6 March 2019, Astana

OPERATING AND FINANCIAL REVIEW
12 MONTHS ENDED 31 DECEMBER 2018

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" or "Kazatomprom").

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 audited consolidated financial statements of the Group, 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 18Q4 Operations and Trading Update, and other Company reports. All financial data and discussions thereof are based upon the audited consolidated 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").

Global Depositary Receipts ("GDRs") of Kazatomprom are listed on the London Stock Exchange ("LSE"), while GDRs and shares are listed on the Astana International Exchange ("AIX"). Kazatomprom's major shareholder is JSC "Sovereign Wealth Fund "Samruk-Kazyna" ("Samruk-Kazyna"), holding 85.08% of outstanding shares.

Additional information about the Group and its business and operations is available in regularly published documents submitted to the Regulatory News Service of the LSE, and on the 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.

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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 data, the Holding's 2018 uranium production represented approximately 42% of global primary uranium production, and approximately 84% of production that comes from in-situ recovery ("ISR").

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. These privileges include, among other things, obtaining subsoil use licenses through direct negotiation with the authoritative body of Government. This effectively grants priority access to high-quality and ISR-conducive deposits of natural uranium, which are abundant in the Republic of Kazakhstan.

The Company has partnered with many leading global players in the uranium mining and nuclear industry, including strong asset-level partnerships with Cameco Corporation, China General Nuclear Power Group, The Kansai Electric Power Company, Inc., Marubeni Corporation, Orano SA, The State Atomic Energy Corporation Rosatom and Sumitomo Electric Industries, Ltd, as well as the Energy Asia Holdings (BVI) Ltd. consortium. These partnerships demonstrate the prominence of the Group's asset base on a global scale, while allowing the Group to gain access to and share in the partners' technologies and management expertise.

The Group operates 26 deposits in 13 mining assets, all of which are located in Kazakhstan and mined using the ISR mining method, with:

- Three wholly-owned uranium producing subsidiaries operating on 8 uranium deposits;
- Ten uranium producing companies, partly owned by the Group operating on 18 uranium deposits;

As at 31 December 2018, the Group's attributable Proved and Probable Ore Reserves totaled 305.6 thousand tonnes of Uranium Metal Content Equivalent ("UME"), and attributable Measured and Indicated Mineral Resources (inclusive of those Mineral Resources modified to produce the Ore Reserves) totaling 476.7 thousand tonnes of UME, each reported in accordance with the terms and definitions of the JORC Code.

The Company's primary customers are operators of nuclear generation capacity, with principal export markets including China, South and East Asia, Europe, and North America. The Company sells uranium and uranium products under long-term contracts, short-term contracts, and in the spot market, both directly and through its wholly owned Switzerland-based trading subsidiary, Trading House KazakAtom ("THK").

While uranium mining is the predominant focus of operations, the Group is also present in other stages of the "front-end" nuclear fuel cycle, including uranium dioxide (UO_2) ceramic powder production and production of fuel pellets for nuclear fuel assemblies used in nuclear power stations. The Group also has access to uranium enrichment services through its interests in the JSC International Uranium Enrichment Centre (10%) and the JSC Uranium Enrichment Centre (50%). The construction of a fuel assembly plant in Kazakhstan is currently underway and the plant is expected to be put into operation in 2020.

In addition to uranium operations, the Group includes one wholly-owned subsidiary that is engaged in the manufacture of selected rare metals products, primarily tantalum, niobium and beryllium.

The Group has subsidiaries that are primarily engaged in providing supporting services to the Uranium segment, such as drilling, transportation and security services.

1.1 Strategy, vision and mission

The Group's mission is to sustainably develop its uranium deposits and their value chain components in order to create long-term value for all its stakeholders, and to become the partner of choice for the global nuclear fuel industry. To that end, the Group seeks to achieve continued growth and strengthen its position as the leading company in the uranium industry by:

- focusing on mining operations as a core business;
- following a market-centric approach to uranium production;
- maintaining global leadership in the uranium mining industry through operational excellence;
- continuing to enhance sales and marketing capabilities, and optimising its contract portfolio;
- retaining a vigilant focus on health, safety and the environment ("HSE");
- balancing shareholder returns and optimal capital structure;
- expanding in the nuclear value chain with select value-accretive opportunities.

The Group's Vision is to be the partner of choice for the global nuclear fuel industry. It strives to be the first choice in the provision of uranium and related front-end services, focusing on reliability, technical excellence, an outstanding HSE record, and fair dealings with customers.

