16 March 2022, Nur-Sultan

OPERATING AND FINANCIAL REVIEW FOR 2021

This Operating and Financial Review is intended to assist with the understanding and assessment of trends and significant changes related to the operations and financial position of NAC Kazatomprom JSC ("the Company", "Kazatomprom" or "KAP").

In this document, "the Group" refers to the Company and its consolidated subsidiaries, i.e. companies that the Group controls by having (i) the power to direct their relevant activities that significantly affect their returns, (ii) exposure, or rights, to variable returns from its involvement with these entities, and (iii) the ability to use its power over these entities to affect the amount of the Group'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.

The Group, with its associates and joint ventures ("JVs"), are collectively referred to as "the Holding".

This review is based on the consolidated financial statements of the Group the year ended 31 December 2021, in each case without material adjustment, unless otherwise stated. It should be read in conjunction with those statements and the accompanying notes, in addition to the Kazatomprom 4Q21 Operations and Trading Update, and other Company reports. All financial data and discussions thereof are based upon audited consolidated financial statements (Financial Statements) prepared in accordance with the International Financial Reporting Standards ("IFRS"), unless otherwise indicated.

The functional currency of Kazatomprom is the national currency of Kazakhstan, the Kazakhstani Tenge ("KZT"). All references to pounds ("lb") herein are referring to pounds of uranium oxide (U_3O_8). References to dollars are referring to the United States dollar ("USD").

Additional information about the Group and its businesses and operations is available in regularly published documents submitted to the Regulatory News Service of the London Stock Exchange ("LSE"), on the Astana International Exchange ("AIX") and on Kazatomprom's corporate website (www.kazatomprom.kz).

This document contains forward-looking information ("FLI"). For more information regarding the risks and assumptions associated with FLI, see the Risks and FLI section at the end of the document.

TABLE OF CONTENTS

1.0 CORPORATE OVERVIEW 3
2.0 ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE (ESG) 6
3.0 MARKETING 12
4.0 PRESENTATION OF FINANCIAL INFORMATION 14
5.0 SIGNIFICANT FACTORS AFFECTING THE GROUP'S RESULTS OF OPERATIONS 17
6.0 KEY PERFORMANCE INDICATORS ANALYSIS 21
7.0 CAPITAL EXPENDITURES REVIEW 28
8.0 RESERVES AND GEOLOGICAL SURVEYS 30
9.0 LIQUIDITY AND CAPITAL RESOURCES 31
10.0 INDEBTEDNESS 34
11.0 OUTSTANDING SHARES 36
12.0 GUIDANCE FOR 2022 37
13.0 RISKS AND FORWARD-LOOKING INFORMATION 39

1.0 CORPORATE OVERVIEW

Kazatomprom is the world's largest producer of natural uranium, with priority access to one of the world's largest uranium resource bases. According to UxC, LLC ("UxC") data, the Company's 2021 uranium production represented approximately 24% of global primary uranium supply. The Holding, which includes all uranium production from Kazakhstan, represented 46% of global primary uranium supply in 2021.

As the National Atomic Company of the Republic of Kazakhstan, Kazatomprom holds national operator status for the export and import of uranium and its compounds, nuclear power plant fuel, special equipment and technologies, and rare metals, which provides the Company with certain privileges, including the ability to obtain subsoil use licenses through direct negotiation with the authoritative body of the Government. This effectively grants priority access to high-quality, in-situ recovery ("ISR") - conducive deposits of natural uranium, which are abundant in the Republic of Kazakhstan. In 2021, approximately 29,000 tU of the world's annual uranium production was mined using ISR, with approximately 75% of that ISR production coming from the Holding's mines in Kazakhstan.

The Holding operates 14 mining assets with 26 uranium deposits/blocks ("deposits"), all of which are located in Kazakhstan and mined using the ISR mining method, including:

- Two uranium producing subsidiaries, wholly-owned by Kazatomprom (100% share ownership), operating on five uranium deposits/blocks;
- Twelve uranium producing companies, partly owned by Kazatomprom (based on equity shareholding), operating on 21 uranium deposits/blocks.

In 2021, JV Budenovskoye LLP obtained an amendment for the right to commence commercial production under JV Budenovskoye's Subsoil Use Agreement for the sites 6 and 7. The 25-year plan (2021 – 2045) provides for the future development of Budenovskoye Blocks 6 and 7 after the completion of its ongoing pilot production program, with a commercial ramp-up of up to 2,500 tU beginning no earlier than 2024, and the potential for maximum annual production capacity of up to 6,000 tU no earlier than 2026. Also, in 2021, Kazatomprom obtained the Subsoil Use Agreement for the right to commence commercial production from the Zhalpak deposit, which was transferred to "Ortalyk" LLP. The 21-year plan (2022 – 2042) provides for development of the Zhalpak mine according to the "Ortalyk" LLP mine plan, with a maximum annual production capacity of up to 900 tU no earlier than 2030. Pilot production at both Budenovskoye Blocks 6 and 7 and at Zhalpak mine had not started in 2021.

At 31 December 2021, the Group's attributable Proved and Probable Ore Reserves totalled 350.8 thousand tonnes of Uranium Metal Content Equivalent ("UME"). Attributable Measured and Indicated Mineral Resources (inclusive of the Mineral Resources categorized as Ore Reserves) totalled 495.7 thousand tonnes of UME. Each category is reported in accordance with the terms and definitions of the Joint Ore Reserves Committee (JORC) Code with more information available in section 8.0 RESERVES AND GEOLOGICAL SURVEYS. An update letter from the independent consultant on the Mineral Resource and Ore Reserve statements valid as at 31 December 2021 has also been published and is now available on Company's website. It is expected that a full Competent Person's Report (CPR) will be prepared and published on the Company's website in the 2nd quarter of 2022.

Kazatomprom's core business is the mining and marketing of natural uranium products. The Group is also present in other stages of the "front-end" nuclear fuel cycle, including uranium dioxide (UO_2) ceramic powder production, and the production of fuel pellets for fuel assemblies used in nuclear power stations. The Group also has access to uranium enrichment services through its agreements with TVEL Fuel Company of Rosatom. In September 2021, the certification of the "Ulba-FA" LLP plant for the production of fuel assemblies (FA) was completed. In October 2021, the "Ulba-FA" LLP plant was recognized as a certified supplier of the Chinese company China General Nuclear Power Corporation-Uranium Resources Co. ("CGNPC-UR") for the supply of fuel assemblies of AFA 3G design to nuclear power plants in the People's Republic of China. "Ulba-FA" LLP has begun working to ensure the production and supply of fuel assemblies according to orders placed under a long-term contract with CGNPC-URC, which entered into force in May 2021.

In addition to its uranium operations, the Group includes one subsidiary that is engaged in the processing of selected rare metals, primarily tantalum, niobium and beryllium.

The Group also includes subsidiaries that are primarily engaged in providing supporting services to the uranium segment, such as drilling, transportation, IT and security services.

1.1 Strategy, vision and mission

Kazatomprom's Mission is to develop its uranium deposits and their value chain components in order to create long-term value for all of its stakeholders, in accordance with the principles of Sustainable Development. The Vision of the Company is to become the partner of choice for the global nuclear fuel industry. The Company's 2018-2028 Development Strategy is to achieve continued growth and strengthen its position as the leading company in the uranium industry by focusing on:

- Uranium mining as the core business;
- Optimising production, processing and sales volumes based on market conditions;
- Creating value by enhancing the marketing function and expanding sales channels;
- Implementing best-practice business processes;
- Developing a corporate ethics culture that is commensurate with industry leader status.

The Company strives to be the first choice in the provision of uranium and related front-end services, focusing on reliability, technical excellence, outstanding Health, Safety and Environmental ("HSE") performance, and fair business practice with customers.

The Group's Mission key highlights:

- **Sustainability –** the Group is committed to the best HSE practices and the management team is focused on continual improvement.
- **Uranium deposits and their value chain components** – the focus of the Group's commercial activities will remain where it has the most significant competitive advantage: uranium mining.
- **Ensure long term value growth** – The Group focuses on high-margin, cash generating operations with relatively modest requirements for further expansion capital in its uranium segment. In maintaining a conservative debt policy, the Group seeks to return substantial cash flows to its shareholders, whilst preserving a conservative financial position structure and comfortable leverage to better position itself to act on market and investment opportunities.

1.2 Update on recent geopolitical events

Subsequent to financial statements reporting date, significant geopolitical events have 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 a 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. Currently, the situation in all regions of the country has stabilized, and the state of emergency has been cancelled. The functioning of utilities and life support systems have been fully restored, and restrictions on communication and transportation have been removed.

(b) Events in Ukraine

On 24 February 2022, the Russian President announced that Russia would recognize independency of the Luhansk People's Republic and Donetsk People's Republic and the Russian military mobilized 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.

In connection with the sharp devaluation of the Russian ruble, the Tenge exchange rate began to be adjusted. 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 organizations, 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. There may be a risk of difficulty in making mutual settlements in US dollars with UEC in the event of restrictions and blocking of the UEC's foreign currency accounts or in the event of the withdrawal of Russian banks from the SWIFT system. Potential measures related to the risk of Rosatom being sanctioned are now under consideration.

Some of the Group's exported products are transported through the Russian Federation and, accordingly, there are risks associated with both transit through the territory of Russia 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.

The Group's financial position is 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.

2.0 ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE (ESG)

As the world-leading producer and supplier of natural uranium, Kazatomprom is fuelling the clean energy revolution with carbon-free baseload power. The Company is proud to represent Kazakhstan's industrial strength on the world stage, guided by the desire to serve communities and protect the environment on a local, regional and global scale while driving sustainable value and long-term growth.

2.1 Industry ESG

Over the past several years, countries around the world have faced an increasing frequency of extraordinary, interconnected challenges. From social unrest in numerous jurisdictions, to COVID-19 and the uncertain timing of a global economic recovery, to the devastating global climate-related events wreaking havoc across every continent, there is growing pressure for governments to take action and enact meaningful changes to address the crises. Alongside the calls for politicians to do more, industry associations and their member companies are also facing growing pressure to enhance traditional HSE monitoring and reporting and improve existing the high-level, generic approach to sustainable development, by implementing policies, plans and actions under the more specific principles of environment, social responsibility and governance (ESG). With the Paris Agreement and Net-Zero Emissions targets setting the stage for comparative evaluation, a company's commitment to ESG, along with its authentic efforts to reduce negative impacts and mitigate related future risks, is increasingly becoming a key measure for the assessment of its present and future value.

For nuclear power and the nuclear fuel cycle, the undeniable benefits and opportunity for the industry to help reduce the detrimental impact of fossil fuels have typically been overshadowed by misinformation, controversy and politicization. Confusion related to public and worker safety, effective regulatory oversight, effective waste management, life-cycle carbon emissions intensity, and operational management has resulted in a significant underappreciation of the nuclear fuel cycle's inherent ESG benefits. Unlike carbon-based energy sources, nuclear power plays a critical role in meeting international environmental targets and fulfilling "green" economic policies, with significant, positive social impacts already proven in jurisdictions that have recognized the benefits and deployed its use. Being among the most regulated industries in the world, the nuclear fuel cycle also necessitates unparalleled oversight at the government level, driving strong governance frameworks at the corporate level.

