	2021	2022
Shipping, transportation and storing	11,110	20,331	83%	71%	79%
Wages and salaries	1,456	1,744	20%	9%	7%
Materials	306	199	(35%)	2%	1%
Rent	105	214	104%	1%	1%
Depreciation and amortisation	65	56	(14%)	0%	0%
Others	2,664	3,061	15%	17%	12%
Selling expenses	**15,706**	**25,605**	**63%**	**100%**	**100%**

Selling expenses totalled KZT 25,605 million in 2022 and significantly increased compared to 2021. The increase was mainly due to changes in the delivery destination points for uranium products, an

[37] Excludes liquidation funds and closure costs.

increase in transportation tariffs as well as by using the TITR and the weakening of the KZT against the USD, as a significant portion of shipping, transportation and storing expenses are denominated in foreign currency.

2.2.7 General & Administrative expenses (G&A)

General & Administrative expenses (G&A), KZT million

Indicator				Proportion	
	2021	2022	Change	2021	2022
G&A expenses	34,105	44,507	30%	100%	100%
Incl. Depreciation and amortisation	2,493	2,110	(15%)	7%	5%

In comparison to 2021 G&A expenses increased due in part to a compensation liability to tax authority of Republic of Kazakhstan in the amount of KZT 7,310 million for overproduction by JV Akbastau JSC compared to its approved subsoil use agreement for 249 tonnes of uranium, as well as an increase in wages and salaries.

2.2.8 The share of associates' and JVs' results

The share of results of associates and JVs in 2022 was KZT 89,076 million, an increase of 73% compared to 2021. The increase was related to an increase in uranium spot prices and weakening of the KZT in 2022, which positively impacted the operating results of the associates and JVs and their resulting contributions to the Group.

2.2.9 Profit before tax and tax expense

Profit before tax and tax expense, KZT million

Indicator	2021	2022	Change
Profit before tax	281,644	583,705	107%
Total income tax expense, including:	61,618	110,742	80%
Current income tax	85,345	118,853	39%
Deferred income tax	(23,727)	(8,111)	(66%)

The Group's profit before tax was KZT 583,705 million in 2022, significantly higher than in 2021 which is mainly due to increase in operating income driven by the growth in the average realized price with an increase in the market spot price for U_3O_8, and weakening of the KZT against the USD.

In 2022, corporate income tax expense was KZT 110,742 million, a significant increase compared to 2021 related to the increased current income tax and increase in profit before tax in 2022.

The corporate tax rate applicable to the Group's profits was 20% in 2022 and 2021. Effective income tax rates were 19% and 20% for 2022 and 2021, respectively. The effective tax rate differs from corporate income tax rate primarily due to certain elements of reported income and expenses that are not recognised in tax accounting. In general, difference between effective tax rate and applicable Kazakhstani corporate tax rate of 20% is insignificant.

2.3. Capital expenditures review

Most capital expenditures of the Group are incurred by subsidiaries, JO's, JVs and associates engaged in the mining of natural uranium. Such expenditures are comprised of the following key components:

- uranium well construction costs;
- expansion costs, which typically include expansion of processing facilities, extension of services and transport routes to new wellfield areas, implementation of new systems and processes;
- sustaining capital, largely reflecting recurring, infrastructure, maintenance and equipment replacement related costs, which typically to cease three years prior to the end of production at the asset; and
- liquidation fund contributions and mine closure costs (not included in the calculation of AISC).

The following table provides the capital expenditures for the Group's subsidiaries, JOs, JVs and associates engaged in uranium mining for the periods indicated. Capital expenditure amounts shown were derived from stand-alone management information of certain entities within the Group on an unconsolidated basis, and they are therefore not comparable with or reconciled to the amounts of additions to property, plant and equipment as presented in the Financial Statements. Investors and analysts are strongly cautioned to not place undue reliance on capital expenditure information, as it represents unaudited, unconsolidated financial information on an accounting basis that is not in compliance with IFRS. In 2022 most of the Group's entities have their internal policies and increased their contributions to the liquidation funds to match increase in liabilities and site rehabilitation costs.

Capital expenditures of subsidiaries, JOs, JVs and associates of the Group, KZT million

					2021				2022
Enterprise	**Ownership**	**WC[38]**	**S&E[39]**	**LF/C[40]**	**Total**	**WC[38]**	**S[39]**	**LF/C[40]**	**Total**
Kazatomprom-SaUran LLP	100%	6,094	865	542	**7,501**	11,286	2,249	1,857	**15,392**
RU-6 LLP	100%	3,392	657	260	**4,309**	5,050	1,165	382	**6,597**
APPAK LLP	65%	6,769	495	1,331	**8,595**	7,260	630	2,009	**9,899**
JV Inkai LLP	60%	4,815	3,925	6	**8,746**	10,637	1,385	18	**12,040**
Baiken-U LLP	52.5%	2,679	590	167	**3,436**	5,161	847	246	**6,254**
ORTALYK LLP	51%	4,487	594	219	**5,300**	12,246	453	1,427	**14,126**
Semizbay-U LLP	51%	4,231	561	177	**4,969**	6,399	1,699	1,987	**10,085**
JV Budenovskoye LLP	51%	1,599	320	(4)	**1,915**	1,143	1,610	71	**2,824**
Karatau LLP	50%	4,667	579	112	**5,358**	2,571	1,122	1,478	**5,171**
JV Akbastau JSC	50%	4,648	291	222	**5,161**	6,750	638	742	**8,130**
JV Khorassan-U LLP	50%	7,645	1,781	171	**9,597**	11,364	1,222	1,362	**13,948**
JV ZARECHNOYE JSC	49.98%	3,878	291	1,281	**5,450**	6,426	135	913	**7,474**
JV Katco LLP	49%	14,391	5,037	1,467	**20,895**	20,150	18,068	2,879	**41,097**
JV SMCC LLP	30%	3,927	1,879	374	**6,180**	6,458	2,376	1,040	**9,874**
Total		**73,222**	**17,865**	**6,325**	**97,412**	**112,901**	**33,599**	**16,411**	**162,911**

In order to achieve the planned levels of production, the Group's mining companies assess the required level of wellfield and mining preparation based on the availability of reserves. These costs relate to the capitalised costs of maintaining the sites, with the main component being wellfield construction.

Wellfield construction and sustaining costs, KZT million

Indicator	**2021**	**2022**	**Change**
Well construction	73,222	112,901	54%
Sustaining[41]	13,427	22,735	69%
Total wellfield construction and sustaining costs	**86,649**	**135,636**	**57%**

[38] Well construction.
[39] Sustaining and expansion.
[40] Liquidation fund / closure.
[41] Excludes liquidation funds and closure costs.

Expansion	4,438	10,863	>100%
Capital expenditures of mining companies (100% basis)[42]	**91,087**	**146,499**	**61%**

Capital expenditures of mining companies (100% basis) for the 14 mining entities in 2022 comprised KZT 146,499 million, which is significantly higher than in 2021 due to:

- Increase in well construction by 54% compared to 2021 as a result of a shift of wellfield development activities from 2021 to 2022, an increase in required volumes of drilling and piping to meet the production plan for 2022 and preparatory works for reserves extraction in 2023; as well as increase in price for materials, supplies, equipment and cost of drilling;
- Sustaining and expansion costs increased compared to 2021 and include investments for new construction, reconstruction, technical re-equipment, acquisition of fixed assets, overhauls, as well as other construction projects to maintain production assets and other fixed assets directly involved in the production process.

Total capital expenditures of mining companies in 2022 were slightly below the updated guidance range provided for 2022 (KZT 150 – 160 billion) due to the shift in schedule of drilling works, piping and acidification as a result of limited access to certain key operating materials and equipment, including sulphuric acid and pipes (see Section 2.1.7 Pandemic-related costs, as well as availability of critical operating materials caused **by supply-chain disruption**).

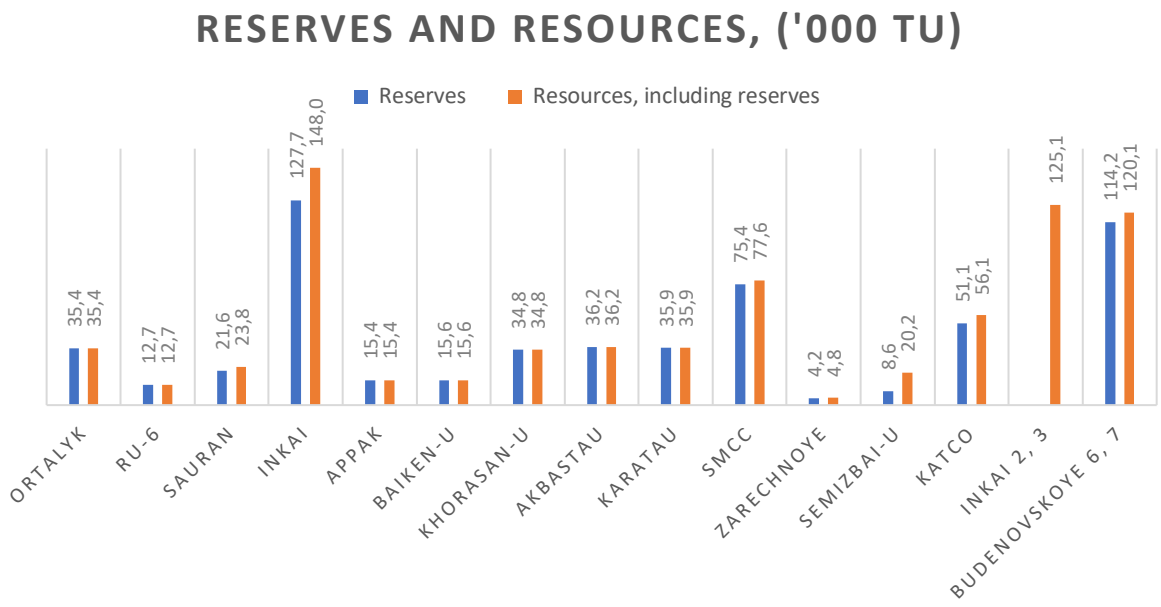
The information presented in the table below reflects the wellfield development depreciation (commonly known as PGR), property, plant and equipment, and depreciation and amortization data for each mining asset in 2022.

Redemption of mining and preparatory operations, KZT million, unless otherwise indicated

Enterprise	PGR volumes (tU)	PGR at the end of period	Exploration value at the end of period	Historical cost of PPE (excl. wellstock) at the end of period	Carrying amount of PPE (excl. wellstock) at the end of period	D&A (excl. wellstock)
Kazatomprom-SaUran LLP	2,765	17,987	2,433	23,056	11,714	1,198
RU-6 LLP	2,595	8,175	-	10,765	7,064	580
APPAK LLP	1,682	11,366	1,787	10,684	5,680	387
JV Inkai LLP	4,400	25,420	16,380	103,985	59,951	2,363
Baiken-U LLP	1,914	8,219	5,219	21,264	9,669	966
ME ORTALYK LLP	2,809	16,405	1,106	20,165	11,281	897
Semizbay-U LLP	1,877	8,764	36	18,012	8,237	916
JV Budenovskoye LLP	-	1,465	11,935	2,020	1,827	125
Karatau LLP	1,702	6,340	2,461	30,019	14,685	1,328
JV Akbastau JSC	2,114	10,819	5,888	11,146	6,556	452
JV Khorassan-U LLP[43]	3,149	13,423	8,253	18,115	10,879	782
JV Katco LLP	4,374	35,456	3,147	73,818	36,201	2,215
JV ZARECHNOYE JSC	1,702	8,451	2,838	9,054	1,908	441
JV SMCC LLP	4,082	11,937	5,743	24,692	11,544	1,480

[42] Excludes liquidation funds and closure costs.
[43] Includes the fixed assets of "Kyzylkum" LLP.

2.4. Reserves and geological surveys



In accordance with the SRK Consulting (UK) Limited letter (dated 16 January 2023), the Ore reserves of all mining assets at 31 December 2022 (including annual depletion) totalled 588.8 thousand tU, (100% basis), with 312.9 thousand tU attributable to the Company (2021: 625.4 thousand tU on 100% basis, 332.6 thousand tU attributable). Total mineral resources (including ore reserves) were estimated at 761.6 thousand tU (100% basis), with 464.8 thousand tU attributable to the Company (2021: 784.4 thousand tU on 100% basis, 477.5 thousand tU attributable). In comparison to 2021, total mineral resources decreased by about 22.8 thousand tU mainly due to 2022 mining activities of 21.2 thousand tU on 100% basis. Please see the CPR for further details, available in the Investor section of the Company's website.

2.5. Liquidity and capital sources

Kazatomprom's management aims to preserve financial stability in a constantly changing market environment. The Group's financial management policy is intended to maintain a strong capital base to support existing operations and business development.

The Group's liquidity requirements primarily relate to funding working capital, capital expenditures, service of debt, and payment of dividends. The Group has historically relied primarily on cash flow from operating activities to fund its working capital and long-term capital requirements, and it expects to continue to do so, although it maintains the option to use external financial resources when required. It is expected that there will be no significant change in the sources of the Group's liquidity in the foreseeable future. If required, the Company will consider entering into project financing arrangements to fund certain investment projects.

2.5.1 Cash and available source of financing

The Group manages its liquidity requirements to ensure the continued availability of cash sufficient to meet its obligations on time, avoid unacceptable losses, and settle its financial obligations without jeopardizing its reputation.

Cash and available source of financing, KZT million

Indicator	2021	2022	Change
Cash and cash equivalents	161,190	169,536	5%
Term deposit	43,220	930	(98%)
Total cash	**204,410**	**170,466**	**(17%)**
Undrawn borrowing facilities	177,902	84,665	(52%)

Total cash at 31 December 2022 comprised KZT 170,466 million, compared to KZT 204,410 million at 31 December 2021, due to explanations that are presented below in the Section 2.5.**4. Cash Flows**.

Undrawn borrowing facilities are the revolving corporate credit lines available to the Group and are considered as an additional short-term liquidity source to cover temporary cash deficit related to uneven receipts of trade receivables.

As of December 31, 2022, the Group's fully available revolving credit lines comprised a total of USD 235 million, out of which USD 183 million were available for use (as at 31 December 2021 available credit lines totalled USD 412 million). The decrease is primarily related to the closure of unused credit lines.

In October 2022, the Company's Board of Directors approved four issues of the unsecured commercial bonds totalling USD 200 million on the Kazakhstan Stock Exchange JSC (KASE). The interest rate (coupon) is fixed for each bond issue and determined as the Secured Overnight Financing Rate (SOFR) published on the official website of Federal Reserve Bank of New York five business days prior to the date of the first auction.

Subsequently, in December 2022 the Company placed the first out of four issues of commercial bonds with nominal value of USD 50 million, interest rate (coupon) of 4.32% and maturity of 30 calendar days. The bonds were redeemed on 23 January 2023 with a payment in the amount USD 50.18 million, including a coupon amount of USD 0.18 million. Yield to maturity of the bonds comprised 4.6%.

2.5.2 Dividends received and paid

The Company is the parent for the Group, and in addition to revenue from its business operations, it receives dividends from JVs and associates, and from other investments. In 2022 and 2021, the Group received dividends of KZT 45,346 million and KZT 17,108 million, respectively, from its JVs and associates, and from other investments. The increase in 2022 is mainly due to a growth in the operating results of joint ventures and associates, and other investments. The Company balances dividend maximisation and sustainable development goals at subsidiaries, JVs and associates. Dividends received by the Company from investees domiciled in the Republic of Kazakhstan are exempt from dividend tax.

In the first half of 2022, the Company accrued a dividend of KZT 227,388 million which was paid to its shareholders in July 2022 based on the results of 2021 operations. This dividend represented an increase of 52% compared to 2021, when dividends of KZT 150,082 million were paid to shareholders in July 2021 based on 2020 financial results. The increase was mainly due to higher operating cash flow and the inclusion of proceeds from the sale of the Group's 49% interest in ORTALYK LLP in the Free Cash Flow (FCF) calculation methodology in accordance with the Company's dividend policy.

2.5.3 Working capital

Working capital of the Group, KZT million

Indicator	2021	2022	Change
Inventory	275,856	392,621	42%
Receivables	220,138	270,921	23%
Recoverable VAT	46,447	62,389	34%
Other financial assets[44]	9,029	19,748	119%
Other non-financial assets	7,137	19,274	170%
CIT prepayment	7,526	11,451	52%
Payables	(66,014)	(98,809)	50%
Employee remuneration liabilities	(215)	(325)	51%
Income tax liabilities	(5,096)	(4,221)	(17%)
Other taxes and compulsory payments liabilities	(17,973)	(24,688)	37%
Other current liabilities	(57,338)	(83,883)	46%
Net working capital	**419,497**	**564,478**	**35%**

An increase in receivables was mainly due to the growth of revenues in 2022.

As per 2.1.1 **Geopolitical** the Company has been managing the risk of financial sanctions by implementing mitigation measures to ensure mutual settlements do not face restrictions. However, other current financial assets as at 31 December 2022 includes short-term restricted cash payments of USD 32.3 million, adjusted for foreign exchange gains as at 31 December 2022, amounting to KZT 14,956 million, made by the Group in March 2022 to a uranium enrichment service provider whose Russian bank was subsequently included in the list of legal entities that fell under the sanctions of the Office of Foreign Assets Control of the US Department of the Treasury (OFAC). Later OFAC issued a license to return blocked funds. The correspondent bank, which initially erroneously blocked the payment funds, returned the amount to the Group (including interest) in January 2023.
Other current liabilities as at 31 December 2022 include:

- current contract liabilities including advances for uranium pellets for KZT 35,082 million under contracts with Ulba-FA LLP (2021: KZT 16,420 million). During 2022, the Group has recognized revenue, which was included in the balance of advances received as at 31 December 2021 in the amount of KZT 16,420 million (2021: none);
- liabilities under inventory loan agreements for KZT 19,147 million, initially recognised in 2020 in amount totalling USD 21.9 million. As of 31 December 2022, the Group reclassified inventory loans from long-term to short-term, as the repayment period is up to May and June 2023. The Group intends to extend the repayment period. Uranium loans are part of the Group's normal inventory management policy, required to mitigate logistical risks that could affect the timely delivery of Kazakhstani uranium to Western conversion enterprises due to the current unstable geopolitical situation.

On 19 May 2022, the Group obtained a uranium loan totalling USD 113.5 million from ANU Energy that was concluded under the Framework Agreement between the Group and Genchi Global Limited. On 20 December 2022, the Group returned the inventory, the fair value of which amounted to KZT 53,802 million on the date of return.
The Group's net working capital remained positive during all periods under review.

[44] Excludes term deposits in amount of KZT 930 million in 2022 (2021: KZT 43,220 million) as these deemed as equivalent to cash (see Section 2.5.1 Cash and available **source of financing**).

Group inventories, KZT million

Indicator	2021	2022	Change
Finished goods and goods for resale	223,750	309,950	39%
Including uranium products	*222,195*	*308,168*	*39%*
Work-in-process	30,409	40,899	34%
Raw materials	14,879	19,633	32%
Materials in processing	3,091	15,198	>100%
Spare parts	789	989	25%
Fuel	479	1,488	>100%
Other materials	5,709	7,486	31%
Provision for obsolescence and write-down to net realizable value	(3,250)	(3,022)	(7%)
Total inventories	**275,856**	**392,621**	**42%**

The Group constantly monitors the uranium market and may pursue a strategy of increasing its inventories in certain market conditions.

The Group's largest inventory item is finished goods and goods for resale, which primarily consists of U_3O_8. The Group's work-in-process and raw materials increased by 34% and 32% respectively.

An increase in the inventory balance was mainly due to an increase in spot price of U_3O_8 and weakening of KZT against USD during 2022, which increased the cost of purchased uranium from JVs, associates and third parties and an increase in inventory volume (see Section 2.2.3.2 Uranium segment **production and sales metrics**). Consistent with the Company's value strategy, Kazatomprom's inventory levels vary based upon timing of customer requirements and the resulting differences in the timing of deliveries, and mining and sales volumes, in alignment with changing market conditions.

2.5.4. Cash Flows

The following cash flow discussion is based on, and should be read in conjunction with the Financial Statements and related notes.

Consolidated cash flows of the Group, KZT million

Indicator	2021	2022
Cash flows from operating activities[45]	118,729	283,859
Cash flows from/(used in) investing activities	(71,241)	(10,893)
Cash flows (used in) financing activities	(1,843)	(268,877)
Net increase/(decrease) in cash and cash equivalents	**45,645**	**4,089**

2.5.4.1 Cash Flows from Operating Activities

Operating cash flows in 2022 totalled KZT 283,859 million, a significant increase compared to 2021 mainly due to:

- a KZT 433,508 million increase in cash receipts from customers during 2022 compared to 2021, mainly due to growth in the average realized price associated with an increase in the market spot price for U_3O_8 and the weakening of the KZT against the USD;
- offset by a KZT 188,775 million increase in payments for accounts payable to suppliers during 2022, mostly due to the weakening of the KZT against the USD and an increase in the market spot price for U_3O_8;
- a KZT 29,706 million increase in 2022 inflows from VAT refunds from the budget.
- a KZT 38,377 million increase in other taxes paid mostly due to the increase in VAT expense arising from increased volume of intra-group sales in Kazakhstan;
- a KZT 28,167 million increase in income tax paid due to the increase in profit before tax (see Section 2.2.9 Profit before tax **and tax expense**);
- payments as part of operating cash flows include: payment held as restricted funds in amount

[45] Includes income tax and interest paid.

KZT 14,812 million paid to a supplier earlier in the year whose bank account was subsequently included in the list of legal entities that fell under U.S. Department of the Treasury Office of Foreign Assets Control (OFAC) sanctions, the correspondent bank which initially erroneously blocked the payment returned funds in January, 2023 in full with interest; compensation paid under subsoil use agreement by JV Akbastau JSC in amount KZT 7,310 million for 249 tonnes of overproduced uranium based on current uranium spot prices.

2.5.4.2 Cash Flows from Investing Activities

Net cash outflows from investing activities were KZT 10,893 million in 2022 compared to outflows KZT 71,241 million in 2021.

Changes in investing cash flows in 2022 were due to:

- a KZT 28,238 million increase in 2022 in dividends received from associates, joint ventures and other investments (see Section 2.5.2 Dividends **received and paid**);
- an increase in 2022 in acquisition of property, plant and equipment, acquisition of mine development assets and acquisition of exploration and evaluation assets in sum for KZT 26,924 million primarily due to a shift in wellfield development activities, as well as higher purchase prices for equipment (see Section

- **2.3.** expenditures review);
- acquisition of equity investments for KZT 12,368 million which is investing in the ANU Energy.

As part of normal investment activities, the Group also invests in term deposits, government and corporate bonds held to maturity, a change in net movement of which in sum comprises KZT 72,983 million in 2022 compared to 2021.

2.5.4.3 Cash Flows from financing activities

Net cash outflows from financing activities were KZT 268,877 million in 2022 and KZT 1,843 million in 2021. The increase in outflow was primarily due to a growth of dividends paid to shareholders of KZT 77,306 million (see Section 2.5.2 Dividends **received and paid**), as well as an increase in dividends paid to non-controlling interest of KZT 59,083 million. Also, in 2021 Group received cash from the sale of a non-controlling 49% interest in ORTALYK LLP of KZT 185,858 million (a one-time effect occurred in July 2021). Cash outflows were partially covered by a change in the net movement of loans and borrowings balances in 2022 of KZT 54,933 million compared to 2021.

2.6. Indebtedness

The total debt and guarantees of the Group as of 31 December 2022 were KZT 157,381 million (KZT 110,462 million in 2021).

Total debt, KZT million

Indicator	2021	2022	Change
Bank loans	-	23,953	>100%
Non-bank loans	89,308	114,491	28%
Off-balance sheet guarantees	21,154	18,937	(10%)
Total debt and guarantees	**110,462**	**157,381**	**42%**

The following table summarises the Group's debt for the years ended 31 December 2022 and 2021.

Total Group's indebtedness, KZT million

Indicator	2021	2022	Change
Non-current	**77,850**	**83,441**	**7%**
Bank loans	-	-	
Non-bank loans, including:	77,850	83,441	
Bonds issued	77,700	83,300	
Lease liabilities	150	141	
Current	**11,458**	**55,003**	**>100%**
Bank loans	-	23,953	
Non-bank loans, including:	11,458	31,050	
Promissory note issued	10,514	7,002	
Lease liabilities	141	32	
Bonds issued	803	24,016	
Total debt	**89,308**	**138,444**	**55%**

As of 31 December, 2022, the Group has no long-term bank loans.

The amount of current bank loans was KZT 23,953 million and mainly include debt repayable for up to 12 months under short-term revolving credit lines. As of December 31, 2022, the total limit on the Group's revolving credit lines was USD 235 million, of which USD 52 million were borrowed (USD 183 million were available for use).

The amount of non-bank loans as of 31 December 2022 comprised KZT 114,491 million and includes:

- long-term USD-indexed Company coupon bonds with a nominal amount of KZT 70 billion and maturity in October 2024, issued in September 2019 on the Kazakhstan Stock Exchange (KASE);
- short-term commercial bonds of the Company in the amount of USD 50 million, issued in December 2022 on the KASE and maturity in January 2023;
- promissory notes owned by JV Khorasan-U LLP are with maturity "on demand". As of 31 December 2022, the right to claim under the promissory notes belongs to Kyzylkum LLP. In 2022, the notes were partially redeemed.

Guarantees represent off-balance sheet irrevocable obligations of the Group to effect payment in the event that another cannot meet its obligations.
Other liabilities of the Group are finance leases, other debt and leases.

According to its loan and guarantee agreements, the Group is required to comply with certain financial covenants based upon the Group's consolidated information, such as debt to equity ratio, and debt to EBITDA ratio. The Group complied with all applicable covenants during the year and as at 31 December 2022.

Weighted average interest rate of the Group, %

Indicator	2021	2022
Weighted average interest rate, including:	3.37	3.62
Fixed interest rate	3.52	3.62
Floating interest rate	0.97	-

As of 31 December 2022, the weighted average interest rate was 3.62%, which was higher compared to the prior year. The Group's weighted average interest rate on loans and borrowings in 2022 was mainly influenced by the Group's long-term fixed interest rate liabilities (bonds with a coupon of 4% per annum).

As of the end of 2022, the Group's debt is fully comprised of fixed interest rate loans.

The Company has credit ratings assigned and affirmed by international agencies:

- Baa2 with a stable outlook by Moody's Investors Service (confirmed December 28, 2022);
- BBB- with a stable outlook by Fitch Ratings (confirmed December 15, 2022).

2.6.1 Net debt / Adjusted EBITDA

The following table summarises the key ratios used by the Company's management to measure financial stability in 2022 and 2021. Management targets a net debt to adjusted EBITDA of less than 1.0.

Net debt/adjusted EBITDA ratio, KZT million

Indicator	2021	2022	Change
Total debt (excluding guarantees)	89,308	138,444	55%
Total cash balances	(204,410)	(170,466)	(17%)
Net debt	(115,102)	(32,022)	(72%)
Adjusted EBITDA[46]	350,294	630,898	80%
Net debt / Adjusted EBITDA (coefficient)	(0.33)	(0.05)	(85%)

[46] Adjusted EBITDA is calculated by excluding from EBITDA items not related to the main business and having a one-time effect. Calculation: Profit before tax - finance income + finance expense +/- Net FX loss/(gain) + Depreciation and amortisation + Impairment losses - reversal of impairment +/- one-off or unusual transactions.

2.7. Guidance for 2023

Guidance for 2023

Indicator	Guidance for 2023	Actual for 2022
	470 KZT/1USD	460.85 KZT/1USD
Production volume U_3O_8, (tU) (100% basis)[47,48]	21,227	20,500 – 21,500
Production volume U_3O_8, (tU) (attributable basis)[49]	11,373	10,600 – 11,200
Group sales volume, (tU) (consolidated)[50]	16,358	15,400 – 15,900
Incl. KAP sales volume (included in Group sales volume), (tU)[51]	13,572	12,100 – 12,600
Revenue – consolidated, (KZT billions)[52]	1,001	1,080 – 1,090
Revenue from Group U_3O_8 sales, (KZT billions)	851	820 – 840
C1 cash cost (attributable basis) (USD/lb)[53]	$10.25	$12.00 – $13.50
All-in sustaining cash cost (attributable C1 + capital cost) (USD/lb)[54]	$16.19	$20.00 – $21.50
Total capital expenditures (KZT billions) (100% basis)[55]	146	240 – 250

Kazatomprom's production expectations for 2023 remain consistent with its market-centric strategy and the intention to flex down planned production volumes by 20% for 2018 through 2023 (versus planned production levels under Subsoil Use Agreements). Production volume in 2023 is expected to be between 20,500 tU and 21,500 tU on a 100% basis and between 10,900 tU to 11,500 tU on an attributable basis.

The decrease in production guidance for 2023 in comparison to 2022 actuals is mainly due to continued delays and/or limited access to certain key materials, including sulphuric acid, and equipment impacting the wellfield commissioning schedule in 2022.

Sales volume guidance for 2023 is aligned with the Company's market-centric strategy as well. The Group expects to sell between 15,400 tU and 15,900 tU, which includes KAP sales of between 12,100 tU and 12,600 tU. The decrease in U_3O_8 sales volume guidance for 2023 in comparison to 2022 both at the Group and KAP levels is due to the expected lower production and increased sales in forms other than U_3O_8, including but not limited to fuel pellets produced from KAP's U_3O_8.

Revenue, C1 cash cost (attributable basis) and All-in Sustaining cash cost (attributable C1 + capital cost) may vary from the guidance provided if the KZT to USD exchange rate fluctuates significantly during 2023. Ranges for C1 cash cost (attributable basis) and All-in Sustaining cash cost (attributable C1 + capital cost) remained flat to reflect the uncertainty in the current geopolitical situation and widening offsetting effects of current KZT devaluation and potential inflationary impacts (see Section

[47] Production volume (100% basis): Amounts represent the entirety of production of an entity in which the Company has an interest; it disregards that some portion of production may be attributable to the Group's JV partners or other third-party shareholders.
[48] The duration and full impact of the Russian-Ukrainian conflict and the COVID-19 pandemic are not yet known. Annual production volumes could therefore vary from internal expectations.
[49] Production volume (attributable basis): Amounts represent the portion of production of an entity in which the Company has an interest, corresponding only to the size of such interest; it excludes the portion attributable to the JV partners or other third-party shareholders, except for JV "Inkai" LLP, where the annual share of production is determined as per Implementation Agreement as disclosed in IPO Prospectus. Actual drummed production volumes remain subject to converter adjustments and adjustments for in-process material.
[50] Group sales volume: includes Kazatomprom's sales and those of its consolidated subsidiaries (according to the definition of the Group provided on page one of this document). Group U_3O_8 sales volumes do not include other forms of uranium products (including, but not limited to, the sales of fuel pellets).
[51] KAP sales volume: includes only the total external sales of KAP HQ and THK. Intercompany transactions between KAP HQ and THK are not included.
[52] Revenue expectations are based on uranium prices taken at a single point in time from third-party sources. The prices used do not reflect any internal estimate from Kazatomprom, and 2023 revenue could be materially impacted by how actual uranium prices and exchange rates vary from the third-party estimates.
[53] The average exchange rate for 2022.
[54] Note that the conversion of kgU to pounds U_3O_8 is 2.5998.
[55] Total capital expenditures (100% basis): includes only capital expenditures of the mining entities, includes significant CAPEX for investment and expansion projects. Excludes liquidation funds and closure costs. For 2023 includes well construction and mine development costs of JV Budenovskoye LLP and JV Katco LLP (South Tortkuduk) for a total amount of approximately KZT 70 billion.

2.1**.1 Geopolitical**). Guidance will be updated if the recent fluctuations and geopolitical uncertainties persist throughout 2023.

Wellfield development, procurement and supply chain issues, including inflationary pressure on production materials and reagents, are expected to continue throughout 2023, impacting the Company's financial metrics and giving rise to an expectation that C1 cash cost and All-in Sustaining cash cost will be higher in 2023 than in 2022. Changes to the tax code of the Republic of Kazakhstan on Mineral Extraction Tax, which came into effect in 2023, will have an additional impact on the Company's financial performance.

Total capital expenditures on 100% basis guidance for 2023 increased significantly in comparison to 2022 results to cover the shift in wellfield development activities (see Section

2.3. expenditures review), increase in purchase prices for materials, supplies, equipment and cost of drilling, as well as increasing of well construction and mine development costs of JV Budenovskoye LLP and JV Katco LLP (South Tortkuduk) for a total amount of approximately KZT 70 billion.

The Company continues to target an ongoing inventory level of approximately six to seven months of annual attributable production The Company may purchase uranium from the spot market, while continuing to monitor market conditions for opportunities to optimise its inventory.

2.7.1 Uranium sales price sensitivity analysis

The table below indicates how the Group's U_3O_8 annual average sales price may respond to changes in spot prices (shown in the left column), for a given year (shown across the top row). At present, the table clearly indicates that the Group's U_3O_8 average sales prices are closely correlated with the uranium spot market price.

This sensitivity analysis should be used only as a reference, and actual uranium market spot prices may result in different U_3O_8 annual average sales prices than those shown in the table. The table is based upon several key assumptions, including estimates of future business opportunities, which may change and are subject to risks and uncertainties outside the Group's control.

Correlation between the spot price and the U_3O_8 average sales price

Average Annual Spot Price (USD)	2023E	2024E	2025E	2026E	2027E
20	33	26	27	25	26
30	37	33	34	33	33
40	42	40	41	41	41
50	47	48	48	49	49
60	52	56	56	58	58
70	57	63	63	66	66

Values are rounded to the nearest dollar. The sensitivity analysis above is based on the following key assumptions:

- Annual inflation is assumed to be 2% in the US based on historic values, for the purposes of this analysis;
- Analysis is as of 31 December 2022 and prepared for 2023–2027 on the basis of minimum average Group annual sales during the specified period of approximately 18.0 thousand tonnes of uranium in the form of U_3O_8, of which the volumes contracted as of 31 December 2022 will be sold per existing contract terms (i.e. contracts with hybrid pricing mechanisms with a fixed price component (calculated in accordance with an agreed price formula) and / or combination of separate spot, mid-term and long-term prices); Kazatomprom's marketing strategy does not target a specific proportion of fixed and market related contracts in its portfolio in order to remain flexible and react appropriately to market signals.
- For the purpose of the table, uncommitted volumes of U_3O_8 are assumed to be sold under short-term contracts negotiated directly with the customers and based on spot prices.

3. ENSURING SUSTAINABLE DEVELOPMENT

The recent trends show the global instability, with only the global sustainable development and climate change agenda remaining unchanged. Moreover, the ESG agenda today offers out-of-the-box solutions and new tools for achieving universal goals. The growing ESG awareness, the synergy of global actors in providing solutions to ESG risks, challenges and opportunities encourage optimism. We are happy to be part of this synergy, striving to preserve our planet for future generations and ensure the prosperity for all.

Accession to the UN Global Compact, a comprehensive, public ESG assessment of Kazatomprom, our decarbonisation and carbon neutrality strategy, contribution to achievement of the SDGs, a focus on promoting women's leadership and respect for human rights are some of our initiatives, which I hope will roll out effectively and bring new solutions and accomplishments in the near future.

Yerzhan Mukanov
Chairman of the Management Board

3.1. ESG and Sustainable Business

3.1.1. Sustainable development milestones

2011:

- The Integrated Annual Report was based on the GRI non-financial reporting standards for the first time

2017:

- The Company developed Corporate and Social Responsibility Sustainability Programme 2017-2019

2019:

- Kazatomprom developed and published Sustainable Development Policy
- The Company reinforced the corporate sustainability management function by establishing a dedicated unit, the Sustainable Development Department
- The Integrated Annual Report includes information on sustainability management approaches and the Company's contribution to achieving the UN global sustainable development goals
- The Company identified priority UN SDGs and key targets for each of the UN SDGs

2020:

- The ESG information in the 2020 Integrated Annual Report was independently assured in line with global best practices for the first time
- More GRI indicators disclosed

2021:

- Kazatomprom started work on climate risk management
- The Company identified sustainable development risks
- The 2021 Integrated Annual Report included key indicators of achievement of the UN Conference on Trade and Development (UNCTAD) Sustainable Development Goals
- The Company successfully passed the first supervisory audit and confirmed its certificate from the TÜV International Certification (Germany) in accordance with the requirements of two international standards, ISO 45001 and ISO 14001
- All enterprises of the Group have the ISO 50001 energy management system in place. Energy audits were regularly conducted as part of the Group's energy management systems

2022:

- The Company identified and assessed climate risks
- The Company developed Kazatomprom Strategy for Decarbonisation and Carbon Neutrality 2025
- Kazatomprom developed a mid-term Sustainability Programme
- The Company developed Kazatomprom Human Rights Policy
- Kazatomprom joined UN Global Compact
- The Company extended the list of GRI disclosures
- Kazatomprom made disclosures as recommended by the Task Force on Climate-related Financial Disclosures (TCFD)
- Kazatomprom received its first independent ESG rating from leading international rating agency S&P Global Ratings

Plans for 2023:

- Receive an international climate rating from CDP (Carbon Disclosure Project)
- Receive an independent ESG rating
- Include climate risks in the risk register of the Company
- Develop, get approval, and implement the Road Map to improve ESG practices at Kazatomprom in 2023-2024
- Develop, get approval, and implement the Comprehensive Action Plan 2040 on Decarbonisation and Carbon Neutrality of Kazatomprom
- Get approval and roll out a medium-term Sustainable Development Programme
- Develop a Water Resources Management Strategy
- Develop a Radioactive Waste Management Strategy
- Hold events for employees of the Group to raise awareness and promote adherence to ESG principles

3.1.2. Our approach

Kazatomprom strives to comply with the principles of sustainable development across its operations and promotes responsible business and social responsibility practices among its partners, suppliers, and other stakeholders. The principles of sustainable development lie at the core of the Company's operations. Compliance with these principles is vital not only for long-term business development, but also for instilling Kazatomprom's core corporate values.

GRI 2-23

Principles of sustainable development of NAC Kazatomprom JSC

- Openness
- Accountability
- Transparency
- Ethical conduct
- Respect
- Lawfulness
- Respect for human rights
- Zero tolerance for corruption
- No conflict of interest
- Lead by example

When determining priority sustainability areas, Kazatomprom follows the principles of the UN Global Compact and the UN Sustainable Development Goals 2030, as well as other international standards and initiatives in this area.

Kazatomprom's priority areas of sustainable development

Areas	UN SDGs
Economic sustainability	**8, 11**
Human capital and culture development	**3, 4, 8, 10**
Health and safety	**3, 4, 8, 10**
Environmental responsibility	**6, 7, 12, 13, 15**
R&D, innovations, and technological development	**8, 9, 12**
Effective corporate governance and risk culture	**17**
High ethical standards and anti-corruption measures	**16, 17**
Responsible procurement	**8, 12**
Responsible business practices – engagement with stakeholders and local communities and reporting	**3, 4, 17**

The Company has adopted a number of internal documents governing sustainability aspects and business processes on good governance and integrity, health and safety, environmental protection, personnel management, community involvement, and supply chain management. *For more information, please see Kazatomprom Integrated Annual Report 2021.*

Promoting sustainability standards and initiatives

Standard/initiative	Kazatomprom's participation
UN and ILO Conventions	We declare support and take them into account in our internal corporate documents
UN Sustainable Development Goals 2030	We declare support, integrate into daily operations, and submit reports
Key indicators of achievement of the UN Conference on Trade and Development (UNCTAD) Sustainable Development Goals	We submit reports
UN Global Compact Office	We submit reports

In the reporting period, Kazatomprom continued to improve its approach to sustainability management, striving to create the enabling environment for effective and continuous ESG transformation.

In November 2022, we organised a special session on ESG and sustainable development, with the line-up including the Company's top management and independent consultants. This session discussed the overall impact of Kazatomprom on the social and economic development of Kazakhstan, the latest developments in sustainability and ESG reporting (TCFD, ISSB, CSRD and EU taxonomy), the risk-based approach in ESG, ESG ratings and their requirements. We also held an internal session to review the draft Medium Term Sustainability Programme and receive comments and feedback from top management.

3.1.3. Sustainable development management system

GRI 2-9, 2-13

Sustainability matters are addressed at a wide range of levels within the Company. At the strategic level, sustainability is a direct focus of the Board of Directors. The Board Committees oversee the compliance with the Company's sustainability principles and achievement of strategic objectives. At the management level, the Management Board oversees and monitors the implementation of strategic development areas, programmes, and activities, as well as monitors the achievement of sustainability goals and KPIs. Specific sustainability objectives are the responsibility of the relevant units at regional and subsidiary level.

Sustainable development management structure

Structure of management of aspects of sustainable development

STRATEGIC LEVEL



MANAGEMENT LEVEL



OPERATIONAL LEVEL



3.1.4. Contributing to the achievement of the UN Sustainable Development Goals

Kazatomprom fully shares the values of the UN Sustainable Development Agenda. The Company recognises the importance of all 17 UN SDGs and, as part of its operations, strives to make a feasible contribution to their achievement. Due to the specifics of our operations, we have identified six priority UN SDGs to which the Company makes the most significant contribution.

Kazatomprom's priority UN Sustainable Development Goals



The table below provides a brief description of the Company's actions under each of the priority UN SDGs. For more information on the projects and initiatives implemented in 2022 under each goal, see the thematic subsections of the Report.

Contribution to UN Sustainable Development Goals

UN SDGs	Relevant SDG target	Key results in 2022
	3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and supporting mental health and well-being	• KZT 4.4 billion allocated to finance employee health improvement and treatment programmes. • KZT 965 million invested in occupational medicine. • KZT 3.2 billion allocated to finance medical insurance programmes. • The Company took measures to prevent the spread and eliminate the consequences of COVID-19 (KZT 116 million). • Kazatomprom implemented measures to improve the quality of health of employees and draw their attention to the healthy lifestyle.
	3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	• 15,316 behavioural audits conducted. • 11,876 employees received safety culture training (leadership, defensive driving, 5 safety steps, etc.). • We conducted an employee survey to determine the current level of employee and management compliance awareness at all levels and found a positive change in employee behaviour, which was also confirmed by an increase in the number of respondents willing to express their opinion. • The Company continued using stop cards to stop unsafe works • All CEOs of Kazatomprom's group companies made personal commitments under the Vision Zero concept.
	3.9 By 2030, substantially reduce the number of deaths and illnesses due to hazardous chemicals and air, water and soil pollution and contamination	• As part of the ESAP Roadmap, we approved ESRP Programme in 2022 to enable the Company to achieve sustainable development goals based on the UN SDG targets. • Working in line with the approved Integrated Environmental and Social Research for Sustainable Development (GRI standards) (ESRP programme), we developed an action plan including a risk assessment for proactive management of health, safety, environment and social issues in 2024 (Phase 3). • KZT 313 million invested in the implementation of Kazatomprom Environmental and Social Action Plan (ESAP). • The Company developed guidelines and projects to enhance the safety culture. • Kazatomprom successfully passed the second supervisory audit and confirmed its certificate from the TÜV International Certification

		(Germany) in accordance with the requirements of two international standards, ISO 45001 and ISO 14001. • We worked to reduce radon and its progeny as an occupational hazard at certain uranium mining operations.
For more information, please see Ensuring Sustainable Development section, Creating Attractive Working Conditions and Occupational Health and Safety subsections.		
	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services	• The Company's photovoltaic plants generated 3.01 MWh. • Kazatomprom implemented projects in support of the global green energy trend.
	7.3 By 2030, double the global rate of improvement in energy efficiency	• KZT 1.1 billion was the actual economic effect of the Company's energy-saving and energy efficiency measures. The ratio to total electricity consumption made 6%. • All enterprises of the Group have the ISO 50001 energy management system in place. • Kazatomprom used a number of alternative energy sources (photovoltaic stations, solar heaters, and heat pumps).
	7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investments in energy infrastructure and clean energy technology	• Participation in international conferences: • 24-15 November 2022, Kazatomprom held the 10th International Research to Practice Conference "Current Problems in the Uranium Industry", with presentations "Reuse of Materials and Equipment" and "Decarbonisation at Kazatomprom" • 26 September 2022, International Metallurgical Summit Kazakhstan, Almaty, with the presentation "Kazatomprom Decarbonisation Strategy". • 16-17 June 2022, the 12th Astana Mining & Metallurgy Congress, Nur-Sultan, Kazatomprom Decarbonisation Strategy and ESG. Speech theme: "Kazatomprom Decarbonisation Strategy" • 27 May 2022, Qazaq Independent Directors, Almaty, with the presentation "ESG and Decarbonisation at Kazatomprom". • 18-19 May 2022, Digital mining & metallurgy international online conference by SmartGOPro, with the presentation "Decarbonisation and ESG Programme of Kazatomprom". • - 6 April 2022, Minex Forum Kazakhstan, Nur-Sultan, with the presentation "Kazatomprom's ESG and Decarbonisation Plans".
For more information, please see Ensuring Sustainable Development section, Climate Change and Energy Efficiency, and Caring About Our Planet subsections.		

	8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	• The Company made its procurement plans for 2022 fully in the SAP ERP system. • We took actions under the 2022 Roadmap for Achieving Licence Cleanliness at Kazatomprom Group. • The project "Binding efficiency improvement in enabling works" is being implemented. In 2022, the approved measures were implemented. Optimisation benefits amounted to KZT 2.4 billion. • The Group filed 16 intellectual property applications and received 15 intellectual property titles.
	8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead	• In 2022, the Company started a project to develop a unified corporate geoinformation service and continued works to generate content for a digital map of the mines in Syrdarya and Shu-Sarysu provinces. • We made preparations to launch an automated emission monitoring system at Ulba Metallurgical Plant and SKZ-U LLP. We are set to complete the installation of the system in 2023. • We conducted emergency response training on alarm signals in case of a self-sustaining nuclear chain reaction at all nuclear installations of Ulba Metallurgical Plant. • In 2021, design and estimate documentation for Kazatomprom-SaUran refinery upgrade project was developed. In 2022, the Company commenced the construction under the Kazatomprom-SaUran refinery upgrade project. • In 2022, the effect worth KZT 6.3 billion was achieved through the Material and Equipment Reuse project. In addition, scrap metal dropped by 2,250 tonnes.
	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and people with disabilities, and equal pay for work of equal value	• Employees are recruited through employment centres, educational institutions, electronic labour exchange, and other Internet resources on a competitive basis. In 2022, the competition was 16 candidates per vacancy in the central office and 10 candidates per vacancy for subsidiaries and affiliates. • The Company finances studies of 269 students majoring in industry-specific areas and occupations in universities and colleges of the Republic of Kazakhstan. • Men and women enjoy equal work, employment, and pay. • A local Izbasar programme is in place designed to develop young specialists.

	8.8 Protect labour rights and promote safe and secure working environments for all employees, including migrant employees, in particular women migrants, and those in precarious employment	• The collective bargaining agreement covers 99% of employees • The health and safety management system covers 100% of the Group's employees • All mining subsidiaries and affiliates of Kazatomprom operate in accordance with an Occupational Safety Management System corporate standard introduced in 2021.
For more information, please see Ensuring Sustainable Development section, Creating Shared Values, Creating Attractive Working Conditions, and Building a Sustainable Supply Chain subsections.		
	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all	• KZT 2.6 billion channelled into the regional budgets for the socio-economic development and infrastructure. • KZT 928.8 million allocated for social projects including the construction of an ambulance station, children's playgrounds and sports grounds, the purchase of educational equipment, site improvements, financial assistance to vulnerable social groups (coal, food aid, school supplies, Christmas gifts) and a number of other socially significant initiatives.
	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities	• KZT 112.9 million in well construction costs. • KZT 22.7 million allocated to maintain mining companies. • KZT 27.2 million allocated to maintain service companies. • A project was underway to build a refinery with a production capacity of 4,000 tonnes of uranium (U3O8) at Inkai JV LLP The project will expand production capacity from 3,200 to 4,000 tonnes of uranium per year and shift to a new type of finished product, uranium oxide • The construction of 900 t Zhalpak onshore facility at DP ORTALYK LLP was at the stage of development and approval of the design documents. The project's goal is to improve operational efficiency and production development. The main benefit is the expansion of production • A uranium oxide refinery project with annual capacity of 6,000 tonnes at Ulba Metallurgical Plant was at the design stage. The project is implemented to develop nuclear fuel cycle production. Expected benefits: business diversification, and higher value-added products • An 800,000 t sulphuric acid plant was at the feasibility study phase. The project's goal is to provide sulphuric acid for mining operations and minimise shortages.
	9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all	• 65 R&D contracts for a total of KZT 6.829 billion.

	countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of R&D workers per 1 million people and public and private R&D spending	• 264 employees, including 4 doctors of science and 27 candidates of science, are engaged in research and development. • The Group's employees submitted 2,236 innovation proposals, of which 2,016 were accepted and 1,292 were implemented. • Four contracts were signed to grant the right to use the inventions with JV Zarechnoye, JV Khorasan-U LLP, and JV ORTALYK LLP (two contracts).
	9.6 Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities	• Kazatomprom continues cooperation with Satbayev University that is home to the country's first International Science and Education Centre for the Nuclear Industry. • The Company signed a number of memoranda of cooperation on R&D and innovations. •
For more information, please see Ensuring Sustainable Development section, Creating Shared Values, Creating Attractive Working Conditions, and Science, Innovations, and Digital Transformation subsections.		
	12.2 By 2030, achieve the sustainable management and efficient use of natural resources	• Research was conducted to improve the environmental safety of production: – Analysis of the environmental and social impacts of production facilities on the environment and local communities – The Company started the Integrated Environmental and Social Research for Sustainable Development (GRI Standards) Programme 2022-2024 (ESRP) to assess the impact of uranium mining operations on the environment and local communities, develop measures to improve the quality of the environment and engagement with local communities. – Kazatomprom conducted research to streamline the production and consumption waste management processes in line with the Environmental Code of the Republic of Kazakhstan and GRI standards
	12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	• As part of the R&D efforts, the following projects were implemented: – We developed a software product to control downhole pumping equipment – The Company installed the hardware, software and technology for 4D monitoring of the uranium development by radio-frequency surveying of inter-well space at Inkai mine

	– We developed and manufactured a complex downhole tool combined with an inclinometer and a cavity gauge • The Company implemented Kazatomprom's Zero Waste Culture Development Programme (Phase 1, 2022). • We assessed the system of industrial environmental control (IEC) of soil, water and air for 12 uranium mines, as well as Ulba Metallurgical Plant (a processing plant in Kurchatov and Ulba Metallurgical Plant in Ust-Kamenogorsk). • Kazatomprom monitors surface and underground waters in the areas of its operations on an annual basis.
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	• Subsidiaries and affiliates have in-house landfills for placement and long-term storage of drill cuttings classified as non-hazardous waste. • Separate collection points and special sites for temporary storage of wastes on the territories of Kazatomprom's mines. • Regular timely removal of production and consumption waste for disposal. • As part of our Zero Waste Culture Development Programme, we plan (Stage 3 in 2024) to develop proposals on the introduction of technologies for processing and recycling production and consumption waste, and to develop science-based regulatory documents in the field of waste management.
12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	• Kazatomprom's production processes are powered by the most environmentally friendly in-situ leaching technology. • The Company annually prepares Integrated Reports where it discloses its influence in ESG areas, in particular, they show how resource consumption in the Group changes over the course of several years thanks to rational management approaches, lean production, and upgrade. • We adapted forms for collecting information on waste management in line with international reporting requirements on sustainable development (GRI). • We developed a uniform Template for Subsoil Use Disposal Cost Estimation for uranium mining companies.

For more information, please see Ensuring Sustainable Development section, Caring for the Planet, and Science, Innovations, and Digital Transformation subsections.

	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	• Work is underway to attract international investment companies as part of a move to have more renewable/alternative energy sources. • As part of the corporate Decarbonisation and Carbon Neutrality Strategy, the conversion of hot water boilers from diesel fuel to liquefied gas in the boiler units of Karatau LLP's shift camp was commissioned in 2022 in line with safety requirements for gas supply systems.
	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	• We implemented measures to improve environmental culture: clean-ups, landscaping and territory improvement, planting trees, participation in the Earth Day campaign, etc.
For more information, please see Ensuring Sustainable Development section, Climate Change and Energy Efficiency subsection.		

Contribution to the Second Priority UN Sustainable Development Goals

In the reporting period, the Company continued to contribute to the achievement of the second priority UN Sustainable Development Goals.

UN SDGs	Relevant SDG target	Key results in 2022
	4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	• The Company took actions to implement the Comprehensive Educational Programme 2019–2023. • Cooperation with higher educational institutions, internships, and work placement of young specialists • Career guidance at schools. • We continued cooperation with the National Geographic Qazaqstan magazine and finance subscriptions to schools in Turkistan and Sozak districts. • Every year, the SANA information camp welcomes senior school students in the regions of our operations to develop their leadership potential.
For more information, please see Ensuring Sustainable Development section, Creating Attractive Working Conditions subsection.		
	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	• Subsidiaries and affiliates launch wastewater treatment plants and biological water treatment plants to use purified water for irrigation and dust suppression. • Storage ponds, evaporation ponds, filtration fields, septic tanks are in place at mining enterprises.
	6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of	• 9,188.9 megaliters of water withdrawn from groundwater. • 608.9 megaliters of water withdrawn from municipal and other water supply systems.

	freshwater to address water scarcity, and substantially reduce the number of people suffering from water scarcity	
For more information, please see Ensuring Sustainable Development section, Caring About Our Planet subsection.		
	10.2 By 2030, empower and promote the social, economic and political inclusion of all irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	• No discrimination cases in the Company. • Kazatomprom conducted an anonymous survey to measure employees awareness of protection of rights and interests, anxiety in the team, discrimination, and the problems in communications with managers.
For more information, please see Ensuring Sustainable Development section, Creating Attractive Working Conditions, and Effective Governance, and Corporate Ethics and Compliance subsections.		
	15.1 By 2020, ensure conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	• ST NAC 5.3.2-2022 *Arrangements for Remediation of Subsoil* Operations Standard, which establishes general requirements for remediation of subsoil operations and land reclamation • ST NAC 5.3.3-2022 System of Occupational Safety Standards. Environmental Protection. Standard Programme of Industrial Environmental *Control of In-situ Leaching Standard*
	15.5 Take urgent and significant action to reduce degradation of natural habitat, halt the loss of biodiversity, and by 2020 protect and prevent the extinction of threatened species	• The Company completed the Zarechnoye mine's environmental impact assessment in 2022. Kazatomprom carried out comprehensive environmental studies, including analysis of biodiversity, soil, and drinking water, in the production and adjacent areas in the nearby settlements (Koksarai and Sarykol villages). • Fieldwork generated new data at the Semizbay and Irkol - Semizbay deposits. The Company documented fauna species, studied population, collected photos and traces of activities, and captured indicator species. • Kazatomprom identified rare and endangered species (Red List).
For more information, please see Ensuring Sustainable Development section, Caring About Our Planet subsection.		

	16.5 Substantially reduce corruption and bribery in all their forms	• Since 2019, Kazatomprom has introduced enhanced anti-corruption programmes based on both Kazakh and UK laws. • Kazatomprom and 23 subsidiaries and affiliates introduced the role of compliance officer whose mandate includes, among other things, anti-corruption expertise and actions. • The Group carries out annual corruption risk analysis. • The group's compliance officers conduct due diligence of counterparties, including their involvement in corruption offences. • The Company conducts a massive anti-corruption awareness campaign among employees of both Kazatomprom and suppliers. • Anti-corruption clause has strengthened in procurement contracts since 2019. • Since 2021, the procurement contracts has included a Supplier Code of Ethics, which, among other things, sets out rules of conduct for suppliers with regard to anti-corruption efforts. A breach of this code is grounds for Kazatomprom to terminate the contract unilaterally. • We handled 88 grievances received through the Hotline.
For more information, please see Effective Governance section, Corporate Ethics and Compliance subsection.		
	17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries	• Kazatomprom is a member of six international nuclear industry organisations, four national sectoral organisations, and one international sustainability organisation. • The Company annually publishes integrated annual reports where it discloses non-financial reporting indicators in accordance with the GRI. • The Company engages an independent auditor to assure non-financial data in integrated annual reports.
or more information, please see Annexes, Partnership and Membership in Associations subsection.		

3.1.5. Commitment to the UN Global Compact Principles

GRI 2-23

In 2021, Kazatomprom joined the UN Global Compact initiative (UNGC) and continues to work towards this cause. The Global Compact's ten principles in the areas of human rights, employment, environment, and anti-corruption are included in the substantive topics that the Company has identified as the most significant and relevant.

Cooperation with the UNGC builds trust with the investment community, allows us to measure and demonstrate our progress in implementing the Ten Principles in a consistent and coherent manner, and provides an opportunity to benchmark our progress against that of other global companies.

Every year, UNGC participants publish a Progress Report, which is available on the official UNGC website. In June 2023, Kazatomprom will release its first Progress Report. In addition, Kazatomprom employees have access to the UNGC's academic platform, where various workshops and conferences are held monthly, covering most significant topics of the global ESG agenda.

Principles	Section of the Report
1. Businesses should support and respect the protection of internationally proclaimed human rights	Creating an Attractive Working Environment
2. Businesses should make sure that they are not complicit in human rights abuses	Creating an Attractive Working Environment
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Creating an Attractive Working Environment
4. Businesses should uphold the elimination of all forms of forced and compulsory labour	Creating an Attractive Working Environment
5. Businesses should uphold the effective abolition of child labour	Creating an Attractive Working Environment
6. Businesses should uphold the elimination of discrimination in respect of employment and occupation	Creating an Attractive Working Environment
7. Businesses should support a precautionary approach to environmental challenges	Taking Care of Our Planet
8. Businesses should undertake initiatives to promote greater environmental responsibility	Taking Care of Our Planet
9. Businesses should encourage the development and diffusion of environmentally friendly technologies	Taking Care of Our Planet
10. Businesses should work against all forms of corruption, including extortion and bribery	Corporate Ethics and Compliance

3.1.6. Stakeholder engagement

GRI 2-29

Kazatomprom sees its mission in creating value for stakeholders in alignment with their interests and needs. To deliver on this mission, the Company is building a system of effective interaction with stakeholders, using various engagement methods and communication channels, and paying special attention to improving two-way communication systems and receiving feedback.

Key underlying documents regulating the Company’s stakeholder engagement are Kazatomprom Disclosure Policy and Stakeholder Map.

To identify and select stakeholders for further engagement, Kazatomprom relies on the assessment of the impact on its current operations and strategic development, as well as the established practice of the Company's engagement with external stakeholders and their dependence on its performance.

Stakeholder communication channels

- Analyst days
- Surveys and questionnaires

- Newsletters and mailouts
- General and individual meetings
- Direct contact by email and telephone
- Sectoral events
- Presentations
- Corporate reporting
- Official website
- Publications in media
- Social media
- Grievance mechanisms

The Company updates its stakeholder map annually. In 2022, a management survey conformed the relevance of the map.

Kazatomprom stakeholder ranking map 2022



Stakeholder engagement mechanisms
GRI 2-29

Stakeholder's interest in the Company	Stakeholder engagement mechanisms
Shareholders	
• Economic profit / consolidated net profit /economic performance • Free funds for development and dividends • Net asset value (NAV) • Corporate governance rating • Market share / Market presence • Reduction of environmental emissions	• Decisions of the General Meeting of Shareholders of the Company, the Board of Directors and Management Board of the Fund, the Board of Directors of the Company • Joint working groups, meetings, negotiations • Discussion of the implementation status of sustainable development processes with the Fund • Regular reporting to shareholders, including Samruk-Kazyna, in the agreed format • Special session on sustainable development with the relevant board of directors • Correspondence on the operations of the Group

	• Surveys, questionnaires, testing • Internal corporate communication channels • Annual report and website of the Company
Customers	
• Market share / Market presence • Products and service labelling • Marketing communications • Reduction of environmental emissions	• Customer feedback • Meetings, negotiations, questionnaires • Signing of agreements, memoranda, and strategic cooperation agreements • The Hotline • Annual report and website of the Company
Investment analysts	
• Analysis of various aspects of the Company's operations • The Company's entering into analytical ratings	• Conferences, forums, annual meetings, analyst days, production site visit with investors • Meetings, negotiations, questionnaires • Annual report and website of the Company • Quarterly operating results • Quarterly financial statements and press releases
Senior managers and staff	
• Employment, relations between employees and management, non-discrimination/diversity and equal opportunities / level of employee satisfaction with work and the work of Company-controlled services • Training and education • Improvements in the production safety culture	• Fair and transparent conditions for staff remuneration, professional growth of employees, safe working conditions • Staff development • Production safety briefings and implementation of programmes to improve working conditions • Implementation of measures for social support of workers and members of their families • Staff training, upskilling and development • Regular meetings with management, negotiations • Notification of employees on the Company's operations, professional growth opportunities through corporate magazines, social media • Surveys, questionnaires, testing • The Hotline, internal corporate communication channels, website of the Company
Suppliers of goods, works, and services	
• Equal access to tenders • Benefits from the implementation of category-based procurement strategies • Support for domestic manufacturers	• Variety of procurement methods • Regular analytical meetings, negotiations, business correspondence • Signing of agreements, memoranda, strategic cooperation agreements, licensing • Information/reporting on the implementation of production, investment and social plans and obligations forwarded to the Company • Reporting on the Company's financial and economic performance • Consideration of letters (requests) sent to the Company • Surveys, questionnaires, testing • The Hotline • Annual report and website of the Company • Open access to information on the procurement portal and the Company's official website

Business communities (Associations, National Chamber of Entrepreneurs, Union of Legal Entities)	
• Participation of the Company in improvements in and compliance with industry standards • Participation of the Company in improvements to the business environment • Support for the Company at the state authorities through mechanisms of interaction of the business environment with the state authorities, assistance with the promotion of the legislative initiatives of the Company	• Development of proposals on amendments and supplements to the laws of Kazakhstan • Signing of agreements, memoranda, and strategic cooperation agreements • Joint working groups, meetings, negotiations, questionnaires • Annual report and website of the Company
Partners	
• Market share / Market presence • Unit production cost of U3O8 produced by the Company and all uranium mining subsidiaries	• Memorandums of association • Decisions of the General Meeting of Shareholders / participants of subsidiaries and affiliates, boards of directors, Supervisory Board of subsidiaries and affiliates, joint consultative and advisory bodies • Joint working groups, joint inspections • Meetings, negotiations, business correspondence, questionnaires • Reports on current operations • Correspondence on the operations of the Group of subsidiaries and affiliates • Annual report and website of the Company
Government authorities	
• Compliance, stability and business sustainability • Creation and maintenance of jobs • Representation of the country's economic interests in the international arena (economic, political and image benefits for the country through the prism of development of the uranium industry in Kazakhstan) • Improvement in the energy and resource efficiency in production • Reduction of environmental emissions	• Verification of the compliance by the Company's subsidiaries and affiliates with licensing and contractual obligations • Audit of compliance with the laws of Kazakhstan, development of proposals on amendments to the laws of the Republic of Kazakhstan • Coordination of the subsoil use contracts and state registration of the right of subsoil use • Information/reporting on the implementation of production, investment and social plans and obligations in line with requests • Negotiations, business correspondence, control, production, operational and other meetings, questionnaires • Reports on the performance by the Company's subsidiaries and affiliates of licensing and contractual obligations, submission of quarterly reports to the Ministry of Energy of the Republic of Kazakhstan, reporting on the Company's financial and economic performance • The Hotline • Annual report and website of the Company
International organisations	
Participation of the Company in international agreements and initiatives	• Conferences, forums, annual meetings • Signing of agreements, memoranda, and strategic cooperation agreements • Joint working groups, meetings, negotiations, questionnaires

	• Annual report and website of the Company
Lenders	
• Economic profit / consolidated net profit /economic performance • Free funds for development and dividends • Net asset value (NAV). • Investment and procurement practices / benefits from the implementation of category-based procurement strategies	• Regular analytical meetings, negotiations, business correspondence, questionnaires • Media coverage of the Company's operations • The Hotline • Annual report and website of the Company
Local executive authorities	
• Compliance with requirements, creation and retention of workplaces, sponsorship and philanthropy • Occupational health and safety of the employees of the Company • Improvement in the energy and resource efficiency in production, reduction of environmental emissions	• Memoranda of cooperation between the local executive authorities and the Company to support and develop the social sector in the regions • General agreements between the local executive authorities and the Company on financing the social sector in the regions • The Hotline, social media • Annual report and website of the Company
CSOs and local communities	
• Improvements in the production safety culture • Improvement in the energy and resource efficiency in production • Reduction of environmental emissions • Compliance with legislative requirements, sponsorship and philanthropy • Training and education	• Public hearings • Developing proposals to amend and supplement the laws of Kazakhstan • Media coverage of the Company's operations • Surveys, questionnaires, testing • Information on the current operations of the Company, its subsidiaries and affiliates • Handling letters (complaints, requests) sent to the Company • The Hotline, social media • Annual report and website of the Company
Trade union	
• Creation and maintenance of jobs • Improvements in the production safety culture	• Public hearings • Signing of agreements, memoranda, and strategic cooperation agreements • Regulation of employment relations with the employees of the Company through the collective bargaining agreement • Remuneration of employees in accordance with the labour laws of Kazakhstan, training and education, safe working conditions • Information on the current operations of the Company's subsidiaries and affiliates • Receiving letters (complaints, requests) sent to the Company • The Hotline, social media, internal corporate communication channels • Annual report and website of the Company
Subsidiaries and affiliates	
• Employment and level of remuneration, relations between employees and management, non-discrimination, diversity and equal opportunities • Improvements in the production safety culture, training and education • Market share / Market presence, products and service labelling	• Decisions of the Company as a participant/shareholder of the subsidiaries and affiliates • Reporting in accordance with the Non-Disclosure Agreement between Samruk-Kazyna and Kazatomprom • Decisions of the General Meeting of Shareholders of the Company, decisions of

	participant of subsidiaries and affiliates, the Board of Directors and Supervisory Boards of subsidiaries and affiliates • Audit of compliance with the laws of the Republic of Kazakhstan and the internal regulations of the Group • Verification of the compliance by the Company's subsidiaries and affiliates with licensing and contractual obligations • Developing proposals to amend and supplement the laws of Kazakhstan • Provision of information at the request of the government authorities on different lines of business of the Company • Signing of agreements, memoranda, and strategic cooperation agreements • Orders and instructions, hearings of management reports (subsidiaries and affiliates) • Information/reporting on the implementation of production, investment and social plans and obligations forwarded to the Company • Operational and other meetings, public hearings • Production safety briefings, training and education • The Hotline, social media, internal corporate communications channels, annual report and the website of the Company
Specialised organisations (including Samruk-Kazyna Trust Social Project Development Fund)	
• Implementation of projects and programmes aimed at addressing socially significant issues • Function of a single operator of philanthropic efforts of the Samruk-Kazyna group	• Incoming and outgoing correspondence • Business correspondence • Meetings, negotiations, etc. • Reports on current operations • Media coverage of the Company's operations • The Hotline • Company's website
Stock exchanges	
• Compliance • Timely submission of financial statements and other information	• Meetings and negotiations • Company's website • Report • Reports on current operations • Websites of exchange regulators

3.1.6.1. Consultations between stakeholders and the Company

Kazatomprom has adopted specific procedures for conducting consultations on economic, environmental and social issues between key stakeholder groups and the highest governing body.

Economic, environmental and social issues are regularly considered by the specialised Committees of the Board of Directors and the supervisory boards of subsidiaries and affiliates. Relying on the preliminary work performed by the BoD committees, namely preliminary consideration of the most important matters reserved to the Board of Directors and development of recommendations for decision-making on these matters, the Board of Directors is able to quickly adapt to the changing circumstances and observe particularly important principles of corporate governance.

3.1.6.2. Processes to remediate negative impacts

GRI 2-25

As a public company, Kazatomprom strictly complies with listing rules and disclosure requirements. The Company's corporate governance system rests on the principles of efficiency, prompt response, and transparency, ensuring good governance and control in all areas: human rights protection, shareholder protection, HR policy, supplier relations, law and ethics, occupational health and safety, environmental protection, corporate conflicts and conflicts of interest, as well as issues and processes related to remediation of potential and/or emerging adverse impacts.

We fully recognise that any incident involving our business and/or a breach of the law could lead to negative consequences, such as financial losses, undermined trust of investors and stakeholders, lower share prices, damage to the reputation of Kazatomprom and Samruk-Kazyna, fines, etc.

Kazatomprom has built, and continues to build, a system of engagement with all stakeholders, using a variety of communication methods and channels, which allows focussing on improvements in two-way communication systems.

To ensure effective cooperation in identifying and/or addressing adverse impacts, the Company has established clear and accessible grievance mechanisms to allow all stakeholders to raise concerns about potential and/or actual adverse impacts, and to seek response and remedy. All our employees and stakeholders can communicate their requests, questions, suggestions or complaints through the communication channels in place. Moreover, Kazatomprom's internal documents oblige all employees who become aware of any circumstances and/or actions related to occurrence of negative impacts to report them to the Company's hotline, via internal corporate communication channels, social media accounts or website. Kazatomprom strictly prohibits any retaliatory measures against whistleblowers, guaranteeing confidentiality and anonymity.

The materiality of all issues raised is established against the criteria approved and appropriate to every topic raised. Depending on the actual/potential adverse impact and/or the complaint received, Kazatomprom will take appropriate corrective action.

In particular, we seek to identify all possible risks in advance and reduce our exposure to operational, environmental and financial damage to the lowest possible level to eliminate our negative impact. The Company follows this approach in all relevant business processes, including strategy, business planning, business operations and capital value creation processes, and has already effectively identified and remediated adverse impacts, as well as ensures effective control of risk mitigation. Kazatomprom takes adequate and timely measures to prevent and/or eliminate adverse impacts through rigorous processes to investigate hazardous conditions, potential accidents/incidents and awareness of environmental conditions, as well as a responsible approach.

We assess the effectiveness of our communication channels through corporate culture audits, in particular through staff engagement and interaction within the Company, the promptness of crisis resolution, production efficiency and the achievement of our strategic development goals.

3.1.6.3. Creating economic value

GRI 3-3

Kazatomprom openly and transparently informs shareholders, employees, partners and other stakeholders about its efforts taken to create economic value. This disclosure helps the Company's stakeholders see how the Group creates and distributes economic value over the reporting period.

Retained economic value amounted to KZT 472.96 billion in 2022.

GRI 201-1

Direct economic value generated and distributed, KZT billion

Description	Stakeholder group	2020	2021	2022
Direct economic value generated				
Incomes[56]	Broad stakeholder group	667.12	761.53	1,146.9

[56] Incomes are calculated in line with the GRI Standards methodology and include the revenues and all incomes of the Company.

Distributed economic value, incl.

Operating expenses[57]	Suppliers of goods, works, and services	288.11	373.59	440.95
Salaries	Staff	50.72	53.05	71.69
Financial expenses	Shareholders, creditors, investment analysts	7.68	6.71	8.43
Taxes, except income tax	Government authorities	24.73	26.14	32.57
Income tax expenses		63.78	61.62	110.74
Other expenses		9.73	15.86	8.43
Social expenditures (investment in local communities)	Local communities	1.01	4.54	1.13
Retained economic value		**221.37**	**220.03**	**472.96**

3.1.7. Determining material topics

GRI 3-1

The Company's Department for Strategic and Sustainable Development has embarked on preparing an integrated annual report (IAR) of Kazatomprom for 2022 to comply with the disclosure and transparency rules of the listing agency of the United Kingdom DTR 4.1.3 (UKLA's Disclosure and Transparency Rules), the requirements of the Kazakhstan Stock Exchange (KASE) and the Astana International Financial Centre (AIX) for the publication of annual reports as well as with Kazatomprom's Information Disclosure Rules and the corporate governance standards recommended by the Company's Corporate Governance Code. At the same time, the 2022 IAR will be prepared in line with the GRI, SASB, and TCFD non-financial reporting standards.

As the updated GRI 2021 standards have taken effect, in particular, GRI 1: Foundation 2021 (replaces GRI 101: 2016) and GRI 3: Material Topics 2021 (replaces GRI 103: 2016), it is necessary to take a different approach to determining material topics for disclosure in the Company's IAR. According to GRI 3: Material Topics 2021, the organisation's highest governance body should review and approve the list of material topics. If such a body is not in place, the list should be approved by a senior executive or group of senior executives in the organisation. In addition, the organisation should also describe the process it has followed to determine its material topics, including how it has identified its impacts and how it has prioritised the impacts for reporting based on their significance.

The Company's Department for Strategic and Sustainable Development carried out a number of activities to determine the material topics for the Company and their disclosure in the 2022 IAR. It conducted a stakeholder survey to determine material topics to be disclosed in the 2022 IAR. These topics demonstrate the Company's significant impacts on the economy, environment, and people, including impacts on their human rights. Overall, the Company received responses from the following stakeholder groups:

- its subsidiaries and affiliates
- partners
- international organisations
- business communities
- suppliers of goods, works and services.

The list of topics for evaluation included the topics of the GRI Topic Standards and Kazatomprom's indicators. The stakeholders were asked to rate each topic on the organisation's impact on the economy, environment, and people, including impacts on their human rights, on a 5-point scale, with 1 being "very low" and 5 being "very high". The preliminary list included topics that scored 4 and 5 points out of 5 possible.

[57] Operating expenses include the following expenditures: cost of sales (excluding salaries and taxes), selling expenses (excluding salaries and taxes), general and administrative expenses (excluding salaries and taxes).

Also, the Company's Department for Strategic and Sustainable Development analysed the material topics for the leading companies in the nuclear and mining industries, as well as the material ESG-related issues for independent international rating agencies.

The Company sent additional requests to its structural units to ensure full compliance with GRI 3-1, GRI 3-2 and GRI 3-3. The structural units looked into the material topics for the companies in the nuclear and mining industries that were determined by the survey and analysis as well as the material ESG issues for the rating agencies that deal with the positive and negative impacts of every topic on the environment, economy and people, including their human rights.

Thus, they developed a list of 16 material topics to be disclosed in the 2022 IAR. The list was approved by the Management Board.

Changes in material topics

GRI 3-2

2021		2022	
ECONOMIC TOPICS			
GRI 201-29	Economic Performance	GRI 201-29	Economic Performance
GRI 202-29	Market Presence		
GRI 203-1	Indirect Economic Impacts	GRI 203-29	Indirect Economic Impacts
GRI 204-29	Procurement Practices	GRI 204-29	Procurement Practices
GRI 205-29	Anti-corruption	GRI 205-29	Anti-corruption
		GRI 207-29	Tax
ENVIRONMENTAL TOPICS			
GRI 302-29	Energy	GRI 302-29	Energy
GRI 303-29	Water	GRI 303-29	Water
GRI 304-29	Biodiversity and ecosystems	GRI 304-29	Biodiversity and ecosystems
GRI 305-29	Emissions	GRI 305-29	Emissions
GRI 306-29	Effluents and Waste	GRI 306-29	Effluents and Waste
GRI 307-29	Environmental Compliance		
SOCIAL TOPICS			
GRI 401-29	Employment		
GRI 402-29	Labour/Management Relations		
GRI 403-29	Occupational Health and Safety	GRI 403-29	Occupational Health and Safety
GRI 404-29	Training and Education		
GRI 405-29	Diversity and Equal Opportunity		
GRI 412-29	Human Rights Assessment		
GRI 413-29	Local Communities	GRI 413-29	Local Communities
GRI 415-29	Public Policy		
GRI 419-29	Socioeconomic Compliance		
		N/A	Human rights
KAZATOMPROM INDICATORS			
KAP1	Operational life of production sites	KAP1	Operational life of production sites
KAP2	Emergency preparedness	KAP2	Emergency preparedness
KAP3	Radiation safety	KAP3	Radiation safety

The list of material topics for 2022 was used to prepare the 2022 IAR for detailed disclosure of the economic, environmental and social impacts of the Company in line with the requirements of the GRI, SASB and TCFD standards.

As required by GRI 3-3, the Company's Department for Strategic and Sustainable Development conducted an additional analysis of potential positive and negative impacts of the Company on the economy, environment or people, including impacts on their human rights (see Annexes).

3.2. Climate Change and Energy Efficiency

Amid a global debate on the challenges of climate change and the benefits of ESG development, we have seen a growing interest in the nuclear industry from the global community.

Today, decarbonisation is not only a tool to meet environmental and climate targets, but also a way to ensure that the products are differentiated and globally competitive. In this regard, Kazatomprom is set to play a significant role in the energy transition effort, while remaining committed to its strategy of long-term value creation, maintaining high production and environmental safety standards.

Given the global trends and the country's commitments, Kazatomprom recognises it can make a significant contribution to help nation achieve its goals and objectives. Kazatomprom developed and approved a Decarbonisation and Carbon Neutrality Strategy in November 2022.

Achieving decarbonisation targets hinges directly on the implementation of Kazatomprom's energy saving and energy efficiency programme, which in turn addresses not only environmental issues but also brings economic benefits to the Company. To date, greenhouse gas emissions for 2022 have not been exceeded against 2021, remaining at the same level.

The emission reduction expectations for 2023 are already several times higher than the plans outlined in the 2027 Business Plan and targets in the Decarbonisation Strategy.

Aliya Akzholova
Managing Director of Operations

3.2.1. Our approach

GRI 3-3

Global climate change poses a number of serious risks to the economy, environment, and human health. The key risks are water scarcity, food shortages, biodiversity loss and natural disasters.

To combat climate change and its negative impacts, 197 countries adopted the Paris Agreement on 12 December 2015, striving to reduce significantly global greenhouse gas emissions and limit the global temperature rise to 2 degrees Celsius. The Republic of Kazakhstan ratified the Paris Agreement and pledged to take measures to combat climate change, defining a low-carbon development vector for itself.

While adhering to global priorities and following the national strategy, Kazatomprom also seeks to contribute to the fight against climate change. As a world leader in the production of uranium raw materials, the Company is the main supplier of fuel for nuclear power plants and ensures the development of the world's nuclear power industry, thereby providing a significant indirect positive impact in the fight against climate change. With the changes in the global taxonomy that took place in 2022[58], nuclear power is now officially one of the low-carbon sectors of the economy and contributes to a significant reduction in greenhouse gas emissions into the atmosphere.

Mitigation of climate impacts is one of Kazatomprom's key areas, especially in light of the TCFD (Task Force on Climate-related Financial Disclosures) initiative, whose recommendations help to manage better the risks and opportunities associated with climate change and make more informed financial decisions.

In the reporting period, as part of the work aimed at reducing climate impacts, the Company developed a Decarbonisation Strategy in accordance with the TCFD recommendations and plans to achieve carbon neutrality by 2060. The Strategy includes a programme and action plan to reduce greenhouse gases emissions for each subsidiary and affiliate of the Company, as well as climate risks and opportunities.

Climate mitigation is not only a contribution to the implementation of the Paris Agreement’s provisions. The Company also considers it as one of the tools of the business strategy helping to reduce energy costs and reducing the risks associated with legislative restrictions on greenhouse gas emissions, as well as increasing the competitiveness of the Group in the future

3.2.1.1. Indicators and targets

In the Strategy for Decarbonisation and Carbon Neutrality, we identified three main development scenarios:

- A pessimistic scenario of inertial business development without any steps towards decarbonisation
- A realistic scenario with the gradual achievement of carbon neutrality, given the moderate pace of decarbonisation of the country's economy
- An optimistic scenario seeking to achieve carbon neutrality quickly.