The Group's Mission clearly identifies the following 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.
- Long-term value creation – The Group runs high-margin, cash generating operations with relatively modest requirements for further expansion capital in its uranium business. With its conservative debt policy, the Group will therefore seek to return substantial cash flows to its shareholders, whilst preserving a conservative balance sheet structure and comfortable leverage to better position itself to act on market opportunities, should they arise.

2.0 HEALTH, SAFETY AND ENVIRONMENT

2.1 Occupational health and safety

Ensuring safe working conditions is a priority for the Group. In addition to strict compliance with all applicable laws, the Company implements an integrated approach to safety that includes advanced international practices for labor protection and industrial safety.

In supporting the International Social Security Association (ISSA) initiative to improve safety, health and well-being at work, the Company is registered as a member of the international Vision Zero program. Membership reflects the Company's belief that a strong prevention culture can reduce work-related accidents, harm and occupational diseases.

Kazatomprom continuously works with employees and managers at all levels to improve safety culture and increase compliance with industrial safety requirements. Health and safety-related spending has been steadily increasing over the past five years.

In 2018, there were no major industrial accidents (uncontrolled explosions, emissions of hazardous substances, or destruction of buildings). Regretably, there were nine road accidents (without injuries) and 12 accidents resulting in injuries, including one fatal accident at UMP (the first fatal case in the last 3 years). The fatality occurred when a production operator was electrocuted. Based on the results of the thorough investigation, the main cause of the accident was an insufficient risk assessment for working with hazardous energy sources. As a result, a lock out/tag out system to block dangerous energy sources is being introduced across all of the Holding's operations.

Occupational safety, environmental protection, and industrial and radiation safety are extremely important to Kazatomprom, and to reinforce the need to improve safety culture, the HSE function now reports directly to the Chief Executive Officer of the Company and the same approach applies throughout the Holding. In addition, special attention is being paid to the use of preventative measures, such as identifying and responding to potentially dangerous incidents, near-miss reporting, and conducting behavioral safety audits.

To assess the effectiveness of industrial safety measures, the Company uses the LTIFR indicator (Lost-Time Injury Frequency Rate), which reflects the number of incidents that led to the loss of working time per 1,000,000 hours worked.

Indicator	2017	2018	Change
LTIFR (per million man-hours)	0.15	0.31	107%
Number of accidents	7	12	71%
Fatal case	-	1	-

2.2 Environmental protection, nuclear and radiation safety

In 2018, all activities were carried out in compliance with environmental legislation. All emissions to the environment were within the limits of, and carried out in accordance with permits issued by authorized state bodies. Radiation exposure and nuclear safety remained stable in 2018, with no exceedances or radiation accidents. All work was carried out in accordance with the requirements of regulatory legal acts and guidance on radiation and nuclear safety.

3.0 PRESENTATION OF FINANCIAL INFORMATION

3.1 Segments

During the period under review, the Group operated through the following four principal business segments, one of which has been discontinued since 3 July 2018:

- **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. This segment does not include production and sales of UO_2 powder and fuel pellets. 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.
- **"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 and fuel pellets.
- **Energy segment** includes the production and sales of electricity; heat; industrial, drinking and hot water; in the Mangistau region. All of the sales of the Energy segment during the period under review were to third parties. Following the divestment by the Group of its primary subsidiary engaged in the Energy segment operations, "MAEK-Kazatomprom" LLP ("MAEK"), the Group's Energy segment operations have been discontinued effective 3 July 2018. The remaining entity, Uranenergo LLP, which was part of this segment until 3 July 2018, was reclassified into the "Other" segment.
- **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 and security services, among others. These businesses are not included within reportable operating segments, as their financial results do not meet the quantitative threshold.

3.2 Consolidation

In addition to the operations of the Company and its consolidated subsidiaries, the Group relies on a number of JVs and Associates.

- **Subsidiaries** are entities 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.
- **Joint ventures** 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.
- **Joint operations** 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 joint operations (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.
- **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, at 31 December 2018. In all cases the share proportion 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.