As a result, the nuclear industry and its supply chains are strongly aligned with the ESG principles that are currently being highlighted by stakeholders across every sector. Companies, including Kazatomprom, are now moving to do more in publicizing and reiterating the opportunity for nuclear energy to play a role in addressing climate change, managing pollution and waste in the atmosphere, on land and in waterways, and improving and deploying clean technology. There is an urgent need for a paradigm shift: to achieve the necessary targets set forth by the Paris Agreement, the deployment of safe, baseload, carbon-free sources of energy must be accelerated, including broader acceptance of nuclear power as a key part of a greener international strategy.

2.2 ESG at Kazatomprom

Sustainable development practices have been prioritized and reported on by the Company for over a decade, well before its privatization and 2018 initial public offering. For many years, Kazatomprom's Integrated Annual Reports (IAR) have summarized the key aspects of its sustainability, corporate social responsibility, health and safety, and corporate governance results, highlighting an increasingly proactive and transparent approach to what now falls under the pillars of ESG. In 2019 the Company began reporting results in alignment with the United Nations' sustainable development goals, improving disclosure for investors interested in ESG factors.

As the world's largest uranium mining company and a nuclear industry leader, Kazatomprom recognizes the impact of its businesses on both local and global social development and works to address some of the key global challenges related to the environment, climate change, clean energy generation, and the social conditions in the regions where it operates. Sustainable development is a fundamental component of the Group's Development Strategy and by extension, ESG-related targets and objectives are therefore integral to the Company's plans, including:

- Reducing the environmental impact of subsidiaries, associates and joint ventures;
- Environmental protection, including effective water and land resources management, ecosystem and biodiversity conservation, and the reduction of emissions;
- Ensuring resources are extracted in a way and at a rate that minimizes subsoil impact;

- Increased oversight of energy and resource management;
- Growth of socio-economic prosperity in the regions where the Company operates; and
- Facilitation of access to affordable, reliable, sustainable and modern energy sources, and enhancement of energy security.

With an increasing focus on “green” priorities, Kazatomprom’s ongoing improvement of its sustainable development practices is a dominant factor ensuring the long-term stability and competitiveness of the Company, as well as its ability to create incremental benefits for all stakeholders, resulting in a positive contribution to the development of the country, society in general, and the uranium industry.

Throughout 2021, the Company continued taking steps to bolster its ongoing transition to a risk-based approach in sustainability management to meet the demands of transparent ESG reporting, which involves:

- Identifying and assessing risks that have a direct impact on the Group's long-term financial performance and implementing measures for effective management of those risks;
- Enhancing sustainability risk management practices and developing a risk culture to identify new opportunities to improve performance and gain significant competitive advantages;
- Adapting intra-company reporting processes to provide reliable and accurate ESG-related metrics for future disclosure, allowing for improved assessment and evaluation by external parties;
- Advancing the Company’s ESG reporting and sustainability processes to meet accepted global standards, allowing recognized third-party providers to apply a corporate ESG rating to Kazatomprom.

In 2021, Samruk-Kazyna JSC, Kazatomprom’s majority shareholder, engaged an independent consultant to conduct corporate governance diagnostics in order to assign a corporate governance rating to the Company. According to the results of diagnostics, the Company demonstrated high level of corporate governance and was assigned the Corporate Governance Rating “A” (in 2020 “BBB”).

2.3 Occupational health and safety

Health, safety, and environmental protection, including nuclear and radiation safety, are priorities for the Company. The Company is continuously improving the management system of its industrial HSE programs as it strives to a goal of zero injuries.

None of the Company’s plans and objectives can be achieved without its most important resource: a team of over 20,000 dedicated employees. Kazatomprom ensures they have the skills, training and equipment needed to work safely. The Company’s business culture is built on a foundation of personal and group responsibility where people are empowered to make safe choices, voice any safety concerns, and report both actual incidents and near misses, to ensure continual improvement. Kazatomprom’s commitment to safety and wellbeing is demonstrated by its membership of the International Social Security Association’s Vision Zero initiative to reduce workplace injuries and promote comfortable and safe working conditions guided by the Vision Zero program’s “Seven Golden rules”. These rules apply to all employees of the Company’s enterprises and their contractors, the main goal of which is to achieve the goal of zero injuries:

- Take leadership – demonstrate commitment;
- Identify hazards – control risks;
- Define targets – develop programs;
- Ensure a safe and healthy system – be well-organized;
- Ensure safety and health in machines, equipment and workplaces;
- Improve qualifications – develop competence;
- Invest in people – motivate by participation.

The Company conducts its production activities in compliance with both Kazakh and international requirements for labour protection and industrial safety, implementing comprehensive measures to prevent incidents and accidents. Health and safety management systems that meet international standards (ISO 45001) have been implemented and annually confirmed by external audit, and the Company carries out systematic work to improve the safety culture among employees and managers at all levels.

The measures undertaken in 2021 to enhance the focus on safety awareness helped to prevent major industrial accidents (including uncontrolled explosions, emissions of dangerous substances or destruction of buildings) at the Holding’s enterprises. In 2021, the Holding spent more than KZT 8.29 billion (in 2020: KZT 7.63 billion) within its occupational health and safety programs. The table below reflects the safety results of 2021 and 2020:

Indicator	2021	2020	Change
Industrial accidents[1]	-	-	-
LTIFR (per million man-hours)[2]	0.55	0.25	120%
Unsafe conditions, unsafe actions, near-miss reporting	44,271	35,529	25%
Number of accidents[3]	9	8	13%
Fatalities	2	1	100%

[1] Defined as uncontrolled explosions, emissions of dangerous substances, or destruction of buildings.
[2] Lost-Time Injury Frequency Rate (LTIFR) per million hours.
[3] Defined as impact on the employee of a harmful and (or) dangerous production factor in performance of his work (job) duties or tasks of the employer, which resulted in an industrial accident, sudden deterioration of health, or poisoning of the employee that led to temporary or persistent disability, or death.

Notwithstanding the continuing actions taken to improve workplace health and safety, a number of serious accidents occurred in 2021. The accidents included: one case resulting from of the impact of moving mechanisms, one case of chemical burns, three cases of falling from a height, one case of falling on a slippery surface and two road accidents. Both fatalities occurred as a result of one road accident.

Following each accident, a thorough investigation was completed, the main causes were identified, preventative measures were developed and procedures were changed to prevent similar incidents in the future. The investigation results were reported to other Group entities to ensure all operations could learn from the event and adjust their processes accordingly. The Company will continue working to increase the involvement and awareness of employees in industrial safety. As an example, specific focus has been committed in 2022 to improving road safety awareness and practices.

As part of the continuing work to improve the system for ensuring industrial safety and implementing the 2018 – 2028 development strategy, the Company completed the following in 2021:

- analysis of the frequency and nature of detected hazardous conditions, hazardous actions, potentially hazardous situations, and Near Misses to determine the adequacy of the corrective measures taken;
- improvement of the survey methods used to gauge the level of conscious observance of industrial safety requirements by employees and managers at all levels;
- the company was certified by TUV International Certification (Germany) for compliance with international standards ISO 45001 (HSE management systems) and ISO 14001 (environmental management systems);
- implementation of the Environmental and Social Action Plan (ESAP) continued, aimed at improving environmental and social stability in the regions where the Company operates;
- the practice of stopping unsafe work by workers (STOP cards) was introduced across all operations;
- quarterly reports on health and safety were updated, including sections for contractor safety;
- comprehensive measures were taken to combat COVID-19 at the Company's enterprises.

Related activities under the 2018-2028 Development Strategy are continuing into 2022:

- automation of production industrial safety reporting processes;
- development and implementation of a methodology for continuous identification of hazards and risks in the workplace – 5 safety steps;
- continued implementation of the ESAP roadmap;
- improvement of approaches to health and safety of workers.

These activities are focused on implementation of preventative measures, risk-based approach to the organization of the production process and improving the safety culture among the Group's employees.

2.4 COVID-19 Response

The Company continues to monitor the situation related to the COVID-19 pandemic, both in the Holding’s production facilities and corporate offices. Meetings of operational headquarters were held and plans for anti-epidemic measures at production sites were updated at all Group Companies to ensure the relevance and effectiveness of all existing protocols. Preventative measures were taken to prevent further spread of the infection for all detected cases of COVID-19 among the employees of the Group.

The measures taken by the Company have to date been successful in maintaining continuity of operations and production capacity. However, as a result of the introduction of a state of emergency in the Republic of Kazakhstan in 2020, exploration activities at production facilities were suspended for a four-month period, which led to a shift in the schedule for commissioning of new wellfields.

The resulting impact was a decrease in not only the production volume in 2020, but in production volumes for 2021 as well (compared to expected volumes). In addition to the delays in the commissioning of new wellfields, the COVID-19 pandemic impacted the entire production supply chain, resulting in shortages of certain materials and equipment, including pipe products, which also impacted production. Supply chain challenges have continued, and as a result the Group has announced a wider range for its production volume Guidance for 2022 (see Section 12.0 GUIDANCE FOR 2022). While Kazatomprom will make every effort to meet its uranium production plan, final production volumes for 2022 may still fall short of the target level.

Year-to-date in 2022, the COVID-19 situation in Kazakhstan continues to develop, although as of the date of this report, it has stabilized, and a number of restrictions have been lifted throughout the country.

Vaccination status is being monitored on a daily basis. Taken as a whole, including the corporate headquarters and all Group entities, as of 14 March 2022, over 94.3% (18,139) of employees have received a first vaccine dose, over 93.9% (18,061) now being fully vaccinated with two doses and over 40% (7,230) of all vaccinated personnel revaccinated with booster vaccine.

2.5 Environmental Sustainability

An internationally recognized benefit of the ISR mining method is its low environment and radiological impact. In contrast to underground and open-pit mining, ISR mining does not generate significant waste rock piles, nor are major tailings dams required. All of the Group's uranium is mined using the ISR method and as a result, its operations inherently have a minimal impact on land, atmosphere and water supply. Minimizing and mitigating the impact of the Company's activities is a central part of its business strategy with continual research, development and deployment of new eco-friendly technologies and processes. Kazatomprom has been working to establish the baseline impact of its operations on local ecosystems and biodiversity through widespread long-term surveys and conducting dedicated training courses in Biodiversity Assessment at Uranium Deposits for team members across the organisation.

The company employs reliable systems for monitoring the environment and radiation safety at all of its uranium mines and production facilities (ISO 14001 compliant). In 2021 there were no environmental or radiation-related incidents although 10 fines were paid by the Holding for violations of environmental legislation, totalling KZT 12.44 million ("Ulba Metallurgical Plant" JSC (UMZ JSC), "Baiken-U" LLP, "Kyzylkum" LLP, "RU-6" LLP, "SKZ-U" LLP). Administrative fines were imposed by the authorized state body for violation of environmental norms and requirements, namely for land pollution due to the spill of technological solutions and excess of pollutants in wastewater ("Baiken-U" LLP, "Kyzylkum" LLP, "RU-6" LLP, "SKZ-U" LLP), as well as payments for excess emissions of individual components into the environment ("UMZ" JSC). However, the total limits allowed by the state bodies for the generation of waste, emissions, and discharges were not exceeded. For all violations, the root causes were identified, eliminated in a timely manner, and measures are being taken to prevent similar events in the future.