The realistic and optimistic scenarios prioritised by the Company include a list of measures, including increasing energy efficiency, applying offset mechanisms, increasing the use of renewable energy sources, modernising the car fleet or switching to electric transport, and reducing carbon intensity.

Realistic scenario

A realistic development scenario implies the implementation of energy efficiency measures and increasing the share of renewable energy to achieve the goal of 10% reduction in direct and indirect GHG emissions in 2030, 55% in 2045, and 70% in 2050 as from the level of 2021.

Goals of the Decarbonisation Strategy in the realistic scenario:

- Achieving full carbon neutrality by 2060 at the level of direct and indirect emissions
- Increasing the share of renewable energy consumption in the amount of 146 GWh per year
- Planting 26.5 million trees by 2030

[58] https://finance.ec.europa.eu/publications/eu-taxonomy-complementary-climate-delegated-act-accelerate-decarbonisation_en

The scenario suggests a gradual reduction in the carbon intensity of the country's energy network due to the moderate achievement of the set goals for increasing the share of renewable energy and alternative energy sources in the amount of 10% by 2030 and 30% by 2050.

Decarbonisation targets in a realistic scenario in the short-, medium-, and long-term prospect

Year	2021	2030	2045	2060
Target share of GHG reduction, %	0%	10%	55%	100%
Target amount of GHG emissions at Kazatomprom, '000 tonnes of CO_2	-	848.8	252.0	0
Share of RES and Alternative Energy Sources at country level, %	3%	10%	24%	40%

The scenario includes several methods to reduce greenhouse gas emissions:

- Reducing emissions through the implementation of measures aimed at increasing operational efficiency and reconstruction of production facilities.
- Reducing emissions through new Company-level facilities that help reduce the Group's overall carbon footprint. This scenario considers the construction of own renewable energy facilities, heat pumps and/or the purchase on the market of the required amount of electricity produced using renewable energy sources.
- Offsetting the carbon footprint through carbon sequestration through forest offset projects and the purchase of offset units and certificates.

Optimistic scenario

The optimistic KAP decarbonisation scenario outlines more ambitious plans to reduce GHG emissions, taking into account the achievement of carbon neutrality, as well as with the goal of achieving a 15% reduction in GHG emissions by 2030 from the base year of 2021 and with an early achievement of carbon neutrality by 2045.

Goals of the Decarbonisation Strategy in the optimistic KAP scenario:

- Achieving full carbon neutrality by 2045 at the level of direct and indirect emissions
- Increasing the share of renewable energy consumption in the amount of 211 GWh per year
- Planting 26.5 million trees by 2030

Decarbonisation targets in an optimistic scenario in the short-, medium-, and long-term prospect

Year	2021	2030	2045	2060
Target share of GHG reduction, %	0%	15%	100%	100%
Target amount of GHG emissions KAP, thousand tonnes of CO_2	-	799.8	0	0
Share of RES and Alternative Energy Sources per country level, %	3%	15%	42%	62%

To achieve the goals of the Strategy, the Company developed potential activities based on the analysis of the main sources of GHG emissions, taking into account their distribution by direction and priorities. Short-term, medium-term and long-term activities are highlighted. We also assessed their potential to achieve the goals of the Decarbonisation Strategy.

Short-term activities	Medium-term activities	Long-term activities
• Optimisation measures on energy efficiency (scheduled	• Capital measures for production optimisation and	• Implementation of hybrid and electric transport

recommendations of energy audits) • Optimisation of the use of road transport • Installation of heat pump units (HPU)	energy efficiency • Partner RES under the corporate Power Purchase Agreements (PPA)	• Construction of own RES facilities • Implementation of GHG absorption and compensation mechanisms

3.2.1.2. Approach to identifying transitional and physical risks

Significant physical risks

We used the EY Climate Risk Universe tool to identify significant physical and transition risks that could affect the Company's operations. This tool is based on research by international experts who have studied the impact of climate risks on various activities. Using this tool and taking into account the relevant business processes of the Company, we identified significant risks, such as road transport, rail transportation, the chemical industry, and mining and processing.

The Company has identified four categories of significant physical risks:

- Change in average temperature
- Periods of extreme temperatures
- Droughts
- Change in average rainfall

Each risk category has potential impacts on transportation, the chemical industry, and mining and processing. For each category of risks, we carried out a detailed analysis on their impact in all Group's subsidiaries and affiliates, depending on their geographical location:

- An analysis of the physical risks associated with changes in the average temperature showed that this risk is of high importance, regardless of the geographic coordinates of the enterprise.
- An analysis of the potential impact of drought revealed high risks at enterprises: JV Southern Mining and Chemical Company LLP, KAP-SaUran LLP, JV ORTALYK LLP, APPAK LLP and the Taukent Central Truck Transhipment Base, TTK LLP. At the rest of the enterprises, we identified the average risk according to the "Maximum duration of drought" indicator.
- The risk analysis in the Change in Average Precipitation category showed that most businesses face a medium risk of being significantly affected by three of the following: intra-annual fluctuations in precipitation, heavy precipitation (90th percentile), and total precipitation.

Transitional climate risks

Transitional risks mean that the Company may face additional financial costs due to the tightening of carbon regulation. This can lead to higher costs for carbon units (as part of the carbon tax), raw materials, as well as for the introduction of new, lower carbon technologies. In addition, tightening reporting and goal-setting obligations may also entail additional costs.

The Company identified five categories of Transitional Climate Risk:

- Expanding/strengthening emission reporting obligations
- Increasing costs of greenhouse gas emissions
- Bearing low-carbon transition costs
- Increasing the cost of raw materials

Determination of transitional risks and the level of their impact on the Company

Transitional Climate Risk	Risk Level	Risk Description	The Company's Measures and actions taken to mitigate the consequences
1.Expanding/strengthening emission reporting obligations	Low	Additional disclosure requirements will result in additional costs for establishing and maintaining GHG emission monitoring processes. Reports that do not meet stakeholder	Timely risk surveillance and disclosure. KAP sets decarbonisation goals and develops a long-term strategy to achieve carbon neutrality through improved energy consumption, equipment replacement, low-carbon technologies, and offset

		expectations can undermine investor confidence and lead to lower company valuations. Given the tightening requirements of national (changes in Kazakhstan's emissions trading system) and international (TCFD within the LSE) legislation, this risk has a direct impact on Kazatomprom.	mechanisms. The Company regularly monitors greenhouse gas emissions by quantifying the volume of direct and indirect greenhouse gas emissions in accordance with international standards and guidelines and generally accepted guidelines, such as the GHG protocol and ISO 14064. The Company is doing the necessary work and plans to deepen climate-related disclosures, risks and opportunities as required by the TCFD.
2. Increasing costs of greenhouse gas emissions	Low	KAP facilities are not quota-based installations, however, the projected introduction of a carbon tax on fossil fuel consumption, due to its specificity, has a direct impact on Kazatomprom.	To reduce the impact of the risk of increasing costs on GHG emissions, the Company plans to reduce the volume of fossil fuel consumption through gasification of boiler houses and introducing measures to optimise transport, switch to purchased energy from renewable sources (or use own green energy, in the case of investments in renewable energy sources) and measures of optimisation character.
3. Low-carbon transition costs	Medium	The increase in the share of purchased electricity and thermal power from renewable sources is higher than expected, and therefore an increase in the tariff for purchased electricity will require gradually increasing volumes of investments in low-carbon technologies, both intensive (production optimisation) and extensive (RES) in nature.	Kazatomprom is considering the possibilities of maximising the reduction of direct and indirect GHG emissions in the course of its production activities, and offsetting the remaining non-reducible emissions (through offsetting mechanisms, including Carbon Absorption Projects).
4. Increasing the cost of raw materials	Medium	Modern manufacturing and chemical industries, built on hydrocarbons, use them as a raw material and as an energy source. Carbon pricing will have a much larger impact on raw material prices compared to other industries. Increased raw material costs could be passed on to	Efficient production management through the promotion of ESG (Resource Conservation and Energy Efficiency Improvement) principles and the overall implementation of climate risk management will allow the Company to monitor and measure the impact magnitude and manage this risk more sustainably.

		consumers, which could lead to lower demand.	

For each of the risks, the Company carried out a detailed assessment and developed measures and actions to reduce or mitigate the consequences of the risk.

The Group integrates all developed measures into the overall risk management system.

3.2.1.3 Assessment of greenhouse gas emissions and carbon footprint

SASB EM-MM-110a.2

The President of the Republic of Kazakhstan announced at the International Conference "Ways to Achieve the Goals of the Paris Agreement and Carbon Neutrality in Kazakhstan" in 2021 to develop a Carbon Neutrality Doctrine in the country. In this regard, 2021 was regarded as the base year for calculating greenhouse gas emissions of all scopes. 2021 was also regarded by Samruk-Kazyna JSC as the base year for all portfolio companies.

To achieve carbon neutrality, following the plans of the Decarbonisation Strategy, in 2022, together with the leading international consulting company Ernst & Young, the Group implemented a project to quantify direct and indirect greenhouse gas emissions and the carbon footprint of products, taking into account national requirements and international standards, as well as specifics of production of NAC Kazatomprom JSC. As part of the project, we developed a model to calculate greenhouse gas emissions for all Group's subsidiaries and affiliates as well as a model of the carbon footprint of the Company's uranium and metallurgical products.

The Company assessed greenhouse gas emissions according to the following aspects:

- Scope 1: direct greenhouse gas emissions associated with the combustion of fuel and energy resources and substances, inevitable fugitive emissions (MSW), the operation of any production facilities and ongoing production processes.
- Scope 2: indirect energy emissions associated with the consumption of electricity, heating, hot water and steam supplied from outside.
- Scope 3: other greenhouse gas emissions, including the entire product life cycle chain: from the purchase of raw materials and delivery to disposal, that is, emissions that are not directly attributable to the manufacturer.

To conduct the assessment, the Company analysed and grouped all subsidiaries and affiliates of according to their main activities in three business segments:

1. Uranium mining and processing
2. Nuclear fuel cycle and metallurgy
3. Ancillary activities

Structure of direct GHG emissions in 2019–2021, %

Uranium mining and processing	53.4%
Ancillary activities	41.0%
Nuclear fuel cycle and metallurgy	5.6%

The structure of direct greenhouse gas emissions shows that more than half of the Company's direct GHG emissions come from the uranium mining and processing segment, followed by the ancillary activities. The nuclear fuel cycle and metallurgy segment has the smallest share of direct emissions.

The project resulted in determination that the largest contribution to the carbon footprint of KAP comes from indirect energy emissions associated with the consumption of electricity, heat, hot water and steam supplied from outside. To reduce indirect energy emissions, the Company identified targets for increasing the volume of renewable energy consumption, and also planned the implementation of energy efficiency projects. To achieve full carbon neutrality and compensate for irreducible GHG emissions, the Decarbonisation Strategy of NAC Kazatomprom JSC involves the implementation of GHG absorption and offsetting projects.

Carbon footprint assessment

To assess the carbon footprint, the Company analysed its production cycle within the chains for the production of target products: uranium, tantalum-niobium, beryllium; as well as chains for the production of raw materials used in the production of target products: gas and fluorine. Based on the results of a quantitative assessment of the carbon footprint of products manufactured by the Company, we determined the volumes of GHG emissions during production by types of products (functional units) and commercial products. Production of Uranium Oxide Concentrate makes the most significant contribution to the volume of GHG emissions.

824,000 tonnes of CO_2 is Kazatomprom's total carbon footprint from the production of uranium oxide concentrate.

To reduce the carbon footprint, we developed a number of measures including optimisation solutions and measures to improve energy efficiency. Among them are production optimisation, overhaul of production equipment, purchase and expansion of renewable energy capacities as well as measures to absorb CO_2.

The total amount of investments that the Company plans to channel to reduce GHG emissions and carbon footprint makes up USD 129/227 million for a realistic and optimistic scenario, respectively.

3.2.3. Greenhouse gas emissions

The Company regularly monitors greenhouse gas emissions by quantifying direct and indirect emissions in accordance with international standards and guidelines and generally accepted guidelines such as the GHG protocol and ISO 14064.

The Group carries out consolidation of greenhouse gases on a 100% basis regardless of the Company's equity participation in joint ventures.

GRI 305-1, SASB EM-MM-110a.1.

Direct greenhouse gas emissions, 2020-2022 (Scope 1), '000 tonnes of CO2-eq.

Indicator	2020	2021	2022
Direct greenhouse gas emissions	92.59	106.91	97.26

The Company has no emissions from combustion or decomposition of biomass.

GRI 305-2

Indirect GHG emissions, 2020–2022 (Scope 2), tonnes of CO2-eq.[59]

Activity	Electricity consumption-related			Thermal energy consumption-related			Total emissions		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
Uranium mining and processing	532,920	554,960	546,694	546	518	1,095	533,466	555,477	548,152
Nuclear fuel cycle and metallurgy	135,196	130,871	42,965	96 378	103,927	203,468	231,574	234,798	246,434
Ancillary activities	52,929	50,902	46,348	1,915	1,376	2,810	54,844	52,279	49,448
Total	721,045	736,733	636,007	98,838	105,821	207,373	819,883	842,554	844,034

Annual greenhouse gas emissions at each subsidiary and affiliate do not exceed the threshold of 20,000 tonnes of CO_2 equivalent as adopted at the national level for reporting emissions and participating in the Kazakhstan Emissions Trading System.

In the reporting period, Kazatomprom held several campaigns to help reduce the Company's contribution to climate change. In particular, we continued planting trees on the territory of the fields and in the adjacent settlements. We also held a Car-Free Day when stakeholders ditched private cars for a day and used public transport, reducing greenhouse gas emissions from fuel combustion.

[59] Market method of calculation: reflects the intensity of GHG emissions from facilities generating electricity and heat. That is, in this method, the total GHG emissions of Scope 2 for Kazatomprom are calculated on the basis of the GHG emissions of the electricity and heat producers from which it is purchased. Scope 2 GHG emissions reached 514,258 tonnes CO2-eq according to the regional method.

Kazatomprom employees took part in the Earth Hour campaign, within which it was supposed to disconnect all devices from electricity for an hour not only to save electricity and reduce greenhouse gas emissions associated with its consumption, but also to draw public attention to the climate change issues.

GRI 305-3

Other indirect greenhouse gas emissions (scope 3), tonnes of CO_2-eq.

Indicator	2022
Emissions from goods and materials	580,399
Emissions from transportation	161,723
Total	**742,122**

Earlier, until 2021, the Company did not calculate greenhouse gases for scope 2 and 3, as the applicable Kazakhstan Law provides only for calculations for scope 1 based on assessments of independent and licensed companies. In this regard, the Company did not recalculate greenhouse gas emissions.

3.2.2. Energy efficiency and energy saving

GRI 3-3, 302-4

Kazatomprom lays emphasis to reducing its ecological footprint and minimising its impact on the environment. To this end, the Company implements programmes to reduce and optimise the energy use. All subsidiaries and affiliates of the Group have an energy management system that manages energy efficiency issues and complies with the requirements of ISO 50001:18001.

The Company is also in a phased transition to an energy management system that complies with ISO 50001:2019, which helps on an ongoing basis reduce energy consumption, minimise emissions of harmful substances into the atmosphere as well as receive financial benefits.

Kazatomprom improves energy efficiency and reduces the energy intensity of production by introducing energy-efficient equipment, rational using natural resources and modernising production processes. In the field of energy consumption and energy efficiency improvement, the Company's management established a KPI that does not allow exceeding the annual planned specific electricity consumption rates for uranium production.

An energy audit is conducted at the Group's enterprises once every five years to assess the possibility and potential for energy saving. Its results are used by all enterprises of Kazatomprom when developing an Action Plan for energy saving and energy efficiency improvement. The plan is formed annually as part of the Implementation Plan of the Kazatomprom Development Strategy for 2022-2031.

In 2022, the Company implemented a range of measures to improve energy efficiency. The actual economic effect was KZT 1,142 million, or up by 7% of the target. Our energy saving and energy efficiency measures helped save 223 GJ in 2022.

GRI 302-1, 302-4, SASB EM-MM-130a.1.

Energy consumption, '000 GJ[60]

Indicator	2020	2021	2022
Thermal energy	887	950	868
Heat from renewables	11	7	4
Electricity	2,849	3,069	3,043
Electricity from renewables	14	12	14
Total energy consumption	**3,762**	**4,038**	**3,929**

Sokol-M(O)-5 Water Desalination Plant launched at UMP JSC reduced thermal energy consumption in steam in 2022 as compared to 2021. This allowed obtaining distilled water without using thermal energy in steam for further use in the technological process. Consumption of fuel and energy resources for production, extraction and processing of raw materials reached 5,411,000 GJ.

[60] *The 2020-2021 figures have been adjusted. Indicators for heat and electricity consumption from RES have been added to the table*

Earlier, the Company produced distilled water from saturated steam by cooling tubular heat exchangers (distillers) with recycled water.

Use of primary energy sources, '000 GJ

Source type	2020	2021	2022
Coal	17.9	17.6	12.7
Natural gas	0.0	2.5	7.7
Fuel (gasoline, fuel oil, diesel)	1,318	1,431	1,461

Energy intensity

GRI 2-4, 302-3

In 2022, the consumption of fuel and energy resources (FER) at the Group's enterprises decreased by 1% compared to 2021 thanks to ongoing efforts to reduce the FER consumption. In 2022, the specific energy intensity was 254 GJ/t and includes energy consumption from all fuel and energy resources.

Energy intensity[61]

Indicator	2020	2021	2022
Consumption of fuel and energy resources for production, extraction and processing of raw materials, '000 GJ	5,073	5,470	5,411
Production, extraction and processing of raw materials, tonnes	19,587	21,834	21,279
Specific energy intensity, '000 GJ/t	0.259	0.251	0.254

Alternative energy

Kazatomprom aims to improve the efficiency of its energy supply by moving from energy production with a high carbon footprint to more sustainable and environmentally friendly methods. To achieve this goal, the Group's enterprises actively use alternative energy sources. This approach helps save fuel and energy resources and reduce greenhouse gas emissions:

- photovoltaic stations (PV)
- solar collectors (or solar water heaters)

Electricity generation by PV stations, MWh

Indicator	2020	2021	2022
Generated energy	3.52	3.34	3.01

Effect from the use of alternative energy sources in 2022, '000 KZT

Indicator	2020	2021	2022
PV stations	97,761	90,950	133,523
Solar collectors	32,030	29,902	46,520

The Company is constantly looking for new ways to use alternative energy sources at its enterprises. In 2022, we developed design documentation and received positive conclusion of a non-departmental examination for the installation of four solar collector systems at Karatau LLP. The Company will use these systems to provide hot water to a hotel, household facilities, a hostel, and a sports complex. We plan to complete the installation of the systems and put the facility into operation in Q1 2023.

Recycling

The economic effect from the implementation of the recycling project reached KZT 6.307 billion in 2022.

Plans for 2023 and a medium term

In 2023, we plan actions to reduce the carbon footprint of products in line with the developed Strategy for Decarbonisation and Carbon Neutrality by 2060.

To achieve this goal, we will focus our efforts on the development of renewable energy sources and the reduction of greenhouse gas emissions across Kazatomprom. To this end, work will continue on energy saving and energy efficiency of our operations. Focus areas include:

- Installation of solar collectors

[61] The 2020-2021 figures have been adjusted. Heat consumption for production, extraction and processing of raw materials has been added to the data on fuel and energy consumption.

- Rational distribution and use of electricity, lighting, heating, hot water supply, and ventilation systems
- Upgrade of electrical equipment, replacement with energy-efficient equipment
- Efforts to ensure the proper technical condition and rational operation of power equipment and power plants.

Deposit Lifecycle Management

KAP 1

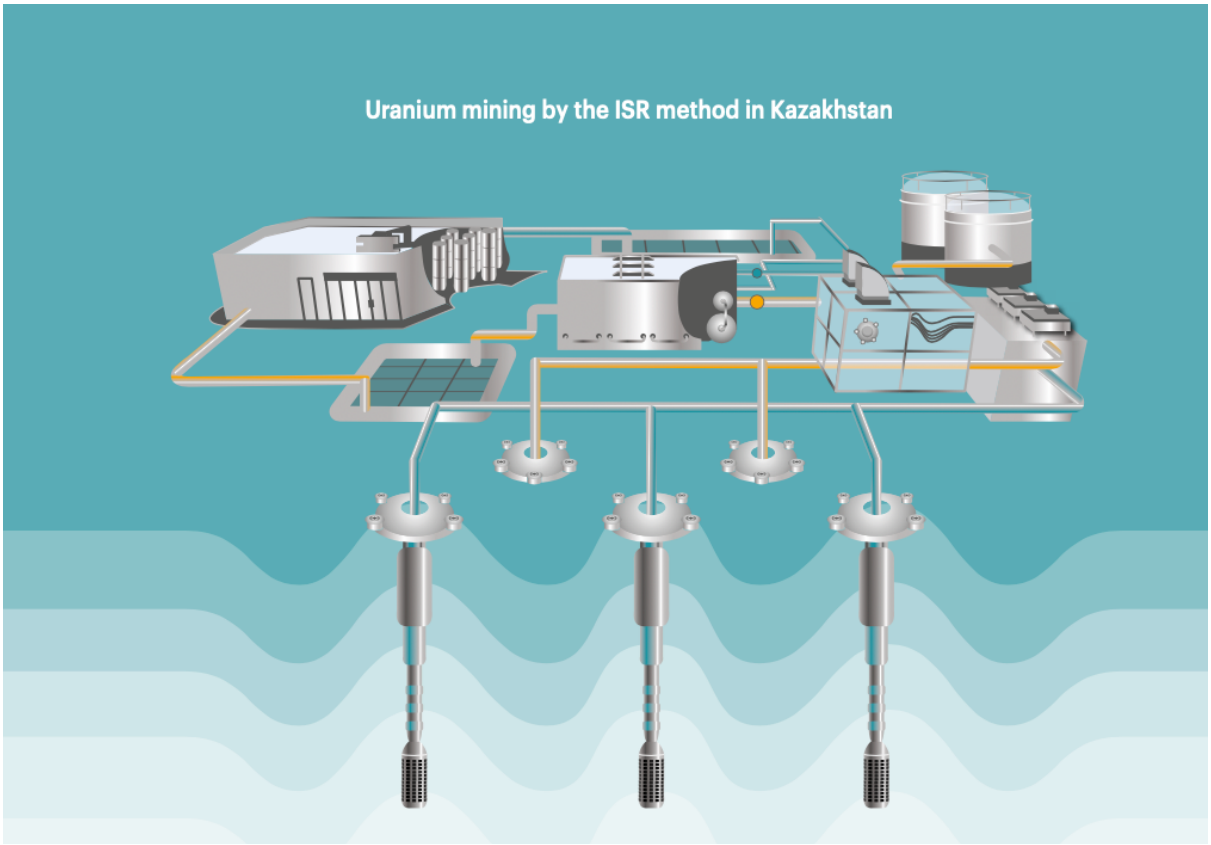
The Group operates 26 deposits (sites). The deposit is developed by the ISL method in succession by dividing it into technological blocks. It takes an average of three to four years to develop one technological block at the deposit.

Uranium mining by the ISL method involves a set of operations:

- mining preparation works (construction of technological holes, installation of trunk and intra-block piping, acidification of the mining mass)
- uranium leaching directly in the subsurface and production of productive solutions (active leaching, leaching and additional leaching)

Advantages of natural uranium mining by the ISL method compared to conventional uranium mining:

- lower cost of mine development shorter construction time
- lower cost of production reduced environmental impact reduced risk to health and safety



3.3. Taking Care of our Planet

Kazatomprom's key environmental objectives have always been the preservation of the natural environment in the areas where its subsidiaries and affiliates operate. We invest consistently significant resources into environmental initiatives. In particular, the Company's subsidiaries and affiliates spent more than KZT 1 billion on environmental measures, and the enterprises paid KZT 210 million in environmental taxes in 2022.

The Company's subsidiaries and affiliates have robust environmental and radiation safety monitoring systems in place at their uranium mines and production sites, striving to provide reliable information on our environmental impact and possible changes in adverse or hazardous conditions.

Considering current challenges and trends, the Company is implementing significant projects such as low-carbon development (decarbonisation), sustainable development (environmental responsibility, energy and resource efficiency, climate risks, etc.), water resource management and transition to the best available technologies (BAT), which ultimately seek to preserve and restore the natural environment, prevent environmental pollution and damage, minimise the negative human impact on the environment in the regions of presence.

In addition to mandatory industrial environmental control at production facilities, since 2019 the Company has been carrying out comprehensive environmental and social studies of the impact of production facilities on the environment and the health of the population living near uranium deposits. These studies inform the assessment of biodiversity at and around mine sites. We have engaged experts, biologists, botanists, zoologists, ichthyologists, ornithologists, and others, to identify the species in fauna and flora and develop measures for the biodiversity conservation in the areas of operations.

Kazatomprom regularly reaches out to residents in communities near uranium mines to explain operations of uranium mining companies. This helps build stakeholder trust.

Manas Iskakov
Managing Director for HSE

3.3.1. Our approach

Environmental protection is an integral part of Kazatomprom's activities and its approach to sustainable development management. We recognise our responsibility for the impact on the environment, health, safety, and life quality of people. By implementing targeted production plans, we not only provide people with clean energy, but also strive to preserve the planet for future generations. The Company takes all necessary measures to ensure environmental safety, preserve the natural environment in areas of production activities, and rational use of natural resources, setting the task to achieve zero impact on the environment.

As part of the global Agenda 2030, the Group has identified Goals 3, 7, 8, 9, 12, and 13 of the UN Sustainable Development Goals in the field of environmental protection as one of the top priorities along with ensuring radiation and nuclear safety.

The main principles and approaches of the Group to environmental protection management are set out in the Policy of NAC Kazatomprom JSC in the field of health and safety, environmental protection, and radiation and nuclear safety.

The Company's Production Safety (HSE) Committee operates under the Board of Directors. The Corporate HSE Department of the parent company provides overall guidance on environmental protection activities, analyses the effectiveness of this work, and prepares reports for the Company's management. The Group formed the units at the level of subsidiaries and affiliates to ensure the implementation of environmental protection policy, compliance with all law requirements in the field of environmental protection and internal corporate procedures.

GRI 2-23

We apply the precautionary principle, especially in the areas of health, safety and environmental impact. The implementation of this principle is carried out in the process of risk management within the framework of the Group's integrated HSE management system.

The Company’s environmental management system in place is in compliance with regulatory and legal documents in the area of environmental protection and coordinates efforts in HSE with the activities of the Group in ensuring industrial, nuclear and radiation safety as well as with other related areas (For more information, please see the Integrated Annual Report 2021, pp. 154-155 *https://www.kazatomprom.kz/storage/c5/kazatomprom_iar_2021_rus.pdf*).

By introducing new technologies and best global practices in the extraction of natural uranium, Kazatomprom improves processes related to environmental protection and rational use of natural resources. We mine natural uranium using the most environmentally friendly method of extracting the element from the earth's crust, the in-situ recovery (ISR), which minimises risks to human health and ensures self-restoration of underground water after completion of mining. This method is also characterised by the absence of large-scale radioactive contamination of territories.

Kazatomprom: 25 years of respect for nature

On 8 June 2022, Kazatomprom held an online event on the RHYTHM platform as part of the World Environment Day, *Kazatomprom: 25 years of Respect for Nature!* The Company presented its environmental protection and ecology projects, as well as the decarbonisation efforts implemented by the Group. All subsidiaries and affiliates of the Group carried out environmental campaigns. To improve the culture of environmental safety, we organised educational projects in schools in the format of open lessons on ecology. In particular, Semizbay-U LLP implemented an Environmental Safety training project in the regional specialised boarding school for gifted children No. 4 *Bolashak* in Stepnogorsk.

The Group works extensively to minimise the environmental footprint by taking comprehensive measures and implementing environmental initiatives to boost ecological safety and ensure the sustainable development of its enterprises.

3.3.1.1. Implementation of the ESAP Roadmap

In 2022, within the framework of the implementation of the ESAP Roadmap:

- we conducted studies of the environmental impact of production facilities on the environment and local communities;

- we worked on creating an industry system for environmental regulation and monitoring of the environment at uranium mining enterprises;
- we continued developing corporate standards for ensuring industrial safety at the company's facilities;
- we approved the Green Financing Policy of NAC Kazatomprom JSC.

3.3.1.2. Monitoring and control

SASB EM-MM-160a.1.

The Group seeks to minimise the negative impact of production on the environment and local communities, which is the primary objective of environmental monitoring and control. In accordance with the environmental laws of the Republic of Kazakhstan, the Group's subsidiaries and affiliates carried out industrial environmental control (IEC) on the quarterly basis in the reporting period, engaging accredited contracting organisations (laboratories).

In 2022, to implement the new norms of the Environmental Code of the Republic of Kazakhstan[62] and to establish uniform requirements for the IEC procedure at the enterprises of underground well leaching, the Company updated its corporate standard ST NAC 5.3.3-2022 *Occupational Safety Standards System. Environmental Protection. Typical Programme of Production Environmental Control of Underground Leaching*.[63] Based on the changes, the subsidiaries and affiliates were tasked with identifying categories of objects having a negative impact.

Kazatomprom implemented tasks aimed at improving environmental impact monitoring and forecasting, enhanced environmental expertise, completed research on the environmental and social impacts of underground leaching mine production facilities on the environment and local communities, and conducted a comprehensive technological audit of UMP JSC (For more information, please see Integrated Annual Report 2021, pp. 156-157 *https://www.kazatomprom.kz/storage/c5/kazatomprom_iar_2021_rus.pdf*).

As required by the environmental laws of the Republic of Kazakhstan, an Environmental Impact Assessment (EIA) and public hearings are to be held prior to the commencement of any planned activity. At the hearings, representatives of enterprises, acting as customers, present their projects and explain to stakeholders the environmental and social aspects of the planned project. Results of EIA are fully disclosed for review and comments to all stakeholders, and any resident of an area where the Company operates can share their opinion on the issues of interest, including the impact of the planned activity on the environment and health of the local population.

All projects for construction and reconstruction of production facilities implemented in the Company's subsidiaries and affiliates have passed public hearings and the EIA stage and received a positive state environmental expert opinion.

3.3.1.2. Certification

The environmental and energy management system implemented at all Group's production facilities complies with ISO 14001 and ISO 50001 standards.

In 2022, as part of the commitment to improve approaches to managing occupational safety issues, Kazatomprom successfully passed the second supervisory audit and confirmed its certificate from the TÜV International Certification. The independent audit certified that, when organising export deliveries of natural uranium compounds, the Company's integrated management system complies with the requirements of international standards ISO 14001:2015 and ISO 45001:2018 *Health and Occupational Safety Management System*.

3.3.1.3. Environmental protection training

To obtain the necessary competencies and knowledge in studying and applying the Good International Industry Practice (GIIP) and ensuring the effectiveness of environmental management, the Company organises regular training sessions for the heads of subsidiaries and affiliates and specialists responsible for subsoil protection, environmental and social issues. In accordance with the Action Plan

[62] Environmental Code of the Republic of Kazakhstan No. 400-VI ZRK of 02 January 2021
[63] Company's Administrative Order No.141 dd. 23 November 2022

of the ESAP Roadmap within the reporting period, Kazakhstan Nuclear University jointly with the IVT LLP branch held training seminars in the area of environmental safety and emergency response:

- Requirements of the Environmental and Social Research Programme (ESRP) for the comprehensive environmental and social impact assessment of the production activities of NAC Kazatomprom JSC on the environment and local population
- Implementation of the Kazatomprom Standard on *Methodological guidelines for organising monitoring of the impact of ISR on natural waters of uranium deposits* in the subsidiaries and affiliates of NAC Kazatomprom JSC
- *Zero Waste* Corporate Programme
- Activities for the elimination of historical contamination on the contract territory of the subsoil user
- Environmental performance rating of NAC Kazatomprom JSC taking into account industry specifics and design for placement on the Internet resource

Last year, 191 trainees from 19 subsidiaries and affiliates and the headquarters took part in the training.

As part of the decarbonisation project, we held in Astana a two-day seminar to discuss quantitative assessment of the carbon footprint of products (CFP) and the subsequent development of a Carbon Neutrality Programme (CNP) as part of the implementation of the low-carbon development (decarbonisation) of the Company. We laid emphasis on the disclosure of methods and approaches to calculating indicators of greenhouse gas emissions "Scope 1, 2, 3". The seminar was organised by the parent company in cooperation with Ernst and Young for employees of subsidiaries and affiliates.

The Company held 22 training seminars/webinars that brought together 811 trainees from the headquarters, subsidiaries, and affiliates of Kazatomprom over the entire period of implementation of the ESAP Plan.

3.3.1.4 Investment in environmental protection

In 2022, Kazatomprom's total cost of environmental protection measures amounted to KZT 1,074.8 million. In 2022, the Company paid KZT 210.0 million in emission taxes.

Investment in environmental measures, 2022, KZT million

Improvement of technological processes, including reduction of fugitive emissions into the environment	292.4
Improving the efficiency of existing dust and gas collection and water treatment plants	47.4
Carrying out R&D activities in the area of environmental protection	406.6

In the reporting period, a state environmental protection agency recorded violations of environmental legislation resulting in fines of KZT 21.3 million. Along with this, UMP JSC in the IV quarter paid a fine of KZT 1.84 million for providing false information about the type of activity of the Karadzhal mine. This resulted in incorrectly determining the category of the object (category II), which constituted a violation of paragraph 3 of Article 418 of the Environmental Code of the Republic of Kazakhstan. However, it should be noted that this violation is not the environmental pollution. In addition, JV Inkai LLP paid a fine of KZT 1.63 billion in 2022.

Administrative fines imposed on Kazatomprom by the authorised state body related to violations of environmental standards and requirements, namely, soil pollution due to the spillage of technological solutions and the excess of pollutants in wastewater (LLP Baiken-U, LLP Semizbay-U, Kyzylkum LLP, RU-6 LLP, JV Inkai LLP, JV Katko LLP, ORTALYK LLP, and SKZ-U LLP). However, the Company did not exceed the established total limits allowed by government agencies for waste generation, emissions, and discharges. For all violations, we identified and eliminated the root causes, and took measures to prevent similar situations in the future.

3.3.1.5. Environmental assessment of suppliers

The Company requires that its suppliers of goods, works and services, as well as contractors, comply with the corporate standard *The System of HSE Standards*. These requirements are mandatory for contractors, and are also advisory in nature for contractors.

(*For more information, please see Integrated Annual Report 2021, pp.158 https://www.kazatomprom.kz/storage/c5/kazatomprom_iar_2021_rus.pdf.*)

3.3.2. Emissions

GRI 3-3

The specifics of the Group's production activities result in emissions into the atmosphere, due to which minimisation of pollutant emissions is an important aspect of Kazatomprom's environmental activities. We seek to reduce the negative impact by introducing technological improvements in our own production facilities. At the same time, the Company sells its products to 8 countries that use nuclear energy. By doing this, the Company contributes to law carbon industry development in these countries and helps reduce emissions.

The Group implements a number of measures aimed at reducing air emissions and monitoring the air quality:

- air quality monitoring
- using modern gas treatment systems, energy-efficient technologies and photovoltaic stations, which reduce emissions
- using dust and gas catching collectors for dust cleaning and purification of process gases, coming from VGTP calcination furnaces. This facility with a pulsed ceramic filter (PCF-45) successfully operates in the refining shops of Kazatomprom-SaUran LLP, eliminating the emission of radiation dust and minimises emissions to the environment by 20%

The annual electricity output generated by the Group's solar photovoltaic plants is 3.01 MWh. The generated electricity is used for own needs, allowing annual savings of KZT 133 million. Excess electricity is supplied to local power grids for use by households and businesses in the regions where the Group operates.

3.3.3. Water resources

GRI 3-3

Water is an essential component of the technological process both at the main production facilities of Kazatomprom and in the operation of osmosis units (demineralised water is a raw material for generating electricity supplied to the external network for the needs of local communities). Besides, in some regions of operation, the Company provides water supply to the local population and industry.

We support the UN Agenda for Sustainable Development 2030, including SDG 6, *Ensure the availability and sustainable management of water and sanitation for all*, and also operate in accordance with the Water Code of the Republic Kazakhstan (Article 66) and water resources protection permit documents. The Company divides the water supply of enterprises into industrial, technical, and potable.

The Company's water intake does not have a significant impact on water sources. The Group does not withdraw water from sources that are recognised as vulnerable, protected by the state and of particular value to local communities or biodiversity.

In an effort to reduce water consumption, we are making maximum efforts to reduce water abstraction and increase recycling. We also regularly monitor and assesse the risks of water supply in all regions of our presence.

3.3.3.1. Water consumption and water withdrawal

GRI 303-1, SASB EM-MM-140a.1.

The Company carries out water intake, including for drinking water supply, in accordance with the requirements and norms of technological regulations for production sewage water. The withdrawal does not have a significant impact on water sources. Enterprises providing water supply (centralised and non-centralised) keep monitoring water withdrawal, conduct regular monitoring of the state of water withdrawal facilities, internal water supply systems, and water metering units. The Water Code of the Republic of Kazakhstan, technical regulations, and rules for the selection, installation and operation of water meters in water supply and sanitation systems establish the requirements for water meters.

Groundwater is taken from the water withdrawal sites against a permit for special use of water issued by the Basin Inspectorates for Regulation of the Use and Protection of Water Resources under the

Committee for Water Resources of the Ministry of Ecology, Geology and Natural Resources of the Republic of Kazakhstan.

In 2022, total water withdrawn dropped by 9% year on year, from 10,120,700 m^3 to 9,188,900 m^3.

Total water withdrawal, '000 m^3

GRI 303-3, SASB EM-MM-140a.1

Source	2022
Surface water	6.5
Fresh water	0.0
Other water	6.5
Ground water	8,573.5
Fresh water	3,455
Other water	5,188.5
Municipal and other water supply systems	608.9
Fresh water	608.9
Other water	0.0
Total	9,188.9

Groundwater accounts for 93% of the total amount of water withdrawn. 0.07% of water is withdrawn from surface sources. Water withdrawal from municipal and other water supply systems in the reporting period dropped by 62%, from 1,582,900 m3 to 608,900 m3 due to the sale of a stake in JSC Caustic and its exclusion from the coverage perimeter.

GRI 303-5

Total water consumption reached 5,773,300 m3.

3.3.3.2. Total wastewater discharges

The Group's entities produce industrial, storm and domestic wastewater as a result of water use. After treatment through storm sewer outlet, water is discharged to surface water bodies from storm waste water from the territory of industrial site and normatively clean water (not used in the technological process). Mine wastewater is discharged into a storage pond. The national laws prohibit the discharge of untreated wastewater into the terrain and water bodies. Since 2017, the General Requirements for Environmental Safety in Kazatomprom's Subsidiaries and Affiliates standard has been in force at Kazatomprom.

GRI 303-2, SASB EM-MM-140a.2

All discharges are treated and meet regulatory requirements of the quality of discharged water according to the Methodology for Emission Rates. Monitoring of the condition of water bodies, including the determination of the chemical composition of surface, underground and waste water, is carried out regularly by the Company's industrial and sanitary laboratories. The monitoring programme includes studies of wastewater quality at all industrial sites that are connected to centralised sewerage.

In 2022, subsidiaries and affiliates of the Group did not exceed the limits of contaminants in discharges as set for water bodies with fisheries.

GRI 303-4

Total wastewater discharge, '000 m^3 [64]

Indicator	2020	2021	2022
Total wastewater discharge	5,239.4	4,823.0	3,415.6

3.3.3.3. Ground water

Uranium mining based on the ISR method poses a risk of groundwater contamination. To ensure the safety of the population and minimise the environmental risk at all Kazatomprom mines in accordance with sanitary standards, the deposits are surrounded by a sanitary protection zone with a radius of 500 m from ore deposits. Moreover, the Group's enterprises constantly monitor the state of groundwater as part of the production environmental control in accordance with the established legal requirements and

[64] The company does not keep records of water discharges broken down by category.

the requirements of the corporate standard “Methodological Guidelines for the Monitoring of the Impact on Ground and Underground Water in ISR Mining of Uranium”.

3.3.4. Waste management

GRI 3-3, 306-1, 306-2, SASB EM-MM-150a.10

The Kazatomprom enterprises production operations generate industrial and municipal waste. Safe waste management, recycling and disposal is one of Kazatomprom's priorities. If it is impossible to process waste, we ensure detoxication and environmentally safe disposal of waste or transfer waste to specialised organisations.

Key waste generated by the Company:

- Solid and liquid radioactive waste
- Overburden rocks generated during the mining of fluorite copper-molybdenum ores
- Drilling mud from drilling at the ISR mining sites
- Fluoric gypsum from the production of hydrofluoric acid
- Ash and slag waste from the production of thermal energy
- Household waste
- Waste oil products
- Car tyres

When handling waste, the Group is guided by the national legislation, which obliges the enterprises to ensure separate collection of all generated waste, depending on their type and composition, for subsequent disposal, processing and disposal. Subsidiaries and affiliates have temporary sites equipped for containers and metal containers in place. They are marked with clearly visible identification marks indicating the type of waste, as well as the degree of hazard. The Company carries out mandatory control over the prevention of waste generation, and also performs a number of activities in accordance with approved waste management programmes and plans.

Waste reduction efforts:

- reuse of polyethylene pipes for piping
- recycling
- reuse of used car tyres and oils
- waste generation monitoring by sampling and analysis to identify the best measures to reduce and neutralise waste.
- separate collection of municipal solid waste: plastic, paper and glass in the offices and production site camps. The sorted waste is delivered to the nearest paper and plastic collection points (specialised organisations) at no charge for further recycling
- All wastes generated is temporarily stored only at designated and equipped sites: temporary production waste storage sites, temporary MSW storage sites, drill cuttings storage sites, and temporary solid LRW storage sites

To manage waste, we also work with organisations specialising in waste collection, recovery or disposal operations. In particular, Kazatomprom makes contracts for the following services:

- Acceptance and disposal of low-level radioactive waste
- Acceptance and disposal of MSW
- Industrial waste recycling
- Removal and disposal of radioactively contaminated metal and HDPE materials

We have developed passports with basic information for hazardous waste, indicating description, hazardous properties, composition, toxicity and precautions for waste handling. Hazardous waste is transported in line with the applicable laws only by licensed organisations. In 2022, the Company did not transport hazardous waste across borders.

For more information, please see Integrated Annual Report 2021, pp.162-163 https://www.kazatomprom.kz/storage/c5/kazatomprom_iar_2021_rus.pdf.

GRI 306-3, SASB EM-MM-150a.4.
In 2022, the total accumulated waste was 604,627 tonnes, down by 41% compared to 2021. Such a significant reduction is due to a decrease in stripping operations at the Karadzhal mine of Ulba Metallurgical Plant due to the stoppage of fluorite ore mining.

3.3.4.1. Solid low radioactive waste management

In their operations, uranium mining enterprises generate solid low-level radioactive waste (SLRW is the least hazardous solid radioactive waste in terms of radiation level). The Group's mining enterprises dispose of solid radioactive waste in specially designated areas for disposal.

Contribution of various types of SLRW to total radioactive waste (RW) at the Group's uranium mining entities, 2022, %

SLRW types	Contribution to total RW
Sand and sludge from the sand trap, contaminated soil	78.8
Ion-exchange resin	0.3
Metal waste	3.4
Overalls, PPE, rags, filters	1.6
Plastic waste (types, etc.)	1.0
Other radioactive waste	14.8

3.3.5. Biodiversity

GRI 3-3
Despite that Kazatomprom's operations do not have a direct material impact on biodiversity, we understand and accept the importance of preserving biological diversity in the region of our presence, making every effort to study the state of flora and fauna in the territory of uranium deposits.

We are always open to dialogue and cooperation on biodiversity conservation and protection. For example, Kazatomprom's subsidiary, IVT LLP, has a consortium agreement with the Institute of Zoology to conduct comprehensive research on the protection of birds from the dangers of power lines as part of Kazatomprom's programme.

We work to prevent threats to biodiversity by investing significant resources in risk analysis at all stages of our operations. Environmental risks arising from our operations primarily relate to the disturbance of soil and vegetation and displacement of animals outside their usual habitat. Striving to reduce environmental risks, the Company approved a standard for assessing and monitoring biodiversity during industrial mining of uranium deposits and during the post-reclamation period.

GRI 304-1, SASB EM-MM-160a.3.
The total area of land owned, leased and managed by the Group is 94,974.4 hectares. There are no nature reserves or other specially protected natural sites on the territory of Group's uranium deposits or near their borders.

GRI 304-2
Kazatomprom operates on the industrial land and in settlements in line with the applicable laws.
All subsidiaries and affiliates within the scope of the project for the implementation of the ESAP Plan were covered by biodiversity assessment studies carried out in the territories adjacent to the production sites.

As part of the implementation of the ESAP Roadmap, Kazatomprom continued the implementation of the Programme of Bird Protection from the impact of power lines in the reporting period. We also carried out comprehensive environmental studies, including biodiversity assessments in the territories adjacent to 16 uranium mines in Southern Kazakhstan: Zarechnoye, Kulandy, Karatau, Northern and Southern Karamurun, Khorasan-1, Kharasan-2, South Inkai, Akdala, Western Mynkuduk, Central Mynkuduk, Zhalpak, Eastern Mynkuduk, Uvanas, Kanzhugan, South Moyinkum, and Central Moinkum. Studies were carried out on the territory of mine land allotments and within 10 km to identify possible man-made and cumulative impacts on environmental objects and the local population.

Biodiversity assessment took place in accordance with ST NAC 17.6-2022. "Methodological Guidelines for Biodiversity Assessment at Uranium Fields, Production Facilities and Adjacent Territories" at South Inkai, East Mynkuduk, Uvanas, Kanzhugan, South Moyinkum, and Central Moyinkum mines.

In the studies, we analysed the production operations from the environmental perspective, the available background data on the condition of air, surface and groundwater. We also studied soil types, the structure of underground aquifers, and the species composition of flora and fauna. We collected new data on the ecological state of the soil cover, surface and underground waters, and atmospheric precipitation. For the first time, we carried out studies of microbiocenosis and phytotoxicity of soils at the GTP. We identified potential channels of impact on environmental objects and compiled a primary list of environmental risks.

The results of the study concluded that there were no impacts of the production activities of enterprises on the indicators of the state of the environment beyond the sanitary protection zone.

In 2023, the Company will continue the environmental condition assessment and biodiversity assessment of Kazatomprom's uranium deposits.

In 2022, we developed and cascaded down to the subsidiaries and affiliates the Methodological Guidelines for Biodiversity Assessment at Uranium Deposits, Production Facilities, and Adjacent Territories. As part of implementation of the standard, the subsidiaries and affiliates conducted training on Biodiversity Assessment at Uranium Deposits. We identified control points and background sites for the assessment of biodiversity and other environmental studies in areas adjacent to production sites. We created maps indicating habitats affected by mining activities. To determine the habitats more accurately and identify sensitive ecosystems, the Company conducted biodiversity studies with account the seasonal migration of birds and mammals.

GRI 304-3

Kazatomprom works on an ongoing basis to restore lands disturbed by mining operations. While developing the deposits, the Company carries out reclamation works to restore the landscape and vegetation and return the land into the economic use. (*For more information, please see Integrated Annual Report 2021, pp.165* *https://www.kazatomprom.kz/storage/c5/kazatomprom_iar_2021_rus.pdf*).

There are no protected or restored habitats within the above 16 mines of Kazatomprom. The Company has approved a roadmap for the liquidation of the Uvanas deposit. Implementation of this project is scheduled for the end of April 2023. Until then, enabling works are underway.

International standards, methodological guidelines and relevant qualifiers, as well as the Environmental Code of Kazakhstan and ST 17.6-2022 standard "Methodological Guidelines for Biodiversity Assessment at Uranium Deposits, Production Facilities and Adjacent Territories" guide the biodiversity assessment.

GRI 304-4

Our operations do not pose a threat to animals and plants listed in the Red List of the International Union for Conservation of Nature and Natural Resources (IUCN) and the Red List of the Republic of Kazakhstan and threatened with extinction.

The in-situ recovery does not change the landscape, which contributes to the conservation of endemic flora and fauna. The death of animals and desertification of territories are excluded. Once uranium mining is completed and the consequences of subsoil use are eliminated, the animals return to their previous habitat.

At present, the conservation status of animal and plant species included in the Red List is: 0 endangered, 3 extinct, 12 vulnerable (close to vulnerable), 1 near-threatened, and 11 least concern species.

Plans for 2023 and a medium term

In 2023, Kazatomprom plans to implement a number of HSE measures:

- Establish key performance indicators for the heads of subsidiaries and affiliates focused on the implementation of the ESAP Roadmap bullets
- Continue training employees of subsidiaries and affiliates responsible for environmental protection, in particular: production and consumption waste management, biodiversity assessment at uranium mining deposits, environmental monitoring at enterprises
- Conduct research to explore the impact of Kazatomprom's operations on the environment and the local population (Environmental and Social Research Programme, ESRP) and the Zero Waste Programme of Kazatomprom, seeking to develop measures to reduce and minimise production and consumption waste generated at the enterprises of the uranium mining industry
- Continue efforts to create a database of the environmental monitoring system and the environment of uranium mining enterprises of the Group
- Participate in the implementation of Kazatomprom's Carbon Neutrality Strategy 2060
- Analyse and prepare information for assessing the Company's climate responsibility in the international climate rating CDP (Carbon Disclosure Project)
- Develop a corporate standard and a Strategy/Programme for the water resources management at Kazatomprom
- Develop procedures to hold a competition for the biggest reduction in production and consumption wastes at Kazatomprom
- Organise and roll out the RHYTHM corporate programme at Kazatomprom to mark the World Environment Day
- Make an internal audit of ESAP Roadmap implementation results in subsidiaries and affiliates and begin preparing for an external audit
- Collect and analyse proposals on the amendments and supplements to the environmental laws in Kazakhstan that have an impact on the Company's operations
- Hold environmental campaigns, community work days, environmental events, open days, master classes and other environmental communications with stakeholders

3.4. Creating an attractive working environment

Focus on the well-being of our employees and the communities where we operate is among our priorities. We implement a set of measures as part of our corporate welfare programme to ensure social stability and create a favourable psychological climate in the work settings, improve social and working conditions and increase safety.

In 2022, we significantly improved monitoring of the working environment, which lies at the heart of the Occupational Relations concept aimed at improving social and working conditions. We provide the safest possible working conditions and comply with Kazakhstan's laws and internal regulations on occupational, radiation and nuclear safety, H&S, and environmental protection.

Kazatomprom has developed standards for meals, accommodation, and special clothing, and has unified the VHI package, giving all employees of its subsidiaries and affiliates equal opportunities regardless of their position.

To promote the healthy lifestyle of staff in the rotation camps, we have created all the conditions for sports activities, tournaments, annual athletic contests, and marathons. To support employees' mental health, the Company has a corporate psychologist, organises training sessions, group and individual consultations for employees of the parent company, subsidiaries, and affiliates.

The Company offers equal career opportunities, development and training programmes, and has the programmes in place to recognise the Best in Profession, the Best Employee of the Year, and Honoured Employee of the Nuclear Industry.

The average monthly salary of our employees in 2022 was KZT 510,154, up by 37% year on year. This has become possible through an increase in base salaries, Phase 2 of a pay streamlining project, and a new type of payment, indexed income.

In 2022, Kazatomprom initiated a number of socially significant projects, including the construction of children's playgrounds and sports grounds, the purchase of educational equipment, landscaping and amenities, financial assistance to vulnerable social groups (food packages, school supplies, and New Year gifts), and completed the construction of an ambulance station in Turkistan.

Working towards improving all aspects of employee welfare is always in our limelight. Kazatomprom will continue these efforts.

Alibek Aldongarov
Chief HR and Digitalisation Officer

3.4.1. Management approach

GRI 3-3

Kazatomprom employs more than 20,000 people. It is one of the largest and most socially responsible employers in the country. The achievement of production results as well as the Company's further growth depend on each employee's performance. We strive to provide our employees with equal and fair working conditions, broad opportunities for professional and personal growth, and social wellbeing.

NAC Kazatomprom JSC is responsible for ensuring decent working conditions by offering competitive salaries, fostering talent development and guaranteeing labour rights.

Our values rest on mutual trust, respect, openness and integrity, as well as continuous professional development. Our operations require a wide range of skills and qualifications. We provide training and professional development opportunities for all categories of personnel. We create individual development programs for our key employees that include regular professional skills and competencies appraisal.

Inclusion, equal rights and non-discrimination form an essential part of our corporate culture. The Company attracts and develops the most talented people regardless of gender, ethnicity, age, religion, social status, physical and mental ability, work experience or education. This approach is in line with the UN SDGs 3, 4, 8, 9, 10, and 11 aimed to improve the quality of life and welfare of people of all ages, to provide inclusive and equal quality education and lifelong learning opportunities, and to achieve gender equality and decent working conditions for everyone without exception.

The Company's HR management activities are regulated by Kazatomprom HR Policy 2018-2028. This document is one of the most important tools for achieving the strategic goals of the Company. It is designed to motivate employees, achieve high labour efficiency with due regard to their interests and capabilities, and stimulate the active engagement of personnel in the Company’s life. In 2022, the Company's Board of Directors approved an updated HR Policy 2023-2028. The document provides for the introduction of inclusion practices and diversity of special human needs and individual capabilities as well as the creation of a psychologically safe environment and sense of belonging for all employees.

We are also governed by the Labour Laws of Kazakhstan, international standards and a set of internal documents:

- the Remuneration Policy
- the Rules for the Selection and Recruitment of Personnel
- Collective Bargaining Agreement
- the Code of Ethics and Compliance
- the Principles of the Corporate Social Responsibility Policy

The Board of Directors approves and monitors the achievement of strategic HR goals. The Company's HR Department and other structural divisions in charge are responsible for the effectiveness of the HR policy, as well as for direct interaction with personnel. HR services at the enterprise level ensure direct on-site coordination and operational management.

Key objectives in HR management at Kazatomprom:

- Recruit staff on a competitive basis and reducing staff turnover
- Ensure equal working conditions and promoting the professional, career and personal growth of employees
- Provide training and professional development opportunities
- Accumulate and retain in-house knowledge
- Improve employees’ remuneration and motivation system
- Provide social support to employees, including measures to preserve their physical and mental health, as well as improve their quality of life
- Develop the corporate culture and enhance the employee engagement
- maintaining an effective dialogue with employees

3.4.2. Personnel structure

At the end of 2022, the total headcount of Kazatomprom personnel (including joint ventures and associates) amounted to 20,813 people. The total headcount of the Group's personnel increased by 0.8% year on year.

GRI 401-1, 2-7, SASB EM-MM-000.B

Kazatomprom's total headcount, 2020-2022, employees

Indicator	2020	2021	2022
Average staff number at the end of the reporting period	21,019	20,643	20,813
Total headcount (staff members, independent contractor agreements, outstaffing contracts)	21,788	21,031	21,682

We value long-term relationships with our employees. The majority are employed under long-term contracts (>91%), with around 9% of employees employed under fixed-term contracts.

GRI 2-7, 2-8, SASB EM-MM-000.B

Kazatomprom's average headcount by form of employment, 2020-2022, persons

Indicator	2020	2021	2022
Long-term contract	**19,821**	**19,122**	**18,350**
males	16,227	15,696	15,183
females	3,594	3,426	3,167
Fixed-term contract	**1,198**	**1,521**	2,463
males	1,001	1,246	2,011
females	197	275	452
Full-time employment	**21,011**	**20,627**	**20,799**
males	17,222	16,931	17,186
females	3,789	3,696	3,613
Part-time employment	**8**	**16**	**14**
males	6	11	8
females	2	5	6
Under independent contractor agreements	**769**	**388**	**744**
males	518	263	449
females	251	125	295
Outstaffing contract	0	0	125

Kazatomprom follows the non-discrimination principle. The Company employs people of different age groups, including people over 50 years old. In 2022, this age group accounted for 27.7%. The average age of employees was 40 years.

GRI 405-1

Kazatomprom's average headcount by age, 2020-2022

Indicator	2019	2020	2022
Under 30	3,201	2,799	2,830
From 30 to 50	12,260	12,034	12,219
Over 50	5,558	5,810	5,764
Average workforce age, years	**41**	**40**	**40**

Diversity and inclusion

GRI 405-2

Kazatomprom recognises and values the diversity of employees' views and cultural values. The Company does not tolerate any form of discrimination, including discrimination based on race, gender, religion, disability, or political beliefs. When making job announcements and selecting candidates, experience and qualification requirements are clearly defined to avoid any bias in the recruitment process. The remuneration depends only on candidate's skills and qualifications.

GRI 405-1

Kazatomprom provides jobs for people with disabilities. In 2022, the Group employed 183 persons with disabilities, an increase of 30 persons compared to 2021. The share of employees with disabilities in 2022 was 0.8% of the average employees.

Average number of employees with disabilities, 2020-2022

2020	2021	2022
151	153	183

Gender breakdown

Due to the nature of the Company's production operations, the share of males in the total headcount is larger. Kazatomprom follows the principle of gender equality and engages women in administrative and service positions. In 2022, the share of females was 17.4%.

Kazatomprom's average headcount by gender, 2020-2022

Indicator	2020	2021	2022
Males	17,228	16,942	17,194
Females	3,791	3,701	3,619

As part of promoting gender equality, developing leadership potential among females and training future female leaders, the Company plans to gradually increase the share of females in the management bodies of the Company and its affiliates and subsidiaries (boards of directors, supervisory boards and executive bodies) to at least 30% by 2030. It was 19% in late 2022.

3.4.3. Talent retention

3.4.3.1. Recruitment and staff turnover

GRI 401-1

In 2022, the Group employed 3,652 people, of which 73.9% work in South Kazakhstan (including Shymkent). Kazatomprom has no policy of preferential hiring of local employees. The candidates are selected on their merits: education, qualifications, and professional qualities of the applicants.

In 2022, the Group's staff turnover was 14.88%. Compared to 2021, this indicator slightly grew by 1.88%. In 2022, staff turnover was 9%, of which 13% for administrative staff (13% for managers), and 8% for production staff (7% for managers).

3.4.3.2. Motivation and remuneration

Kazatomprom seeks to ensure decent and timely pay for its employees and applies transparent approaches to material remuneration, striving to maintain wages at a high competitive level in the labour market and in the industry.

The Company has a remuneration system that complies with national legislation and defines minimum wages, working hours and overtime pay.

Streamlining staff remuneration in Kazatomprom companies

Effective 1 January 2022, Kazatomprom implemented a project to streamline staff remuneration in Kazatomprom's companies that was first launched in 2019. The project had two stages rolled out in 14 Company's subsidiaries and affiliates with about 6,000 employees. Starting from 1 January 2022, it was also implemented at seven production and auxiliary subsidiaries with about 12,000 employees. The project made the methodology of the reward system transparent, streamlined and understandable for every employee of NAC Kazatomprom JSC.

The systemisation of reward implies:

- taking a unified approach to the list and amount of payments and to the procedure for their calculation at enterprises, regardless of the nationality of the shareholders, working conditions, and the production technologies and capacities used
- grading 100% of positions in subsidiaries and affiliates
- keeping or increasing salaries and/or tariff rates

- comparing annual income of employees at Company's subsidiaries and affiliates with the average income of employees at the same level (grade) in Kazakhstan
- paying performance bonuses for individual and team performance
- taking a unified approach to payment for harmful/hazardous and extremely hazardous/significantly hazardous working conditions and to determining the duration of additional leave
- taking a unified approach to the amount and procedure for payment of leave bonuses by the employer
- reviewing and eliminating additional payments (personal allowances, workmanship, foreman's allowance, non-transparent bonuses) so that the annual payroll of each employee remains unchanged.

In accordance with the HR Management Corporate Standard of Samruk-Kazyna JSC, the reference wage market for employees of Company's subsidiaries and affiliates is the general industrial market of the Republic of Kazakhstan, and the level of wages tends to its median.

The average monthly salary of Kazatomprom's production personnel rose by 44% to KZT 454,648.

Kazatomprom pays particular attention to analysing the remuneration ratio for females and males. Due to industry specifics requiring physical labour, most employees are male. Nevertheless, we do not tolerate any form of discrimination with regard to recruitment, remuneration, performance appraisal and career development for females.

Kazatomprom's payroll fund, KZT

Indicator	2020	2021	2022
Average monthly wage of production personnel	279,202	314,653	454,648
Payroll fund, KZT million	65,707	71,484	99,395

We have analysed among the Group's personnel. The analysis showed that in 2022, the average income of female production personnel was 12% lower than that of males, while the pay gap for administrative and management personnel was 26% in favour of males.

Long-term and short-term staff motivation

The rewards paid to employees for meeting planned targets, strategic and operational goals of the Group's companies, as well as for generating innovative ideas, high professionalism, and a responsible attitude to work are the key components of the financial remuneration system, which fuels the long-term motivation of personnel.

Additional incentives include:

- financial assistance for annual leave to support the health of employees
- additional payments for concurrent employment and mentoring allowances established by the Group's management
- additional payments to employees living in an environmental disaster zone, depending on the region of residence, in accordance with Kazakh law
- additional payments to production staff if they work in harmful or dangerous working conditions as prescribed by the laws of the Republic of Kazakhstan

3.4.3.3. Young professionals

In 2022, within the framework of replicating the Zhas Orken programme, the Company successfully continued to implement the local Izbasar programme aimed at developing young specialists. The purpose of the programme is to nurture talented leaders with the prospect of gradual career development at Kazatomprom enterprises.

The Izbasar programme provides a unique experience of internships and special training at several Company's enterprises. In 2022, the programme also included a 15-month paid internship at the Company and its enterprises to select young professionals. Thus, in 2022, eight young specialists were selected on a competitive basis from among the production staff and four external candidates.

3.4.3.4. Feedback

GRI 2-26

The Company has an effective system of internal communications, which ensures several feedback channels.

The main channel of communication is the Company's Internet resource, kazatomprom.kz. The website provides external stakeholders with the opportunity to leave a written inquiry or complaint and, if necessary, to contact the hotline by phone.

The Company supports the development of a feedback culture by:

- conducting feedback surveys
- conducting exit interviews
- developing a corporate portal

The Group's enterprises monitor and analyse inquiries, providing quarterly reports to Kazatomprom's headquarters. Based on the analysis results for each inquiry, we follow up on the elimination of violations and make appropriate recommendations.

3.4.4. Staff development and training

GRI 3-3

Staff training and development is one of the Company's priorities under the Corporate Culture Transformation and Development Programme. Kazatomprom implements the best and most effective educational practices in the areas of operational efficiency, occupational safety, human rights, labour protection and career guidance. The Company implements programmes to develop leadership competencies and trains mentors and internal coaches. Annually, employees of the Company's enterprises undergo compulsory and professional training.

Education level of Kazatomprom's staff, 2020-2022, %

Indicator	2020	2021	2022
Higher	42.93	43.81	44.69
Secondary vocational	32.66	33.49	34.32
Basic vocational	3.19	3.26	3.33
Secondary	21.17	19.42	17.67
Basic	0.06	0.02	0.02

The Company has a Comprehensive Training Programme 2019-2023, which is aimed at systematising the processes of training, retraining and advanced training of employees and includes such elements as

- training at universities and colleges
- advanced training
- retention and transfer of knowledge

The training is conducted on the site of Kazakhstan Nuclear University with the involvement of internal experts and external providers.

Kazatomprom invests a significant number of resources in the training and development of its employees. In 2022, Kazatomprom invested KZT 2 million in employee training and development.

In 2022, the total annual number of training hours reached 57,044 man-hours.

Training is based on the principle of self-learning, according to which 70% of training takes place at work, 20% of skills are acquired by employees through mentoring and coaching programmes, and 10% through training courses and other training programmes.

The HR Department is responsible for supporting managers in training employees, organizing the training process and choosing educational programmes, as well as educational service providers.

Talimger Project: searching and selecting mentors for employees

In 2022, the Company launched the Talimger Project, which aims to develop a mentoring culture. The idea of the Talimger Project is to search and select mentors for employees wishing to implement a project, reach a goal or acquire a new skill. The aim of the Project is to promote new ideas put forward by employees of the Company and its subsidiaries and affiliates. It operates across all Kazatomprom production areas with the support of mentors. The Company selected three employees. They selected three mentors from the general pool. The interaction between employees and mentors has identified goals and sub-projects for joint activities to achieve the set objectives and common results.

Kazatomprom also develops mentoring through various programmes and areas. The Izbasar programme has a standing group of engaged mentors. As part of a subsequent rotation, new mentors are also welcome. The Company and its subsidiaries and affiliates have an established system of assigning mentors to young professionals/trainees/interns.

3.4.4.1. Training effectiveness evaluation

Kazatomprom has introduced a procedure for evaluating the professional, personal, and business as well as managerial qualities by analysing the common and individual performance of each employee. The evaluation and analysis procedure determines the training needs of employees and their future career opportunities. Based on the analysis, we draw up a development plan or corrective plan for the employee, change the remuneration, and promote/demote the employee.

Upon completion of a training, an assessment of the completed training is carried out by filling out questionnaires by the trainees, and then after 3 months, the assessment of the completed training by the head of the trained employee.

3.4.4.2. Training programmes

GRI 404-2

Company pays close attention to improving the practical skills and abilities of employees due to the constantly tightening requirements for their qualifications. Kazatomprom develops and implements advanced training programmes in professional areas, including mandatory training in accordance with the legislation of the Republic of Kazakhstan.

All training programmes of the Company are aimed at improving managerial and personal and business competencies of managers, talents (successors), forming effective and management teams, unlocking internal potential, improving cross-functional interaction, as well as applying the acquired skills in the working environment and achieving better results.

In 2022, the Company continued its Leadership Development Programme.

Kazakh and international service providers with experience in leadership development, management competencies, coaching tools, and team management were engaged.

The training programmes were aimed at improving managerial and personal and business competencies of managers, successors, forming effective and management teams, unlocking internal potential, improving cross-functional interaction, as well as applying the acquired skills in the working environment and achieving better results.

In 2022, managers at all levels attended a number of training events based on their development areas. Each training sought to develop Kazatomprom's corporate competencies and values.

In 2022, the Company held about 15 workshops, training and strategy sessions, covering 100% of managers at CEO-1 and CEO-2 levels. 251 man-hours of training were conducted. The total number of academic hours was 200 hours.

Kazatomprom’s School of Internal Trainers

In 2022, as part of professional training, in-house trainers conducted 13 workshops. The topics were: Microsoft Excel. Advanced. Working with data in Power BI; Personal Finance Management;
Requirements of Kazatomprom's Comprehensive Environmental and Social Impact Assessment Programme on the Environment and Local Communities; Kazatomprom's Zero Waste corporate programme.

Kazatomprom experts, including industry veterans in specific areas, are involved in professional training. They demonstrate their efficiency through sharing unique knowledge accumulated over the years of experience and practice in the nuclear industry. The dedicated programme is developed by in-house trainers.

In 2022, Company's employees traditionally held 22 master classes. This training programme was recorded, posted on the Group's corporate portal, and currently available to all employees. Such a format provides for the use of videos as additional training materials featuring unique knowledge and best practices.

3.4.4.3. Talent pool

In 2012, the Company introduced a management succession programme for Kazatomprom, aimed at identifying candidates from among the Group's employees with high potential and a desire to improve their professional qualities and career growth to organize succession in the talent pool, as well as continuity in the Company's management system.

During the programme, a mentor is assigned to every successor, who is responsible for employee development, progress monitoring and support in the course of the implementation of their ideas. The pool of successors is defined based on the results of employee performance appraisal. Pool owners – the Chairman of the Management Board and functional area managers – are the main contributors to the development of the succession programme.

In 2022, three successors were appointed from the pool, representing 33% of all appointments to key positions.

In 2022, as part of the programme, the Company:

- updated the composition of management and functional pools
- prepared their development plans
- implemented the mentorship program

Under the mentoring programme, 9 mentors were trained in effective interaction with successors and learnt feedback skills. Over the entire period of the mentoring programme, 67 mentoring sessions were held with the participation of successors from the headquarters, subsidiaries and affiliates as well as CEO-1 level mentors. Several mentoring sessions were held with the Chairman of the Board of Directors.

On an annual basis, the headquarters review the number of appointments to positions from the successor pool.

3.4.4.4. Cooperation with educational institutions

Kazatomprom cooperates with Kazakh universities and colleges, as well as foreign educational institutions. The Group's employees are trained at the expense of the Company. Individuals who are not employed with Kazatomprom and its subsidiaries and affiliates are trained at the expense of subsoil users.

As of the end of 2022, 269 people were trained in industry-specific specialties, of which 112 were employees of Kazatomprom, its subsidiaries and affiliates and 157 individuals were not employed by Kazatomprom.

In 2022, the Company spent KZT 271 million on training of specialists in universities and colleges.

Kazatomprom continues cooperation with Satbayev University, which hosted the country's first and only International Scientific and Educational Center of the Nuclear Industry (IS&ECNI), where employees of the Company, its subsidiaries and affiliates, as well as individuals are trained at the expense of subsoil users in priority specialties for the nuclear industry.

In 2022, 15 persons got their master's degrees in Chemical Technology of Inorganic Substances and Materials. During the programme implementation, extensive training was organised. It involved not only the faculty from Satbayev University, but also from the Institute of Metallurgy and Enrichment, Institute

of Nuclear Physics, Institute of High Technologies, National Research Nuclear University MEPhI, MIREA - Russian Technological University and the "Aksakaldar kanesi" Honorary Professors Association of Kazatomprom. In 2022, a number of students got their bachelor's degrees in subject-oriented programme "Geotechnology of Uranium Fields Development" at IS&ECNI. In 2019, as 1st-year students, some students were selected by order of Kazatomprom as part of the targeted training of highly qualified geologists. Out of 50 applicants, 6 students passed the selection round. All six graduates were employed by JSC Volkovgeologia after graduation.

3.4.5. Staff welfare

GRI 401-2

Kazatomprom fosters social support measures aimed at continuously improving working conditions and the quality of life for its personnel regardless of the form of employment. Social policy is one of the key pillars of Kazatomprom's stable operation and sustainable development. The Company ensures a comfortable working environment and provides additional guarantees and benefits that provide high social protection for employees. These initiatives are aimed at improving the quality of life of employees. The Company implements a set of measures as part of its corporate well-being programme, aimed at ensuring social stability, creating a favourable moral and psychological environment within teams, improving social and labour conditions, and enhancing safety.

The core principles of Company's social policy comprise:

- taking care of employees – physical, financial, mental and social welfare
- improving working conditions – improving the working environment and the production process
- improving social and living conditions of employees of the Group's entities – ensuring comfortable working and recreational conditions aimed at health care and safety of workers
- enhancing staff motivation and creating a favourable psychological climate in the team: recognition programmes (corporate awards, professional skills competitions, "Best Employee of the Year" for employees of the headquarters, and "Zhyly Kyzmetkeri" aimed at raising the prestige of blue-collar jobs and engineers), remote work introduction, financial support for employees with many children, development programmes, workshops in financial literacy and much more

The country's leading industrial company continuously improves its approaches to social security and HR management policies.

Kazatomprom's social support costs by area, 2022, KZT bn

Area	Level of investment
Health care	1.44
Food	3.7

In 2022, the Company organised a number of events aimed at self-fulfilment in social functions and supporting the social welfare of employees: Kazatomprom Marathon, Spartakiada, In the Rhythm of a Healthy Heart, Donor Day, eco projects, social volunteering projects, and corporate events and contests.

Social programmes were launched aiming at ensuring financial welfare, particularly, improving employees' financial literacy and knowledge leading to smart financial decisions. The Company carries out a number of activities aimed at increasing employees' knowledge of personal finance management and financial instruments. One of the subsidiaries has introduced a concessional lending programme as part of a pilot project.

3.4.5.1. Employee support

Company's current social policy focuses on support to certain categories of employees: single parents, families with many children, parents of children with disabilities, and non-working pensioners upon termination of the employment contract. The Group companies have a unified approach to full-time and part-time employees.

As part of social security, single parents and mothers of three or more children under 12 are granted additional leave. Families with many children and families with disabled children under 18 receive financial assistance.

In 2022, maternity/paternity leave was granted to 380 employees, where 67 were men and 313 were women.

The Company provides medical care and additional financial assistance on special occasions and holidays for non-working pensioners, upon termination of employment due to retirement or disability.

3.4.5.2. Health care and welfare of employees

GRI 403-6

One of the key Kazatomprom priorities is the health and welfare of its employees. Company has elaborated and implemented various programmes aimed at supporting physical and mental health, as well as increasing financial, social and professional welfare of the employees.

Kazatomprom strives to help each employee develop his or her own conscious attitude to the topic of welfare and the skills necessary to lead a healthy and happy life both at and out of work.

The Company worked consistently to improve physical welfare and form healthy habits to enhance the quality of life, improve health and increase productivity.

Effective programmes were rolled out in 2022:

- voluntary health insurance for employees and family members
- sociological surveys of satisfaction with health services quality
- mandatory annual preventive medical examination with an extended screening programme
- pre-shift medical check-ups, including in the electronic format
- meetings with experts dedicated to health care and healthy lifestyle, particularly in the field of post-COVID rehabilitation and recovery
- specific prevention of acute respiratory viral infections during the season epidemic
- COVID-19 vaccination and revaccination
- a series of posts on healthy lifestyles on the Telegram channel under "Healthy Days" unified concept

3.4.6. Trade unions and human rights

Kazatomprom does not restrict the employees' rights to establish or join public organisations that represent their interests. The Group's staff can engage in any political, educational, charitable or social activity, as long as this engagement does not affect the performance of official duties and does not harm society.

Nuclear Industry Workers Trade Union ensures Kazatomprom's reliable partnership in complying with labour legislation and actively participates in protecting the interests of employees. As of the end of 2022, 13,500 employees of the Group's enterprises are members of the Trade Union, a 31% increase compared to 2021.

Collective bargaining agreements are concluded to regulate labour relations and create conditions for social protection of employees. As part of collective bargaining agreements and fulfilment of commitments, the Trade Union is allocated funds on an annual basis for events among the Company's employees, medical care, social assistance, cultural, sports and recreational activities and the purchase of vouchers for sanatoriums and children's camps.

Trade union support costs, KZT million

2020	2021	2022
575.5	684.9	843.8

3.4.6.1. Collective Bargaining Agreement

GRI 2-30, SASB EM-MM-310a.1.

The Collective Bargaining Agreement is key to protecting labour rights, economic and social guarantees of employees, as well as regulating labour relations and effective dialogue between the Company and employees. The Collective Bargaining Agreement is developed for a three-year period and is subject to regular updates.

The share of employees covered by the collective bargaining agreements is 99%.

GRI 402-1

An integral condition of the Collective Bargaining Agreement of Kazatomprom is the obligation to notify employees in advance about significant changes in working conditions no later than one month prior to the proposed changes and in some cases fifteen calendar days.

The provisions of the Collective Bargaining Agreement also regulate recruitment, maintenance of corporate culture and relations with employees. In accordance with the Collective Bargaining Agreements, Kazatomprom provides social support for personnel aimed at continuous improvement of working conditions and the quality of life of employees.

3.4.6.2. Approach to human rights observance

GRI 2-23

Human rights protection, social partnership, mutual respect, mutual trust, prevention of any discrimination are the main principles in relations between the Company and its employees.

Responsibility for managing issues relating to the Company's Human Rights Policy rests with

Kazatomprom's corporate practices are based on recognised international human rights standards and initiatives:

- the Universal Declaration of Human Rights
- the International Covenant on Civil and Political Rights
- the International Covenant on Economic, Social and Cultural Rights
- the UN Guiding Principles on Business and Human Rights
- the ILO Declaration on Fundamental Principles and Rights at Work
- the UN Declaration on the Rights of Indigenous Peoples
- the UN Voluntary Principles on Security and Human Rights
- the UN Global Compact

To consolidate and enforce our commitment, Kazatomprom developed and approved the Human Rights Policy in 2022[65]. The Policy applies to all divisions of the Company and is binding on all employees of the Company. Based on this Policy, the Company's subsidiaries, affiliates and jointly controlled entities are recommended to develop and approve a similar internal document in accordance with the established procedure. The document was developed based on international human rights standards (the Universal Declaration of Human Rights, the UN Global Compact Principles, etc.) and includes the most material human rights issues, as well as issues on diagnosing the moral and ethical environment in the team.

GRI 408-1

Relying on the principles of respect for human rights, Kazatomprom engages those partners and counterparties that comply with the law and the Group's standards of corporate and business ethics. The Company maintains long-term partnerships only with suppliers who share and comply with the Group's ethical principles, who do not tolerate corruption, who respect human rights, and who care about occupational health and safety. Kazatomprom does not use child labour.

GRI 409-1, 411-1

In 2022, no cases of discrimination or other human rights violations were recorded in the Company. There are also no cases of forced or compulsory labour or violations of the rights of indigenous and minority peoples.

Kazatomprom requires compliance with the law and its own corporate standards on occupational safety from suppliers and contractors operating at the Group's facilities. All agreements and contracts of NAC Kazatomprom JSC include provisions on the observance of human rights in accordance with the Code of Suppliers and Contractors of NAC Kazatomprom JSC.

Kazatomprom has an Ombudsman Service ensuring:

[65] Approved by the Board of Directors of NAC Kazatomprom JSC on 16 June 2022

- human rights compliance within the Company
- employees awareness and comprehension of the Code of Ethics and Compliance
- individual meetings with employees at the enterprises regarding personal matters

Compliance with human rights and international human rights standards is monitored by the Company's compliance officers and trade union organisation. In the event of a rights violation, employees may contact the Company through all its feedback channels.

3.4.7. Corporate culture and internal communications

Production efficiency and achievement of the Company's strategic development goals are the Company's specific area of focus, which determines the formation of a strong corporate culture. Core values such as safety, responsibility, professionalism, development and teamwork are actively promoted within the team.

All Company employees understand and share the corporate values, define themselves as part of the team and contribute personally to the common cause.

In 2022, through its Corporate Culture Diagnostic, the Company diagnosed its further development vector, created a roadmap of corporate culture development for 2022 – 2025.

To increase employee engagement and attract the best candidates in the labour market, the Company is actively working to build its Employer Brand. The Company developed an EVP promotion communication strategy.

Another key element of the corporate culture, aimed at maintaining the Company's corporate values, is social volunteering, which brings employees together and promotes staff involvement in the formation of a positive internal atmosphere and the image of Kazatomprom as a socially responsible Company.

In 2022, employees of the Company and subsidiaries and affiliates continued implementing large-scale volunteering projects. They are aimed at support for vulnerable groups and veterans, education of high school students located in the regions where the Company operates, and environmental campaigns.

Internal communication plays an important role in the development of corporate culture, aimed at organising effective interaction between employees, resolving crises, building employee commitment and high loyalty. Corporate internal portal and corporate media such as the daily digest, the company newsletter, and the *QazAtomNews* corporate magazine are used as information channels.