Treatment	Name	Share (%)
Uranium Mining and Processing		
Subsidiaries	Ortalyk LLP	100.00%
	Kazatomprom-SaUran LLP[1]	100.00%
	RU-6 LLP[1]	100.00%
	Appak LLP	65.00%
	JV Inkai LLP[2]	60.00%
	Baiken-U LLP [4] [5]	52.50%
Joint Ventures	JV Budenovskoye LLP	51.00%
	Semizbai-U LLP	51.00%
Joint Operations	JV Akbastau JSC [3]	50.00%
	Karatau LLP [3]	50.00%
Associates	JV Katco LLP	49.00%
	JV South Mining Chemical Company LLP	30.00%
	JV Zarechnoye JSC	49.98%
	JV Khorassan-U LLP [4]	50.00%
	Kyzylkum LLP [5]	50.00%
	Zhanakorgan-Transit LLP [6]	60.00%
	Energy Asia (BVI) Limited [4] [5]	40.05%
Nuclear Fuel Cycle and Metallurgy		
Subsidiaries	Ulba Metallurgical Plant JSC	90.18%
	ULBA-CHINA Co Ltd[6]	100.00%
	Mashzavod JSC[6]	100.00%
	Ulba FA LLP[6]	51.00%
Nuclear Fuel Cycle		
Joint Ventures	Uranium Enrichment Centre CJSC	50.00%
	Ural Electrochemical Integrated Plant JSC[6]	25.00%
	JV "UKR TVS" Closed Joint-Stock Company	33.33%
Investments	International Uranium Enrichment Centre JSC	10.00%
Ancillary Operations		
Subsidiaries	High Technology Institute LLP	100.00%
	KazakAtom TH AG	100.00%
	KAP-Technology JSC	100.00%
	Trading and Transportation Company LLP	99.99%
	Volkovgeologia JSC	90.00%
	Rusburmash-Kazakhstan LLP[6]	49.00%
	Korgan-KAP LLP	100.00%
	Power System International Limited [5]	100.00%
Joint Ventures	SKZ-U LLP	49.00%
	Uranenergo LLP	79.45%
	Shieli - Energoservice LLP[6]	99.75%
	Taukent - Energoservice LLP[6]	99.75%
	Uranenergo-PUL LLP[6]	100.00%
Associates	JV SKZ Kazatomprom LLP	9.89%

[1] The Company transferred its rights and obligations under the subsoil use licenses relating to Kanzhugan, Southern Moinkum, Eastern Mynkuduk and Uvanas deposits, along with the associated production assets to "Kazatomprom-SaUran" LLP and its rights and obligations under the subsoil use licenses relating to the Southern and Northern Karamurun deposits, to "RU-6" LLP, in November 2018. Rights and obligations under the subsoil use license relating to Central Moinkum are planned to be transferred to "Kazatomprom-SaUran" LLP in 2019.
[2] The Company increased its interest in JV "Inkai" LLP from 40% to 60%, and accordingly started fully consolidating this entity in its financial statements, with effect from 1 January 2018.
[3] JV "Akbastau" JSC and "Karatau" LLP were classified as JOs, with effect from 1 January 2018.
[4] On 13 December 2018, the Company completed the acquisition of 40.05% shares in EAL and a 16.02% stake in the issued capital of JV "Khorasan-U" LLP from Energy Asia Holdings (BVI) Limited.
As a result of these transactions, the Company increased its interests in "Baiken-U" LLP from 5% to 52.5% (direct ownership 5%, indirect ownership through Energy Asia (BVI) Limited 47.5%), its interest in JV "Kyzylkum" LLP from 30% to 50% (direct ownership 30%, indirect ownership through Energy Asia (BVI) Limited 20.0%), in JV "Khorasan-U" from 33.98% to 50% (direct ownership).
[5] The Company holds 100% (direct ownership) in Power System International Limited (PSIL) and 40.05% (direct ownership) in Energy Asia (BVI) Limited. PSIL hold 9.95% (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.
[6] These companies are 3rd level entities for the Company through the interests in subsidiaries, JVs and Associates presented above these

companies in the table.

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

Treatment	Name	Share (%)
Nuclear and Alternative Energy		
Subsidiaries	"Kazakhstan Solar Silicon" LLP(7)	100.00%
	"MK KazSilicon" LLP(7)	100.00%
	"Astana Solar" LLP(7)	100.00%
Auxiliary operations		
Associates	"Caustic" JSC(8)	40.00%

[7] The Company intends to dispose of its interest in "Astana Solar" LLP, "MK KazSilicon" LLP, "Kazakhstan Solar Silicon" LLP, prior to end of 2019.

[8] "Caustic JSC" – the Company intends to dispose of its entire block of shares prior to end of 2020.