Radiation exposure and nuclear safety remained stable in 2021 with no exceedances or radiation accidents. All work was carried out in accordance with the requirements of regulatory legal acts and internal documentation on radiation and nuclear safety.

As part of the implementation within the ESAP Roadmap approved by the Board of Directors of Kazatomprom, the following activities are underway in 2022:

- research on the environmental and local social impacts of the Company's production facilities;
- creation of a system for environmental regulation and environmental monitoring of uranium mining enterprises;
- an approach has been developed to calculate the estimated cost of decommissioning and procedures for the ongoing analysis of the current costs for decommissioning of assets (assessment of Asset retirement obligations (ARO));
- a rating of the Company's environmental performance has been developed, taking into account industry specific attributes;
- in accordance with the best international practices, a method has been developed for assessing biodiversity at uranium deposits, production facilities and adjacent territories.

Indicator*		2021	2020
Energy consumption	thousand GJ	4 091	3 736
The volume of waste per produced unit of production of uranium mining and processing enterprises	Tonnes	5.2	4.4
Expenses for carrying out measures to protect the environment	KZT mln	964.6	2,170.30
% of enterprises within the Group certified by ISO 14001		100%	100%

* Detailed ESG indicators will be disclosed in the Company's integrated annual report.

In 2021, the increases in the consumption of energy compared to 2020, as well as the increase in the volume of waste per production unit of uranium mining and processing enterprises were associated with an increase in the volume of extraction and production in 2021 in comparison to 2020. Drilling volume was lower in 2020 due to the pandemic-related safety measures that were implemented in 2020, which impacted production volumes throughout the second half of that year – production and the related metrics in 2020 should therefore be considered unusually low (see Section 6.3.3 Uranium segment production by operation).

In 2021, the total cost of environment protection measures amounted to KZT 964.6 million, a decrease in comparison to 2020 due to the early implementation of several Group's environment protection projects and measures as a cost of KZT 940.1 million, planned for 2021 but expensed in 2020.

2.6 Human rights and fundamental freedoms

The Company understands that its responsibilities go beyond the workplace, which is why it supports the development and growth in Kazakh communities through the promotion of health and wellbeing across the regions in which it operates. Kazatomprom has funded children's playgrounds, sports facilities, community centres and contributed to the redevelopment of the city of Turkistan, a historical and cultural jewel in Kazakhstan's crown. The Company has also implemented real-time radiation monitoring in communities surrounding its extraction and processing facilities, ensuring an immediate response to any unusual conditions. Caring for employees and the wider community across the areas of operation will always remain a key aspect of Kazatomprom's business.

Indicator*	2021		2020	
	m	w	m	w
Headcount	16,942	3,701	17,228	3,791
Composition of governing bodies and personnel, %	82%	18%	82%	18%
Share of employees covered by collective agreements, %	94%		98%	
Expenses for training, KZT thousand	1,476.2		1,649.7	
The ratio of the minimum wage among men and women	m / f 1/1		m / f 1/1	
Social stability index (SRS), %	73%		79%	
Transfers to the budget for the socio-economic development of the regions of presence, KZT mln.	1,608.6		1,537.3	

* Detailed ESG indicators will be disclosed in the Company's integrated annual report.

In 2021, a 1.8% decrease in the number of personnel compared to 2020 was due to the sale of non-core assets - "Astana Solar" LLP, "Kazakhstan Solar Silicon" LLP and "MK KazSilicon" LLP (KazPV project) (see Section 5.2 Changes in the Group structure), along with measures to optimize business processes. The employment of women in the total number of employees in 2021 was 18%, which is in line with the figures for 2020. The ratio of the minimum wage among men and women in the reporting period, compared to 2020, remains stable at a ratio of 1:1. In 2021 the overall average minimum wage increased by 12% in comparison to 2020.

In 2021, the "Center for Social Interaction and Communications" PI conducted research to determine the level of social stability (Samruk Research Service (SRS)) at 18 enterprises of the Group. SRS is calculated based on the assessments of employees and their personal perception of the components of the index. SRS includes three components:

- Index of involvement: the level of satisfaction with working conditions and safety, relationships and communications in the company, as well as the level of employee loyalty.
- The index of social well-being: captures the mood of employees, determined mainly by external factors and the social environment.

- Index of social tranquillity: reflects the level of social tension of the team, the assessment of the protest potential and the motives of the hypothetical readiness for civil unrests.

According to the results of the study, the level of SRS was 73%, a 6% decrease compared to 2020 that explained is by a decrease in all the above index components.

In 2021, contributions to the socio-economic development of the regions where the Company operates and the development of area infrastructure under the terms of subsoil use contracts amounted to KZT 1.6 billion. The largest transfers were made to the budgets of Turkestan and Kyzylorda regions (KZT 1.2 billion and KZT 341.6 million respectively).

3.0 MARKETING

3.1 The uranium market

The sale of natural uranium and uranium products is Kazatomprom's primary source of revenue and profit. Market prices for uranium have a significant impact on the Company's financial results and like any commodity, the balance of supply and demand determines the market price for uranium products. The sales prices realized by any primary uranium producer are highly dependent upon the specific types of contracts they deliver into and the structure of their sales portfolio (including terms, price formulae used in each contract, proportion of spot and term contracts).

Kazatomprom expects that in the years to come, nuclear power, as a reliable source of carbon-free, base-load electricity, will maintain and strengthen its position in the broader energy market, resulting in increased demand for uranium. Accordingly, uranium prices should rise from current levels, which represents a significant opportunity for Kazatomprom as a low-cost producer with a high degree of leverage to market prices.

3.2 Sales

There are over 70 utility companies globally, operating 442 nuclear power reactors. As part of the Company's strategic goal to create value by expanding sales channels, its marketing and sales departments are constantly working to grow the Company's customer base, with ongoing negotiations in Europe, North and South America and the Middle East.

In 2021, the Company sold its uranium products, directly and through its Swiss marketing subsidiary "Trade House KazakAtom" AG ("THK"), to 21 customers in 8 countries, including three new customers (2020: 20 customers in 10 countries). Kazatomprom delivers U_3O_8 and finished uranium products to various destinations based upon customer requirements:

- **Converters:** The Group transports U_3O_8 to licensed conversion facilities owned by companies such as ConverDyn (US), Cameco (Canada) and Comurhex (France), first by rail from the Company's operations in Kazakhstan, generally to the port of St. Petersburg in Russia (see Section 1.2 Update on recent geopolitical events), then by sea to various ports in the US, Canada and Europe. The material then moves by rail or road to the processing facilities and is transferred to the customer's accounts. In some cases, the Group enters into swap (exchange) agreements at the conversion facility to reduce risks and transportation costs. This can include the exchange of U_3O_8 with partners of the Group at the conversion facility.
- **China.** When transporting material to China, the Company delivers its cargo to the Alashankou railway station near the Kazakhstan-China border.
- **Russia.** When shipping to the Russian Federation — recipients include "Angarsk Electrolysis and Chemical Combine" JSC (AECC), "Siberian Chemical Combine" JSC (SCC) and "Chepetsk Mechanical Plant" JSC (Rosatom group) — the Group delivers its cargo by rail from its operations to one of several Russian railway stations, depending on the final destination of the products.
- **India.** The Company generally delivers U_3O_8 to destinations in India by rail to the port in St. Petersburg, Russia (see Section 1.2 Update on recent geopolitical events), then by sea to the port of Mumbai, India.
- **Others.** The transportation methods and routes to other countries may differ depending on the terms of delivery agreed with customers.

The following table provides the geographical distribution of uranium segment sales over the past three years:

Consolidated sales* of U_3O_8 products by region

(% of consolidated U_3O_8 sales volume)

Region	2021	2020	2019
Americas	32%	24%	17%
Asia	41%	43%	53%
Europe	27%	33%	30%

*Includes sales of uranium to JV partners

Source: Internal company data. Percentages have been rounded.

KAP & THK sales of U_3O_8 products by region

(% of U_3O_8 sales volume*)

Region	2021	2020	2019
Americas	23%	16%	10%
Asia	48%	49%	59%
Europe	29%	35%	31%

**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.*

Source: Internal company data. Percentages have been rounded.

4.0 PRESENTATION OF FINANCIAL INFORMATION

4.1 Segments

During the year, the Group operated through three principal business segments:

- **Uranium segment** includes uranium mining and processing operations from the Group's mines, the Group's purchases of uranium from the Group's JVs and associates engaged in uranium production, and external sales and marketing of uranium products. The Uranium segment includes the Group's share in net results of its JVs and associates engaged in uranium production, as well as results of the Company as the head office of the Group. This segment does not include production and sales of UO_2 powder and fuel pellets.
- **"Ulba Metallurgical Plant" JSC ("UMP") segment** includes production and sales of products containing beryllium, tantalum and niobium, hydrofluoric acid and by-products. This segment is also engaged in the processing of uranium raw materials under tolling arrangements, and the production of UO_2 powder, fuel pellets and production of fuel assemblies and their components.
- **Other segment** includes revenue and expenses of the Group's subsidiaries that are primarily engaged in providing supporting services to the Uranium segment, such as drilling, transportation, R&D, IT and security services. These businesses are not included within reportable operating segments, as their financial results do not meet the materiality threshold. This segment is not disclosed in this report due to immateriality.

4.2 Consolidation

In addition to the operations of the Company and its consolidated subsidiaries, the Group has a number of joint operations, joint ventures and associates.

- **Subsidiaries** are 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.
- **Joint operations** ("JOs") are entities in respect of which the Group has joint control and has rights to their assets and revenues and has obligations relating to their expenses, as well as financial obligations in proportion to the Group's interests. The Group's JOs, being JV "Akbastau" JSC and "Karatau" LLP, are consolidated as JOs from 1 January 2018. The Group's interests in JOs are accounted for on a proportional consolidation basis.
- **Joint ventures** ("JVs) are entities that are under the joint control of the Group acting collectively with other parties, and decisions over the relevant activities of such entity require unanimous consent of all parties sharing control. The Group's interests in JVs are accounted for using the equity method of accounting.
- **Associates** are entities over which the Group has, directly or indirectly, significant influence, but not sole or joint control, which is typical for a shareholding of between 20% and 50% of the voting rights. The Group's investments in associates are accounted for using the equity method of accounting.
- **Equity investments** are entities in which the Group has less than 20% of the voting rights. Equity investments are recognised at fair value as "other investments" in the Company's consolidated IFRS financial statements.

The following table lists the Group's subsidiaries, JVs, JOs and associates, as of 31 December 2021. In all cases, the share percentage shown is equal to the Group's voting rights, with the exception of "Ulba Metallurgical Plant" JSC and "Volkovgeologia" JSC, where the Group has 100% voting rights in each entity.