To develop effective communications, in 2022, the Company launched a Telegram channel with more than 4,000 subscribers from among the Company's employees. The Telegram channel serves as a first-hand information source for employees.

3.4.7.1. Events for employees

Kazatomprom is interested not only in the professional development of employees, but also in the realisation of their personal potential. Corporate sports and cultural events help to increase the activity, motivation and involvement of employees in the Company's life.

In 2022, Kazatomprom celebrated its 25th anniversary. Under the aegis of 25 years of development and success, large-scale corporate events were held throughout the year to showcase the Company's achievements and strengthen corporate spirit:

- Women's Leadership Week
- Eco challenge "Together we can do more"
- Nauryz – Nomad time teambuilding
- Children's Art Competition
- Young Professionals Forum and Hackathon
- Kazatomprom 25-year anniversary celebrations in the regions where the Company operates
- Extended Town Hall "25 Years of Development and Success"

- "Do Good" Art Fair charity project
- XXI Spartakiada Sports Games among enterprises in the industry
- Kazatomprom Marathon
- Best Social Video contest
- Live the Values contest
- Kazatomprom's wits and humour competition
- Campaign "Let's say thank you to each other"

"Do Good" Art Fair charity project

Goal: to draw the attention of employees to the importance of charity projects as a socially important activity that allows solving specific acute social problems and showing the best qualities of a person – willingness to help colleagues in need, support and development of the creative potential of nuclear company employees

Coverage: 300 employees of the headquarters as well as subsidiaries and affiliates, more than 500 participants in the Art Fair

Programme description: creative works of employees were presented at the art fair in the Kazatomprom's headquarters building. The money raised was to be used for helping colleagues in need of urgent help.

Results: as a result of the art fair, KZT 2,607,000 were transferred to the family of a Company's employee who had died the day before in an accident. He had been raising three children alone.

Art fair participant: "I decided to participate in the Art Fair because I wanted to contribute and help those in need", said Asel Abenova, an employee of Semizbay-U, who provided several artworks — from oil paintings to knitted handbags. "I have been painting since I was a child, and I love painting in oils. I started knitting professionally when I was on maternity leave because my son inspired me. It didn't take me long to create my works for the Art Fair."

3.4.7.2. Interaction with management

Kazatomprom's internal communications system is the main tool to ensure that employees are timely informed about current events in the Group and helps maintain a positive atmosphere in the team.

The Company uses an online and offline format to hold major organisational events for employees (meetings, management meetings with the team, teambuilding events).

The Chairman of the Management Board held a live broadcast with hundreds of employees of the Company in honour of the Nuclear Industry Workers' Day. The topics included personnel development and remuneration, social issues, and the Company's achievements in 2022. Top managers of subsidiaries and affiliates hold annual meetings with their teams. Kazatomprom's top managers visited subsidiaries and affiliates.

There is a functioning Kazatomprom RHYTHM programme, which informs employees about the Company's projects.

Employee awareness of the current situation and important events for the industry is maintained via e-mail – regular newsletters and addresses on behalf of management, as well as the *QazAtomNews* corporate e-magazine.

3.4.7.3. Employee satisfaction and engagement

Kazatomprom's programmes and initiatives dedicated to corporate culture development, improvement of social and labour conditions, safety improvement, material remuneration, motivation and engagement of employees are implemented in accordance with the developed plans and supported by all employees of the Company.

The annual positive performance appraisals are confirmed by regular surveys on the level of social stability. In 2021, the Centre for Social Interaction and Communications (PE) conducted research to determine the level of social stability “Samruk Research Service” (SRS) at 19 enterprises of Kazatomprom Group.

According to survey results, the Group's social stability level was 76% (favourable level). Compared to the 2021 results, the level of social stability has improved by 3%. As part of this research, the engagement rate is also determined, which amounted to 79% (favourable level). Compared to 2021, this result remained at the same level.

To take a systematic approach to development issues and improve the level of social stability, Kazatomprom implements a set of measures that contribute to improving the level of social stability, prevention of labour conflicts and protest sentiments. Based on the effectively implemented measures, confirmed by Samruk Research Service survey results, during 2023 the Company will continue to implement systematic measures to develop corporate culture, improve social and labour conditions, safety, material remuneration, motivation and personnel engagement. Kazatomprom aims to ensure a favourable level of social stability and employee engagement, but not below 70%.

3.4.8. Plans for 2023 and a short term

In 2023, we will continue employee support programmes, maintain and develop HR potential and maintain the level of employee engagement, including through measures to develop the employer brand.

The Company plans to continue efforts to improve the efficiency of the remuneration and financial incentives system, automate HR management processes, implement management succession and leadership development programmes, streamline remuneration, and take measures seeking to improve working conditions.

In accordance with the Company's priorities, we are set to deepen cooperation with trade unions representing the social partnership, amend collective bargaining agreements, maintain social stability, develop a culture of negotiation, and improve the internal communications.

To enhance employee satisfaction with working conditions, we are set to develop and introduce standards for living conditions for shift workers in 2023, in particular standards for catering, provision of protective clothing, and medical care.

With the ESG principles hardwired into our operations, we have embraced diversity and inclusion in our HR policy, including promotion of women's leadership and projects to support local communities in the regions of operations.

3.5. Health and Safety

3.5.1. Approach to H&S management

Kazatomprom pays special attention to compliance with industrial safety standards and regulations, in particular occupational health and safety, industrial safety, nuclear and radiological safety, environmental protection, fire safety, civil protection, and emergency response. The Company is committed to ensuring the highest level of health, safety, and security for its employees. Kazatomprom is constantly improving its occupational health and safety management system in accordance with national and international standards and requirements.

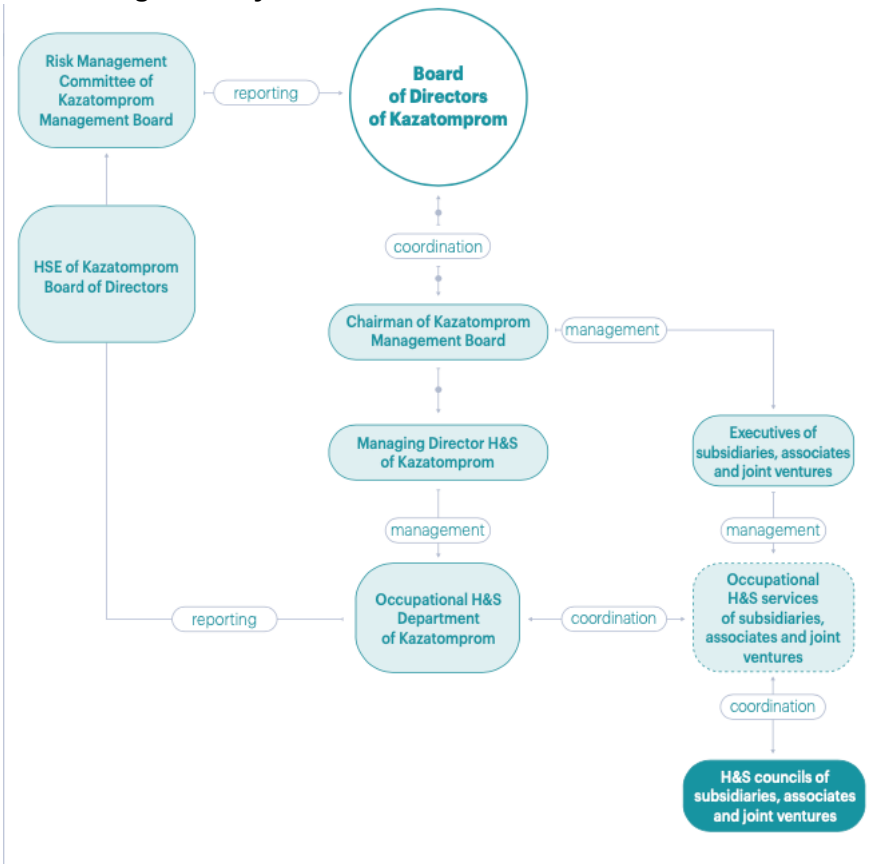
GRI 3-3, 403-1

The main regulatory documents that define the principles and rules in the field of labor protection and industrial safety of the Company:

· Occupational Safety and Health Convention (C 155) (International Labor Organization, 1981), Occupational Safety and Health Recommendation (R164) (International Labor Organization, 1981), ISO 45001 Occupational Safety and Health Management System;
· Labor Code of the Republic of Kazakhstan;
· Law of the Republic of Kazakhstan "On civil protection";
· Law of the Republic of Kazakhstan "On the use of atomic energy";
· "Rules for Ensuring Industrial Safety in Geological Exploration, Mining and Processing of Uranium";
· Policy of NAC Kazatomprom JSC in the field of labor protection, environmental protection, radiation and nuclear safety;
· Occupational Health and Safety Code;
· Standard "Unified industrial safety management system";
· Standard “General requirements for the occupational health and safety management system. Guidelines”;
· Standard "Requirements for contractors in the field of industrial safety".

The Company's H&S principles and rules are binding on all employees and contractors of the Group.

HSE Management System



H&S is Kazatomprom's priority area. It is one of the focus areas for the Management Board. The Management Board Chairman conducts regular meetings of the CEOs and executives of subsidiaries and affiliates to discuss the health and safety culture in the Company.

GRI 3-3, 2-13

The Company's enterprises implement regular H&S measures. The Board of Directors and the Risk Management Committee of Kazatomprom Management Board regularly review the results of all H&S measures.

The H&S report is submitted to the Chairman and the Board of Directors for consideration based on data analysis.

The H&S function accountable to the Chairman of the Management Board coordinates efforts to improve the H&S system in the Company, its subsidiaries and affiliates. The H&S Department supervised by the HSE Managing Director is responsible for prevention of violations of H&S standards and rules, prompt response to incidents, as well as the monitoring, analysis, and control of the H&S risks.

In accordance with Kazatomprom's policy, all occupational H&S departments at subsidiaries and affiliates are subordinate to their CEOs. In 2022, the Company continued approving and expanding the functions and powers of the structural units responsible for H&S.

Kazatomprom regularly analyses the structure of qualifications and competences of the H&S units at the Group's subsidiaries and affiliates to improve the H&S efficiency and remain in line with the requirements of national laws and the best world's practices.

3.5.1.1. Compliance of the management system with international standards

In 2022, TÜV International Certification re-audited the Company's integrated H&S management system for compliance with ISO 45001 and ISO 14001. The audit results confirmed the Company's compliance with the requirements of international standards ISO 45001 and ISO 14001.

3.5.1.2. H&S Risk Assessment

GRI 403-2

Kazatomprom views risk management as an important principle and component of its corporate governance system, including H&S. The Company's uses a systematic approach to prevent industrial injuries and occupational diseases, as well as to identify, assess, and minimize industrial risks.

All Kazatomprom's activities are conducted in accordance with the fundamental regulatory and legal H&S documents. The main ones are the Labour Code and the Law of the Republic of Kazakhstan *On Civil Protection*. The Company also complies with a few by-laws, in particular, the Rules for Ensuring H&S for Various Types of Activities – Mining and Processing of Uranium, Operation of Hazardous Equipment, e.g. Lifting Mechanisms and Pressure Vessels.

The above documents guide the procedures for investigating accidents and incidents at Kazatomprom's facilities. The Company timely provides information regarding each lost time accidents in the workplace to the authorised government agency. In the case of group accidents or accidents with a severe injury (fatality), the Company is obliged to conduct a special investigation with the involvement of a governmental H&S inspector as required by the laws of the Republic of Kazakhstan. The Company also conducts internal investigations of all accidents to reveal the root causes using the "Why Five" and "Why Tree" methods. The Chairman of the Board and executives quarterly review the results of internal investigations. Moreover, an information bulletin is issued and disseminated to all subsidiaries and affiliates specifying circumstances and causes of all incidents, traffic accidents, and fires in newsletters, enabling workers to avoid such situations in the future.

Kazatomprom provides quarterly information reports on injuries to all subsidiaries and affiliates, including a detailed description of accidents, their causes and measures taken by the Company. In

addition, the Company immediately prepares an information bulletin and promptly communicates it to all subsidiaries and affiliates when accidents, road traffic accidents, fires and ignitions or any other incidents occur. This information is communicated to employees via e-mail, unscheduled briefings and by posting information on information boards and in conspicuous places.

The Company also keeps a register of risks, with occupational injury risk included. To reduce occupational injuries, Kazatomprom develops and implements comprehensive measures to improve the level of H&S, prevent occupational injuries, and achieve the established safety standards.

These actions include:

- Develop measures to prevent the recurrence of accidents
- Conducting regular inspections of the Group's assets for compliance with H&S regulatory acts
- Regular informing of subsidiaries and affiliates about the results of industrial injuries analysis and providing proposals for their prevention
- Holding valid and up-to-date workplace certification, which means audits of working conditions and provision of suitable work-ware and protective equipment to employees of subsidiaries and affiliates
- Implementing a corporate plan for the development of the H&S culture
- Keeping records of potentially unsafe conditions, acts, and near-miss incidents at Kazatomprom companies (Near Miss reporting)
- Introducing the process of terminating unsafe works by employees with STOP Cards
- Using the tool "Behavioural H&S audit"

Health and safety risks are identified at each production site. A register of these risks is communicated to employees in that area and is posted in conspicuous places. The registers are regularly reviewed and updated. Identified risks from all production areas are put into an overall register of occupational health and safety risks.

The Company has implemented a system to identify and record Hazardous Conditions (HC), Hazardous Activities (HA) and Near Miss (NM). All OA, ML and NM are registered in the eCAP information system accessible to all employees. The registration of OA, ML, NM does not entail any negative consequences for the employee, on the contrary, it is taken into account in motivational incentives.

The Company also identifies and records hazards that have caused or may cause the risk of severe incidents. The Company identifies the risks of severe incidents resulting from accidents, tripping and falls, and chemical exposure as the most significant.

Since 2018, the Group has been conducting behavioural H&S audits for all its companies. The main goal is to analyse the behaviour of employees at work (when they are performing production tasks) and thus to prevent the behaviour-related risks.

In 2022, the Company conducted 15,316 behavioural audits with engagement of the Company’s managers and executives of subsidiaries and affiliates to minimise the risk of the human factor.

Constant analysis and monitoring of data show that safety violations, which are often linked to a human factor, is the most frequent source of risk at any Group company. In addition, Kazatomprom provides strict control over compliance of the working conditions at workplaces and production sites with H&S requirements, as well as controls the technical condition of equipment, the availability of all necessary internal documents, including instructions, procedures and standards.

Kazatomprom applies a risk-based approach to improve the H&S system. As part of this initiative, the H&S Department has developed a register of functional risks, which includes the major occupational H&S hazards and risks associated with the Department's activities. The register of functional risks is reviewed and updated annually. The Company also applies a risk-based approach to planning and conducting inspections/audits. This helps to identify the most dangerous production areas and focus on the major risks, improve quality, and reduce the waste of time resources.

In 2022, Kazatomprom adopted a standard defining the procedure for issuing and using work permits for hazardous operations, as well as a form of a Safe Work Analysis. The latter helps assess existing and potential risks and take measures to mitigate them before work commences.

3.5.1.3. HSE performance

The safety and well-being of employees are top priorities for Kazatomprom. The Company regularly implements comprehensive measures and world's best practices to prevent accidents and incidents. Kazatomprom conducts regular campaigns to raise the health and safety awareness of its personnel. All these actions are aimed at improving the safety culture throughout the Group and at preventing possible negative consequences.

GRI 403-8

In 2022, the H&S management system covered 100% of the Company's employees, as well as subcontractors' employees.

Kazatomprom is a member of the Vision Zero international programme

In 2018, Kazatomprom joined the Vision Zero international programme initiated by the International Social Security Association (ISSA) to improve the health and safety of its personnel. The Company decided to participate in the initiative to improve the culture of disease prevention and reduce accidents and occupational diseases among employees.

As part of the Vision Zero concept implementation, the Company adopted the Golden Rules to protect the health and safety of its employees. The Rules are binding on all employees and contractors of the Group.

H&S Golden Rules

- Take leadership – demonstrate commitment
- Identify hazards – control risks
- Define targets – develop programmes
- Keep improving the safe and healthy system – be extremely well-organised
- Ensure safety and health at workplaces, in operation of machines and equipment and handling hazardous substances
- Improve qualifications – develop competence
- Invest in people – motivate by participation

In 2022, the Company cascaded Vision Zero's personal commitment to the executives of subsidiaries and affiliates. The Company established special safety information boards to explain personal responsibility and leadership to raise the H&S awareness of the Group's employees in the rotation camps of subsidiaries and affiliates.

The health and safety awareness activities require both a consistent approach and investment.

In 2022, the Company invested KZT 8.08 billion in health and safety.

The Company takes a responsible approach to the health and safety matters, investing heavily in health and safety measures.

The Company has a system for the employee performance evaluation in place. The performance appraisal is based on a list of key performance indicators (KPIs). The health and safety of the Group's employees is one of the key performance indicators in this list. "Improving safety culture" indicator is one of the major H&S KPIs, which includes such mandatory elements as "Lost Time Injury Frequency Rate (LTIFR)," "Average radiation exposure dose for Group A employees," "Number of safety behavioural H&S audits conducted," and "Greenhouse gas emissions volume". This high-level KPI is cascaded to performance indicators for management, employees of the Company and subsidiaries and

affiliates. The KPI assessment system covers all employees of the Company from Kazatomprom Board Chairman to an ordinary employee.

To ensure effective identification and implementation of measures aimed at improving the H&S management system in the Company, Kazatomprom holds an annual corporate meeting on the H&S performance and plans for the next year. The results of the meeting are documented in minutes along with specific instructions aimed at H&S improvement.

In line with the Unified Occupational Safety Management System, each subsidiary/affiliate has an production control system that helps prevent and eliminate deviations from projects, process regulations, standards, rules and instructions, established work procedures, as well as to prevent emergencies and injuries. The first level of control is the responsibility of the immediate supervisor of works (foreman, shift supervisor, mechanic, etc.) and should be carried out at least once per shift. The second level of production control is carried out by the head of the subdivision. The third level of in-process control is carried out by the Production Safety Department of the subsidiary/affiliate with the participation of the head of the structural subdivision and specialists in their respective areas. The fourth level of production control is carried out by a commission chaired by the CEO of the subsidiary/affiliate. The commission includes managers, line specialists and specialists from the occupational safety service/unit. The fifth level of industrial control is carried out by a commission of Kazatomprom's parent company. The Commission is composed of the Company's top managers, specialists of the Company's areas of expertise and the head or specialists of the occupational safety service.

In 2022, subsidiaries and affiliates carried out scheduled and targeted inspections as part of production control for compliance with the internal H&S requirements. In addition, the Company has a practice of peer checks where the subsidiaries and affiliates inspect each other in accordance with an approved schedule of peer checks. This practice improves communication and allows experience sharing between subsidiaries and affiliates.

In addition, competent H&S authorities carry out inspections of the Company's subsidiaries and affiliates in line with the Labour Code and the Entrepreneurial Code of the Republic of Kazakhstan.

In 2022, all production sites and employees of the Company were covered by internal and external audits.

In addition, the H&S Management System Corporate Standard will be revisited at all mining subsidiaries and affiliates in 2023. H&S Management System Corporate Standard is designed to harmonise the H&S management processes. The H&S Management department continuously monitors the effectiveness of the implemented processes and takes adjustment and improvement measures.

The H&S Management System Corporate Standard is based on the laws of the Republic of Kazakhstan, the Reference Model for H&S Management of Samruk-Kazyna Portfolio Companies, as well as advanced international standards and practices. It allows a systematisation of the applicable requirements for the H&S management system structure and content in the Company and its subsidiaries and affiliates.

3.5.2. Performance results

Kazatomprom keeps a register of risks, with occupational injuries indicated as one of the major risks in the Company. The Group has developed and implemented a list of comprehensive measures to prevent the risk of occupational injury and minimise the consequences in case any risk materialises.

The analysis of the H&S situation shows that major causes of personal injuries at Kazatomprom's subsidiaries and affiliates, as well as at their contractors, include traffic accidents, handling sulphuric acid, falling from height and falling on slippery surfaces.

3.5.3. Occupational injuries and accidents

GRI 3-3, SASB EM-MM-320a.1.

Despite a consistent decrease in the number of occupational accidents and one of the lowest LTIFR in the industry in 2022, Kazatomprom continues to make every effort to reduce the number of accidents to "zero" and ensure accident-free production activities and safe working conditions for employees.

In 2022, three accidents happened at Group companies, resulting in two injuries, one of which was severe and one of which was non-serious. Unfortunately, the third accident was fatal, ending in the death of an employee. The fatality was a result of a traffic accident caused by violations by the deceased employee of traffic rules while performing a manoeuvre.

LTIFR made 0.11 in 2022.

Accidents in 2022

Description	Number of accidents
Traffic accidents	1
Moving objects	1
Cuts	1

GRI 403-9

The Company investigated all accidents in accordance with the established procedures to determine their root causes and develop prevention measures. The investigation process suggested the assessment of all factors, from technical malfunctions of equipment to the fatigue and emotional state of employees.

We used the investigation findings to develop a set of measures that were communicated to all companies of the Group and implemented in a timely manner.

3.5.4. Preventing occupational injuries

GRI 403-9

The Group constantly implements measures aimed at preventing occupational injuries, preventing and minimising risks and hazards. These include:

- Conducting scheduled and unscheduled safety briefings
- Organizing meetings of occupational H&S services to analyse the root causes of accidents and develop prevention measures
- Raising employees' awareness about hazards and risks in the workplace, materialised risks and hazardous conditions, and accident prevention and avoidance measures
- Employee training and upskilling
- Identifying near misses and taking corrective measures
- Conducting behavioural H&S audits
- Using STOP Cards by employees to stop unsafe work, or refusal by employees to do work if they believe the work cannot be done safely
- Developing and updating internal regulations (standards and instructions) on occupational safety
- Carrying out checks at five levels of production control
- Using Lockout/Tagout
- Training top management at a bespoke course, Leadership in Occupational Safety
- Conducting regular employee surveys to assess satisfaction with the HSE system
- Enhancing the motivation by holding an annual Chairman of the Board Award among employees of subsidiaries, affiliates, and jointly controlled organisations of NAC Kazatomprom JSC in the areas of occupational safety, environmental protection, industrial and radiation safety. The number of identified near-misses is among the criteria to select the best employees.

In 2020, the Company introduced a stop card tool across all subsidiaries and affiliates to prevent employees from doing unsafe works. When introducing the stop card procedures, CEOs of the subsidiaries and affiliates addressed all employees to confirm that actions to stop unsafe work would not entail any negative consequences for employees, including no disciplinary sanctions. In 2022, employees registered 462 stop cards.

Video conference meetings are held monthly with the heads of H&S services of subsidiaries and affiliates to discuss H&S issues, including root causes of accidents and serious incidents. The Company

develops the appropriate measures to prevent their recurrence, and, if necessary, updates risk registers. All recommendations and instructions for measures implementation are then recorded in protocols. Subsidiaries and affiliated companies provide information to the CC on the execution of protocols within the framework of approved reporting.

As required by the Labour Code of the Republic of Kazakhstan, the Company regularly conducts H&S briefings with employees, regardless of their education, work experience in this profession or position.

The H&S briefing is carried out by the H&S service or by the person authorised by order of the organization, according to the programme developed by the H&S service. The program was approved subject to the requirements of H&S norms, standards, rules and instructions, as well as the requirements for the safe conduct of production works. In addition, videos with H&S briefings are available to the Group's employees.

GRI 403-2

Measures taken by the Company's subsidiaries and affiliates to improve occupational H&S have prevented industrial accidents (uncontrolled explosions, release of hazardous substances or destruction of buildings).

3.5.5. Occupational disease prevention and health protection

In its operations, the Group follows the priority principle, which is to protect employee's life and health. The Company's employees have access to health improvement and spa treatment programmes. These benefits are included in the social benefit package. In addition, as part of a collective bargaining agreement between the Group and the trade union, the employees can enjoy additional programmes for health rehabilitation and treatment. In addition, Kazatomprom has a medical insurance system in place for its employees.

Employees of subsidiaries and affiliates are provided with three meals a day as established by the laws of the Republic of Kazakhstan.

GRI 403-3

The H&S service covers and controls all the Group's production facilities and processes. All subsidiaries and affiliates have medical posts in place to administer urgent medical aid to employees. All Group's medical facilities are equipped with the necessary equipment, ambulances, and medical care supplies: defibrillators, ECG, oxygen cylinders, humidifiers (oxygen concentrator), pulse oximeters, etc.

Kazatomprom's H&S system has proved to be effective for identifying and eliminating hazards, as well as for risk minimization control. In addition, the H&S service performs one more function, which is awareness-raising among personnel to explain the possibilities of a social package and available additional support.

The total number of medical staff at subsidiaries and affiliates is 160, including 27 doctors, 90 paramedics, and 43 nurses.

All subsidiaries and affiliates have insured their employees against work-related accidents. In addition, voluntary medical insurance contracts are concluded.

In 2022, the Company invested KZT 965 million in occupational medicine initiatives.

In accordance with the Labour Code of the Republic of Kazakhstan, all Group enterprises have mandatory pre- and post-shift health checks for all employees, as well as mandatory annual/regular medical examinations of all Company employees.

Employees of the Group's subsidiaries and affiliates are not allowed to work without passing a pre-shift medical check. The Company continues to introduce an electronic health monitoring system for employees. Some enterprises have introduced e-medical examination systems that include modules for automatic measurement of blood pressure and detection of alcohol or other drug intoxication, etc.

In a short-term perspective, all subsidiaries and affiliates of the Group plan to install similar digital systems for pre-shift checks.

In addition, employees of the Group's contractors who are engaged in hazardous work or who work with machines and mechanisms are also obliged to have pre-shift and post-shift medical check-ups as required by the laws of the Labour Code of the Republic of Kazakhstan.

Following the results of medical examinations, employees can go through an in-depth medical examination if necessary.

3.5.6. Promoting the H&S culture

GRI 403-1, 403-4

All staff of the Group's enterprises are actively engaged in the H&S management, which allows the Company to achieve an important level of health and safety. To communicate effectively with employees on health and safety management, special operational safety boards have been established at the Group's operations, as required by the Labour Code of the Republic of Kazakhstan. The boards comprise representatives of the employer, employees, and technical inspectors. The boards ensure continuous monitoring of compliance with H&S regulations at workplaces, with control (inspections) is carried out by technical H&S inspectors. The findings of inspections and follow-up decisions made are binding on both the employer and employees of the Group's companies.

As part of the implementation of Kazatomprom's Development Strategy 2018-2028, the Company conducted works aimed at improving the H&S system. In particular, the Company took the following actions in 2022:

- The Company got TÜV International Certification (Germany) for compliance with ISO 45001 and ISO 14001
- Works were carried out to improve environmental and social stability in the regions of Kazatomprom operations within the framework of the ESAP Roadmap
- 2022 action plan was implemented to reduce the level of injuries at subsidiaries and affiliates
- Kazatomprom's Policy for HSE, Radiological and Nuclear Safety was updated
- The HSE Club is a forum to share information and knowledge and develop measures to improve the H&S management system at the Group companies
- Kazatomprom approved its Standard ST NAK 12.8-2022 "Occupational Safety Standards System. Procedures for Giving and Using Hazardous Work Permits".

All these measures in 2022 helped improve health and safety culture of the Group's employees, and will help avoid incidents in the future.

To promote the safety culture and leadership among managers at all levels in the Company, Kazatomprom developed and implemented the Leadership in the H&S Culture e-course. As part of the H&S system improvement, the Company organises special trainings for managers and employees of subsidiaries and affiliates to help promote a positive health and safety culture, identify potentially dangerous situations (near-misses), unsafe acts and conditions, as well as conduct behavioural safety audits. Also, the Company organises special mandatory H&S courses.

In 2022, 11,876 employees have passed the safety culture training.

GRI 403-5, SASB EM-MM-320a.1.

Kazatomprom conducts HSE training sessions on a regular basis. The courses can be divided into mandatory and optional. Training courses on compliance with the requirements of the laws of the Republic of Kazakhstan regulating H&S, radiation, nuclear safety, etc. are mandatory, while training courses on safety culture, leadership, and responsibility in HSE matters are optional. These courses are based on a review of the Company's occupational safety performance and contribute to improving safety culture and introducing best global practices.

The Group engages experts and organisations for the training process. The experts hold all necessary licenses, attestations, certificates and other permits required by the Law of the Republic of Kazakhstan *On Permits and Notifications*.

The Company has the HSE Club as a forum to share information and knowledge and develop measures to improve the H&S management system at the group companies.

Knowledge tests are used to control the effectiveness of the training.

3.5.7 Managing the health and safety of contractors

GRI 403-7

Kazatomprom ensures compliance with industrial safety standards by monitoring its employees and contractors. Contractors' occupational safety activities are regulated by the Standard "Unified Occupational Safety Management System" in Section 10.3 "Contractor Management".

The Company's occupational safety management system covers 100% of Kazatomprom's employees, as well as non-employees whose work and/or workplace is controlled by the Company.

In 2022, we revised the information coverage and methodology for calculation of accident rates for employees who are not full-time employees but whose work and/or workplace is controlled by the Company, and started recording accidents among employees of the Company's contractors. Thus, in 2022, our contractors has two accidents, with 2 injured people suffering severe injuries. No fatal accidents were registered. We investigated all accidents, identified causes, and developed measures to prevent similar accidents.

All contractors and suppliers of goods and services have to comply with Kazatomprom's safety standards. The Company assesses contractors for their compliance with H&S requirements before signing contracts, and considers incidents relating to the work of contractors in risk analysis and H&S training planning. The results are then to be approved by the H&S Department. The H&S Department and services conduct safety audits on a regular basis. The H&S services keep records and investigate all accidents that have occurred at contracting organizations. On a quarterly basis, the H&S services provide reports on contractors' activities to assess the current situation with occupational safety in contracting companies. Contractors that have long-term contracts have to register incidents and Near Misses. The Company organises H&S training courses for employees of contractors as well as invites authorised representatives of contractors to participate in the H&S meetings.

The Company's subsidiaries and affiliates carry out audits and inspections of their contractors to ensure compliance with the requirements of the Company's occupational H&S management system. The Company's contractor management system is also audited as part of a certification audit for compliance with the requirements of ISO 14001.

3.5.8. Nuclear safety

EM-MM-150a.10

To ensure nuclear safety, the Group's enterprises handling nuclear materials monitor the compliance with the respective technical regulations, instructions, rules, and nuclear safety requirements for handling nuclear materials.

At present, the Group's enterprises that have nuclear units include Ulba Metallurgical Plant JSC and Ulba FA LLP.

Kazatomprom monitors the nuclear safety performance at nuclear-hazardous sites and conducts an inventory of nuclear materials in a timely manner to ensure the nuclear safety and security of the Group's companies.

In 2022, the Chief Physicist's Services (CFS) of Ulba Metallurgical Plant JSC and Ulba FA LLP implemented the following actions:

- nuclear safety knowledge testing for specialists of the finished product warehouse, uranium production (UP), the IAEA LEU warehouse, and auxiliary units of Ulba Metallurgical Plant, as well as the area relating to the fuel pellets and the fuel assemblies shop at Ulba FA LLP;
- inspections of nuclear safety at Ulba Metallurgical Plant JSC and Ulba FA LLP;
- emergency response training of staff and services in case of an alarm signalling about a self-sustained nuclear chain reaction in all nuclear hazardous areas of Ulba Metallurgical Plant JSC and Ulba FA LLP.

The absence of accidents and incidents throughout the reporting year is a proof of the effectiveness of these measures.

3.5.9. Radiation safety

KAP 3

In 2022, Kazatomprom provided regular monitoring of the radiation situation at workplaces, in premises, production sites, and the supervised areas. All radiation indicators are within standard limits and have not changed since 2021.

In 2021, the Company did not register any radiation accidents or incidents at its enterprises. The annual dose of ionising radiation exposure did not exceed reference.

The average radiation exposure for staff was 1.36 mSv/year in 2022, including natural radiation sources. The radiation from the natural background sources ranged from 0.20 to 1.19 mSv/year.

The maximum annual effective dose for personnel at the Group's enterprises was 5.2 mSv/year, which is 26% of the permitted dose limit, which is 20 mSv/year.

The average radiation exposure for staff of contracting organizations employed at the Group's enterprises and engaged in decontamination of overalls, cleaning of production facilities and preparation of shipping packaging kits with finished products was 0.61 mSv/year.

To improve radiation safety and protect personnel, Kazatomprom takes the following radiation safety improvement measures:

- conducting repair work on the premises and modernising equipment;
- repairing and upgrading technological equipment;
- removing low-level radioactive waste to disposal sites;
- repairing and purchasing radiation control equipment;
- providing radiation safety training for employees;
- conducting the certification of people by the authorized state agency responsible for the use of atomic energy.

Interaction with the IAEA

In September 2022, the H&S area staff participated in the IAEA international conference on Occupational Radiation Protection: Strengthening Radiation Protection of Workers – Twenty Years of Progress and the Way Forward. Kazatomprom presented its reports on Occupational Radiation Protection as Part of the Occupational Safety Management System and Radiation Monitoring System at In-Situ Recovery (ISR) Mining Facilities. The focus of the conference was to share the personnel radiation protection practices among the world's leading experts.

In 2022, the HSE Managing Director took part online in the IAEA's International Conference on Applications of Radiation Science and Technology (ICARST-2022). He presented research conducted by Kazatomprom on the implementation and development of an automated radiation-hazard monitoring system based on innovative dosimeters.

The Committee of atomic and energy supervision and control of the Ministry of Energy of the Republic of Kazakhstan monitors the Company's compliance with its international non-proliferation obligations. No violations were detected in 2022.

Under the IAEA Safeguards Agreement between the Republic of Kazakhstan and the IAEA, additional IAEA accesses and inspections were carried out at the mines of two uranium production subsidiaries (Ulba Metallurgical Plant and Ulba FA LLP). The results revealed no undeclared activities and nuclear materials.

In November 2022, representatives of Nuclear Material Accounting and Control unit took part in the IAEA International Symposium on International Safeguards: Reflecting on the Past and Anticipating the Future at the headquarters of International Atomic Energy Agency (IAEA) in Vienna, Austria.

3.5.10. Emergency preparedness and response

KAP 2, SASB EM-MM-320a.1.

Measures for civil protection, emergencies and fire safety in 2022

The Company takes ongoing measures to maintain a high level of emergency preparedness. The Company checks its fire safety systems on a regular basis: firewater supply system (pumping operation, fire hose check), fire sprinkler system, fire alarm system, and primary fire extinguishing equipment.

Every year, fire-fighting training courses and drills take place as scheduled, with safe evacuation of staff from the Company's buildings to the specially designated assembly points.

In November 2022, competent government authorities conducted planned inspections and evaluation of the individual fire risk of the Company's Head Office for compliance with the requirements of the Fire Safety Regulations of the Republic of Kazakhstan. The results of the inspections showed that the fire hazards did not threaten people's lives.

Based on the results of the international certification audit, the building of the Company was in compliance with ISO 14001:2015 and ISO 45001:2018 standards in the field of fire safety.

To promote the health and safety, the Company developed and approved a Plan of Civil Protection and a Plan of Action on the Elimination of Facility-based Emergencies in Kazatomprom’s office building.

According to the H1 2022 Plan for conducting civil protection training courses and drills in Nur-Sultan, training was held with the simulated evacuation of personnel from the building to assembly points.

3.6. Creating shared values

3.6.1 Management approach

GRI 3-3

As a big company, Kazatomprom has a significant impact on the environment and local communities. Kazatomprom's mining and production facilities operate in five regions of Kazakhstan: Turkistan, Kyzylorda, East Kazakhstan, Akmola, and Northern Kazakhstan regions. Kazatomprom recognises that the long-term success of its business depends on social and economic stability maintained in the regions of operations and in the country as a whole, on mutually beneficial relations with representatives of the central and local authorities, as well as on the quality of working and living conditions for its employees.

Chief HR and Transformation Officer is responsible for the external social policy and interaction with local communities.

In 2022, the Company consistently implemented measures aimed at ensuring long-term productive relations with the regions where it operates and strengthening its image as a socially responsible business.

Kazatomprom transferred KZT 2.625 billion in 2022 as part of its commitments under subsoil use contracts for socio-economic and infrastructure development to the budgets of the regions where it operates.

Kazatomprom makes a significant contribution to the well-being and socio-economic development of the regions of operations by:

- Generating significant tax revenues for regional budgets
- Making payments to regional budgets under subsoil use contracts
- Providing jobs to the local population

Key indicators of Kazatomprom's economic contribution to the development of regions of operations

Indicator	2020	2021	2022
Taxes and duties paid, KZT billion	116.5	153.0	221.4
Dividends paid, KZT billion	99.0	150.1	227.4
Average monthly salary of Kazatomprom employees, KZT/month	331,380	370,894	510,154
Ratio of average monthly salary of Kazatomprom employees to average salary in the Republic of Kazakhstan	1.6	1.5	1.5
Kazatomprom’s social expenses, KZT million	3,494	3,451	3,285
Share of social expenses in revenue, %	0.6	0.5	0.5

3.6.1.1. Sponsorship and philanthropy

GRI 413-1

To support local communities, subsidiaries and affiliates can implement philanthropic initiatives independently. Subsidiaries and affiliates participate in annual charity events and cultural activities in the regions where they operate. In particular, they help children from orphanages and large families and provide social support and sponsor communities, thus, helping improve local public services and public amenities. They also participate widely in environmental campaigns, clean-ups, public events, and festivities.

In addition, subsidiaries and affiliates implement the community development programmes as part of the Company's philanthropic and sponsorship activities. These programmes are based on the requests of the local communities and vulnerable groups, through the engagement of the Akimats, the Council of Elders, if any, and volunteers. The Company operates a hotline that receives queries, including requests from external stakeholders.

3.6.2 Key achievements in 2022

The Company's enterprises annually implement socially significant projects aimed at the socio-economic and infrastructural development of the regions where the Company operates, including

improving the quality of life of employees of the Company and its subsidiaries and affiliates, as well as their family members in the regions where they live.

As of the end of 2022, we allocated KZT 928.8 million for the implementation of socially significant projects.

GRI 413-1, 203-1, SASB EM-MM-210b.1

Investments in external social programmes, 2022, KZT million

Area	Investment
Regional social infrastructure development	242.3
Education support	28.8
Sports support	1.3
Culture support	11.3
Health care support	530.9
Philanthropy	114.2

Health care support

Projects in this area seek to support the development of healthcare institutions, as well as medical examinations of children suffering from nervous disorders.

The Company invested KZT 530.9 million to finance health programmes in 2022.

JV Katko LLP signed a contract with the Turkistan Oblast Akimat to finance the construction of a 25-brigade regional ambulance station. In addition, it sponsored a project to renovate a rehabilitation centre for people with disabilities, veterans and pensioners in the Sozak District.

Education support

The main areas of science and education development included in Kazatomprom's social policy are comprehensive support and assistance to educational institutions in the regions where it operates.

Every year, Kazatomprom enterprises participate in the national Road to School campaign to help prepare children from disadvantaged families for school, providing backpacks and stationery.

JV KATKO continues its partnership with the National Geographic Qazaqstan magazine, providing subscriptions to the magazine for schools in Turkistan and the Sozak District. In the framework of cooperation, the editors of the magazine arrange online seminars in the Kazakh language for teachers and students on environmental awareness.

Kazatomprom channelled KZT 28.8 million in 2022 into the implementation of these projects.

SANA Leadership Development Information Camp for high school students in the regions of Kazatomprom's operates

The camp seeks to develop personal competences, leadership skills, and emotional intelligence through training and awareness-raising activities as part of the students' career guidance. It promotes technical professions in production areas and builds confidence in Kazatomprom's HR-brand among local residents.

As part of corporate volunteering and career guidance, Kazatomprom employees from among young professionals conducted SANA camp activities twice in school No. 193 in Baikenze village and also in schools No. 56, No. 161, and No. 194 in Zhanakorgan village, Zhanakorgan District, Kyzylorda Region, Kenesbaev School and Sugir Aliuly School in Taukent village, Suzak District, Turkestan Region in May, October, and December 2022. The project covered more than 700 pupils.

Social infrastructure development

Identification of current problems in the areas of operation and assistance in their solution and the development of social infrastructure are also among the priorities of Kazatomprom's external social programmes.

Throughout 2022, JV Katco LLP, Baiken-U LLP, and Kazatomprom-SaUran LLP implemented projects to build children's playgrounds, pedestrian paths, repair a road, rebuild an old museum building, street

lighting and power supply with the purchase of transformers, landscaping, repair and fencing of alleys in the regions of operations. These projects were rolled out in Turkistan and Kyzylorda regions. A total of KZT 242.3 million was channelled into these projects.

Philanthropy and charity
As part of its social support, the Company provides targeted assistance to those in need, supports socially important initiatives and promotes the involvement of employees and active residents to solve social problems in the regions where it operates.

We rolled out a number of socially significant projects in 2022, including financial assistance to socially vulnerable groups: coal purchases, food aid, school supplies, New Year presents, as well as a number of other socially significant initiatives.

Kazatomprom also pays great attention to supporting war veterans and retired former employees. To mark the Victory Day, our enterprises held events to honour veterans of the Great Patriotic War and home front workers: presenting gifts and providing necessary assistance.

We spent a total of KZT 126.8 million on this area.

3.6.3 Plans for 2023 and a short term

The following social projects are scheduled for 2023:

- The Igilik social project focused on socio-economic and infrastructural development, solving social problems in the regions where the Company operates, and improving working conditions at the Company's production facilities based on the initiatives and proposals submitted by employees of the Company, subsidiaries and affiliates, local governments, local communities and CSOs

- Construction and repair of social infrastructure facilities, construction of children's and sports grounds
- Assistance to socially vulnerable groups (war veterans, pensioners, large families, etc.)
- Community events in villages where the Company operates.

3.7. Building a sustainable procurement chain

GRI 2-6

NAC Kazatomprom JSC is a national operator and a global leader of natural uranium mining industry. Given the scale of Kazatomprom's business and the vast geography of its operations, efficient, timely, and complete provision of the necessary resources, combined with the best procurement terms and conditions, is paramount to the success of the Company's business.

Responsible procurements contribute to the development of mutually beneficial partnerships, increases the efficiency of interaction with suppliers and contractors, as well as improves the efficiency, control and transparency of procurement activities within the supply chain.

The Group's key procurement priorities in the reporting period:

- Enhancing the transparency of processes via automation and digitalisation;
- Optimising the procurement management structure at the Company, subsidiaries and affiliates;
- Developing the category management and strategies in procurement.

Procurement Department headed by the Managing Director for Legal Support and Risks is responsible for procurements. The department is taking efforts to maximise the business value ensuring quality, timeliness, safety, productivity, risk mitigation in various forms. To this end, Kazatomprom keeps expanding the professional competencies of the Procurement Department employees and applying new technological solutions.

In procurements, Kazatomprom follow the Procedures for Procurement by Sovereign Wealth Fund Samruk-Kazyna JSC and legal entities where 50+ percent of voting shares (equity interests) are directly or indirectly owned by Samruk-Kazyna JSC (ownership or trust management[66]).

Procurement processes to meet the needs of the Company are built with suppliers within the framework of the established rules, which are strictly observed.

Procurement processes are automated in the zakup.sk.kz system. Competitive procurement is preferred, with strict compliance with the principles of publicity and transparency. In addition, with government support, we make preferences for domestic producers, and work to support import substitution and the development of new production facilities.

Under the Procurement Procedure, long-term mutually beneficial cooperation has been established with the largest suppliers of strategically important goods for the Company, and all supply chains, logistics and storage systems have been streamlined to ensure continuous production. All requirements for responsible business conduct are reflected in the contracts and are met by both suppliers and the Company.

3.7.1. Summary of Kazatomprom's procurements in 2022

The total procurements under the Procurement Plans for the Company's Group reached KZT 227.2 billion.

The Company concluded contracts amounting to a total of KZT 257.6 billion. At the same time, the procurement targets were met 93%.

Single source procurements made KZT 97.7 billion or 38% of the total procurements.

Procurements under the Invitation to Tender / Request for Quotation (ITT / RFQ) arrangements made KZT 159.9 billion or 62% of the total procurements.

To increase the share of competitive purchases, the Company interacts with potential suppliers to clarify the terms and conditions of registration and submission of tender documents, eliminates excessive requirements for suppliers and administrative costs that do not affect the production process.

[66] Approved by Resolution No. 193 of the Board of Directors of Samruk-Kazyna JSC on 3 March 2022.

3.7.2. Planned and actual benefits of category procurements (category procurement management)

In 2022, the Company implemented four procurement category strategies in accordance with the Procurement Plan 2022: one procurement category strategy of NAC Kazatomprom JSC and three procurement category strategies of the Fund.

In 2022, category procurement strategies reached KZT 1.6 billion across the Group.

By implementing the procurement category strategies, the Company and the Fund achieved actual benefits of KZT 126 million against the target of KZT 1.2 billion.

In 2022, the subsidiaries and affiliates of NAC Kazatomprom JSC had to make independent purchases for most of the Fund's and the Company's procurement category strategies due to the exclusion of part of the category procurement strategies from the Fund's Category List (trucks and special equipment, Safety footwear, etc.), as well as updating on other procurement category strategies (hardware, Software). The above factors had a significant impact on the results of procurement category strategies of NAC Kazatomprom JSC.

Category strategies of the Company in 2022

Group strategy	Fund strategy
HDPE and PVC pipes	Health insurance
	Cars and buses
	Fuel

3.7.3. Digitalisation of procurements

Kazatomprom made the procurement plans for 2022 in the SAP ERP system. This functionality enables quick consolidation of the planned procurements, taking into account the goods in transit and in stock.

During 2022, the Company extensively worked on the automated integration of SAP ERP system and e-procurement information system 2.0. This resulted in implementation of the method for direct exchange of procurement planning data. Currently, the functionality for integrating contracts between SAP ERP system and e-procurement information system 2.0. is in test mode.

3.7.4. Support of local suppliers

GRI 204-1

To comply with the public policy, as well as to support local suppliers in the region, NAC Kazatomprom JSC assists in concluding contracts for the procurement of products, works, and services between its subsidiaries and affiliates and local suppliers.

In 2022, the Company continued controlling the procurements of goods produced by domestic producers in the light, furniture, food industries, as well as in the production of construction, engineering, chemical and pulp and paper products from manufacturers listed on the Samruk-Kazyna's Register.

EST procurements accounted for 92% of the total procurements under the EST List in accordance with the established indicators in procurement (report as of 10 February 2023).

KZT 1.2 billion was the total amount of 44 off-take contracts concluded under the Programme for Facilitation of Creation of New Production in the reporting period.

The Central Project Office engaging the Company's subsidiaries and affiliates continues its work at the platform of Samruk-Kazyna Contract LLP to support domestic producers. The platform is used to conclude off-take contracts with producers. In addition, works are underway to search for new domestic producers adapted to the needs of the industry.

The local content in goods, works and services reached 82%, against the target of 76%. In 2021, the final figure for the same period was 80%.

Percentage of local suppliers in procurements, %

Indicator	2020	2021	2022
Percentage [67]	78	80	82

Suppliers by region

Region	Number of suppliers
Almaty	740
South Kazakhstan region	376
East Kazakhstan region	360
Astana	316
Kyzylorda region	206
Karaganda region	123
Non-residents	64
Other regions	641

Suppliers by scale

Suppliers by scale	Share, %	Procurement amount, KZT
Small (up to KZT 1 billion)	31%	80,213,770,467.98
Medium (up to KZT 5 billion)	23%	59,574,435,655.19
Large (over KZT 5 billion)	46%	120,202,136,968.44
Total	**100%**	**259,990,343,091.61**

Plans for 2023 and a short term:

- Continue optimising procurement processes and developing procurement automation;
- Continue implementing initiatives for proper separation of duties and access control within the framework of SAP implementation as the Group's ERP system.

[67] Data as of 13 March 2023

3.8. Science, innovation and digital transformation

3.8.1. Managing R&D and innovations

R&D and innovations play a significant role in the implementation of Kazatomprom's strategic priorities for maintaining output, increasing efficiency, and reducing a negative environmental footprint.

The following companies contribute the most in achieving the strategic objectives in the field of R&D and innovations management, which are an increase in added value and knowledge intensity of Kazakhstan uranium products:

- Volkovgeologia JSC: geology, geotechnology and mining and preparation operations, repair and restoration works of wells and associated extraction of rare metals and rare earth metals at uranium deposits
- High Technology Institute LLP: extraction and processing of productive solutions, associated extraction of rare-earth metals
- Ulba Metallurgical Plant JSC: advanced technologies of the nuclear fuel cycle (NFC), production and processing of rare metals (RM) and rare-earth metals (REM)
- NAC Kazatomprom JSC: digitalisation, automation and robotisation
- NAC Kazatomprom JSC: commercialisation of intellectual property and technology transfer

The Department of Scientific and Technological Projects of NAC Kazatomprom JSC is responsible for the general coordination of R&D activities, as well as for the management and commercialisation of intellectual property.

In 2022, to further improve the R&D coordination and implement R&D results, two events were held at the Company's production facilities to learn about the R&D results (on the sites of ME ORTALYK LLP, Vostochny Mynkuduk mine, and Volkovgeologia JSC) delivered by Kazatomprom's subsidiaries and affiliates.

Results in 2022

- Nineteen meetings of Scientific and Technical Councils were held to discuss priority R&D areas of the Group
- The Company updated Standard "Organisation of Research and Development"
- We approved Regulations "On programme-targeted financing of research and development at NAC Kazatomprom JSC"
- We adopted the Regulations on the Expert Commission on Intellectual Property of NAC Kazatomprom JSC

In total, 264 employees are engaged in research and development at JSC Volkovgeologia, Institute of High Technologies LLP, Ulba Metallurgical Plant JSC, including 4 doctors of science and 27 candidates of science.

KZT 6.829 billion (without VAT) was the total amount of 65 R&D contracts concluded in 2022 by Kazatomprom and its subsidiaries and affiliates, of which 59 contracts were signed by subsidiaries and affiliates (KZT 6.458 billion) and 6 contracts by Kazatomprom (KZT 0.370 billion). The Company utilized KZT 2.206 billion in 2022, including KZT 0.149 billion under contracts of Kazatomprom and KZT 2.057 billion under contracts of subsidiaries and affiliates.

To commercialise the R&D results, Kazatomprom signed four contracts in 2022 to grant the right to use its inventions:

- Recovery of a chemical concentrate of natural uranium from rich eluate between Kazatomprom and JV ZARECHNOYE JSC
- Underground leaching of metals and elements through a system of technological wells between Kazatomprom and JV KHORASAN-U LLP
- Underground leaching of metals and elements through a system of technological wells between Kazatomprom and ME ORTALYK LLP

- Recovery of a chemical concentrate of natural uranium from rich eluate between Kazatomprom and ME ORTALYK LLP

Negotiations are ongoing to sign license agreements between Kazatomprom and its subsidiaries and affiliates (JV Southern Mining and Chemical Company LLP, Karatau LLP, APPAK LLP and Baiken-U LLP) on granting the right to use the invention “Method for obtaining a chemical concentrate of natural uranium”.

The Company filed 16 intellectual property applications and received 22 titles of protection.

Scientific developments
Almost all R&D projects of the Group seek to improve and upgrade production. Several major R&D projects were implemented in 2022:

Projects	Description
Development of a software product for managing downhole pumping equipment	This innovation helps manage six submersible well pumps in a simultaneous individual manner was solved by developing software for controlling a multi-channel control panel. The developed multi-channel control panel was assembled and preliminary tests were carried out. After successful preliminary tests, including functional testing of the software, we started field tests at the Central Mynkuduk mine of ME ORTALYK LLP. Field tests confirmed the operability of the technical solution for managing six submersible well pumps in parallel and solving the following tasks: • Controlling each submersible well pump in a system of six pumping units in parallel through a single multi-channel pump control cabinet • Setting technological parameters for all well pumps simultaneously • Increasing the efficiency of the technological process control. Tests of the multi-channel control cabinet are planned for 2023.
Introduction of equipment, software and technology for 4D monitoring of the uranium mining process by the method of radio wave geointroscopy of the inter-well space into the complex of geophysical studies at the mine of the Inkai deposit	The implementation of 4D monitoring technology for uranium development using radio wave geointroscopy of interwell space will allow for the assessment of the actual volume of the mineralised rock zone filled with ore and the predominant direction of its distribution. The introduction of 4D technology for monitoring the uranium mining process by radio wave geointroscopy of the inter-well space will make it possible to estimate the actual volume of the gas distribution mechanism and the predominant direction of its propagation. The equipment was manufactured and then installed on logging hoists. The specialists of JV Inkai LLP took training. The Company developed regulations for conducting field work and regulations for data interpretation have been developed. Metrological certification of measuring instruments, entry into the register of the State Measurement System of the Republic of Kazakhstan. Field tests were carried out, the device was introduced in the production conditions of JV Inkai LLP.
Development and manufacture of a complex downhole tool combined with an inclinometer and a cavity gauge	R&D is a new, unique, and highly promising area to optimise geophysical studies of wells in uranium deposits in Kazakhstan. Field tests of prototypes were carried out. Calibration and collection of statistical data were carried out on 10 technological wells. A constructive improvement of the elements of connecting two measuring units based on LLC NPP Ingeo has been made. The device has been implemented in the production conditions of JV Inkai LLP.

Study of environmental and social impacts of production facilities on environment and local population	The results obtained make it possible to assess the environment in the territories adjacent to the production facilities of the enterprise, update the production environmental control programmes taking into account the identified risks, and replenish the databases with new environmental data. We provided recommendations on assessing the impact of production on the environment and the population, and developed an Action Plan to implement the recommendations.
Conducting comprehensive environmental and social research for sustainable development (GRI standards)	The results obtained make it possible to make a transition to risk-oriented management in the areas of environmental and social sustainability of production activities, as well as, based on long-term observations and operational control, to dynamically assess the impact of production processes on the state of ecosystems. The results of the project implementation in the medium and long term (up to 20 years) will allow minimising the costs of uranium mining enterprises to eliminate the consequences of production activities, reduce environmental costs in general by reducing emergency situations and environmental and social risks, increase the level of interaction and establish a constructive dialogue with state bodies in the field of environmental protection and local executive authorities and the population. This work started in 2022 and will continue until 2024.
Conducting research to optimise the processes of handling production and consumption waste at the enterprise in accordance with the Environmental Code of the Republic of Kazakhstan and GRI standards	The project will develop technologies for waste reuse and recycling, as well as improve waste management systems, which will reduce the level of waste generation by 15% and increase the level of waste reuse by 20% (within 5 years after the project implementation). The R&D implementation will become a tool to achieve carbon neutrality. The carbon footprint of waste management will be determined, recommendations will be developed to reduce greenhouse gas emissions by 10%. This work started in 2022 and will continue until 2024.

Innovations

The Group encourages its employees to innovate, using mechanisms for submitting, processing, evaluating, and reviewing innovation proposals. An additional incentive for innovations is an annual contest of innovations held among subsidiaries and affiliates.

Results in 2022:

- The Group's employees submitted 2,236 innovation proposals, of which 2,016 were accepted and 1,292 were implemented. KZT 2.55 billion is the expected economic effect of the implemented proposals.

Contest of Innovations

NAC Kazatomprom JSC holds an annual contest of innovations among subsidiaries and affiliates. The contest operator is the Department of Scientific and Technological Projects of NAC Kazatomprom JSC.

According to the results of the contest held in 2022, the project “Technology for opening an ore zone using three cone bits in combination with biopolymer drilling fluid systems to preserve the natural properties of rocks” of Volkovgeologia JSC was recognised as the best innovation proposal creating an economic effect for 2021.

The proposal "Control of rarefaction in the pipelines of dust and gas removal from kilns" of JV Southern Mining and Chemical Company LLP was recognised as the best innovation proposal creating a social or other effect.

The proposal “Method of increasing the volume of condensate, heating steam involved in the technological process of obtaining technical beryllium hydroxide” by Ulba Metallurgical Plant JSC was recognised as the best innovation proposal within the framework of the Green Mindset – Green Thinking initiative.

The “Software module “Lithology with jpeg” (digitisation of data on wells: lithology, sampling intervals, ore intervals, from scanned media (column, passport, tape)” of Volkovgeologia JSC was recognised as the best digital solution in production for 2020.

JV Inkai LLP was recognised as the most innovative enterprise based on the contest results.

All winners were awarded diplomas and certificates, and the best innovators were awarded badges of merit.

Plans for 2023 and a short term:
Pursuing a new approach to R&D management, the Group will take the following actions in 2023:

- Updating the internal regulatory documents to raise 1% of funds from subsoil users for science
- Revising the composition of scientific and technical councils
- Continuing coordination of the implementation of R&D results through a platform for presentation of completed research projects
- Updating the internal regulatory documents on innovation activities to involve employees.

The Company will continue improving the competencies of subsidiaries and affiliates' employees involved in R&D. This will contribute to the improvement of the quality of R&D as part of the implementation of R&D licence terms and conditions.

3.8.2. Digitalisation and IT

In the context of implementation of the strategic task "Digitalisation and transformation" to achieve the strategic goal "Apply best practices in business activities" of the Development Strategy of NAC Kazatomprom JSC for 2018-2028, the Company continued standardisation and optimisation of business processes, including the creation of a single vertical integrated IT infrastructure

IT infrastructure key results in 2022:

- Continuity of all IT services
- High availability of IT infrastructure
- 4G service at the Central Moyinkum Mine

Key actions for 2023

- Ensuring the continuity of IT systems
- Ensuring high availability of IT infrastructure
- Development of telecommunications at mines
- Modernisation of software and hardware
- Bata encryption in the Electronic Document Management System
- Regulation at the Application Architecture level of the use of freeware and shareware
- Expansion of the Architectural Committee functions in terms of coordinating IT solutions for the Group to unify and agree on the choice of technological solutions by the subsidiaries and affiliates

Key IT and digitalisation projects

Project	Purpose/Effect
Improving the efficiency of operations and decision-making	

Unified Corporate Data Warehouse and Integration Bus	Implementation of tools for connecting data streams from various sources, their complex analysis, filtering, transformation and modelling to extract useful information for decision making. The project is developing: methodology and model for collecting and processing data, software for data visualisation and analytics (reference books and classifiers, reporting forms and dashboards, data marts for 4 production reports), tools for integrating data with accounting and corporate systems of the parent company, subsidiaries and affiliates (SAP, 1C, etc.).
Introduction of a unified corporate geoinformation service KAP-MAP	Centralised management of cartographic data and the introduction of unified approaches and the geographic information system (GIS) will improve the quality of data and the maturity of employees in terms of data management. This will increase the efficiency and quality of decisions made, speed up the preparation of cartographic data, unify the approach to managing cartographic data, and create a single centralised digital cartographic database.
Digitalisation of corporate services provided through infokiosks	Automation and simplification of processes and access of personnel to such services as: vacation application, vacation schedule and viewing the rest of vacation days, certificate of employment, pay-sheet, business trip application. In 2022, the Company successfully piloted and put into operation the automated services in the subsidiary of Kazatomprom-Sauran LLP. Replication is planned for 2023 in other subsidiaries of NAC Kazatomprom JSC.
Inventory labeling	Tracking the transition / movement of used inventory items at all stages - from the production of equipment to movements in production during the production process. In 2022, Kazatomprom-SaUran LLP implemented the project for labelling devices involved in the uranium mining technological processes. For testing, one of the key technological devices was selected - submersible pumping units and flow meters (for pumping out a productive uranium-containing solution and calculating its volume). Based on the results of pilot tests, we determined labellings with the best reading performance for each type of equipment - special stickers DataMatrix codes. In 2023, there will be made the decision on further replication and implementation of the system, as well as labelling processes in other mining companies of NAC Kazatomprom JSC.
Data management and business process optimisation	
SAP MDG	Centralised storage and management of regulatory and reference information. SAP MDG on the S4/HANA platform allows to significantly increase the speed of data processing and integrate with other information systems. In 2022, SAP MDG of the parent company was integrated with non-SAP systems (1C) at 7 subsidiaries and affiliates.
SAP ERP	Centralised Enterprise Resource Planning (ERP) includes standard functionality with modules such as Virtual Warehouse (VW), Packing List (PL), and the Electronic Invoice System (EIS) of the State Revenue Committee of the Ministry of Finance of the Republic of Kazakhstan for processing packing lists. In 2022, the Material Management (MM) integration with the EIS portal was completed based on the localisation of SAP AG developed for Kazakhstan. Direct integration of the SAP ERP system and the EIS 2.0 was implemented. Host-to-host technology (the channel for interaction between the bank and the client's corporate accounting system) was introduced. Statistical and analytical reports were developed in SAP BW for Project and Portfolio Management (PPM). Integration of the Contract Management System (CMS) with SAP BW (data transfer from

	ERP) and SAP GRC AC (optimisation of SAP GRC AC risks and segregation of duties) was also completed. The decision was made to replicate the implementation in other subsidiaries and affiliates.
SAP HCM	Centralised personnel management system. In 2022, Fiori reporting implemented processes related to rewards, competence-based performance assessment, and training program management. Implementation of the Electronic Signature Personnel Management (ESPM) system has begun for HR processes, including ESPM service packages for exit forms (orders, employment contracts, not exceeding 115 forms), ESPM automation for applications and consents (not exceeding 23 forms), and integration of SAP with enbek.kz
IT architecture development	
4G mobile coverage	Access to high-quality mobile communications and high-speed 4G Internet located production areas and facilities. In November 2022, KAP Technology LLP, in collaboration with the mobile operator KCELL, provided quality mobile coverage and internet access to the Central Moiynkum (Kazatomprom-SaUran LLP) and Central Mynkuduk (Ortalik LLP) mines. In 2023, it is planned to continue cooperation with mobile operators to provide personnel of production facilities and mines with access to mobile communication and high-speed internet.
Modernisation of software and hardware	Upgrading the hardware and software and various equipment that support the functioning of corporate services will allow meeting modern challenges and high requirements in the rapid digitisation of the world, as well as ensuring the transition to newer technologies. In 2023, KAP Technology LLP, which has a distributed network, has planned to start a phased network upgrade.

Information security
Business transformation opens up new opportunities for real-time decision making, as well as increases productivity, flexibility and dynamism in the industry, while at the same time requiring special attention to ensuring information security, cyber resilience and continuity of information systems.

To ensure the required level of cyber security, Kazatomprom constantly monitors compliance with information security requirements and strives to develop an information security management system in accordance with the laws of the Republic of Kazakhstan and the international standard ISO / IEC 27001.

As part of the implementation of the Action Plan for the Implementation of the Mechanism "Creation of a Comprehensive Information Security Management System" of the strategic task "Digitalisation and Transformation" to achieve the strategic goal to apply advanced practices in business activities at NAC Kazatomprom JSC for 2018-2028, the implementation of the project "Implementation and development of cyber security" continues. NAC Kazatomprom JSC carries out round-the-clock monitoring and response to information security incidents, as well as actively interacts with the Operational Information Security Centers (OISC) and National Information Security Coordinating Centre. To improve and enhance cyber culture and cyber hygiene in the Group, online training for employees, cyberattacks, and thematic briefings are regularly conducted.

In 2022, a significant number of information security incidents were registered and prevented in NAC Kazatomprom JSC and its subsidiaries and affiliates, as well as jointly controlled enterprises, and work is underway to prevent property and reputational damage to the Company.

To increase the awareness of personnel in the field of information security, as well as to inform about changes in internal documents regulating information security requirements, an information system was introduced in 2022 that allows for interactive online training for employees of the Company and its subsidiaries. Training was conducted for all employees of KAP Technology LLP in 2022, and for employees of NAC Kazatomprom JSC in January 2023.

As part of cooperation in information security, we work to improve the level of cyber hygiene and digital security, participate in forums and meetings to discuss digitalisation of the nuclear industry, and make plans for the development of IT and IS systems.

Plans for information security development in 2023
Kazatomprom will continue to monitor compliance with information security requirements in all existing and developing IT systems and conduct activities to increase cybersecurity, awareness of information security issues, and protection of confidential information.

In addition, the Company intends to:

- Continue to improve and replicate the processes of the comprehensive information security management system in accordance with the Information Security Strategy of NAC Kazatomprom JSC for 2019-2028
- Continue the implementation of the Cybersecurity Implementation and Development project
- Continue the implementation of the Information Security Management System Improvement Plan for 2023
- Continue the automation of Information Security Management System (ISMS)
- Conduct IS awareness training and testing in all subsidiaries and affiliates
- Develop a holistic approach in ensuring the IS of APCS in the subsidiaries and affiliates following the pilot projects of IS systems in APCS
- Continue IS-related cooperation with GTS JSC and Information Security Committee of the Ministry of Digital Development, Innovations, and Aerospace Industry of Kazakhstan

4. EFFECTIVE GOVERNANCE

In its operations, Kazatomprom implements the world's best practices of corporate governance. Regular independent assessment and annual action plans developed and implemented to improve the corporate governance system enhance the quality of internal documents and compliance with the Corporate Governance Code and methodology, as well as helps the Company upgrade its corporate governance rating.

The methodology in place provides for a new rating system with seven levels: C, B, BB, BBB, A, AA, and AAA, with C being the lowest rating and AAA being the highest.

PricewaterhouseCoopers LLP rated our corporate governance rating for 2021 at A. The growth of Kazatomprom's corporate governance rating since 2009 demonstrates the effectiveness of measures taken to implement the best practices in the Company's internal regulations.

According to the assessment carried out by independent consultants for 2021, our corporate governance system complies with the vast majority of the established criteria and works effectively.

Given Kazatomprom's ongoing efforts to implement ESG principles, corporate governance objectives are integrated in the Company's action plans for the development and implementation of ESG principles in line with the best practices.

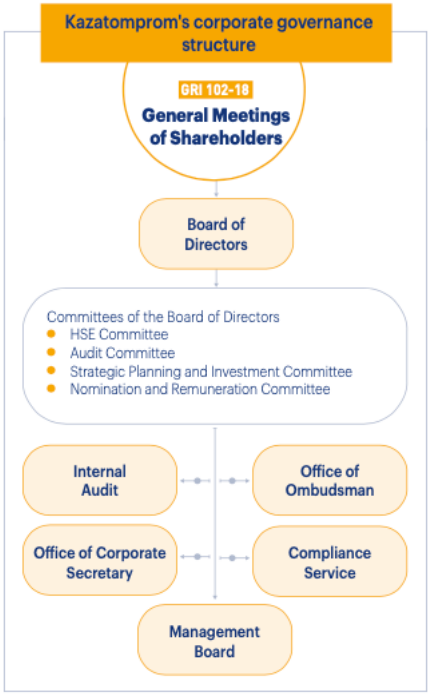
Kazbek Shaimerdinov
Managing Director for Legal Support and Risks

4.1 Corporate governance system

The Company's corporate governance system seeks to ensure proper management and control, growth of the long-term value, and sustainable development. Corporate governance rests on three pillars: efficiency, effectiveness, and transparency. The Company continues improving its corporate governance system, ensuring the rights of shareholders and all stakeholders.

Principles	Objectives
Protection of shareholders' rights and interests	Improve transparency
Effective management of the Company and the effective operation of the Board of Directors and the Management Board	Maintain effective long-term relationships with shareholders and stakeholders
Transparency and objectivity of operations	Ensure transparent governance
Lawfulness and ethics	Improve corporate governance
Effective dividend policy	Reaffirm the Company's commitment to good corporate governance standards
Effective HR policy	
Occupational health and safety	
Environment	
Settlement of corporate conflicts and conflicts of interest	
Responsibility	

Kazatomprom's corporate governance structure
GRI 2-9



Kazatomprom's key corporate governance policies

Document name	Effective date of the latest version
Charter	20 May 2021[68]
Regulations on the General Meeting of Shareholders	27 May 2022
Regulations on the Board of Directors	27 May 2022
Regulations on the Management Board	26 June 2019

[68]As amended and supplemented by decisions of the General Meetings of Shareholders dd. 19 May 2019 and 20 May 2021.

Regulations on Committees	30 April 2019
Corporate Governance Code	27 May 2015
Management policy for Kazatomprom's subsidiaries and affiliates	22 September 2022

4.1.2 Key improvements in 2022

- We amended internal documents and elected a senior independent director in line with these amendments.
- The Company revised the CEO's Report to BoD to make it more informative, in particular by adding information on the risks of the group of companies.
- The Internal Audit Service conducted the self-assessment, assisted by the Audit Committee, and revised its Regulations to assess its compliance with the Company's business needs.
- We updated our HSE and HR policies.
- The Company ensured compliance with the Listing Rules while preparing the Annual Report.
- We reviewed if there was a need for the Compliance Service to conduct regular audits of insider and confidential information management and protection processes and found that there was no such need.
- Kazatomprom engaged an external auditor to check its information security system.
- The Company made a comparative analysis of Kazatomprom's Charter with international corporate governance standards, and benchmarked the BoD remuneration practices in foreign mining companies, sending letters to the major shareholder following the analysis.
- We analysed and confirmed the relevance of succession planning processes. They are in line with the corporate standards of the major shareholder. We work to keep the succession plan of the management pool up to date, and hold regular meetings with successors.
- Kazatomprom's Nomination and Remuneration Committee approved the Board of Directors Competence Matrix. We planned procurement of the Board of Directors performance evaluation, etc.
- We held a number of training sessions for employees, including for the management of the parent company, subsidiaries and affiliates.

4.2 Corporate Governance Code

The Corporate Governance Code of the Company has been developed in accordance with the laws of the Republic of Kazakhstan, internal documents of Samruk-Kazyna JSC, and the Transformation Programme of Samruk-Kazyna JSC. The Code takes into account the corporate governance practices adopted in Kazakhstan and globally and sets out the principles lying at the core of the Company's corporate governance system.

Kazatomprom states that its corporate governance system complies with the key listing rules of major stock exchanges and the basic corporate governance principles recognised by the global economic community (e.g., the OECD Principles of Corporate Governance).

4.2.1 Compliance with the Corporate Governance Code

In line with the Corporate Governance Code, the Office of the Corporate Secretary analysed compliance with the principles and provisions of the Code across the Company in 2022. According to its findings, 89.5% of the provisions of the Code were fully complied with, 0.4% were partially complied with,[69] and 10.1% of the provisions of the Code are not applicable to the Company.

Compliance with the Corporate Governance Code

Section	In compliance	Partly in compliance	Non-compliant	Not applicable
Shareholders' rights and fair treatment of shareholders	91	–	–	9
Efficiency of the Board of Directors and Executive Body	91	–	–	9
Risk management, internal control and audit	97	–	–	3
Transparency	97	–	–	3

Adherence to the AIX corporate governance principles

AIX has the general principles of corporate governance in place for listed companies. Kazatomprom's Corporate Governance Code is largely consistent with these principles. Moreover, the Company's Code contains certain provisions ensuring the compliance with Samruk-Kazyna's goals and projections. Any Group's initiatives that relate to its non-core business are subject to review and verification by the Board of Directors chaired by an independent director.

Compliance with KASE's corporate governance principles

In 2013, KASE adapted the International Finance Corporation's (IFC) corporate governance scorecard, allowing joint stock companies listed on KASE to use this tool for assessing their level of corporate governance. Assessed against the six categories, the Company mostly meets the criteria set out in the scorecard.

Differences between the Company's Corporate Governance Code and the UK Corporate Governance Code[70]

UK Corporate Governance Code	Kazatomprom's Corporate Governance Code
Under the UK Corporate Governance Code, when 20% or more of votes have been cast against the board recommendation for a resolution, the company should explain, when announcing voting results, what actions it intends to take to consult shareholders to understand the reasons behind the result. An update on the views received from the shareholders and	Kazatomprom's Corporate Governance Code obliges the Chair of the Board of Directors to build a constructive dialogue between Board members, major shareholders, and the Company's executive body. At the same time, the Chair of the General Meeting of Shareholders should strive to ensure that shareholders receive answers to questions directly at meetings. If a

[69] For more information about the Code compliance audit findings 2021, see the compliance report on the Company's website.
[70] The differences are indicated on the basis of a literal comparison of the contents of the Code of Corporate Governance of the Company and the UK Code of Corporate Governance. However, such differences do not imply in practice complete non-compliance with the provisions of the UK Code.

actions taken should be published no later than six months after the shareholder meeting. The board of directors should then provide a final summary in the annual report and, if applicable, in the explanatory notes to resolutions at the next shareholder meeting, on the impact the feedback has had on the decisions the board has taken.	question is too complicated to allow for an immediate answer, the individual (s) to whom the question was addressed should provide a written answer as soon as possible after the conclusion of the General Meeting. In addition, major shareholders may hold meetings with the Chair and Board members to discuss development strategy issues, elect the head of the executive body, and address other elements that impact any growth of the long-term value and the sustainable development of the Company. Such meetings are pre-planned and held in accordance with approved procedures.
The UK Corporate Governance Code states that non-executive directors have a prime role in appointing and removing executive directors. Non-executive directors should scrutinise and hold to account the performance of management and individual executive directors against agreed performance objectives. The chair should hold meetings with the non-executive directors without the executive directors present.	Kazatomprom's Corporate Governance Code states that candidates for the Company's head must be approved by the President or the Presidential Administration of the Republic of Kazakhstan (if the Company is on a list approved by a Decree of the President of the Republic of Kazakhstan), the Management Board of Samruk-Kazyna JSC, the Nomination and Remuneration Committee of the Board of Directors of Samruk-Kazyna, and the Chairman of the Board of Directors of Samruk-Kazyna.
The UK Corporate Governance Code sets forth the main responsibilities of the company's nomination and remuneration and audit committees, and also states that a description of the main activities of these committees should be included in the company's annual report.	Kazatomprom's Corporate Governance Code contains no such requirement.
The UK Corporate Governance Code prohibits the chair of the board from being a member of the audit committee.	Kazatomprom's Corporate Governance Code contains no such restriction.
Under the UK Corporate Governance Code, in annual and half-yearly financial statements, the board should state whether it considers it appropriate to adopt the going concern basis of accounting in preparing them, and identify any material uncertainties to the company's ability to continue to do so over a period of at least twelve months from the date of approval of the financial statements.	Kazatomprom's Corporate Governance Code contains no such requirement.
Under the UK Corporate Governance Code, where a remuneration consultant is appointed, this should be the responsibility of the remuneration committee. The consultant should be identified in the annual report alongside a statement about any other connection it has with the company or individual directors. Independent judgement should be exercised when evaluating the advice of external third parties and when receiving views from executive directors and senior management.	Kazatomprom's Corporate Governance Code contains no such requirement.
The UK Corporate Governance Code stipulates that remuneration schemes should promote long-term shareholdings by executive directors that support alignment with long-term shareholder interests. In addition, there are clarifications regarding the terms of contracts concluded with the directors of the company.	Kazatomprom's Corporate Governance Code contains no such requirement.

4.3. General Meetings of Shareholders

The Company treats and communicates to all shareholders equally, including minority shareholders, regardless of their shareholdings.

The General Meeting of Shareholders is the highest governing body of the Company. On 27 May 2022, Kazatomprom held an annual General Meeting of Shareholders in absentia and considered the following agenda items:

- Electing members of the Tabulation Commission of the General Meeting of Shareholders of NAC Kazatomprom JSC;
- Approving Kazatomprom's annual financial statements 2021 (separate and consolidated);
- Approving procedures for distribution of consolidated net income earned by Kazatomprom in 2021 and some retained earnings for the past periods; making decisions on payment of dividends on ordinary shares and approving the size of dividend per ordinary share;
- Information on shareholders' inquiries about actions of Kazatomprom and its officials and outcomes of consideration of the inquiries;
- Information on the size and elements of remuneration of members of the Board of Directors and the Management Board of NAC Kazatomprom JSC;
- Establishing thresholds and targets of NAC Kazatomprom JSC's financial stability;
- Approving the Regulations on the General Meeting of Shareholders of NAC Kazatomprom JSC;
- Introducing amendments and additions to Kazatomprom's Charter.
- On members of Kazatomprom's Board of Directors.

On 4 October 2022, the Company held an Extraordinary General Meeting of Shareholders in absentia initiated by the Board of Directors and considered the following agenda items:

- Approving agenda of the Extraordinary General Meeting of Shareholders of NAC Kazatomprom JSC;
- Appointing PricewaterhouseCoopers LLP as an auditor of Kazatomprom's consolidated and separate financial statements 2023 and 2024 prepared under IFRS.

On 1 November 2022, Kazatomprom held another Extraordinary General Meetings in absentia. The meetings were convened by the Board of Directors of the Company at the initiative of its major shareholder, Samruk-Kazyna JSC. Composition of Kazatomprom's Board of Directors was the only agenda item.

4.4 Board of Directors

GRI 2-10

Members of the Board of Directors and the Chairman of the Board of Directors are elected in accordance with the procedures prescribed by the Joint-Stock Companies Act and the Company's Charter.

Candidates are recruited and selected according to objective criteria and needs for diversity in the Board of Directors. Only individual can be selected a member of the Board of Directors. The Board members shall be elected from among:

- individual shareholders
- persons nominated (recommended) for election as shareholder representatives
- individuals, other than shareholders of the Company who are not nominated (not recommended) to be elected as representatives of the shareholder.

Individuals nominated as the Board member candidates must have the knowledge, skills, and expertise needed for the Board of Directors to perform its functions effectively and ensure long-term value growth and sustainable development of the Company, as well as an impeccable business and personal reputation.

When selecting Board member candidates, Kazatomprom takes the following criteria into account:

- experience in senior roles
- experience as a Board of Directors member
- length of service
- educational background, specialisation, including international certificates
- competences in the Company's core areas
- business reputation
- a direct or potential conflict of interest if elected to the Board of Directors

Members of the Management Board, except for the Chairman of the Management Board, may not be elected members of the Board of Directors. Members of the Government of the Republic of Kazakhstan, officials of government authorities may not sit on the Board of Directors.

GRI 2-17

Training and development of members of the Boards of Directors

In accordance with the Policy on Advanced Training for the Members of Kazatomprom's Board of Directors and Engagement of External Experts, the Board decides on advanced training either for all members in general or for its individual members based on:

- the advanced training needs identified in the course of the annual performance evaluation of the Board of Directors, committees of the Board of Directors and each member of the Board of Directors by approving the annual plan for BoD advanced training;
- reasonable requests of individual Board members.

The training of the BoD members also rests on the recommendations received during the general assessment of the Company's corporate governance.

In 2022, the Company held training "A Powerful Tool for Measuring ESG Compliance. Trend Analysis and Benchmarking" organized by International Compliance Association. The training programme covered ESG risk analysis, the ESG implications for the compliance function, an overview of global best practices of sustainability, and identification of metrics, key performance indicators and statistical trends for effective analysis of environmental, social and corporate governance programmes.

4.4.1 Members of the Board of Directors

GRI 2-9

As of 31 December 2022, the Board of Directors consisted of seven directors, including three independent directors[71]. The Board of Directors is chaired by an independent director[72]. This guarantees the respect for rights of minority shareholders.