4.0 SIGNIFICANT FACTORS AFFECTING THE GROUP'S RESULTS OF OPERATIONS

On 13 November 2018 Samruk-Kazyna offered 38,903,491 shares including GDRs, representing 15% of the Company's share capital, in a dual-listing offering on the LSE and AIX. At the date of this document the number of the Company's issued and outstanding shares was 259 356 608, from which Samruk-Kazyna owns 220 661 900 ordinary shares representing 85.08% and 38 694 708 ordinary shares including GDRs representing 14.92% owned by minority shareholders.

The significant factors that affected the Group's results of operations during 2017 and 2018, 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;
- change in the Group structure;
- the impact of changes in exchange rates;
- taxation, including mineral extraction tax;
- the price and availability of sulfuric acid;
- impact of changes in ore reserves estimates;
- transactions with JVs and Associates.

4.1 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 in the spot market and from contracts with price formulas containing a reference to spot price. In addition to spot prices, the Group's effective realised price depends on the proportion of contracts in the portfolio with a fixed price component in a given period. The average realised price for each period can therefore deviate from the prevailing spot market price.

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

		2017	**2018**	**Change**
Average market spot price (per lb U_3O_8)[1]	USD	22.07	24.64	12%
	KZT	7,196	8,497	18%
Average realised price by the Group (per lb U_3O_8)	USD	23.85	24.46	3%
	KZT	7,779	8,435	8%
Average realised price by Kazatomprom (per lb U_3O_8)	USD	24.15	24.37	1%
	KZT	7,874	8,406	7%

[1] Prices per UxC LLC.

4.2 Change in the Group structure

In 2018, the Group completed several projects that resulted in a change in accounting treatment:

- The Group's ownership interest in JV "Inkai" LLP was increased from 40% to 60% effective 1 January 2018, which resulted in a change in accounting treatment from equity to full consolidation.
- Agreements were signed with Uranium One Inc. under which the Company and Uranium One Inc. have the obligation to purchase all production of JV "Akbastau" JSC and "Karatau" LLP at equitable terms, with financing to the joint arrangements in proportion to their shareholdings. As a result, the Group's investments in these two operations were reclassified as JOs in the consolidated financial statements, and accounted for by recognising the Group's direct right in joint assets, liabilities, income and expenses in proportion to its ownership effective 1 January 2018.

In accordance with IFRS, the Group assessed the fair values of the assets and liabilities acquired in the above business combinations of JV "Inkai" LLP, JV "Akbastau" JSC and "Karatau" LLP which resulted in a net gain of KZT 313.5 billion being recorded in profit and loss in 2018.

- In December 2018, the Company increased its interest in JV "Khorassan-U" LLP (from approximately 34% to 50%), its effective interest in JV "Kyzylkum" LLP (from 30% to 50%), and its effective interest in "Baiken-U" LLP (from 5% to 52.5%). The company expects to fully consolidate results for these operations, except JV "Kyzylkum" LLP, once the agreements are finalized in 2019. The fair value assessments of the assets and liabilities acquired in these transactions are yet to be completed and accordingly, no gain or loss was recognized in 2018.

During the periods under review, the Group also disposed of seven non-core assets:

- In July 2018, the Company transferred its entire interest in “MAEK-Kazatomprom” LLP to its sole shareholder Samruk-Kazyna, resulting in the elimination of the Group’s Energy segment. This transaction was cash neutral, as an amount equivalent to the sale proceeds were paid to Samruk-Kazyna as dividends in 2018.

  That entity has a utilities business and owns a non-operating BN-350 nuclear reactor, which is currently in the decommissioning. In accordance with the sales and purchase agreement, in relation to its period of ownership of “MAEK-Kazatomprom” LLP, the Group:

  • is not exposed to any liabilities associated with the reactor, unless caused by the Group’s gross negligence or intentional guilty actions; and

  • may be responsible for financial and environmental liabilities that may be identified in future periods relating to the utilities business.

  Management believes that the Group has no obligations under this agreement at 31 December 2018 and, accordingly, no liability is recognised in the consolidated financial statements.