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 (1)	52.50%
	“Ortalyk” LLP (2)	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 (1)	50.00%
Associates	“JV “Katco” LLP	49.00%
	“JV “South Mining Chemical Company” LLP	30.00%
	“JV “Zarechnoye” JSC	49.98%
	“Kyzylkum” LLP (1)	50.00%
	“Zhanakorgan-Transit” LLP (3)	*60.00%*
Nuclear Fuel Cycle and Metallurgy		
Subsidiaries	“Ulba Metallurgical Plant” JSC	94.33%
	“ULBA-CHINA Co” Ltd (3)	*100.00%*
	“Mashzavod” LLP (3)	*100.00%*
	“Ulba-FA” LLP (3)	*51.00%*
Nuclear Fuel Cycle		
Investments (4)	“International Uranium Enrichment Centre” JSC	10.00%
Ancillary Operations		
Subsidiaries (6)	“High Technology Institute” LLP	100.00%
	“KazakAtom TH” AG or “THK”	100.00%
	“KAP Technology” LLP	100.00%
	“Trading and Transportation Company” LLP	99.99%
	“Volkovgeologia” JSC	96.62%
	“Rusburmash-Kazakhstan” LLP (3)	*49.00%*
	“Qorġan-Security” LLP (5)	100.00%
Joint Ventures	“SKZ-U” LLP	49.00%
	“Uranenergo” LLP	79.17%

The following assets are currently for sale or subject to restructuring:

Treatment	Name	Share (%)
Nuclear Fuel Cycle		
Joint Ventures	“JV “UKR TVS” Closed Joint Stock Company (7)	33.33%
Ancillary Operations		
Associates	“Caustic” JSC (8)	40.00%
	“SSAP” LLP (9)	9.89%

[1] 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.

[2] Under the terms of several 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 US Dollar 435 million. On 22 July 2021, the sale of the interest in “Ortalyk” LLP was completed following receipt of all government approvals, satisfaction of all contract pre-conditions are fulfilled by the end of 2021. Re-registration of the entity has been completed and CGNM UK Limited (a CGNPC subsidiary) is now a participant in “Ortalyk” LLP. Kazatomprom retains a 51% interest and CGNM UK Limited holds a 49% interest, with each partner purchasing a proportionate share of uranium production from the operation according to its interest. The consideration received was US Dollar 435 million (equivalent to KZT 185,858 million).

[3] 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.

[4] As at the reporting date, the Group classifies JSC Uranium Enrichment Center (TsOU) with 1 share as other investment.
[5] On July 23, 2021, the procedure of re-registration of Korgan-KAP LLP into Qorģan-Security LLP was carried out.
[6] On April 30, 2021, the liquidation procedure of “Kazatomprom-Damu” LLP was completed.
[7] In accordance with the privatisation plan of non-core assets as presented in the IPO prospectus of the Company, Group intends to sell its entire stake in JSC “JV “UKR TVS” Closed Joint-Stock Company by the end of 2022.
[8] In accordance with the privatisation plan of non-core assets as presented in the Company’s IPO Prospectus, Kazatomprom and “United Chemical Technologies Trading House” LLP entered into an Agreement on 30 December 2021, for the sale of the Company’s 40% share in “Caustic” JSC. On 31 January 2022, partial payment was made for 30% of the Company’s total interest in “Caustic” JSC, therefore “United Chemical Technologies Trading House” LLP’s interest in “Caustic” JSC increased by 12% (30% of the Company’s 40% share). The remaining portion of the Company's shares were transferred to trust management of “United Chemical Technologies Trading House” LLP until full payment for the Company’s remaining interest is completed, expected not later than 2023.
[9] In accordance with the privatisation plan of non-core assets of the Company, Group intends to sell its entire stake in “SSAP” LLP by the end of 2022. On July 8, 2020, the procedure of re-registration of JV SKZ Kazatomprom LLP into SSAP LLP (Stepnogorsk Sulfuric Acid Plant) was carried out.

5.0 SIGNIFICANT FACTORS AFFECTING THE GROUP'S RESULTS OF OPERATIONS

The significant factors that affected the Group's results of operations during 2021 and 2020, 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 sulfuric acid;
- pandemic-related costs and availability of critical operating materials;
- impact of changes in ore reserves estimates; and
- transactions with subsidiaries, JVs, JOs and associates.

5.1 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 12.1 Uranium sales price sensitivity analysis.

The following table provides the average spot price and average realized price per pound of U_3O_8 for the periods indicated:

		2021	2020	Change
Average weekly spot price (per lb U_3O_8)[1]	USD	35.05	29.60	18%
	KZT	14,932	12,236	22%
Average realized price of the Group (per lb U_3O_8)	USD	33.11	29.54	12%
	KZT	14,108	12,210	16%
Average realized price of Kazatomprom (per lb U_3O_8)	USD	32.33	29.63	9%
	KZT	13,776	12,247	12%

[1] Prices per UxC LLC.

The Company's current overall contract portfolio price is closely correlated to current uranium spot prices (see Section 12.1 Uranium sales price sensitivity analysis). However, the increase in average realized prices in 2021 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 (low of 27.35 USD/lb and high of 50.38 USD/lb). During the fourth quarter, 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 2021, please see the *Kazatomprom 4Q2021 Operations and Trading Update*, available on the corporate website.

5.2 Changes in the Group structure

In 2021 and 2020 the Group completed several transactions that had a significant impact on reported results.

In 2021:

- As previously disclosed, 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. As of the end of July, 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 "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 accordance with the privatisation plan of non-core assets as presented in the Company's IPO Prospectus, Kazatomprom and "United Chemical Technologies Trading House" LLP entered into an Agreement on 30 December 2021, for the sale of the Company's 40% share in "Caustic" JSC. On 31 January 2022, partial payment was made for 30% of the Company's total interest in "Caustic" JSC, therefore "United Chemical Technologies Trading House" LLP's interest in "Caustic" JSC increased by 12% (30% of the Company's 40% share). The remaining portion of the Company's shares were transferred to trust management of "United Chemical Technologies Trading House" LLP until full payment for the Company's remaining interest is completed, expected not later than 2023.

In 2020:

- on 17 March 2020, the Group completed the sale of its 50% stake (minus one share) in the "Uranium Enrichment Centre" JSC to its partner in this joint venture, "TVEL" JSC (TVEL). The Group kept one share in the "Uranium Enrichment Centre" JSC, which will retain the right to access uranium enrichment services in accordance with the conditions previously agreed with TVEL. The sale price amounted to Russian rubles 6,253 million or Euro 90 million, fixed at an exchange rate as of 31 December 2019. Actual cash consideration of Euro 90 million (KZT 43,858 million equivalent) was received.

In total, the number of the Group's subsidiaries, JVs, JOs, associates and other equity investments decreased from 39 as at 31 December 2020, to 35 as at 31 December 2021.

5.3 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 (94% in 2021, 91% in 2020);
- 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 (88% in 2021, 85% in 2020), 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 are 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 2021 and 2020 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 2021, the KZT/USD exchange rate fluctuated between KZT 414.77 and KZT 436.35. At the end of 2021, the National Bank of the Republic of Kazakhstan (NBK) exchange rate was KZT 431.67. Changes in exchange rates had material impact on the Group's financial performance in 2021. The Group's net foreign exchange gain in 2021 amounted KZT 3,345 million.

The following table provides annual average and year-end closing KZT/USD exchange rates, as reported by the NBK, as of 31 December 2021 and 2020:

		2021	2020	Change
Average exchange rate for the period[1]	KZT / USD	426.03	413.36	3%
Closing exchange rate for the period	KZT / USD	431.67	420.71	3%

[1] The average rates are calculated as the average of the daily exchange rates on each calendar day.

5.4 Taxation and Mineral Extraction Tax ("MET")

Kazakhstan's MET is determined by applying a 29% tax charge to the taxable base related to mining production costs (based on a formula - see table and footnote below). Taxable expenditures are 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 exclude processing and general and administrative expenses. The MET is calculated separately for each subsoil use license. The resulting MET paid is therefore directly dependent upon the cost of mining operations.

The following table provides a summary of taxes accrued by the Group for the years shown:

(KZT million)	2021	2020	Change
Corporate income tax[1]	85,345	65,492	30%
Mineral extraction tax[2]	23,659	20,110	18%
Other taxes and payments to budget[3]	62,572	55,490	13%
Total tax accrued	**171,576**	**141,092**	**22%**

[1] Applicable rate: 20%; calculation: taxable income (based on tax reporting accounts) multiplied by corporate income tax rate.
[2] 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: $(1 + 20\%) \times 18.5\% \div (1 - (1 + 20\%) \times 18.5\%)$.
[3] Includes property tax, land tax, transport tax, social tax, other payments to budget, VAT and PIT (on PIT Company acts as a tax agent).

Total tax accrued increased by 22% in 2021 compared to 2020, mainly due to an increase in corporate income tax. The increase was due to a higher tax base resulting from higher uranium spot prices and the weakening of the KZT against the USD. The sale of the "Uranium Enrichment Centre" JSC in the first half of 2020 had a one-off effect on the tax base of corporate income tax (see Section 5.2 Changes in the Group structure). The increase in MET and other taxes is mainly due to an increase in uranium production volumes in 2021 (see Section 6.3.2 Uranium segment production and sales metrics).

Following the announcement by the President of the Republic of Kazakhstan in January 2022 that the country's current tax regime and MET would be subject to revision, government authorities are considering options to increase MET rates for solid minerals, including uranium. Although no decisions or changes in legislation have been made to date, the government has publicly stated that it is considering an increase in the MET rates on uranium from 2023.

5.5 Cost and availability of sulfuric acid

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

The Group's weighted average cost of sulfuric acid increased slightly to KZT 22,740 per tonne in 2021 (from KZT 22,203 per tonne in 2020) and the cost is expected to continue increasing in 2022. On average in 2021, the price of sulfuric acid represented about 13% of the Group's uranium production costs.

5.6 Pandemic-related costs and availability of critical operating materials & equipment

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 a slight 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 continued to result 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 (see Section 6.3.2 Uranium segment production and sales metrics), adding additional risk to production in 2022 and resulting in a lower and wider ranges for the expected production volume (see Section 12.0 GUIDANCE FOR 2022).

5.7 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 mine life.

5.8 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 2021, U_3O_8 was purchased at a weighted average discount of 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.

The following table provides the volumes purchased by the Company for the periods indicated.

(tU)	2021	2020	Change
U_3O_8 purchased from JVs and associates	2,910	2,676	9%
U_3O_8 purchased from JOs and subsidiaries	9,211	8,586	7%
Total	**12,121**	**11,262**	**8%**

The volume of U_3O_8 purchased from JVs and associates, JOs and Subsidiaries comprised 12,121 tonnes in 2021, compared to 11,262 tonnes in 2020, an increase of 8%, mainly due to due to higher 2021 U_3O_8 production volume on both a 100% and attributable basis (see Section 6.3.2 Uranium segment production and sales metrics).

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

6.0 KEY PERFORMANCE INDICATORS ANALYSIS

6.1 Consolidated financial metrics

The analysis in this section of the report is based on 12 months ended 31 December 2021 compared to 12 months ended 31 December 2020. The table below provides financial information related to the consolidated results of the Group for 2021 and 2020.