Independence of the Board of Directors:

- Total number of the Board members - 7
- Independent directors - 3

The composition of the Board of Directors of the Company is balanced in terms of members' qualifications, expertise, knowledge, business qualities, and diversity. Board members have an impeccable business reputation, expertise in the nuclear industry, finance and investment, corporate governance, as well as in other areas important for the management of the Company.

GRI 405-1

Members of the Board of Directors have extensive experience in senior roles, as partners and members of the governing bodies of big international companies, and an impeccable reputation in the business community. The diversity of the composition and the quota of independent directors are in the limelight. The Board is represented by both men and women, as well as citizens of various countries, which ensures gender and socio-cultural diversity.

Age diversity within the Board, %	
30-50 years old	57
50+	43

Gender diversity, %	
Men	86
Women	14

The Board members do not hold any shares in the Company or equity interests in affiliates, nor do they hold any shares/equity interests in the Company's suppliers and competitors.

GRI 2-9, GRI 2-11

Constitution of the Board of Directors

Neil Longfellow	
Position	Chairman of the Board of Directors (independent, non-executive)
Participation in committees	• Audit Committee • HSE Committee • Strategic Planning and Investment Committee • Nomination and Remuneration Committee
Year of election	2017[73]
Year of birth	1958
Citizenship	United Kingdom
Educational background	A chartered electrical engineer and a Fellow of the Nuclear Institute and the Institute of Measurement and Control.
Professional experience	Since 2015 - An independent consultant to the international nuclear sector. 2013 - Director of Major Projects for the nuclear, oil and gas sectors, Costain PLC, the UK. 2009 - Managing Director of Springfields Fuels Limited and Vice President of the European Fuel Business, Westinghouse Electric Company. 2007 - Deputy Managing Director, British Nuclear Fuels Limited.

[71] The ratio of independent directors changed over the year due to changes in the BoD: from 1 January 2022 to 27 May 2022 — 4/8; from 27 May 2022 to 4 Jul 2022 — 3/7; from 4 July 2022 to 1 November 2022 — 3/6; from 1 November 2022 to 31 December 2022 — 3/7.

[72] The description of criteria for compliance with the standards of independence for members of the Board of Directors is given in the Charter and Regulations on the Board of Directors, which are available at the Company's website.

[73] Elected as a member of the current Board of Directors by the General Meeting of Shareholders of the Company on 18 May 2020 for a term of three years.

	1991 - Head of Processing, Sellafield nuclear reprocessing plant in West Cumbria, British Nuclear Fuels Limited. He started his career in electrical engineering in the UK.
Russell Banham	
Position	Member of the Board of Directors (Senior independent, non-executive)
Participation in committees	• HSE Committee • Chairman of the Audit Committee • Strategic Planning and Investment Committee
Year of election	2018[74]
Year of birth	1954
Citizenship	Australia
Educational background	A Bachelor of Commerce degree from the University of New South Wales, a fellow of the Institute of Chartered Accountants Australia and New Zealand, and a graduate of the Australian Institute of Company Directors.
Professional experience	2018 A member of the Board of Directors of NAC Kazatomprom JSC. 2011-2014 - Energy and Resources Industry Group Leader of Deloitte CIS, Moscow, Russia. 2007 - Audit Function Leader and Executive Committee member of Deloitte CIS, Almaty, Kazakhstan. 2002 - 2007 - Advisory Services Practice Leader of Ernst & Young, Brisbane, Australia. 2002 - an Audit Partner, Andersen, Australia. 1974 - an auditor, Andersen, Australia.
Marc Kasher	
Position	Member of the Board of Directors (independent, non-executive)
Participation in committees	Audit Committee Nomination and Remuneration Committee
Year of election	2020[75]
Year of birth	1970
Citizenship	United States
Educational background	1997 - A Master of Business Administration from Georgetown University. 1992 - A Bachelor of Science in Soviet Studies, Tufts University.
Professional experience	2022 – A Member of the Board of Directors and Chairman of the Audit Committee, Noventiq. 2018 - 2021 - An independent director, National Investment Corporation of the National Bank of Kazakhstan. 2013 - 2019 - An independent director of Luxoft, chairman of three committees: Audit Committee, M&A Committee, and Compensation Committee. 2013 - The founder of Sapiens Advisors. 2010-2015 - Managing Director and Chairman of the Board, PineBridge Investments Russia. 1997 – An associate private equity officer, AIG Capital Partners (later renamed PineBridge Investments).
Yernat Berdigulov	
Position	Member of the Board of Directors (non-executive)
Participation in committees	Production Safety (HSE) Committee)
Year of election	2022[76]
Year of birth	1987
Citizenship	Republic of Kazakhstan
Educational background	2018 - Master's Degree in Business Administration, University of Warwick

[74] Elected as a member of the current Board of Directors by the General Meeting of Shareholders of the Company on 18 May 2020 for a term of three years.
[75] Elected as a member of the current Board of Directors by the General Meeting of Shareholders of the Company on 18 May 2021 for a term of three years.
[76] Elected as a member of the Board of Directors by the Extraordinary General Meeting of Shareholders of the Company on 22 June 2021 for the Board of Directors' tenure, i.e. by 18 May 2023.

	2010 - Bachelor's Degree in Public Policy and International Relations, University of Toronto.
Professional experience	2022 – Managing Director for Strategy and Asset Management, Samruk-Kazyna JSC. 2021 - 2022 – Co-Managing Director for Strategy, Sustainability, and Digital Transformation, Samruk-Kazyna JSC. 2019 - 2021 – Project Manager, Whiteshield Partners international consulting company. 2018 - 2019 - Analyst of the Asset Management Directorate, Samruk-Kazyna JSC. 2013-2018 - Finance and Economy Advisor to the Chairman of the Board, Director of the Analytical Support Department, Director of the Strategic Development Department, Director of the Project Management Department, Samruk-Energy JSC. 2011 - 2012 – Project Manager, Project Office for the Implementation of the Management Reporting System, Samruk-Kazyna JSC. 2010 - 2011 - Chief Specialist of Business Administration Department, Semizbay-U LLP, a subsidiary of NAC Kazatomprom JSC.
Yernar Zhanadil	
Position	Member of the Board of Directors (non-executive)
Participation in committees	Strategic Planning and Investment Committee
Year of election	2021[77]
Year of birth	1984
Citizenship	Republic of Kazakhstan
Educational background	2009 - Master's degree from the University of Manchester. 2006 - Bachelor's Degree, Accounting and Finance Department, KIMEP University, Almaty.
Professional experience	2022 – Managing Director for Investment, Privatisation, and International Cooperation, Samruk-Kazyna JSC. 2018 - 2021 - Co-Managing Director for Economics and Finance, Samruk-Kazyna JSC. 2017 - Managing Director for Economics and Finance, Samruk-Kazyna JSC. 2016 – A financial controller, Samruk-Kazyna JSC. 2010 - 2016 - Head of the Internal Audit Service. 2006 - A senior consultant, PricewaterhouseCoopers.
Nazira Nurbaeva	
Position	Member of the Board of Directors (non-executive)
Participation in committees	Nomination and Remuneration Committee
Year of election	2021[78]
Year of birth	1975
Citizenship	Republic of Kazakhstan
Educational background	2000 - A graduate of Kazakh State Academy of Management in Almaty, majoring in finance and credit. 1997 - An assistant, Tax Department, PricewaterhouseCoopers Kazakhstan. 1996 - A degree in Business Administration from the University of Wisconsin–Platteville Richland. 1994 - 1998 - Studies at Kazakh State University of International Relations and World Languages.
Professional experience	2021 - Managing Director for Economics and Finance, Samruk-Kazyna JSC. 2020 - A partner of Deloitte TFC, Tax and Legal Services Department. 2017 - Executive MBA from KIMEP in Almaty.

[77] Elected as a member of the Board of Directors by the Extraordinary General Meeting of Shareholders of the Company on 22 June 2021 for the Board of Directors' tenure, i.e. by 18 May 2023.
[78] Elected as a member of the Board of Directors by resolution of the Extraordinary General Meeting of Shareholders of the Company on 22 June 2021 for the Board of Directors' tenure, i.e. by 18 May 2023.

	2014 - Director of Tax and Legal Services Department, PricewaterhouseCoopers. 2004 - 2014 - A senior manager, Tax and Legal Services Department, PricewaterhouseCoopers. 2003 A senior tax consultant, LUKOIL Overseas Service. 1998 - 2003 Tax and Legal Services Department, PricewaterhouseCoopers.
Yerzhan Mukanov	
Position	Member of the Board of Directors, Chairman of the Management Board (executive)
Participation in committees	–
Year of election	2022[79]
Year of birth	1977
Citizenship	Republic of Kazakhstan
Educational background	Currently studies at the University of Science and Technology MISIS, Doctor in Business Administration programme. 2021 - Executive MBA - Strategic Management and Leadership Programme of Almaty Management University and St. Petersburg State University. 2009 - Ecole Nationale Superieure des Mines de Paris, majoring in Economic Evaluation of Mining Projects. 2003 - Postgraduate course at the Institute of Metallurgy and Concentration, majoring in Metallurgy of Ferrous, Non-ferrous and Rare Metals. 1999 - Satbayev University, majoring in Metallurgy of Non-ferrous Metals.
Professional experience	September 2022 - Chairman of the Management Board, NAC Kazatomprom JSC. March 2022 Chief Production Officer, Kazatomprom 2014 - 2022 - held senior roles in Kazatomprom's subsidiaries and affiliates: JV Katco LLP, Kazatomprom-SaUran LLP, Karatau LLP, and Semizbay-U LLP. 2012 - 2014 - Production Development Coordinator at AREVAMines. 2006 - 2012 - Process Engineer, Head of Chemical Engineering Department at JV Katco LLP. 2004 - 2006 - Technologist Inspector, Almaty Heavy Engineering Plant. 1999 - 2000 - Engineer of the Laboratory of Special Concentration Methods and Hydrometallurgy at the Institute of Metallurgy and Concentration of the Academy of Sciences of Kazakhstan.

Changes in the Board of Directors in 2022

On 27 May 2022, the Annual General Meeting of Shareholders adopted a decision to terminate early the powers of Bolat Akchulakov, a BoD member representing Samruk-Kazyna, and appoint Yernat Berdigulov a member of the Board of Directors of the Company. The Extraordinary General Meeting of Shareholders held on 1 November 2022 terminated the authorities of Mazhit Sharipov, a member of the Board of Directors of the Company (with effect from 4 July 2022) and appointed Yerzhan Mukanov a member of the Board of Directors. There were no waivers or any arrangements on the waiver by members of the Board of Directors of remuneration or future remuneration.

4.4.2 Activities of the Board of Directors

In 2022, the Board of Directors met 14 times (14 in-person meetings) to consider 239 issues.

The attendance of meetings by Board members was 94.4% on average in 2022.

Attendance of meetings by members of Board of Directors

[79]Elected as a member of the Board of Directors by resolution of the Extraordinary General Meeting of Shareholders of the Company on 10 November 2021 for the Board of Directors' tenure, i.e. by 18 May 2023.

Name	17.02.2022	15.03.2022	11.04.2022	27.05.2022	21.06.2022	30.06.2022	18.08.2022	22.09.2022	14.09.2022	06.10.2022	27.10.2022	10.11.2022	24.11.2022	15.12.2022	%
Neil Longfellow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	**100**
Russell Banham	+	+	+	+	+	+	+	+	+	+	+	+	+	+	**100**
Marc Kasher	+	+	+	+	+	+	+	+	+	+	+	+	+	+	**100**
Assem Mamutova	+	+	-	-	-	-	-	-	-	-	-	-	-	-	**100**
Yernat Berdigulov	-	-	-	+	+	+	+	+	+	+	+	+	+	+	**100**
Yernar Zhanadil	+	+	+	+	+	+	+	+	+	-	+	-	-	-	**71**
Nazira Nurbaeva	+	+	+	+	+	+	+	-	+	-	-	+	+	+	**79**
Mazhit Sharipov	+	+	+	+	+	-	-	-	-	-	-	-	-	-	**100**
Yerzhan Mukanov	-	-	-	-	-	-	-	-	-	-	-	+	+	+	**100**

GRI 2-14

The most pressing matters considered by the Board of Directors in 2022

Reports	• Quarterly Management Board Report (CEO Report) • Quarterly Statement of Financial Performance (CFO Report) • Quarterly Financial Statements (IFRS Overview) • Semi-annual Financial Statements (IFRS Overview) • Annual Financial Statements 2021 (IFRS Overview)
Strategic matters	• Consideration of Kazatomprom development strategy implementation status and strategic initiatives • Approval of the Succession Management at Kazatomprom JSC • Approval of the Integrated Annual Report • Approval of Kazatomprom's Consolidated Business Plan 2023-2027 • Approval of key performance indicators for the Chairman and members of the Board • Approval of the organizational structure of Kazatomprom's corporate centre
Corporate governance	• Approval of the Board of Directors' Work Plan • Changes in the composition of the Board committees • Approval of the corporate governance improvement plan and review of the plan performance reports
Transactional matters	• Conclusion of related-party transactions • Conclusion of transactions interrelated with previously concluded transactions • Conclusion of transactions or a series of interrelated transactions resulting in the alienation of property worth more than 10% of the total asset value
Subsidiaries and affiliates	• HR issues • Approval of internal regulations • Conclusion of material transactions • Increase in statutory capital • Election of members of supervisory boards/board of directors • Approval of annual financial statements of subsidiaries and affiliates, distribution of net profit of subsidiaries and affiliates
Approval of internal regulations	• Approval and recognition of loss effect of internal documents of NAC Kazatomprom JSC and its structural divisions

Other issues	• Overview of capital markets • Consideration of an investor and stakeholder communication and engagement plan
Issues of Board's subdivisions	• Reports of Compliance Service, Ombudsman, and Internal Audit • Approval of internal regulations

4.4.3. Evaluation of the Activities of the Board of Directors

GRI 2-18

The activities of the Board of Directors are subject to an external independent evaluation every three years. In 2023, an external independent consultant from among international audit and consulting companies was engaged to evaluate the performance of the Board of Directors for the period from 2020 to 2022 according to the criteria and approaches formulated by the UK Financial Reporting Council in the Guidance on Board Effectiveness.

The efficiency level of the Board of Directors in terms of applicable key parameters was 79%. The highest performance indicators were noted in the following areas:

- quantitative and qualitative composition of the Independent members of the Board of Directors, as well as a consistently long period of their activity;
- high level of competencies and extensive experience of members of the Board of Directors.

Performance indicators that require significant improvement are noted in the following areas:

- Mitigation of the position of the majority shareholder in the process of decision-making by the Board of Directors;
- the frequency of meetings of the Board of Directors, the number of issues submitted for discussion, as well as the actual decision-making processes;
- insufficient level of representation of women in the Board of Directors, including the composition of Independent Directors gender imbalance).

An independent consultant has prepared an action plan to improve the efficiency of the Board of Directors, which provides for the following key tasks:

- formation of consensus and formalization of interaction with the majority shareholder;
- increasing the regularity and predictability of the activities of the Board of Directors and reducing the one-time workload per meeting;
- expanding the mutual involvement of the Board of Directors and such stakeholders as "employees" (including SDEs) and "minority shareholders".

Monitoring by shareholders and members of the Board of Directors of the timely and proper execution of the tasks reflected in the action plan will be the key to further improving the efficiency of the Board of Directors.

4.4.4. Plans for 2023

Election of a new Board of Directors

- The tenure of the incumbent Board of Directors expires in 2023. The forthcoming Annual General Meeting of Shareholders (AGM) of the Company will consider electing a new Board of Directors of the Company. In particular, the AGM is proposed to re-elect the seven-strong BoD consisting of the following members, except for the Senior Independent Director of the Company, Banham Russell Francis, and to establish that the tenure of the new Board of Directors shall be three (3) years. The following members are suggested for re-election: Neil Longfellow, Marc Kasher, Armanbay Zhubaev, Nazira Nurbaeva, Yernar Zhanadil, Yernat Berdigulov, and Yerzhan Mukanov.

Quality of documents submitted to the Board

- Taking measures to reduce the quantity of agenda items to be reviewed by the Board of Directors and its committees. When considering the related-party transactions, information should be given about conformity of the transaction price with the market price, with a benchmarking review added, except for transactions that involve the sale and purchase of uranium products.
- When the documents and papers are submitted for consideration by the Board/Committees, they should specify the relevance and impact on the implementation of the Company's Development Strategy.

4.4.5 Committees of the Board of Directors

GRI 2-9, 2-12

The Board of Directors has four committees:

- Production Safety (HSE) Committee
- Audit Committee
- Strategic Planning and Investment Committee
- Nomination and Remuneration Committee

The Committees[80] are accountable to the Board of Directors in line with the their mandate granted by the Board of Directors and the relevant Regulations on the Committees. Members of the Committees are elected by the Board of Directors in line with the Law *On Joint Stock Companies*, the Code of Corporate Governance of Samruk-Kazyna JSC, and Kazatomprom's Charter.

4.4.4.1. Performance of the Board Committees in 2022

Report of the HSE Committee

Composition of the Committee and quantity of meetings

Name	Attendance, %	**Reasons for absence**
Neil Longfellow, Chairman	100	
Russell Banham	100	
Yernat Berdigulov	0	Appointed to the Committee on 27 June 2022
Assem Mamutova	100	Excluded from the Committee on 1 May 2022

6 in-person meetings in 2022
28 matters considered

Matters considered by the Committee in 2022:

- Report on the implementation of the 2021 Action Plan for social partnership and enhancement of social stability at Kazatomprom's enterprises
- Overview of sustainable development efforts in H2 2021 and 8M2022
- Restated HSE, Nuclear and Radiation Safety Policy of NAC Kazatomprom JSC
- Kazatomprom's Human Rights Policy
- Committee's action plan for 2023
- Quarterly Occupational Safety Status Reports and Q3 2022 ESAP Implementation Status Reports.

Report of the Audit Committee

Composition of the Committee and quantity of meetings

Name	**Attendance, %**	**Reasons for absence**

[80] For more about the role of the Board of Directors, see Kazatomprom Integrated Annual Report 2019.

Russell Banham, Chairman	100	
Neil Longfellow	100	Appointed to the Committee on 27 June 2022
Marc Kasher	100	
Assem Mamutova	100	Withdrew from the Board of Directors on 1 April 2022

1 meeting in absentia and 12 in-person meetings in 2022
104 matters considered

Matters considered by the Committee in 2022:

Reporting:

- Composition of the Commission responsible for selecting an auditor FY 2022-2024
- The 2021 annual financial statements of NAC Kazatomprom JSC
- Scope of audit and non-audit services provided by auditors to the Company and Group in 2021
- Interim financial statements of NAC Kazatomprom JSC (consolidated and separate) for Q1 2021, 3M2022, 6M2022, and 9M2022
- External auditor's opinion on Kazatomprom Integrated Annual Report 2021.

Risk management:

- Risk Management Report for 2021, Q1 2022, and Q2 2022
- Kazatomprom's corruption risk map, register, and 2022 Action Plan to minimise corruption risks
- Restated Risk Management Policy of NAC Kazatomprom JSC
- Kazatomprom's risk appetite for 2023

Corporate governance:

- Report on compliance with the Corporate Governance Code (based on the 2021 results)
- Corporate Governance Improvement Plan 2022
- Kazatomprom Integrated Annual Report 2021

Other matters:

- Outcomes and findings of the forensic audits
- Findings of inspections conducted by the Compliance Service in H1 2022 to check Kazatomprom's subsidiaries and affiliates for fictitious contracts and other irregularities indicating abuses
- Status and plans to further improve cybersecurity across Kazatomprom's Group
- Updated SAP Corrective Action/Improvement Action Plans at NAC Kazatomprom JSC, Kazatomprom-SaUran LLP, RU-6 LLP, ORTALYK DP LLP, KAP Logistics LLP, Baiken-U LLP, JV Khorasan-U LLP, Kyzylkum LLP, and APPAK LLP
- Quarterly reports of the Internal Audit Service and the Compliance Service.

Report of Strategic Planning and Investment Committee

Composition of the Committee and quantity of meetings

Name	Attendance, %	**Reasons for absence**
Neil Longfellow, Chairman	100	
Russell Banham	100	
Yernar Zhanadil	25	for personal reasons

8 in-person meetings in 2022
36 matters considered

Matters considered by the Committee in 2022:

- Kazatomprom's 2021 Digital Transformation Programme Report and Roadmap of Kazatomprom's Digital Transformation Programme 2022-2026
- List of non-strategic assets of NAC Kazatomprom JSC for 2021-2028
- Kazatomprom's Q1 2022 Report on Implementation of Digital Transformation Programme
- Results of Kazatomprom's 2021 benchmarking against other uranium companies
- Annual Report on implementation of Kazatomprom's 2018-2028 Development Strategy in 2021
- Kazatomprom's investment project for the construction of a 800,000 t sulphuric acid plant at the Selection phase, and approval of the Report on Implementation of Strategic Initiatives selected by the Strategic Session held on 6 October 2021
- The project of long-term financial investments "Establishing a New Legal Entity" at the Selection and Definition phase
- Kazatomprom Strategy for Decarbonisation and Carbon Neutrality 2060
- Work plan of the Strategic Planning and Investment Committee for 2023
- Financing the Determination stage works related to the Implementation phase of an investment project, *Building 600. Reconstruction. Uranium Oxide Refining with Annual Capacity of 6,000 tonnes of U. Ulba Metallurgical Plant. Northern Site*; in terms of construction works under the detailed design, *Building 600. Reconstruction. Uranium Oxide Refinery with Annual Capacity of 6,000 tonnes of U. Seismic amplification between axes 3-27, A-T. Ust-Kamenogorsk. Ulba Metallurgical Plant. Northern Site*

In 2022, the Committee considered quarterly Kazatomprom Management Board Reports on the implementation of major investment projects and the Reports on Implementation of Strategic Initiatives selected by the Strategic Session held on 6 October 2021.

Report of Nomination and Remuneration Committee

Composition of the Committee and quantity of meetings

Name	Attendance, %	**Reasons for absence**
Marc Kasher, Chairman	100	
Neil Longfellow	100	
Nazira Nurbaeva	57	Appointed to the Committee on 27 May 2022
Assem Mamutova	100	Withdrew from the Board of Directors on 1 April 2022
Bolat Akchulakov	-	Resigned from the Board on 11 January 2022

11 in-person meetings in 2022
69 matters considered

Matters considered by the Committee in 2022

HR matters:

- Introducing the role of a senior independent director in the Board of Directors of the Company
- Nominating a candidate for the role of a senior independent director of the Company
- Recommendations on inclusion of the role of the Chief Production Officer into the Company's Management Board
- Recommendations on approval of a restated Kazatomprom Head Office structure
- Recommendations on candidates for the roles of Chief Directors of subsidiaries and affiliates of Kazatomprom
- Recommendations on candidates for the role of Acting Chairman of Kazatomprom's Management Board
- Recommendations on candidates for the role of Chairman of Kazatomprom's Management Board
- Recommendations on changes in the Management Board of NAC Kazatomprom JSC
- Recommendations on candidates for the role of Ombudsman of NAC Kazatomprom JSC
- Recommendations on the election of new members of the Board of Directors.

Bonuses:

- Recommendations on the 2021 Report on implementation of KPIs by the Chairman and members of the Management Board of NAC Kazatomprom JSC
- Recommendations on payment of bonuses based on 2021 performance to the Chairman and members of the Management Board of NAC Kazatomprom JSC
- Recommendations on restated 2022 KPIs of Kazatomprom's Board Chairman and members
- Recommendations on bonuses for the Corporate Secretary and the Ombudsman of the Company

4.5. Management Board

The Management Board is Kazatomprom's executive body acting in line with the laws of the Republic of Kazakhstan, Articles of Association, Corporate Governance Code, and the Regulations on the Management Board. These documents outline the role and accountability of the Management Board, as well as the rights and responsibilities of the Management Board members.

Matters reserved for the Management Board are:

- Approval of the Company's internal documents
- Adoption of the executive business decisions
- Development and implementation of the Company's business strategy and budget
- Appointment of heads of branches and representative offices
- Implementation of decisions made by the Board of Directors and the General Meeting of Shareholders.

4.5.1 Changes in the Management Board

The Management Board saw changes in the reporting period.
On 24 September 2021, the Board of Directors decided (Minutes No. 11/21) to establish an 8-strong Management Board including the following members.

Name	Position	Year of joining
Mazhit Sharipov	Chairman of the Management Board	2015
Aslan Bulekbay	Chief Production Officer	2021
Dosbolat Sarymsakov	Chief NFC Officer	2011
Kamila Syzdykova	Chief Economic and Financial Officer	2009
Askar Batyrbaev	Chief Commerce Officer	2006
Yerlan Tuleugozhin	Chief Strategy and Development Officer	2018
Alibek Aldongarov	Chief HR and Transformation Officer	2017
Marat Yelemesov	Managing Director for Legal Support and Risks	2018

The Company's Board of Directors re-elected the Chief Production Officer, a member of the Management Board, with effect from 1 June 2022 (Resolution No 4/22, Minutes dated 27 May 2022).

Name	Position	Year of joining
Yerzhan Mukanov	Chief Production Officer	2006

The following executive officer was appointed acting Chairman of the Management Board of the Company with effect from 4 July 2022 pursuant to Resolution No. 6/22 of the Board of Directors of the Company (Minutes dd. 30 June 2022).

Name	Position	Year of joining
Yerzhan Mukanov	Chief Production Officer	2006

On 18 September 2022, the Board of Directors decided (Minutes No. 7/22) to establish a 7-strong Management Board including the following members.

Name	Position	Year of joining
Yerzhan Mukanov	Acting Chairman of the Management Board, Chief Production Officer[81]	2006
Dosbolat Sarymsakov	Chief NFC Officer	2011
Kamila Syzdykova	Chief Economic and Financial Officer	2009
Askar Batyrbaev	Chief Commerce Officer	2006
Alibek Aldongarov	Chief HR and Transformation Officer	2017
Marat Yelemesov	Managing Director for Legal Support and Risks	2018

On 14 September 2022, the Board of Directors elected him the Chairman of the Management Board (Minutes No. 9/22).

Name	Position	Year of joining
Yerzhan Mukanov	Chairman of the Management Board	2006

4.5.2 Management Board
(as of 31 December 2022)

Yerzhan Mukanov **Chairman of the Management Board**	
Year of birth	1977
Nationality	Republic of Kazakhstan
Educational background	A degree in Metallurgy of Non-Ferrous Metals from Satbayev University, a degree in Metallurgy of Ferrous, Non-Ferrous and Rare Metals from the Institute of Metallurgy and Concentration, a degree in Economic Assessment of Mining Projects from Ecole Nationale Superieure des Mines de Paris, Executive MBA programme in Strategic Management and Leadership from Almaty Management University and St. Petersburg State University. Studies at the University of Science and Technology MISIS, Doctor in Business Administration programme (present). An author of research papers and patents on hydrometallurgy of precious metals.
Professional experience	September 2022 - Chairman of the Management Board, NAC Kazatomprom JSC. March 2022 Chief Production Officer, Kazatomprom Senior roles in Kazatomprom's subsidiaries and affiliates: JV Katco LLP, Kazatomprom-SaUran LLP, Karatau LLP, and Semizbay-U LLP. 2012 - 2014 - Production Development Coordinator at AREVA Mines. June 2006 - Process Engineer at JV Katco LLP. 2004 - 2006 - Technologist Inspector, Almaty Heavy Engineering Plant. 1999 - Engineer of the Laboratory of Special Concentration Methods and Hydrometallurgy at the Institute of Metallurgy and Concentration of the Academy of Sciences of Kazakhstan.
Dosbolat Sarymsakov **Chief NFC Officer**	
Year of birth	1971
Nationality	Republic of Kazakhstan
Educational background	A degree in Physics from Al-Farabi Kazakh National University, a degree in International Relations from the Diplomatic Academy of the Ministry of Foreign Affairs of the Republic of Kazakhstan.
Professional experience	2021 – Chief NFC Officer. 2017 - 2021 - Director of Nuclear Fuel Cycle Projects, Kazatomprom.

[81] Part-time

	2011 - 2017 - Manager of Nuclear Fuel Cycle Projects, Kazatomprom. 2008 - 2011 - Executive Director of Nonproliferation Centre. 1996 - 2011 - An engineer at the Institute of Atomic Energy of the National Nuclear Centre of the Republic of Kazakhstan; a manager at the Institute for Nonproliferation (later renamed Nonproliferation Centre). May 1995 - December 1995 - A Lead Specialist, the Ministry of Industry and New Technologies of the Republic of Kazakhstan.
Kamila Syzdykova **Chief Economic and Financial Officer**	
Year of birth	1981
Nationality	Republic of Kazakhstan
Educational background	Bachelor's degree in business administration from KIMEP University, Executive MBA from Nazarbayev University.
Professional experience	2020 - present - Chief Economic and Financial Officer. 2018 - 2020 - Managing Director for Economics and Finance, Kazatomprom. 2012 - 2018 - Various positions in Kazatomprom's partner companies, Cameco LLP and UrAsia Energy Holding Ltd, a subsidiary of UraniumOne Uranium Holding. Kamila Syzdykova held senior roles in Halyk Bank of Kazakhstan and Kyzylkum, a subsidiary of NAC Kazatomprom JSC. She started her career in 2002 as a business valuation consultant at Rice Group Central Asia.
Askar Batyrbaev **Chief Commerce Officer**	
Year of birth	1983
Nationality	Republic of Kazakhstan
Educational background	Master's degree in Physics from Al-Farabi Kazakh National University Currently, he is taking an Executive MBA course at Nazarbayev University.
Professional experience	April 2021 - present - Chief Commerce Officer, Kazatomprom. January 2021 – Chief Marketing Officer. 2019 - 2021 - Managing Director for Marketing and Sales, Kazatomprom. 2017 - 2019 - Various senior roles at Kazatomprom. 2006 - 2017 – Various positions in marketing, sales and logistics at APPAK LLP and JV Inkai LLP, subsidiaries of Kazatomprom. 2001 - 2004 – Laboratory assistant at the Institute of Nuclear Physics of the Republic of Kazakhstan.
Alibek Aldongarov **Chief HR and Transformation Officer**	
Year of birth	1983
Nationality	Republic of Kazakhstan
Educational background	A degree in Computer Science, Communication Networks and Switching Systems from Almaty College of Communications, Kazakh-American University; a degree in Multichannel Telecommunication Systems from Satbayev University.
Professional experience	September 2021 - present - Chief HR and Transformation Officer. May 2021 - Chief Transformation Officer, Kazatomprom Prior to his appointment, he was the CEO of KAP Technology LLP. He has seven years of experience in the nuclear industry in senior positions at Bailanys-NAK LLP and KAP Technology LLP. He has extensive experience in telecoms system design for the representative office of Iskratel LLC, as well as in support and development of information systems as the Director of the Technical Support and Deputy Chairman of the Board at NBK Banking Service Bureau JSC. 2004 – Start of career at Kazakhtelecom JSC as an electrician of linear structures.
Marat Yelemesov **Managing Director for Legal Support and Risks**	
Year of birth	1985
Nationality	Republic of Kazakhstan

Educational background	A degree in International Law from Al-Farabi Kazakh National University; Department of Public Policy and Administration, New York State University.
Professional experience	2020 – present - Managing Director for Legal Support and Risks. 2019 - Managing Director for Legal Support and Risks, Kazatomprom. 2018 - Legal Department Director, Kazatomprom. 2013-2018 – An expert, Chief Expert, Head of the Arbitration Department, Deputy Director of the Department, Ministry of Justice of the Republic of Kazakhstan. 2012 - 2013 – Work in the Akimat of West Kazakhstan Region, Uralsk. 2009 – Start of career as a GR specialist, British American Tobacco.

GRI 405-1

Age diversity within the Management Board, %

30-50 years old	83
50+	17

Gender diversity, %

Men	83
Women	17

GRI 202-2

All top managers hired in 2022 were from among the local community representatives.[82]

4.5.3 Management Board Performance Report

48 in-person meetings and 1 meeting in absentia held in 2022
747 matters considered

Key matters considered by the Management Board

- **449** matters were submitted to the Board of Directors for consideration and approval. They included: approval of the Company's internal and planning documents; conclusion of related-party transactions; decisions on the transfer of subsoil use rights; acquisition/disposal of stakes in the authorised capital of other legal entities; preliminary approval of annual financial statements and preparation of proposals on dividend distribution. The matters also included the Management Board's reports on: risk management; occupational safety; implementation of Kazatomprom Business Plan; implementation of the Corporate Governance Improvement Plan; big investment projects; related-party transactions approved by the Management Board of NAC Kazatomprom JSC; implementation of Kazatomprom's Asset Restructuring Plan; approval of amendments to current subsoil use contracts; approval of 2023 KPIs of Kazatomprom's Management Board Chairman and members; approval of Kazatomprom's 2023 Risk Register, Map and Appetite; approval of the organizational structure of Kazatomprom's Head Office and the total headcount; approval of limits of balance-sheet and off-balance sheet liabilities in regard to tier 2 banks for Kazatomprom's enterprises where the limits exceed the internal limits of Kazatomprom; the adoption of decisions and establishment of the Company's position as the Sole Shareholder (Participant) of the subsidiaries and as one of the shareholders/participants of the legal entities in which Kazatomprom is not the Sole Shareholder (Participant) for subsequent voting by the Company's authorised representatives at the general meetings of shareholders (participants) on certain issues of the operations of the subsidiaries and affiliates.

- The Management Board made decisions on the conclusion of **83 related-party transactions** of which the parties were representatives or intermediaries of the Company's affiliates. The decisions on the conclusion of the related-party transactions were taken by the Management Board in accordance with Article 21 of the Law of the Republic of Kazakhstan No. 550 dd. 1 February 2012 IV *On the Sovereign Wealth Fund*, Articles 64, 71 of the Law of the Republic of Kazakhstan No. 415-II dd. 13 May 2003 *On Joint Stock Companies*, and clause 3 of the Rules for concluding transactions between organisations under the umbrella of Samruk-Kazyna, where the Law of the Republic of Kazakhstan *On Joint Stock Companies* sets special conditions

[82] Top managers are members of the Management Board. Local communities are represented by nationals of the Republic of Kazakhstan.

for conclusion of such transactions as approved by the decision of the Board of Directors of Samruk-Kazyna on 27 April 2009 (Minutes No. 18).

- **55 transactions** where Kazatomprom alienated and/or acquired property with the value being less than 10% of the total value of Kazatomprom's assets, as well as decisions made by the Company's Management Board in accordance with Article 180. 2 of Law of the Republic of Kazakhstan No. 413-IV dd. 1 March 2011 *On State Property*.

- **22** matters were decided to establish the Company's position as a shareholder (participant) of legal entities in which NAC Kazatomprom JSC is not the Sole Shareholder (Participant) for the subsequent voting by the Company's authorised representatives at the general meetings of shareholders of such entities (voting on the operations of Baiken-U LLP, JV SKZ Kazatomprom LLP / SSAP LLP, and Uranium Enrichment Centre JSC).

- **43 decisions to approve Kazatomprom's internal regulatory documents.** They included: Instruction "Natural Uranium Concentrates for Export. Definition and Adjustment Accounting", NAC Kazatomprom JSC Standard ST NAC 22-2022 "Capital Projects Management", Kazatomprom's Business Continuity Rules, Preparation of Management Reports on Kazatomprom's Internal Control System, Procurement of Goods, Works and Services at NAC Kazatomprom JSC, Procedures for the Permanent Asset Management Commission of NAC Kazatomprom JSC, Regulations on the Expert Commission on Intellectual Property of NAC Kazatomprom JSC, Kazatomprom's Subsidiaries and Affiliates Management Policy, Regulations on the Development, Approval and Monitoring of Kazatomprom's Business Plan, Regulations on the Architectural Committee with respect to IT Architecture Management at Kazatomprom, etc.

  95 decisions on other matters, including payment of the membership fee to the Nuclear Energy Institute and World Nuclear Association for 2022, changes in the composition of Kazatomprom's Credit Committee; sending Kazatomprom's employees for training; decisions on matters reserved for the sole participant (shareholder), etc.

GRI 2-15

The Management Board members had no conflict of interests in 2022.

Attendance of meetings by Management Board members

Board Members	Attendance	Time of sitting on the Management Board
Yerzhan Mukanov	31	1 Jun - 31 Dec 2022
Mazhit Sharipov	24	1 Jan - 4 Jul 2022
Aslan Bulekbay	4	1 Jan - 5 March 2022
Dosbolat Sarymsakov	45	1 Jan - 31 Dec 2022
Kamila Syzdykova	32	1 Jan - 31 Dec 2022
Yerlan Tuleugozhin	18	1 Jan - 18 Aug 2022
Alibek Aldongarov	47	1 Jan - 31 Dec 2022
Askar Batyrbaev	42	1 Jan - 31 Dec 2022
Marat Yelemesov.*	0	1 Jan - 31 Dec 2022

* Marat Ylemesov has been on study leave since 19 July 2021

4.6. Remuneration

GRI 2-19, 2-20

According to the Company's Charter, the remuneration of the Board of Directors' members is set by the General Meeting of Shareholders, while the remuneration of the Chairman and members of the Management Board is set by the Board of Directors, with no engagement of consultants in this.

On 28 June 2017, the Company's Board of Directors approved the Management Remuneration, Bonus and Social Support Policy, which outlines the procedures, terms, and conditions for payment of remuneration to the Chairman and members of the Company's Management Board. The executive pay and bonus system as now in effect has been developed in line with the recommendations of Samruk-Kazyna JSC, which was the sole shareholder of the Company in 2017.

The procedures and terms of remuneration for the Chairman and members of the Company's Management Board are outlined in their employment contracts and based on a decision made by the Company's Board of Directors in line with Kazatomprom's Management Remuneration, Bonus and Social Support Policy. The size of the salaries of the Chairman and members of the Management Board of the Company shall be set by the Board of Directors of the Company in accordance with the Pay Grid.

The remuneration of the Chairman and members of the Management Board of the Company relies on a time-bonus system and consists of a fixed part (official salary) and a variable part (bonuses linked to the annual performance). Performance-based bonus for a year depends on the percentage of achievement of corporate and functional KPIs, which are developed by cascading the strategic KPIs approved by the Company's Board of Directors for the relevant period. Bonuses of the Chairman of the Management Board are 100% linked to the achievement of corporate KPIs and those of the members of the Management Board are 70% linked to the achievement of corporate KPIs and 30%, to the achievement of functional (individual) KPIs over the year.

The Corporate KPI map for a reporting year is approved annually by the Board of Directors and includes financial, H&S, operational and other metrics, including those related to licence to operate in the regions of presence. The map is well balanced, taking into account all strategic goals of the Company.

List of corporate KPIs for the Company

2022	
Enhancing the culture of safety	The KPI aims to enhance safety culture across NAC Kazatomprom JSC group and consists of the following metrics: greenhouse gas emissions, average personnel exposure dose, and lost time injury frequency rate (LTIFR)
Return on capital employed	The KPI reflects the return on capital employed to improve the efficiency of investment per capital employed
Shareholder returns	The KPI is used to show the return on investment made by shareholders and aims to increase shareholder return and consists of the following metrics: total shareholder return (TSR), and the price of NAC Kazatomprom JSC's GDRs at the end of the year
Share of local content in goods, works and services	The KPI aims to support domestic producers and increase the share of local content in goods, works and services procured by NAC Kazatomprom JSC and its subsidiaries
Extent of implementation of the Extended Roadmap to comply with the Guidelines of the President of Kazakhstan on reforming Samruk-Kazyna JSC	The KPI focuses on the effectiveness of the implementation of the Guidelines of the President of the Republic of Kazakhstan on the modernisation of Samruk-Kazyna JSC as part of the objectives assigned to NAC Kazatomprom JSC
2023	
Unit production cost of U3O8	The KPI seeks to reduce production costs per kilogram of natural uranium oxide (U3O8) at NAC Kazatomprom JSC and mining companies
Enhancing the culture of safety	The KPI aims to improve the overall level and culture of occupational safety and consists of the following metrics: Lost Time Injury

	Frequency Rate (LTIFR), and number of Behavioural Safety Audits (BSAs) conducted
Shareholder returns	The KPI is used to show the return on investment made by shareholders and aims to increase shareholder return and consists of the following metrics: total shareholder return (TSR), and the price of NAC Kazatomprom JSC's GDRs at the end of the year
Share of local content in goods, works and services x	The KPI aims to support domestic producers and increase the share of local content in goods, works and services procured by NAC Kazatomprom JSC and its subsidiaries
ESG rating	The KPI shows an independent predictive opinion on Kazatomprom's ability to manage future risks and opportunities related to environmental impact, social factors and corporate governance (ESG). The indicator aimed at improving Kazatomprom's sustainability performance

In addition, a consolidated net profit earned by the Company in a reporting year is key to payment of the annual performance-based bonuses.

The pension arrangements for the Chairman and members of the Management Board are regulated by the Law *On Pensions in the Republic of Kazakhstan* (the Law). The Company acts as an agent for mandatory pension contributions and transfers a statutory percentage of the earned income to the Unified Accumulative Pension Fund. If the Chairman or a member of the Management Board terminate their employment contracts due to retirement, he/she shall be paid allowance as established by the Collective Bargaining Agreement.

In 2022, members of the Management Board and independent directors of the Board of Directors at Kazatomprom received a total of KZT 982.7 in pre-tax remuneration.

Total remuneration paid to members of the Management Board and the Board of Directors, KZT billion

2020	2021	2022
1.2	1.1	0.98

4.7 Risk Management and Internal Control

4.7.1 Risk Management System

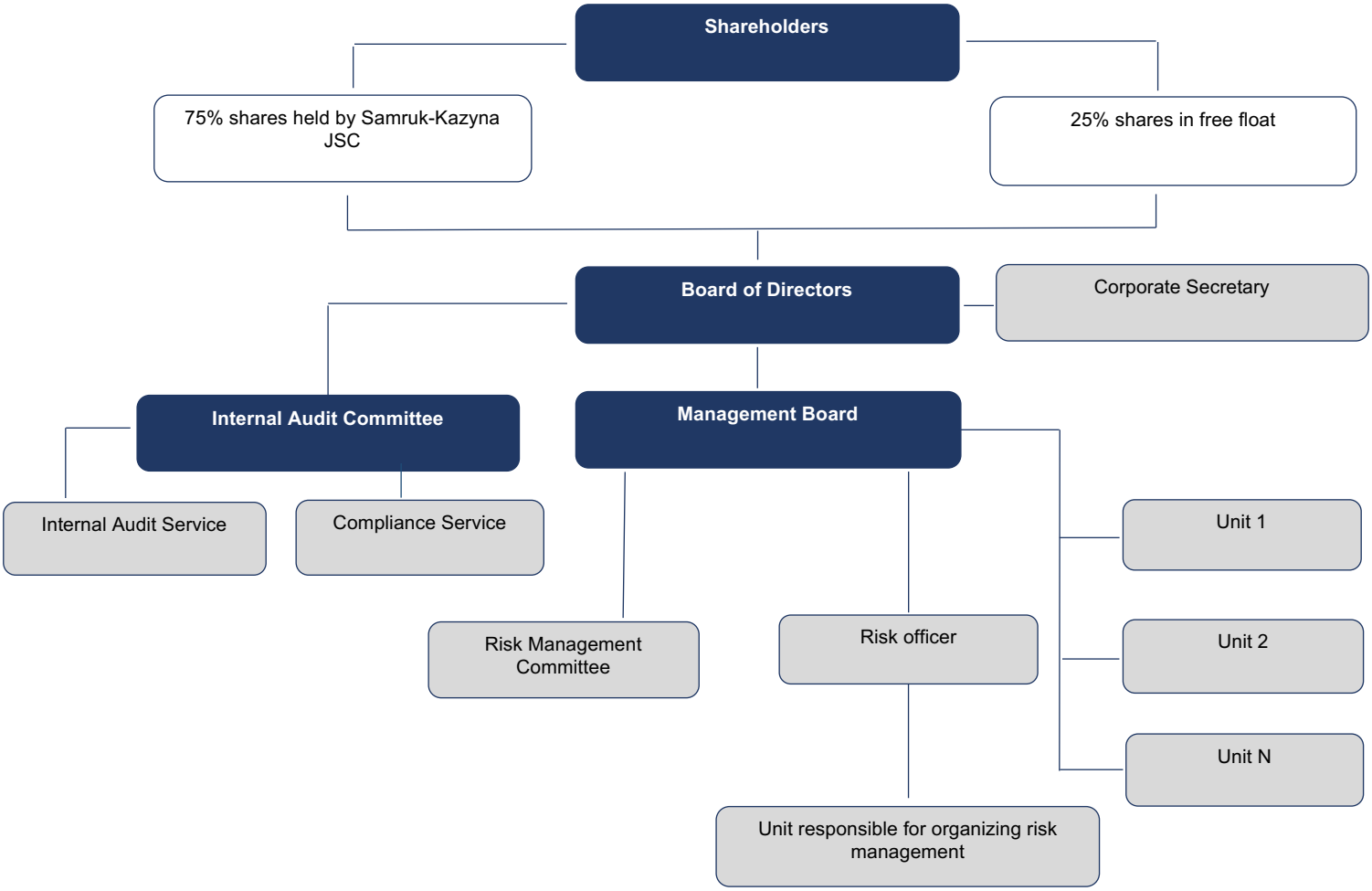
Key international standards and practices in risk management and internal control applied by the Company:

- COSO "Internal Control - Integrated Model" (2013);
- COSO "Enterprise Risk Management - An Integrated Model" (2004);
- COSO Conceptual Framework for Organisational Risk Management: Integration with Strategy and Performance (2017);
- ISO 31000:2018 "Risk management - Principles and guidelines" (2018);
- ISO 9001:2015 Quality Management System;
- Samruk-Kazyna's regulatory documents on risk management and internal control.

Established in 2010, the Company's risk management system has played a fundamental role in the Company's operations and development. The Company's management is confident that accurate and timely risk identification, assessment, monitoring and response enable effective decision-making at all levels of management and the achievement of the Company's strategic goals and key performance indicators.

The Risk Management Department is a focal point for system, responsible for methodological guidance and coordination of all risk management efforts. The Risk Management Committee of the Management Board provides operational guidance by reviewing, agreeing and approving key issues. The Company's subsidiaries and affiliates have the role of Risk and Compliance Officers responsible for risk management.

Risk management system



For more information on the structure, participants and powers of the actors in the risk management system, please see the Risk Management Policy available on the Company's website.

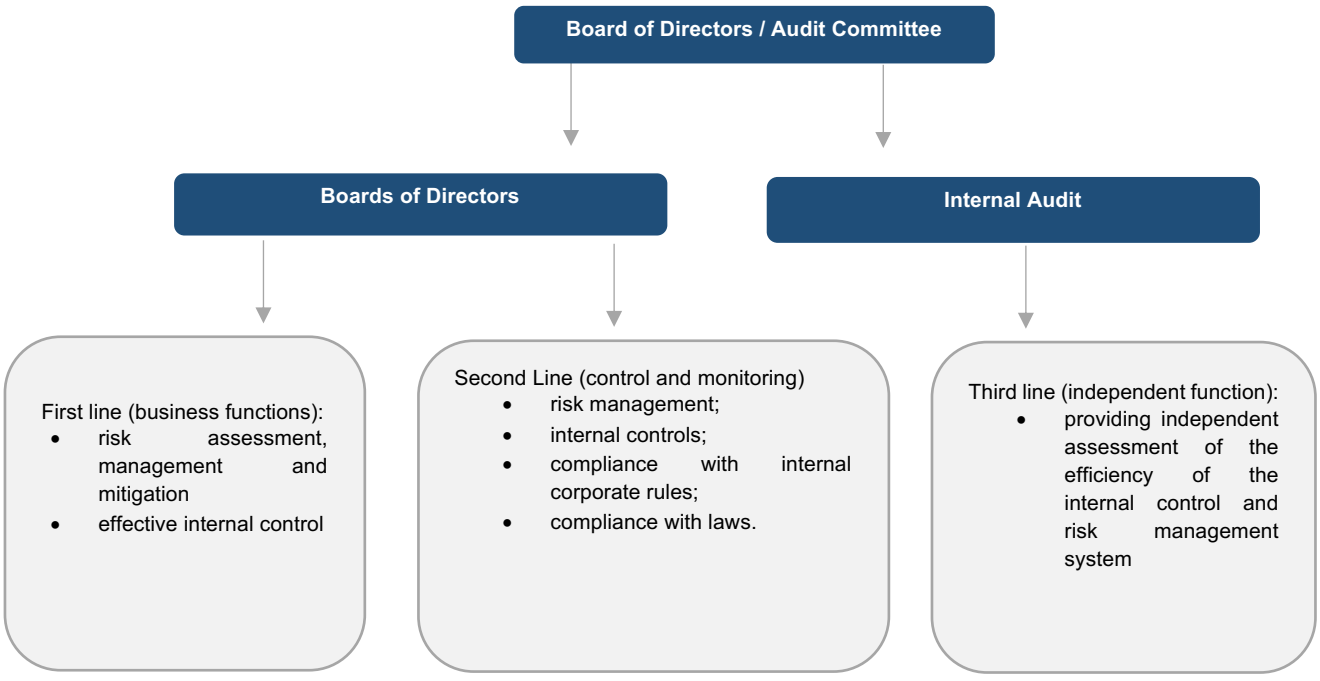
Relying on international standards and best practices in risk management, Kazatomprom Risk Management Policy was updated in 2022 (by a decision of the Board of Directors of NAC Kazatomprom JSC dd. 27 October 2022).

The purpose of the Risk Management Policy is to improve the risk management system, which helps us effectively manage and prioritise resources to ensure an acceptable level of risk for the Company and obtain the highest return on such investments by identifying, assessing, managing and monitoring risks. It also seeks to instil a risk culture, which determines how risks are identified, assessed and managed from strategy development through to implementation and performance monitoring, and how the risk management system is closely linked to the internal control system.

Established through the engagement of all key departments and stakeholders, as well as the effective exchange of information in the risk management process between the Company's Board of Directors, the Management Board, and divisions, the risk culture lies a the core of the Company's risk management system.

To improve continuously the quality of the risk management system, the Company holds corporate training on risk management and internal control for heads of departments and other employees who are risk owners. Kazatomprom also holds an annual roundtable discussion on topical issues with employees responsible for enterprise risk management.

Risk management and internal control system rests on the three lines model.



As part of ongoing insurance activities, the Company added eleven mining SDCs and Trade and KAP Logistics LLP to its corporate property insurance programme in 2022.

According to the guidelines for uranium sale counterparty risk management, the Company's Management Board approved a list of counterparties and limits for counterparties in relation to uranium sale contracts»[83]. The Risk Management Department conducts an independent risk assessment of

[83] Kazatomprom's Management Board Decision No.1/22 dd. 20 January 2022

counterparties and informs the Board of Directors of the Company as part of its quarterly risk management reports.

In addition, the Company and its subsidiaries and affiliates have a business continuity management system in place, and test business continuity plans on regular basis.

The Business Continuity Rules were updated in June 2022 in view of the crisis that took place in January 2022, the Russian Federation/Ukraine conflict, extensive sanctions, the update of ISO 22301-2020, and the implementation of instructions from the Chairman of the Board and the Fund. The Rules now include a financial and economic crisis, a formalised option of a Reserve Office, and the concept of priority activities, regulate types of reserves, and expand the Crisis Centre, etc. During the year, the Company tested its business continuity plans and held meetings of the Crisis Centre.

Plans for 2023:

- Continue promoting the risk culture across the Company
- Update internal regulations on risk management and internal control
- Update key risk indicators for key risks
- Explore the potential of ACCS OPTI Drill
- Use analytical reports based on the Corporate Data Warehouse (CDW)
- Support segregation of duties (SoD) within SAP Governance, Risk and Compliance, Access Control (GRC AC) in Procurements

4.7.2 Risks of NAC Kazatomprom JSC

Under the COSO methodology, all of the Company's identified risks fall into five main categories: strategic, financial, operational, investment, and legal risks.

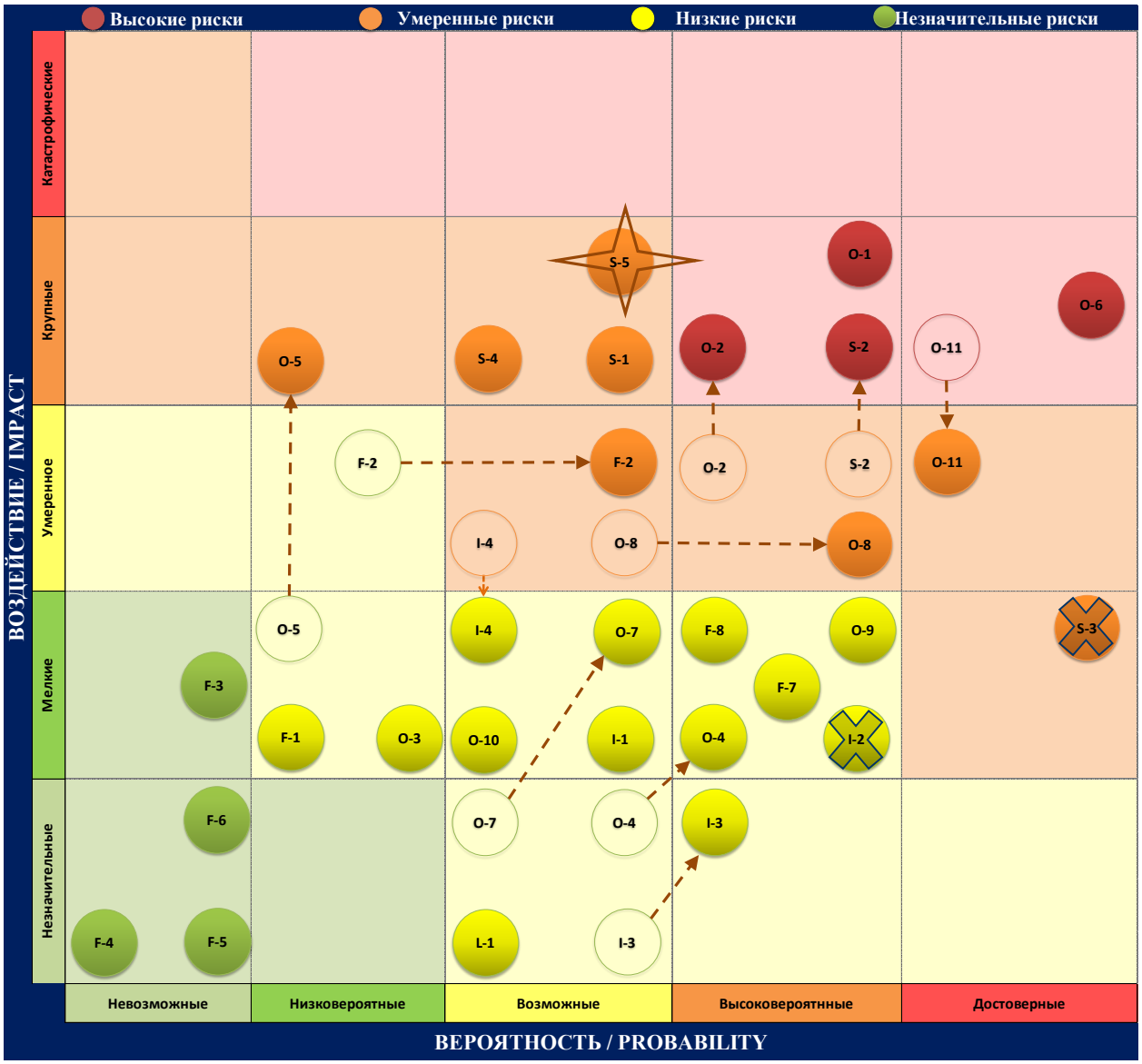
Risk registers and maps of subsidiaries and affiliates are developed and approved on an annual basis. Kazatomprom’s risk map is divided into zones of impact and likelihood.

According to the Company's Risk Register, we identified 27 risks for 2022, including four red-zone risks:

- Higher social tensions
- Failure to deliver on uranium sale targets
- Failure to deliver on uranium and/or U3O8 production targets)
- Occupational injuries

A risk is assessed according to its position on the Risk Map. The areas of risk zones are allocated according to damage, pegged to the risk appetite.

Risk Map 2022



STRATEGIC RISKS (S)	
S-1	Decrease in uranium sales price below target
S-2	Higher social tensions
S-3	Failure to deliver on the Company's asset restructuring plan
S-4	Reputation risk
S-5	Failure to perform on subsoil contracts
OPERATIONAL RISKS (O)	
O-1	Failure to meet the uranium product sales plan
O-2	Failure to meet the planned uranium mining and/or uranium product output (U3O8)
O-3	Increase in the cost of products and services above target
O-4	Shortage of skilled staff or low qualifications
O-5	Compliance risk (non-compliance with internal or external regulatory requirements/standards)
O-6	Occupational injuries
O-7	Intentional damage to the Company's group of companies
O-8	Reduced information security
O-9	Failure to meet planned production/sales of beryllium, tantalum, niobium and other UMP products
O-10	Environmental risk
O-11	Risk of a pandemic

LEGAL RISKS (L)	
L-1	The occurrence of legal consequences of non-compliance/different interpretations of legislation
FINANCIAL RISKS (F)	
F-1	Liquidity deficit
F-2	Credit risk vis-à-vis counterparty banks
F-3	Failure to perform on issued guarantees and obligations that do not have the legal form of a guarantee
F-4	Currency risk
F-5	Interest rate risk
F-6	Non-compliance with covenants under loan and guarantee agreements
F-7	Counterparty default risk
F-8	Country risk
INVESTMENT RISKS (I)	
I-1	Failure to meet the planned targets for the implementation of the FA project in Kazakhstan
I-2	Untimely implementation/ non-implementation of Kazatomprom Digitalisation and Transformation Strategy/ Digital Transformation
I-3	Untimely implementation of CDW project (Stage 1)
I-4	Failure to achieve targets of the Building 600. Reconstruction. Uranium Refining. Ulba Metallurgical Plant JSC. North Site project

Key changes in the Risk Map in 2022:

In Q1, seven risks migrated, and one risk was excluded:

1. S-2 Higher social tension: impact grew from 3 to 4;
2. O-2 “Failure to meet the planned uranium mining and/or uranium product output (U3O8): impact grew from 3 to 4;
3. O-4 Shortage of skilled staff or low qualifications; probability grew from 3 to 4, and impact grew from 1 to 2;
4. O-8 Reduced information security: probability grew from 3 to 4;
5. O-5 Compliance risk: impact grew from 2 to 4;
6. O-11 Risk of a pandemic: impact dropped from 4 to 3;
7. I-4 Failure to achieve targets of the Building 600. Reconstruction. Uranium Refining. Ulba Metallurgical Plant JSC. North Site project: impact dropped from 3 to 2.

In Q2, one risk migrated, and one risk was excluded:

1. O-7 Intentional damage to the Company's group of companies: impact grew from 1 to 2;
2. I-2 risk was excluded, Untimely implementation/ non-implementation of Kazatomprom Digitalisation and Transformation Strategy/ Digital Transformation.

In Q3:

1. A new risk was out on the map: S-5 Failure to perform on subsoil contracts.

In Q4, two risks migrated:

1. F-2 Credit risk vis-à-vis counterparty banks: probability grew from 2 to 3;
2. I-3 Untimely implementation of CDW project (Stage 1): probability grew from 3 to 4.

Risks and mitigation measures

Risk	Description	Measures
S-1	Decrease in uranium sales price below target	• Fixating quotas of contracts. • Exploring the opportunity to hedge uranium prices through transactions with TH Kazakatom AG subject to provision of the necessary funding: – Participating in tenders and conclusion of new medium-term and long-term contracts at fixed and partially indexed prices. • Analysing the market, projecting the uranium price trend.

		• Media monitoring of incidents, accidents and their consequences at nuclear and uranium facilities. • Control of uranium production by Kazatomprom's subsidiaries and affiliates in line with Kazatomprom's strategic decisions.
S-2	Increasing social tensions	• Allocating funds to support the socio-economic development in the regions of operations under subsoil use contracts. • Local government relations and cooperation. • Reaching out to workers through online platforms, retreats and/or roundtables. • Developing and monitoring an action plan for social partnership and enhancement of social stability at Kazatomprom's enterprises. • Overseeing compliance with labour laws through the reporting of subsidiaries and affiliates. • Improving the financial literacy of employees (training). • Monitoring of media coverage.
S-4	Reputation risk	• Professional and timely communication and disclosure management. • Building effective internal communications in the central office, subsidiaries and affiliates. • Building and maintaining relations with local and international media. • Media and social networks monitoring. • Actions in line with the Crisis Communications Plan. • Control over the fulfilment of Kazatomprom's obligations under the agreements signed between Kazakhstan and the IAEA in terms of the competence of the parent company, subsidiaries and affiliates.
S-5	Failure to perform on subsoil contracts	• Monitoring of Kazakhstan's laws regulating the Company's operations. • Ensuring that the Company's subsidiaries and affiliates hold all necessary permits (licences) in line with the Subsoil and Subsoil Use Code of the Republic of Kazakhstan. • Participating in discussions on draft/amended legislation. Developing proposals to amend and supplement the laws of Kazakhstan. • Attending workshops explaining certain laws of Kazakhstan. Seeking explanations of complicated issues from government authorities. • Monitoring the compliance of the production figures in TO-25 reports with the contractual obligations of the subsidiaries and affiliates. • Raising the issue of risks associated with subsoil use contractual obligations with the Strategic Planning and Investment Committee of the Company's Board of Directors. • Monitoring subsoil use contract renewal deadlines.
O-1	Failure to meet the uranium product sales plan	• Exploring the uranium market environment and needs in the current year, using up-to-date information to assess the possibility to sell the output made available in the current year from the Uranium Sales Plan, because existing buyers refused to purchase natural uranium in view of the reduced demand for uranium products.

		• Entering into long-, short- and medium-term contracts for the sales of finished products (including contracts with KazakAtomTHAG). • Monitoring the performance of the contracts by the counterparties. • Insuring goods in transit against loss or damage. • Monitoring the media for prompt identification of intentions to impose sanctions and/or counter-sanctions affecting the uranium industry. • Selecting counterparties carefully, analysing and negotiating contract terms and conditions with the concerned structural units, etc. • Controlling compliance with the process parameters of finished uranium production. • Quality control of packaging of finished uranium products for compliance with standards. • Developing alternative uranium export routes.
O-2	Failure to meet the planned uranium mining and/or uranium product output (U_3O_8)	• Adjusting production (changes in unit commissioning schedule). • Strict adherence to subsoil use licences and contracts. • Supervising the execution of planned well construction and production. • Implementing the 2016-2027 Prospecting Programme for the replenishment of the mineral resources. • Taking corrective actions (shutting down wells with low uranium content, launching blocks with the richest uranium content, adjusting the acid feed, etc.). • Quality control of finished uranium products received for compliance with standards. • Weekly and monthly control of compliance with standards of well construction, mine preparation works and uranium mining, and technological regulations. • Controlling compliance with the process parameters of finished uranium production. • Overseeing the fulfilment of schedules for well preparation, repair and renewal operations. • Acquiring additional drilling rigs, outsourcing some of the drilling works. • Proper planning of requests for raw materials, inventories, energy, etc. • Monitoring the timely launch of fields, sites, and blocks. • Continuing the Corporate Property Insurance Programme for subsidiaries and affiliates. • Overseeing maintenance and repair works to be performed by uranium mining companies in line with the approved schedules. • Planning spring and autumn preparations, winter preparations and flood prevention measures. Overseeing timing of actions, analysing the outcomes and, if necessary, adjusting the Action Plan for future periods.
O-5	Compliance risk (non-compliance with internal or external regulatory requirements/standards)	• Training and regular testing of employees in line with the Code of Ethics and Compliance, awareness-raising about the insider information.

		• Updating the list of insiders up to date, collecting insider's notices of insider trading liability under applicable laws, including transactions with the Company's securities on the basis of insider information. • Notifying employees of the Company in advance about closed/open periods. • Timely informing stock exchanges and regulators about transactions made by PDMRs. • Monitoring changes in the stock exchange rules. • Informing the management and employees of the Company about changes in listing requirements. • Monitoring the compliance with disclosure rules. • Organising handling of hotline calls and ensuring timely handling. • Conducting training sessions for employees. • Seeking approval by the Compliance Service of foreign exchange payments to check if sanctions were imposed on non-resident counterparties and/or their banks.
O-6	Occupational injuries	• Monitoring compliance with the HSE laws of the Republic of Kazakhstan and corporate regulatory documents. • Conducting scheduled audits of operations of subsidiaries and affiliates to ensure the compliance with HSE regulations. • Monitoring timely training, briefing and checking personnel's knowledge of HSE. • Preparing and sending an information statement on findings of the analysis of occupational injuries and accidents at enterprises and prevention proposals to subsidiaries and affiliates. • Controlling the provision of employees of subsidiaries and affiliates with overalls and PPE. • Supervising regular radiation and contamination monitoring by subsidiaries and affiliates. • Supervising pre-shift medical examinations and briefings conducted by subsidiaries and affiliates. • Overseeing timely certification of workplaces by the Company's subsidiaries and affiliates. • Conducting and analysing behavioural safety audits, identifying near-misses. • Imposing disciplinary sanctions on responsible officers for occupational safety violations.
O-8	Reduced information security	• Continuous monitoring of compliance with the Information Security Policy. • Entering into NDAs with the counterparties of the Company's group of companies. • Raising the cyber security awareness and improving cyber security skills of employees. Conducting briefings and testing. Mailing out. • Testing the Business Continuity and Disaster Recovery Plans. • Conducting IS audits at the Company, its subsidiaries and affiliates. • Connection of all subsidiaries and affiliates under Kazatomprom's umbrella to the IS Operations Centre and a single Internet access gateway.

		• Making of a list of facilities identified as critical information and communication infrastructure. • Considering the establishment of a Cyber Security Centre on the site of KAPTechnology LLP (with connection to the ISOC and further to the National Cyber Security Coordination Centre). • Supervising the connection of all subsidiaries and affiliates under Kazatomprom's umbrella to the Integrated Information Security System (IISS). • Entry testing . Developing an action plan to eliminate identified IS threats and shortcomings. • Implementing IS tools to ensure and enhance IS maturity. • Protecting information by means of a confidential data leakage prevention system (DLP), Cryptographic Information Protection System (CIPS), and Comprehensive Information Security System (CISS). • Ongoing monitoring and analysis of changes in the information security laws of the Republic of Kazakhstan. • Preventing unwarranted access and disclosure of restricted information. • Identifying and closing potential channels used for leaking restricted business information in the course of the Company's operations. • Making a List of Confidential Information and Commercial Secrets of NAC Kazatomprom JSC. • Resolving power segregation conflicts in SAPGRCAC on the Procurement process.
O-9	Failure to meet planned production/sales of beryllium, tantalum, niobium and other UMP products	• Controlling the execution of the Production Plan. • Carrying out preventive maintenance and overhauls to prevent breakdowns. • Conducting ongoing negotiations with suppliers of raw materials (beryllium, tantalum). • Controlling the availability of standard stock (raw materials). • Controlling the sales of beryllium, tantalum and niobium products against targets. • Making contracts with consumers of beryllium, tantalum and niobium products. • Analysing the beryllium, tantalum and niobium market (by segment, region, product, competitor, consumer) on an ongoing basis.
O-11	Risk of a pandemic	• COVID-19 vaccination and revaccination. • Supporting employees' families affected by coronavirus/pneumonia.

The management is confident that Kazatomprom has an effective risk management system in place, implementing measures to prevent the materialisation of risks and reduce the consequences of the risk materialisation. Reports on the implementation of preventive measures are generated on a regular basis as part of the risk register.

Risk limitation practices are in place. Level of risk appetite is determined and approved by the Board of Directors on an annual basis. Kazatomprom has introduced tolerance levels to control processes preventing from potential negative financial consequences and reduction of the Company's value.

Kazatomprom has the Rules in place for setting limits for second-tier banks[84]. The Rules establish and ensure control over the level of credit risk arising in relation to the Company's counterparty banks.

The Group's limits on counterparty banks are approved at least annually by the Company's Management Board. Based on the limits approved by the Company's Management Board, the Risk Management Department assigns the counterparty bank limits to to the Company and its subsidiaries.

In addition, Kazatomprom has introduced the routine analysis and assessment of risks in investment projects, as well as in other initiatives submitted by the Company's enterprises for consideration by their governing bodies.

The Company's senior management is directly engaged in risk management on an ongoing basis. In particular, the Risk Management Department prepares quarterly risk management reports for the Management Board and the BoD Audit Committee and annual reports for the Board of Directors, disclosing information on materialised risks, preventive and reactive measures taken to reduce risks, projected risks, and financial risks.

4.7.3 Sustainability Risk Management

Kazatomprom strives to factor in the risks and opportunities in the area of sustainable development in its operations and make informed and ethical decisions related to sustainable development. The Company works to improve its risk management and internal control system and aligning it with ESG factors and the climate change agenda to meet the expectations of socially responsible investors, sustainability promoting communities, and other stakeholders.

For more information, see Kazatomprom Integrated Annual Report 2021.

4.7.4 Internal control

Our internal control system focuses on risk prevention in three key areas, including financial and management reporting, compliance with legal and internal regulations, and improving the operational efficiency.

The Company's internal control system seeks to build a management system capable of responding quickly to process risks, controlling core and supporting processes and day-to-day operations, and is built according to the COSO Internal Control - Integrated Framework and consists of five interdependent components:

- control environment
- risk assessment
- control procedures
- information and its transmission
- monitoring

The Company has Kazatomprom Internal Control System Policy (ICS Policy) in place, which outlines key medium-term aspirations and focus areas for the development of the internal control system at Kazatomprom (approved by the Board of Directors on 18 November 2021).

The ICS Policy is available on the Company's website in the Internal Control System Policy section.

In line with the ICS Policy, we developed Regulations on Management Reporting on Internal Control System (approved by the Management Board on 9 June 2022).

The Regulations establish the procedures, frequency, and the content of management reporting on the internal control system on a consolidated basis, as well as the deadlines for submission to NAC Kazatomprom JSC's respective collegial bodies.

The reports made according to the approved forms are based on self-assessments of process risks and internal controls of a structural unit for a reporting period.

The forms of management reports on internal control include information on:

[84] Approved by the Board of Directors on 18 November 2021.

- violations and deficiencies identified by internal controls and the results of the decisions taken or measures taken to remedy the situation;
- results of the evaluation of the effectiveness of the internal controls, taking into account information obtained from the audit reports of the internal audit unit (if any);
- measures to improve the ICS.

As part of the internal control system, the Company regularly implements the following measures:

- Testing the operational efficiency of the business processes controls at the Company's structural units
- Testing controls of the Company's financial reporting processes
- Diagnosing the development of the internal control system in subsidiaries

To implement and promote the principles of segregation of duties (SoD) within SAP Governance, Risk and Compliance, Access Control (SAP GRC AC), we developed rules for segregation of duties and configured SAP GRC AC solutions for the Procurement process in subsidiaries and affiliates covered by SAP in 2022. The Company will continue working on access management in 2023-2024 as part of the Information Protection Department's Access Management project.

To improve the internal control procedures undertaken to assure financial reporting in the Company, the structural units involved in the preparation of the financial statements updated their risk and process control matrices in 2022. Our Risk Management Department updated the descriptions of controls in the risk and control matrix and assessed the effectiveness of the control design. The assessment showed that the control procedures were appropriately designed and implemented to mitigate the risks in the preparation of the financial statements, and were adequate to the respective risks.

4.8. Internal Audit

The Company has an independent Internal Audit Service (the IAS) accountable directly to the Board of Directors. The Board of Directors determines the composition of the Service, the remuneration of its staff, and approves the internal audit policies and procedures, as well as the annual audit plan and budget.

IAS performance in 2022:

- The targets under the annual audit plan were 110% met;
- No facts were recorded that adversely affected the independence or individual objectivity of the internal auditors;
- The management, Audit Committee, and the Board of Directors reviewed the IAS reports on a quarterly basis.

4.9. External audit

GRI 2-5

Every year, Kazatomprom's Consolidated Financial Statements and the Integrated Annual Report are independently assured by an auditor, which results in an Independent Auditor's Report and the Auditor's Report on the Independent Limited Assurance Review.

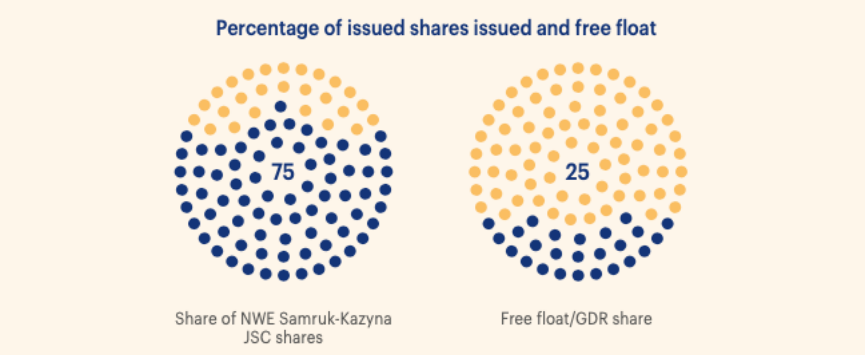
In 2022 at the Extraordinary General Meeting of Shareholders PricewaterhouseCoopers LLP was appointed as the auditor to perform audit of NAC Kazatomprom JSC's consolidated and separate financial statements under IFRS for the years 2023 and 2024. Remuneration for audit of NAC Kazatomprom JSC's consolidated and separate financial statements under the International Financial Reporting Standards for 2023 and 2024 amounts to KZT 679,938,766 (six hundred seventy nine million nine hundred thirty eight thousand seven hundred sixty six tenge), including VAT.

The Group's total non-audit fees for 2022 were KZT 74,309,000 (seventy-four million three hundred and nine thousand) excluding VAT.

4.10. Shareholder engagement

4.10.1 Share capital

Kazatomprom's total issued shares, including global depositary receipts (GDRs), is 259,356,608, with 64,839,152 shares/GDRs currently on free float, which makes 25%. Samruk-Kazyna JSC holds 75% of the issued capital, or 194,517,456 shares.



In 2022, Kazatomprom did not participate in any placements. There was no disclosure of the existence and compliance with the terms of any agreement with the controlling shareholder.

4.10.2 Listing information

As of 31 December 2022, the Company's securities, i.e. shares, GDRs and bonds were traded on the Kazakhstan and international stock exchanges with a listing on the Kazakhstan Stock Exchange (KASE), Astana International Exchange (AIX), and London Stock Exchange (LSE).

Listing

Instrument	Currency	ISIN	AIX	LSE	KASE
Ordinary shares	KZT	KZ1C00001619	KAP	–	–
GDRs	USD	US63253R2013	KAP.Y	KAP	–
Bonds	KZT	ISIN KZ2C00006153	–	–	KZAPb2
Commercial bonds	USD	KZ2C00009199	–	–	KZAPb3

4.10.3 Outreach policy

Kazatomprom works consistently to build a positive image and business reputation of the Company, as well as to inform stakeholders about the Company's operations through external and internal channels.

Kazatomprom has the Information Disclosure Council, the Information Disclosure Policy and Rules, communications risks, and other internal regulations in place.

Pursuing the Policy, Kazatomprom follows fundamental principles:

- transparency
- accessibility
- balance
- information protection
- consistency
- document evidence
- efficiency
- equality
- completeness

- impartiality
- protection of information resources
- regularity
- commitment
- reliability
- coherence

In 2022, the Company:

- published 74 press releases and statements on the Company's official website, and made responses to media enquiries
- had 37 articles, interviews, and reports published in foreign and Kazakh media
- held 2 press briefings for the media with the Company's management
- held 1 press tour around the company's production facilities
- had 2 conference calls with investors and analysts (to discuss performance in 2021 and H1 2022)
- organised 1 training workshop for Kazakh media representatives
- held 4 communication training sessions for managers and employees of the parent company, subsidiaries, and affiliates
- published 12 issues of the *QazAtomNews* corporate magazine
- released 46 corporate news bulletins
- posted 700+ publications and videos for internal and external audiences on the Company's social media accounts

4.10.4 Official channels for shareholder engagement

To ensure the exercise of equity rights and the effective shareholder engagement, the Company operates several communication channels:

- the Company's official website, www.kazatomprom.kz, where information about the Company is available, including the description of operations and performance, press releases, annual and interim reports.
- mailbox and hotline where shareholders may file inquiries on absentee voting, dividends, notification of changes in personal data and other similar matters with the registrar/depositary of the Company:
- For holders of ordinary shares: Central Securities Depository JSC, 28 Samal-1 District, Almaty. Tel.: +7 (727) 355 47 61;
- For holders of Global Depositary Receipts (GDRs): Citibank N.A., 388 Greenwich Street, New York, NY 10013, United States, Tel.: +1-212-816-6622 / +1-917-533-7887.

4.11. Tax transparency

GRI 3-3, 207-1

Since its foundation, NAC Kazatomprom JSC has taken a responsible approach to compliance with applicable tax legislation, taking into account the provisions of laws and regulations, international treaties and other recommendations of state authorities in its activities, while ensuring proper control over tax accounting and tax reporting. Our responsible approach to taxation is based on our corporate tax policy and internal regulations, and aims to ensure full and timely payment of all required taxes.

NAC Kazatomprom JSC's tax policy seeks to maintain the highest standards of tax accounting and the Group's management is responsible for compliance with the tax policy. NAC Kazatomprom JSC applies the group tax policy in accordance with the Company's overall business strategy and approach to corporate governance, ethics and risk management. The Company's tax policy is implemented using specific approaches and measures adopted and developed by the Group. These include proactive identification, prevention and mitigation of potential risks and result in accurate and timely fulfilment of the Company's tax obligations.

By making all applicable tax payments to local authorities, Kazatomprom makes a significant contribution to the sustainable social and economic development of the regions where it operates. Wherever possible, the Company seeks to engage in constructive dialogue on tax matters with government authorities, independent associations and business groups in order to make a meaningful contribution to the development of a fair, efficient and stable tax system.

GRI 207-2, GRI 207-3

The Director of Accounting and Reporting is responsible for the maintenance, control and management of tax risk and ensures that appropriate processes and systems are in place to control these risks. The Group is committed to minimising tax risks and always builds its business on sound principles, consistent with the tax legislation of Kazakhstan. The Company monitors tax changes on a regular basis and updates processes as necessary.

The Group believes tax risks are extremely important and discloses them in the financial statements if they exist. The Group prepares quarterly reports on tax risks for internal and external users. NAC Kazatomprom JSC seeks external advice if there is complexity or uncertainty regarding tax risk and works very closely with the tax authority represented by the State Revenue Committee of the Republic of Kazakhstan. The Company seeks to resolve any contentious issues through proactive and transparent discussion and negotiation. Since the tax system of the Republic of Kazakhstan is evolving, we consider different interpretations of tax laws and provisions, as well as the application of transfer pricing to be the most significant tax risks for the Group.

The Group widely participates in various pilot projects of the tax authorities aimed at continuous interaction between the parties in order to promptly identify and respond to potential risks. Our employees regularly participate in seminars and training sessions on tax matters to stay up-to-date on trends and changes in tax legislation. Significant tax issues are regularly reviewed by external auditors as part of the audit of the Company's financial statements.