- In June 2018, the Company transferred its entire block of shares in “Kazakhstan Nuclear Power Plants” JSC to its sole shareholder Samruk-Kazyna. This transaction was also cash neutral.
- In December 2018, The Company entered into an advisory and consulting services agreement with Samruk-Kazyna in relation to “MAEK-Kazatomprom” LLP and “Kazakhstan Nuclear Power Plants” JSC. According to the agreement terms, the Company will provide consulting services with respect to all matters brought to Samruk-Kazyna’s consideration in its capacity as a sole participant of “MAEK-Kazatomprom” LLP, including the approval of the implementation plan of a management reporting system, and formation of supervisory board and management board. The services agreement will be effective until December 2021, or until MAEK is transferred by Samruk-Kazyna to the Government of Kazakhstan (whichever comes first).
- The agreement with respect to “Kazakhstan Nuclear Power Plants” JSC includes the same scope of the Company’s services and is expected to be effective until December 2021, or until a feasibility study for nuclear power plant construction is completed and approved by the competent state authorities of the Republic of Kazakhstan (whichever comes first).
- In September 2018, the Company signed an agreement to sell its 76% interest in “Kyzyltu” LLP to the other shareholder – “Stepnogorsk Mining and Chemical Plant” LLP (“SMCP”), for KZT 3.8 billion. Currently, the Company is awaiting payment. In accordance with the terms of the sales and purchase agreement, starting from 7 December 2018, the Company charges SMCP an amount of 0.01% of the total sum per day until the payment is completed. Ownership rights will be transferred after the Company receives the full amount of the purchase price.
- In October 2018, the Company transferred its entire interest in “Sareco” LLP, a company engaged in the manufacturing of an insignificant volume of rare earth metal products, to the National Mining Company “Tau-Ken Samruk” JSC, a related entity of Samruk-Kazyna.
- In December 2018, “Kazatomprom-Damu” LLP began liquidation of the legal entity following approval at the General Meeting of Participants.
- JV "Betpak Dala" LLP was also dissolved as a legal entity. All necessary liquidation measures are in progress.
- In January 2019, the General Meeting of Participants approved the interim liquidation balance of “ULBA Conversion” LLP. The legal entity is expected to be dissolved by the end of 2019.

In total, the Group’s subsidiaries, JVs, JOs and Associates decreased from 50 at 31 December 2017, to 44 at 31 December 2018.

In 2019, the Company expected to dispose of its entire interest in “Astana Solar” LLP, “Kazakhstan Solar Silicon” LLP, and “MK KazSilicon” LLP; and the disposal of all of its interests in «Shieli – Energoservice» LLP, «Taukent – Energoservice» LLP and «Uranenergo-PUL» LLP. In 2020, it is expected to dispose of its entire interest in Caustic JSC.

4.3 Impact of Changes in Exchange Rates

Fluctuations in the KZT/USD exchange rate can significantly affect the Group's consolidated results of operations, primarily because:

- Uranium spot prices are typically quoted in USD; therefore, most sales contracts and the majority of the Group's consolidated revenues are denominated in USD. In 2017, 78% of the Group's revenue was denominated in USD, and in 2018, that increased to 87%. The increase is due to higher USD revenues from the uranium segment in 2018 compared to 2017.
- A substantial portion of the Group's expenses, including most of its operating production expenses and over two-thirds of its capital expenditures, are denominated in KZT. The principal expenses of the Group that are not denominated in KZT relate to the purchase of industrial pumps used in ISR operations and the resins used in processing uranium; and
- Most of the Group's borrowings are denominated in foreign currencies. As at 31 December 2018, 99% of the Group's borrowings were denominated in USD.

As most of the Group's revenue is denominated in USD, while a significant share of its costs are in KZT, an appreciation of USD against KZT generally has a positive effect on the Group's financial performance. However, because the Group has significant outstanding USD-denominated liabilities, the positive effect of an appreciating USD may be fully or partially offset. In addition, although the Company purchases uranium and uranium products from its JVs and Associates under KZT-denominated contracts, the prices are determined by reference to prevailing spot market prices of U_3O_8, which are in turn denominated in USD. Accordingly, a significant appreciation of USD would result in a corresponding increase in the KZT-denominated uranium purchase costs under such contracts.

Where possible, the Group attempts to mitigate the risks associated with exchange rates by matching the currency of its interest payments and financial liabilities, with the currency of its cash flows. Through this matching, the Group is able to hedge without the use of derivatives. For monetary assets and liabilities denominated in currencies other than KZT, the Group attempts to keep its net exposure to an acceptable level by buying or selling such currencies at spot rates when necessary to address short-term imbalances.