(KZT million)	2021	2020	Change
Revenue	**691,011**	**587,457**	18%
Cost of sales	(402,967)	(319,624)	26%
Gross profit	**288,044**	**267,833**	8%
Selling expenses	(15,706)	(14,352)	9%
G&A expenses	(34,105)	(29,582)	15%
Operating profit	**238,233**	**223,899**	6%
Other income/(loss), including the following one-time effects:	(8,172)	21,159	(139%)
Gain from disposal of joint venture (one-time effect)[1]	-	22,063	(100%)
Share of results of associates	47,294	39,482	20%
Share of results of JVs	4,289	604	610%
Pre-tax income	**281,644**	**285,144**	(1%)
Corporate income tax	(61,618)	(63,776)	(3%)
Net profit, attributable to:	**220,026**	**221,368**	(1%)
- Owners of the Company	140,773	183,541	(23%)
- Non-controlling interest	79,253	37,827	110%
Earnings per share attributable to owners (basic and diluted), KZT/share[2]	543	708	(23%)
Adjusted Net profit (net of one-time effects)	**220,026**	**199,305**	10%
Adjusted EBITDA[3]	350,294	325,734	8%
Attributable EBITDA[4]	276,510	295,465	(6%)

[1] Gain from disposal of joint venture Uranium Enrichment Center JSC.

[2] Calculated as: Profit for the year attributable to owners of the Company divided by Total share capital from Section 11.0 OUTSTANDING SHARES, rounded to the nearest KZT.

[3] Adjusted EBITDA is calculated by excluding from EBITDA items not related to the main business and having a one-time effect.

[4] 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.

6.2 Consolidated revenue and other financial metrics

The Group's consolidated revenue was KZT 691,011 million in 2021, an increase of 18% compared to 2020, 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 2021. This revenue increase was also supported by a slight increase in sales volume in 2021 in comparison to 2020 (see Section 6.3.2 Uranium segment production and sales metrics).

The main revenues by source in 2021 compared to 2020, are presented below.

				Proportion	
(KZT million)	2021	2020	Change	2021	2020
Uranium products[1]	625,048	529,196	18%	90%	90%
Beryllium products	26,119	21,866	19%	4%	4%
Tantalum products	15,777	12,205	29%	2%	2%
Others	24,067	24,190	(1%)	4%	4%
Total Revenue	**691,011**	**587,457**	**18%**	**100%**	**100%**

[1] Includes production and sales of UO_2 powder and fuel pellets, as well as uranium products in form of UF_6.

Operating profit in 2021 was KZT 238,233 million, an increase of 6% compared to 2020. The increase was mainly due to an increase in average realized price.

Net profit in 2021 was KZT 220,026 million, a decrease of 1% compared to 2020. Adjusted net profit for 2021 was KZT 220,026 million, an increase of 10% compared to 2020 and consistent with the increase in the operating profit in 2021. In 2020 the gain from disposal of joint venture Uranium Enrichment Center JSC was KZT 22,063 million (see Section 5.2 Changes in the Group structure). 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 cash flows (see Section 9.4.3 Cash Flows from financing activities) and equity in the Financial Statements.

Adjusted EBITDA comprised KZT 350,294 million in 2021, an increase of 8% compared to 2020 due to a higher operating profit, as well as an increase in the EBITDA of JVs and associates. Attributable EBITDA was KZT 276,510 million in 2021, a decrease of 6% compared to 2020 mainly due to the sale of 49% share in "Ortalyk" LLP.

6.3 Uranium segment

6.3.1 Uranium segment financial metrics

(KZT million unless noted)		**2021**	**2020**	**Change**
Average exchange rate for the period	KZT/USD	426.03	413.36	3%
Uranium segment revenue[1]		621,706	527,936	18%
Including U_3O_8 sales proceeds (across the Group)[2]		606,108	521,594	16%
Share of a revenue from uranium products	%	88%	89%	(1%)

[1] This segment does not include production and sales of UO_2 powder. Calculated from Financial Statements Note Segment Information as a sum of external revenue and revenues from other segments for uranium segment.
[2] Calculated from Section 6.3.2 Uranium segment production and sales metrics: U_3O_8 sales volume (consolidated) multiplied by group average realized price in KZT/kg.

Consolidated U_3O_8 sales were KZT 606,108 million in 2021, an increase of 16% compared to 2020, mainly due to a higher spot price for U_3O_8 and weakening of the KZT against the USD in 2021, which resulted in a higher average realized price, supported by slightly higher sales volume.

6.3.2 Uranium segment production and sales metrics

		2021	**2020**	**Change**
Production volume of U_3O_8 (100% basis)	tU	21,819	19,477	12%
Production volume of U_3O_8 (attributable basis)[1]	tU	11,858	10,736	10%
U_3O_8 sales volume (consolidated)	tU	16,526	16,432	1%
Including KAP U_3O_8 sales volume[2, 3]	tU	13,586	14,126	(4%)
Group inventory of finished goods (U_3O_8)	tU	8,824	7,537	17%
Including KAP inventory of finished goods (U_3O_8)[4]	tU	7,724	6,761	14%
Group average realized price	KZT/kg	36,677	31,743	16%
Group average realized price	USD/lb	33.11	29.54	12%
KAP average realized price[5]	USD/lb	32.33	29.63	9%
Average weekly spot price	USD/lb	35.05	29.60	18%
Average month-end spot price[6]	USD/lb	35.28	29.96	18%

[1] The Production volumes of U_3O_8 (attributable basis) is not equal to the volumes purchased by Company and THK.
[2] 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.
[3] Group sales volume and KAP sales volume (incl. in Group) does not include approximately 225 tU equivalent sold as UF_6 in 4Q21 and 100.5 tU equivalent sold as UF_6 in 1Q20.
[4] KAP inventory of finished goods (incl. in Group): includes the inventories of KAP HQ and THK.
[5] 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.
[6] 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.

All annual operational and sales results in the uranium segment were in line with the updated guidance provided for 2021, which was adjusted in the Company's Third Quarter 2021 Operations and Trading Update.

Production on both a 100% and attributable basis was higher for 2021 compared to the same period in 2020. The pandemic-related safety measures that were implemented in 2020 impacted production volumes throughout the second half of that year – production in 2020 should therefore be considered unusually low. The pandemic-related supply chain challenges have continued to result in limited access to certain key operating materials and equipment (production reagents, certain types of pipes and pumps, specialized equipment, drilling rigs), which had a material impact on the Company's wellfield development and production schedules in 2021, resulting in a decrease of the guidance by approximately 1,000 tU on 100% basis and by almost 540 tU on attributable basis (original 2021 guidance of 22,500 – 22,800 tU on 100% basis, 12,100 – 12,400 tU on attributable basis).

Uranium sales at the Group level in 2021 were in line with 2020. Due to the timing of customer requirements and differences in the timing of deliveries, a larger proportion of both Group and KAP sales occurred in the fourth quarter, resulting in higher sales in the final quarter of 2021 compared to the same period in 2020. KAP sales volume was modestly lower in 2021 compared to 2020 due to additional sales by consolidated subsidiaries to JV partners.

Consolidated Group inventory of finished U_3O_8 products in 2021 amounted to 8,824 tonnes as at 31 December 2021, which was 17% higher than at 31 December 2020. At the Company level, inventory of finished U_3O_8 products was 7,724 tonnes, an increase of 14% compared to 2020. The increase in inventory was mainly related to a higher 2021 U_3O_8 production volume on both a 100% and attributable basis, while sales level remained approximately on the same level as in 2020. 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 2021 was KZT 36,677 per kg (33.11 USD/lb), an increase of 16% compared to 2020 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 closely correlated to current uranium spot prices (see Section 12.1 Uranium sales price sensitivity analysis). However, the increase in average realized prices in 2021 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 (low of 27.35 USD/lb and high of 50.38 USD/lb); during the fourth quarter, 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.

6.3.3 *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 (see Section 5.6 Pandemic-related costs and availability of critical operating materials & equipment) and the reduction in wellfield development activity due to the Company's actions to lower staff levels amid the COVID-19 pandemic in 2020 (see Section 6.3.2 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.

(tU as U_3O_8)	Ownership	2021	2020	Change
Kazatomprom-SaUran LLP	100%	1,493	1,230	21%
RU-6 LLP	100%	800	660	21%
Appak LLP	65%	805	633	27%
JV Inkai LLP[1]	60%	3,449	2,693	28%
Baiken-U LLP	52.5%	1,230	1,181	4%
Ortalyk LLP[2]	51%	1,579	1,308	21%
Semizbay-U LLP	51%	962	753	28%
Karatau LLP	50%	2,561	2,460	4%
JV Akbastau JSC	50%	1,545	1,363	13%
JV Khorassan-U LLP	50%	1,579	1,455	9%
JV Zarechnoye JSC	49.98%	655	648	1%
JV Katco LLP	49%	2,840	2,833	0%
JV SMCC LLP	30%	2,321	2,260	3%
Total		**21,819**	**19,477**	**12%**

[1] 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 2021 comprised 1,400 tU.
[2] Ownership changed due to the sale of 49% share of "Ortalyk" LLP to CGN Mining UK Limited in mid-2021. Company's annual attributable share of production in 2021 comprised 1,247 tU.

6.4 *UMP Segment*

6.4.1 *UMP segment uranium product sales*

UO_2 powder and Fuel pellets		2021	2020	Change
Fuel pellets	Sales, tonnes	43.5	60.30	(28%)
Ceramic powder	Sales, tonnes	10.7	0.80	>100%
Dioxide from scraps	Sales, tonnes	50.60	56.40	(10%)

Sales of fuel pellets decreased by 28%to 43.5 tonnes and dioxide from scraps by 10% to 50.6 tonnes in 2021, lower than in 2020 as per customer demand. The significant increase in sales of ceramic powder in 2021 was due to higher demand from customers.

6.4.2 *UMP segment rare metal product sales*

Rare metals products		2021	2020	Change
Beryllium products	Sales, tonnes	1,529.31	1,375.08	11%
	KZT/kg	17,074	15,902	7%
Tantalum products	Sales, tonnes	165.40	143.73	15%
	KZT/kg	95,351	84,918	12%
Niobium products	Sales, tonnes	8.24	16.11	(49%)
	KZT/kg	20,655	16,846	23%

Sales volume of beryllium products increased by 11% in 2021 compared to 2020, due to an increase in the number of orders from customers. Sales price increased by 7% in 2021 mainly related to the weakening of KZT against USD and the product mix changing to highly refined products and higher price in the non-ferrous metal market.

Sales volumes and prices for tantalum products were higher in 2021 compared 2020, due to higher consumer demand for tantalum ingots and chips.

Sales of niobium products in 2021 decreased by 49% compared to 2020 due to a decrease in the quantity of orders for niobium hydroxide, although 2021 orders were for more highly refined products of higher value, resulting in a higher selling price in 2021.

6.5 Cost of sales

The table below illustrates the components of the Group's cost of sales for 2021 and 2020:

				Proportion	
(KZT million)	**2021**	**2020**	**Change**	**2021**	**2020**
Materials and supplies	241,695	167,546	44%	60%	53%
Depreciation and amortisation	66,429	60,002	11%	16%	18%
Wages and salaries	33,294	31,874	4%	8%	10%
Taxes other than income tax	25,474	23,775	7%	7%	8%
Processing and other services	17,404	19,738	(12%)	4%	6%
Other	18,671	16,689	12%	5%	5%
Cost of Sales	**402,967**	**319,624**	**26%**	**100%**	**100%**

Cost of sales totalled KZT 402,967 million in 2021, an increase of 26% compared to 2020.