4.12. Corporate ethics and compliance

GRI 2-13, SASB EM-MM-510a.1.

Kazatomprom believes that doing business ethically is key to its long-term success, and therefore maintains the highest standard of ethical behaviour in its daily operations, which is an essential part of its approach to doing business.

The Company's Code of Ethics and Compliance approved by the Board of Directors is a pillar for achieving strategic goals and a guide for all Company employees in building relationships with stakeholders.

In addition to the Company's Code of Ethics and Compliance, the key documents governing anti-corruption compliance procedures are:

- Anti-Corruption and Anti-Fraud Policy
- Regulations on the settlement of corporate conflicts and conflicts of interest.
- Securities Trading Policy
- Rules for internal control over insider information management
- Whistleblowing Policy
- Counterparty due diligence

The Anti-Corruption and Anti-Fraud Policy is the key document that defines major anti-corruption measures, goals, and principles of NAC Kazatomprom JSC.

Basic principles of combating corruption and fraud:

- Zero tolerance for corporate fraud
- Tone at the Top
- Certainty of punishment
- Separation of duties
- No conflict of interest
- Due diligence
- Engagement of employees and the third parties concerned
- No retaliation or sanctions

Kazatomprom has Regulations on the settlement of corporate conflicts and conflicts of interest in place. The document outlines causes of corporate conflicts and conflicts of interest, prevention procedures, as well as regulates conflict settlement actions of the Company's bodies.

GRI 205-2

The Anti-Corruption and Anti-Fraud Policy covers 100% of employees of Kazatomprom Group, including management. Staff outreach and training are conducted on a regular basis, including annual compliance testing.

In line with the ESG principles, Kazatomprom focuses on the development and further promotion of a compliance culture among its business partners as well.

100% of suppliers have been made aware of the Group's anti-corruption policies and procedures..

In 2022, the Compliance Service held workshops to explain the Code of Ethics for Suppliers and Contractors to eight major and systemic contractors of the Kazatomprom Group. The work will continue in 2023.

Throughout 2022, NAC Kazatomprom JSC's compliance specialists conducted anti-corruption training events for the Group's employees on various compliance topics, including anti-corruption issues.

In addition, a number of training and awareness-raising events were held with the invitation of civil servants from the anti-corruption regulator of Kazakhstan, the Agency for Counteraction of Corruption of the Republic of Kazakhstan.

In general, the Company aims to cover at least 90% of the full-time employees when conducting anti-corruption training.

4.12.1. Ethics and doing business principles

All our employees are committed to high standards of behaviour socially accepted and consistent with the responsibilities and traditions of the Company. High standards of personal conduct imply that employees of the Company adhere to the principles of honesty, integrity, impartiality, and respect not only at work and in communication with colleagues, partners, suppliers, customers, and other stakeholders of the Company, but also in their everyday life.

The general principles of employees' conduct in relations with other team members, business partners, shareholders, government agencies and other stakeholders are enshrined in Kazatomprom Code of Ethics and Compliance. Corporate values lie at the heart of the Code. As the backbone of the Group's corporate culture and employees' unity of views and actions, the values contribute to the effective achievement of the Company's goals.

In 2022, we updated our Code of Ethics and Compliance, extending some of our commitments. In particular, we added provisions on dealing with insider information, the dress code in the Company, corporate fraud and expanded the list of grounds on which no discrimination is allowed (such as beliefs, participation in associations, etc.).

GRI 2-23

Kazatomprom's corporate values:

Safety	• Safety is our habit • Each of us is personally responsible for safety • We promote the culture of safety through standards and conduct • We take care of the environment
Professionalism	• We are an industry leader • We have and share unique knowledge and practices • We achieve our goals effectively • We make informed decisions
Responsibility	• Each of us is personally responsible for his or her work product • We care about the future and take responsibility for the decisions we make • We care about our reputation • We are honest with each other, partners, suppliers, and customers
Development	• Developing ourselves, we develop the company • We pioneer innovations • Relying the best practices we have, we are developing new business areas • We improve technologies
Team	• We respect other opinions and value everyone's input • We help each other • We work towards our common cause • Generational knowledge and energy help build an effective team

Every employee of the Company must adherence to the Code of Ethics and Compliance, regardless of their position. This Code are binding on the management and third parties related to the Company. All employees of the Company get familiar with the Code of Ethics and Compliance when they are hiring and when the Code is amended.

All group companies have also introduced a Supplier Code of Ethics (as an annex to a model procurement contract), which outlines Kazatomprom Group's ethical principles and obliges suppliers to follow them.

For more information about thee Supplier Code of Ethics, please visit the Company's official website.

4.12.2. Anti-corruption management

GRI 3-3

As a law-abiding and public organisation, the Company supports anti-corruption and anti-bribery measures in Kazakhstan and globally. Corruption causes significant damage to the economic security of a country and society, has a devastating effect on the national economy, destabilises public life and work, and undermines public trust. The Company's anti-corruption commitments are enshrined in its Code of Ethics and Compliance.

GRI 2-16, 2-24

To ensure the effective anti-corruption management, we have implemented all necessary measures and procedures. Responsibilities are assigned depending on the level of decision-making:

- The Board of Directors is responsible for shaping a compliance policy and culture, including anti-corruption actions and approval of internal documents, approving the annual corruption risk map, reviewing reports on materialised compliance risks, appointing the Head of Compliance Service, evaluating his/her performance and approving the work plan of the Compliance function for a year.
- The Management Board is responsible for implementing compliance procedures and enforcing compliance policies.
- The Compliance Service conducts an independent assessment of corruption risks, is responsible for coordinating anti-corruption efforts across the Group (including 23 operating companies), conducts counterparty due diligence, and reviews whistleblowers' reports.
- The Internal Audit Service regularly evaluates the effectiveness of the Company's anti-corruption programme and submits its evaluation report to the Board of Directors.

In addition, the Company strives to cascade down these ethical business principles to suppliers and contractors. Thus, from mid-2021, an annex, the Supplier and Contractor Code, was introduced into the model procurement contracts. Suppliers must adherence to the Code. The Code incorporates seven core principles in line with the ESG (Environmental, Social & Governance) principles. Since 2022, Kazatomprom has held outreach meetings and workshops with the group's regular and major suppliers to discuss the Code.

4.12.3. Anti-corruption training

To raise employees' awareness about compliance and the latest changes in anti-corruption laws, NAC Kazatomprom JSC conducts regular compliance and anti-corruption training sessions.

In 2022, the Company held two meetings with compliance and risk officers of subsidiaries and affiliates (12-13 April 2022 and 13-15 June 2022). The meetings discussed key developments in the risk management and compliance environment, and gave presentations on practices and lessons learned.

In March 2022, the Compliance Service held an introductory lecture on the differences between sanctions programmes, given the new sanctions risks.

Throughout 2022, the Compliance Service held five master classes for the Company's employees, covering:

- counterparty due diligence (two master classes)
- internal corruption risk analysis
- Code of Ethics and Compliance with the subsequent testing of the parent company's employees
- dealing with insider information.

In October 2022, the Compliance Service staff prepared and presented a report to Kazatomprom's compliance officers to discuss Samruk-Kazyna's Corporate Compliance Standard.

In October-December 2022, we held an anti-corruption creative competition. The works submitted by 12 subsidiaries and the headquarters were of two categories: drawings and videos. The competition sought to engage a wider group of employees in the discussion of anti-corruption issues.

In addition, the Head of Compliance Service delivered three presentations to the compliance officers of the Kazatomprom Group:

- a workshop for staff of the Service on the principles of risk management
- a workshop for staff of the Service on the HR management and conflict management
- a presentation to Kazatomprom Group's compliance officers on compliance practices and recent trends

The Company writes a monthly compliance column in the *QazatomNews* corporate magazine.

4.12.4. Whistleblowing channels

GRI 2-16, 2-26, 207-2

Kazatomprom has the Hotline in place that is designed to receive reports from the Company's employees and third parties on corruption and fraud-related issues, violations of the Code of Ethics and Compliance, and other non-compliance with the laws regulating the Group's operations. The Hotline details can be found on the Company's official website.

The Hotline received 88 reports in 2022, of which 81 were handled, 7 were rejected (because the whistleblowers filed the same reports to government authorities or the reports had been dealt with previously and the new ones did not provide any substantive information. All the reports were reviewed within the time established by internal documents of the Company.

Topics raised in reports, %

Topics	2020	2021	2022
Procurement	49	25	40
HR issues	38	53	45
Other	13	22	15

4.12.5. Ombudsman

Kazatomprom has the Office of the Ombudsman responsible for consulting employees on the Code of Corporate Ethics, initiating procedures to consider disputes over violations of the Code, participating in their settlement, and promoting compliance with business ethics by employees. In line with the Company's internal documents, the Ombudsman shall follow the principles of independence, neutrality, impartiality, confidentiality, and informality.

Every employee can contact the Ombudsman through special communication channels: the helpline, internal communication channels at subsidiaries and affiliates, WhatsApp mobile application, or the Ombudsman's email.

In 2022, the Ombudsman considered 41 complaints, and provided explanations and follow-up recommendations to rectify the violations.

All the complaints were handled in line with the Company's internal documents and the laws of the Republic of Kazakhstan, including the Administrative Procedure Code of the Republic of Kazakhstan.

Breakdown of the hotline reports by topic, q-ty

Topics	2022
Violations of ethics	9
Workplace management	4
Interpersonal conflicts	4
Salary	3
Welfare and living conditions	3
Dismissals	3
Benefits	2
Other conflicts with the management	2
Bonuses and other rewards	2
Other	9

In H2 2022, the Ombudsman's Service conducted an annual anonymous survey among employees of subsidiaries and affiliates. The anonymous survey was structured into three main blocks, which diagnose knowledge of the Code of Ethics and Compliance, the state of the moral and ethical climate within a team and awareness of the possibility of resolving conflicts at work.

The survey also helped identify the level of employees' awareness of the possibility to protect their rights and interests, anxiety in the team, discrimination, and the existing issues in communication with managers. The survey found that 98% believed that the Company's management behaved respectfully and courteously with staff.

94% of respondents were confident that the Ombudsman acted in line with the principles of independence and neutrality in dealing with complaints. In total, 93% of survey participants said they were aware of the possibility to report unethical behaviour of a colleague or supervisor using the whistleblowers' hotline.

Internal Communications for Ombudsmen

In 2022, Kazakhstan Nuclear University held training for Ombudsmen of subsidiaries and affiliates. The training covered methods of personality psychotyping, prevention of tensions in the team, tactics-behaviour during collective bargaining, tools for constructive dialogue and the procedure for working with collective appeals, technology for achieving consensus in group complaints.

4.12.5. Managing conflicts of interest

GRI 2-15

Kazatomprom's Code of Ethics and Compliance obliges employees report a conflict of interest, if any, according to procedures established by internal documents. All potential and/or actual conflicts of interest are carefully analysed and measures are developed to minimise the risks arising from the conflict of interest.

Regulations on the settlement of corporate conflicts and conflicts of interest are also in place in the Company. The document outlines causes of corporate conflicts and conflicts of interest, prevention procedures, as well as regulates conflict settlement actions of the Company's bodies.

4.12.6. Government relations and sponsorship

The Company's approach to stakeholder communications excludes any form of bribery or corruption and applies to relations with both private entities and government authorities.

GRI 415-1

As per the Code of Ethics and Compliance, Kazatomprom does not make any payments to political parties, organisations, or their representatives, nor does it participate in political activities. Acting privately, employees may support and make contributions to political parties.

No valuables, products, services, and benefits may be received or provided to influence decision-making, as prescribed by the Regulations on giving and receiving gifts and branded souvenirs, as well as the Law of the Republic of Kazakhstan *On the Civil Service of the Republic of Kazakhstan* and the Law *On Combating Corruption*.

Kazatomprom is engaged in philanthropy and charity through the Samruk-Kazyna Trust Social Development Foundation, which implements socially significant projects through competitive selection.

5. Annexes

5.1. About the Report

5.1.1. General information

This Kazatomprom Integrated Annual Report 2022 (the Report) is the twelfth report, which discloses information on financial, economic and operational performance, as well as data about the sustainable development achievements of the Company. The Report is intended for a wide range of stakeholders. This report has been prepared in accordance with the GRI Standards 2021.

The Report discloses Kazatomprom's financial and non-financial operations connected with projects both in the Company's country of residence, the Republic of Kazakhstan, and abroad. Non-financial disclosures relate mainly to the subsidiaries, associates and joint ventures in which the Company holds 50%+. i.e. to the Group.

GRI 2-4

Compared to Integrated Annual Report 2021, changes have been made to the Report in individual indicators and the disclosure of additional indicators. Detailed explanations are given in the text of the Report. In 2022, there were no significant changes in the scope and boundaries of the Report compared to the previous year.

Financial indicators are presented in the national currency of the Republic of Kazakhstan, KZT (tenge), and correspond to the IFRS audited consolidated financial statements presented in full in the Annexes to the Report and on the Kazatomprom's website.

The Report comprehensively discloses:

- Implementation of Kazatomprom's Development Strategy
- Business administration approach of the Company's management
- Significant financial, economic, and production plans and performance in core operations
- Performance in occupational health and safety and environmental protection
- Contribution to the regional development, implementation of the social policy, and other sustainable development aspects

To designate Kazatomprom and its subsidiaries, the Report uses the names: "Kazatomprom", "Company", "Group", "We".

Standards and Statutory Requirements

The Report discloses basic data in accordance with the requirements of the laws of the Republic of Kazakhstan, the internal regulations and practices of the Company, and international corporate governance practices. When drawing up the Report, the Company considered the following documents:

- Law No. 415-II of the Republic of Kazakhstan dated 13 May 2003 On Joint Stock Companies;
- The rules for information disclosure by the issuer, Requirements for the content of information to be disclosed by the issuer, and the terms for information disclosure by the issuer on the Internet resource of the Depository of financial statements as approved by the Resolution No. 189 adopted by the Board of the National Bank of the Republic of Kazakhstan on 27 August 2018
- Information Disclosure Rules of NAC Kazatomprom JSC (2022)
- Kazatomprom's Corporate Governance Code approved by the Resolution of the Sole Shareholder dated 27 May 2015 (Decision No. 22/15 of the Management Board of Samruk-Kazyna JSC)
- Regulatory requirements of the London Stock Exchange (LSE), Kazakhstan Stock Exchange (KASE), and Astana International Exchange (AIX)
- International integrated reporting standard (<IR> International Framework)
- International standard for sustainable development reporting, Global Reporting Initiative
- Sustainability Accounting Standards Board (SASB) standards
- Recommendations of the TCFD (The Task Force on Climate-related Financial Disclosures) Working Group of the Financial Stability Board (partial disclosure)
- AA1000SES Stakeholder Engagement Standard
- Ten principles of UN Global Compact
- Sustainable Development Goals adopted by the UN General Assembly for the period till 2030

- ISO 26000:2010 Social Responsibility Guidance Standard

Since 2019, Kazatomprom has included the information on its contribution to the achievement of the United Nations Sustainable Development Goals in the Report. This approach is also followed in this document. The Company strives to ensure that the development strategy of the Group correlates with the objectives of achieving the UN SDGs in addressing environmental, social and economic issues, as reflected in the Report. In 2019, the Company identified a list of priority SDGs where the Group can make a tangible contribution: SDGs 3, 7, 8, 9, 12 and 13. By prioritising the Sustainable Development Goals, the Company focused on beacons relevant to the sectoral identity and strategy of Kazatomprom, as well as to the interests of its stakeholders.

5.1.2. Information perimeter

GRI 2-3

The scope of the Report corresponds to the annual reporting cycle of the Company. The previous Report was published in April 2022. Electronic copies of the reports for the previous years are available on the official website of the Company. The current Report discloses operations and performance of Kazatomprom for the period from 1 January 2022 to 31 December 2022.

The Report includes important facts that fall beyond the reporting period, but are directly related to it, as well as the medium-term plans of the Group. The Report discloses information on the most significant results of operations of Kazatomprom, its subsidiaries, associates and joint ventures. During data collection, all data of quantitative and qualitative nature across the entire Group, which can have a significant impact on making an informed decision on a significant issue, event or decision, is taken into account and disclosed. Kazatomprom is systematically developing a system of work with sustainable development indicators and aims to align the disclosure perimeter with the financial data disclosure to the full amount in the near future.

GRI 2-2

Company	Scopes		
	1	2	3
NAC Kazatomprom JSC			
Kazatomprom-SaUran LLP			
RU-6 LLP			
APPAK LLP			
JV Inkai LLP			
Baiken-U LLP			
ME ORTALYK LLP			
JV Khorassan-U LLP			
JV Budenovskoye LLP			
Semizbai-U LLP			
JV Akbastau JSC			
Karatau LLP			
Energy Asia (BVI) Limited			
JV Katco LLP			
JV South Mining Chemical Company LLP			
JV ZARECHNOYE JSC			
Kyzylkum LLP			
Zhanakorgan-Transit LLP			
Ulba Metallurgical Plant JSC			
ULBA-CHINA Co Ltd			
Mashzavod LLP			
Ulba FA LLP			
High Technology Institute LLP			
Kazakatom TH AG			
KAP-Technology JSC			
KAP Logistics LLP			
Volkovgeologia JSC			

Rusburmash-Kazakhstan LLP			
Qorgan-Security LLP			
SKZ-U LLP			
Uranenergo LLP			
SSAP LLP			

5.1.3 Principles for Defining Report Quality

The following principles ensure the quality of the Report:

Principles	Description
Balance	The Report discloses both positive (implementation of plans, achievement of goals) and negative (e.g. fines, accidents) performance. We do not exaggerate our achievements or hide the difficulties we have encountered, trying to show our results as objectively as possible.
Comparability	The information in the Report allows stakeholders to evaluate the Company's operations and performance over time.
Transparency	The Report is written in plain language understandable to a wide audience and contains a glossary.
Reliability	All data in the Report are provided by the relevant divisions of the Group and verified for accuracy. The Report text provides links to data sources.
Accuracy	Information on all material topics is detailed and allows stakeholders to evaluate the Group’s performance. All data are officially recognised by Kazatomprom and confirmed by internal and public documents.
Timeliness	The Report presents information for 2022 calendar year and will be published in 2023.
Sustainability context	The Report provides information on the Company's contribution from an economic, environmental and social perspective and discloses the extent of the Company's contribution to achievement of 17 Sustainable Development Goals in 2022 .
Completeness	The Report covers topics that show the economic, environmental and social impact of the Company's operations in the reporting period.

5.1.4. Independent assurance

GRI 2-5

The external audit of the financial statements of the Company was performed by PricewaterhouseCoopers LLP. The auditor’s report is presented as an Annex to the Report.

The proper disclosure of non-financial information prepared in accordance with the GRI Standards has been assured in accordance with ISAE 3000 (Revised), the International Standard for Assurance Engagements Assurance Engagements Other than Audits and Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. PricewaterhouseCoopers LLP was as an independent auditor. The auditor's report is in the Annexes to the Report.

5.1.5. Forward-looking statements

The statements in the Report are considered to be forward-looking. To describe the future, terminology is used that includes words such as “believes”, “evaluates”, “expects”, “forecasts”, “intends”, “plans”, “assesses”, “will” or “may”, or in each case, comparable words and terms of a similar or comparable terminology, or references to discussions, plans, goals, objectives, future events or intentions are designed to identify statements regarding the future. All the statements in the Report, other than statements on historical facts, are considered to be forward-looking statements. These forward-looking statements include, without limitation, statements regarding the intentions, opinions and expectations of the Company concerning, among other things, the results of operations, financial state, liquidity, prospects, growth, potential acquisitions, strategies and sectors in which the Company operates.

By their very nature, forward-looking statements involve risks and uncertainties because they relate to future events and circumstances that may or may not occur. Forward-looking statements do not guarantee future or

actual performance. The actual results of the activity, the financial situation and liquidity of the Company and the development of the country and industries in which the Company operates can differ significantly from those options that are described in this document or are assumed in accordance with the statements contained in this document.

The Company does not plan and does not assume the obligation to update any information regarding the industry or any forward-looking statements contained herein, whether as a result of the obtaining new information or the occurrence of future events or any other circumstances. The Company makes no representations, provides no assurances and publishes no forecasts as to whether the outcomes described in such forward-looking statements will be achieved.

5.2. Key ESG indicators, 2020-2022

5.2.1. Corporate Social Responsibility

Kazatomprom headcount and staff composition, employees
GRI 2-7, 2-8, 405-1, SASB EM-MM-000.B

	2020	2021	2022
Total headcount at the end of the reporting period	**21,019**	**20,643**	**20,813**
Total number of employees (headcount, independent contract agreements, outstaffing contracts)	**21,788**	**21,031**	**21,682**
Work contracts	769	388	744
Outstaffing contracts	0	0	125
Men	17,228	16,942	17,194
Women	3,791	3,701	3,619
Managers and executives	119	258	110
Workers	20,900	20,385	20,703
Under 30 years old	3,201	2,799	2,830
30 to 50	12,260	12,034	12,219
Over 50	5,558	5,810	5,764
Average age of employees, years	41	40	40
Long-tern contract	**19,821**	**19,122**	**18,350**
men	16,227	15,696	15,183
women	3,594	3,426	3,167
Term contract	**1,198**	1521	**2,463**
men	1,001	1,246	2,011
women	197	275	452
Full-time employment	**21,011**	**20,627**	**20,799**
men	17,222	16,931	17,186
women	3,789	3,696	3,613
Part-time employment	**8**	**16**	**14**
men	6	11	8
women	2	5	6
Independent contractor agreements	**769**	**388**	**744**
men	518	263	449
women	251	125	295

Kazatomprom headcount broken down by gender and region, 2022
GRI 2-7, SASB EM-MM-000.B

Region	M	W
Almaty	339	290
Astana	397	365
Shymkent	398	203
North Kazakhstan Region	453	102
Southern Region	12,711	1,234
Eastern Region	2,887	1,418
China	5	6
United States	2	0
Switzerland	2	1

Total	17,194	3,619

Regular employees broken down by gender and region, 2022
GRI 2-7, SASB EM-MM-000.B

Region	M	W
Almaty	304	260
Astana	269	274
Shymkent	321	173
North Kazakhstan Region	378	93
Southern Region	11,334	1,149
Eastern Region	2,570	1,212
China	3	5
United States	2	0
Switzerland	2	1
Total	**15,183**	**3,167**

Temporary employees broken down by gender and region, 2022
GRI 2-7, SASB EM-MM-000.B

Region	M	W
Almaty	35	30
Astana	128	91
Shymkent	77	30
North Kazakhstan Region	75	9
Southern Region	1,377	85
Eastern Region	317	206
China	2	1
United States	0	0
Switzerland	0	0
Total	**2,011**	**452**

Full-time employees broken down by gender and region, 2022
GRI 2-7, SASB EM-MM-000.B

Region	M	W
Almaty	334	287
Astana	395	362
Shymkent	398	203
North Kazakhstan Region	453	102
Southern Region	12,710	1,234
Eastern Region	2,887	1,418
China	5	6
United States	2	0
Switzerland	2	1
Total	**17,186**	**3,613**

Part-time employees broken down by gender and region, 2022
GRI 2-7, SASB EM-MM-000.B

Region	M	W
Almaty	5	3
Astana	2	3
Shymkent	0	0
North Kazakhstan Region	0	0
Southern Region	1	0
Eastern Region	0	0

China	0	0
United States	0	0
Switzerland	0	0
Total	**8**	**6**

Structure of Kazatomprom's governing bodies and employees, %
GRI 405-1

Indicator	2020		2021		2022	
	Governing bodies	Workers	Governing bodies	Workers	Governing bodies	Workers
Men	92%	82%	91%	86%	91%	83%
Women	8%	18%	9%	14%	9%	17%
Kazaks	74%	70%	75%	68%	82%	72%
Russians	13%	25%	16%	26%	8%	23%
Other	13%	6%	9%	6%	10%	5%
Under 30 years old	1%	15%	2%	13%	1%	14%
30 to 50	64%	58%	68%	58%	70%	59%
Over 50	35%	26%	30%	29%	29%	28%

Number of hired employees, employees
GRI 401-1

Region	2020		2021		2022	
	M	W	M	W	M	W
Almaty	56	25	51	38	110	64
Astana	55	45	99	78	90	70
Shymkent	55	21	58	18	147	31
North Kazakhstan Region	105	39	155	65	115	24
Southern Region	1,552	68	2,084	136	2,340	182
Eastern Region	305	120	314	211	302	177
Outside of Kazakhstan (China, United States, Switzerland)	20	0	8	1	0	0
Total	**2,148**	**318**	**2,769**	**547**	**3,104**	**548**

Employees hired by Kazatomprom
GRI 401-1

Region	2022						Total
	Under 30		30 to 50		Over 50		
	M	W	M	W	M	W	
Almaty	20	10	61	44	29	10	**174**
Astana	17	25	65	40	8	5	**160**
Shymkent	25	8	83	19	39	4	**178**
North Kazakhstan Region	23	6	76	16	16	2	**139**
Southern Region	720	54	1,339	115	281	13	**2,522**
Eastern Region	95	24	164	98	43	55	**479**
China	–	–	–	–	–	–	
Total	**900**	**127**	**1,788**	**332**	**416**	**89**	**3,652**

Kazatomprom's dismissed employees and staff turnover
GRI 401-1

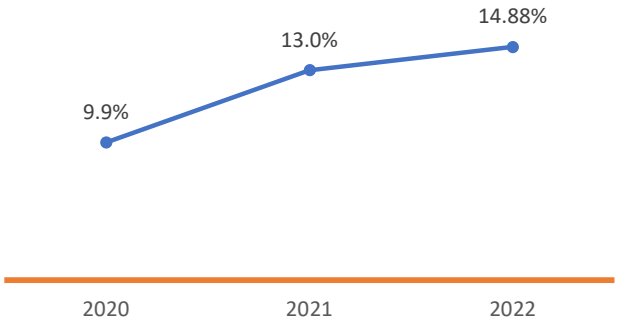
Region	2020												Total
	Under 30				30 to 50				Over 50				
	Number of dismissed employees		Percentage, %		Number of dismissed employees		Percentage, %		Number of dismissed employees		Percentage, %		
	M	W	M	W	M	W	M	W	M	W	M	W	
Almaty	15	3	1%	0.1%	49	8	2%	0.3%	20	2	1%	0.1%	**97**
Astana	38	8	1%	0.3%	127	21	4%	0.7%	51	6	2%	0.2%	**251**
Shymkent	19	4	1%	0.1%	64	11	2%	0.4%	26	3	1%	0.1%	**127**
North Kazakhstan Region	34	7	1%	0.3%	114	19	4%	0.7%	46	5	2%	0.2%	**225**
Southern Region	266	57	9%	2.0%	886	146	31%	5.1%	355	40	12%	1.4%	**1750**
Eastern Region	62	13	2%	0.5%	206	34	7%	1.2%	82	9	3%	0.3%	**406**
China	–	–	–	–	–	–	–	–	–	–	–	–	
Total	**434**	**93**	–	–	**1,446**	**239**	–	–	**580**	**65**	–	–	**2,857**

Region	2021												Total
	Under 30				30 to 50				Over 50				
	Number of dismissed employees		Percentage, %		Number of dismissed employees		Percentage, %		Number of dismissed employees		Percentage, %		
	M	W	M	W	M	W	M	W	M	W	M	W	
Almaty	11	9	0%	0.2%	43	27	1%	0.7%	19	5	1%	0.1%	**114**
Astana	26	20	1%	0.5%	62	55	2%	1.5%	18	5	0%	0.1%	**186**
Shymkent	17	7	0%	0.2%	63	18	2%	0.5%	16	5	0%	0.1%	**126**
North Kazakhstan Region	51	9	1%	0.2%	109	43	3%	1.2%	37	16	1%	0.4%	**265**
Southern Region	514	49	14%	1.3%	1209	136	32%	3.6%	546	58	15%	1.6%	**2,512**
Eastern Region	79	16	2%	0.4%	158	62	4%	1.7%	134	76	4%	2.0%	**525**

China / United States	–	–	–	–	6	–	–	–	–	–	–	–	**6**
Total	**698**	**110**			**1,650**	**341**			**770**	**165**			**3,734**

Region	**2022**												
	Under 30				**30 to 50**				**Over 50**				**Total**
	Number of dismissed employees		**Percentage, %**		**Number of dismissed employees**		**Percentage, %**		**Number of dismissed employees**		**Percentage, %**		
	M	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	**M**	**W**	
Almaty	12	5	0%	0.2%	73	29	1%	0.7%	23	11	1%	0.1%	**153**
Astana	17	8	1%	0.5%	77	47	2%	1.5%	16	4	0%	0.1%	**169**
Shymkent	13	2	0%	0.2%	95	27	2%	0.5%	35	4	0%	0.1%	**176**
North Kazakhstan Region	12	18	1%	0.2%	39	10	3%	1.2%	14	7	1%	0.4%	**90**
Southern Region	464	69	14%	1.3%	1,046	141	32%	3.6%	455	89	15%	1.6%	**2,264**
Eastern Region	47	11	2%	0.4%	122	62	4%	1.7%	103	66	4%	2.0%	**411**
China / United States	–	–	–	–	–	–	–	–	–	1	–	–	**1**
Total	**565**	**103**			**1,452**	**316**			**646**	**182**			**3,264**

Staff turnover across the Group, %



Number of employees who returned to work after parental leave and childcare leave[85]

GRI 401-3

Indicator	2020	2021	2022
Total number of employees who took parental leave	**210**	**357**	**377**
Men	20	51	67
Women	190	306	310
Total number of employees who returned to work after parental leave	**143**	**127**	**158**
Men	13	19	25
Women	130	108	133
Total number of employees who returned to work after parental leave (in the previous reporting period)	**102**	**143**	**123**
Men	7	13	19
Women	95	130	104
Total number of employees who returned to work after parental leave and continued to work twelve months after returning to work	–	**69**	**87**
Men	–	4	10
Women	–	65	77
Return to work rate	**0.68**	**0.36**	**0.42**
Men	0.65	0.37	0.37
Women	0.68	0.35	0.43
Retention rate	–	–	**0.71**
Men	–	–	0.53
Women	–	–	0.74

Kazatomprom payroll fund, KZT

Indicator	2020	2021	2022	Change, 2021-2022

[85] Data are not available on the total number of employees who returned to work after the parental leave and continued to work twelve months after returning to work and the retention rate for 2019 and 2020.

Average monthly salary of production staff[86]	279,202	314,653	454,648	44%
Payroll fund, KZT million[87]	65,707	71,484	99,395	37%

Benchmarking Kazatomprom's minimum salary against Kazakhstan's minimum salary, KZT
GRI 405-2

Indicator	2020		2021		2022	
	M	W	M	W	M	W
Minimum salary in Kazakhstan	42,500	42,500	42,500	42,500	60,000	60,000
Salary of entry-level employee across the Group[88]	42,500	42,500	42,500	42,500	60,000	60,000
Ratio	1	1	1	1	1	1

Kazatomprom staff training, man-workshops [89]

Employee category	2020	2021	2022
Administrative staff and management	3,854	4,265	6,344
Production staff	29,123	32,979	50,699
Total	**32,977**	**37,244**	**57,044**

Average number of training hours per employee
GRI 404-1

Indicator	2022
Gender	
Women	45
Men	56
Total	**54**
Staff category	
Administrative staff	60
Production staff	53
Total	**54**

Average number of hours spent on training of one employee, 2020-2022
GRI 404-1

Employee category	2020		2021		2022	
	W	M	W	M	W	M
Administrative staff	43	30	35	44	59	61
Production staff	37	20	35	52	41	56
Average across all categories		**40.4**		**41.6**		**54.0**

[86] The indicator is calculated as the ratio of the production staff payroll fund as per the Labour Report (statistical reporting) to the actual number of production staff.
[87] Accrued salary, including all related taxes and deductions (pension fund deductions and personal income tax).
[88] Base wage rate of a production worker of Category 1.
[89] Includes expenses for upskilling across the Group.

5.2.2. Environmental Protection

Direct (Scope 1) and Indirect (Scope 2) GHG emissions, t CO_2-eq
GRI 305-1, 305-2, SASB EM-MM-110a.1.

Indicator	2020	2021	2022	Change 2021–2022
Direct greenhouse gas emissions (Scope 1)	92,590	106,913	97,256	(9%)
Indirect GHG emissions (Scope 2)[90]	819,883	842,554	844,034	0.1%

Breakdown and source of air emissions, '000 tonnes
GRI 305-7, SASB EM-MM-120a.1

Air emissions	Source	2021	2022
NOx	boilers, furnaces, incinerators, stationary diesel power stations (emergency), compressors	0.123	0.197
SOx	boilers, furnaces, incinerators, stationary diesel power stations (emergency), compressors	0.849	0.756
PM emissions	boilers, furnaces, machine tools operated in the machine shops	0.111	0.086
CO	boilers, vehicles, gas furnaces, stoves	0.181	0.176
Volatile organic compounds	vehicles, solvents, gas, wood and biomass burning	0.056	0.051
Substances of Hazard Class 1	boilers, vehicles, mercury lamps	0.012	0.002

Total water withdrawal by source, '000 m3
GRI 303-3, SASB EM-MM-140a.1

Source	2020	2021	2022
Surface water	781.4	6.5	6.5
Underground water	8,539.8	8,531.3	8,573.5
Municipal and other water supply systems	1,131.1	1,582.9	608.9
Total	**10,452.3**	**10,120.7**	**9,188.9**

Total waste by type, '000 tonnes
GRI 306-3

Type of waste	2020	2021	2022
Industrial waste	996.2	893.3	429
Household waste	1.8	1.6	2.3
Solid radioactive waste	3.3	2.6	5.1
Liquid radioactive waste	128.1	119.1	148.2
Total	**1,129.4**	**1,016.6**	**604.6**

Electricity produced by PV plants, MWh

Indicator	2020	2021	2022
Electricity output	3.52	3.34	3.01

[90] These calculations are based on a market method that displays the intensity of GHG emissions from facilities generating electric and thermal power. According to this method, Kazatomprom's total Scope 2 GHG emissions are calculated as the GHG emissions of the electric and thermal power producers from whom it is purchased. The Company also made region-based calculations, reflecting the average intensity of the GHG emissions from energy production within the national borders of Kazakhstan. This method uses regional indirect energy emission factors calculated on the basis of statistical data on fuel consumption and electricity supplied from all generating facilities connected to the national grid. Since thermal power is supplied directly from generating assets, the calculation of the Scope 2 GHG emissions from thermal power production is similar to the market method-based calculations. According to the regional method, the Scope 2 GHG emissions were 514,258 tonnes of CO_2-eq in 2022.

5.2.3. Occupational Health and Safety

Kazatomprom's H&S expenses, KZT billion

Indicator	2020	2021	2022
Health and safety costs	7.63	8.29	8.08

Occupational injuries at Kazatomprom[91]
GRI 403-9, SASB EM-MM-320a.1.

Indicator	2020	2021	2022
For all employees			
Number of occupational fatalities	1	2	1
Total number of high-impact occupational injuries (excluding fatalities)	2	8	1
Total occupational accidents[92]	8	9	3
LTIFR (per 1,000,000 hours worked)[93]	0.25	0.55	0.11
Unsafe conditions, unsafe acts, near-miss reporting	35,529	44,271	37,581
Number of hours worked[94]	31,812,773	32,909,020	28,542,184
Near misses	-	-	121
Incident frequency rate without NMFR (per 200,000 hours worked as recommended by SASB standards)	-	-	0.848
LTIFR (per 200,000 hours worked as recommended by SASB standards)			0.021
Fatalities rate (per 200,000 hours worked as recommended by SASB standards)			0.007
For all employees (other than full-time workers) whose work and/or workplace is controlled by the Company[95]			
Total fatal occupational accidents	n/a	n/a	0
Total number of high-impact occupational injuries (excluding fatalities)	n/a	n/a	2
Total registered occupational injuries	n/a	n/a	2

Radiation safety indicators at Kazatomprom, mSv a year

Indicator	2020	2021	2022
Average radiation exposure dose for employees	1.45	1.44	1.36
Average natural background radiation in areas where the Group operates	0.85	0.75 – 1.36	0.72 – 1.19
Maximum annual effective dose of Group-A employees	4.94	6.19	5.2

5.2.4. Socio-economic contribution

Direct economic value generated and distributed, KZT billion

GRI 201-1

Description	2020	2021	2022

[91] As per the Labour Code of the Republic of Kazakhstan and the Unified Occupational Safety Management System standard (ST NAK 5.0.6-2021).
[92] It is established as the impact of a harmful and/or dangerous production factor on an employee during his/her work or performance of the employer's assignments, with the impact resulting in an occupational injury, sudden deterioration in employee's health or poisoning that lead to temporary or permanent disability or death.
[93] The indicator is based on 1,000,000 worked hours.
[94] All employees of subsidiaries and affiliates.
[95] The 2020-2021 figures changed due to the revision of the scope of information and calculation methodology in 2022.

Direct economic value generated			
Incomes[96]	667.12	761.53	1,146.9
Distributed economic value, including			
Operating expenses[97]	288.11	373.59	440.95
Salaries	50.72	53.05	71.69
Interest and dividend expenses	7.68	6.71	8.43
Taxes, except income tax	24.73	26.14	32.57
Income tax expenses	63.78	61.62	110.74
Other expenses	9.73	15.86	8.43
Social expenditures (investment in local communities)	1.01	4.54	1.13
Retained economic value (profit for year)	**221.37**	**220.03**	**472.96**

Taxes paid in other jurisdictions in 2022
GRI 207-4

Indicator	Switzerland	British Virgin Islands (provisional data)[98]	China	Kazakhstan
Name of organisation	Kazakatom TH AG	Energy Asia (BVI) Limited	ULBA-CHINA Co, Ltd	Resident companies
Core business (as per organisation's articles of association)	Marketing for distribution of uranium, trade, in particular in raw materials, investment and administration of finances, commodities, and rights	Any activities not prohibited by the laws of the British Virgin Islands	Warehousing and distribution; after-sales services for storage and distribution of steel products and related products in the free trade zone; international and transit trade; trade representation services; export and import of goods and machinery; simple commercial processing and provision of commercial advice services within the free trade zone	According to company charters, including but not limited to the exploration, extraction and sale of uranium and its compounds, beryllium, tantalum and niobium products, international trucking, etc.
Headcount as of 31 December 2022	3	0	12	20,798

[96] Incomes are calculated in line with the GRI Standards methodology and include the revenues and all incomes of the Company.
[97] Operating expenses include the following expenditures: cost of sales (excluding salaries and taxes), selling expenses (excluding salaries and taxes), general and administrative expenses (excluding salaries and taxes).
[98] EAL data is preliminary, because the FY for EAL ended on 02/28/2023.

Third party sales revenue (Income from sales of products and services), KZT '000	75,612,853.00	0.00	18,084,867.00	907,472,930.00
Income from intra-group transactions with other taxation jurisdictions, KZT '000	0.00	0.00		72,741,149.00
Taxation income/loss, KZT '000	17,972,184.00	828,280.00	260,408.00	693,875,497.00
Tangible assets other than cash and cash equivalents, KZT '000	55,990,366.00	0.00	272,375.00	816,201,010.00
Corporate income tax paid on a cash basis	859,485.00	0.00	62,252.00	124,992,110.00
Corporate income tax accrued on income/loss, KZT '000	1,037,832.00	0.00	76,631.00	114,996,102.00
Reasons for the difference between the CIT accrued on income/loss and the tax payable if the tax rate is applied to the income/loss before tax	There is no difference between the CIT accrued on income/loss and the tax payable	Not applicable as EAL income is not subject to CIT	There is no difference between the CIT charged on income/loss and the tax payable	There is no difference between the CIT charged on income/loss and the tax payable

Contributions to the local budget for socio-economic and infrastructure development of regions of operations, KZT million

Company	2020	2021	2022
Turkistan Region			
NAC Kazatomprom JSC	165.4	42.8	56.5
Appak LLP	40.3	43.1	72.3
JV Akbastau JSC	214.7	213.0	231.3
JV South Mining Chemical Company LLP	96.3	71.5	76.7
Volkovgeologia JSC	2.8	2.9	3.1
JV Zarechnoye JSC	20.8	21.3	21.2
JV Inkai LLP	59.9	63.9	69.3
Kazatomprom-SaUran LLP	427.8	429.5	461.2
Karatau LLP	52.9	58.8	60.8
DP ORTALYK LLP	83.1	43.3	646.7
JV KATCO LLP»	3.96	227.7	371.3
JV Budenovskoe LLP	21.5	-	152.1
Kyzylorda Region			
NAC Kazatomprom JSC	-	-	-
Baiken-U LLP	42.2	43.6	44.3
RU-6 LLP	107.5	113.2	117.4
Semizbai-U LLP	26.7	29.2	30.4
Kyzylkum LLP	126.1	128.8	130.3
JV South Mining Chemical Company LLP	-	26.7	28.6
East Kazakhstan Region			
Ulba Metallurgical Plant JSC	7.2	7.4	7.9
North Kazakhstan Region			
Semizbai-U LLP	19.1	20.9	21.7
Akmola Region			
Semizbai-U LLP	19.1	20.9	21.7

Total	**1,537.3**	**1,608.6**	**2,625.0**

Local content in procurement across regions, 2022, %[99]

GRI 204-1

South Kazakhstan Region	Local content in goods, works and services	Local content in goods	Local content in works	Local content in services	Local content in works and services
Akmola Region	67	72	95	52	54
Aktobe Region	49	17	85	89	88
Almaty Region	30	13	84	97	88
Atyrau Region	64	54	100	77	92
West Kazakhstan Region	92	54	100	100	100
Zhambyl Region	83	86	63	93	64
Karagandy Region	56	56	99	35	47
Kostanay Region	37	26	100	100	100
Kyzylorda Region	94	92	97	98	98
Mangystau Region	95	95	99	90	97
South Kazakhstan Region	88	83	93	93	93
Pavlodar Region	61	60	31	97	71
North Kazakhstan Region	78	78	0	100	100
East Kazakhstan Region	83	81	91	97	92
Astana	87	83	84	93	93
Almaty	83	68	96	84	92
Republic of Kazakhstan	**82**	**76**	**94**	**87**	**91**

[99]According to the Law of the Republic of Kazakhstan *On Industrial Policy*, the concept of local content was replaced with “internal value”, the percentage of goods produced and works and services performed in the Republic of Kazakhstan in the total volume of goods produced, works performed or services delivered.

5.3. Association and International Initiative Membership and Partnership

GRI 2-28

Organisation	Website	Year of joining
Professional nuclear power organisations		
World Nuclear Association, London, UK	www.world-nuclear.org	1993
Tantalum-Niobium International Study Center, Brussels, Belgium	www.tanb.org	1999
World Nuclear Fuel Market, Norcross, GA, United States	www.wnfm.com	2002
Nuclear Energy Institute, Washington, D.C.	www.nei.org	2018
World Nuclear Transport Institute, London, UK	www.wnti.co.uk	2019
The Group of Vienna IAEA, Vienna, Austria	https://www.iaea.org/	2021
National sectoral organisations		
Nuclear Society of Kazakhstan, Astana, Kazakhstan	www.nuclear.kz	2002
Republican Association of Mining and Metallurgical Enterprises, Astana, Kazakhstan	agmp.kz	2006
KAZENERGY Kazakhstan Association of Oil&Gas and Energy Sector Organisations, Astana, Kazakhstan	www.kazenergy.com	2009
Atameken National Chamber of Entrepreneurs of Kazakhstan, Astana, Kazakhstan	atameken.kz	2013
International sustainability partners		
United Nations Global Compact	https://unglobalcompact.org	2022

5.4. Reports by Chairmen of the Board of Directors Committees for 2022

5.4.1. Production Safety (HSE) Committee Report

Dear shareholders,
Acquiring the status of a public company has created new challenges for the Company. The importance of corporate governance and sustainable development has increased significantly, in accordance with international standards. An important role in the activities of the Board of Directors has been assigned to the Production Safety (HSE) Committee.

The main objective of the Committee is to elaborate and submit recommendations to the Company's Board of Directors on the status of HSE at the Company and its subsidiaries, associates and joint ventures, and on social and sustainable development issues.

In August 2022, the following members were appointed to the Committee: Neil Longfellow, an independent director, Russell Banham, an independent director, and Yernat Berdigulov, a representative of Samruk-Kazyna. The expansion of the Committee made it possible to improve communications between the Company and its major shareholder. In addition, it improved the decision-making process of the Board of Directors at meetings.

During the year, Committee members held 6 face-to-face meetings and considered 28 issues. On a quarterly basis, Committee members reviewed and approved reports on the state of HSE and status reports on the implementation of the ESAP Roadmap.

In 2022, the Committee approved the Company's Human Rights Policy as well as Occupational Health and Safety, Environmental Protection, Nuclear and Radiation Safety Policy. In addition, the Committee members reviewed a report on the implementation of the Social Partnership and Social Stability Improvement Action Plan and reviewed information on the implementation of sustainable development principles during the year.

2022 results and outlook for 2023
In its operations, the Company always recognises its responsibilities to stakeholders in relation to production safety, occupational health and safety, and environmental protection. We are confident that concerns over safety at each production stage has a positive impact on staff motivation, as well as employee satisfaction levels, the quality of work, and the economic performance of the Company.

The results of the past year create a solid foundation for further work in the priority areas of the Company. The Board of Directors is confident that positive development trends in global nuclear power are sustainable and that there are opportunities for the Company to leverage its full potential.

Committee members plan to assess the extent to which employees are becoming more aware of the need for compliance with respective safety requirements, and also monitor the current level of production safety in occupational health and safety and industrial and radiation safety at the headquarter and at all Company's entities.

Neil Longfellow
Chairman of the Production Safety (HSE) Committee
Board of Directors of Kazatomprom

5.4.2. Audit Committee Report

Dear shareholders,
The Audit Committee of the Company was set up to oversee the reliability of financial information provided to shareholders and to assess internal control and risk management systems. The Company's internal audit and compliance functions are accountable to the Audit Committee.

In 2022, the Committee consisted entirely of independent directors with the relevant expertise and competencies to make effective decisions. During the year, 13 Committee meetings were held in person and in absentia, and 104 issues were considered. In order to ensure a more effective and comprehensive discussion

of issues, relevant members of the Management Board of the Company and other top managers were involved as required.

In addition to the fresh opportunities offered, the Company's new status as a public company resulted in changes that impacted the work of the Audit Committee. In particular, the Committee put in place the practice of reviewing the quarterly financial statements of the Company, with subsequent disclosures being made, in order to maintain equal access to the information for all stakeholders of the Company. The Committee also considered and recommended for approval the financial statements of the Company for 2021, which included assessing the Company's financial ability to pay dividends at the level promised in the Securities Prospectus of the Company. In 2022, the Company held its fourth annual General Meeting of Shareholders, where shareholders voted on, and approved, the financial statements, as well as the dividend size per ordinary share.

Russell Banham
Chairman of the Audit Committee
Board of Directors of Kazatomprom

5.4.3. Strategic Planning and Investment Committee Report

Dear shareholders,
In connection with growing interest in the activities of Kazatomprom, the Strategic Planning and Investment Committee is becoming increasingly important. Committee members now pay greater attention to our Development Strategy, international cooperation, and promoting investment.

The Committee is an important part of the Board of Directors, and thanks to the main tasks performed by the Committee, the Board can successfully deal with, and adapt quickly to, continually changing environment and comply with particularly important corporate governance principles.

The main objective of the Strategic Planning and Investment Committee is to elaborate and submit recommendations to the Board of Directors of the Company on the strategic and investment activities of the Company.

During the year, the Committee members held 8 in-person meetings and considered 36 matters. On a quarterly basis, the Committee reviewed and approved the Management Board's reports on the implementation of major investment projects, as well as reviewed the Annual Report on the implementation of the Company's Development Strategy 2018-2028 in 2021. In addition, the Committee members reviewed findings of the Company's benchmarking against other uranium companies at the end of 2021.

Neil Longfellow
Chairman of the Strategic Planning and Investment Committee
Board of Directors of Kazatomprom

5.4.4. Nomination and Remuneration Committee Report

Dear shareholders,
The Nomination and Remuneration Committee of the Company was created to consider matters such as appointing candidates to the Board of Directors, senior management remuneration arrangements (including bonus payments), the composition of the Management Board, and the positions of Corporate Secretary, Ombudsman, and other employees.

In 2022, the Committee saw significant changes. Nazira Nurbaeva joined the Committee on 27 May 2022. Assem Mamutova and Bolat Akchulakov resigned following their withdrawal from the Board of Directors of the Company. During the year, the Committee held 11 in-person meetings to consider 69 matters.

Last year, the Committee reviewed and approved candidates for election as the Company's senior independent director, members of the Company's Board of Directors and members of the Company's Management Board. In addition, it also reviewed individual development plans (IDPs) of the Management Board members for 2022,

CEO-1 job descriptions, and the structure of the headquarters and the total headcount of NAC Kazatomprom JSC.

The Committee also considered succession issues, including a pool of successors to be established for the positions of members of the Management Board

Marc Kasher
Chairman of the Nomination and Remuneration Committee
Board of Directors of Kazatomprom

5.5. Statement of responsibility from members of the Board of Directors and Management Board

Under the Company's Corporate Governance Code, the Board of Directors and Management Board are responsible for the correctness of the annual report, as well as the Company's financial statements.

In accordance with the Disclosure and Transparency Rules of the Handbook of the Financial Conduct Authority, each member of the Board of Directors confirms, based on the information they have, that:

- the financial statements have been prepared in accordance with IFRS, and give a true and reliable reflection of: assets, liabilities, and financial position; the results of the financial and economic activities of the Company; and the consolidated balance sheet of the Company and its subsidiaries;
- the management report contains accurate data on the development and indicators related to financial and economic activities and the financial position of the Company and its subsidiaries, as well as a description of the most significant risks and uncertainties that they face.

As of the date of this Report, no member of the Board of Directors or Management Board has in the past five years:

- had a criminal record for offences related to fraud;
- been a member of the administrative, managerial, or supervisory bodies of any company or partner in any partnership at the time or in anticipation of a bankruptcy, or been engaged in property management due to an insolvency or liquidation;
- been subject to official public charges or sanctions by a government organisation or regulatory body (including a professional body); have never been deprived of the right, upon a court order, to act as a member of the administrative, managerial, or supervisory bodies of a company, or been prohibited from participating in managing a company or in doing business

Neil Longfellow, Chairman of Kazatomprom Board of Directors,
On behalf of the Board of Directors

Yerzhan Mukanov, Chairman of Kazatomprom Management Board,
By order of the Board of Directors

5.6. Content of material topics

Material topics		Positive impacts made by the Company on the economy, environment, or people, including impacts on their human rights	Negative impacts made by the Company on the economy, environment, or people, including impacts on their human rights
ECONOMIC			
GRI 201	Economic performance	Positive economic performance of the Company helps: • Improve its attractiveness to the investment community, partners and clients, as well as attract investors to the Kazakh market • Step up investment, open up opportunities for creating and developing new projects and building production facilities in the regions of the Company's operations • Boost local and republican budget revenues	Negative economic performance of the Company results in: • Deterioration of investment attractiveness of the Company and the regions of presence • Failure to attract additional funding if necessary • Significant decline in the competitive advantages in the market, and loss of market share
GRI 203	Indirect Economic Impacts	• The Company's subsidiaries are among the largest taxpayers in the regions of presence • Operations of the Company and its subsidiaries in the regions of presence (contributions to the budget for infrastructure development, assistance to schools, employment opportunities for locals, etc.) help improve social and economic development and social conditions in general	Possible withdrawal Kazatomprom from the regions of presence and corresponding cutbacks to funding of local budgets can result in deterioration in the regions' development and social conditions
GRI 204	Procurement Practices	• Obligations of the Company's suppliers to protect the environment, ensure industrial safety, radiation and nuclear safety, as well as electric and occupational safety provided for in the contracts • Supporting domestic producers and increasing the share of local procurement • Maintaining social stability in the regions of presence and encouraging local suppliers to create new production facilities	• Risk of non-compliance by the Company's suppliers with the obligations stipulated in the contracts regarding environmental protection, exploitation of manpower, and industrial, radiation, and nuclear safety • Risk of the Company concluding contracts with unscrupulous suppliers • Corruption risks
GRI 205	Anti-corruption	• Regular training (for employees, suppliers and other stakeholders) in combating corruption • Hotline operated by an independent party	• Economic inefficiency, including the inexpedient use of funds, the increase in the price of purchased products, the purchase of low-quality services and goods, etc.

		• Dedicated specialists across all the companies run by the Company's group • Mature KYC procedures (as an element of anti-corruption work) • Annual declaration of conflicts of interest by employees • Enhanced anti-corruption clause in all procurement contracts (including the option to check the operations of the counterparty to identify corruption)	• Loss of stakeholders' confidence (market participants, business partners, employees, local population, others) • Reputational risk • The risk of disruption of production processes due to the purchase of low quality raw materials
GRI 207	Tax	Taxes paid by the Company's subsidiaries to the local budget and some taxes from the republican budget make the budget of the region of presence and are the primary source of funding for the public sector.	Possible withdrawal of the Company from the regions of presence and corresponding cutbacks to funding of local budgets can result in deterioration in the regions' development and social conditions.
ENVIRONMENTAL			
GRI 302	Energy Consumption	The Company's 2022 Decarbonisation and Carbon Neutrality Strategy includes solutions such as investment in energy efficiency and the use of renewable energy sources, which reduce expenses, improve the security and safety of energy supplies and lessen the environmental impact of energy consumption. In addition, the Company instils the energy efficiency culture in their employees.	The Company's consumption of electrical and thermal energy produced by energy-generating organisations from these components, directly affects Scope 2 emissions of the Company.
GRI 303	Water	To meet its production goals, the Company uses a closed-loop water cycle across its enterprises to take water. In line with the production process, water returns to the ore-bearing horizon as soon as uranium is extracted. Storm and domestic waste water is treated and then re-used for production purposes or discharged into storage ponds. The rational water management and the construction of facilities with biological wastewater treatment plants for water reuse helps save the region's water resources.	The use of water results in the reduction in water resources, and the region suffers from a shortage of water.
GRI 304	Biodiversity and Ecosystems	The in-situ recovery does not change the subsurface landscape, thus preserving the endemic flora and fauna, which excludes the killing of animals and desertification of the area. Animals return to their natural habitats as soon as uranium mining works are completed and the effects of subsoil use eliminated.	The potential negative impacts of the Company's operations include environmental risks that accompany production processes and may disturb the vegetative cover and drive animals out of their natural habitats.

GRI 305	Emissions	Energy is supplied to production facilities from the bulk power source. When finished products undergo heat treatment, the emissions pass through dust and gas collecting units at all times, and filters prevent pollutants into the air. Hydrocarbon fuels are used only for heating administrative and residential premises, as well as for motor transport. Thus, their use is as limited as possible.	The use of fuels and lubricants for boiler plants, compressors, and diesel generators affects Scope 1 emissions, and the use of electrical and thermal energy affects Scope 2 emissions. It is advisable to switch to gas heating to reduce emissions. The Company plans to reduce emissions by increasing the share of renewable energy sources, using offsetting mechanisms, upgrading its vehicle fleet (or purchasing electric vehicles), and gradually reducing carbon intensity.
GRI 306	Effluents and Waste	The Company is known for the use of in-situ leaching, the most environmentally friendly uranium extraction method (compared to open-pit and mining methods), which eliminates the generation of overburden and dumps. Uranium-containing solutions undergo hydrometallurgical treatment in a closed-loop water cycle that prevents any discharge.	To reach the ore horizon, drilling operations are to take place that produce drilling waste such as drill cuttings. Drill cuttings have a high level of radioactivity and are subject to mandatory disposal. Research is currently underway to reduce production waste.
SOCIAL			
GRI 403	Occupational Health and Safety	• The Company has ongoing multilateral monitoring in place to comply with occupational safety rules across its enterprises and look after employees' health. • It has introduced seven golden rules of the Zero Injury Concept, and senior managers of the Company's enterprises made personal commitments to occupational health and safety standards and cascaded them to improve employees' health and safety at workplace. • The Company provides compulsory social insurance and occupational injury insurance for employees. • It instils occupational safety culture, including the use of proactive measures.	All production operations pose risks to employees' health and safety. The Company has a risk management system in place that takes preventive and reactive actions to mitigate such risks.
GRI 413	Local Communities	The Company contributes significantly to the well-being and social and economic development of the regions of presence by providing employment opportunities to locals, engaging in philanthropy, and rolling out infrastructure projects such as building playgrounds, providing drinking water and street lighting, etc.	Possible withdrawal of the Company from the regions of operations can result in deterioration in the regions' development and social conditions.

N/A	Human rights	As a member of the UN Global Compact and a responsible industry leader, the Company is aware of the need to uphold and promote human rights principles. It conducts annual employee satisfaction surveys in the corporate centre and subsidiaries to improve the level of human rights protection and assess the current human rights situation. It cooperates with UNDP as part of its activities to protect human rights. The Company's Ombudsman's Service arranges field meetings and holds consultations with employees of subsidiaries and affiliates to discuss their working and living conditions, nutrition issues, and development of corporate values and culture. The findings of anonymous surveys are discussed with the management, and recommendations are given to improve ethical standards and behaviours.	Human rights risks in the workplace, including: • Lack of a work environment that is free from any form of physical, verbal, sexual, or psychological pressure, or harassment, aggression, abuse, or threats in the workplace from colleagues or supervisors • Discrimination against any person based on age, gender, ethnicity, religion, disability, nationality, social status, sexual orientation or other characteristics not related to individual performance • Restriction of the rights of employees to freedom of assembly and association, freedom of opinion and expression • Lack of equal opportunities for women and men, including equal pay for equal work • Presence of child, forced and violent labor • Lack of a safe and healthy work environment in the workplace; • Lack of respect for the cultural characteristics and customs of local communities in the regions of presence; • No zero tolerance for bribery and corruption
KAZATOMPROM INDICATORS			
KAP1	Operational life of production sites	Stimulating the production cycle by using best practices and R&D, as well as improving the efficiency of production operations, which has a positive impact on the environment and health of the Company's employees	Negative economic effect on the local population, harm to the environment and employees health
KAP2	Emergency preparedness	An early warning system for emergencies is in place. The Company has developed maps of the areas susceptible to natural and man-made disasters and identified threats, developed emergency response plans, and has relevant services in place (private fire fighting and emergency services), as well as funds to respond to them. It carries out training activities and has installed and maintained an emergency warning system. As the area where the Company's facilities are based is so vast and far away from the public fire fighting and emergency services, the Company's	The Company's facilities are located far away from the public fire fighting and emergency services, therefore the Company may not have enough resources to manage very bad emergencies, which poses a possible risk of untimely management of emergency incidents and adding to their scope.

		enterprises help protect the adjacent areas (put out wildland fires).	
KAP3	Radiation safety	The radiation effect on the Company's employees and locals is low during the in-situ recovery of uranium: it is up to i 30% of the permissible radiation dose limit established by regulations.	The risk of radiation contamination and radiation accidents in case of non-compliance with the laws of the Republic of Kazakhstan and the Company's internal regulatory documents on radiation safety.

5.7. Group's subsidiaries, joint ventures, joint operations, and associates

GRI 2-2

In all cases the share is equal to the Group's voting rights, with the exception of Ulba Metallurgical Plant JSC and Volkovgeologia JSC, in which the Group has 100% voting rights, and Baiken-U LLP where the direct share is 5%.

Subsidiaries, joint ventures, joint operations, and associates of the Holding, 31 December 2021

Treatment	Name	Share (%)
Uranium Mining and Processing		
Subsidiaries	Kazatomprom-SaUran LLP	100.00%
	RU-6 LLP	100.00%
	APPAK LLP	65.00%
	JV Inkai LLP	60.00%
	Baiken-U LLP [100]	52.50%
	ME ORTALYK LLP [101]	51.00%
	JV Khorassan-U LLP	50.00%
Joint Ventures	JV Budenovskoye LLP	51.00%
	Semizbai-U LLP	51.00%
Joint Operations	JV Akbastau JSC	50.00%
	Karatau LLP	50.00%
	Energy Asia (BVI) Limited[100]	50.00%
Associates	JV Katco LLP	49.00%
	JV South Mining Chemical Company LLP	30.00%
	JV ZARECHNOYE JSC	49.98%
	Kyzylkum LLP	50.00%
	Zhanakorgan-Transit LLP [102]	60.00%
Nuclear Fuel Cycle and Metallurgy		
Subsidiaries	Ulba Metallurgical Plant JSC	94.33%

[100] The Company holds 50% (direct ownership) in Energy Asia (BVI) Limited. Energy Asia (BVI)Limited holds 40% (direct ownership) in Kyzylkum LLP and 95% (direct ownership) in Baiken-U LLP.

[101] Under cooperation agreements between Kazatomprom and CGNPC, the parties agreed to build a fuel assembly plant (Ulba-FA) on the site of Ulba Metallurgical Plant. CGNPC guarantees that it will purchase products of Ulba FA LLP in exchange for Kazatomprom's consent to sell a 49% interest in the Company's wholly owned subsidiary, ME ORTALYK LLP, to CGNPC or a subsidiary of CGNPC (the "Transaction"). In April 2021, a sale agreement was signed, and the parties agreed to the company valuation made by one of the four major international advisory and professional services firms, whereby a 49% shareholding was valued at approximately US$ 435 million. On 22 July 2021, the transaction was completed subject to receipt of government approvals and implementation of all deferred conditions of the agreement by the end of 2021. Following the re-registration of the entity CGN Mining UK Limited, a subsidiary of CGNPC, is now a full-fledged participant in ME ORTALYK LLP. Kazatomprom retains a controlling 51% interest while CGN Mining UK Limited holds a 49% interest, with each partner purchasing uranium products in proportion to their shareholding. The actual consideration amounted to US$ 435 million (equivalent to KZT 185,858 billion).

	ULBA-CHINA Co Ltd[102]	100.00%
	Mashzavod JSC[102]	100.00%
	Ulba FA LLP[101102]	51.00%
	Ancillary Operations	
Subsidiaries[103]	High Technology Institute LLP	100.00%
	KazakAtom TH AG	100.00%
	KAP-Technology JSC	100.00%
	KAP Logistics[104]	99.99%
	Volkovgeologia JSC	98.96%
	Qorgan-Security LLP [105]	100.00%
Joint Ventures	SKZ-U LLP	49.00%
	Uranenergo LLP	79.17%
Associates	SSAP LLP	9.89%
	Rusburmash-Kazakhstan LLP[102]	49.00%
	Company's investees	
Investments	International Centre for Uranium Enrichment JSC	10.00%
	ANU Energy OEIC Ltd.	32.7%
	Uranium Enrichment Centre [106]	0.000018%

Assets currently for sale or subject to restructuring

Treatment	Name	Share (%)	
	Nuclear Fuel Cycle		
Joint Ventures	JV UKR TVS Closed Joint Stock Company [107]	33.33%	Weiss trade LLC – 33.33% OJSC TVEL– 33.33%
	Auxiliary operations		
Associates	Caustic JSC [108]	28.00%	Solkhimprom LLP, PUnited Chemical Technologies Trading House LLP

[102] These companies are 3rd level entities for the Company indirectly through the interests in subsidiaries, JVs and associates presented above these companies in the table. The corresponding interests belongs to the 2nd tier entities, not the Company.

[104] On September 20, 2022 "Trading and Transportation Company" LLP was re-registered as "KAP Logistics" LLP.

[106] The Company's ownership interest in Uranium Enrichment Centre (1 share) is held by Kazatomprom through its stake in Urals Electrochemical Combine (25%). As at the reporting date, the Group classifies one share of Uranium Enrichment Center as other investments.

[107] On June 22, 2022, Kyiv's Administrative court declared JV UKR TVS bankrupt. As of the report date, the JV UKR TVS is passing through the bankruptcy procedures.

[108] On December 30, 2021, Kazatomprom and United Chemical Technologies Trading House LLP entered into an agreement on 30 December 2021 to sell the Company's 40% share in Caustic JSC. In accordance with an independent assessment of the market value, the sale price of the Company's share amounted to 1.2 billion tenge. According to the terms of the agreement, payment was made in installments. In January 2022, Kazatomprom received the first tranche in the amount of 364 million tenge. In February 2022, an Act of acceptance and transfer of ordinary shares equivalent to 12% was signed. On March 28, 2023, the buyer paid the second tranche in the amount of 849 million tenge, and also paid 163 million tenge for deferred payment. On April 11, 2023, the act of acceptance and transfer of the remaining 28% of the shares was signed. The total amount of the sale of Kazatomprom's share in JSC Caustic, including interest, amounted to about 1.4 billion tenge. Thus, the Central Securities Depository JSC debited the securities from the Company's personal account and the transaction for the sale of all shares owned by Kazatomprom in Caustic JSC was fully completed.

5.8. GRI Index

General Disclosures

Statement of use	**Kazatomprom has reported in accordance with the GRI Standards for the period 1 January 2022 – 31 December 2022**
GRI 1 used	**GRI 1: Foundation 2021**
Applicable GRI Sector Standard(s)	**Not applicable**

Standard and indicators	Disclosure	Report sections/ Comments	Disclosure Degree	Scope	Comments
GRI 2: The organization and its reporting practices					
2-1	Organizational details	1. Opening Up New Opportunities 1.3. Geography and Market Presence Contacts	fully	1	
2-2	Entities included in the organization's sustainability reporting	5. Annexes 5.1. About the Report 5.6. Group's Subsidiaries, Joint Ventures, Joint Operations, and Associates	fully	1	
2-3	Reporting period, frequency and contact point	5. Annexes 5.1. About the Report 5.12. Contacts	fully	1	
2-4	Restatements of information	5. Annexes 5.1. About the Report	fully	1	The data on energy intensity for 2020 and 2021 have been changed due to a change in the approach to determining the total energy consumption and accounting for purchased heat.
2-5	External assurance	4. Effective Governance 4.9. External audit 5. Annexes 5.1. About the Report	fully	1	
GRI 2: Activities and workers					

2-6	Activities, value chain and other business relationships	Business Line 1. Opening Up New Opportunities 1.1. About the Company 1.6. Sales and Distribution 1.7. Uranium Products Market Overview and Competitive Environment 3. Ensuring Sustainable Development 3.7. Building a Sustainable Procurement Chain	fully	1	Operations – mining assets.
2-7	Employees	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment 5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	There are no non-regular employees in the Company.
2-8	Workers who are not employees	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment 5. Annexes 5.2. ESG Performance Indicators 2020-2022	partially	1	Information on the accounting of employees of contractors is being maintained, but is not ready for disclosure and will be improved in the next reporting period.
GRI 2: Governance					
2-9	Governance structure and composition	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business 4. Effective Governance 4.1. Corporate Governance System 4.4. Board of Directors	fully	1	
2-10	Nomination and selection of the highest governance body	4. Effective Governance 4.4. Board of Directors	fully	1	
2-11	Chair of the highest governance body	4. Effective Governance 4.4. Board of Directors	fully	1	

2-12	Role of the highest governance body in overseeing the management of impacts	4. Effective Governance 4.4. Board of Directors	fully	1	
2-13	Delegation of responsibility for managing impacts	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business 4. Effective Governance 4.12. Corporate Ethics and Compliance	fully	1	
2-14	Role of the highest governance body in sustainability reporting	4. Effective Governance 4.4. Board of Directors	fully	1	
2-15	Conflicts of interest	4. Effective Governance 4.5. Management Board 4. Effective Governance 4.12. Corporate Ethics and Compliance	fully	1	
2-16	Communication of critical concerns	4. Effective Governance 4.12. Corporate Ethics and Compliance	fully	1	
2-17	Collective knowledge of the highest governance body	4. Effective Governance 4.4. Board of Directors	fully	1	
2-18	Evaluation of the performance of the highest governance body	4. Effective Governance 4.4. Board of Directors	fully	1	
2-19	Remuneration policies	4. Effective Governance 4.6. Remuneration	fully	1	
2-20	Process to determine remuneration	4. Effective Governance 4.6. Remuneration	fully	1	
2-21	Annual total compensation ratio		not disclosed	1	Information should not be disclosed in order to protect personal information.
GRI 2: Strategy, policies and practices					
2-22	Statement on sustainable development strategy	Message from the Chairman of the Board of Directors Message from the Chairman of the Management Board	fully	1	
2-23	Policy commitments	3. Ensuring Sustainable Development	fully	1	

		3.1. ESG and Sustainable Business 3.3. Taking Care of Our Plant 3.4. Creating an Attractive Working Environment 4. Effective Governance 4.12. Corporate Ethics and Compliance			
2-24	Embedding policy commitments	4. Effective Governance 4.12. Corporate Ethics and Compliance	fully	1	
2-25	Processes to remediate negative impacts	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business	fully	1	
2-26	Mechanisms for seeking advice and raising concerns	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment 4. Effective Governance 4.12. Corporate Ethics and Compliance	fully	1	
2-27	Compliance with laws and regulations	5. Annexes 5.8. GRI Index	fully	1	In 2022, there were 40 cases of non-compliance with laws and regulations for a total fine of KZT 3,219,540,140. There were no non-pecuniary fines. In addition, we paid fines of KZT 1,107,526,908 in relation to 3 cases of non-compliance with laws and regulations that occurred in previous reporting periods.
2-28	Membership associations	5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	
GRI 2: Stakeholder engagement					
2-29	Approach to stakeholder engagement	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business	fully	1	

2-30	Collective bargaining agreements	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment	fully	1	
GRI 3: Material Topics 2021					
3-1	Process to determine material topics	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business	fully	1	
3-2	List of material topics	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business	fully	1	
3-3	Management of material topics	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business	fully	1	
Economic Topics					
GRI 201: Economic Performance					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business	fully	1	
201-1	Direct economic value generated and distributed	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business 5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	GRI 201-1.b is not relevant. We estimate that the Company has a material impact only in the Republic of Kazakhstan.
GRI 202: Market					
202-2	Proportion of senior management hired from the local community	4. Effective Governance 4.5. Management Board	fully	1	
GRI 203: Indirect Economic Impacts					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.6. Creating Shared Values	fully	1	
203-1	Investments in infrastructure and supported services	3. Ensuring Sustainable Development	fully	1	

		3.6. Creating Shared Values			
GRI 204: Procurement Practices					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.7. Building a Sustainable Procurement Chain	fully	1	
204-1	Proportion of spending on local suppliers	3. Ensuring Sustainable Development 3.7. Building a Sustainable Procurement Chain 5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	Core operations are in the Republic of Kazakhstan.
GRI 205: Anti-corruption					
3-3	Management of material topics	4. Effective Governance 4.12. Corporate Ethics and Compliance	fully	1	
205-2	Communication and training about anticorruption policies and procedures	4. Effective Governance 4.12. Corporate Ethics and Compliance	partially	1	No information is available on the number of members of employee governing bodies who have received anti-corruption training by category or region.
205-3	Confirmed incidents of corruption and actions taken	5. Annexes 5.8. GRI Index	fully	1	There were no incidents of corruption in the reporting period.
GRI 206: Anti-competitive Behavior					
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	5. Annexes 5.8. GRI Index	fully	1	In accordance with the Code of Ethics and Compliance, as well as the laws of the Republic of Kazakhstan, we are committed to competitive behaviour on a fair basis only. In 2022, the Company was not involved in any lawsuits related to violations of antitrust legislation.
GRI 207: Tax					
3-3	Management of material topics	4. Effective Governance 4.11. Tax Transparency	fully	1	
207-1	Approach to tax	4. Effective Governance 4.11. Tax Transparency	fully	1	

207-2	Tax governance, control, and risk management due to climate change	4. Effective Governance 4.11. Tax Transparency	fully	1	For more information on the validation of tax information, see CFS 2022.
207-3	Stakeholder engagement and management of concerns related to tax	4. Effective Governance 4.11. Tax Transparency	fully	1	
207-4	Country-by-country reporting	5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	
300 series (Environmental Topics)					
GRI 302: Energy					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency	fully	1	
302-1	Energy consumption within the organization	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency	fully	2	The Company does not resell energy to third parties. The Company does not consume fuel from renewable sources. Steam and hot water consumption are included in the heat figures. The coefficients used are in accordance with the Methodology for Fuel and Energy Balance Development and Calculation of Selected Statistical Indicators Characterising the Energy Sector.
302-3	Energy intensity	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency	fully	2	
302-4	Reduction of energy consumption	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency	fully	2	The reduction is calculated compared to the previous reporting year. Data is recorded in line with Kazakh laws and the Company's internal approach.
GRI 303: Water					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	

303-1	Interactions with water as a shared resource	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
303-2	Management of water discharge-related impacts	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
303-3	Water withdrawal	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant 5. Annexes 5.2. ESG Performance Indicators 2020-2022	partially	2	The company does not keep records of water withdrawals in water-scarce regions.
303-4	Water discharge	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	partially	2	The Company does not keep records of water discharges in water-scarce regions. The Company does not keep records of water discharges by destination. The Company does not keep records of water quality.
303-5	Water consumption	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	partially	2	The Company does not keep records of water consumption in water-scarce regions.
GRI 304: Biodiversity					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
304-2	Significant impacts of activities, products, and services on biodiversity	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
304-3	Habitats protected or restored	3. Ensuring Sustainable Development	fully	1	

		3.3. Taking Care of Our Plant			
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
GRI 305: Emissions					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
305-1	Direct (Scope 1) GHG emissions	Both stationary and mobile sources were taken into account. 3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency 3.3. Taking Care of Our Plant 5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	2	To estimate direct emissions (Scope 1), a calculation method is used based on calorific value factors and specific GHG emissions from fuel combustion as well as other standardised activities. The gases taken into account in the calculation of this indicator are CO2, CH4, N2O. The company does not generate any biogenic CO2 emissions. Stationary and mobile sources are taken into account.
305-2	Energy indirect (Scope 2) GHG emissions	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency 5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	2	For the calculation of energy indirect greenhouse gas emissions, we have used the coefficients provided by the Greenhouse Gas Protocol and the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. The gases considered in the calculation of this indicator are CO2, CH4, N2O.
305-3	Other indirect (Scope 3) GHG emissions	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency	fully	2	To disclose other indirect greenhouse gas emissions, the greenhouse gas emissions of Category 1 'Purchased Goods and Services' and Category 4 'Upsteam Transportation and Distribution' defined by

					the Greenhouse Gas Protocol have been calculated. For the calculation, the data on greenhouse gas emissions from the production of own resources, as well as standard factors published in public sources (Ecoinvent, GaBi for other purchased resources) are used. The emissions from the most significant purchased goods and services and their transport have been included in the calculations. The indirect emissions of biogenic CO2 have not been taken into account. Gases included in the calculation of this indicator: CO2, CH4, N2O.
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	2	The emission calculation factors used comply with Kazakh environmental legislation, including standards and reporting methodologies. The Company does not generate emissions of persistent organic pollutants (POPs).
GRI 306: Waste					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
306-1	Waste generation and significant wasterelated impacts	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
306-2	Management of significant wasterelated impacts	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	fully	1	
306-3	Waste generated	3. Ensuring Sustainable Development	fully	2	Industrial waste generated includes drilling cuttings and other drilling waste.

		3.3. Taking Care of Our Plant 5. Annexes 5.2. ESG Performance Indicators 2020-2022			
400 series (SocialTopics)					
GRI 401: Employment					
401-1	New employee hires and employee turnover	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment 5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment	fully	1	
401-3	Parental leave	5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	
GRI 402: Labor/Management Relations					
402-1	Minimum notice periods regarding operational changes	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment	fully	1	
GRI 403: Occupational Health and Safety					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.5. Health and Safety	fully	1	
403-1	Occupational health and safety management system	3. Ensuring Sustainable Development 3.5. Health and Safety	fully	1	
403-2	Hazard identification, risk assessment, and incident investigation	3. Ensuring Sustainable Development 3.5. Health and Safety	fully	3	
403-3	Occupational health services	3. Ensuring Sustainable Development 3.5. Health and Safety	fully	1	

403-4	Worker participation, consultation, and communication on occupational health and safety	3. Ensuring Sustainable Development 3.5. Health and Safety	fully	1	
403-5	Worker training on occupational health and safety	3. Ensuring Sustainable Development 3.5. Health and Safety	fully	3	
403-6	Promotion of worker health	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment	fully	1	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	3. Ensuring Sustainable Development 3.5. Health and Safety	fully	3	
403-8	Workers covered by an occupational health and safety management system	3. Ensuring Sustainable Development 3.5. Health and Safety	fully	1	
403-9	Work-related injuries	3. Ensuring Sustainable Development 3.5. Health and Safety 5. Annexes 5.2. ESG Performance Indicators 2020-2022	partially	3	Information on man-hours records and LTIFR calculation is maintained for contractors, but is not yet ready for disclosure this year. It will be improved for disclosure in the next reporting period. In 2022, there were no fatal accidents among contractors.
GRI 404: Training and Education					
404-1	Average hours of training per year per employee	5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	
404-2	Programs for upgrading employee skills and transition assistance programs	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment	fully	1	
GRI 405: Diversity and Equal Opportunity					
405-1	Diversity of governance bodies and employees	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment 4. Effective Governance 4.4. Board of Directors 4.5. Management Board	fully	1	

		5. Annexes 5.2. ESG Performance Indicators 2020-2022			
405-2	Ratio of basic salary and remuneration of women to men	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment 5. Annexes 5.2. ESG Performance Indicators 2020-2022	fully	1	The Company does not distinguish between the basic salary of men and women
GRI 406: Non-discrimination					
406-1	Incidents of discrimination and corrective actions taken	3. Ensuring Sustainable Development 3.4. Creating an attractive working environment	fully	1	No incidents of discrimination were recorded during the reporting period.
GRI 408: Child Labor					
408-1	Operations and suppliers at significant risk for incidents of child labor	3. Ensuring Sustainable Development 3.4. Creating an attractive working environment	fully	1	Kazatomprom respects the rights of children and does not accept any forms of child labour. No cases of child labour by the Company or its suppliers were recorded during the reporting period.
GRI 409: Forced or Compulsory Labor					
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	3. Ensuring Sustainable Development 3.4. Creating an attractive working environment	fully	1	Kazatomprom does not accept any forms of forced or compulsory labour. There were no recorded incidents of forced labour by the Company or its suppliers during the reporting period.
GRI 411: Rights of Indigenous Peoples					
411-1	Incidents of violations involving rights of indigenous peoples	3. Ensuring Sustainable Development 3.4. Creating an attractive working environment	fully	1	There were no recorded incidents of violations of the rights of indigenous people and minorities during the reporting period. There were also no complaints about human rights violations by these groups.
GRI 413: Local Communities					
3-3	Management of material topics	3. Ensuring Sustainable Development 3.6. Creating shared values	fully	1	

413-1	Operations with local community engagement, impact assessments, and development programs	3. Ensuring Sustainable Development 3.6. Creating shared values	fully	1	The activities to support and engage with local communities are carried out throughout the Group.
GRI 415: Public Policy					
415-1	Political contributions	4. Effective Governance 4.12. Corporate Ethics and Compliance	fully	1	

Standard and indicators	Disclosure	Report page	Disclosure degree	Report sections
INDICATORS OF KAZATOMPROM				
KAP1	Production Lifecycle	150	fully	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant
KAP2	Readiness for emergencies	132	fully	3. Ensuring Sustainable Development 3.4. Health and Safety
KAP3	Radiation safety	131	fully	3. Ensuring Sustainable Development 3.4. Health and Safety

5.9. SASB Index

SASB indicator	Disclosure	Section of the Report	Comments	Disclosure Degree	Scope
EM-MM-110a.1.	Gross global Scope 1 emissions Percentage covered under emissions-limiting regulations	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency 5. Annexes 5.2. ESG Performance Indicators 2020-2022	Percentage covered under emissions-limiting regulations – 0%	fully	2
EM-MM-110a.2.	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency		fully	1
EM-MM-120a.1	Air emissions of the following pollutants: (1) CO, (2) NOx (excluding N2O), (3) SOx, (4) particulate matter (PM10), (5) mercury (Hg), (6) lead (Pb), (7) volatile organic compounds (VOCs)	5. Annexes 5.2. ESG Performance Indicators 2020-2022	No emissions of mercury. In the Group, there are emissions of lead and its compounds only at Ulba Metallurgical Plant JSC, Volkovgeologia JSC, Karatau LLP, Semizbai-U LLP — 0.000466 tonnes	partially	2
EM-MM-130a.1.	(1) Total energy consumed; (2) Percentage grid electricity; (3) Percentage renewable	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency	Percentage renewable: 0.33% Percentage grid electricity: 56.50%	partially	2
EM-MM-140a.1.	(1) Total fresh water withdrawn; (2) Total fresh water consumed; (3) Percentage of each in regions with High or	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	Total freshwater withdrawal was 4,063,900 m3. The Company does not keep records of water withdrawal in regions with a shortage of water resources.	partially	2

	Extremely High Baseline Water Stress				
EM-MM-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	In 2022, we identified three incidents of non-compliance with water-related requirements		1
EM-MM-150a.4	Total weight of non-mineral waste generated	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	Total weight of non-mineral waste generated is 269,281.47 tonnes	fully	2
EM-MM-150a.5	Total weight of tailings produced		The Group produces no tailings	not applicable	2
EM-MM-150a.6	Total weight of waste rock generated		The Group generates no waste rock	not applicable	2
EM-MM-150a.7	Total weight of hazardous waste generated	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant 5. Annexes 5.2. ESG Performance Indicators 2020-2022	The new Environmental Code changed the waste classifier. Now, we have updated and introduced a new waste classifier as part of the Corporate Data Storage project. We will disclose the information on waste according to the new classifier in the 2023 Report	not disclosed	2
EM-MM-150a.8	Total weight of hazardous waste recycled		The new Environmental Code changed the waste classifier. Now, we have updated and introduced a new waste classifier as part of the Corporate Data Storage project. We will disclose the information on waste according to the new classifier in the 2023 Report	not disclosed	2

EM-MM-150a.9	Number of significant incidents associated with hazardous materials and waste management	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant	In 2022, we identified seven incidents of non-compliance related to the management of hazardous materials and waste	fully	1
EM-MM-150a.10	Description of waste and hazardous materials management policies and procedures for active and inactive operations	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant		fully	1
EM-MM-160a.1.	Description of environmental management policies and practices for active sites	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant		fully	1
EM-MM-160a.2.	Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation		The Group has no mine sites	not applicable	1
EM-MM-160a.3.	Percentage of (1) proven and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant		fully	1
EM-MM-210a.1	Percentage of (1) proven and (2) probable reserves in or near areas of conflict		The Group has no reserves in or near areas of conflict	not applicable	1
EM-MM-210a.2	Percentage of (1) proved and (2) probable reserves in or near indigenous land		The Group has no reserves in or near indigenous land	not applicable	1
EM-MM-210a.3	Discussion of engagement processes and due diligence		There are no areas of conflict and indigenous people	not applicable	1

	practices with respect to human rights, indigenous rights, and operation in areas of conflict				
EM-MM-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	3. Ensuring Sustainable Development 3.6. Creating Shared Values	No information on community risks	partially	1
EM-MM-210b.2.	Number and duration of non-technical delays		Number of non-technical delays – 0	fully	1
EM-MM-310a.1.	Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment		fully	1
EM-MM-310a.2.	Number and duration of strikes and lockouts		Number of strikes and lockouts – 0	fully	1
EM-MM-320a.1.	(1) MSHA all-incidence rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) full-time employees and (b) contract employees		(1) MSHA all-incidence rate – 0.021 (per 200,000 hours worked as recommended by SASB standards) (2) FAR = 0.007 (per 200,000 hours worked as recommended by SASB standards) (3) Near misses frequency rate – 0.848 (per 200,000 hours worked as recommended by SASB standards) (4) Not disclosed as the Company does not keep separate records of the number of hours of health & safety and emergency	partially	3

			response training for its staff and contractors		
EM-MM-510a.1.	Description of the management system for prevention of corruption and bribery throughout the value chain	4. Effective Governance 4.12. Corporate Ethics and Compliance		fully	1
EM-MM-510a.2.	Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index		Kazakhstan is not on the rankings	not applicable	1
EM-MM-540a.1.	Tailings storage facility inventory table: (1) facility name, (2) location, (3)ownership status, (4) operational status, (5) construction method, (6) maximum permitted storage capacity, (7) current amount of tailings stored, (8) consequence classification, (9) date of most recent independent technical review, (10) material findings, (11) mitigation measures, (12) site-specific EPRP		The Group produces no tailings	not applicable	1
EM-MM-540a.2.	Summary of tailings management systems and governance structure used to monitor and maintain		The Group produces no tailings	not applicable	1

	the stability of tailings storage facilities				
EM-MM-000.A	Production of (1) metal ores and (2) finished metal products	1. Opening Up New Opportunities 1.4. Analysis of Performance Dynamics		fully	1
EM-MM-000.B	Total number of employees, percentage contractors	3. Ensuring Sustainable Development 3.4. Creating an Attractive Working Environment 5. Annexes 5.2. ESG Performance Indicators 2020-2022	Information on contractors' employee records is maintained, but is not ready for disclosure. It will be streamlined for disclosure in the next reporting period	partially	1

5.10. TCFD Index

Indicator	Section of the Report
Governance	
a. Describe Board of Director's oversight of climate-related risks and opportunities	4. Effective Governance 4.1. Corporate Governance System 4.4. Board of Directors
b. Describe Management's role in assessing and managing climate-related risks and opportunities	3. Ensuring Sustainable Development 3.1. ESG and Sustainable Business
Metrics & Targets	
a. Describe metrics used by the organisation to assess climate-related risks and opportunities	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency 3.3. Taking Care of Our Plant 5. Annexes 5.2. ESG Performance Indicators 2020-2022
c. Describe targets used by the organisation to manage climate-related risks and opportunities	3. Ensuring Sustainable Development 3.3. Taking Care of Our Plant
b. Disclose Scope 1, Scope 2, and, where necessary, Scope 3 greenhouse gas (GHG) emissions and emissions-related risks	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency 3.3. Taking Care of Our Plant 5. Annexes 5.2. ESG Performance Indicators 2020-2022
Strategy	
b. Describe impact of climate-related risks on the organisation's businesses, strategy, and financial planning	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency
Risk Management	
a. Describe organisation's processes for identifying and assessing climate-related risks	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency
b. Describe organisation's processes for managing climate-related risks	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency
c. Describe integration of processes for identifying, assessing, and managing climate-related risks into the organisation's overall risk management	3. Ensuring Sustainable Development 3.2. Climate Change and Energy Efficiency

5.11. UNCTAD Indicators Table

Area		Indicators	Performance indicators
A	**Economic area**		
A.1	Revenue and/or (net) value added	A.1.1: Revenue	KZT 1,001.1 billion
		A.1.2: Value added	KZT 686.7 billion
		A.1.3: Net value added	KZT 607.6 billion
A.2	Payments to the Government	A.2.1: Taxes and other payments to the Government	KZT 259.5 billion
A.3	New investment/expenditures	A.3.1: Green investment	KZT 1,074.8 million in environmental expenses
		A.3.2: Community investment	KZT 1.1 billion
		A.3.3: Total expenditures on research and development	KZT 6.8 billion
A.4	Total cost of local supplier/purchasing programmes	A.4.1: Percentage of local procurement	82%
B	**Environmental area**		
B.1	Sustainable use of water	B.1.1: Water recycling and reuse	No data available due to revised methodology
		B.1.2: Water use efficiency	9,188,900 m3 of water withdrawn. In 2022, the total water withdrawn dropped by 9% against 2021
		B.1.3: Water stress	Water consumption in 2022 - surface water – 6,500 m3 - ground water - 8,573,500 m3 - municipal and other water supply systems - 608,900 m3
B.2	Waste management	B.2.1: Reduction of waste generation	In 2022, Kazatomprom accumulated a total of 604,600,000 tonnes of waste,
		B.2.2: Waste reused, remanufactured and recycled	The Company does not reuse the waste
		B.2.3: Hazardous waste	In view of the new Environmental Code, the subsidiaries and affiliates update the reporting according to the new waste classifier (some items of waste require laboratory research)
	Greenhouse gas emissions	B.3.1: Greenhouse gas emissions (Scope 1)	97,260 tonnes of CO_2 eq.
		B.3.2: Greenhouse gas emissions (Scope 2)	Market method – 844,034 tonnes of CO_2 eq.
B.4	Chemicals, including pesticides and ozone-depleting substances	B.4.1: Chemicals, including pesticides and ozone-depleting substances	We do not use ozone depleting substances
B.5	Energy consumption	B.5.1: Renewable energy	3.01 MWh of annual electricity produced by PV plants installed at production sites
		B.5.2: Energy efficiency	Total energy consumption was 3,929,000 GJ
C	**Social area**		

C.1	Gender equality	C.1.1: Proportion of women in managerial positions	Share of female managers was 9% in 2022
C.2	Human capital	C.2.1: Average hours of training per year per employee	Average number of hours spent on training of one employee was 54 hours
		C.2.2: Expenditure on employee training per year per employee	KZT 330,200 for administrative staff and management, KZT 71,500 for production staff
		C.2.3: Employee wages and benefits as a proportion of revenue, with breakdown by employment type and gender	KZT 99,395 million in the total payroll fund
C.3	Employee health and safety	C.3.1: Expenditures on employee health and safety as a proportion of revenue	In 2022, Kazatomprom's health and safety spending made KZT 8.08 billion, equivalent to 1% of the Company's revenues
		C.3.2: Frequency/incident rates of occupational injuries	LTIFR was 0.11
C.4	Coverage by collective agreements	C.4.1: Percentage of employees covered by collective agreements	99%
D	**Institutional area**		
D.1	Corporate governance disclosure	D.1.1: Number of board meetings and attendance rate	In 2022, the Board of Directors held 14 in-person meetings to consider 239 matters. The attendance of meetings by Board members was 94.4% on average in 2022
		D.1.2: Number and percentage of women board members	14% (as of the end of the year)
		D.1.3: Board members by age range	Board members by age: • Under 30 - 0% • 30-50 – 57% • 50+ - 43%
		D.1.4: Number of meetings of audit committees and attendance rate	The Audit Committee held 12 in-person meetings and 1 meeting in absentia in the reporting year. The attendance was 100%
		D.1.5: Total compensation and compensation per member of the board of directors and management	KZT 0.98 billion in total remuneration paid to the Board of Directors and Management Board billion
D.2	Anti-corruption practices	D.2.1: Amount of fines paid or payable in accordance with the convictions	No administrative penalties for corruption offences in the reporting period
		D.2.2: Average hours of training on anti-corruption issues per year per employee	Not available

5.12. Independent Assurance Report

GRI 2-5



Independent Limited Assurance Report

To the Board of Directors of joint stock company “National atomic company “Kazatomprom”:

Introduction

We have been engaged by the Management of joint stock company “National atomic company “Kazatomprom” (hereinafter – the “Company”) to provide limited assurance on the selected information described below and included in the Integrated Annual Report of the Company for the year ended 31 December 2022 (hereinafter – the “Annual Report”).

Description of the subject matter and applicable criteria

We assessed the qualitative and quantitative information that is disclosed in the Annual Report and referred to or disclosed in the Section 5.8 GRI Index and Section 5.9 SASB Index of the Annual Report (hereinafter – the “Selected Information”). The Selected Information has been prepared in accordance with GRI Sustainability Reporting Standards published by the Global Reporting Initiative (GRI) (hereinafter – the “GRI Standards”) and SASB Standards published by the Sustainability Accounting Standards Board (SASB) (hereinafter – the “SASB Standards”).

The Selected information represents information related to the Company and its selected subsidiaries as indicated in the Information perimeter section of the Annual Report.

The scope of our assurance procedures was limited to the Selected Information for the year ended 31 December 2022 only. We have not performed any procedures with respect to earlier periods or any other items included in the Annual Report and, therefore, do not express any conclusion thereon.

We assessed the Selected Information using reporting requirements in the GRI Standards, SASB Standards and methodology and guidelines developed by the Company and disclosed in the Annual Report (hereinafter – the “Reporting Criteria”). We believe that the Reporting Criteria are appropriate given the purpose of our limited assurance engagement.

Responsibilities of the management of the Company

The management of the Company is responsible for:

- designing, implementing and maintaining internal control relevant to the preparation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- establishing internal methodology and guidelines for preparing and reporting the Selected Information in accordance with the Reporting Criteria;
- preparing, measuring and reporting of the Selected Information in accordance with the Reporting Criteria; and
- the accuracy, completeness and presentation of the Selected Information.

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Our responsibilities

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Selected Information is free from material misstatement, whether due to fraud or error;
- forming an independent limited assurance conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to the Board of Directors of the Company.

We performed the limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements other than Audits and Reviews of Historical Financial Information" issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements, and to plan and perform procedures to obtain limited assurance that the Selected Information for the year ended 31 December 2022 has been prepared, in all material respects, in accordance with the Reporting Criteria.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our independence and quality management

We comply with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (the IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

We apply International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Work done

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information. In doing so, we:

- made enquiries of the management of the Company, including the Strategy and Sustainable Development team and those with responsibility for sustainability reporting management and reporting;
- conducted interviews of personnel responsible for the preparation of the Annual Report and collection of underlying data;
- performed analysis of the relevant internal methodology and guidelines, gaining an understanding of the design of the key structures, systems, processes and controls for managing, recording, preparing and reporting the Selected Information; and

- performed limited substantive testing on a selective basis of the Selected Information to check that data had been appropriately measured, recorded, collated and reported.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our limited assurance conclusion.

Reporting and measurement methodologies

Under the Reporting Criteria there is a range of different, but acceptable, measurement and reporting techniques. The techniques can result in materially different reporting outcomes that may affect comparability with other organisations. The Selected Information should therefore be read in conjunction with the methodology used by management as described in the Annual Report, and for which the Company is solely responsible.

Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information for the year ended 31 December 2022 has not been prepared, in all material respects, in accordance with the Reporting Criteria.

Restrictions of use and distribution

This report, including our conclusion, has been prepared solely for the Board of Directors of the Company in accordance with the agreement between us, to assist the management of the Company in reporting on the Company's and its selected subsidiaries' sustainability performance and activities.

We permit this report to be disclosed in the Annual Report, which will be published on the Company's website[1], to assist the management of the Company in responding to their governance responsibilities by obtaining an independent limited assurance report in connection with the Selected Information. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors of the Company and the Company for our work or this report except where the respective terms are expressly agreed in writing and our prior consent in writing is obtained.

PricewaterhouseCoopers LLP

28 April 2023

Almaty, Kazakhstan

[1] The maintenance and integrity of the Company's website is the responsibility of management; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported Selected Information or Reporting Criteria when presented on the Company's website.

5.13. Consolidated Financial Statements

"NAC "KAZATOMPROM" JSC

STATEMENT OF MANAGEMENT'S RESPONSIBILITIES FOR THE PREPARATION AND APPROVAL OF CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2022, AND OPERATING AND FINANCIAL REVIEW FOR THE YEAR ENDED 31 DECEMBER 2022

The following statement is made with a view to distinguish the respective responsibilities of management and those of the independent auditor's in relation to the consolidated financial statements of JSC National Atomic Company Kazatomprom ("Company") and its subsidiaries (hereinafter the "Group") for the year ended 31 December 2022 and operating and financial review for the year ended 31 December 2022.

Management of the Group is responsible for the preparation of consolidated financial statements of the Group for the year ended 31 December 2022, and operating and financial review for the year ended 31 December 2022, that presents fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2022, and the consolidated results of its operations, cash flows and changes in equity for the year then ended, in compliance with International Financial Reporting Standards ("IFRS").

In preparing the consolidated financial statements, management is responsible for:

- properly selecting and applying accounting policies;
- presenting information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- providing additional disclosures when compliance with the specific requirements in IFRSs are insufficient to enable users to understand the impact of particular transactions, as well as other events and conditions on the Group's consolidated financial position and financial performance; and
- making an assessment of the Group's ability to continue as a going concern.

Management is also responsible for:

- designing, implementing and maintaining an effective and sound system of internal controls throughout the Group;
- maintaining adequate accounting records that are sufficient to show and explain the Group's transactions and disclose with reasonable accuracy at any time the consolidated financial position of the Group, and which enable them to ensure that the consolidated financial statements of the Group comply with IFRS;
- maintaining statutory accounting records in compliance with legislation and accounting standards of the Republic of Kazakhstan;
- taking all reasonably possible measures to safeguard the assets of the Group; and
- preventing and detecting fraud and other irregularities.

The consolidated financial statements for the year ended 31 December 2022 and operating and financial review for the year ended 31 December 2022 were authorised for issue by management of the Group on 16 March 2023.

BEKETAYEV B.B.
CHIEF FINANCIAL OFFICER

JAKYPBEKOVA S.J.
CHIEF ACCOUNTANT

National Atomic Company Kazatomprom JSC

Consolidated Financial Statements for the year ended 31 December 2022 and Independent Auditor's Report

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Independent Auditor's Report

To the Shareholders and the Board of Directors of National Atomic Company Kazatomprom JSC:

Our opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of National Atomic Company Kazatomprom JSC (the "Company") and its subsidiaries (together – the "Group") as at 31 December 2022, and the Group's consolidated financial performance and consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards.

What we have audited

The Group's consolidated financial statements comprise:

- the consolidated statement of profit or loss and other comprehensive income for the year ended 31 December 2022;
- the consolidated statement of financial position as at 31 December 2022;
- the consolidated statement of cash flows for the year then ended;
- the consolidated statement of changes in equity for the year then ended; and
- the notes to the consolidated financial statements, which include significant accounting policies and other explanatory information.

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

Independence

We are independent of the Group in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code) and the ethical requirements that are relevant to our audit of the consolidated financial statements in the Republic of Kazakhstan. We have fulfilled our other ethical responsibilities in accordance with the IESBA Code and the ethical requirements of the Republic of Kazakhstan that are relevant to our audit of the consolidated financial statements.

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Our audit approach

Overview



Overall Group materiality: Kazakhstani Tenge ("Tenge") 19,000 million, which represents approximately 5% of three-year average profit before tax.

- Group audit scope included the Company, ten subsidiaries, three joint arrangements, two associates in Kazakhstan and one subsidiary in Switzerland.
- Our audit scope addressed 99% of the Group's revenues and 99% of the Group's absolute value of underlying profit before tax.

- Provision for asset retirement obligations

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the consolidated financial statements. In particular, we considered where management made subjective judgements; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls including, among other matters, consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Materiality

The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance whether the consolidated financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall Group materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, if any, both individually and in aggregate on the consolidated financial statements as a whole.

Overall Group materiality	Tenge 19,000 million
How we determined it	approximately 5% of three-year average profit before tax
Rationale for the materiality benchmark applied	We chose profit before tax as the benchmark because, in our view, it is the benchmark against which the performance of the Group is most commonly measured by users and is a generally accepted benchmark. Three-year average measure was applied to reflect high volatility of macroeconomic factors that significantly impact profits. We chose 5% which is consistent with quantitative materiality thresholds used for profit-oriented companies.

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. These matters were 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 these matters.

Key audit matter	How our audit addressed the key audit matter
Provision for asset-retirement obligations *Notes 3, 4 and 34 to the consolidated financial statements* During 2022, the Group revised its methodology for calculation of the provision for the asset retirement obligations for its mining entities to a more detailed and standardized assessment of both the scope of obligations and the associated physical quantities as well as applicable unit cost rates for various decommissioning activities. The Group has also engaged external experts to review the Group's estimates of the provisions for the asset retirement obligations (ARO) for its mining entities. As of 31 December 2022, the Group's asset retirement obligations for its mining entities have increased to Tenge 38,116 million (2021: Tenge 31,431 million). Furthermore, during 2022 the Group has developed the methodology for calculation of the provision for the asset retirement obligations in relation to its non-mining entities in response to the requirements of the Ecological Code of the Republic of Kazakhstan issued in 2021. As a result, as of 31 December 2022, the Group has assessed and recognized an additional Tenge 7,624 million liability for dismantlement of the Ulba Metallurgical Plant's buildings and constructions. The Group's other non-mining entities have also assessed their asset retirement obligations under the new Ecological Code but this did not result in significant additional provision being recognised. We considered this matter to be one of the most significant in our audit because the calculation of provision for asset retirement obligations involves inherent subjectivity in estimating future nominal costs and uncertainty associated with the timing of the actual fulfillment of decommissioning obligations. The provision for asset retirement obligation is also significant in the consolidated financial	Our audit procedures included: • We assessed the competence and objectivity of consultant engaged to review the Group's estimate of the provision for the asset retirement obligation for its mining entities. We reviewed consultant's report and reconciled ARO amounts in the report to values used by the Group in ARO provision estimates. • We reviewed the Group's calculations, reconciled principal assumptions to external sources and tested on a sample basis input data used in nominal cost calculations, including physical volume of works, cost per unit and construction estimate norms. • We engaged our legal experts to obtain an understanding of requirements of the Ecological Code that came into effect in July 2021 with regards to decommissioning process for non-mining entities and assessed management's interpretation and fulfillment of such requirements that resulted in the accrual of additional provisions as of 31 December 2022. • We involved our accounting technical specialists to assist in the review of the accounting treatment of additional provisions for non-mining entities that arose as a result of introduction of the new Ecological Code. • We engaged our valuation experts in the audit procedures in relation to the assessment of the reasonableness of the discount and inflations rates used by the Group in calculation of the provision for the asset retirement obligations for its mining and non-mining entities. • We reviewed Group's disclosures in the consolidated financial statements for compliance with IFRS requirements.

statements. The Group's estimation of such a provision incorporates the effects of the expected approach to decommissioning and discount rates, effects of changes in local regulations along with the effects of changes in inflation.

How we tailored our Group audit scope

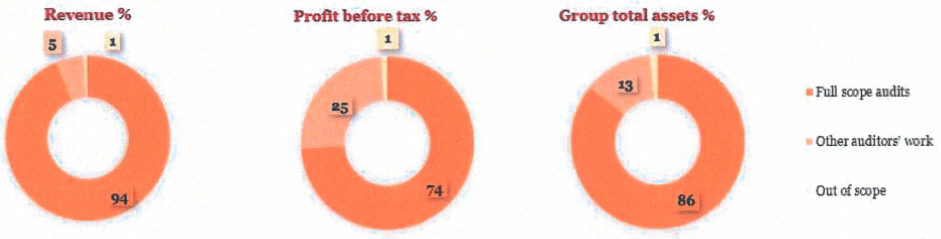
We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

The Group's major production facilities and uranium sites are located in the Republic of Kazakhstan. The Group's trading activities are carried out primarily out of Kazakhstan, as well as through operations of a trading subsidiary set up in Switzerland. The Group operates seven mining subsidiaries (under twelve subsurface contracts), four mining joint arrangements (under six subsurface use contracts) and four mining associates (under four subsurface use contracts). We audited six mining subsidiaries and one mining joint arrangement. Auditors of two mining joint arrangements, one mining subsidiary and two mining associates reported to us on their audits. The audit scope also included four non-mining subsidiaries, audited by us and one of PwC network firms.

Based on our continuous assessment, we included in our group audit scope the Company and sixteen entities (components), including five components audited by other auditors.

In order to achieve appropriate audit coverage of the audit risks and of each individually significant component of the Group, including each segment and group function:

- Significant components were subject to either a full scope audit, specified risk-focused audit procedures of specific account balances, or Group level procedures. Our selection was based on the relative significance of the entities within the Group or specific risks identified. The components within the scope of our work accounted for the following percentages of the Group's measures (1):



(1) Presented as a percentage of the Group's absolute values at 31 December 2022 and for the year then ended

Audit instructions set out the significant audit areas, materiality thresholds (which ranged from Tenge 958 million to Tenge 9,131 million) and specific reporting requirements. The Group audit team directed the work undertaken by component auditors, through a combination of related network and non-network firm reporting, regular interaction on audit and accounting matters, periodic site visits and review of specific audit work papers.

By performing the procedures above at the components in combination with additional procedures performed at a Group level, we have obtained sufficient and appropriate audit evidence regarding the consolidated financial statements as a whole that provides basis for our opinion.

Other information

Management is responsible for the other information. The other information comprises the Annual report (but does not include the consolidated financial statements and our auditor's report thereon), which 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 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.

When we read the Annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

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

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards, 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.

Those charged with governance are 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 scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by 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 those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance 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 those charged with governance, 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 engagement partner on the audit resulting in this independent auditor's report is Almaz Sadykov.

On behalf of PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Approved by:

Dana Inkarbekova
Managing Director
PricewaterhouseCoopers LLP
(General State License of the Ministry of Finance of the Republic of Kazakhstan №0000005 dated 21 October 1999)

Signed by:

Almaz Sadykov
Auditor in charge
(Qualified Auditor's Certificate №0000745 dated 8 February 2019)

16 March 2023
Almaty, Kazakhstan

In millions of Kazakhstani Tenge	Note	For the year ended 31 December 2022	For the year ended 31 December 2021
Revenue	9	1,001,171	691,011
Cost of sales	10	(475,097)	(402,967)
Gross profit		**526,074**	**288,044**
Distribution expenses	11	(25,605)	(15,706)
General and administrative expenses	12	(44,507)	(34,105)
Net reversal/(impairment losses) on non-financial assets	13	176	(3,805)
Net reversal/(impairment losses) on financial assets		132	(208)
Net foreign exchange gain	15	17,304	3,345
Other income	14	21,717	7,525
Other expenses	15	(9,564)	(15,394)
Finance income	17	17,327	7,077
Finance costs	17	(8,425)	(6,712)
Share of results of associates	25	75,736	47,294
Share of results of joint ventures	26	13,340	4,289
Profit before tax		**583,705**	**281,644**
Income tax expense	18	(110,742)	(61,618)
PROFIT FOR THE YEAR		**472,963**	**220,026**
Other comprehensive income			
Items that may be subsequently reclassified to profit or loss:			
Exchange differences arising on translation of entities with foreign functional currency		(46)	205
Items that will not be reclassified to profit or loss:			
Net gain/(losses) from investments in equity securities at fair value through other comprehensive income		14	(3)
Remeasurements of post-employment benefit obligations		(478)	66
Other comprehensive (loss)/income for the year		**(510)**	**268**
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**472,453**	**220,294**
Profit for the year attributable to:			
- Owners of the Company		348,048	140,773
- Non-controlling interest	38	124,915	79,253
Profit for the year		**472,963**	**220,026**
Total comprehensive income attributable to:			
- Owners of the Company		347,589	141,043
- Non-controlling interest		124,864	79,251
Total comprehensive income for the year		**472,453**	**220,294**
Earnings per share attributable to the owners of the Company, basic and diluted (rounded to Tenge)	19	1,342	543

These consolidated financial statements were approved by management on 16 March 2023:

Beketayev R.B.
Chief Financial Officer

Jakypbekova S.J.
Chief Accountant

In millions of Kazakhstani Tenge	Note	31 December 2022	31 December 2021*
ASSETS			
Non-current assets			
Property, plant and equipment	21	188,300	171,487
Mine development assets	22	162,174	138,673
Mineral rights	23	525,140	552,957
Intangible assets	20	59,159	58,940
Exploration and evaluation assets	24	26,543	24,378
Investments in associates	25	154,124	116,892
Investments in joint ventures	26	44,208	37,803
Deferred tax assets	18	34,515	30,689
Other financial assets	28	59,371	23,671
Other non-financial assets	29	21,279	24,258
		1,274,813	**1,179,748**
Current assets			
Accounts receivable	27	270,921	220,138
Prepaid income tax		11,451	7,526
VAT recoverable		62,389	46,447
Inventories	30	392,621	275,856
Cash and cash equivalents	31	169,536	161,190
Other financial assets	28	20,678	52,249
Other non-financial assets	29	19,274	7,137
		946,870	**770,543**
Assets of disposal groups classified as held for sale	25	850	1,213
		947,720	**771,756**
TOTAL ASSETS		**2,222,533**	**1,951,504**

* *Certain amounts in this column do not correspond to the consolidated financial statements for the year ended 31 December 2021, since they comprise reclassifications that are described in Note 3.*

In millions of Kazakhstani Tenge	Note	31 December 2022	31 December 2021
EQUITY			
Share capital	32	37,051	37,051
Additional paid-in capital		2,539	2,539
Reserves		1,874	1,866
Retained earnings		1,268,580	1,148,387
Equity attributable to shareholders of the Company		1,310,044	1,189,843
Non-controlling interest	38	386,459	347,258
TOTAL EQUITY		**1,696,503**	**1,537,101**
LIABILITIES			
Non-current liabilities			
Loans and borrowings	33	83,300	77,700
Provisions	34	43,475	32,192
Deferred tax liabilities	18	116,808	121,101
Employee benefits		1,731	1,168
Other liabilities	36	9,313	23,420
		254,627	**255,581**
Current liabilities			
Loans and borrowings	33	54,971	11,317
Provisions	34	4,506	869
Accounts payable	35	98,809	66,014
Other tax and compulsory payments liabilities		24,688	17,973
Employee benefits		325	215
Income tax liabilities		4,221	5,096
Other liabilities	36	83,883	57,338
		271,403	**158,822**
TOTAL LIABILITIES		**526,030**	**414,403**
TOTAL EQUITY AND LIABILITIES		**2,222,533**	**1,951,504**
Carrying value of one share (rounded to Tenge)	19	6,313	5,699

These consolidated financial statements were approved by management on 16 March 2023:

Beketayev R.B.
Chief Financial Officer

Jakypbekova S.J.
Chief Accountant

In millions of Kazakhstani Tenge	Note	For the year ended 31 December 2022	For the year ended 31 December 2021*
OPERATING ACTIVITIES			
Cash receipts from customers		1,213,489	779,981
VAT refund		74,910	45,204
Interest received		11,701	4,104
Payments to suppliers		(677,658)	(488,883)
Payments of wages and salaries		(87,317)	(63,236)
Income tax paid		(125,914)	(97,747)
Other taxes paid		(89,259)	(50,882)
Interest paid	33	(3,570)	(3,319)
Payment held as restricted funds	28	(14,812)	-
Compensation paid under subsoil use agreement	12	(7,310)	-
Social payments		(5,226)	(3,166)
Other payments, net		(5,175)	(3,327)
Cash flow from operating activities		**283,859**	**118,729**
INVESTING ACTIVITIES			
Acquisition of property, plant and equipment		(21,571)	(16,625)
Proceeds from disposal of property, plant and equipment		1,211	104
Acquisition of intangible assets		(1,013)	(754)
Acquisition of mine development assets		(48,670)	(28,233)
Acquisition of exploration and evaluation assets		(3,223)	(1,682)
Proceeds from disposal of subsidiary net of cash and cash equivalents of disposed subsidiary	39	-	1,339
Acquisition of short-term debt securities	28	(80,219)	(126,331)
Acquisition of long-term debt securities	28	(8,804)	-
Proceeds from redemption of short-term debt securities	28	86,006	127,341
Placement of term deposits and restricted cash	28	(12,486)	(51,158)
Redemption of term deposits and restricted cash	28	44,688	6,350
Loan repayments received from related parties		3,514	3,138
Acquisition of equity investments	28	(12,368)	-
Dividends received from associates, joint ventures	25,26	45,346	17,108
Other payments, net		(3,304)	(1,838)
Cash flow used in investing activities		**(10,893)**	**(71,241)**
FINANCING ACTIVITIES			
Proceeds from loans and borrowings	33	70,905	65,525
Proceeds from sale of non-controlling interest in subsidiary	39	-	185,858
Repayment of loans and borrowings	33	(26,555)	(76,108)
Dividends paid to shareholders	32	(227,388)	(150,082)
Dividends paid to non-controlling interest		(85,667)	(26,584)
Payments under lease	33	(162)	(452)
Other payments, net		(10)	-
Cash flow used in financing activities		**(268,877)**	**(1,843)**
Net increase in cash and cash equivalents		**4,089**	**45,645**
Cash and cash equivalents at the beginning of the year		161,190	113,347
Effect of exchange rate fluctuations on cash and cash equivalents		4,245	2,201
Change in impairment provision for cash and cash equivalents		12	(3)
Cash and cash equivalents at the end of the year	**31**	**169,536**	**161,190**

* *Certain amounts in this column do not correspond to the consolidated financial statements for the year ended 31 December 2021, since they comprise reclassifications that are described in Note 3.*

These consolidated financial statements were approved by management on 16 March 2023:

Beketayev R.B.
Chief Financial Officer

Jakypbekova S.J.
Chief Accountant

In millions of Kazakhstani Tenge	Attributable to the shareholders of the Company					Non-controlling interest	Total equity
	Share capital	**Reserves**	**Retained earnings**	**Additional paid-in capital**	**Total**		
Balance at 1 January 2021	37,051	1,666	1,029,477	4,461	1,072,655	267,137	1,339,792
Profit for the year	-	-	140,773	-	140,773	79,253	220,026
Foreign currency translation difference	-	203	-	-	203	2	205
Remeasurements of post-employment benefit obligations	-	-	70	-	70	(4)	66
Other comprehensive loss	-	(3)	-	-	(3)	-	(3)
Total comprehensive income for the year	**-**	**200**	**140,843**	**-**	**141,043**	**79,251**	**220,294**
Dividends declared (Note 32)	-	-	(150,082)	-	(150,082)		(150,082)
Dividends declared by subsidiaries to other participants	-	-	-	-	-	(26,583)	(26,583)
Other operations (Note 39)	-	-	2,254	(1,922)	332	377	709
Change in ownership interest in a subsidiary without loss of control (Note 39)	-	-	125,895	-	125,895	27,076	152,971
Balance at 31 December 2021	**37,051**	**1,866**	**1,148,387**	**2,539**	**1,189,843**	**347,258**	**1,537,101**
Profit for the year	-	-	348,048	-	348,048	124,915	472,963
Foreign currency translation difference	-	(6)	-	-	(6)	(40)	(46)
Remeasurements of post-employment benefit obligations	-	-	(467)	-	(467)	(11)	(478)
Other comprehensive income	-	14	-	-	14	-	14

Total comprehensive income for the year	**-**	**8**	**347,581**	**-**	**347,589**	**124,864**	**472,453**
Dividends declared (Note 32)	-	-	(227,388)	-	(227,388)	-	(227,388)
Dividends declared by subsidiaries to other participants	-	-	-	-	-	(85,663)	(85,663)
Balance at 31 December 2022	**37,051**	**1,874**	**1,268,580**	**2,539**	**1,310,044**	**386,459**	**1,696,503**

These consolidated financial statements were approved by management on 16 March 2023:

Beketayev R.B.
Chief Financial Officer

Jakypbekova S.J.
Chief Accountant

1. NAC Kazatomprom JSC Group and its Operations

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) for the year ended 31 December 2022 for National Atomic Company Kazatomprom JSC (the "Company") and its subsidiaries (hereinafter collectively referred to as "the Group" or "NAC Kazatomprom JSC").

The Company is a joint stock company set up in accordance with regulations of the Republic of Kazakhstan. The Company was established pursuant to the Decree of the President of the Republic of Kazakhstan on the establishment of National Atomic Company Kazatomprom No. 3593, dated 14 July 1997, and the Decree of the Government of the Republic of Kazakhstan on National Atomic Company Kazatomprom Issues No. 1148 dated 22 July 1997, as a closed joint stock company with a 100% government shareholding.

As of 31 December 2022, 75% of the Company's shares are held by Samruk-Kazyna JSC and 25% are on free float. Government is an ultimate controlling party of the Group. This is unchanged from the prior year end.

The Company's registered address is Syganak street, building 17/12, Astana city, the Republic of Kazakhstan. The principal place of business is the Republic of Kazakhstan.

The Group's principal activities include production of uranium and sale of uranium products. The Group is one of the leading uranium producing companies of the world. The Group is also involved in processing of rare metals, manufacture and sale of beryllium and tantalum products and scientific support of operational activities.

NAC Kazatomprom JSC is an entity representing interests of the Republic of Kazakhstan at the initial stages of the nuclear fuel cycle and production of fuel assemblies and their components. The Group is a participant in a number of associates and joint ventures which make a significant contribution to its profit (Notes 25 and 26). The Group's development strategy focuses on the core business activities of mining and processing of uranium and related natural resources. The development strategy is designed to ensure long term value growth for all stakeholders of the Group in accordance with the principles of sustainable development through aligning production volumes to market conditions and adopting a market centric focus to sales capabilities, applying best practices in business activities, and developing a corporate culture consistent with the Group's position as an industry leader.

As at 31 December 2022, the Group and its associates and joint ventures were a party to the following contracts for production and exploration of uranium:

Mine/area	Stage	Contract date	Contract term
Group			
Kazatomprom-SaUran LLP			
Kanzhugan	Production	27 November 1996	51 years
Uvanas	Liquidation	27 November 1996	26 years
Mynkuduk, East lot	Production	27 November 1996	31 years
Moinkum, lot 1 (South) (south part)	Liquidation	26 September 2000	20 years
Moinkum, lot 3 (Central) (north part)	Production	31 May 2010	29 years
DP Ortalyk LLP			
Mynkuduk, Central lot	Production	8 July 2005	28 years
Zhalpak	Production	14 December 2021	21 years
Appak LLP			
Mynkuduk, West lot	Production	8 July 2005	30 years
RU-6 LLP			
North and South Karamurun	Production	15 November 1996	44 years
JV Inkai LLP			
Inkai, block 1	Production	13 July 2000	45 years
Company			
Inkai, block 2	Exploration	25 June 2018	6 years
Inkai, block 3	Exploration	25 June 2018	4 years*
Baiken-U LLP			
North Khorasan, block 2	Production	1 March 2006	49 years
JV Khorassan-U LLP			
North Khorasan, block 1	Exploration and Production	8 May 2005	53 years
Karatau LLP			
Budenovskoe, block 2	Production	8 July 2005	35 years
JV Akbastau JSC			
Budenovskoe, block 1	Production	20 November 2007	30 years
Budenovskoe, blocks 3, 4	Production	20 November 2007	31 years

1. NAC Kazatomprom JSC Group and its Operations (Continued)

Mine/area	Stage	Contract date	Contract term
Associates			
JV KATCO LLP			
Southern Moinkum (Northern part and Tortkuduk)	Production	3 March 2000	39 years
JV Zarechnoye JSC			
Zarechnoye	Production	23 September 2002	23 years
JV South Mining Chemical Company LLP			
Akdala	Production	28 March 2001	25 years
Inkai, block 4	Production	8 July 2005	24 years
Joint Ventures			
Semizbay-U LLP			
Semizbai	Production	2 June 2006	25 years
Irkol	Production	14 July 2005	25 years
JV Budenovskoe LLP			
Block 6&7 Budenovskoye	Production	16 October 2020	25 years

** Exploration completed, the Group is in the process of developing the pilot production project.*

At 31 December 2022 the Group comprises 33 entities (2021: 33), including associates and joint ventures, located in six regions of the Republic of Kazakhstan: Turkestan region, East Kazakhstan region, Kyzylorda region, Akmola region, Pavlodar region and Almaty region. At 31 December 2022 the aggregate number of employees of the Group is 21 thousand (2021: 21 thousand) people.

2. Environment of the Group

The economy of the Republic of Kazakhstan continues to display characteristics of an emerging market. Its economy is particularly sensitive to prices on oil and gas and other commodities, which constitute a major part of the country's exports. These characteristics include, but are not limited to, the existence of a national currency that is not freely convertible outside of the country and little presence of Kazakhstani debt and equity securities on foreign stock exchanges. Higher inflation, challenges posted by the domestic unrest in January 2022, ongoing political tension in the region and volatility of exchange rates have had and may continue to have a negative impact on the economy of the Republic of Kazakhstan, including decrease in liquidity, and creation of difficulties in attracting international financing.

On 20 August 2015 the National Bank and the Government of the Republic of Kazakhstan resolved to discontinue supporting the exchange rate of Tenge and implemented a new monetary policy, which is based on an inflation targeting regime, cancellation of exchange rate trading band and start of a free-floating exchange rate. However, the National Bank's exchange rate policy allows it to intervene to prevent dramatic fluctuations of the Tenge exchange rate and to ensure financial stability. As at the date of this report, the official exchange rate of the National Bank of the Republic Kazakhstan was Tenge 464.79 per 1 US Dollar compared to Tenge 462.65 per 1 US Dollar as at 31 December 2022
(31 December 2021: Tenge 431.67 per 1 US Dollar). The average exchange rate for 2022 was Tenge 460.85 per 1 US Dollar (2021: Tenge 426.03 per US Dollar 1). Uncertainty remains in relation to the exchange rate of Tenge and future actions of the National Bank and the Government of the Republic of Kazakhstan and the impact of these factors on the economy of the Republic of Kazakhstan.

COVID-19

In March 2020, the World Health Organisation declared the outbreak of COVID-19 a global pandemic. In response to the pandemic, the Kazakhstani authorities implemented numerous measures attempting to contain the spreading and impact of COVID-19, such as travel bans and restrictions, quarantines, shelter-in-place orders and limitations on business activity, including closures. Most of those measures were subsequently relaxed, however, as of 31 December 2022, there remains a risk that the authorities may impose additional restrictions in 2023 as a response to possible new variants of the virus.

Conflict between Russia and Ukraine

On 21 February 2022 the Russian President announced that the Russian government would recognise the Luhansk and Donetsk People's Republics. On 24 February the Russian president directed its military to mobilize troops to the territory of Ukraine. As a response to the Russian actions, the United States, the European Union and a number of other states imposed sanctions against Russia including the disconnection of a number of Russian financial institutions from SWIFT. Russia is Kazakhstan's largest trading partner and is a key country of transit for trade, notably via the Caspian Pipeline Consortium (CPC) pipeline, through which up to 80% of Kazakh crude is exported.

2. Environment of the Group (Continued)

CPC operations were temporarily interrupted in March 2022 officially due to storm damage, which did not have a significant budgetary economic impact because of rising oil prices. However, a prolonged closure by Russia of the CPC route for Kazakh crude oil would have serious consequences for Kazakh exports and the economy as a whole. The Kazakh authorities consider alternative routes to the Caspian Sea, including through Azerbaijan, Georgia and Turkey, but these will require significant additional infrastructure and it will take many years to replace the CPC route.

In connection with the Russian/Ukraine conflict and its consequences, the Tenge exchange rate began to be more volatile and the annual inflation rate was 20.3% in 2022. To date, the National Bank of the Republic of Kazakhstan has taken a number of measures to maintain the stability of the Kazakhstan financial system.

The Group’s exported products are transported through Russia which creates risks associated with both transit through the territory of Russia and the delivery of cargo by sea vessels, logistical constraints could also increase import costs. The Group constantly monitors the potential impact of sanctions on the transportation of finished products. At the date of these financial statements, there are no restrictions on the Group's activities related to the supply of the Group's products to end customers. The Group also has permission to transit uranium through the Trans-Caspian International Transport Route (hereinafter referred to as the TITR), which the Group has successfully used as an alternative route since 2018 to help mitigate the risk of the primary route being unavailable, for any reason. There are also risks associated with Russian partners in Group’s subsidiaries, associates and joint ventures, including reputational and corporate governance risks.

The Group has a Uranium Processing Agreement with the Uranium Enrichment Center (TsOU) (a resident of the Russia). At the date of these financial statements, the Group anticipates that provision of services under this agreement will continue as the situation should not affect the activities of the TsOU and its ability to enrich uranium for the Group.

As part of its ongoing risk assessment program, management is reviewing the impact of anti-Russian sanctions on the Group's operations. To date, the sanctions have not had a significant impact on the Group's operations, although the resulting market uncertainty caused by the conflict between Russia and Ukraine has led to significant volatility in the spot uranium price, the exchange rate of the national currency and the quotations of the Company's securities. During the reporting period, the Company experienced some difficulties with certain bank payments, as described in Note 28. As of December 31, 2022, all funds placed with financial institutions included in the sanctions list were withdrawn and transferred to other financial institutions.

The most significant factors that affected the Group’s results of operations during the year included:

- A 31% increase in the average realized price of uranium during 2022 compared to 2021 due to a higher spot price for uranium (US Dollar 43.44 vs. US Dollar 33.11). Some long-term contract pricing mechanisms incorporated a portion of base (fixed) price components that were established prior to the increase in spot price during the current period. As a result, the increase in the Group’s average realized prices during the reporting period were lower than the increase in the spot market price for uranium;
- US Dollar appreciation of approximately 8% during 2022 (8% increase in comparison with the prior period).

The above factors had a positive effect on revenue from sales of uranium in the current period that increased by approximately Tenge 245,318 million (Note 9).

Most of the Group’s borrowings are denominated in US Dollars, including Tenge bonds with indexation to the US Dollar. As a result of depreciation of the Tenge against the US Dollar, loans and borrowings have increased by Tenge 4,758 million at 31 December 2022 (Note 15).

The net foreign exchange gain was larger in 2022 than in 2021 by approximately Tenge 13,959 million (Note 15) in line with the US Dollar appreciation because most of the Group’s consolidated accounts receivable and cash are denominated in US Dollars.

The economic environment has a significant impact on the Group’s operations and financial position. Management is taking necessary measures to ensure sustainability of the Group’s operations. However, the future effects of the current economic situation are difficult to predict, and management’s current expectations and estimates could differ from actual results. Additionally, the energy sector in the Republic of Kazakhstan is still impacted by political, legislative, fiscal and regulatory developments. The prospects for future economic stability in the Republic of Kazakhstan are largely dependent upon the effectiveness of any economic and public policy measures undertaken by the Government which are beyond the Group’s control.

3. Significant Accounting Policies

Basis of preparation

These consolidated financial statements have been prepared in accordance with IFRS under the historical cost convention, as modified by financial instruments categorised at fair value through profit or loss ("FVTPL") and at fair value through other comprehensive income ("FVOCI"). The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the periods presented. The preparation of consolidated financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 4.

Presentation currency

These consolidated financial statements are presented in millions of Kazakhstani Tenge ("Tenge"), unless otherwise stated.

Consolidation

(i) Consolidated financial statements

Subsidiaries are those investees, including structured entities, that the Group controls because the Group (i) has power to direct the relevant activities of the investees that significantly affect their returns, (ii) has exposure, or rights, to variable returns from its involvement with the investees, and (iii) has the ability to use its power over the investees to affect the amount of the investor's returns. The existence and effect of substantive rights, including substantive potential voting rights, are considered when assessing whether the Group has power over another entity.

For a right to be substantive, the holder must have a practical ability to exercise that right when decisions about the direction of the relevant activities of the investee need to be made. The Group may have power over an investee even when it holds less than the majority of the voting power in an investee. In such a case, the Group assesses the size of its voting rights relative to the size and dispersion of holdings of the other vote holders to determine if it has de-facto power over the investee. Protective rights of other investors, such as those that relate to fundamental changes of the investee's activities or applied only in exceptional circumstances, do not prevent the Group from controlling an investee.

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

The acquisition method of accounting is used to account acquisition of subsidiaries other than those acquired from parties under common control. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured at their fair values at the acquisition date, irrespective of the extent of any non-controlling interest.

The Group measures non-controlling interest that represents present ownership interest and entitles the holder to a proportionate share of net assets in the event of liquidation non-controlling interest's proportionate share of net assets of the acquiree.

Goodwill is measured by deducting the net assets of the acquiree from the aggregate of the consideration transferred for the acquiree, the amount of non-controlling interest in the acquiree and the fair value of an interest in the acquiree held immediately before the acquisition date. Any negative amount ("negative goodwill" or a "bargain purchase") is recognised in profit or loss, after management reassesses whether it identified all the assets acquired and all the liabilities and contingent liabilities assumed and reviews the appropriateness of their measurement.

The consideration transferred for the acquiree is measured at the fair value of the assets given up, equity instruments issued and liabilities incurred or assumed, including the fair value of assets or liabilities from contingent consideration arrangements, but excludes acquisition related costs such as advisory, legal, valuation and similar professional services. Transaction costs related to the acquisition of and incurred for issuing equity instruments are deducted from equity; transaction costs incurred for issuing debt as part of the business combination are deducted from the carrying amount of the debt and all other transaction costs associated with the acquisition are expensed.

Intercompany transactions, balances and unrealised gains on transactions between Group companies are eliminated; unrealised losses are also eliminated unless the cost cannot be recovered. The Company and all of its subsidiaries use uniform accounting policies consistent with the Group's policies. When necessary amounts reported by subsidiaries have been adjusted to conform with the Group's accounting policies.

3. Significant Accounting Policies (Continued)

Non-controlling interest is that part of the net results and of the equity of a subsidiary attributable to interests which are not owned, directly or indirectly, by the Group. Non-controlling interest forms a separate component of the Group's equity.

(ii) Purchases and sales of non-controlling interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. Any difference between the purchase consideration and the carrying amount of non-controlling interest acquired is recorded as a capital transaction directly in equity. The Group recognizes the difference between sales consideration and the carrying amount of non-controlling interest sold as a capital transaction in the consolidated statements of changes in equity.

(iii) Purchases of subsidiaries from parties under common control

Purchases of subsidiaries from parties under common control are accounted for using the predecessor values method. Under this method the consolidated financial statements of the combined entity are presented as if the businesses had been combined from the beginning of the earliest period presented or, if later, the date when the combining entities were first brought under common control. The assets and liabilities of the subsidiary transferred under common control are at the predecessor entity's carrying amounts.

The predecessor entity is considered to be the highest reporting entity in which the subsidiary's IFRS financial information was consolidated. Related goodwill inherent in the predecessor entity's original acquisitions is also recorded in these consolidated financial statements. Any difference between the carrying amount of net assets, including the predecessor entity's goodwill, and the consideration for the acquisition is accounted for in these consolidated financial statements as an adjustment to retained earnings within equity.

(iv) Associates

Associates are entities over which the Group has significant influence (directly or indirectly), but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting and are initially recognised at cost. Dividends received from associates reduce the carrying value of the investment in associates. Other post-acquisition changes in the Group's share of net assets of an associate are recognised as follows: (i) the Group's share of profits or losses of associates is recorded in the consolidated profit or loss for the year as the share of results of associates, (ii) the Group's share of other comprehensive income is recognised in other comprehensive income and presented separately, (iii) other changes in the Group's share of the carrying value of net assets of associates are recognised in profit or loss within the share of results of associates.

However, when the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate. Unrealised gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates; unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

(v) Joint arrangements

The Group is a party of joint arrangement when it exercises joint control over arrangement by acting collectively with other parties and decisions about the relevant activities require unanimous consent of the parties sharing control. The joint arrangement is either a joint operation or a joint venture depending on the contractual rights and obligations of the parties to the arrangement.

The Group's interests in joint ventures are accounted for using the equity method and are initially recognised at cost. Dividends received from joint ventures reduce the carrying value of the investment in joint ventures. Other post-acquisition changes in the Group's share of net assets of joint ventures are recognised as follows: (i) the Group's share of profits or losses of joint ventures is recorded in the consolidated profit or loss for the year as share of results of joint ventures, (ii) the Group's share of other comprehensive income is recognised in other comprehensive income and presented separately, (iii) other changes in the Group's share of the carrying value of net assets of joint ventures are recognised in profit or loss within the share of result of joint ventures. When the Group's share of losses in a joint venture equals or exceeds its interests in the joint ventures (which includes any long-term interests that, in substance, form part of the Group's net investment in the joint ventures), the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint ventures.

3. Significant Accounting Policies (Continued)

Unrealised gains on transactions between the Group and its joint ventures are eliminated to the extent of the Group's interest in the joint ventures. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

If participants of joint arrangements have rights to assets and bear responsibility for obligations under joint arrangements, then the joint arrangement is classified as a joint operation. In relation to interest in joint operations the Group recognises: (i) its share of any assets held jointly, (ii) its share of any liabilities incurred jointly, (iii) revenue from the sale of its share of the output arising from the joint operation, (iv) its share of any expenses incurred jointly. In accordance with requirements of the relevant agreements, participants buy output of joint operations equally in accordance with their 50% ownership interest. If participants of the joint operations do not comply with this requirement during a period, a liability or receivable under joint operations is recognised for an amount equivalent to the corresponding gross margin. The liability/receivable is settled either when participants satisfy the parity requirements or participants mutually agree to discharge the liabilities/receivables, and a corresponding loss/gain is recognised in profit and loss. Receivables and payables between participants of the joint operations are presented on a gross basis in the financial statements. No revenue from joint operations is recognised in the financial statements until the Group sells the output to third parties.

(vi) Disposals of subsidiaries, associates or joint ventures

When the Group ceases to have control or significant influence, any retained interest in the entity is remeasured to its fair value at the date when control is lost, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity, are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income are reclassified to profit or loss where appropriate.

Foreign currency translation

The functional currency of each of the Group's consolidated entities is the currency of the primary economic environment in which the entity operates. The functional currency of the Company and its Kazakhstan subsidiaries, and the Group's presentation currency, is the national currency of Kazakhstan, Kazakhstani Tenge. Exchange restrictions and currency controls exist in relation of converting Tenge into other currencies. Currently, Tenge is not freely convertible outside of the Republic of Kazakhstan.

Monetary assets and liabilities are translated into each entity's functional currency at the official exchange rate at the respective end of the reporting period. The official exchange rate of Kazakhstan Stock Exchange (KASE) as of 31 December 2022 was Tenge 462.65 per 1 US Dollar (2021: Tenge 431.80 per 1 US Dollar). Foreign exchange gains and losses resulting from the settlement of the transactions and from the translation of monetary assets and liabilities into each entity's functional currency at year-end official exchange rates are recognised in profit or loss. Translation at year-end does not apply to non-monetary items that are carried at historic costs.

Loans between Group entities and related foreign exchange gains or losses are eliminated upon consolidation. However, where the loan is between Group entities that have different functional currencies, the foreign exchange gain or loss cannot be eliminated in full and is recognised in the consolidated profit or loss, unless the loan is not expected to be settled in the foreseeable future and thus forms part of the net investment in foreign operation. In such a case, the foreign exchange gain or loss is recognised in other comprehensive income.

The results and financial position of Group entities, which have financial statements with different functional currencies, are translated into the presentation currency as follows:

- assets and liabilities for each statement of financial position are translated at the closing rate at the end of the respective reporting period;
- income and expenses are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions);
- components of equity are translated at the historic rate;
- all resulting exchange differences are recognised in other comprehensive income.

3. Significant Accounting Policies (Continued)

When control over a foreign operation is lost, the exchange differences recognised previously in other comprehensive income are reclassified to profit or loss for the year as part of the gain or loss on disposal. On partial disposal of a subsidiary without loss of control, the related portion of accumulated currency translation differences is reclassified to non-controlling interest within equity.

Revenue recognition

Revenue is income arising in the course of the Group's ordinary activities. Revenue is recognised in the amount of transaction price. Transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring control over promised goods or services to a customer, excluding the amounts collected on behalf of third parties. Revenue is recognised net of discounts, returns and value added taxes, export duties, other similar mandatory payments.

(i) Sales of goods (uranium, tantalum, beryllium, niobium and other products)

Sales are recognised when control of the good has transferred, being when the goods are delivered to the customer, the customer has full discretion over the goods, and there is no unfulfilled obligation that could affect the customer's acceptance of the goods. Delivery occurs when the goods have been delivered to the specific location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the goods in accordance with the contract, the acceptance provisions have lapsed, or the Group has objective evidence that all criteria for acceptance have been satisfied.

Revenue from the sales with discounts is recognised based on the price specified in the contract, net of the estimated volume discounts. Accumulated experience is used to estimate and provide for the discounts, using the expected value method, and revenue is only recognised to the extent that it is highly probable that a significant reversal will not occur.

No element of financing is deemed present as the sales are made with an average credit term of 30-270 days, which is consistent with market practice.

A receivable is recognised when the goods are delivered as this is the point in time that the consideration is unconditional because only the passage of time is required before the payment is due.

Delivery of uranium, tantalum and beryllium products vary depending on the individual terms of a sale contract usually in accordance with the Incoterms classification. Delivery of uranium products occurs: at the date of physical delivery in accordance with Incoterms or at the date of book-transfer to an account with a convertor specified by the customer. A book-transfer operation represents a transaction whereby the uranium account balance of the transferor is decreased with a simultaneous allocation of uranium to the transferee's uranium account with the same specialised conversion / reconversion entity.

(ii) Sales of services (transportation, drilling and other)

The Group may provide services under fixed-price and variable price contracts. Revenue from providing services is recognised in the accounting period in which the services are rendered. For fixed-price contracts, revenue is recognised based on the actual service provided to the end of the reporting period as a proportion of the total services to be provided because the customer receives and uses the benefits simultaneously.

Where the contracts include multiple performance obligations, the transaction price is allocated to each separate performance obligation based on the stand-alone selling prices. Where these are not directly observable, they are estimated based on expected cost plus margin.

Estimates of revenues, costs or extent of progress toward completion are revised if circumstances change. Any resulting increases or decreases in estimated revenues or costs are reflected in profit or loss in the period in which the circumstances that give rise to the revision become known by management.

In case of fixed-price contracts, the customer pays the fixed amount based on a payment schedule. If the services rendered by the Group exceed the payment, a contract asset is recognised. If the payments exceed the services rendered, a contract liability is recognised.If the contract includes variable consideration, revenue is recognised only to the extent that it is highly probable that there will be no significant reversal of such consideration.

3. Significant Accounting Policies (Continued)

(iii) Financing components

The Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the Group does not adjust any of the transaction prices for the time value of money.

(iv) Barter transactions and mutual cancellations

A portion of sales and purchases are settled by mutual cancellations, barter or non-cash settlements. These transactions are generally in the form of direct settlements by dissimilar goods and services from the final customer (barter), cancellation of mutual balances or through a chain of non-cash transactions involving several companies.

Sales and purchases that are expected to be settled by mutual settlements, barter or other non-cash settlements are recognised based on the management's estimate of the fair value to be received or given up in non-cash settlements. The fair value is determined with reference to observable market information.

Non-cash transactions have been excluded from the cash flow statement. Investing and financing activities and the total of operating activities represent actual cash flows.

Interest income

Interest income is recorded for all debt instruments, other than those at FVTPL, on an accrual basis using the effective interest method. This method defers, as part of interest income, all fee received between the parties to the contract that are an integral part of the effective interest rate, all other premiums or discounts. Interest income on debt instruments at FVTPL calculated at nominal interest rate is presented within 'finance income' line in profit or loss.

Fees integral to the effective interest rate include origination fees received or paid by the Group relating to the creation or acquisition of a financial asset (for example, fees for evaluating creditworthiness, evaluating and recording guarantees or collateral, negotiating the terms of the instrument and for processing transaction documents).

For financial assets that are originated or purchased credit-impaired, the effective interest rate is the rate that discounts the expected cash flows (including the initial expected credit losses) to the fair value on initial recognition (normally represented by the purchase price). As a result, the effective interest is credit-adjusted.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of financial assets, except for (i) financial assets that have become credit impaired (Stage 3), for which interest revenue is calculated by applying the effective interest rate to their AC, net of the ECL provision, and (ii) financial assets that are purchased or originated credit impaired, for which the original credit-adjusted effective interest rate is applied to the AC.

Income taxes

Income taxes have been provided for in the consolidated financial statements in accordance with legislation enacted by the end of the reporting period. The income tax charge/(credit) comprises current tax and deferred tax and is recognised in profit or loss for the year, except if it is recognised in other comprehensive income or directly in equity because it relates to transactions that are also recognised, in the same or a different period, in other comprehensive income or directly in equity.

Current tax is the amount expected to be paid to, or recovered from, the taxation authorities in respect of taxable profits or losses for the current and prior periods. Taxable profits or losses are based on estimates if consolidated financial statements are authorised prior to filing relevant tax returns. Taxes other than on income are recorded within operating expenses.

Deferred income tax is provided using the balance sheet liability method for tax loss carry forwards and temporary differences arising between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. In accordance with the initial recognition exemption, deferred taxes are not recorded for temporary differences on initial recognition of an asset or a liability in a transaction other than a business combination if the transaction, when initially recorded, affects neither accounting nor taxable profit. Deferred tax liabilities are not recorded for temporary differences on initial recognition of goodwill, and subsequently for goodwill which is not deductible for tax purposes. Deferred tax balances are measured at tax rates enacted at the end of the reporting period, which are expected to apply to the period when the temporary differences will reverse or the tax loss carry forwards will be utilised. Deferred tax assets and liabilities are netted only within the individual companies of the Group.

3. Significant Accounting Policies (Continued)

Deferred tax assets for deductible temporary differences and tax loss carry forwards are recorded only to the extent that it is probable that the temporary difference will reverse in the future and there is sufficient future taxable profit available against which the deductions can be utilised. The Group controls the reversal of temporary differences relating to taxes chargeable on dividends from subsidiaries or on gains upon their disposal. The Group does not recognise deferred tax liabilities on such temporary differences except to the extent that management expects the temporary differences to reverse in the foreseeable future.

The Group's uncertain tax positions are reassessed by management at the end of each reporting period. Liabilities are recorded for income tax positions that are determined by management as more likely than not to result in additional taxes being levied if the positions were to be challenged by the tax authorities. The assessment is based on the interpretation of tax laws that have been enacted by the end of the reporting period, and any known court or other rulings on such issues.

Liabilities for penalties, interest and taxes other than on income are recognised based on management's best estimate of the expenditure required to settle the obligations at the end of the reporting period.

Property, plant and equipment

(i) Recognition and measurement of property, plant and equipment

Property, plant and equipment are stated at cost, less accumulated depreciation and provision for impairment, where required.

Cost comprises purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates, and any costs directly attributable to bringing the asset to the location and condition necessary for its intended use. The cost of self-constructed assets includes the cost of materials, direct labour and an appropriate proportion of production overheads. The individual significant parts of an item of property, plant and equipment (components), whose useful lives are different from the useful life of the given asset as a whole are depreciated individually, applying depreciation rates reflecting their anticipated useful lives.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. Specialised spare parts and servicing equipment with a significant initial value and a useful life of more than one year are recognised as an item of property, plant and equipment. Other spare parts and auxiliary equipment are recognised as inventories and accounted for in profit and loss for the year as retired.

Costs of minor repairs and day-to-day maintenance are expensed when incurred. Cost of replacing major parts or components of property, plant and equipment items are capitalised and the replaced part is disposed. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised in profit or loss for the year.

(ii) Depreciation

Land is not depreciated. Depreciation of items within buildings category that are used in extraction of uranium and its preliminary processing is charged on a unit-of-production (UoP) method in respect of items for which this basis best reflects the pattern of consumption. Depreciation on other items of property, plant and equipment is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives:

	Useful lives in years
Buildings	10 to 50
Machinery and equipment	3 to 50
Vehicles	3 to 10
Other	3 to 20

Each item's estimated useful life depends on its own useful life limitations and/or term of a subsurface use contract and the present assessment of economically recoverable reserves of the mine property at which the item is located.

The residual value of an asset is the estimated amount that the Group would currently obtain from the disposal of the asset less the estimated costs of disposal, if the asset was already of the age and in the condition expected at the end of its useful life. The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

3. Significant Accounting Policies (Continued)

Mine development assets

Mine development assets are stated at cost, less accumulated depreciation and provision for impairment, where required. Mine development assets comprise reclassified exploration and evaluation costs, the capitalised costs of pump-in and pump-out well drilling, main external tying of the well with surface piping, equipment, measuring instruments, ion-exchange resin, estimated site restoration, acid costs and other development costs. Under existing production method the wellfields are progressively established over the orebody as uranium is depleted by blocks.

Mine development assets are amortised at the mine or block level using the unit-of-production method. Unit-of-production rates are based on proved and probable reserves, except for capitalised development costs that are amortised based on ready for extraction volumes. Ready for extraction volumes represent a portion of proved and probable reserves that management estimates to extract from a block/mine as a result of available capitalised costs. The estimate of proved and probable reserves is based on reserve reports which are an integral part of each subsoil use contract. These reserve reports are incorporated into feasibility models which are approved by the government and detail the total proven reserves and estimated scheduled extraction by year. Since 2017, the Group uses reserve reports prepared by an independent consultant (Note 4).

Intangible assets

(i) Recognition and measurement of intangible assets

The Group's intangible assets other than goodwill have definite useful lives and primarily include capitalised production technology development costs, computer software, patents, and licences. Acquired computer software licences and patents are initially measured at costs incurred to acquire and bring them to use.

(ii) Amortisation of intangible assets

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

	Useful lives in years
Licences and patents	3 to 20
Software	1 to 14
Other	2 to 15

If impaired, the carrying amount of intangible assets is written down to the higher of value in use and fair value less costs to sell. Intangible assets not ready for use is not amortised being part of intangible assets under development.

(iii) Goodwill

Goodwill is carried at cost less accumulated impairment losses, if any. The Group tests goodwill for impairment at least annually and whenever there are indications that goodwill may be impaired. Goodwill is allocated to the cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the business combination. Such units or groups of units represent the lowest level at which the Group monitors goodwill and are not larger than an operating segment.

Gains or losses on disposal of an operation within a cash-generating unit to which goodwill has been allocated include the carrying amount of goodwill associated with the disposed operation, generally measured on the basis of the relative values of the disposed operation and the portion of the cash-generating unit which is retained.

(iv) Research and development costs

Research expenditure is recognised as an expense when incurred. Costs incurred on development projects (relating to the design and testing of new or improved products) are recognised as intangible assets when it is probable that the project will be a success considering its commercial and technological feasibility, and costs can be measured reliably. Other development expenditures are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

Development costs with a finite useful life that have been capitalised are amortised from the commencement of the commercial production of the product on a straight-line basis over the period of its expected benefit.

3. Significant Accounting Policies (Continued)

Mineral rights

Mineral rights are stated at cost, less accumulated depreciation and provision for impairment, where required. Mineral rights acquired as part of business combinations are recognised at fair value. The capitalised cost of acquisition of mineral rights comprises subscription bonus, commercial discovery bonus, the cost of subsurface use rights and capitalised historical costs. The Group is obliged to reimburse historical costs incurred by the State in respect of mining rights prior to licence or subsoil use contracts being issued. These historical costs are recognised as part of the acquisition cost with a corresponding liability equal to the present value of payments made during the licence period or subsoil use contract.

Mineral rights are amortised using unit-of-production method based upon proved and probable reserves commencing when uranium first starts to be extracted.

The estimate of proved and probable reserves is based on reserve reports, which are an integral part of each subsoil use contract. These reserve reports are incorporated into feasibility models, which are approved by the government and detail the total proven reserves and estimated scheduled extraction by year. Since 2017, the Group uses reserve reports prepared by an independent consultant (Note 4).

Exploration and evaluation assets

Exploration and evaluation assets are measured at cost less provision for impairment, where required. The Group classifies exploration and evaluation assets as tangible or intangible according to the nature of the assets acquired.

Exploration and evaluation assets comprise the capitalised costs incurred by the Group prior to proving that viable production is possible and include geological and geophysical costs, the costs of exploratory wells and directly attributable overheads associated with exploration activities.

The decision to enter into or renew a subsoil use contract after the expiration of the exploration and appraisal period is subject to the success of the exploration and appraisal of mineral resources and the Group's decision to proceed to the production (development) stage.

Tangible exploration and evaluation assets are transferred to mine development assets upon demonstration of commercial viability of uranium production and amortised using unit-of-production method based upon proved reserves. Once commercial reserves (proved or commercial reserves) are found, intangible exploration and evaluation assets are transferred to mineral rights. Accordingly, the Group does not amortise exploration and evaluation assets before commercial reserves (proved or commercial reserves) are found. If no commercial reserves are found, exploration and evaluation assets are expensed.

Exploration and evaluation assets are tested by the Group for impairment whenever facts and circumstances indicate assets' impairment. An impairment loss is recognised for the amount by which exploration and evaluation assets' carrying amount exceeds their recoverable amount. The recoverable amount is higher of the exploration and evaluation assets' fair value less costs to sell and their value in use.

One or more of the following facts and circumstances indicate that the Group should test its exploration and evaluation assets for impairment (the list is not exhaustive):

- the period for which the Group has the right to explore in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed;
- substantive expenditure on further exploration for and evaluation of mineral reserves in the specific area is neither budgeted nor planned;
- exploration for and evaluation of mineral reserves in the specific area have not led to the discovery of commercially viable quantities of mineral reserves and the Group has decided to discontinue such operations in the specific area;
- sufficient data exist to indicate that, although development works in the specific area are likely to proceed, the carrying amount of the exploration and evaluation assets is unlikely to be recovered in full resulting from efficient development or by sale.

Costs associated with activities undertaken prior to exploration such as design, technical and economical assessments are expensed as incurred.

3. Significant Accounting Policies (Continued)

Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets, other than inventories and deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, management estimates the recoverable amount, which is determined as the higher of an asset's fair value less costs to sell (the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date) and its value in use (being the net present value of expected future cash flows of the relevant cash-generating unit). In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the future cash flow estimates have not been adjusted.

If it is not possible to estimate the recoverable amount of the individual asset, the Group determines the recoverable amount of the cash-generating unit to which the asset belongs. A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Basis for determination of cash-generating units is presented in Note 4.

The estimates used for impairment reviews are based on detailed life of mine plans and operating budgets, modified as appropriate to meet the requirements of IAS 36 "Impairment of Assets". Future cash flows are based on:

- estimates of the volumes of the reserves for which there is a high degree of confidence of economic extraction;
- future production and sales quantities;
- future commodity prices (assuming the current market prices will revert to the Group's assessment of the long term average price, generally over a period of three to five years); and
- future costs of production and other operating and capital expenditures.

If the carrying amount of the asset exceeds its recoverable amount, the asset is impaired and an impairment loss is charged to profit and loss for the year so as to reduce the carrying amount in the consolidated statements of financial position to its recoverable amount. An impairment loss recognised for an asset in prior years is reversed where appropriate if there has been a change in the estimates used to determine the asset's value in use or fair value less costs to sell. This reversal is recognised in profit and loss for the year, and is limited to the carrying amount that would have been determined, net of depreciation, if no impairment loss had been recognised in prior years.

Investment property

Investment property is property held by the Group to earn rental income or for capital appreciation, or both and which is not occupied by the Group.

Investment properties are stated at cost less accumulated depreciation and provision for impairment, where required. 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 of disposal. The carrying amount of an investment property is written down to its recoverable amount through a charge to profit or loss for the year. An impairment loss recognised in prior years is reversed if there has been a subsequent change in the estimates used to determine the asset's recoverable amount.

Subsequent expenditure is capitalised only when it is probable that future economic benefits associated with the item will flow to the Group, and the cost can be measured reliably. All other repairs and maintenance costs are expensed when incurred. If an investment property becomes owner-occupied, it is reclassified to property, plant and equipment.

Earned rental income is recorded in profit or loss for the year within other income. Gains or losses on disposal of investment property are calculated as proceeds less the carrying amount.

If an investment property becomes owner-occupied, it is reclassified as property, plant and equipment, and its carrying amount at the date of reclassification becomes its deemed cost for accounting purposes.

3. Significant Accounting Policies (Continued)

Assets classified as held for sale

Assets and disposal groups (which may include both non-current and current assets) are classified in the consolidated statements of financial position as 'Assets of disposal groups classified as held for sale' if their carrying amount will be recovered principally through a sale transaction (including loss of control of a subsidiary holding the assets) within twelve months after the reporting period. Assets are reclassified when all of the following conditions are met: (a) the assets are available for immediate sale in their present condition; (b) the Group management approved and initiated an active programme to locate a buyer; (c) the assets are actively marketed for sale at a reasonable price; (d) the sale is expected within one year; and (e) it is unlikely that significant changes to the plan to sell will be made or that the plan will be withdrawn.

Non-current assets or disposal groups classified as held for sale in the current period's consolidated statements of financial position are not reclassified or re-presented in the comparative statements of financial position to reflect the classification at the end of the current period.

A disposal group is a group of assets (current or non-current) to be disposed of, by sale or otherwise, together as a group in a single transaction, and liabilities directly associated with those assets that will be transferred in the transaction. Goodwill is included if the disposal group includes an operation within a cash-generating unit to which goodwill has been allocated on acquisition. Non-current assets are assets that include amounts expected to be recovered or collected more than twelve months after the reporting period. If reclassification is required, both the current and non-current portions of an asset are reclassified.

Held for sale disposal groups as a whole are measured at the lower of their carrying amount and fair value less costs to sell. Held for sale property, plant and equipment are not depreciated. Reclassified non-current financial instruments are not subject to write down to the lower of their carrying amount and fair value less costs to sell.

Liabilities directly associated with the disposal group that will be transferred in the disposal transaction are reclassified and presented separately in the consolidated statements of financial position.

Financial instruments

Key measurement terms

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The best evidence of fair value is the price in an active market. An active market is one in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

Fair value of financial instruments traded in an active market is measured as the product of the quoted price for the individual asset or liability and the number of instruments held by the entity. This is the case even if a market's normal daily trading volume is not sufficient to absorb the quantity held and placing orders to sell the position in a single transaction might affect the quoted price.

Valuation techniques such as discounted cash flow models or models based on recent arm's length transactions or consideration of financial data of the investees are used to measure fair value of certain financial instruments for which external market pricing information is not available. Fair value measurements are analysed by level in the fair value hierarchy as follows: (i) level one are measurements at quoted prices (unadjusted) in active markets for identical assets or liabilities, (ii) level two measurements are valuations techniques with all material inputs observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices), and (iii) level three measurements are valuations not based on solely observable market data (that is, the measurement requires significant unobservable inputs). Transfers between levels of the fair value hierarchy are deemed to have occurred at the end of the reporting period.

(i) Transaction costs

Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial instrument. An incremental cost is one that would not have been incurred if the transaction had not taken place. Transaction costs include fees and commissions paid to agents (including employees acting as selling agents), advisors, brokers and dealers, levies by regulatory agencies and securities exchanges, and transfer taxes and duties.

Transaction costs do not include debt premiums or discounts, financing costs or internal administrative or holding costs.

3. Significant Accounting Policies (Continued)

(ii) Amortised cost

Amortised cost ("AC") is the amount at which the financial instrument was recognised at initial recognition less any principal repayments, plus accrued interest, and for financial assets less any allowance for expected credit losses *("ECL")*. Accrued interest includes amortisation of transaction costs deferred at initial recognition and of any premium or discount to the maturity amount using the effective interest method. Accrued interest income and accrued interest expense, including both accrued coupon and amortised discount or premium (including fees deferred at origination, if any), are not presented separately and are included in the carrying values of the related items in the consolidated statement of financial position.

(iii) The effective interest method

The effective interest method is a method of allocating interest income or interest expense over the relevant period, so as to achieve a constant periodic rate of interest (effective interest rate) on the carrying amount. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts (excluding future credit losses) through the expected life of the financial instrument or a shorter period, if appropriate, to the gross carrying amount of the financial instrument. The effective interest rate discounts cash flows of variable interest instruments to the next interest repricing date, except for the premium or discount which reflects the credit spread over the floating rate specified in the instrument, or other variables that are not reset to market rates.

Such premiums or discounts are amortised over the whole expected life of the instrument. The present value calculation includes all fees paid or received between parties to the contract that are an integral part of the effective interest rate. For assets that are purchased or originated credit impaired ("POCI") at initial recognition, the effective interest rate is adjusted for credit risk, i.e. it is calculated based on the expected cash flows on initial recognition instead of contractual payments.

Financial instruments – initial recognition

Financial instruments at FVTPL are initially recorded at fair value. All other financial instruments are initially recorded at fair value adjusted for transaction costs. Fair value at initial recognition is best evidenced by the transaction price. A gain or loss on initial recognition is only recorded if there is a difference between fair value and transaction price which can be evidenced by other observable current market transactions in the same instrument or by a valuation technique whose inputs include only data from observable markets. After the initial recognition, an ECL allowance is recognised for financial assets measured at AC and investments in debt instruments measured at FVOCI, resulting in an immediate accounting loss.

All purchases and sales of financial assets that require delivery within the time frame established by regulation or market convention ("regular way" purchases and sales) are recorded at trade date, which is the date on which the Group commits to deliver a financial asset. All other purchases are recognised when the entity becomes a party to the contractual provisions of the instrument.

Financial assets – classification and subsequent measurement

(i) Measurement categories

The Group classifies financial assets in the following measurement categories: FVTPL, FVOCI and AC. The classification and subsequent measurement of debt financial assets depends on: (i) the Group's business model for managing the related assets portfolio and (ii) the cash flow characteristics of the asset.

(ii) Business model

The business model reflects how the Group manages the assets in order to generate cash flows – whether the Group's objective is: (i) solely to collect the contractual cash flows from the assets ("hold to collect contractual cash flows",) or (ii) to collect both the contractual cash flows and the cash flows arising from the sale of assets ("hold to collect contractual cash flows and sell") or, if neither of (i) and (ii) is applicable, the financial assets are classified as part of "other" business model and measured at FVTPL.

Business model is determined for a group of assets (on a portfolio level) based on all relevant evidence about the activities that the Group undertakes to achieve the objective set out for the portfolio available at the date of the assessment. Factors considered by the Group in determining the business model include the purpose and composition of a portfolio, past experience on how the cash flows for the respective assets were collected, how risks are assessed and managed, how the assets' performance is assessed and how managers are compensated.

3. Significant Accounting Policies (Continued)

(iii) Cash flow characteristics

Where the business model is to hold assets to collect contractual cash flows or to hold contractual cash flows and sell, the Group assesses whether the cash flows represent solely payments of principal and interest ("SPPI"). Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are consistent with the SPPI feature.

In making this assessment, the Group considers whether the contractual cash flows are consistent with a basic lending arrangement, i.e. interest includes only consideration for credit risk, time value of money, other basic lending risks and profit margin.

Where the contractual terms introduce exposure to risk or volatility that is inconsistent with a basic lending arrangement, the financial asset is classified and measured at FVTPL. The SPPI assessment is performed on initial recognition of an asset and it is not subsequently reassessed.

Financial assets – reclassification

Financial instruments are reclassified only when the business model for managing the portfolio as a whole changes. The reclassification has a prospective effect and takes place from the beginning of the first reporting period that follows after the change in the business model. The entity did not change its business model during the current and comparative period and did not make any reclassifications.