The cost of materials and supplies was KZT 241,695 million in 2021, an increase of 44% compared to 2020 due to a significant increase in the proportion of sales of uranium purchased from JVs and associates, as well as from third parties. 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. The purchase price of materials and supplies, including U_3O_8 also increased as a result of the increase in uranium spot prices and the weakening of the KZT against the USD, and increased inflationary pressure.

Depreciation and amortisation totalled KZT 66,429 million in 2021, an increase of 11% compared to 2020, mainly due to an increase in the costs of repayment of the PGR (see Section 7.0 CAPITAL EXPENDITURES REVIEW).

Wages and salaries totalled KZT 33,294 million in 2021, an increase of 4% compared to 2020, mainly due to an increase in the payroll of main production personnel.

The taxes other than income tax totalled KZT 25,474 million, which is comprised mostly of MET, increased by 7% compared to 2020 due to an increase in uranium production volumes in 2021 (see Section 6.3.2 Uranium segment production and sales metrics).

The cost of processing and other services was KZT 17,404 million in 2021, a decrease of 12% compared to 2020, mainly due to a significant increase in the proportion of sales of uranium purchased from JVs and associates as well as from third parties. When such uranium is sold, the cost of sales is predominantly represented by the cost of purchased uranium.

The other categories of costs totalled KZT 18,671 million in 2021, an increase of 12% compared to 2020 due to an increase in maintenance and repair and other overheads.

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

(KZT million unless noted)		**2021**	**2020**	**Change**
C1 Cash cost (attributable basis)	USD/lb	8.80	8.67	1%
Capital cost (attributable basis)	USD/lb	3.83	3.05	26%
All-in sustaining cash cost (attributable C1 + capital cost)	USD/lb	12.63	11.72	8%
Capital expenditures of mining companies (100% basis)[1]		91,087	60,947	49%

[1] Excludes liquidation funds and closure costs and includes expansion investments, however includes total expansion investments (JV Inkai LLP, Karatau LLP, JV Katco LLP) in amount of KZT 4.4 billion in 2021 and KZT 2.2 billion in 2020. Note that in section 7.0 CAPITAL EXPENDITURES REVIEW total results include liquidation funds and closure cost.

Compared to 2020, C1 Cash cost (attributable) increased by 1% mainly due to an increase in the payroll of production personnel, whereas All-in-sustaining cash costs ("AISC") (attributable C1 + capital cost) increased by 8% in USD equivalent in 2021 due to an increase in capital expenditures of mining companies (see section

7.0 CAPITAL EXPENDITURES REVIEW). The Company partially shifted wellfield development activities from 2020 to 2021 due to the four-month suspension of wellfield development activity, resulting from the COVID-19 pandemic in 2020, and the shift in schedule resulted in a higher level of capital expenditures in 2021. The results were considerably better than expected and below the guidance ranges provided for 2021 (updated guidance of US$9.50 – 10.50 for attributable C1 cash cost, US$13.50 – 14.50 for AISC) primarily due to the weakening of the KZT against the USD in 2021.

Capital expenditures of mining companies (100% basis) comprised KZT 91,087 million, an increase of 49% compared to 2020, primarily due to a shift in wellfield development activities as described above, as well as higher purchase prices for materials, supplies, equipment and cost of drilling. Capital expenditures in 2020 were lower as a result of measures taken to prevent the spread of the COVID-19 pandemic (see section 7.0 CAPITAL EXPENDITURES REVIEW).

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

General Attributable Cash cost (C1) Categories	2021	2020
Material and supplies	22%	24%
MET	21%	19%
Processing and other services	17%	18%
Wages and salaries	17%	17%
General and administrative expenses	8%	7%
Selling expenses	3%	3%
Others	12%	12%
Total	**100%**	**100%**

6.6 Selling expenses

				Proportion	
(KZT million)	2021	2020	Change	2021	2020
Shipping, transportation and storing	11,110	10,351	7%	71%	72%
Wages and salaries	1,456	1,139	28%	9%	8%
Materials	306	212	44%	2%	2%
Rent	105	113	(7%)	1%	1%
Depreciation and amortisation	65	66	(2%)	0%	0%
Others	2,664	2,471	8%	17%	17%
Selling expenses	**15,706**	**14,352**	**9%**	**100%**	**100%**

Selling expenses totalled KZT 15,706 million in 2021, an increase of 9% compared to 2020. The increase was mainly due to changes in the delivery destination points for uranium products (see Section 3.2 Sales), an increase in transportation tariffs and the weakening of the KZT against the USD, as a significant portion of shipping, transportation and storing expenses are denominated in foreign currency.

6.7 General & Administrative expenses (G&A)

				Proportion	
(KZT million)	2021	2020	Change	2021	2020
G&A expenses	34,105	29,582	15%	100%	100%
Incl. Depreciation and amortisation	2,493	1,744	43%	7%	6%

In comparison to 2020 an increase of G&A expenses was mainly due to a provision for tax fines and penalties for KZT 1,266 million, as well as an increase in wages and salaries and higher depreciation and amortisation. G&A was also lower in 2020 due to the impact of optimisation and cost reduction in relation to the COVID-19 pandemic.

6.8 The share of associates' and JVs' results

The share of results of associates and JVs in 2021 was KZT 51,583 million, an increase of 29% compared to 2020. The increase was related to an increase in uranium spot prices and weakening of the KZT in 2021, which positively impacted the operating results of the associates and JVs and their resulting contributions to the Group.

6.9 Profit before tax and tax expense

(KZT million)	2021	2020	Change
Profit before tax	281,644	285,144	(1%)
Total income tax expense, including:	61,618	63,776	(3%)
Current income tax	85,345	65,492	30%
Deferred income tax	(23,727)	(1,716)	>100%

The Group's profit before tax was KZT 281,644 million in 2021 which was consistent with 2020.

In 2021, corporate income tax expense was KZT 61,618 million, a decrease of 3% compared to 2020, due to an increase deferred income tax and decrease in profit before tax in 2021.

The corporate tax rate applicable to the Group's profits was 20% in 2021 and 2020. Effective income tax rates were 20% and 21% for 2021 and 2020, respectively. The effective tax rate differs from corporate income tax rate primarily due to certain elements of reported income and expenses that are not recognized in tax accounting.

7.0 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:

- 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 are assumed 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.

		2021				2020			
(KZT million)	**Owner-ship**	**WC[1]**	**S&E[2]**	**LF/C[3]**	**Total**	**WC[1]**	**S&E[2]**	**LF/C[3]**	**Total**
Kazatomprom-SaUran LLP	100%	6,094	865	542	**7,501**	5,231	925	238	**6,394**
RU-6 LLP	100%	3,392	657	260	**4,309**	1,902	672	226	**2,800**
Appak LLP	65%	6,769	495	1,331	**8,595**	2,666	833	142	**3,641**
JV Inkai LLP	60%	4,815	3,925	6	**8,746**	4,306	2,203	23	**6,532**
Baiken-U LLP	52.5%	2,679	590	167	**3,436**	4,634	400	250	**5,284**
Ortalyk LLP	51%	4,487	594	219	**5,300**	3,451	851	175	**4,477**
Semizbay-U LLP	51%	4,231	561	177	**4,969**	3,108	468	211	**3,787**
JV Budenovskoye LLP	51%	1,599	320	(4)	**1,915**	-	-	46	**46**
Karatau LLP	50%	4,667	579	112	**5,358**	1,713	890	171	**2,774**
JV Akbastau JSC	50%	4,648	291	222	**5,161**	2,382	713	106	**3,201**
JV Khorassan-U LLP	50%	7,645	1,781	171	**9,597**	3,698	805	202	**4,705**
JV Zarechnoye JSC	49.98%	3,878	291	1,281	**5,450**	3,129	263	17	**3,409**
JV Katco LLP	49%	14,391	5,037	1,467	**20,895**	8,237	3,067	13,903	**25,207**
JV SMCC LLP	30%	3,927	1,879	374	**6,180**	3,772	627	251	**4,650**
Total of mining assets		**73,222**	**17,865**	**6,325**	**97,412**	**48,229**	**12,717**	**15,961**	**76,907**

[1] Well construction.
[2] Sustaining and expansion. Includes total expansion investments (JV Inkai LLP, Karatau LLP, JV Katco LLP) in amount of KZT 4.4 billion in 2021 and KZT 2.2 billion in 2020.
[3] Liquidation fund / closure. In 2020 JV Katco LLP has changed the methodology of calculation and increased its LF/C.

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 capitalized costs of maintaining the sites, with the main component being wellfield construction.

(KZT million)	**2021**	**2020**	**Change**
Well construction	73,222	48,229	52%
Sustaining[1]	13,427	10,453	28%
Total wellfield construction and sustaining costs	**86,649**	**58,682**	**48%**
Expansion	4,438	2,264	96%
Capital expenditures of mining companies (100% basis)	**91,087**	**60,947**	**49%**

[1] Excludes total expansion investments (JV Inkai LLP, Karatau LLP, JV Katco LLP) of KZT 4.4 billion in 2021 and KZT 2.2 billion in 2020.

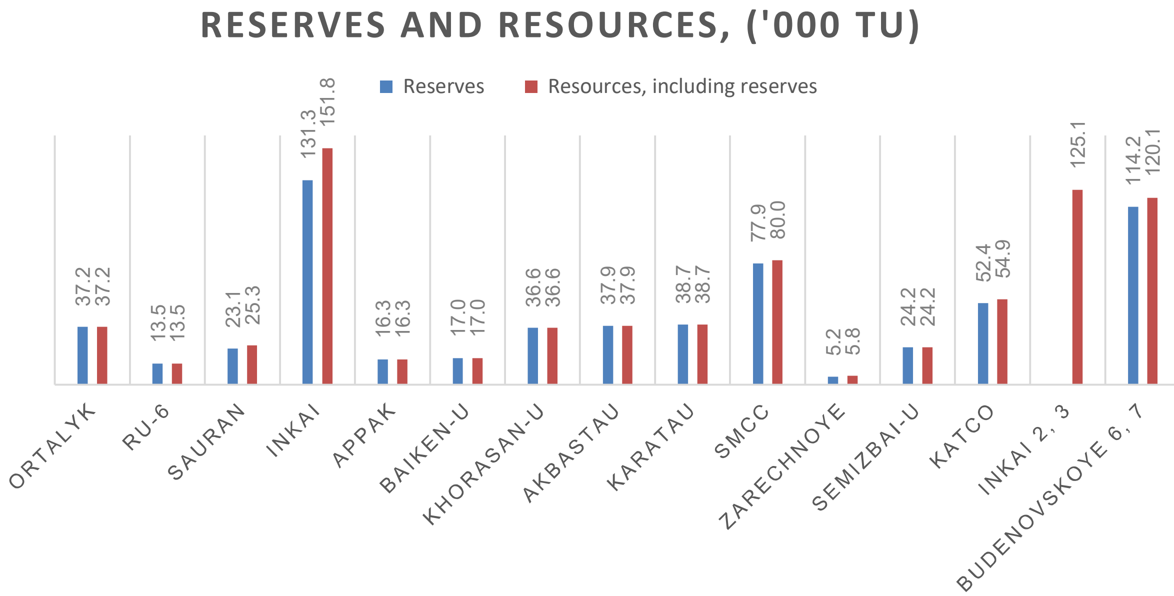
Wellfield construction and sustaining costs for the 14 mining entities in 2021 comprised KZT 86,649 million, which is 48% higher than in 2020 due to an increase in well construction in 2021 as a result of production reductions associated with a decline in field development activities amid the COVID-19 pandemic in 2020. The results were below the guidance range provided for 2021 (KZT 90 – 100 billion) due to the pandemic-related supply chain challenges (see Section 5.6 Pandemic-related costs and availability of critical operating materials & equipment). The pandemic-related safety measures that were implemented in 2020 impacted production volumes throughout the second half of that year – production in 2020 should therefore be considered unusually low.