Financial assets impairment – credit loss allowance for ECL

The Group assesses, on a forward-looking basis, the ECL for debt instruments measured at AC and FVOCI and for the exposures arising from loan commitments and financial guarantee contracts, for contract assets. The Group measures ECL and recognises Net impairment losses on financial and contract assets at each reporting date. The measurement of ECL reflects: (i) an unbiased and probability weighted amount that is determined by evaluating a range of possible outcomes, (ii) time value of money and (iii) all reasonable and supportable information that is available without undue cost and effort at the end of each reporting period about past events, current conditions and forecasts of future conditions.

Debt instruments measured at AC and contract assets are presented in the consolidated statement of financial position net of the allowance for ECL. For loan commitments and financial guarantees, a separate provision for ECL is recognised as a liability in the consolidated statement of financial position. For debt instruments at FVOCI, changes in amortised cost, net of allowance for ECL, are recognised in profit or loss and other changes in carrying value are recognised in OCI as gains less losses on debt instruments at FVOCI.

The Group applies a three stage model for impairment, based on changes in credit quality since initial recognition. A financial instrument that is not credit-impaired on initial recognition is classified in Stage 1. Financial assets in Stage 1 have their ECL measured at an amount equal to the portion of lifetime ECL that results from default events possible within the next 12 months or until contractual maturity, if shorter ("12 Months ECL"). If the Group identifies a significant increase in credit risk ("SICR") since initial recognition, the asset is transferred to Stage 2 and its ECL is measured based on ECL on a lifetime basis, that is, up until contractual maturity but considering expected prepayments, if any ("Lifetime ECL"). Refer to Note 40 for a description of how the Group determines when a SICR has occurred.

If the Group determines that a financial asset is credit-impaired, the asset is transferred to Stage 3 and its ECL is measured as a Lifetime ECL. The Group's definition of credit impaired assets and definition of default is explained in Note 40. For financial assets that are purchased or originated credit-impaired ("POCI Assets"), the ECL is always measured as a Lifetime ECL.

Note 40 provides information about inputs, assumptions and estimation techniques used in measuring ECL, including an explanation of how the Group incorporates forward-looking information in the ECL models.

Financial assets – write-off

Financial assets are written-off, in whole or in part, when the Group exhausted all practical recovery efforts and has concluded that there is no reasonable expectation of recovery. The write-off represents a derecognition event. Indicators that there is no reasonable expectation of recovery include (i) court decision, (ii) liquidation of entity from which financial asset was acquired, (iii) overdue period of 3 years and more.

3. Significant Accounting Policies (Continued)

Derivative financial instruments

Derivative financial instruments are carried at their fair value. All derivative instruments are carried as assets when fair value is positive and as liabilities when fair value is negative. Changes in the fair value of derivative instruments are included in profit or loss for the year. The Group does not apply hedge accounting.

Certain derivative instruments embedded in financial liabilities and other non-financial contracts are treated as separate derivative instruments when their risks and characteristics are not closely related to those of the host contract.

Financial assets – derecognition

The Group derecognises financial assets when (a) the assets are redeemed or the rights to cash flows from the assets otherwise expire or (b) the Group has transferred the rights to the cash flows from the financial assets or entered into a qualifying pass-through arrangement whilst (i) also transferring substantially all the risks and rewards of ownership of the assets or (ii) neither transferring nor retaining substantially all the risks and rewards of ownership but not retaining control.

Control is retained if the counterparty does not have the practical ability to sell the asset in its entirety to an unrelated third party without needing to impose additional restrictions on the sale.

Financial assets – modification

The Group sometimes renegotiates or otherwise modifies the contractual terms of the financial assets. The Group assesses whether the modification of contractual cash flows is substantial considering, among other, the following factors: any new contractual terms that substantially affect the risk profile of the asset, significant change in interest rate, change in the currency denomination, new collateral or credit enhancement that significantly affects the credit risk associated with the asset or a significant extension of a loan when the borrower is not in financial difficulties.

If the modified terms are substantially different, the rights to cash flows from the original asset expire and the Group derecognises the original financial asset and recognises a new asset at its fair value. The date of renegotiation is considered to be the date of initial recognition for subsequent impairment calculation purposes, including determining whether a SICR has occurred. The Group also assesses whether the new loan or debt instrument meets the SPPI criterion. Any difference between the carrying amount of the original asset derecognised and fair value of the new substantially modified asset is recognised in profit or loss, unless the substance of the difference is attributed to a capital transaction with owners.

In a situation where the renegotiation was driven by financial difficulties of the counterparty and inability to make the originally agreed payments, the Group compares the original and revised expected cash flows to assets whether the risks and rewards of the asset are substantially different as a result of the contractual modification. If the risks and rewards do not change, the modified asset is not substantially different from the original asset and the modification does not result in derecognition. The Group recalculates the gross carrying amount by discounting the modified contractual cash flows by the original effective interest rate (or credit-adjusted effective interest rate for POCI financial assets), and recognises a modification gain or loss in profit or loss.

Financial liabilities – measurement categories

Financial liabilities are classified as subsequently measured at AC, except for (i) financial liabilities at FVTPL (derivatives, financial liabilities held for trading, e.g. short positions in securities), contingent consideration recognised by an acquirer in a business combination and other financial liabilities designated as such at initial recognition and (ii) financial guarantee contracts and loan commitments.

Financial liabilities – derecognition

Financial liabilities are derecognised when they are extinguished, i.e. when the obligation specified in the contract is discharged, cancelled or expires.

An exchange between the Group and its original lenders of debt instruments with substantially different terms, as well as substantial modifications of the terms and conditions of existing financial liabilities, are accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability. The terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability. In addition, other qualitative factors, such as the currency that the instrument is denominated in, changes in the type of interest rate, new conversion features attached to the instrument and change in loan covenants are also considered.

3. Significant Accounting Policies (Continued)

If an exchange of debt instruments or modification of terms is accounted for as an extinguishment, any costs or fees incurred are recognised as part of the gain or loss on the extinguishment. If the exchange or modification is not accounted for as an extinguishment, any costs or fees incurred adjust the carrying amount of the liability and are amortised over the remaining term of the modified liability.

Modifications of liabilities that do not result in extinguishment are accounted for as a change in estimate using a cumulative catch up method, with any gain or loss recognised in profit or loss, unless the economic substance of the difference in carrying values is attributed to a capital transaction with owners.

Offsetting financial instruments

Financial assets and liabilities are offset and the net amount reported in the statement of financial position only when there is a legally enforceable right to offset the recognised amounts, and there is an intention to either settle on a net basis, or to realise the asset and settle the liability simultaneously. Such a right of set off (a) must not be contingent on a future event and (b) must be legally enforceable in all of the following circumstances: (i) in the normal course of business, (ii) in the event of default and (iii) in the event of insolvency or bankruptcy.

Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks, and bank deposits with original maturities of three months or less. Cash and cash equivalents are carried at AC because: (i) they are held for collection of contractual cash flows and those cash flows represent SPPI, and (ii) they are not designated at FVTPL. Restricted balances are excluded from cash and cash equivalents. Balances restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period are included in other non-current assets.

Cash and cash equivalents also include reverse repurchase transaction (reverse repo), an investment in highly liquid government securities with the agreement to sell them at a higher price within 1 to 30 days. Repo transactions are readily convertible to cash and cash equivalents and are subject to insignificant risk of changes in value as they are backed by the government of the Republic of Kazakhstan.

Trade and other receivables

Trade and other receivables are recognised initially at fair value and are subsequently carried at amortised cost using the effective interest method.

Inventories

Inventories are recorded at the lower of cost and net realisable value. The cost of inventory is determined on the weighted average basis. The cost of finished goods and work in progress comprises raw material, direct labour, other direct costs and related production overheads (based on the normal operating capacity) but excludes borrowing costs. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated cost of completion and selling expenses.

Inventory loans

The Group enters into inventory loan agreements, according to which one party (the lender) undertakes to provide the other party (the borrower) with products, and the borrower obliges to return to the lender an identical amount of uranium products. The Group obtains inventory loans to facilitate the performance of its uranium supply obligations. The Group classifies inventory loans received as a non-financial liability.

Upon receipt of the inventory loan, the Group accounts for the inventory at the contracted cost. Liability arising from inventory loan are recognised as part of other liabilities at the fair value of the uranium products at the reporting date. Subsequent revaluation of the inventory loan is carried out through profit or loss as part of other income/expenses in accordance with changes in the fair value of uranium products.

Prepayments

Prepayments are carried at cost less provision for impairment. A prepayment is classified as non-current when the goods or services relating to the prepayment are expected to be obtained after one year, or when the prepayment relates to an asset which will itself be classified as non-current upon initial recognition. Prepayments for assets are transferred to the carrying amount of the asset once the Group has obtained control of the asset and it is probable that future economic benefits associated with the asset will flow to the Group.

3. Significant Accounting Policies (Continued)

Other prepayments are written off to profit or loss when the goods or services relating to the prepayments are received. If there is an indication that the assets, goods or services relating to a prepayment will not be received, the carrying value of the prepayment is written down accordingly and a corresponding impairment loss is recognised in profit or loss for the year. Non-current prepayments are not discounted.

Value added tax

Value added tax (VAT) related to sales is payable to the tax authorities when goods are shipped or services are rendered. Purchase VAT can be offset against sales VAT upon the receipt of a tax invoice from a supplier. Tax legislation allows the settlement of VAT on a net basis.

Accordingly, VAT related to sales and purchases unsettled at the reporting date is stated in the consolidated statements of financial position on a net basis separately for each consolidated entity. Recoverable VAT is classified as non-current if its settlement is not expected within one year after the reporting period. Non-current VAT is not discounted.

Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction, net of tax, from the proceeds. Any excess of the fair value of consideration received over the par value of shares issued is recorded as share premium in equity. Additional paid-in capital primarily represents capital contributions made by non-controlling interests in excess of their ownership.

Dividends

Dividends are recorded as a liability and deducted from equity in the period in which they are declared and approved. Any dividends declared after the reporting period and before the financial statements are authorised for issue are disclosed in the subsequent events note.

Leases

Liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the fixed payments (including in-substance fixed payments) less any lease incentives receivable. The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases of the Group, the Group's incremental borrowing rate is used, being the rate that the Group would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, collateral and conditions.

Lease payments are allocated between principal and finance costs. The finance costs are charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. Payments associated with short-term leases of equipment and vehicles and all leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of
12 months or less. Low-value assets comprise IT equipment and small items of office furniture with value of Tenge 500 thousand or less.

Operating leases

Where the Group is a lessor in a lease which does not transfers substantially all the risks and rewards incidental to ownership to the lessee (i.e. operating lease), lease payments from operating leases are recognised as other income on a straight-line basis.

Loans and borrowings

Borrowings are recognised initially at fair value, net of transaction costs incurred and are subsequently carried at AC using the effective interest method.

Borrowing costs directly attributable to the acquisition, construction or production of assets that necessarily take a substantial time to get ready for intended use or sale (qualifying assets) are capitalised as part of the costs of those assets. The commencement date for capitalisation is when (a) the Group incurs expenditures for the qualifying asset; (b) it incurs borrowing costs; and (c) it undertakes activities that are necessary to prepare the asset for its intended use or sale. Capitalisation of borrowing costs continues up to the date when the assets are substantially ready for their use or sale.

3. Significant Accounting Policies (Continued)

The Group capitalises borrowing costs that could have been avoided if it had not made capital expenditure on qualifying assets. Borrowing costs capitalised are calculated at the Group's average funding cost (the weighted average interest cost is applied to the expenditures on the qualifying assets), except to the extent that funds are borrowed specifically for the purpose of obtaining a qualifying asset.

Where this occurs, actual borrowing costs incurred on the specific borrowings less any investment income on the temporary investment of these borrowings are capitalised.

Preference shares

Preference shares, which are mandatorily redeemable on a specific date, are classified as liabilities. The dividends on these preference shares are recognised in the statement of profit or loss and other comprehensive income as interest expense.

Provisions for liabilities and charges

Provisions for liabilities and charges are non-financial liabilities of uncertain timing or amount. They are accrued when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made. The Group's provisions include site restoration, environment protection and other provisions (Note 34).

Provisions for asset retirement obligations

Provisions for assets retirement obligations include site restoration and environment protection provisions. Asset retirement obligations are recognised when it is probable that the costs would be incurred and those costs can be measured reliably. Asset retirement obligations include the costs of rehabilitation and costs of liquidation (demolition of buildings, constructions and infrastructure, dismantling of machinery and equipment, transportation of the residual materials, environmental clean-up, monitoring of wastes and land restoration). Provision for the estimated costs of liquidation, rehabilitation and restoration are established and charged to the cost of corresponding asset in the reporting period when an obligation arises from the respective land disturbance in the course of mine development or environment pollution, based on the discounted value of estimated future costs. Site restoration provisions are charged fully to the cost of mine development assets despite some of the costs might include decommissioning of property, plant and equipment in accordance with site liquidation plans and materiality grounds.

Movements in the provisions for asset retirement obligations, resulting from updated cost estimates, changes to the estimated term of operations and revisions to discount rates are capitalised within mine development assets. These amounts are then depreciated under unit of production method based on the produced volumes during the period, including losses, to the total number of proved reserves for each deposit.

Provisions for asset retirement obligations do not include any additional obligations which are expected to arise from future disturbances. The costs are estimated on the basis of a closure and restoration plan. The cost estimates are calculated annually during the course of the operations to reflect known developments, including updated cost estimates revised subsoil use terms and estimated lives of operations, and are subject to formal reviews on a regular basis.

Although the final cost to be incurred is uncertain, the Group estimates its costs based on feasibility and engineering studies using current restoration standards and techniques for conducting restoration and retirement works (Note 4).

The amortisation or "unwinding" of the discount applied in establishing the net present value of provisions is charged to profit and loss in each reporting period. The amortisation of the discount is disclosed as finance costs.

Financial guarantees

Financial guarantees require the Group to make specified payments to reimburse the holder of the guarantee for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument. Financial guarantees are initially recognised at their fair value, which is normally evidenced by the amount of fees received. This amount is amortised on a straight line basis over the life of the guarantee. At the end of each reporting period, the guarantees are measured at the higher of (i) the amount of the loss allowance for the guaranteed exposure determined based on the expected loss model and (ii) the remaining unamortised balance of the amount at initial recognition. In addition, an ECL loss allowance is recognised for fees receivable that are recognised in the consolidated statement of financial position as an asset.

3. Significant Accounting Policies (Continued)

Trade and other payables

Trade payables are accrued when the counterparty performs its obligations under the contract and are recognised initially at fair value and subsequently carried at amortised cost using the effective interest method.

Employee benefits

(i) Long-term employee benefits

The Group entities provide long-term employee benefits to employees in accordance with the provisions of the collective agreement. The agreements provide for financial aid for employees' disability, retirement, funeral aid and other payments to the Group's employees. The entitlement to some benefits is usually conditional on the employee remaining employed until the retirement age and the completion of a minimum service period.

The Group does not have any funded post-employment plans. Liability recognised at each reporting date represents the present value of the plan liabilities.

Actuarial gains and losses on post-employment obligations such as experience adjustments and the effects of changes in actuarial assumptions recognised in other comprehensive income in the period occurred. Other movements in the present value of the plan liabilities are also recognised in the profit or loss for the year, including current service cost.

The most significant assumptions used in accounting for defined benefit obligations are the discount rate, staff turnover and the mortality assumptions. The discount rate is used to determine the net present value of future liabilities and each year the unwinding of the discount on those liabilities is charged to profit or loss for the year. The mortality assumption is used to project the future stream of benefit payments, which is then discounted to arrive at a net present value of liabilities.

Employee benefits, including financial aid for employees' disability and funeral aid to the Group's employees and other payments, are considered as other long-term employee benefits. The expected cost of these benefits is accrued over the period of employment using the same accounting methodology as used for the defined benefit plan. The Group recognises changes in actuarial assumptions for other long-term employee benefits in profit or loss for the year. The Group receives services from an independent qualified actuary to evaluate long-term employee benefits on an annual basis.

(ii) Payroll costs and related contributions

Wages, salaries, contributions to pension and social insurance funds, paid annual leave and sick leave, bonuses, and non-monetary benefits are accrued in the year in which the associated services are rendered by the employees of the Group. In this case, the Group applies the Defined Contribution Plans scheme. In accordance with the legal requirements of the Republic of Kazakhstan, the Group withholds pension contributions from employees' salary and transfers them into the united pension fund.

Upon retirement of employees, all pension payments are administered by the united pension fund. The Group does not have any legal or constructive obligation to pay additional contributions other than pension contributions withheld from the salaries of the Group's employees.

Earnings per share

Earnings per share are determined by dividing the profit or loss attributable to owners of the Company by the weighted average number of participating shares outstanding during the reporting year adjusted for share split.

Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the Group's chief operating decision maker. The chief operating decision-maker is responsible for allocating resources and assessing performance of the operating segments. Reportable segments whose revenue, result or assets are ten percent or more of all the segments are reported separately.

3. Significant Accounting Policies (Continued)

Change in presentation

Certain amounts in the consolidated statement of cash flows for 2021 have been reclassified in accordance with the presentation applied in 2022. The effect on comparative information for the year ended 31 December 2021 is as follows:

In millions Tenge	As originally presented	Reclassification	As reclassified for 2021
Cash receipts from customers	782,316	(2,335)	779,981
Payments to suppliers	(503,301)	14,418	(488,883)
Payments to employees	(51,856)	(11,380)	(63,236)
Interest paid	(3,265)	(54)	(3,319)
Other taxes paid	(55,227)	4,345	(50,882)
Social payments	-	(3,166)	(3,166)
Net other (payments)/receipts	(1,499)	(1,828)	(3,327)

Certain amounts in the consolidated statement of financial position as at 31 December 2021 have been reclassified in accordance with the presentation applied as at 31 December 2022 as follows:

In millions Tenge	As originally presented	Reclassification	As reclassified as at 31 December 2021
Non-current assets			
Investment property	2,065	(2,065)	-
Right-of-use assets	838	(838)	-
Loans to related parties	5,493	(5,493)	-
Other financial assets	-	23,671	23,671
Other non-financial assets	-	24,258	24,258
Other non-current assets	39,533	(39,533)	-
Current assets			
Loans to related parties	3,357	(3,357)	-
Short-term securities	4,986	(4,986)	-
Term deposits	43,220	(43,220)	-
Other current assets	7,823	(7,823)	-
Other financial assets	-	52,249	52,249
Other non-financial assets	-	7,137	7,137

4. Critical Accounting Estimates and Judgements in Applying Accounting Policies

The Group makes estimates and assumptions that affect the amounts recognised in the financial statements including the carrying amounts of assets and liabilities. Estimates and judgements are continually evaluated and are based upon management's experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Management also makes certain judgements, apart from those involving estimations, in the process of applying the accounting policies. Judgements that have the most significant effect on the amounts recognised in the financial statements and estimates that can cause a significant adjustment to the carrying amount of assets and liabilities include:

Ore reserves (estimates)

Uranium reserves are a critical component of the Group's projected cash flow estimates that are used to assess the recoverable values of relevant assets as well as depreciation and amortisation expense. Estimates of uranium reserves also determine the life of mines, which in turn affect asset retirement obligation calculations.

On an annual basis the Group engages an independent consultant to assess the Group's ore reserves and mineral resources in accordance with the Australasian Code for reporting on geological exploration works, mineral resources and ore reserves (hereinafter JORC Code). Independent assessment of reserves and resources was carried out as of 31 December 2022 and 2021. The consultant reviewed all key information upon which the reported mineral resource and ore reserve statements for the mining assets of the Group are based.

4. Critical Accounting Estimates and Judgements in Applying Accounting Policies (Continued)

The consultant's reports contain an assessment of the tons of uranium contained in ore which has the potential to be extracted by the existing and planned mining operations (the mineral resource), and also the tons of uranium contained in ore currently planned to be extracted as envisaged by the respective life-of-mine plans (the ore reserve). The Group used the ore reserves data for calculation of impairment of long-term assets, unit of production depreciation for each of the Group's mines as well as asset retirement obligation calculations.

Impairment of non-financial assets (estimates)

At the end of each reporting period, management assesses whether there is any indication of impairment of individual assets (or cash-generating units). If any such indication exists, management estimates the recoverable amount, which is determined as the higher of an asset's fair value less costs to sell and its value in use. An impairment loss is recognised for the amount by which carrying amount exceeds recoverable amount. The Group tests goodwill for impairment at least annually.

The calculation of value in use requires management to make estimates regarding the Group's future cash flows. The estimation of future cash flows involves significant estimates and assumptions regarding commodity prices (uranium and other products), the level of production and sales, discount rates, growth rates, operating costs and other factors. The impairment review and calculations are based upon assumptions that are consistent with the Group's business plans. Due to its subjective nature, these estimates could differ from future actual results of operations and cash flows; any such difference may result in impairment in future periods which would decrease the carrying value of the respective asset.

Goodwill

Refer to Note 20 for details of the Group's impairment testing for goodwill at 31 December 2022.

Assets related to uranium production

Assets related to uranium mines include property, plant and equipment, mine development assets, mineral rights, exploration and evaluation assets, investments in associates, investments in joint ventures, and other investments.

For the purpose of impairment testing, assets are grouped at the lowest levels for which there are separately identifiable cash inflows that are largely independent of the cash inflows from other assets or groups of assets (termed as 'cash-generating units'). The Group has identified each mine (contract territory) as a separate cash-generating unit unless several mines are technologically connected with single processing plant in which case the Group considers such mines as one cash-generating unit.

As at 31 December 2022, management conducted an analysis and did not find any impairment indicators of assets (cash generating units) associated with the production of uranium products.

Provision for asset retirement obligations (estimates)

Site restoration provisions for mining assets

In accordance with environmental legislation and the subsurface use contracts, the Group has a legal obligation to remediate damage caused to the environment from its operations and to decommission its mining assets and landfills and restore landfill sites after closure of mining activities. Provision is made based upon the net present values of estimated site restoration and retirement costs as soon as the obligation arises from past mining activities.

The provision for asset retirement obligations is estimated based upon the Group's interpretation of current environmental legislation in the Republic of Kazakhstan and the Group's related programme for liquidation of subsurface use consequences on the contracted territory and other operations supported by the feasibility study and engineering research in accordance with the applicable restoration and retirement standards and techniques.

Provisions for asset retirement obligations are subject to potential changes in environmental regulatory requirements and the interpretation of the legislation. Provisions are recognised when there is a certainty of incurring of such liabilities and when it is possible to measure the amounts reliably. The scope of work stipulated by the legislation and included in the calculations of the asset retirement obligations contains the dismantling of facilities and infrastructure (pumping, injection and observation wells, technological units for acidification and distribution of solutions, pipelines, access roads, technological sites, landfills, buildings and other facilities) and subsequent restoration of land.

The calculation of the provision for production assets retirement as at 31 December 2022 was performed by the Group's internal specialists and reviewed by an independent consultant.

4. Critical Accounting Estimates and Judgements in Applying Accounting Policies (Continued)

At 31 December 2022, site restoration provision for mining assets was Tenge 38,116 million (2021: Tenge 31,431 million) (Note 34). The increase is mainly attributable to the update of prices for liquidation works that reflect the current economic environment, as well as the impact of introducing a unified calculation methodology across the Group mining entities that resulted in re-estimates of required liquidation works, including low radioactive waste management, dismantlement of process units and handling of construction debris.

Principal assumptions used in the estimations include:

- a discount rate that reflects the current market estimates of the time value of money and those risks specific to the liability not reflected in the best estimate of the costs. The discount rate is based on a risk-free rate determined by reference to the interest rate on government bonds with maturity matching the average period of the Group's subsoil use contracts, 11.55% (2021: 9.85%);
- average long-term inflation rate applied to the nominal costs calculated at current prices of 5.99% in 2022 (2021: 5.12%);
- discounting period in accordance with the estimated life of mines and reserves depletion period.
- low radioactive waste management program assumes removal and disposal at special landfills owned by the Group.

Sensitivity analysis of the principal assumptions as of 31 December 2022 is as follows:

In millions of Kazakhstani Tenge	**(Decrease)/Increase of assumptions**	**(Decrease)/Increase of decommissioning provisions**
Inflation rate	-1%	(4,469)
	+1%	5,288
Discount rate	-1%	5,052
	+1%	(4,229)

Sensitivity analysis of the principal assumptions as of 31 December 2021 is as follows:

In millions of Kazakhstani Tenge	**(Decrease)/Increase of assumptions**	**(Decrease)/Increase of decommissioning provisions**
Inflation rate	-1%	(4,360)
	+1%	5,139
Discount rate	-1%	4,948
	+1%	(4,152)

Provision for environment protection - decommissioning of Ulba metallurgical plant

The Group has previously recognised an obligation only for the disposal of radioactive waste, landfill restoration and asset remediation for Ulba Metallurgical Plant JSC (Note 34). In 2021 the Ecological Code of the Republic of Kazakhstan (the Code) came into effect. The Code stipulates that operators of assets that are considered to have a negative impact on the environment have an obligation to decommission such assets in accordance with the requirements of the legislation. Liquidation measures will depend on the assets' nature and the degree of their impact on the environment.

The Group has recognised for the first time a decommissioning provision as of December 31, 2022 of Tenge 7,624 million based on its current interpretation of the relevant legislation and technical analysis performed. The liability recognised includes dismantlement of facilities and infrastructure located at production facility sites (technological sites, landfills, buildings and other facilities), radioactive waste disposal and subsequent land restoration.

Principal assumptions used in the estimations include:

- current prices are inflated using the expected long-term inflation rate (of 7.7% for assets with liquidation term until 2027, 4.6% for assets with liquidation term until 2042, 3.93% for assets with liquidation term after 2044), and subsequently discounted;
- the discount rate for calculation of the provision as at 31 December 2022 is 14.4% for assets with liquidation term until 2027, 11.3% for assets with liquidation term until 2042, 10% for assets with liquidation term after 2044.

4. Critical Accounting Estimates and Judgements in Applying Accounting Policies (Continued)

- the discounting period equates to the remaining useful life of buildings and constructions, of not less than 50 years. All buildings and constructions are subject to annual technical reviews to determine required capital and operating expenditure requirements.

Total provision for the Ulba Metallurgical Plant JSC as of 31 December 2022 amounted to Tenge 9,243 million (2021: Tenge 1,339 million). Sensitivity analysis of the principal assumptions as of 31 December 2022 is as follows:

In millions of Kazakhstani Tenge	**(Decrease)/Increase of assumptions**	**(Decrease)/Increase of decommissioning provisions**
Inflation rate	-1%	(3,148)
	+1%	4,950
Discount rate	-1%	4,665
	+1%	(2,986)
Discount period	-10%	2,682
	+10%	(2,044)

Based on the Group's analysis of current regulation, management concluded that certain other Ulba metallurgical plant's assets should be excluded from asset retirement obligations as of 31 December 2022 since there is no reasonable calculation method for these types of assets and/or the potential amount of such liabilities is not significant. This judgement is based on the following:

- such assets do not have a significant negative impact on the environment and ecological legislation does not require financial provision for the assets,
- production processes involving these assets do not lead to consequences that would require dismantlement and recultivation works to mitigate the negative environmental impact.

As the requirements of the Environmental Code are relatively new, there is no practice of applying these requirements and there are ambiguities in the legislation, management has applied significant judgment in terms of assessing liabilities and their amounts. In case of changes in environmental legislation, its interpretation and practice of its application, as well as in the judgments and in the Group's estimates, such liabilities may be revised in the future.

Tax and transfer pricing legislation (judgements)

Kazakhstan tax and transfer pricing legislation is subject to varying interpretations (Note 37).

Swap transactions (judgements)

The Group sells part of its uranium products under swap transactions with separate agreements with the same counterparty, being for sales and purchase of the same volume of uranium for the same price at different delivery points or different timeframes. Effectively, this results in the exchange of own uranium (produced or purchased from the Group's entities) with purchased uranium.

Normally, under a swap transaction, the Group delivers physical uranium to one destination point, and purchases the same volume of uranium at a third-party converter for sale to end customers. Swap transactions are entered into primarily to reduce transportation costs for uranium delivery from Kazakhstan to end customers.

Despite the fact that swap agreements are not formally related to each other, management concluded that these transactions are in substance linked and would not have occurred on an isolated basis, driven by the existing market demand and supply forces. In management's view, supply of the same volume of homogeneous product (uranium) for the same price represents an exchange of products, which should be presented on a net basis in the consolidated financial statements, reflecting the economic substance of the transaction. Interpretation of terms and approach to the accounting for swap transactions requires judgement.

In 2022, the Group did not recognise sales revenue from swap transactions of Tenge 195,958 million and related cost of sales of Tenge 207,789 million. In 2021, the Group did not recognise sales revenue from swap transactions of Tenge 146,910 million, and cost of sales of Tenge 135,158 million. The Group has recognised liabilities under swap transactions in the amount of Tenge 4,709 million as of 31 December 2022 (2021: Tenge 15,355 million) for the volume of uranium that would be returned under swap transactions (Note 36) post balance date.

4. Critical Accounting Estimates and Judgements in Applying Accounting Policies (Continued)

Control over DP Ortalyk LLP (judgement)

On 22 July 2021 the Group completed the sale of a 49% interest in DP Ortalyk LLP (Note 39). The Group retains a 51% ownership interest and majority voting rights in the Supervisory Board of that entity. Sales activities of DP Ortalyk LLP are governed by the Marketing agreement, any amendments to which would require consent by both owners. The Group governs production activity within the 20% limit permitted by law through its power to approve the entity's budget by simple majority vote. Decisions about financing of DP Ortalyk LLP are made by unanimous consent of both owners. Currently, DP Ortalyk LLP does not rely on shareholders' or external financing. All production volumes are committed to be purchased by the Group and the minority shareholder based upon market prices. Production volumes and costs have a significant impact on financial results and are considered to be the most relevant activities for the purpose of the control assessment. Based on these facts, the Group management has concluded that the Group retains control over DP Ortalyk LLP.

5. Adoption of New or Revised Standards and Interpretations

The following amendments became effective from 1 January 2022, but did not have any material impact on the Group:

Proceeds before intended use, Onerous contracts – cost of fulfilling a contract, Reference to the Conceptual Framework – narrow scope amendments to IAS 16, IAS 37 and IFRS 3, and Annual Improvements to IFRSs 2018-2020 – amendments to IFRS 1, IFRS 9, IFRS 16 and IAS 41 (issued on 14 May 2020 and effective for annual periods beginning on or after 1 January 2022).

- The amendment to IAS 16 prohibits an entity from deducting from the cost of an item of PPE any proceeds received from selling items produced while the entity is preparing the asset for its intended use. The proceeds from selling such items, together with the costs of producing them, are now recognised in profit or loss. An entity will use IAS 2 to measure the cost of those items. Cost will not include depreciation of the asset being tested because it is not ready for its intended use. The amendment to IAS 16 also clarifies that an entity is 'testing whether the asset is functioning properly' when it assesses the technical and physical performance of the asset. The financial performance of the asset is not relevant to this assessment. An asset might therefore be capable of operating as intended by management and subject to depreciation before it has achieved the level of operating performance expected by management.
- The amendment to IAS 37 clarifies the meaning of 'costs to fulfil a contract'. The amendment explains that the direct cost of fulfilling a contract comprises the incremental costs of fulfilling that contract; and an allocation of other costs that relate directly to fulfilling. The amendment also clarifies that, before a separate provision for an onerous contract is established, an entity recognises any impairment loss that has occurred on assets used in fulfilling the contract, rather than on assets dedicated to that contract.
- IFRS 3 was amended to refer to the 2018 Conceptual Framework for Financial Reporting, in order to determine what constitutes an asset or a liability in a business combination. Prior to the amendment, IFRS 3 referred to the 2001 Conceptual Framework for Financial Reporting. In addition, a new exception in IFRS 3 was added for liabilities and contingent liabilities. The exception specifies that, for some types of liabilities and contingent liabilities, an entity applying IFRS 3 should instead refer to IAS 37 or IFRIC 21, rather than the 2018 Conceptual Framework. Without this new exception, an entity would have recognised some liabilities in a business combination that it would not recognise under IAS 37. Therefore, immediately after the acquisition, the entity would have had to derecognise such liabilities and recognise a gain that did not depict an economic gain. It was also clarified that the acquirer should not recognise contingent assets, as defined in IAS 37, at the acquisition date.
- The amendment to IFRS 9 addresses which fees should be included in the 10% test for derecognition of financial liabilities. Costs or fees could be paid to either third parties or the lender. Under the amendment, costs or fees paid to third parties will not be included in the 10% test.
- Illustrative Example 13 that accompanies IFRS 16 was amended to remove the illustration of payments from the lessor relating to leasehold improvements. The reason for the amendment is to remove any potential confusion about the treatment of lease incentives.
- IFRS 1 allows an exemption if a subsidiary adopts IFRS at a later date than its parent. The subsidiary can measure its assets and liabilities at the carrying amounts that would be included in its parent's consolidated financial statements, based on the parent's date of transition to IFRS, if no adjustments were made for consolidation procedures and for the effects of the business combination in which the parent acquired the subsidiary. IFRS 1 was amended to allow entities that have taken this IFRS 1 exemption to also measure cumulative translation differences using the amounts reported by the parent, based on the parent's date of transition to IFRS. The amendment to IFRS 1 extends the above exemption to cumulative translation differences, in order to reduce costs for first-time adopters. This amendment will also apply to associates and joint ventures that have taken the same IFRS 1 exemption.
- The requirement for entities to exclude cash flows for taxation when measuring fair value under IAS 41 was removed. This amendment is intended to align with the requirement in the standard to discount cash flows on a post-tax basis.

6. New Accounting Pronouncements

Certain new standards and interpretations have been issued that are mandatory for annual periods beginning on or after 1 January 2023 or later, and which the Group has not early adopted. These are:

- Deferred tax related to assets and liabilities arising from a single transaction – Amendments to IAS 12 (issued on 7 May 2021 and effective for annual periods beginning on or after 1 January 2023).
- Classification of liabilities as current or non-current, deferral of effective date – Amendments to IAS 1 (originally issued on 23 January 2020 and subsequently amended on 15 July 2020 and 31 October 2022, ultimately effective for annual periods beginning on or after 1 January 2024).
- Amendments to IAS 8: Definition of Accounting Estimates (issued on 12 February 2021 and effective for annual periods beginning on or after 1 January 2023).
- Amendments to IAS 1 and IFRS Practice Statement 2: Disclosure of Accounting policies (issued on 12 February 2021 and effective for annual periods beginning on or after 1 January 2023).

The Group is currently assessing the impact of the amendments on its financial statements.

- Amendment to IFRS 16 – Leases on sale and leaseback (issued on 20 September 2022 and effective for annual periods beginning or after 1 January 2023).
- IFRS 17 “Insurance Contracts” (issued on 18 May 2017 and effective for annual periods beginning on or after 1 January 2023). Amendments to IFRS 17 and an amendment to IFRS 4 (issued on 25 June 2020 and effective for annual periods beginning on or after 1 January 2023).
- Transition option for insurers applying IFRS 17 – Amendments to IFRS 17 (issued on 9 December 2021 and effective for annual periods beginning on or after 1 January 2023).

Unless otherwise described above, the new standards and interpretations are not expected to affect significantly the Group’s consolidated financial statements.

7. Segment Information

Operating segments are components that engage in business activities that may earn revenues or incur expenses, whose operating results are regularly reviewed by the chief operating decision maker (CODM) and for which discrete financial information is available. The CODM is the person or group of persons who allocates resources and assesses the performance for the entity. The CODM has been identified as the Management Board of the Group headed by the CEO.

(a) Description of products and services from which each reportable segment derives its revenue

The Group is a vertically integrated business involved in the production chain of end products – from geological exploration, mining of uranium and nuclear fuel production, to marketing and auxiliary services (transportation and logistics, procurement, research and other). The Group is organised on the basis of two main business segments:

- Uranium – uranium mining and processing from the Group’s mines, purchases of uranium from joint ventures and associates, external sales and marketing of produced and purchased uranium. This segment includes the Group’s share in the net results of joint ventures and associates engaged in uranium production, as well as the Group’s head office (NAC Kazatomprom JSC);
- UMP (Ulba Metallurgical Plant JSC) – production and sales of products containing beryllium, tantalum and niobium, hydrofluoric acid and by-products, processing of uranium on tolling basis for the Group’s uranium entities and production of uranium powders and pellets to external markets and its joint venture, Ulba-FA LLP.

The revenues and expenses of some of the Group’s subsidiaries, which primarily provide services to the uranium segment (such as drilling, transportation, security and geological), are not allocated to the results of this operating segment. These Group’s businesses are not included within reportable operating segments as their financial results do not meet the quantitative threshold. The results of these and other minor operations are included in the “Other” caption.

7. Segment Information (Continued)

(b) Factors that management used to identify the reportable segments

The Group's segments are strategic business units that focus on different customers. They are managed separately because of the differences in the production processes, the nature of products produced and required marketing and investment strategies. Segment financial information reviewed by the CODM includes:

- information about income and expenses by business units (segments) based on IFRS figures on a quarterly basis;
- assets and liabilities as well as capital expenditures by segment on a quarterly basis;
- operating data (such as production and inventory volumes) and revenue data (such as sales volumes per type of product, average sales price) are also reviewed by the CODM on a monthly and quarterly basis.

(c) Measurement of operating segment profit or loss, assets and liabilities

The CODM evaluates performance of each segment based on gross and net profit. Segment financial information is prepared on the basis of IFRS financial information and measured in a manner consistent with that in these consolidated financial statements. Revenues from other segments include transfers of raw materials, goods and services from one segment to another, amount is determined based on market prices for similar goods.

7. Segment Information (Continued)

(d) Information about reportable segment profit or loss, assets and liabilities

Segment information for the reportable segments for the years ended 31 December 2022 and 2021 is set out below:

In millions of Kazakhstani Tenge	Uranium		UMP		Other		Eliminations		Total	
	2022	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
External revenue	856,952	616,860	114,555	55,323	29,664	18,828	-	-	1,001,171	691,011
Revenues from other segments	*63,141*	*4,846*	*6,855*	*4,908*	*70,008*	*54,083*	*(140,004)*	*(63,837)*	-	-
Cost of sales	(409,158)	(350,052)	(94,672)	(42,534)	(97,190)	(65,175)	125,923	54,794	(475,097)	(402,967)
Gross profit	**510,935**	**271,654**	**26,738**	**17,697**	**2,482**	**7,736**	**(14,081)**	**(9,043)**	**526,074**	**288,044**
Net reversal/(impairment losses)	(22)	(5,791)	(297)	(200)	421	1,978	206	-	308	(4,013)
Share of results of associates and joint ventures	89,442	52,341	(1,748)	(1,932)	1,382	1,174	-	-	89,076	51,583
Net foreign exchange gain	16,625	2,845	672	488	7	12	-	-	17,304	3,345
Finance income	15,626	6,390	743	246	958	441	-	-	17,327	7,077
Finance expense	(6,754)	(6,237)	(1,447)	(464)	(332)	(195)	108	184	(8,425)	(6,712)
Income tax expense	(105,947)	(58,759)	(4,165)	(2,606)	(630)	(253)	-	-	(110,742)	(61,618)
Profit/(loss) for the year	**467,382**	**212,963**	**12,803**	**7,085**	**(2,920)**	**4,222**	**(4,302)**	**(4,244)**	**472,963**	**220,026**
Depreciation and amortisation charge	**(77,951)**	**(63,348)**	**(2,066)**	**(1,924)**	**(4,914)**	**(4,718)**	**3,553**	**728**	**(81,378)**	**(69,262)**

7. Segment Information (Continued)

Segment information for the reportable segments for the years ended 31 December 2022 and 2021 is set out below (Continued):

	Uranium		UMP		Other		Eliminations		Total	
In millions of Kazakhstani Tenge	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
Investments in associates and joint ventures	186,961	142,920	957	2,705	10,414	9,070	-	-	198,332	154,695
Total reportable segment assets	**2,361,914**	**2,061,161**	**155,011**	**111,224**	**89,774**	**77,142**	**(385,016)**	**(299,236)**	**2,221,683**	**1,950,291**
Assets of disposal groups classified as held for sale	-	-	-	-	850	1,213	-	-	850	1,213
Total assets	**2,361,914**	**2,061,161**	**155,011**	**111,224**	**90,624**	**78,355**	**(385,016)**	**(299,236)**	**2,222,533**	**1,951,504**
Total liabilities	**813,577**	**657,916**	**71,798**	**36,630**	**25,957**	**19,057**	**(385,302)**	**(299,200)**	**526,030**	**414,403**
Capital expenditure	**59,059**	**45,096**	**4,794**	**3,631**	**8,123**	**4,783**	**-**	**-**	**71,976**	**53,510**

Capital expenditure represents additions to non-current assets other than financial instruments, deferred tax assets, post-employment benefits assets and rights arising under insurance contracts.

7. Segment Information (Continued)

(e) Analysis of revenues by products and services

The Group's revenues are analysed by products and services in Note 9. Information about finance income and costs is disclosed in Note 17.

(f) Geographical information

The Group's main assets are located in the Republic of Kazakhstan. Distribution of the Group's sales between countries on the basis of the customer's country of domicile was as follows:

In millions of Kazakhstani Tenge	2022	2021
China	272,291	191,212
Canada	160,278	115,163
United Kingdom (including Jersey and Cayman Islands)	150,427	156,928
USA	112,590	94,114
Kazakhstan	109,595	25,113
Russia	87,877	10,952
France	68,054	50,134
Other countries	40,059	47,395
Total consolidated revenues	**1,001,171**	**691,011**

Major customers

The Group has a group of customers under common control that accounts for more than 10% of the Group's consolidated revenue. This revenue in the amount of Tenge 324,509 million (2021: Tenge 236,204 million) is reported under the Uranium segment.

8. Balances and Transactions with Related Parties

Parties are generally considered to be related if the parties are under common control or if one party has the ability to control the other party or can exercise significant influence or joint control over the other party in making financial and operational decisions. In considering each possible related party relationship, management has regard to the substance of the relationship, not merely the legal form.

Entities under common control include companies under control of Samruk-Kazyna JSC. Transactions with other government owned entities are not disclosed when they are entered into in the ordinary course of business with terms consistently applied to all public and private entities, when they are not individually significant, if the Group's services are provided on standard terms available for all customers, or where there is no choice of supplier of services such as electricity transmission services and telecommunications.

At 31 December 2022, the outstanding balances with related parties were as follows:

In millions of Kazakhstani Tenge	Accounts receivable and other assets	Other financial assets	Accounts payable and other liabilities	Loans and borrowings
Associates	4,447	5,933	43,703	7,002
Joint ventures	6,559	94	48,428	-
Entities under common control	362	9,274	1,119	-
Controlling shareholder	-	-	17	-
Associates of the controlling shareholder	12	-	1,236	-
Total	**11,380**	**15,301**	**94,503**	**7,002**

8. Balances and Transactions with Related Parties (Continued)

Transactions with related parties for the year ended 31 December 2022 were as follows:

In millions of Kazakhstani Tenge	Sale of goods and services	Dividends received	Purchase of goods and services	Dividends to the Shareholder	Finance and other income	Finance and other costs
Associates	12,321	38,503	152,580	-	699	9
Joint ventures	53,111	6,934	39,490	-	28	-
Entities under common control	41	-	11,582	-	1,090	7,543
Controlling shareholder	-	-	-	170,541	-	1
Associates of the controlling shareholder	150	-	13,041	-	-	-
Total	**65,623**	**45,437**	**216,693**	**170,541**	**1,817**	**7,553**

From December 2015, JV Khorasan-U LLP (over which the Group obtained control in 2019) is a co-borrower and guarantor of a loan to Kyzylkum LLP given by the Company in 2010 in the amount of Tenge 5,945 million (2021: Tenge 8,716 million).

In June 2021, the Group provided to Uranenergo LLP repayable financial aid secured by that entity's property in the form of a revolving credit line with a term until 30 June 2023 in the amount of Tenge 187 million. As of December 31, 2022, the remaining amount repayable is Tenge 94 million (Note 28).

The Group is a guarantor for loans obtained by SKZ-U LLP in the amount of Tenge 1,864 million (2021: Tenge 5,220 million) and Ulba-FA LLP in the amount of Tenge 17,072 million (2021: Tenge 15,934 million) (Note 36).

In 2022 the Group transfers obligatory pension payments for its employees to the state-owned Unified Accumulative Pension Fund JSC in the amount of Tenge 7,543 million (2021: Tenge 5,329 million) (Note 16).

At 31 December 2021, the outstanding balances with related parties were as follows:

In millions of Kazakhstani Tenge	Accounts receivable and other assets	Other financial assets	Accounts payable and other liabilities	Loans and borrowings
Associates	1,458	8,663	29,961	10,514
Joint ventures	4,270	187	18,508	-
Entities under common control	238	-	606	-
Controlling shareholder	-	-	127	-
Associates of the controlling shareholder	11	-	1,013	-
Total	**5,977**	**8,850**	**50,215**	**10,514**

Transactions with related parties for the year ended 31 December 2021 were as follows:

In millions of Kazakhstani Tenge	Sale of goods and services	Dividends received	Purchase of goods and services	Dividends to the Shareholder	Finance and other income	Finance and other costs
Associates	7,833	15,028	90,966	-	912	-
Joint ventures	12,291	2,080	29,051	-	-	-
Entities under common control	79	-	5,867	-	-	-
Controlling shareholder	-	-	-	112,561	-	90
Associates of the controlling shareholder	130	-	5,599	-	-	-
Total	**20,333**	**17,108**	**131,483**	**112,561**	**912**	**90**

8. Balances and Transactions with Related Parties (Continued)

Key management personnel is represented by personnel with authority and responsibility in planning, management and control of the Group's activities, directly or indirectly. Key management personnel includes all members of the Management Board and the members of the Board of Directors. The table below represents remuneration of the key management personnel, paid by the Group in exchange for services provided. This remuneration includes salaries, bonuses, as well as associated taxes and payments. No remuneration is paid or payable to representatives of the Controlling shareholder in the Board of Directors.

	2022		2021	
In millions of Kazakhstani Tenge	**Expense**	**Accrued liability**	**Expense**	**Accrued liability**
Short-term benefits				
Salaries and bonuses	983	55	1,088	60
Total	**983**	**55**	**1,088**	**60**

9. Revenue

The Group's revenue arises from contracts with customers where performance obligations are satisfied mostly at a point in time.

In millions of Kazakhstani Tenge	**2022**	**2021**
Sales of uranium	851,427	606,109
Sales of uranium products	57,806	18,939
Sales of beryllium products	31,986	26,119
Sales of tantalum products	23,171	15,777
Sales of purchased goods	15,164	5,860
Sales of other services	11,147	6,459
Drilling services	3,730	4,357
Transportation services	3,586	3,413
Sales of materials and other goods	2,815	3,713
Research and development	339	265
Total revenue	**1,001,171**	**691,011**

10. Cost of Sales

In millions of Kazakhstani Tenge	**2022**	**2021**
Materials and supplies	261,825	241,695
Depreciation and amortisation	79,037	66,429
Payroll costs	49,348	33,294
Taxes other than income tax	32,216	25,474
Processing and other services	31,361	17,404
Transportation expenses	5,787	4,982
Maintenance and repair	5,082	4,918
Utilities	1,678	1,703
Rent expenses	234	210
(Reversal of inventory provision)/write off to net realizable value	(190)	615
Other	8,719	6,243
Total cost of sales	**475,097**	**402,967**

11. Distribution Expenses

In millions of Kazakhstani Tenge	**2022**	**2021**
Shipping, transportation and storage	20,331	11,110
Payroll costs	1,744	1,456
Commissions	952	502
Rent	214	105
Materials and supplies	199	306

In millions of Kazakhstani Tenge	**2022**	**2021**
Depreciation and amortisation	56	65
Other	2,109	2,162
Total distribution expenses	**25,605**	**15,706**

12. General and Administrative Expenses

In millions of Kazakhstani Tenge	**2022**	**2021**
Payroll costs	20,594	18,303
Consulting and information services	5,196	4,697
Compensation for overproduction	7,310	-
Depreciation and amortisation	2,110	2,493
Fines and penalties	2,068	1,527
Insurance	822	788
Communication	509	495
Business trip expenses	497	251
Rent	460	352
Maintenance and repairs	451	390
Training expenses	416	401
Taxes other than income tax	355	661
Security	186	184
Materials and supplies	173	179
Utilities	159	187
Representative expenses	114	41
Other	3,087	3,156
Total general and administrative expenses	**44,507**	**34,105**

Compensation for overproduction relates to JV Akbastau JSC (Note 39) as a result of an assessed breach of the terms of subsoil use contract #2488 dated 20 November 2007. Although the entity had been involved in negotiations with the regulator over an extended period as it finalized its reserves assessment, the production volume exceeded the contracted level. In 2021 the entity had reached a draft agreement with the regulator which was to provide social support to the Turkistan region in the amount of Tenge 3,000 million as a compensation for the breach of license terms. An expense for this social support was recognised as other expense in 2021 (Note 15). However, in 2022 the regulator rejected the draft agreement and reassessed the amount payable to be compensation for the overproduction of uranium in the amount of Tenge 7,310 million. The compensation was determined as the fair value of 249 tones of overproduced uranium based on current uranium spot prices. As a result, during 2022 the Group reversed social expenses in the amount of Tenge 3,000 million (Note 14) and recognized an expense of Tenge 7,310 million. On 30 December 2022 JV Akbastau JSC signed addendum #4 to the subsoil use contract #2488 and paid the compensation.

13. Net Reversal / (Impairment Loss) on non-financial assets

The Group recognised impairment losses for the following non-financial assets:

In millions of Kazakhstani Tenge	**2022**	**2021**
Property, plant and equipment (Note 21)	(1)	356
Intangible assets (Note 20)	-	(2,169)
Mine development assets	-	199
Impairment of assets held for sale	-	(1,084)
Other assets	177	(1,107)
Net reversal / (impairment loss) on non-financial assets	**176**	**(3,805)**

14. Other Income

In millions of Kazakhstani Tenge	**2022**	**2021**
Income from an associate development agreement (Note 25)	7,671	-
Gain from joint operations	4,217	3,513
Reversal of social expenses (Note 12)	3,000	-

Insurance receipt	1,981	-
Income from disposal of property, plant and equipment	1,384	160
Income from a joint venture development agreement	985	-
Gain from fines and penalties	306	138
Gain on disposal of subsidiary	-	915
Other	2,173	2,799
Total other income	**21,717**	**7,525**

The Group has fulfilled its obligations under one of its joint operation agreements for the purchase of equal volume of uranium in 2022 and 2021; however, volatility of exchange rates and spot prices resulted in disproportionate Tenge amounts contributed by each participant and a gain in the amount of Tenge 4,217 million was recognised by the Group.

The Group received an insurance payment for losses incurred in 2016 as a result of an accident in the Indian sea.

Other Expenses and Net Foreign Exchange Gain

In millions of Kazakhstani Tenge	**2022**	**2021**
Remeasurement of non-financial liabilities, net of gain on disposal (Note 36)	1,906	2,872
Social expenses	1,130	4,537
Loss on suspension of production	1,126	1,626
Research expenses	887	725
Non-recoverable VAT	620	2,235
Depreciation and amortisation	175	275
Loss on disposal of property, plant and equipment	175	-
Loss on disposal of intangible assets	93	-
Loss on disposal of non-current assets	-	411
Other	3,452	2,713
Total other expenses	**9,564**	**15,394**

Social expenses in 2021 include social sphere contributions to Turkistan region in the amount of Tenge 3,000 million (Note 12).

Net foreign exchange gain

In millions of Kazakhstani Tenge	**2022**	**2021**
Foreign exchange loss on financing activities, net	(4,758)	(1,696)
Foreign exchange gain on operating activities, net	22,062	5,041
Total foreign exchange gain, net	**17,304**	**3,345**

Payroll Costs

In millions of Kazakhstani Tenge	**2022**	**2021**
Wages and salaries	89,208	64,580
Including Pension contributions	*7,543*	*5,329*
Social tax and social payments	10,427	6,904
Total payroll costs	**99,635**	**71,484**

Finance Income and Costs

In millions of Kazakhstani Tenge	**2022**	**2021**
Interest income calculated using the effective interest rate		
Cash and cash equivalents	10,433	3,087
Government securities	1,262	959
Loans at amortised cost	699	912
Term deposits	111	129
Other	-	114

Other financial income		
Revaluation of other investments (Note 28)	4,699	-
Financial derivative asset	-	1,732
Other	123	144
Total finance income	**17,327**	**7,077**
Finance costs		
Interest expense on loans and borrowings	3,689	3,546
Unwinding of discount on provisions	2,892	2,259
Other	1,844	907
Total finance costs	**8,425**	**6,712**

Income Tax Expense

(a) Components of income tax expense

Income tax expense recorded in profit or loss comprises the following:

In millions of Kazakhstani Tenge	**2022**	**2021**
Current income tax	118,853	85,345
Deferred income tax	(8,111)	(23,727)
Total income tax expense	**110,742**	**61,618**

18 Income Tax Expense (Continued)

The income tax rate applicable to the majority of the Group's profits in 2022 and 2021 is 20%. Income tax in the amount of Tenge 33,466 million that relates to the sales of interest in subsidiary (Note 39) was recognised in equity directly in 2021.

A reconciliation between the expected and the actual taxation charge is provided below:

In millions of Kazakhstani Tenge	**2022**	**2021**
Profit before tax	583,705	281,644
Theoretical tax charge at statutory tax rate of 20%	116,741	56,329
Prior periods adjustments of income tax	2,065	5,401
Transfer pricing adjustment	7,298	5,371
Profit on income from controlled foreign company	294	1,383
Withholding tax on dividend payments	677	1,240
Share of results of joint ventures and associates	(17,815)	(10,317)
Other items	1,482	2,211
Income tax expense	**110,742**	**61,618**

(b) Deferred taxes analysed by type of temporary difference

Differences between IFRS and statutory taxation regulations in Kazakhstan give rise to temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and their tax bases. The tax effect of the movements in these temporary differences is detailed below at 20%.

In millions of Kazakhstani Tenge	**1 January 2022**	**Credited/ (charged) to profit or loss**	**Exchange differences arising on translation of entities with foreign functional currency**	**31 December 2022**
Tax effect of deductible/(taxable) temporary differences				
Property, plant and equipment, intangible assets and mineral rights	(123,495)	4,442	11	(119,042)
Accounts receivable	(208)	(164)	-	(372)
Loans and borrowings	3	9	-	12
Provisions	1,572	(1,548)	-	24
Accrued liabilities on vacation payments and bonuses	1,663	604	-	2,267
Taxes	1,509	318	-	1,827
Inventories	28,076	4,347	(4)	32,419
Other assets	158	88	1	247
Other liabilities	310	15	-	325
	(90,412)	**8,111**	**8**	**(82,293)**
Recognised deferred tax asset	30,689	3,818	8	34,515
Recognised deferred tax liabilities	(121,101)	4,293	-	(116,808)

18 Income Tax Expense (Continued)

Management estimates that investments in subsidiaries, associates and joint ventures will be recovered primarily through dividends. Dividends from subsidiaries, associates and joint ventures are not taxable, accordingly the Group did not recognise deferred tax on undistributed earnings from investments.

The tax effect of the movements in the temporary differences for the year ended 31 December 2021 is:

In millions of Kazakhstani Tenge	1 January 2021	Credited/ (charged) to profit or loss	Exchange differences arising on translation of entities with foreign functional currency	Disposal of companies	31 December 2021
Tax effect of deductible/(taxable) temporary differences					
Property, plant and equipment, intangible assets and mineral rights	(129,120)	5,483	6	136	(123,495)
Accounts receivable	(374)	166	-	-	(208)
Loans and borrowings	-	3	-	-	3
Provisions	438	1,134	-	-	1,572
Accrued liabilities on vacation payments and bonuses	1,155	508	-	-	1,663
Taxes	916	593	-	-	1,509
Inventories	12,513	15,563	-	-	28,076
Other assets	(111)	269	-	-	158
Other liabilities	306	8	(4)	-	310
	(114,277)	**23,727**	**2**	**136**	**(90,412)**
Recognised deferred tax asset	13,206	17,483	-	-	30,689
Recognised deferred tax liabilities	(127,483)	6,244	2	136	(121,101)

In the context of the Group's structure, tax losses of different Group companies may not be offset against current tax liabilities and taxable profits of other Group companies and, accordingly, taxes may accrue even where there is a consolidated tax loss. Therefore, deferred tax assets and liabilities are offset only when they relate to the same taxable entity.

The Group has unrecognised deferred tax assets in respect of unused tax loss carry forwards of Tenge 1,274 million in 2022 (2021: Tenge 602 million) and excluded from the calculation the tax losses for the enterprises sold in 2022 with unrecognized tax losses. The tax loss carry forwards expire as follows:

In millions of Kazakhstani Tenge	2022	2021
2030	-	368
2031	470	234
2032	804	-
Total unrecognised deferred tax asset on tax losses	**1,274**	**602**

Earnings per Share

Basic earnings per share is calculated by dividing the profit or loss attributable to owners of the Company by the number of ordinary shares in issue during the year (Note 32). The Company has no dilutive potential ordinary shares; therefore, the diluted earnings per share equals the basic earnings per share. Earnings per share from continuing operations is calculated as follows:

In millions of Kazakhstani Tenge	2022	2021
Profit for the year for the year attributable to owners of the Company (in millions of Kazakhstani Tenge)	348,048	140,773
Number of ordinary shares (in thousands)	259,357	259,357
Earnings per share attributable to the owners of the Company, basic and diluted (rounded to Tenge)	1,342	543

The Company issued bonds which were included in the official list of Kazakhstan Stock Exchange JSC (hereinafter - the "KASE"). The Company is required to present information on the book value of one share calculated in accordance with the KASE Listing Rules.

Book value per share is calculated as follows:

In millions of Kazakhstani Tenge	**2022**	**2021**
Total assets of the Group (in millions Tenge)	2,222,533	1,951,504
Intangible assets (in millions Tenge)	(59,159)	(58,940)
Total liabilities of the Group (in millions Tenge)	(526,030)	(414,403)
	1,637,344	**1,478,161**
Number of ordinary shares (in thousands)	259,357	259,357
Book value of one share (Tenge per share)	6,313	5,699

Intangible Assets

In millions of Kazakhstani Tenge	**Licences and patents**	**Software**	**Goodwill**	**Other**	**Total**
At 1 January 2021					
Cost	2,322	12,219	54,953	1,216	70,710
Accumulated amortisation and impairment	(1,065)	(2,756)	(6,459)	(524)	(10,804)
Carrying value	**1,257**	**9,463**	**48,494**	**692**	**59,906**
Additions	204	631	-	19	854
Disposals	(4)	(218)	-	(13)	(235)
Depreciation charge and impairment losses on disposals/transfers	4	218		13	235
Amortisation charge	(284)	(1,163)	-	(96)	(1,543)
Impairment	-	(2,169)	-	(777)	(2,946)
Transfers from property, plant and equipment (Note 21)	2	834	-	1,833	2,669
At 31 December 2021					
Cost	2,524	13,466	54,953	3,055	73,998
Accumulated amortisation and impairment	(1,345)	(5,870)	(6,459)	(1,384)	(15,058)
Carrying value	**1,179**	**7,596**	**48,494**	**1,671**	**58,940**
Additions	136	345	-	908	1,389
Disposals	(328)	(784)	-	(259)	(1,371)
Depreciation charge and impairment losses on disposals/transfers	289	188	-	35	512
Amortisation charge	(284)	(875)	-	(110)	(1,269)
Impairment reversal	-	590	-	222	812
Transfers from right of use assets	737	-	-	-	737
Transfers to property, plant and equipment (Note 21)	-	-	-	(591)	(591)
Transfers	-	(1,706)	-	1,706	-
At 31 December 2022					
Cost	3,069	11,321	54,953	4,819	74,162
Accumulated amortisation and impairment	(1,340)	(5,967)	(6,459)	(1,237)	(15,003)
Carrying value	**1,729**	**5,354**	**48,494**	**3,582**	**59,159**

Goodwill impairment test

DP Ortalyk LLP, JV Akbastau JSC and Karatau LLP

Goodwill relates to business combinations in prior periods being: Tenge 5,166 million relates to subsurface use operations of DP Ortalyk LLP at the area Central on Mynkuduk mine, Tenge 24,808 million relates to Karatau LLP and Tenge 18,520 million relates to JV Akbastau JSC, which independently perform subsurface use operations at the

Budenovskoye mine. At least annually, goodwill is tested for impairment. The carrying value of goodwill applicable to each of these entities is allocated to their respective cash generating units and the recoverable amount was determined on a value in use basis from forecast cash flows over the term of subsurface use contracts. Forecast cash flows are based on the approved volume of proven reserves, estimated volumes of production and sales over a life of mine plan approved by management, using a discount rate of 18.49% for 2022 year (2021: 12.97%). Production volumes are consistent with those agreed with the competent authority and independent consultant's report and are based on the production capacity of the cash-generating units. Key assumptions used in calculations include forecast sales prices, production costs and capital expenditures. Sales prices used in developing forecast cash flows were determined using an independent official source Ux Consulting LLC published in the fourth quarter of 2022. Production costs and capital expenditures are based on approved budgets for 2023-2027 and growth of 6.16% which approximates long-term average inflation rates. The estimated values in use significantly exceed the carrying amounts of the non-current assets of the three cash-generating units, including goodwill, and therefore even reasonably possible changes in key assumptions would not lead to impairment losses being recognised.

At 31 December 2022, the Group had contractual commitments to acquire intangible assets for Tenge 544 million (2021: 425 million).

Property, Plant and Equipment

Movements in the carrying amount of property, plant and equipment were as follows:

In millions of Kazakhstani Tenge	Land	Railway infra-structure	Buildings	Machinery and equipment	Vehicles	Other	Const-ruction in progress	Total
At 1 January 2021								
Cost	413	2,035	139,335	90,655	22,015	6,777	11,183	272,413
Accumulated depreciation and impairment	-	(946)	(37,938)	(42,856)	(12,528)	(3,639)	(1,759)	(99,666)
Carrying amount	**413**	**1,089**	**101,397**	**47,799**	**9,487**	**3,138**	**9,424**	**172,747**
Additions	-	-	47	3,997	2,987	414	11,450	18,895
Transfers	-	-	2,004	1,772	94	96	(3,966)	-
Depreciation charge	-	(89)	(5,563)	(6,802)	(1,612)	(799)	-	(14,865)
Impairment loss	-	-	-	-	-	-	(9)	(9)
Reversal of impairment losses recognised in prior periods	-	-	10	41	-	-	314	365
Disposals	(6)	-	(284)	(1,486)	(540)	(220)	(442)	(2,978)
Impairment disposals	-	-	-	-	-	-	2	2
Transfer from inventories	-	-	-	271	-	9	659	939
Transfers to intangible assets (Note 20)	-	-	-	-	-	-	(2,669)	(2,669)
Impairment in construction in progress (transfers to intangible assets)	-	-	-	-	-	-	777	777
Transfer from/(to) investment property	-	-	3	89	-	(29)	-	63
Depreciation charge and impairment losses on disposals/transfers	-	-	191	1,385	521	212	7	2,316
Changes in estimates (Note 34)	-	-	(1,859)	13	-	-	-	(1,846)
Transfer to mine development assets (Note 22)	-	-	-	-	-	-	(2,255)	(2,255)
Translation to presentation currency	-	-	-	-	4	1	-	5
At 31 December 2021								
Cost	407	2,035	139,246	95,311	24,560	7,048	13,960	282,567
Accumulated depreciation and impairment	-	(1,035)	(43,300)	(48,232)	(13,619)	(4,226)	(668)	(111,080)
Carrying amount	**407**	**1,000**	**95,946**	**47,079**	**10,941**	**2,822**	**13,292**	**171,487**
Additions	17	-	107	7,334	5,225	431	11,011	24,125
Transfers	-	38	1,941	1,150	43	104	(3,276)	-
Depreciation charge	-	(89)	(5,633)	(6,742)	(1,934)	(732)	-	(15,130)
Impairment loss	-	-	-	-	-	-	(409)	(409)
Reversal of impairment losses recognised in prior periods	-	-	245	156	-	-	7	408
Disposals	-	-	(211)	(1,765)	(288)	(143)	(7)	(2,414)
Impairment disposals	-	-	-	-	-	-	2	2
Transfer from inventories	-	-	38	506	-	6	445	995
Transfers to intangible assets (Note 20)	-	-	-	102	-	-	489	591
Transfer from/(to) investment property	-	-	(17)	-	-	-	-	(17)
Depreciation charge and impairment losses on disposals/transfers	-	-	207	1,525	369	136	-	2,237
Changes in estimates (Note 34)	-	-	8,630	585	-	-	-	9,215

Transfer to mine development assets (Note 22)	-	-	-	-	-	-	(2,789)	(2,789)
Translation to presentation currency	-	-	-	-	(1)	-	-	(1)
At 31 December 2022								
Cost	424	2,073	150,996	101,960	28,082	7,446	19,833	310,814
Accumulated depreciation and impairment	-	(1,124)	(49,743)	(52,030)	(13,727)	(4,822)	(1,068)	(122,514)
Carrying amount	**424**	**949**	**101,253**	**49,930**	**14,355**	**2,624**	**18,765**	**188,300**

21 Property, Plant and Equipment (Continued)

Depreciation expense of Tenge 12,774 million (2021: Tenge 12,773 million) was charged to cost of sales, Tenge 56 million (2021: Tenge 65 million) to distribution expenses, Tenge 1,257 million (2021: Tenge 1,243 million) to general and administrative expenses, Tenge 137 million (2021: 170 million tenge) to other expenses. The remaining depreciation expense is included in finished goods, work-in-process and other inventory.

At 31 December 2022 construction in progress included technical re-equipment of Ulba Metallurgical Plant JSC in the amount of Tenge 1,087 million (2021: Tenge 1,311 million),construction of a refinery in the amount of Tenge 3,267 million at JV Inkai LLP, construction of facilities for the development of a mine at Appak LLP in the amount of Tenge 681 million.

At 31 December 2022, the Group had contractual capital expenditure commitments in respect of property, plant and equipment of Tenge 5,310 million (2021: Tenge 5,615 million).

There are no capitalized borrowing costs in 2022 (2021: nil).

At 31 December 2022, the gross carrying value of fully depreciated property, plant and equipment still in use was Tenge 34,870 million (2021: Tenge 25,943 million).

Depreciation and amortisation charged on long-term assets for the years ended 31 December are as follows:

In millions of Kazakhstani Tenge	**2022**	**2021**
Mine development assets	42,045	34,185
Mineral rights	28,237	27,917
Property, plant and equipment	15,130	14,865
Intangible assets	1,269	1,543
Right-of-use assets	19	148
Total accrued depreciation and amortisation	**86,700**	**78,658**

Depreciation and amortisation charged to profit or loss for the years ended 31 December are as follows:

In millions of Kazakhstani Tenge	**2022**	**2021**
Cost of sales	79,037	66,429
General and administrative expenses	2,110	2,493
Distribution expenses	56	65
Other expenses	175	275
Total depreciation and amortisation charged to profit or loss	**81,378**	**69,262**

Mine Development Assets

In millions of Kazakhstani Tenge	**Field preparation**	**Site restoration costs**	**Ion exchange resin**	**Total**
At 1 January 2021				
Cost	285,442	8,134	17,890	311,466
Accumulated depreciation and impairment	(172,979)	(4,310)	(5,858)	(183,147)
Carrying amount	**112,463**	**3,824**	**12,032**	**128,319**
Third-party services	27,870	-	-	27,870
Material used	6,823	-	867	7,690
Transfer from property, plant and equipment (Note 21)	2,255	-	-	2,255
Transfer from exploration and evaluation assets (Note 24)	649	384	-	1,033
Depreciation charge	(33,260)	(193)	(732)	(34,185)

Reversal of impairment	-	199	-	199
Changes in accounting estimates (Note 34)	631	4,861	-	5,492
At 31 December 2021				
Cost	317,560	13,532	18,757	349,849
Accumulated depreciation and impairment	(200,129)	(4,457)	(6,590)	(211,176)
Carrying amount	**117,431**	**9,075**	**12,167**	**138,673**
Third-party services	43,649	-	-	43,649
Material used	16,238	-	966	17,204
Transfer from property, plant and equipment (Note 21)	2,789	-	-	2,789
Depreciation charge	(40,940)	(590)	(515)	(42,045)
Changes in accounting estimates (Note 34)	693	1,211	-	1,904
At 31 December 2022				
Cost	380,929	14,743	19,723	415,395
Accumulated depreciation and impairment	(241,069)	(5,047)	(7,105)	(253,221)
Carrying amount	**139,860**	**9,696**	**12,618**	**162,174**

Estimated site restoration costs are capitalised when the Group recognises a provision for site restoration. The carrying value of the provision and site restoration assets is reassessed at each reporting period end (Notes 4 and 34).

Mineral Rights

In millions of Kazakhstani Tenge	
At 1 January 2021	
Cost	646,153
Accumulated amortisation and impairment	(68,642)
Carrying amount	**577,511**
Additions	2,466
Transfer from exploration and evaluation assets (Note 24)	897
Amortisation for the period	(27,917)
At 31 December 2021	
Cost	649,452
Accumulated amortisation and impairment	(96,495)
Carrying amount	**552,957**
Additions	420
Amortisation for the period	(28,237)
At 31 December 2022	
Cost	649,872
Accumulated amortisation and impairment	(124,732)
Carrying amount	**525,140**

Exploration and Evaluation Assets

In millions of Kazakhstani Tenge	**Tangible assets**	**Intangible assets**	**Total**
At 1 January 2021	19,523	3,422	22,945

Additions	3,425	-	3,425
Transfer to mine development assets (Note 22)	(1,033)	-	(1,033)
Transfer to mineral rights (Note 23)	-	(897)	(897)
Changes in accounting estimates	(62)	-	(62)
At 31 December 2021	**21,853**	**2,525**	**24,378**
Additions	2,393	-	2,393
Changes in accounting estimates	(228)	-	(228)
At 31 December 2022	**24,018**	**2,525**	**26,543**

Investments in Associates

The table below summarises the movements in the carrying amount of the Group's investment in associates:

In millions of Kazakhstani Tenge	**2022**	**2021**
Carrying value at 1 January	116,892	84,626
Share of results of associates	75,736	47,294
Dividends received from associates	(38,504)	(15,028)
Carrying value at 31 December	**154,124**	**116,892**

The Group's interests in its principal associates were as follows:

			2022		**2021**	
	Country of incorporation	**Principal activities**	**% ownership interest held / % of voting rights**	**Carrying value in millions of Tenge**	**% ownership interest held / % of voting rights**	**Carrying value in millions of Tenge**
JV KATCO LLP	Kazakhstan	Extraction, processing and export of uranium products	49%	113,920	49%	85,123
JV Zarechnoye JSC	Kazakhstan	Extraction, processing and export of uranium products	49.98%	18,197	49.98%	10,968
JV South Mining Chemical Company LLP	Kazakhstan	Extraction, processing and export of uranium products	30%	16,147	30%	13,196
Kyzylkum LLP	Kazakhstan	Extraction, processing and export of uranium products	50%	5,017	50%	6,616
Caustic JSC	Kazakhstan	Supply of caustic soda	28%	-	40%	-
SSAP LLP	Kazakhstan	Production of sulphuric acid	9.89%	742	9.89%	693
JV Rusburmash Kazakhstan LLP	Kazakhstan	Geological exploration, drilling services	49%	-	49%	183
Zhanakorgan-Transit LLP	Kazakhstan	Transportation	40%	101	40%	113
Total investments in associates				**154,124**		**116,892**

On 22 January 2018 JV KATCO LLP ("the Partnership") received a new mining allotment for site #2 (Tortkuduk) where additional uranium reserves were found. Development of the South Tortkuduk project was approved by the participants during 2017-2018. However, no formal addendum to the Subsoil use contract was signed for the extension of the exploration period in 2015-2018. In November 2020 the Ministry of Energy refused application of the Partnership to conclude an addendum to the Subsoil use contract for commercial development of the South Tortkuduk field. In December 2020, the Partnership applied to the Supreme Court to appeal against the actions of the Ministry of Energy. On May 24, 2021, the Supreme Court issued a decision on leaving the Partnership's claim without consideration. On November 19, 2021, the Partnership filed an appeal against this decision.

On 17 January 2022, the Supreme Court of the Republic of Kazakhstan rejected the appeal. In 2021, the Partnership and the Government of the Republic of Kazakhstan represented by the Ministry of Energy and Ministry of Justice commenced negotiations to settle the dispute. As a result of the negotiations, on 16 August 2022, Addendum No. 10 to the Subsoil use contract was signed to extend the exploration period, a mining allotment was received and the work program was approved. Also on 31 December 2022, Addendum No. 11 to the Subsoil use contract was signed with an update of the work program.

On 11 August 2022, the Partnership participants made amendments to the Partnership Agreement on further development of JV KATCO LLP dated 10 April 2017, under which the Group became entitled to compensation in the amount of Tenge 7,671 million from the second participant, which was recognized as income in 2022 (Note 14) and other receivables (Note 27).

According to the Partnership Agreement, the Group also became entitled to an additional 11% of the Partnership's annual profit allocation starting from 2022 and until the end of JV KATCO LLP operations, with the ownership interest being unchanged.

25 Investments in Associates (Continued)

This additional 11% impacts the allocation of JV KATCO LLP dividends, therefore, in these consolidated financial statements the Group recognized a share in the results of the Partnership for 2022 in the amount of 60%. Net assets are still recognized as 49% in accordance with the participants initial agreement.

Sales of share in Caustic JSC

On 30 December 2021 the Group concluded an agreement for the sale of its 40% stake in Caustic JSC to Trade House "United Chemical Technologies" LLP, one of the major shareholders of Caustic JSC. The selling price is Tenge 1,214 million based upon an independent appraisal of fair market value. According to the terms of the sales contract, payment and corresponding transfer of the ownership shares is to be made in instalments. The first tranche of Tenge 363 million was received in January 2022. The act of transfer of ordinary shares equivalent to 12% of the Group’s holding in Caustic JSC was signed on February 2022. The remaining consideration must be paid by the buyer within 24 months from the date of signing the contract. As of 31 December 2022 the remaining 28% investment in Caustic JSC is presented as an asset held for sale in the amount of Tenge 850 million.

25 Investments in Associates (Continued)

Summarised financial information for 2022 in respect of each of the Group's material associates is set out below. The summarised financial information below represents amounts shown in the associates' financial statements prepared in accordance with IFRS, adjusted by the Group for equity accounting purposes.

In millions of Kazakhstani Tenge	Kyzylkum LLP	JV KATCO LLP	JV South Mining Chemical Company LLP	JV Zarechnoye JSC	Other	Total
Current assets	6,757	132,298	77,223	26,011	2,515	244,804
Including cash	5	97,300	13,855	7,147	338	118,645
Non-current assets	15,619	132,022	42,114	19,593	11,493	220,841
Total assets	**22,376**	**264,320**	**119,337**	**45,604**	**14,008**	**465,645**
Current liabilities	(6,766)	(8,822)	(33,059)	(4,068)	(5,099)	(57,814)
Including financial liabilities net of trade and other accounts payable and provisions	(3,397)	(82)	(21,920)	(32)	(894)	(26,325)
Incl. loan from the Company	(3,397)	-	-			(3,397)
Non-current liabilities	(4,038)	(20,139)	(10,060)	(3,973)	(1,308)	(39,518)
Including financial liabilities net of trade and other accounts payable and provisions	(2,852)	-	(3,286)	-	(835)	(6,973)
Incl. loan from the Company	(2,852)	-	-	-	-	(2,852)
Total liabilities	**(10,804)**	**(28,961)**	**(43,119)**	**(8,041)**	**(6,407)**	**(97,332)**
Net assets	**11,572**	**235,359**	**76,218**	**37,563**	**7,601**	**368,313**
Group's share of net assets of associates	5,786	115,326	22,865	18,774	390	163,141
Unrealised profit in the Group	-	(10,592)	(6,719)	(619)	-	(17,930)
Additional allocation of profits	-	9,118	-	-	-	9,118
Other	(768)	-	-	42	371	(355)
Goodwill	-	68	-	-	82	150
Carrying value of investments in associates	**5,018**	**113,920**	**16,146**	**18,197**	**843**	**154,124**
Total revenue	10,572	146,304	131,039	44,538	13,757	346,210
Depreciation and amortisation	(682)	(12,262)	(6,328)	(6,218)	(643)	(26,133)
Finance income	162	127	655	109	87	1,140
Finance costs	(435)	(1,282)	(1,393)	(347)	(314)	(3,771)
Foreign exchange gain/(loss)	(642)	4,931	(1,331)	(1,288)	-	1,670
(Impairment losses)/reversal of impairment losses	(2)	180	26	1	(1)	204
Income tax	(368)	(24,035)	(21,706)	(5,073)	(338)	(51,520)
Profit for the year	(1,039)	82,891	76,114	18,939	(567)	176,338
Total comprehensive income	**(1,039)**	**82,891**	**76,114**	**18,939**	**(567)**	**176,338**
Unrealised profit	-	(2,141)	(4,307)	777	-	(5,671)
Share in accumulated unrecognized losses	-	-	-	-	519	519
Share of result of associates	(520)	47,593	18,528	10,242	(107)	75,736
Dividends received	1,080	18,796	15,576	3,013	39	38,504

25 Investments in Associates (Continued)

Summarised financial information for 2021 in respect of each of the Group's material associates is set out below. The summarised financial information below represents amounts shown in the associates' financial statements prepared in accordance with IFRS, adjusted by the Group for equity accounting purposes.