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 2021.

(KZT million unless noted)	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	3,988	15,533	2,575	21,732	10,837	988
RU-6 LLP	2,892	7,689	-	8,125	4,950	516
Appak LLP	1,570	8,002	1,879	10,290	5,531	387
JV Inkai LLP	3,944	21,300	17,100	102,568	60,614	2,444
Baiken-U LLP	2,597	7,555	5,707	20,627	9,923	976
Ortalyk LLP	2,466	10,792	1,130	19,055	11,067	1,005
Semizbay-U LLP	2,529	7,819	36	17,360	8,250	925
JV Budenovskoye LLP	-	493	11,844	414	346	52
Karatau LLP	2,344	7,068	2,651	29,224	14,939	1,476
JV Akbastau JSC	1,730	6,246	6,150	11,475	7,011	383
JV Khorassan-U LLP*	3,041	8,921	8,675	16,609	10,156	712
JV Katco LLP	54,875	25,830	2,532	56,738	20,457	1,428
JV Zarechnoye JSC	1,082	6,660	2,432	9,013	2,260	460
JV SMCC LLP	4,471	10,730	5,919	22,380	10,667	1,663

* includes the fixed assets of “Kyzylkum” LLP

8.0 RESERVES AND GEOLOGICAL SURVEYS



In accordance with the SRK Consulting (UK) Limited letter (dated 15 January 2022), the Ore reserves of all mining assets at 31 December 2021 (including annual depletion) totalled 625.4 thousand tU, (100% basis), with 350.8 thousand tU attributable to the Company. Total mineral resources (including ore reserves) were estimated at 784.4 thousand tU (100% basis), with 495.7 thousand tU attributable to the Company. In comparison to 2020, total mineral resources increased by about 32.4 thousand tU mainly due to an increase in reserves of 32.0 thousand tU from Blocks 6 and 7 of the Budenovskoye deposit and 20.6 thousand tU at Block 1 of the Inkai deposit, partially offset by a decrease of 21.8 thousand tU due to the production related depletion of mineral resources related to mining activities in 2021.

9.0 LIQUIDITY AND CAPITAL RESOURCES

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.

9.1 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.

(KZT million)	2021	2020	Change
Cash and cash equivalents	161,190	113,347	42%
Term deposit	43,220	-	-
Total cash	**204,410**	**113,347**	**80%**
Undrawn borrowing facilities	177,902	241,602	(26%)

Total cash at 31 December 2021 comprised KZT 204,410 million, compared to KZT 113,347 million on 31 December 2020, due to explanations that are presented below in the Section 9.4 Cash Flows.

Undrawn borrowing facilities are the credit lines available to the Group and considered as an additional liquidity source payable within 12 months, primarily used to temporarily cover cash deficits related to uneven receipts of trade receivables. As at 31 December 2021, the Group's revolving credit lines comprised KZT 177,902 million (USD 412 million) and were fully available (as at 31 December 2020: KZT 241,602 million (USD 574 million)) the decrease is primarily due to closure of unclaimed credit lines.

9.2 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 2021 and 2020, the Group received dividends of KZT 17,108 million and KZT 47,886 million, respectively, from its JVs and associates, and other investments. The decrease was primarily due to a change in timing of the dividend payment schedule in 2020 and 2021. Of note in 2020, the Company received dividends covering the 2017-2019 period from JV "Katco" LLP comprising KZT 30,870 million. 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 July 2021, the Company paid a dividend of KZT 150,082 million (KZT 578.67 per ordinary share) to its shareholders based upon the results of 2020 operations. This dividend represented an increase of 52% compared to 2020 when dividends of KZT 99,002 million were paid to shareholders on the results of 2019 operations. The increase was mainly due to higher operating cash flow and the inclusion of receipts from the sale of the Group's interest in "Uranium Enrichment Center" JSC in the Free Cash Flow (FCF) calculation methodology in accordance with the revised dividend policy approved by shareholders at the Annual General Meeting of shareholders in May 2021.

9.3 Working capital

The table below provides a breakdown of the Group's working capital in 2021 and 2020.

(KZT million)	2021	2020	Change
Inventory	275,856	233,389	18%
Receivables	220,138	117,418	87%
Recoverable VAT	46,447	48,621	(4%)
Other current assets	7,823	8,159	(4%)
CIT prepayment	7,526	9,986	(25%)
Payables	(66,014)	(43,948)	50%
Employee remuneration liabilities	(215)	(169)	27%
Income tax liabilities	(5,096)	(927)	450%
Other taxes and compulsory payments liabilities	(17,973)	(8,713)	106%
Other current liabilities[1]	(57,338)	(34,994)	64%
Net working capital[2]	**411,154**	**328,822**	**25%**

[1] Including current portion of lease liabilities (see Section 10.0 INDEBTEDNESS).
[2] Excludes term deposits (see Section 9.1 Cash and available source of financing) as these deemed as equivalent to cash.

The Group's net working capital remained positive during all periods under review. An increase in receivables was mainly due to the timing of customer requirements and differences in the timing of deliveries. A larger proportion of both Group and KAP sales occurred in the fourth quarter of 2021, resulting in higher sales in the final quarter of 2021 compared to the same period in 2020.

The following table sets forth the components of the Group's inventories in 2021 and 2020:

(KZT million)	2021	2020	Change
Finished goods and goods for resale	223,750	185,397	21%
Including uranium products	*222,195*	*183,633*	*21%*
Work-in-process	30,409	22,923	33%
Raw materials	14,879	20,179	(26%)
Materials in processing	3,091	1,204	157%
Spare parts	789	682	16%
Fuel	479	655	(27%)
Other materials	5,709	5,104	12%
Provision for obsolescence and write-down to net realizable value	(3,250)	(2,755)	18%
Total inventories	**275,856**	**233,389**	**18%**

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 increased by 33%, whereas raw materials decreased by 26% due to a shift in the production schedule of uranium products.

An increase in the inventory balance was due to an increase in inventory volume and an increase in spot price of U_3O_8 and weakening of KZT against USD during 2021, which increased the cost of purchased uranium from JVs, associates and third parties. 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.

9.4 Cash Flows

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

The following table provides the Group's consolidated cash flows in 2021 and 2020:

(KZT million)	**2021**	**2020**
Cash flows from operating activities[1]	118,729	161,593
Cash flows from/(used in) investing activities	(71,241)	48,759
Cash flows (used in) financing activities	(1,843)	(201,415)
Net increase/(decrease) in cash and cash equivalents	**45,645**	**8,937**

[1] Includes income tax and interest paid.

9.4.1 Cash Flows from Operating Activities

Operating cash flows totalled KZT 118,729 million, a decrease of 27% compared to KZT 161,593 million in 2021 mainly due to:

- a KZT 96,426 million increase in cash receipts from customers during 2021 compared to 2020, due to growth in the average realized price associated with an increase in the market spot price for U_3O_8 and change in timing of the sales schedule for 2020-2021; and
- a KZT 122,725 million increase in payments for accounts payable to suppliers during 2021 due to the weakening of the KZT against the USD and an increase in the spot price for U_3O_8 purchased from JV and associates;
- a KZT 24,233 million increase in 2021 inflows from VAT refunds from the budget;
- a KZT 38,592 million increase in 2021 of income tax paid, of which a one-time effect of KZT 33,466 million is a capital gain tax on sale of 49% share in "Ortalyk" LLP.

9.4.2 Cash Flows from Investing Activities

Net cash outflows from investing activities were KZT 71,241 million in 2021 compared to Net cash inflows KZT 48,759 million in 2020.

Changes in investing cash flows in 2021 were due to:

- cash consideration received in 2020 from the sale of the investment in joint venture JSC "Uranium Enrichment Center" of KZT 43,858 million;
- a KZT 30,778 million decrease in 2021 in dividends received from associates, joint ventures and other investments (see Section 9.2 Dividends received and paid);
- an increase in 2021 in acquisition of property, plant and equipment, acquisition of mine development assets and acquisition of exploration and evaluation assets in sum for KZT 11,296 million primarily due to a shift in wellfield development activities, as well as higher purchase prices for equipment (see Section 7.0 CAPITAL EXPENDITURES REVIEW).

9.4.3 Cash Flows from financing activities

Net cash outflows from financing activities were KZT 1,843 million in 2021 and KZT 201,415 million in 2020. The decrease in outflow was primarily due to proceeds from the sale of a non-controlling 49% interest in "Ortalyk" LLP of KZT 185,858 million, (a one-time effect), an increase in dividends paid to shareholders of KZT 51,080 million (see Section 9.2 Dividends received and paid) and a change in the net movement of loan balances in 2021 of KZT 62,315 million compared to 2020.

10.0 INDEBTEDNESS

The total debt and guarantees of the Group as of 31 December 2021 were KZT 110,462 million (KZT 117,962 million in 2020).

(KZT million)	2021	2020	Change
Bank loans	-	6,734	(100%)
Non-bank loans	89,308	91,838	(3%)
Off-balance sheet guarantees	21,154	19,390	9%
Total debt and guarantees	**110,462**	**117,962**	**(6%)**

The following table summarises the Group's debt for the years ended 31 December 2021 and 2020:

(KZT million)	2021	2020	Change
Non-current	**77,850**	**76,570**	**2%**
Bank loans	-	-	
Non-bank loans, including:	77,850	76,570	
Bonds issued	77,700	76,300	
Lease liabilities	150	270	
Current	**11,458**	**22,002**	**(48%)**
Bank loans	-	6,734	
Non-bank loans, including:	11,458	15,268	
Promissory note issued	10,514	14,004	
Lease liabilities	141	476	
Bonds issued	803	788	
Total debt	**89,308**	**98,572**	**(9%)**

As of 31 December, 2021, the Group has no current or long-term bank loans.

The amount of non-bank loans as of 31 December, 2021 comprised KZT 89,308 million and predominantly 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).

Promissory notes owned by JV "Khorasan-U" LLP are with maturity "on demand". As of 31 December 2021, the right to claim under the promissory notes belongs to "Kyzylkum" LLP. In 2021, 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 2021.