In millions of Kazakhstani Tenge	Kyzylkum LLP	JV KATCO LLP	JV South Mining Chemical Company LLP	JV Zarechnoye JSC	Other	Total
Current assets	3,897	125,413	57,210	15,224	2,742	204,486
Including cash	*2,243*	*88,359*	*31,079*	*5,610*	*461*	*127,752*
Non-current assets	22,383	85,480	35,287	15,777	11,510	170,437
Total assets	**26,280**	**210,893**	**92,497**	**31,001**	**14,252**	**374,923**
Current liabilities	(4,318)	(10,192)	(29,373)	(4,671)	(5,283)	(53,837)
Including financial liabilities net of trade and other accounts payable and provisions	(3,171)	(329)	(22,143)	(1,595)	(3,266)	(30,504)
Incl. loan from the Company	(3,169)	-	-	-	-	(3,169)
Non-current liabilities	(7,192)	(9,874)	(11,099)	(1,676)	(408)	(30,249)
Including financial liabilities net of trade and other accounts payable and provisions	(6,152)	(64)	(7,645)	(27)	-	(13,888)
Incl. loan from the Company	*(6,152)*	-	-	-	-	*(6,152)*
Total liabilities	**(11,510)**	**(20,066)**	**(40,472)**	**(6,347)**	**(5,691)**	**(84,086)**
Net assets	**14,770**	**190,827**	**52,025**	**24,654**	**8,561**	**290,837**
Group's share of net assets of associates	7,384	93,506	15,608	12,321	1,052	129,871
Unrealised profit in the Group	-	(8,451)	(2,412)	(1,396)	-	(12,259)
Other movements	(768)	-	-	43	(145)	(870)
Goodwill	-	68	-	-	82	150
Carrying value of investments in associates	**6,616**	**85,123**	**13,196**	**10,968**	**989**	**116,892**
Total revenue	**12,486**	**116,791**	**91,587**	**23,727**	**10,166**	**254,757**
Depreciation and amortisation	(672)	(9,571)	(5,904)	(5,781)	(612)	(22,540)
Finance income	66	18	381	-	31	496
Finance costs	(510)	(857)	(1,263)	(166)	(430)	(3,226)
Net foreign exchange gain/(loss)	(270)	2,032	(125)	126	-	1,763
(Impairment losses)/reversal of impairment losses	(2)	(1,542)	(16)	(11)	1	(1,570)
Income tax	(536)	(16,130)	(13,210)	(1,818)	(24)	(31,718)
Profit/(loss) for the year	2,385	61,016	52,477	6,853	101	122,832
Total comprehensive income	**2,385**	**61,016**	**52,477**	**6,853**	**101**	**122,832**
Unrealised profit	-	(620)	(1,408)	(872)	-	(2,900)
Share of result of associates	1,193	29,278	14,334	2,553	(64)	47,294
Dividends received	-	-	12,459	2,569	-	15,028

Investments in Joint Ventures

The table below summarises the movements in the carrying amount of the Group's investment in joint ventures:

In millions of Kazakhstani Tenge	**2022**	**2021**
Carrying value at 1 January	37,803	35,261
Share of results of joint ventures	13,340	4,289
Dividends received from joint ventures	(6,935)	(2,080)
Other	-	333
Carrying value at 31 December	**44,208**	**37,803**

The Group's interests in its principal joint ventures were as follows:

			2022		2021	
	Country of incorporation	**Principal activity**	**% ownership interest held**	**Carrying value in millions of Tenge**	**% ownership interest held**	**Carrying value in millions of Tenge**
Semizbay-U LLP	Kazakhstan	Extraction, processing and export of uranium products	51.00%	28,252	51.00%	20,945
Ulba-FA LLP	Kazakhstan	Production of fuel assemblies and their components	51.00%	957	51.00%	2,705
JV Budenovskoe LLP	Kazakhstan	Extraction, processing and export of uranium products	51.00%	5,428	51.00%	6,071
Uranenergo LLP	Kazakhstan	Transfer and distribution of electricity, grid operations	79.23%	3,078	79.23%	3,095
SKZ-U LLP	Kazakhstan	Production of sulphuric acid	49.00%	6,493	49.00%	4,987
JV UKR TVS CJSC	Ukraine	Production of nuclear fuel	33.33%	-	33.33%	-
Total investments in joint ventures				**44,208**		**37,803**

Ulba-FA LLP

In December 2020 the Group together with China General Nuclear Power Corporation (CGNPC) finished construction of a fuel assembly plant in Kazakhstan with a capacity to supply Chinese nuclear power plants with up to 200 tons of enriched uranium per annum. The plant is owned by Ulba-Fa LLP, a joint-venture between subsidiaries of the Company and CGNPC with 51% and 49% respective interests.

During 2021 the plant was certified by the owner of the technology for the production of fuel assemblies and was also recognised as a certified supplier of nuclear fuel to nuclear power plants in China from the end user of the plant's products (CGNPC Uranium Resources Company Limited (CGNPC-URC). A long-term contract for the supply of fuel assemblies between Ulba-FA LLP and CGNPC-URC was entered into in May 2021 and in 2022 the entity started its sales activities.

Uranenergo LLP

Management concluded that the Group does not have the ability to exercise control over Uranenergo LLP. Accordingly, this investment is classified as an investment in a joint venture.

26 Investments in Joint Ventures (Continued)

Summarised financial information on respect of the Group's material joint ventures is set out below. The summarised financial information below represents amounts shown in the joint ventures' financial statements prepared in accordance with IFRS, adjusted by the Group for equity accounting purposes.

	Semizbay-U LLP		JV Budenovskoe LLP		Ulba-FA LLP		Other		Total	
In millions of Kazakhstani Tenge	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
Current assets	37,976	30,089	153	29	121,989	51,164	5,121	3,974	165,239	85,256
Including cash	18,725	13,132	114	22	19,791	5,747	1,164	219	39,794	19,120
Non-current assets	25,111	20,687	28,801	25,791	26,142	21,939	24,808	24,846	104,862	93,263
Total assets	**63,087**	**50,776**	**28,954**	**25,820**	**148,131**	**73,103**	**29,929**	**28,820**	**270,101**	**178,519**
Current liabilities	(6,153)	(7,090)	(1,079)	(296)	(92,883)	(35,769)	(9,675)	(9,735)	(109,790)	(52,890)
Including financial liabilities net of trade and other accounts payable and provisions	(66)	(3,183)	(31)	(15)	(4,147)	(1,680)	(3,219)	(6,007)	(7,463)	(10,885)
Non-current liabilities	(6,100)	(4,412)	(5,320)	(1,933)	(53,373)	(32,031)	(2,354)	(4,239)	(67,147)	(42,615)
Including financial liabilities net of trade and other accounts payable and provisions	-	(66)	(5,123)	(1,933)	(30,818)	(31,241)	-	(2,877)	(35,941)	(36,117)
Total liabilities	**(12,253)**	**(11,502)**	**(6,399)**	**(2,229)**	**(146,256)**	**(67,800)**	**(12,029)**	**(13,974)**	**(176,937)**	**(95,505)**
Net assets	**50,834**	**39,274**	**22,555**	**23,591**	**1,875**	**5,303**	**17,900**	**14,846**	**93,164**	**83,014**
Group's share of net assets of joint ventures	25,925	20,030	11,503	12,031	957	2,705	10,213	8,724	48,598	43,490
Goodwill	4,105	4,105	-	-	-	-	(1,374)	(1,374)	2,731	2,731
Impairment losses	-	-	-	-	-	-	(21)	(21)	(21)	(21)
Other	149	120	(115)	-	-	-	753	753	787	873
Unrealised gain	-	-	(5,960)	(5,960)	-	-	-	-	(5,960)	(5,960)
Unrealised profit in the Group	(1,927)	(3,310)	-	-	-	-	-	-	(1,927)	(3,310)
Carrying value of investments in joint ventures	**28,252**	**20,945**	**5,428**	**6,071**	**957**	**2,705**	**9,571**	**8,082**	**44,208**	**37,803**
Total revenue	55,660	40,913	-	-	22,929	-	15,708	12,769	94,297	53,682
Depreciation and amortisation	(5,758)	(4,836)	(13)	-	(292)	(559)	(1,342)	(1,337)	(7,405)	(6,732)
Finance income	498	62	4	-	35	4	11	33	548	99
Finance costs	(501)	(501)	(252)	(1)	(1,489)	(1,466)	(119)	(107)	(2,361)	(2,075)
Foreign exchange gain/(loss)	807	(146)	(98)	5	(2,374)	(592)	(455)	(236)	(2,120)	(969)
Impairment losses	(387)	-	(40)	(14)	(1)	(11)	(5)	-	(433)	(25)
Income tax	(6,243)	(3,978)	(149)	(61)	(425)	(397)	(792)	(642)	(7,609)	(5,078)
Profit/(loss) for the year	25,215	15,569	(1,261)	(280)	(3,428)	(3,788)	3,098	2,505	23,624	14,006
Other comprehensive income/(loss)	-	34	-	-	-	-	-	2	-	36
Total comprehensive income/(loss)	**25,215**	**15,603**	**(1,261)**	**(280)**	**(3,428)**	**(3,788)**	**3,098**	**2,507**	**23,624**	**14,042**
Other	1,382	(2,815)	-	-	-	-	-	-	1,382	(2,815)
Share of results of joint ventures	**14,242**	**5,125**	**(643)**	**(142)**	**(1,749)**	**(1,932)**	**1,490**	**1,238**	**13,340**	**4,289**
Dividends received	6,935	2,080	-	-	-	-	-	-	6,935	2,080

Accounts Receivable

In millions of Kazakhstani Tenge	2022	2021
Trade accounts receivable	251,697	215,483
Trade accounts receivable from related parties	7,024	4,713
Total gross trade accounts receivable	**258,721**	**220,196**
Provision for impairment of trade receivables	(87)	(148)
Provision for impairment of trade receivables from related parties	(3)	(24)
Total current net trade accounts receivable	**258,631**	**220,024**
Other accounts receivable	12,389	175
Other accounts receivable from related parties	81	44
Total gross other accounts receivable	**12,470**	**219**
Provision for impairment of other receivables	(180)	(105)
Total net other accounts receivable	**12,290**	**114**
Total current accounts receivable	**270,921**	**220,138**

Other accounts receivable include:

- joint operations receivable of Tenge 4,568 million that represent receivable of the Group from the second participant under the terms of the joint operations contractual agreements that require equal volumes of uranium to be purchased during the period by the participants. In 2022 the second participant of joint operation did not purchase the required volume; and
- compensation from the second participant of JV KATCO LLP of Tenge 7,374 million, adjusted for foreign exchange loss from initial amount of Tenge 7,671 million (Note 25).

Information on the Group's exposure to credit and currency risks and provision for impairment for accounts receivable is disclosed in Note 40.

Other Financial Assets

In millions of Kazakhstani Tenge	2022	2021
Non-current assets		
Restricted cash	29,044	17,654
Investment in ANU Energy	17,066	-
Long-term debt securities	9,202	-
Loans to related parties	2,536	5,493
Other	1,523	524
Total other non-current assets	**59,371**	**23,671**
Current assets		
Restricted cash	15,923	427
Loans to related parties	3,491	3,357
Short-term debt securities	72	4,986
Term deposit	930	43,220
Other	262	259
Total other current assets	**20,678**	**52,249**

28 Other Financial Assets (Continued)

Restricted cash

In accordance with the terms of its subsoil use contracts, the Group transfers cash to long-term bank deposits to finance future site restoration activities. As at 31 December 2022 the balance of restricted cash held in long-term bank deposits related to financing of future site restoration activities was Tenge 29,044 million (2021: Tenge 17,654 million).

Short-term restricted cash includes payments of 32.3 million US Dollar, or Tenge 14,812 adjusted for foreign exchange gains and amounting to Tenge 14,956 million as at 31 December 2022, made by the Group in March 2022 to a uranium enrichment service provider whose Russian bank was subsequently included in the list of legal entities that fell under the sanctions of the Office of Foreign Assets Control of the US Department of the Treasury (OFAC).The correspondent bank which initially blocked the payment funds returned the amount to the Group (including interest) after the reporting period (Note 43).

Investments in ANU Energy

In accordance with the Framework Agreement signed on November 22, 2021, the Group and Genchi Global Limited, agreed to establish ANU Energy OEIC Ltd. The purpose of ANU Energy OEIC Ltd. is to store physical uranium as a long-term investment. The Group made an investment of 24.25 million US dollars in March 2022 (equivalent to Tenge 12,368 million), which is 32.7% of the entity's shares. The Group does not have representation in the governing body of the entity and does not take part in making decision key strategic issues of the entity. Accordingly, the Group does not have a significant impact on the management of the Fund, and therefore the Group recognizes this investment at fair value through profit or loss. As of December 31, 2022, the Group’s investment in ANU Energy OEIC Ltd. amounts to Tenge 17,066 and the Group recognized the fair value adjustment of Tenge 4,699 million as finance income (Note 17).

In accordance with the Framework Agreement, the Group and ANU Energy OEIC Ltd. signed a short-term contract for the sale and purchase of natural uranium concentrates, under which the Group delivered natural uranium concentrates on May 12, 2022. Under the terms of the same Framework Agreement the Group has received a uranium loan from ANU Energy OEIC Ltd. in May 2022 (Note 36).

Debt securities

On May 12, 2022, in order to diversify its treasury portfolio, the Group invested in Eurobonds issued by Development Bank of Kazakhstan JSC, in the amount of 19.9 million US dollars, or Tenge 8,804 million with a maturity of 3 years and a coupon rate of 5.75%. The bonds are measured at amortized cost. As of 31 December 2022 the amount of the long-term investment is Tenge 9,274 million.

The Group also purchases short-term debt securities. During the year the Group purchased Tenge 80,219 million and redeemed Tenge 86,006 million (2021: Tenge 126,331 and Tenge 127,341) of such securities, mainly issued by the National Bank of the Republic of Kazakhstan. As of 31 December 2021 short-term securities were represented by investment in corporate bonds of Eurasian Bank of Development JSC, denominated in Tenge with a maturity of 3 months expiring on 12 January 2022 with a discount rate of 9.6%.

Loans to related parties

In millions of Kazakhstani Tenge	**2022**	**2021**
Non-current		
Kyzylkum LLP	2,548	5,547
Provision for impairment	(12)	(54)
Total non-current loans	**2,536**	**5,493**
Current		
Kyzylkum LLP	3,397	3,170
Uranenergo LLP	95	189
Provision for impairment	(1)	(2)
Total current loans	**3,491**	**3,357**

28 Other Financial Assets (Continued)

In 2010, the Group provided an interest-bearing long-term loan to Kyzylkum LLP with maturity to 2024. The loan is collateralised by the property of Kyzylkum LLP. From December 2015, JV Khorasan-U LLP is a co-borrower and guarantor of a loan to Kyzylkum LLP.

In June 2021, the Group provided repayable financial assistance to Uranenergo LLP secured by property in the form of a revolving credit line with a term until June 30, 2023 to replenish working capital. As part of this line, cash tranches for up to 12 months can be provided.The weighted average annual interest rate on loans to related parties in 2022 was 8.5% (2021: 8.5%). According to internal estimates, the level of credit risk for these loans is at an acceptable level.

Other Non-Financial Assets

In millions of Kazakhstani Tenge	**2022**	**2021**
Non-current		
VAT recoverable	8,725	11,315
Long-term inventories	7,299	7,247
Investment property	2,046	2,065
Advances for non-current assets	1,782	1,857
Prepaid expenses	789	926
Other assets	638	848
Total other non-current assets	**21,279**	**24,258**
Current		
Advances for goods and services	11,085	3,026
Advances to related parties for goods and services	3,834	1,244
Prepaid expenses	2,059	1,465
Prepaid insurance	1,309	1,025
Prepaid taxes other than income tax	443	371
Other assets	544	6
Total other current assets	**19,274**	**7,137**

Inventories

In millions of Kazakhstani Tenge	**2022**	**2021**
Finished goods and goods for resale	309,950	223,750
Including uranium products	*308,168*	*222,195*
Work-in-process	40,899	30,409
Raw materials	19,633	14,879
Materials in processing	15,198	3,091
Other materials	7,486	5,709
Fuel	1,488	479
Spare parts	989	789
Provision for obsolescence and write-down to net realisable value	(3,022)	(3,250)
Total inventories	**392,621**	**275,856**

Movements in the provision for obsolescence are as follows:

In millions of Kazakhstani Tenge	**2022**	**2021**
Balance at 1 January	(3,250)	(2,755)
Reversal of provision during the year	1,011	623
Inventory write off during the year	77	130
Accrual of provision during the year	(821)	(1,238)
Translation of foreign currency	(39)	(10)
Balance at 31 December	**(3,022)**	**(3,250)**

Cash and Cash Equivalents

In millions of Kazakhstani Tenge	**2022**	**2021**

Current bank accounts	131,260	138,867
Demand deposits	38,274	22,338
Cash in hand	14	8
Provision for impairment	(12)	(23)
Total cash and cash equivalents	**169,536**	**161,190**

Share Capital

At 31 December 2022 the total number of authorised and paid ordinary shares is 259,356,608 (2021: 259,356,608) of which 75% is owned by Samruk-Kazyna JSC and 25% of the shares/GDRs are freely floated with listing on the Astana International Exchange (AIX) and the London Stock Exchange (LSE). One GDR represents a share in one share. Each ordinary share carries the right to one vote. Registered share capital is Tenge 37,051 million.

Dividends declared and paid during the year were as follows:

In millions of Kazakhstani Tenge	**2022**	**2021**
Dividends payable at 1 January	-	-
Dividends declared during the year	227,388	150,082
Dividends paid during the year	(227,388)	(150,082)
Dividends payable at 31 December	**-**	**-**
Dividends declared during the year per share, in Tenge	**877**	**579**

Loans and Borrowings

In millions of Kazakhstani Tenge	**2022**	**2021**
Non-current		
Bonds	83,300	77,700
Total non-current loans and borrowings	**83,300**	**77,700**
Current		
Promissory notes issued	7,002	10,514
Bonds	24,016	803
Bank loans	23,953	-
Total current loans and borrowings	**54,971**	**11,317**
Total loans and borrowings	**138,271**	**89,017**

The company placed US Dollar-indexed bonds on 27 September 2019 with a maturity of 27 October 2024 and a coupon of 4% per annum. The nominal value of one bond is Tenge 1,000, total volume is 70 million.

In December 2022, the Company placed short-term commercial bonds in the amount of US Dollar 50 million on the trading floor of Kazakhstan Stock Exchange JSC (“KASE”) with a maturity in January 2023 and a coupon of 4.32% (Note 43).

Current bank borrowings primarily include short-term loan from ForteBank JSC in amount 50 million US dollars with a maturity in January 2023. Bank loans were obtained for liquidity needs.

33 Loans and Borrowings (Continued)

Promissory notes were issued by a subsidiary of the Group JV Khorasan-U LLP in December 2014 to repay amounts owing for mine development assets. According to the terms, the promissory notes are payable on demand at an interest rate of 0.1%. As of 31 December 2022, the right of claim under these promissory notes belongs to Kyzylkum LLP, an associate of the Group (Note 8).

Information about the Group's loans and borrowings is presented as follows:

In millions of Kazakhstani Tenge	**Currency**	**Maturity**	**2022**	**2021**
Bank loans				
Fortebank JSC	US Dollar	2023	23,202	-
Halyk Bank JSC	Tenge	2023	751	-
Total bank loans			**23,953**	**-**
Bonds				
Bonds	US Dollar	2024, 2023	107,316	78,503
Total bonds			**107,316**	**78,503**
Promissory notes issued				
Kyzylkum LLP	Tenge	on demand	7,002	10,514
Total promissory notes issued			**7,002**	**10,514**

The Group's loans and borrowings were unsecured. In 2022, the Group's weighted average interest rate on fixed interest rate loans was 3.62% (2021: 3.52%).

Reconciliation of debt

The table below shows an analysis of the debt amount and changes in the Group's liabilities arising from financing activities for each of the periods presented:

In millions Kazakhstani Tenge	**Loans and borrowings**	**Lease liabilities**	**Liability of ownership interest in a subsidiary**	**Total**
Debt at 31 December 2020	97,826	746	-	98,572
Proceeds from loans and borrowings	65,525	-	-	65,525
Foreign currency translation	1,749	7	-	1,756
Interest accrued	3,168	60	-	3,228
Repayment	(76,108)	(452)	-	(76,560)
Interest paid	(3,143)	(122)	-	(3,265)
Recognition of liability related to put option	-	-	185,210	185,210
De-recognition of liability related to put option (Note 39)	-	-	(185,210)	(185,210)
Other non-cash changes	-	52	-	52
Debt at 31 December 2021	**89,017**	**291**	**-**	**89,308**
Proceeds from loans and borrowings	70,905	-	-	70,905
Foreign currency translation	4,760	(2)	-	4,758
Interest accrued	3,689	20	-	3,709
Repayment	(26,555)	(162)	-	(26,717)
Interest paid	(3,545)	(25)	-	(3,570)
Other non-cash changes	-	51	-	51
Debt at 31 December 2022	**138,271**	**173**	**-**	**138,444**

Provisions

In millions of Kazakhstani Tenge	Compensation for occupational diseases	Environment protection	Site restoration	Other	Total
At 1 January 2021					
Non-current	154	3,061	23,135	43	26,393
Current	77	96	706	-	879
Total	**231**	**3,157**	**23,841**	**43**	**27,272**
Provision for the year	14	(1)	-	32	45
Unwinding of discount	23	241	1,993	2	2,259
Disposals	-	-	(78)	-	(78)
Provision used	(72)	-	272	-	200
Change in estimates	-	(2,040)	5,403	-	3,363
At 31 December 2021					
Non-current	129	1,261	30,725	77	32,192
Current	67	96	706	-	869
Total	**196**	**1,357**	**31,431**	**77**	**33,061**
Provision for the year	45	28	-	197	270
Transfers	-	77	-	(44)	33
Unwinding of discount	19	128	2,745	-	2,892
Provision used	(61)	(10)	-	-	(71)
Change in estimates	-	7,811	3,940	45	11,796
At 31 December 2022					
Non-current	133	9,268	34,074	-	43,475
Current	66	123	4,042	275	4,506
Total	**199**	**9,391**	**38,116**	**275**	**47,981**

Provision for environmental protection

The Group has a legal obligation to dispose of radioactive waste, eliminate and decommission contaminated items of property, plant and equipment after the closure of the facility (liquidation of the consequences of the operation of facilities). The amount of the provision for landfill restoration and asset remediation is determined using the nominal prices effective at the reporting dates, using the projected rate of long-term average inflation for the expected period of operation of landfills and the discount rate at the end of the reporting period. The change in estimate in 2022 mainly relates to inclusion of provision of Ulba Metallurgical Plant JSC as described in Note 4.

The nominal cost of restoration of liquidation facilities as of 31 December 2022 is Tenge 134,438 million (2021: Tenge 5,710 million). Key assumptions used in estimations are described in Note 4.

Provision for restoration of mine sites

The Group estimates the site restoration costs for each mine operated by the Group. The nominal cost of restoration of mine sites as of 31 December 2022 is Tenge 84,209 million (2021: Tenge 63,989 million). The amount of provision for restoration of mine sites was calculated using current prices (the prices effective at the reporting date) for expenditures to be incurred and then inflated using the forecast inflation rate effective for the period until the settlement of restoration.

In view of the long-term nature of provisions, there is uncertainty concerning the actual amount of expenses that will be incurred in performing site restoration activities for each mine (Note 4). Changes in estimates occur due to annual revision of costs for site liquidation including newly drilled wells, sand traps and other facilities subject to subsequent liquidation.

In accordance with the terms of the subsurface use agreements the Group places cash in long-term bank deposits to finance future site restoration activities. As at 31 December 2022, the accumulated transfers to restricted deposits amounted to Tenge 33,371 million (2021: Tenge 21,963 million) (Note 28).

34 Provisions (Continued)

Key assumptions which serve as the basis for determining the carrying value of the provision for restoration of mine sites provision are as follows:

- there is a high probability that the Group will proceed to development and production stages for its fields which are currently under exploration. This creates a constructive obligation for the Group to recognise a site restoration provision for all mining and exploration licenses;
- the expected term for future cash outflows for the mine sites is based on the life of the mines. A substantial part of the expenditures is expected to occur starting from 2045, at the end of the expected life of the mines.

Accounts Payable

In millions of Kazakhstani Tenge	**2022**	**2021**
Trade accounts payable to related parties	58,668	33,620
Trade accounts payable	39,794	29,302
Total current trade accounts payable	**98,462**	**62,922**
Other accounts payable	346	3,092
Other accounts payable to related parties	1	-
Total current other accounts payable	**347**	**3,092**
Total current accounts payable	**98,809**	**66,014**

The Group's exposure to currency and liquidity risk related to trade and other payables is disclosed in Note 40.

Other Liabilities

In millions of Kazakhstani Tenge	2022	2021
Non-current		
Liabilities under contracts with customers	2,746	2,564
Advances received	2,276	3,740
Deferred income from subsidies received	1,820	1,356
Preferred shares	265	265
Issued financial guarantees	633	133
Liabilities under inventory loan agreements	-	13,461
Other	1,573	1,901
Total non-current other liabilities	**9,313**	**23,420**
Current		
Liabilities under contracts with customers	35,139	16,598
Liabilities under inventory loan agreements	19,147	99
Accrued unused vacation payments and bonuses	11,453	8,425
Amounts due under uranium swap contracts (Note 4)	4,709	15,355
Joint operations liabilities	4,569	4,569
Wages and salaries payable	2,420	1,561
Social contributions payable	1,795	1,301
Advances received	1,795	1,280
Advances received from related parties	735	46
Issued financial guarantees	653	90
Dividends payable to other participants	259	263
Deferred income	161	166
Liability for social sphere contributions	-	3,600
Other	1,048	3,985
Total current other liabilities	**83,883**	**57,338**

Liabilities under uranium loan agreements

In 2020 the Group obtained uranium under commodity loans totalling US Dollar 21.9 million. A liability was initially recognised to return inventory at a cost of Tenge 8,597 million. This liability is subsequently measured at fair value in accordance with changes in market prices for uranium and foreign exchange rates. Accrued revaluation loss for the year ended 31 December 2022 amounted to Tenge 5,445 million (2021: Tenge 2,872 million). As of 31 December 2022, the Group reclassified inventory loans from long-term to short-term, as the repayment period is up to May and June 2023. The Group intends to extend the repayment period.

On 19 May 2022 the Group obtained a uranium loan totalling US Dollar 113.5 million from ANU Energy OEIC Ltd. that was concluded under the Framework Agreement between the Group and Genchi Global Limited (Note 28). A liability was initially recognised to return inventory at a cost of Tenge 49,089 million and subsequently measured at fair value in accordance with changes in market prices for these goods and foreign exchange rates – the revaluation loss for the year ended 31 December 2022 amounted to Tenge 4,712 million. On 20 December the Group returned the inventory, the fair value of which amounted to Tenge 53,802 million on the date of return, which was greater than the cost of inventory returned for Tenge 8,251 million.

Losses from revaluation of uranium loans to fair value as well as net gain from disposal of the loan returned to ANU Energy OEIC Ltd. are recognised in profit and loss and presented as other loss (Note 15).

Uranium loans are part of the Group's normal inventory management policy, required to mitigate logistical risks that could affect the timely delivery of Kazakhstani uranium to Western conversion enterprises due to the current unstable geopolitical situation.

Joint operations liabilities

Joint operations liabilities represent obligations of the Group under the terms of the joint operations contractual agreements that require equal volumes of uranium to be purchased during the period by the participants. In 2021 the Group did not purchase the required volume.

36 Other Liabilities (Continued)

The Group reports the following liabilities related to contracts with customers:

In millions of Kazakhstani Tenge	**2022**	**2021**
Non-current contract liability	2,746	2,564
Current contract liability - advances received under contracts with customer for uranium pellets	35,139	16,598
	37,885	**19,162**

Non-current contract liabilities are rights granted to the customers to acquire additional volumes of uranium. The Group expects that revenue will be recognized in future period(s) once the associated right is executed or expires.

Current contract liabilities include advances for uranium pellets for Tenge 35,082 million under contracts with Ulba-FA LLP (2021: Tenge 16,420 million). During 2022, the Group has recognized revenue, which was included in the balance of advances received as at 31 December 2021 in the amount of Tenge 16,420 million (2021: none).

Contingencies and Commitments

Compliance with Kazakhstan Tax legislation

The tax environment in the Republic of Kazakhstan is subject to change and inconsistent application and interpretations. Kazakhstani tax legislation and practice is in a state of continuous development, and therefore is subject to varying interpretations and frequent changes, which may be retroactive. Tax periods remain open to retroactive review by the Kazakhstan tax authorities for five years.

The Group's management believes that its interpretation of the relevant legislation is appropriate and the Group's tax positions will be sustained. In the opinion of the Group's management, no material losses will be incurred in respect of existing and potential tax claims in excess of provision or disclosures that have been made in these consolidated financial statements.

(a) Transfer pricing legislation

In 2021 transfer pricing tax audits were started by the relevant Kazakhstan authorities across all subsoil use entities of the Group, but were not completed at 31 December 2022 due to the suspension of the audits by the tax authorities. During these audits, the tax authorities enquired into the documentary support for certain transport arrangements included in sales contracts of subsidiaries and affiliates. The legislation requires, in part, that Kazakhstani companies maintain and, if required, provide supporting evidence for the determination of prices used in international transactions.

The Company received preliminary assessments for additional income tax in the amount of Tenge 5,754 million related to transfer pricing for the period 2016-2020. In addition, the tax authorities raised a transfer pricing matter common to the Group relating to documenting the transport differential in China for subsidiaries and affiliates, the maximum estimated amount of which is Tenge 10,764 million for 2016-2022 (2021: Tenge 9,135 million). The Group introduced amendments to transfer pricing methodology in 2021 to include supporting documentation for transportation differential on sales made to China but still uncertainty exists about tax authorities interpretations.

To date, these tax audits were not finalised. Uncertainty exists as to the validity of the positions taken by the tax authorities regarding the preliminary assessments issued by and interpretations of the documentation requirements discussed above. The management of the Group believes that it will be able to sustain its position if the transfer pricing practices of the Group are challenged by the tax authorities. Accordingly, no liability has been recognised.

The Group recognized additional income tax related to transfer pricing of Tenge 7,298 million in 2022 (2021: Tenge 5,371 million), which does not relate to 2016-2020, following a review by management of compliance with Group transfer pricing methodology.

(b) Complex tax inspections of Group entities

In 2021, most of the Group's entities underwent comprehensive tax audits, the results of which are reflected in the financial statements prepared as at 31 December 2021. Pending comprehensive tax audits at certain Group entities as of December 31, 2022 have been completed, the results of the audits are reflected in the financial statements as of December 31, 2022.

37 Contingencies and Commitments (Continued)

According to the results of the thematic audit of income tax at the source of payment from the income of non-residents for 2014-2018, completed in 2021, additional charges of JV KATCO LLP amounted to CIT on payments of dividends and loyalties in the amount of Tenge 10,482 million and penalties of Tenge 9,441 million. By decision of the Appellate Commission of the Ministry of Finance, the amount of the fine was reduced to Tenge 5,358 million. In 2022, JV KATCO LLP continued to appeal to the judiciary, and by the decisions of the court of first instance and the court of appeal, the amount of additional charges was reduced by Tenge 15,761 million. In November 2022, the State Revenue Department filed a complaint with the Supreme Court to overturn the decision of the Court of Appeal, and the issue is currently being considered. As at 31 December 2022, the entity or the Group did not record any liability in respect of these contested assessments.

Compliance with subsoil use contractual obligations

In accordance with the terms of the subsoil use contracts, the Group mining entities are required to comply with the obligations specified therein. Failure to comply with the conditions stipulated by subsoil use contracts may lead to negative consequences, including termination of contracts, fines and penalties. Under current subsoil use legislation, the payment of penalty does not relieve subsurface user from fulfillment of stated obligations in full.

As of December 31, 2022, at some enterprises, the underproduction of uranium exceeds the legally allowed threshold of 20%, which is associated with a shortage of strategic materials. In addition, mining enterprises failed to meet their financial obligations under subsoil use contracts, which could result in penalties of 1% of the defaulted obligation or Tenge 150-200 million for 2022. The Group has not recognized additional liabilities in the financial statements as at 31 December 2022 as it plans to settle financial liabilities in future periods in accordance with revised work programs.

Insurance

The Kazakhstani insurance industry is in development stage, and many forms of insurance protection common in other countries are not yet available. Since 2021, the Corporate Property Insurance Program of the Company's enterprises has been implemented against the "risks" of death, loss or damage as a result of accidental and unforeseen direct physical impact (excluding equipment breakdown/failure and interruption in production).

The Company does not have full insurance coverage for risks related to mining activities and production facilities, including for damages caused by the stoppage of production or obligations incurred to third parties in connection with damages caused to the property or the environment resulting from accidents or operations.

The Company provides Directors' & Officers' Liability insurance (D&O). D&O insurance policies offer liability cover for the Company's managers to protect them from claims which may arise from decisions and actions taken ("alleged wrongful acts") within the scope of their regular duties. The terms of the policy prohibit disclosure of the amount of the insurance coverage.

Environmental obligations

Changes in the Environmental Code

In 2021, a new Environmental Code (hereinafter referred to as the "Code") came into force. The Code provides for the division of objects that have a negative impact on the environment into four categories, depending on their level of impact, which implies the differentiation of environmental requirements for each of the categories. Operators of facilities that have a negative impact on the environment have obligations to eliminate the consequences of the operation of facilities in accordance with the requirements of the legislation of the Republic of Kazakhstan.

The changes in the Code mainly affected non-mining companies of the first category, which include: Ulba Metallurgical Plant JSC (Note 4), JV SSAP LLP, SKZ-U LLP and Kyzylkum LLP. Following detailed technical and commercial assessments during the current year, the Group recognized in 2022 obligations to remediate the consequences of the operation of facilities (Note 34).

According to the Code, category I companies, such as Ulba Metallurgical Plant JSC also have an obligation to provide financial security to the state until July 2024 for the full amount of provision (Note 34). The Management of the Group is currently in discussions with the competent authorities regarding the method and timing of funding the liability.

As a result of the assessment of liabilities, non-mining enterprises of categories II-IV did not have significant obligations as of the reporting date.

37 Contingencies and Commitments (Continued)

Guarantees

Guarantees are irrevocable assurances that the Group will make payments in the event that another party cannot meet its obligations. The maximum exposure to credit risk under financial guarantees provided to secure financing of certain related parties at 31 December 2022 is Tenge 18,937 million (2021: Tenge 21,154 million) (Note 8).

Compliance with covenants

The Group is subject to certain covenants related primarily to its liabilities under credit lines and guarantee agreements. The Group complied with all applicable covenants as of 31 December 2022 and 31 December 2021 and during the periods then ended.

Legal proceedings

Administrative offense of JV Inkai LLP in terms of environmental requirements

The Department of Ecology imposed a fine in the amount of Tenge 1,639 million for the entity exceeding the permitted wastewater rate. JV Inkai LLP believes that there were errors in the calculation of the fine. JV Inkai LLP paid the fine, however, JV Inkai LLP is taking measures to dispute the fine through legal proceedings.

Non-controlling Interest

The following table provides information about each significant subsidiary that has a non-controlling interest that is material to the Group at 31 December 2022:

In millions of Kazakhstani Tenge	Country of incorporation and principal place of business	Ownership rights held by non-controlling interest	Profit or loss attributable to non-controlling interest	Accumulated non-controlling interest
Name				
Ulba Metallurgical Plant JSC	Kazakhstan	5.67%	819	8,088
Appak LLP	Kazakhstan	35%	8,029	15,449
JV Inkai LLP	Kazakhstan	40%	48,497	129,891
JV Khorasan-U LLP	Kazakhstan	50%	24,044	112,584
Baiken-U LLP	Kazakhstan	47.5%	17,452	77,558
DP Ortalyk LLP	Kazakhstan	49%	26,195	42,730
Volkovgeologiya JSC	Kazakhstan	1.04%	(121)	159
Total			**124,915**	**386,459**

The following table provides information about each significant subsidiary that has non-controlling interest that is material to the Group at 31 December 2021:

In millions of Kazakhstani Tenge	Country of incorporation and principal place of business	Ownership rights held by non-controlling interest	Profit or loss attributable to non-controlling interest	Accumulated non-controlling interest
Name				
Ulba Metallurgical Plant JSC	Kazakhstan	5.67%	568	7,491
Appak LLP	Kazakhstan	35%	4,614	11,113
JV Inkai LLP	Kazakhstan	40%	45,556	123,120
JV Khorasan-U LLP	Kazakhstan	50%	11,839	110,290
Baiken-U LLP	Kazakhstan	47.5%	9,034	60,106
DP Ortalyk LLP	Kazakhstan	49%	7,780	34,857
Volkovgeologiya JSC	Kazakhstan	3.38%	(138)	281
Total			**79,253**	**347,258**

38 Non-controlling Interest (Continued)

The summarised financial information of these subsidiaries is as follows:

In millions of Kazakhstani Tenge	Ulba Metallurgical Plant JSC		Appak LLP		JV Inkai LLP		Baiken-U LLP		JV Khorasan-U LLP		DP Ortalyk LLP		Volkovgeologiya JSC	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Current assets	112,643	74,957	24,853	17,164	133,314	108,441	86,830	44,227	90,905	89,727	59,750	54,052	9,097	8,042
Non-current assets	42,479	37,032	27,752	20,538	215,967	216,565	102,771	106,269	181,990	182,054	36,564	29,228	11,208	8,054
Current liabilities	(57,444)	(31,240)	(4,088)	(2,880)	(11,812)	(11,199)	(6,629)	(5,060)	(14,560)	(16,990)	(4,781)	(8,569)	(15,954)	(7,820)
Non-current liabilities	(14,355)	(5,390)	(4,218)	(2,910)	(34,053)	(35,022)	(19,529)	(18,733)	(33,004)	(34,049)	(4,329)	(3,573)	(162)	(91)
Equity, incl.	83,323	75,359	44,299	31,912	303,416	278,785	163,443	126,703	225,331	220,742	87,204	71,138	4,189	8,185
Equity attributable to the Group	75,235	67,868	28,850	20,799	173,525	155,665	85,885	66,597	112,747	110,452	44,474	36,281	4,030	7,904
Non-controlling interest	8,088	7,491	15,449	11,113	129,891	123,120	77,558	60,106	112,584	110,290	42,730	34,857	159	281
Revenue	121,435	60,254	45,050	30,902	165,966	131,866	74,579	49,981	90,156	63,117	95,240	59,195	29,742	23,513
Depreciation and amortisation	(2,066)	(1,924)	(4,084)	(3,184)	(11,812)	(10,913)	(11,921)	(12,694)	(14,823)	(13,842)	(6,490)	(4,971)	(1,503)	(1,424)
Including depreciation and amortisation at fair value	-	-	-	-	(3,088)	(2,205)	(5,996)	(6,985)	(8,588)	(8,868)	-	-	-	-
Finance income	855	360	576	278	633	127	619	340	217	116	26,375	8,045	61	22
Finance costs	(1,864)	(467)	(428)	(218)	(1,114)	(359)	(244)	(69)	(203)	(72)	(26,469)	(8,186)	(85)	(319)
Income tax expense	(4,165)	(2,606)	(5,688)	(3,932)	(26,047)	(20,547)	(11,082)	(6,219)	(14,162)	(8,584)	(13,982)	(7,218)	69	61
Including tax effect of depreciation and amortisation of adjustments to fair val	-	-	-	-	616	441	1,202	1,404	1,718	1,774	-	-	-	-
Net foreign exchange gain	953	488	229	12	1,542	404	529	91	3,729	613	1,686	56	(4)	-
(Impairment losses)/reversal of impairment losses	1,054	(198)	(20)	9	-	(478)	57	(164)	-	-	(41)	22	(18)	60
Profit for the year	**12,699**	**5,606**	**22,940**	**13,183**	**96,995**	**76,693**	**36,740**	**19,019**	**48,089**	**23,679**	**53,458**	**27,016**	**(4,844)**	**(1,511)**
Profit attributable to the owners of the Company	11,880	5,038	14,911	8,569	48,498	31,137	19,288	9,985	24,045	11,840	27,263	19,236	(4,723)	(1,373)
Profit attributable to non-controlling interest	819	568	8,029	4,614	48,497	45,556	17,452	9,034	24,044	11,839	26,195	7,780	(121)	(138)
Profit/(loss) for the year	**12,699**	**5,606**	**22,940**	**13,183**	**96,995**	**76,693**	**36,740**	**19,019**	**48,089**	**23,679**	**53,458**	**27,016**	**(4,844)**	**(1,511)**
Other comprehensive income/(loss)	(726)	16	(7)	1	-	-	-	(8)	-	-	(11)	2	(16)	(9)
Total comprehensive income/(loss) for the year	**11,973**	**5,622**	**22,933**	**13,184**	**96,995**	**76,693**	**36,740**	**19,011**	**48,089**	**23,679**	**53,447**	**27,018**	**(4,860)**	**(1,520)**
Dividends declared to non-controlling interest	177	360	3,691	2,879	41,727	17,117	-	6,225	21,750	-	18,316	-	1	1

Net cash inflow/(outflow) from:														
- operating activities	9,777	7,561	18,166	13,376	87,391	26,366	27,041	13,777	48,124	12,606	40,252	17,440	1,719	109
- investing activities	(2,383)	(2,838)	(10,287)	(6,160)	(10,649)	(8,894)	(7,433)	(3,585)	(13,525)	(8,557)	(12,488)	(2,527)	(3,837)	(1,057)
- financing activities	(4,023)	(3,812)	(10,547)	(8,278)	(75,305)	(28,832)	-	(11,869)	(47,000)	(3,504)	(37,382)	(3)	2,791	750
Net cash inflow/(outflow)	3,371	911	(2,668)	(1,062)	1,437	(11,360)	19,608	(1,677)	(12,401)	545	(9,618)	14,910	673	(198)

38 Non-controlling Interest (Continued)

Allocation of profit between the non-controlling interest of JV Inkai LLP and the Group is impacted by the allocation of JV Inkai LLP dividends. The distribution of dividends is made in accordance with the amendment to the agreement between the parties, and is not based on ownership interests. For 2021, dividends were distributed between the non-controlling interest and the Company in the amount of 59.4% and 40.6%, respectively, for 2022 - in the amount of 50% and 50%, respectively. This amendment was agreed by the parties to compensate the non-controlling interest for losses due to a 20% reduction in production in 2021-2022. Accordingly, the amount reclassified from profit attributable to the Group to profit attributable to non-controlling interests during 2022-2020 amounted to Tenge 30,556 million (2021-2020: Tenge 20,857 million).

Principal Subsidiaries

These consolidated financial statements include the following subsidiaries:

		Ownership	
	Principal activity	2022	2021
KAP Technology JSC	Communication services	100%	100%
Qorgan-Security LLP	Security services	100%	100%
Appak LLP	Exploration, production, processing and sale of uranium products	65%	65%
Ulba Metallurgical Plant JSC	Production and processing of uranium materials, production of rare metals and semiconductor materials	94.33%	94.33%
Volkovgeologiya JSC	Exploration and research of uranium reserves, drilling services, monitoring of radiation level and environment conditions	98.96%	96.62%
High Technology Institute LLP	Research, project, development and engineering consulting services	100%	100%
DP Ortalyk LLP	Exploration, production, processing and sale of uranium products	51%	51%
RU-6 LLP	Exploration, production, processing and sale of uranium products	100%	100%
Kazatomprom-SaUran LLP	Exploration, production, processing and sale of uranium products	100%	100%
KAP Logistics LLP (former Trade and Transportation Company LLP)	Procurement and transportation services	99.9999%	99.9999%
Kazakatom TH AG	Marketing function for sale of uranium, investment and administration of finances, goods and rights	100%	100%
JV Inkai LLP	Exploration, production, processing and sale of uranium products	60%	60%
Baiken-U LLP	Exploration, production, processing and sale of uranium products	52.5%	52.5%
JV Khorasan-U LLP	Exploration, production, processing and sale of uranium products	50%	50%

These consolidated financial statements include the following joint operations:

		Ownership	
	Principal activity	2022	2021
Karatau LLP	Exploration, production, processing and sale of uranium products	50%	50%
JV Akbastau JSC	Exploration, production, processing and sale of uranium products	50%	50%
Energy Asia (BVI) Limited (EAL)	Commercial and investment activities	50%	50%

All entities are incorporated and operate on the territory of the Republic of Kazakhstan, except for Kazakatom TH AG, which is incorporated in Switzerland and EAL that is registered in the British Virgin Islands.

Disposal of a 49% non-controlling share in DP Ortalyk LLP

In April 2021, a sale and purchase agreement was signed between the Company and CGNM UK Limited, where the value of a 49% stake in DP Ortalyk LLP was determined in the amount of 435 million US Dollar (equivalent to Tenge 186,437 million) based on fair value assessment by an independent appraiser.

39 Principal Subsidiaries (Continued)

On July 22, 2021, the sale of the share in DP Ortalyk LLP was completed after obtaining all state permits and fulfilling all the preconditions of the sale and purchase agreement.

The management of the Company has concluded that the Company retains control over DP Ortalyk LLP, as the Group has significant rights to manage the enterprise's production activities and influence the profits earned.

In millions of Kazakhstani tenge	
Selling price at the exchange rate as of April 22, 2021	186,437
Less foreign exchange loss	*(579)*
Consideration received	185,858
Net assets of the subsidiary at the date of disposal of the interest	*55,258*
Non-controlling interest, 49%	27,076
Selling price at the exchange rate as of April 22, 2021	186,437
Less Non-controlling interest	*(27,076)*
Minus corporate income tax	*(33,466)*
Increase in equity attributable to the owners of the Company	125,895

Mutual cooperation between the Group and CGNM and its related entities involved (CGNM Group) is governed by commercial agreements that contain put and call options.

Call option grants the Group the right to demand CGNM Group to sell their interest in DP Ortalyk LLP and Ulba-FA LLP after occurrence of any of the following events: (1) there is a deadlock situation for a decision made by the Group and CGNM Group as participants of DP Ortalyk LLP and Ulba-FA LLP, (2) CGNM Group ceases to own its interest in Ulba-FA LLP, (3) CGNM Group submits a notice of liquidation, (4) CGNM Group causes a material breach of commercial terms of Ulba-FA LLP that has not been addressed, (5) Ulba-FA LLP does not complete any of its planned activities on the specified date because of unfulfilled liabilities by the CGNM Group, including shipment of fuel tablets within 24 months after the first order placed. CGNM Group has 60 days to eliminate an event occurred before the option is exercised. Call option is exercised at fair value of shares as of the date the notice of option exercise.

Put option grants the CGNM Group the right to demand the Group to buy their interest in DP Ortalyk LLP and Ulba-FA LLP after occurrence of any of the following events: (1) there is a deadlock situation for a decision made by the Group and CGNM Group as participants of DP Ortalyk LLP and Ulba-FA LLP, (2) CGNM Group ceases to own its interest in DP Ortalyk LLP, (3) the Group submits a notice of liquidation, (4) the Group causes a material breach of commercial terms of Ulba-FA LLP that has not been addressed, (5) Ulba-FA LLP does not complete any of its planned activities on the specified date because of unfulfilled liabilities by the Group, including shipment of fuel tablets within 24 months after the first order placed. The Group has 60 days to eliminate an event occurred before the option is exercised. Put option is exercised at fair value of shares as of the date the notice of option exercise. With respect of valuation of derivative instruments relating to above mentioned put and calls options the Group determined that such value is immaterial as the exercise price is set at the fair value of the shares.

The Group considered the impact of above mentioned call and put options on the financial statements. In particular the Group considered whether the existence of a put option requires recognition of financial liabilities at the amount equal to net present value of the redemption amount pursuant to requirement of IAS 32. Consequently, as at the date of transaction and as at 30 September 2021 the Group has recognised a liability in the amount of Tenge 185,210 million in accordance with the terms of the sale and purchase agreement of a 49% stake in DP Ortalyk LLP, which provides the right to CGNM to request the Group to buy back that entity’s ownership interest in DP Ortalyk LLP at fair value on the date of purchase if DP Ortalyk LLP does not receive a new subsoil use contract on the Zhalpak field by 31 December 2021. The Group assessed that obtaining that subsoil use contract was outside of control of the Group. The subsoil use contract was received on 14 December 2021 and accordingly the liability was derecognised. There was no material change to its fair value between initial recognition date and extinguishment date.

As of 31 December 2022 and 2021 the Group has not recognised financial liability to purchase shares in DP Ortalyk LLP as required by IAS 32 because management believes that other conditions requiring purchase of shares listed above are under the Group’s control, i.e. the Group does not have unavoidable obligation to pay cash.

39 Principal Subsidiaries (Continued)

Sales of 100% interests in subsidiaries - KazPV project

On 10 June 2021 the Group signed an agreement for the sale of the Group's entire interest in Kazakhstan Solar Silicon LLP. The sale was completed on 12 July 2021 upon receipt of full payment of Tenge 323 million.

On 16 July 2021 the Group signed an agreement for the sale of the Group's entire interest in Astana Solar LLP and on
23 August 2021 signed the act of acceptance after receiving full payment under the contract. The payment received amounted to Tenge 380 million.

On 26 October 2021, an agreement for the sale of the Group's entire interest in MK Kazsilicon LLP was signed. On
19 November 2021 after receiving full payment under the contract the Group signed an act of acceptance certificate. The payment received amounted to Tenge 652 million.

Total proceeds from sales of KazPV entities was Tenge 1,355 million less Tenge 16 million cash and cash equivalents of disposed entities at the disposal date.

Liquidation of Kazatomprom-Damu LLP

In April 2021, the Group liquidated Kazatomprom-Damu LLP. As a result of the liquidation, the Group wrote off additional paid-in capital of Tenge 2,254 million and the accumulated loss attributable to non-controlling interest of Tenge 377 million.

Financial Risk Management

Accounting policies and disclosures in respect of financial instruments are applied to the following classes of financial instruments:

In millions of Kazakhstani Tenge	Note	2022	2021
Financial assets			
Trade accounts receivable	27	258,631	220,024
Current bank accounts	31	131,248	138,844
Restricted cash	28	44,967	18,081
Demand deposits	28	38,274	22,338
Investments in debt securities	28	9,274	4,986
Investment in ANU Energy	28	17,066	-
Other accounts receivable	27	12,290	114
Loans to related parties	28	6,027	8,850
Term deposits	28	946	43,220
Cash in hand	31	14	8
Other	28	1,785	783
Total financial assets		**520,506**	**457,248**
Financial liabilities			
Bonds	33	107,316	78,503
Trade and other accounts payable	35	98,809	66,014
Bank loans	33	23,953	-
Promissory note issued	33	7,002	10,514
Issued financial guarantees	36	1,286	133
Preferred shares	36	265	265
Dividends payable to other participants	36	259	263
Lease liabilities	33	173	291
Historical costs liabilities	36	-	437
Liability for social sphere contributions	36	-	3,600
Total financial liabilities		**239,063**	**160,020**

40 Financial Risk Management (Continued)

Financial risks are monitored by the Group's risk management function and comprise market risk (including currency risk, interest rate risk and price risk), credit risk and liquidity risk. The objectives of the Group's financial risk management policy are to establish risk limits, and then ensure that exposure to risks stays within these limits. Risk management policies and systems are regularly analysed for the need of revision due to changes in market conditions and the Group operations. The Group's risk management function monitors compliance with approved policies and procedures.

This note presents information about the Group's exposure to each of the above risks, the Group's objectives, policies and processes for measuring and managing risk, and the Group's policy for management of capital. Further quantitative disclosures are included throughout these consolidated financial statements.

The Board of Directors has overall responsibility for the establishment and oversight of the Group's risk management framework. The Management Board has established a Risk Management Committee, which is responsible for developing and monitoring the Group's risk management policies. The committee reports regularly to the Management Board and the Board of Directors on its activities.

Credit risk

The Group has exposure to credit risk, which is the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. Exposure to credit risk arises as a result of the Group's sales of products on credit terms and other transactions with counterparties giving rise to financial assets. Financial assets, which potentially expose the Group to credit risk, consist mainly of trade and other receivables, cash and cash equivalents, term deposits, investments in securities and loans to related parties.

The Group's maximum exposure to credit risk by class of assets is reflected in the carrying amounts of financial assets in the statements of financial position and the nominal amount of financial guarantees (Note 37).

The table below shows credit ratings of banks where the Group had financial assets as at 31 December 2022:

In millions of Kazakhstani Tenge	**Rated Standard & Poor's AAA to A-**	**Rated Standard & Poor's BBB+ to BBB-**	**Rated Standard & Poor's BB+ to B-**	**Total**
Current bank accounts	33,291	17,183	80,774	131,248
Restricted cash	9,908	2,842	32,217	44,967
Demand deposits	2,968	3,216	32,090	38,274
Term deposits	-	-	946	946
Investment in debt securities	-	9,274	-	9,274
Total	**46,167**	**32,515**	**146,027**	**224,709**

The table below shows credit ratings of banks where the Group had financial assets as at 31 December 2021:

In millions of Kazakhstani Tenge	**Rated Standard & Poor's AAA to A-**	**Rated Standard & Poor's BBB+ to BBB-**	**Rated Standard & Poor's BB+ to B-**	**Total**
Restricted cash	7,449	1,206	9,426	18,081
Term deposits	-	-	43,220	43,220
Current bank accounts	49,430	27,613	61,801	138,844
Demand deposits	3,024	337	18,977	22,338
Investment in debt securities	-	-	4,986	4,986
Total	**59,903**	**29,156**	**138,410**	**227,469**

The Group applies the simplified approach permitted in IFRS 9 to measure expected credit losses which uses a lifetime expected loss allowance for all trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due.

The expected loss rates are based on the payment profiles of sales over a period of 24 month before

31 December 2022 or 31 December 2021 respectively and the corresponding historical credit losses experienced within this period. The historical loss rates are not adjusted to reflect forward-looking information on macroeconomic factors because those factors do not significantly affect the risk profile.

40 Financial Risk Management (Continued)

The credit loss allowance for trade receivables is determined according to provision matrix presented in the table below. The provision matrix is based the number of days that an asset is past due.

In millions of Kazakhstani Tenge	Loss rate	Gross carrying amount	Lifetime ECL
2022			
Trade receivables			
- current	0.03%	258,607	(70)
- less than 30 days overdue	10.53%	38	(4)
- 30 to 90 days overdue	20%	30	(6)
- 90 to 180 days overdue	20%	46	(10)
Total trade receivables (gross carrying amount)		**258,721**	
Credit loss allowance			(90)
Total trade receivables from contracts with customers (carrying amount)		**258,631**	

In millions of Kazakhstani Tenge	Loss rate	Gross carrying amount	Lifetime ECL
2021			
Trade receivables			
- current	0.06%	220,084	(132)
- less than 30 days overdue	32.04%	104	(32)
- over 360 days overdue	100%	8	(8)
Total trade receivables (gross carrying amount)		**220,196**	
Credit loss allowance			(172)
Total trade receivables from contracts with customers (carrying amount)		**220,024**	

The following table explains the changes in the credit loss allowance for trade and other receivables between the beginning and the end of 2022 as well as impairment provision for trade and other receivables during 2021:

In millions of Kazakhstani Tenge	Trade accounts receivable	Other accounts receivable
Provision at 1 January 2021	109	74
Provision for the year	184	34
Recalculation of foreign currency	1	-
Reversal	(121)	(2)
Amounts written-off	(1)	-
Provision at 31 December 2021	**172**	**106**
Provision for the year	90	76
Reversal	(172)	-
Amounts written-off	-	(2)
Provision at 31 December 2022	**90**	**180**

40 Financial Risk Management (Continued)

The Group's exposure to credit risk in respect of trade accounts receivable is influenced mainly by the individual characteristics of each customer. The demographics of the Group's customer base, including the default risk of the industry and country, in which customers operate, has no significant influence on credit risk. The Group is exposed to concentrations of credit risk. Approximately 75% of the Group's revenue for 2022 (84% of trade receivables as of 31 December 2022) is attributable to sales transactions with eleven main customers (2021: 65% of Group's revenues and 53% of trade receivables attributable to seven customers). The Group defines counterparties as having similar characteristics if they are related entities.

The Group applies a credit policy under which each new customer is analysed individually for creditworthiness before the Group's standard payment and delivery terms and conditions are offered.

The Group does not require collateral in respect of trade and other receivables.

The maximum exposure to credit risk for trade receivables at the reporting date by geographic region was:

In millions of Kazakhstani Tenge	**2022**	**2021**
China	143,154	68,397
Canada	54,239	60,276
United Kingdom	30,712	11,929
Russia	12,989	20,134
USA	8,338	46,564
Kazakhstan	8,100	5,792
Japan	696	1,287
European Union	403	5,645
Total	**258,631**	**220,024**

The average credit period on sales of goods is 30 days. No interest is charged on receivables for the first 30 days from the date of the invoice.

Credit risk exposure in respect of loans to related parties (Note 28) arises from possibility of non-repayment of loans. For loans to joint ventures and associates, the Group manages the credit risk by requirement to provide collateral in lieu of borrowers' property. Borrowers do not have a credit rating.

Expected Credit Loss (ECL) measurement

Measurement of ECLs is an estimate that involves determination methodology, models and data inputs. The following components have a major impact on credit loss allowance: definition of default, SICR, probability of default ("PD"), exposure at default ("EAD"), and loss given default ("LGD"), as well as models of macro-economic scenarios. The Group regularly reviews and validates the models and inputs to the models to reduce any differences between expected credit loss estimates and actual credit loss experience of issued loans and guarantees.

The Group used supportable forward looking information for measurement of ECL, primarily an outcome of its own macro-economic forecasting model. Several assumptions that are easily interpretable can be selected for analysis: GDP growth rate, inflation rate, exchange rate, crude oil price and current economic indicator. Final macroeconomic scenario includes only historically observed values of the inflation rate and the share of overdue loans. Forward-looking information is included in parameters of PD within the horizon of the next year after the reporting date. In addition, to calculate credit losses, the corporate average cumulative default probabilities are updated annually according to S&P's Annual Global Corporate Default Study and Rating.

Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities. The Group is exposed to daily calls on its available cash resources. Liquidity risk is managed by the treasury department of the Group. Management monitors monthly rolling forecasts of the Group's cash flows.

The Group seeks to maintain a stable funding base primarily consisting of borrowings, trade and other payables and debt securities. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities as they fall due, under both normal and stressful conditions, without incurring unacceptable losses or risking damage to the Group's reputation. The Group invests available cash

funds in diversified portfolios of liquid assets, in order to be able to respond quickly to unforeseen liquidity requirements.

40 Financial Risk Management (Continued)

The Group ensures that it has sufficient cash on demand to meet expected operational expense or financial obligations which excludes the potential impact of extreme circumstances that cannot reasonably be predicted, such as natural disasters.

Below is a summary of the Group's undrawn borrowing facilities and available cash and cash equivalents, including current term deposits, which are the important instruments in managing the liquidity risk:

In millions of Kazakhstani Tenge	**2022**	**2021**
Current bank accounts	131,248	138,844
Undrawn borrowing facilities	84,665	177,902
Current term deposits	39,204	65,558
Total	**255,117**	**382,304**

The table below shows liabilities at the reporting date by their remaining contractual maturity. The amounts disclosed in the maturity table are the contractual undiscounted cash flows. Such undiscounted cash flows differ from the amount included in the statements of financial position because the statement of financial position amount is based on discounted cash flows.

When the amount payable is not fixed, the amount disclosed is determined by reference to the conditions existing at the end of the reporting period. Foreign currency payments are translated using the spot exchange rate at the end of the reporting period.

The following are the contractual maturities of financial liabilities at 31 December 2022:

In millions of Kazakhstani Tenge	**Carrying value**	**Contractual cash flows**	**On demand and less than 1 month**	**From 1 to 3 months**	**From 3 months to 1 year**	**From 1 to 5 years**	**Over 5 years**
Bonds	107,316	114,706	-	23,216	861	90,629	-
Trade and other accounts payable	98,809	98,809	-	98,809	-	-	-
Bank loans	23,953	24,161	-	24,161	-	-	-
Promissory note issued	7,002	7,002	7,002	-	-	-	-
Issued financial guarantees	1,286	18,937	18,937	-	-	-	-
Preferred shares	265	265	-	-	-	265	-
Dividends payable to other participants	259	259	-	-	259	-	-
Lease liabilities	173	259	-	12	38	154	55
Total	**239,063**	**264,398**	**25,939**	**146,198**	**1,158**	**91,048**	**55**

The following are the contractual maturities of financial liabilities at 31 December 2021:

In millions of Kazakhstani Tenge	**Carrying value**	**Contractual cash flows**	**On demand and less than 1 month**	**From 1 to 3 months**	**From 3 months to 1 year**	**From 1 to 5 years**	**Over 5 years**
Bonds	78,503	88,550	-	-	3,080	85,470	-
Trade and other accounts payable	66,014	66,014	-	66,014	-	-	-
Promissory note issued	10,514	10,514	10,514	-	-	-	-
Liability for social sphere contributions	3,600	3,600	-	-	3,600	-	-
Historical costs liabilities	437	437	-	90	271	76	-
Lease liabilities	291	350	-	52	156	102	40
Issued financial guarantees	133	21,154	21,154	-	-	-	-
Preferred shares	265	265	-	-	-	265	-
Dividends payable to other participants	263	263	-	263	-	-	-
Total	**160,020**	**191,147**	**31,668**	**66,419**	**7,107**	**85,913**	**40**

40 Financial Risk Management (Continued)

Market risk

The Group has exposure to market risks. Market risk is the risk that changes in market prices will have a negative impact on the Group's income or the value of its financial instrument holdings. Market risks arise from open positions in (a) foreign currencies, (b) interest bearing assets and liabilities and (c) equity products, all of which are exposed to general and specific market movements. The objective of market risk management is to monitor and control market risk exposures within acceptable limits, while optimising the return on investments. Management sets limits on the value of risk that may be accepted, which is monitored on a daily basis. However, the use of this approach does not prevent losses outside of these limits in the event of more significant market movements.

Sensitivities to market risks included below are based on a change in a factor while holding all other factors constant. In practice this is unlikely to occur and changes in some of the factors may be correlated – for example, changes in interest rate and changes in foreign currency rates.

Currency risk

The Group is exposed to currency risk on sales, purchases and borrowings which are denominated in currencies other than the functional currency. Borrowings are denominated in currencies that match the cash flows generated by operating entities in the Group. Therefore, in most cases, economic hedging is achieved without derivatives. 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 planning future expenses taking into consideration the currency of payment. The Group is mainly exposed to the risk of US Dollars currency fluctuations.

The Group's exposure to currency risk was as follows:

In millions of Kazakhstani Tenge	**2022**	**2021**
Denominated in US Dollars		
Trade accounts receivable	248,201	207,325
Current bank accounts	97,471	95,630
Other investments	26,487	-
Other accounts receivable	7,508	1
Loans to related parties*	5,933	8,663
Term deposits	922	43,212
Demand deposits	385	-
Other assets	1,646	17,252
Total assets	**388,553**	**372,083**
Bonds*	(107,316)	(78,503)
Bank and non-bank loans	(23,202)	-
Trade and other accounts payable	(6,350)	(13,110)
Other financial liabilities	(21,740)	(34,048)
Total liabilities	**(158,608)**	**(125,661)**
Net exposure to currency risk	**229,945**	**246,422**

* - loan given to Kyzylkum LLP and bonds are nominated in Tenge, but are subject to indexation for changes in US Dollar/Tenge exchange rate.

A 21% weakening and 21% strengthening of Tenge against US Dollar as at 31 December 2022 (2021: 13% weakening and 10% strengthening) would increase/(decrease) equity and profit or loss by the amounts shown below.

In millions of Kazakhstani Tenge	**2022**	**2021**
US Dollar strengthening by 21% (2021: 13%)	38,631	25,628
US Dollar weakening by 21% (2021:10%)	(38,631)	(19,714)

Movements of Tenge against US Dollar above represent reasonably possible changes in market risk estimated by analysing annual standard deviations based on the historical market data for 2022 and 2021.

40 Financial Risk Management (Continued)

Price risk on uranium products

The Group is exposed to the effect of fluctuations in the price of uranium, which is quoted in US Dollar on the international markets. The Group prepares an annual budget based on future uranium prices.

Uranium prices historically fluctuate and are affected by numerous factors outside of the Group's control, including, but not limited to:

- demand for uranium used as fuel by nuclear power stations;
- depleting levels of secondary sources such as recycling and blended down highly enriched stocks available to close the gap of the excess demand over supply;
- impact of regulations by the International Agency on Nuclear Energy;
- other factors related specifically to uranium industry.

At the end of the reporting period there was no significant impact of commodity price risk on the Group's financial assets and financial liabilities except for investments in ANU Energy OEIC Ltd. (Note 28).

A 40% weakening and 40% strengthening of Tenge against spot price as at 31 December 2022 would increase/(decrease) equity and profit or loss by the amounts shown below.

In millions of Kazakhstani Tenge	**2022**
Spot price increase by 40%	5,324
Spot price increase by 40%	(5,324)

Interest rate risk

Changes in interest rates impact loans and borrowings by changing either their fair value (fixed rate debt) or their future cash flows (floating rate debt). At the time of raising new loans or borrowings, management uses its judgement to decide whether it believes that a fixed or a floating rate would be more favourable to the Group over the expected period until maturity. As at 31 December 2022 approximately 100% (2021: 100%) of the Groups borrowings have a fixed interest rate.

At the reporting date, the interest rate profile of the Group's interest-bearing financial instruments was:

In millions of Kazakhstani Tenge	**2022**	**2021**
Fixed rate instruments		
Restricted cash	44,967	18,081
Demand deposits	38,274	22,338
Securities	9,274	-
Loans to related parties	6,027	8,850
Term deposits	946	43,235
Bonds	(107,316)	(78,503)
Bank loans	(23,953)	-
Promissory note issued	(7,002)	(10,514)
Net position	**(38,783)**	**3,487**

Fair value sensitivity analysis for fixed rate instruments

The Group has only fixed rate instruments. The Group does not account for any fixed rate financial assets and financial liabilities at fair value through profit or loss. Therefore a change in interest rates at the reporting date would not affect profit or loss. However, fixed rate financial assets and financial liabilities are exposed to fair value risk from change in interest rates. Reasonably possible changes in interest rates do not significantly affect fair values of those financial assets and financial liabilities.

40 Financial Risk Management (Continued)

Capital management

The Group's policy is to maintain a strong capital base so as to safeguard the Group's ability to continue as a going concern, to maintain investor, creditor and market confidence, to provide returns for shareholders, to maintain an optimal capital structure to reduce the cost of capital, and to sustain future development of the business. Capital includes all capital and reserves of the Group as recorded in the consolidated statements of financial position.

The Group's loan agreements with banks include covenants, pursuant to which the Group must comply with applicable laws and regulations, cannot create or permit any security over its assets or dispose assets, unless allowed by the loan agreements, and must obtain the lenders' approval for any acquisitions, mergers and disposals. The Group may also sell uranium for non-military purposes and only to customers residing in countries which signed the Nuclear Non-Proliferation Treaty and are members of the International Agency on Nuclear Energy. In addition, the Group must maintain certain key financial covenants based on the Group's consolidated financial information, such as:

- the debt to equity ratio;
- the debt ratio to earnings before interest, taxes, depreciation and amortisation (Debt/EBITDA).

The Group's internal quantitative capital management targets are similar to externally imposed requirements.

The Group applies the Policy on borrowings and financial sustainability management, which is aimed to manage financial risks by adopting common principles and rules of debt management and financial sustainability for non-financial organisations.

The Group has complied with all externally and internally imposed capital requirements during 2022 and 2021, requirements associated with borrowing facilities.

Fair Value Disclosures

Fair value measurements are analysed by level in the fair value hierarchy as follows: (i) level one are measurements at quoted prices (unadjusted) in active markets for identical assets or liabilities, (ii) level two measurements are valuations techniques with all material inputs observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices), and (iii) level three measurements are valuations not based on observable market data (that is, unobservable inputs). Management applies judgement in categorising financial instruments using the fair value hierarchy. If a fair value measurement uses observable inputs that require significant adjustment, that measurement is a Level 3 measurement. The significance of a valuation input is assessed against the fair value measurement in its entirety.

Financial assets carried at amortised cost

Estimate of all financial assets carried at amortised cost is level 3 measurement, except for cash and cash equivalents, which is in Level 2. The estimated fair value of fixed interest rate instruments is based on estimated future cash flows expected to be received discounted at current interest rates for new instruments with similar credit risks and remaining maturities. Discount rates used depend on the credit risk of the counterparty.

All financial assets of the Group as of the end of the reporting period are carried at amortised cost except as disclosed below.

Financial assets carried at FVTPL

Financial assets carried at FVTPL include derivative asset and investment in ANU Energy OEIC Ltd. (Note 28) that are recognised at fair value through profit and loss. Fair value measurements for both assets fall in Level 2. The Group estimates fair value of investment in ANU Energy OEIC Ltd. as a percentage of Group's owned share multiplied by the fair value of uranium held by the entity as of the date. The main inputs used in fair value estimation are spot prices of uranium as of the reporting date. Fair value of a derivative asset are determined based on binominal model with uranium spot price forecasts.

Liabilities carried at amortised cost

Fair values of other liabilities were determined using valuation techniques. The estimated fair value of fixed interest rate instruments with stated maturities were estimated based on expected cash flows discounted at current interest rates for new instruments with similar credit risks and remaining maturities. The fair value of liabilities repayable on demand or after a notice period (“demandable liabilities”) is estimated as the amount payable on demand, discounted from the first date on which the amount could be required to be paid. The weighted average discount rate is 4.94% p.a (2021: 4.5%).

41 Fair Value Disclosures (Continued)

Fair values versus carrying amounts

With the exception of instruments specified in the following table, the Group believes that the carrying value of financial assets and financial liabilities are recognised in the consolidated financial statements approximate their fair value:

	2022		2021	
In millions of Kazakhstani Tenge	**Carrying value**	**Fair value**	**Carrying value**	**Fair value**
Financial liabilities				
Bonds	83,300	82,288	77,700	76,305
Historical costs liabilities	-	-	437	326
Total	**83,300**	**82,288**	**78,137**	**76,631**

In assessing fair values, management uses the following major methods and assumptions: (a) for interest free financial liabilities and financial liabilities with fixed interest rate, financial liabilities were discounted at effective interest rate which approximates the market rate; (b) for financial liabilities with floating interest rate, the fair value is not materially different from the carrying amount because the effect of the time value of money is immaterial.

Presentation of Financial Instruments by Measurement Category

For the purposes of measurement, IFRS 9 Financial Instruments classifies financial assets into the following categories: (a) financial assets at FVTPL; (b) debt instruments at FVOCI, (c) financial assets at AC. Financial assets at FVTPL have two sub-categories: (i) assets mandatorily measured at FVTPL, and (ii) assets designated as such upon initial recognition or subsequently. All of the Group's financial assets as of the end of reporting period fell into the category AC, except for the financial derivative asset and investment in ANU Energy OEIC Ltd. (Note 28), classified as FVTPL upon initial recognition. All of the Group's financial liabilities were carried at AC. Fair value is approximate to carrying amount and there were no reclassifications during the period.

Events after the Reporting Period

Restricted cash

On 13 January 2023 the Office of Foreign Assets Control of the US Department of the Treasury (OFAC) issued a license to return blocked funds. On 30 January 2023 the correspondent bank returned the funds in the amount of 32.7 million US Dollars, including 0.4 million US Dollars of accrued interest.

Commercial bonds issue

Short-term commercial bonds issued in 2022 were redeemed on 23 January 2023. The payment made was 50.18 million US Dollars, including a coupon amount of 0.18 million US Dollars.

5.14. Glossary

Term	Definition
AIX	Astana International Exchange
CO_2	Carbon dioxide
COSO	Internal Control – Integrated Framework
CRM	Customer Relationship Management
CJSC	Closed Joint-Stock Company
Code	Corporate Governance Code, at entities where over 50 per cent of the shares (equity stakes) are owned directly or indirectly by Sovereign Wealth Fund Samruk-Kazyna JSC
CIS	Commonwealth of Independent States
EBITDA	Profit before interest, taxes and depreciation
ERP	Enterprise resource planning
ESAP	Environmental and Social Action Plan
EVA	Economic Value Added (English EVA, Economic Value Added) – an indicator of the economic profit of the enterprise after the payment of all taxes and fees for all capital invested in the enterprise
EVP	Employer Value Proposition
EPIS	E-Procurement Information System
Fund	Sovereign Wealth Fund Samruk-Kazyna Joint-Stock Company
GHG	Greenhouse Gases
GRI	Global Reporting Initiative
GDP	Global Depositary Receipts
Group	Kazatomprom and its consolidated subsidiaries
GMIS	Geological and Mining Information System
Holding	NAC Kazatomprom JSC and NAC Kazatomprom JSC Group of Companies, Joint Ventures and Associates
HR	Human Resources
HSE	Production Safety Committee of the Board of Directors of Kazatomprom
ISR	In-situ Leach Recovery
IEC	Industrial Environmental Control
ICMM	International Council on Mining and Metals
IPO	Initial Public Offering
ISO	International Organization for Standardization
ISSA	International Social Security Association
IPS	Integrated Planning System
IT	Information Technologies
IFRS	International Financial Reporting Standards
IAS	Internal Auditor Service
ISO 45001	International Standard of Occupational Health and Safety Management Systems / Occupational Health and Safety Management Systems – Requirements
IAEA	International Atomic Energy Agency
IAEA LEU Bank / IAEA Fuel Bank	International Atomic Energy Agency's Low Enriched Uranium Bank
JV	Joint Venture
KAP / Kazatomprom / Company	NAC Kazatomprom JSC
KPI	Key Performance Indicator
LLP	Limited Liability Partnership

Local content	Percentage of the cost of labour of citizens of the Republic of Kazakhstan engaged in fulfilling a procurement contract in the total payroll budget of the contract, and/or the percentage of the cost of a share (shares) of local origin determined in a product (products) in accordance with the substantial transformation or finished production criteria by residents of the Republic of Kazakhstan in the total cost of the product (products) under the relevant purchase contract.
LSE	London Stock Exchange (London Stock Exchange)
LTIFR	Lost Time Injury Frequency Rate
LEU	Low Enriched Uranium
MNPP	Mangystau Nuclear Power Plant
NEA	Nuclear Energy Agency
NFC	Nuclear Fuel Cycle
NAV	Net Asset Value
NEI	Nuclear Energy Institute
PCR test	Polymerase Chain Reaction test
PQC	Prequalification of candidates
RF	Russian Federation
RK	Republic of Kazakhstan
RMS	Risk Management System
RPC	Reactive Power Compensators
REGSUN	Annual meeting on the safety regulation of uranium production and natural radioactive material
SS of the RK ISO/ IEC 17025	State Standard of the Republic of Kazakhstan General competency requirements for testing and calibration laboratories
Samruk-Kazyna	Samruk-Kazyna Joint-Stock Company
SPO	Secondary Public Offering
SLRW	Solid Low-Level Radioactive Waste
THK	Trade House KazakAtom AG
R&D	Research and Development
WNA	World Nuclear Association
WNTI	World Nuclear Transport Institute
U_3O_8	Uranium Oxide Concentrate
UF6	Uranium hexafluoride
UME	Uranium Metal Content Equivalent
UO_2	Uranium Dioxide
UO_3	Uranium Trioxide
UN	United Nations
UN FC CC	UN Framework Convention on Climate Change
USA	United States of America
UEC	Uranium Enrichment Centre
UN SDGs	UN Sustainable Development Goals

5.15. UK tax information

This review is based on UK law and UK government tax and customs duties at the date of this document each of which is subject to change, possibly retroactively. Unless otherwise indicated this review only addresses some of the effects of UK taxation on individuals who are the absolute beneficial owners of shares or GDRs and who (1) are UK residents for tax purposes; (2) are not residents for tax purposes in any other jurisdiction and (3) do not have a permanent establishment in the Republic of Kazakhstan which is associated with the ownership of shares or GDRs (hereinafter – Holders from the UK).

In addition this review (1) considers only the tax consequences for UK Holders who hold shares and GDRs as equity, and does not consider tax consequences that may be relevant to some other categories of UK Holders such as dealers; (2) it is assumed that the UK Holder does not directly or indirectly control 10 or more percent of the voting shares of the Company; (3) it is assumed that the holder of the GDR has a beneficial ownership of the underlying shares and dividends on such shares; and (4) tax consequences for UK Holders which are insurance companies, investment companies, charities, or pension funds, are not considered.

This review is a general guide and is not intended and should not be construed by specific Holders from the UK as legal or tax advice. Accordingly, investors should consult their tax advisers regarding general tax consequences including the consequences of acquiring, holding and disposing of shares or GDRs in accordance with UK law and UK tax and customs administration practices in their particular case.

Withholding tax

Assuming that income derived from the GDR does not have a source in the UK, such income should not be taxed at the source of payment in the UK. Dividends on shares will not be taxed at the UK source.

Dividends taxation

A UK holder receiving a dividend on shares or GDRs may be required to pay UK income or corporate tax (as the case may be) on the gross amount of the dividend paid before deduction of Kazakhstan taxes at the source of payment, taking into account the presence of any amount set off against Kazakhstan tax at the source of payment. UK holder – an individual who is a resident and resides in the UK will pay UK income tax on dividends paid on shares or GDRs that are subject to the actual tax exemption on the first £5,000 of all dividends (zero dividend rate) received for the relevant tax year, including dividends received from any other equity investments for the same tax year. UK holder – an individual who is a resident but does not reside in the UK and entitled to select UK taxation based on the transfer of funds (and where necessary, paying a transfer fee), will pay UK income tax on dividends paid on shares or GDR, to the extent that the dividend is transferred or considered to be transferred to the UK. A UK holder who is a UK resident company for tax purposes should not be subject to corporate tax on dividends paid on shares or GDRs, unless it is subject to certain rules against tax evasion.

Taxation at exclusion or conditional exclusion

The alienation of the Holder's shares from the UK in stocks or GDRs may result in taxable income or an allowable deduction for tax purposes for UK taxable income depending on the position of the Holder from the UK and subject to tax exemption. A holder from the UK who is a resident individual and resides in the UK will be required to pay UK capital gains tax on taxable income upon alienation of a share in shares or GDRs. A UK holder who is a resident individual who does not reside in the UK and has the right to choose taxation in the UK based on the transfer of funds (and, where necessary, paying a transfer fee), will pay the UK capital gains tax to the extent that in which taxable income derived from the disposal of a share in shares or GDRs is transferred or deemed to be transferred to the UK. In particular, transactions with GDRs on the London Stock Exchange may result in the transfer of profits, which, accordingly, will be subject to UK capital gains tax. In particular transactions with GDRs on the London Stock Exchange may result in the transfer of profits which, accordingly, will be subject to UK capital gains tax. An individual – a holder of shares or GDRs who ceases to be a resident or has not resided in the UK for tax purposes for less than five full years and alienates such shares or GDRs for such a period, may be required to pay UK capital gains tax upon returning to the UK, despite the fact that during the alienation he was not a resident and did not live in the UK. A UK holder who is a legal entity will pay UK corporate tax on any taxable income from the sale of shares or GDRs.

Action of taxes of Kazakhstan at the source of payment

Dividends on shares and GDRs are subject to Kazakhstan tax at the source of payment. A holder from the UK – an individual – resident must have the right to offset the Kazakhstan tax at the source of

payment withheld from such payments against UK income tax on such payments in accordance with the procedure for calculating such a set-off amount in the UK. A UK holder, a UK resident company, usually does not pay corporate tax on dividends paid and, therefore, will usually not be able to claim a deduction from any Kazakhstan taxes at the source of payment.

Stamp and equivalent of stamp tax (SEST)
Assuming that a document executing a transaction or containing an agreement to transfer one or more shares or GDRs, (i) is not signed in the UK or (ii) does not relate to any property located in the UK, or an act committed or performed in UK (which may include participation in payments to bank accounts in the UK) such a document should not be subject to stamp duty on declared value. Even if the document completing the transaction or containing an agreement to transfer one or more shares or GDRs, (i) is signed in the UK and/or (ii) concerns any property located in the UK, or an act committed or performed in the UK, in practice, there should be no need to pay stamp duty on declared value for such a document in the UK, if such a document is not required for any purpose in the UK. If there is a need to pay stamp duty on declared value in the UK, then it may be necessary to pay interest and fines. Since GDRs are securities whose value is not expressed in pounds sterling, the stamp duty on a “bearer document” should not be paid either for the issue of GDRs or for the transfer of securities that are transferred through the GDRs. Assuming that shares (i) are not registered in a registry located in the UK, or (ii) are not combined with shares issued by a UK-registered company, the transfer of shares or GDRs should not be subject to SEST.

5.16. Contacts

GRI 2-1

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GRI 2-3

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