The following table summarises the Group's weighted average interest rate for bank loans in 2021 and 2020:

(%)	2021	2020
Weighted average interest rate, including:	3.37	3.12
Fixed interest rate	3.52	3.31
Floating interest rate	0.97	1.99

As of 31 December, 2021, the weighted average interest rate was 3.37%, which was higher compared to the prior year. The Group's weighted average interest rate on loans and borrowings in 2021 was mainly influenced by the Group's long-term fixed interest rate liabilities (bonds with a coupon of 4% per annum), while floating interest rate loans were attracted for a short-term period - no more than 1 month (in 2020 - for 3-6 months).

As of the end of 2021, the Group's debt is fully formed from fixed interest rate loans (93% as of year-end 2020).

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

- Baa2 with a stable outlook by Moody’s Investors Service (confirmed 12 August 2021), upgraded from Baa3;
- BBB- with a stable outlook by Fitch Ratings (confirmed 19 March 2021).

10.1 Net debt / Adjusted EBITDA

The following table summarises the key ratios used by the Company’s management to measure financial stability in 2021 and 2020. Management targets a net debt to adjusted EBITDA of less than 1.0.

(KZT million)	2021	2020	Change
Total debt (excluding guarantees)	89,308	98,572	(9%)
Total cash balances (see Section 9.1)	(204,410)	(113,347)	80%
Net debt	(115,102)	(14,775)	>100%
Adjusted EBITDA* (see Section 6.0)	350,294	325,734	8%
Net debt / Adjusted EBITDA (coefficient)	(0.33)	(0.05)	>100%

Adjusted EBITDA is calculated as Profit before tax - finance income + finance expense +/- Net FX loss/(gain) + Depreciation and amortisation + Impairment losses - reversal of impairment +/- one-off or unusual transactions.

11.0 OUTSTANDING SHARES

There were no changes to Kazatomprom's share capital structure during 2021. As of 31 December 2021, the number of outstanding ordinary shares of the Company was 259,356,608 (same in 2020), of which 75% was held by Samruk-Kazyna JSC and 25% of shares/global depositary receipts listed on the Astana International Exchange (AIX) and the London Stock Exchange (LSE) were free floated. One global depositary receipt represents one ordinary share. Each ordinary share grants the right to one vote.

(at Dec 31, 2021)	Shares and GDRs	%
Samruk-Kazyna	194,517,456	75
Public free-float	64,839,152	25
Total share capital	**259,356,608**	**100**

12.0 GUIDANCE FOR 2022

	2022
Production volume U_3O_8, (tU) (100% basis)[1, 2]	21,000 – 22,000
Production volume U_3O_8, (tU) (attributable basis)[3]	10,900 – 11,500
Group sales volume, (tU) (consolidated)[4]	16,300 – 16,800
Incl. KAP sales volume (included in Group sales volume), (tU)[5]	13,400 – 13,900
Revenue – consolidated, (KZT billions)[6]	750-760
Revenue from Group U_3O_8 sales, (KZT billions)[6]	610-630
C1 cash cost (attributable basis) (USD/lb) *	$9.50 – $11.00
All-in sustaining cash cost (attributable C1 + capital cost) (USD/lb) *	$16.00 – $17.50
Total capital expenditures (KZT billions) (100% basis)[7]	160-170

[1] 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.
[2] The duration and full impact of the COVID-19 pandemic is not yet known. Annual production volumes could therefore vary from our expectations.
[3] 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.
[4] 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).
[5] KAP sales volume: includes only the total external sales of KAP HQ and THK. Intercompany transactions between KAP HQ and THK are not included.
[6] 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 2022 revenue could be materially impacted by how actual uranium prices and exchange rates vary from the third-party estimates.
[7] Total capital expenditures (100% basis): includes only capital expenditures of the mining entities, excluding expansion investments.
* Note that the conversion of kgU to pounds U_3O_8 is 2.5998.

Kazatomprom's production expectations for 2022 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 2022 is expected to be between 21,000 tU and 22,000 tU on a 100% basis, which is similar to 2021 at the top end of the range. However, pandemic-related supply chain challenges have continued to result in limited access to certain key operating materials and equipment (production reagents, certain types of pipes and pumps, specialized equipment, drilling rigs), which had a material impact on the Company's wellfield development and production schedules in 2021, adding additional risk to production in 2022 and resulting in a wider range for the expected production volume. On an attributable basis, 2022 production volume is expected to be between 10,900 tU to 11,500 tU, which is lower than 2021 primarily due to the sale of a 49% share of "Ortalyk" LLP to CGN Mining UK Limited in mid-2021, as well as the above-mentioned supply chain risks.

Sales volume guidance for 2022 is also aligned with the Company's market-centric strategy. The Group expects to sell between 16,300 tU and 16,800 tU, which includes KAP sales of between 13,400 tU and 13,900 tU, in line with sales volumes in 2021.

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 2022. Ranges for C1 cash cost (attributable basis) and All-in Sustaining cash cost (attributable C1 + capital cost) have been increased to reflect the uncertainty in the current geopolitical situation and widening offsetting effects of current KZT devaluation and potential inflationary impacts (see Section 1.2 Update on recent geopolitical events). Guidance will be updated if the recent fluctuations and geopolitical uncertainties persist throughout 2022.

Wellfield development, procurement and supply chain issues, including inflationary pressure on production materials and reagents, are expected to continue throughout 2022, 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 2022 than in 2021. In addition, the Company's costs could be impacted by potential changes to the tax code in Kazakhstan and by possible local social funding requests, although these risks cannot be quantified or estimated at this time.

Total capital expenditures on 100% basis guidance for 2022 increased significantly in comparison to 2021 results to cover the shift in wellfield development activities (see Section 7.0 CAPITAL EXPENDITURES REVIEW) and increase in purchase prices for materials, supplies, equipment and cost of drilling.

The Company continues to target an ongoing inventory level of approximately six to seven months of annual attributable production. However, inventory could fall below this level in 2022 due to supply chain challenges and production losses.

12.1 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. Please review the footnotes under that table and refer to the section 13.1 Forward-looking statements for more information.

Average Annual Spot Price (USD)	2022E	2023E	2024E	2025E	2026E
20	27	22	22	22	21
30	33	31	31	31	31
40	38	40	40	40	40
50	44	48	48	48	50
60	50	57	57	57	59
70	56	65	66	65	68

Values are rounded to the nearest dollar. The sensitivity analysis above is based on the following key assumptions:
- Annual inflation at 2% in the US;
- Analysis is as of 31 December 2021 and prepared for 2022–2026 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 2021 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.
- A difference between sales prices and spot prices is expected for 2022, since numerous sales commitments for 2022 are based on pricing that was locked-in before September 2021, when the spot price started to increase significantly.
- 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.

13.0 RISKS AND FORWARD-LOOKING INFORMATION

The Company is exposed to the following key risks that could have a material adverse effect on the Group and its results:

- the Group's profitability is directly related to the market prices of uranium, which are volatile;
- major accidents affecting the nuclear industry may result in a dramatic fall in uranium prices;
- nuclear energy competes with several other sources of energy, and sustained lower prices of such alternative energy sources may result in lower demand for nuclear raw materials, a reduction in nuclear energy development programs and the construction of nuclear power plants and consequently, in a reduction in demand for uranium which could impact market prices;
- nuclear energy is subject to public opinion risks that could have a material adverse impact on the demand for nuclear power and increase the regulatory burden on the nuclear power industry;
- the Group faces competition and could lose customers to other suppliers of uranium and uranium products;
- the Group is currently dependent on a small number of customers that purchase a significant portion of the Group's uranium, and the loss of a significant customer could have a material impact;
- certain customers and business associates of the Group may be subjected to international sanctions, and such sanctions could have a material impact;
- complex and unquantifiable risks related to sanctions against Russia and the current situation in Ukraine, which could lead to a deterioration in the financial stability of the Group and an increase in social tension, related, but not limited to restrictions on mutual settlements in US dollars and other currencies suspension of transshipment of goods through the territory of the Russian Federation, the physical security of goods;
- the Group is a major taxpayer and is exposed to tax risks, the most significant being changes in the mineral extraction tax rate for uranium and transfer pricing within the limitation period;
- the US or other uranium importers could impose tariffs or quotas on uranium imports;
- the Group may continue to hold significant U_3O_8 inventories throughout the U_3O_8 pricing cycle if production exceeds sales;
- the Group's uranium extraction and transportation activities are subject to operational risks, hazards and unexpected disruptions, which could delay the production and delivery of the Group's uranium and uranium products, increase the Group's cost of extraction, or result in accidents at the Group's extraction locations;
- the availability to procure and the cost of sulfuric acid materially affects the continuity and commercial viability of the Group's operations, as the Group uses substantial amounts of sulfuric acid to extract uranium;
- the Group may face difficulty using railroads or other transportation infrastructure connecting Kazakhstan with neighbouring countries;
- the Group may be unsuccessful in maintaining existing ore reserves or discovering new ore reserves, and the reported quantities or classifications of the Group's uranium ore reserves may be lower than estimated because of inherent uncertainties in the estimation process;
- the Group may be unable to obtain, on commercially acceptable terms or at all, the necessary financing for its operations, strategy implementation, and/or expansion of its business and local infrastructure;
- the Group is subject to various financial risks related to certain financial and other restrictive covenants, fluctuations of interest and currency rates, liquidity constraints or fail to obtain the necessary funding, or defaults of counterparties;
- the Group may be affected by arbitration or litigation proceedings to which it is not a party, or by legal consequences of non-compliance / misinterpretation of legislation;
- the Group's insurance coverage may not be adequate to cover losses arising from potential operational hazards and unforeseen interruptions;
- failures of the Group's IT systems or cyber-attacks could negatively influence the results of operations;
- failure to achieve planned uranium production or products (U_3O_8) output volumes, sales, or production costs of products and services;
- failure to achieve the Group's assets restructuring plan;
- failure to successfully improve corporate governance systems and health, safety, and environmental programs;
- failure to successfully complete construction of a fuel fabrication plant on time and on budget;

- the Group is impacted by the macroeconomic, social and political conditions in Kazakhstan, and the Group may be exposed to risks related to adverse sovereign action by local government, or subject to extensive government regulation and legislation;
- the Group may be affected by labour unrest or increased social tension in Kazakhstan;
- 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;
- the spread of the COVID-19 pandemic on the territory of Kazakhstan and in other countries may lead to a deterioration in the financial stability of the Group, an increase in social tension, and an inability to procure key operating materials.

13.1 Forward-looking statements

This document contains statements that are considered as "forward-looking statements". The terminology used for describing the future, including, inter alia, such words as "believes", "according to preliminary estimates", "expects", "forecasts", "intends", "plans", "suggests", "will" or "should" or, in each case, similar or comparable terminology, or references to discussions, plans, objectives, goals, future events or intentions, is used to denote forward-looking statements. These forward-looking statements include all statements that are not historical facts. These statements include, without limitation, statements regarding intentions, opinions and announcements on the Company's expectations concerning, among other things, the results of operations, financial state, liquidity, prospects, growth, potential acquisitions, strategies and sectors, in which the Company operates. In their 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 Company's financial position and liquidity, as well as the development of the country and industries, in which the Company operates, may significantly differ from the options described herein or assumed pursuant to the forward-looking statements contained herein. The company does not plan and does not assume obligations to update any information regarding the industry or any forward-looking statements contained herein, whether as a result of obtaining new information or 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.