In 2018, the KZT/USD exchange rate fluctuated between KZT 332.3 and KZT 384.2. The following table provides annual average rates and year-end closing KZT/USD exchange rates, as reported by the National Bank of the Republic of Kazakhstan (NBK) for 2017 and 2018.

		2017	2018	Change
Average exchange rate for the period[1]	KZT / USD	326.08	344.90	6%
Closing exchange rate for the period	KZT / USD	332.33	384.20	16%

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

4.4 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 below). Taxable expenditures are made up of all direct expenditures associated with mining operations, including wellfield development depreciation charges and any other depreciation charges attributable to direct mining activities, but specifically exclude processing and general and administrative expenses. The MET is calculated separately for each subsoil use license.

The resulting MET paid is therefore dependent upon the cost of mining operations.

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

(KZT million)	2017	2018	Change
Corporate income tax[1]	14,675	31,412	114%
Mineral extraction tax[2]	13,280	17,720	33%
Excess profit tax[3]	5,609	-	-
Other taxes and off-budgetary payments[4]	38,470	49,684	29%
Total tax accrued	**72,035**	**98,816**	**37%**

[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%) × 18.5% ÷ (1 – (1 + 20%) × 18.5%).

[3] Applicable rate: 10–60%. Abolished as of 1 January 2018 for subsoil use licenses relating to solid mineral deposits, including uranium.
[4] Includes property tax, land tax, transport tax, social tax, off-budgetary payments, VAT and PIT.

Total tax accrued, including corporate income tax, MET and other taxes, increased by 37% to KZT 98,816 million in 2018 compared to 2017, due to the increased tax base resulting from higher sales volumes and higher spot prices, as well as the accounting changes related to the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

4.5 Price 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. Higher prices for sulfuric acid could adversely impact the Group's profits.

The Group's weighted average price of sulfuric acid increased slightly to KZT 21,557 per tonne in 2018 (from KZT 21,529 per tonne in 2017). On average in 2018, the price of sulfuric acid represented about 16% of the Group's uranium production cost.

4.6 Impact of changes in Ore Reserves estimates

The Group reviews its estimates of Ore Reserves and Mineral Resources on a regular basis. As a result, certain Ore Reserves and Mineral Resources may be reclassified 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.

4.7 Transactions with JVs and Associates

The Company purchases U_3O_8 from its subsidiaries, JVs and Associates, principally at spot price with discounts, which can 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), 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 (using equity accounting), which in most cases is the prevailing spot price with certain applicable discounts. The share of results of JVs and Associates therefore represents a significant part of the Group's profits and should be considered accordingly in the assessment of the Group's financial results. In 2018, the weighted average discount on pounds purchased from operations was 4.2% of the prevailing spot price.

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

The following table provides the volumes purchased by the Company; these volumes were accounted for using the purchase price in the Company's cost of sales for the periods indicated:

(tU)	2017	2018	Change
U_3O_8 purchased from JVs and Associates	6,877	3,022	(56)%
U_3O_8 purchased from non-controlled investment[1]	1,882	1,647	(12)%
Total	**8,759**	**4,669**	**(47)%**

[1] Non-controlled investment is a "Baiken-U" LLP with 5% direct ownership by the Company.

The volume of U_3O_8 purchased from JVs, Associates, and non-controlled investments that is accounted for in cost of sales using purchased price, totaled 4,669 tonnes in 2018, a decrease of 47% compared to 2017 mainly due to the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details). Note that total volumes of purchased uranium is higher since the Company and THK also buys from subsidiaries and third parties.

5.0 KEY PERFORMANCE INDICATORS

5.1 Consolidated Financial metrics

(KZT billion unless noted)	2017	2018	Change
Group's consolidated revenue (according to financial statements)	277.0	436.6	58%
Operating profit	32.6	77.5	138%
Net profit	139.2	380.3	173%
Gain on exercise of put option (one-time effect)[1]	107.7	-	-
Gain from business combinations (one-time effect)	-	313.5	-
Adjusted net profit	31.5	66.8	112%
Earnings per share attributable to owners (basic and diluted), KZT/share	534.1	1,435.0	169%
Adjusted EBITDA[2]	96.7	131.3	36%
Adjusted attributable EBITDA[3]	128.2	140.2	9%
Operating cash flow	23.4	58.3	149%

[1] In 2017 the Group recognised a gain from the exercise of a put option of KZT 107.7 billion because of the difference between the consideration received and the carrying amount of the investments.
[2] Adjusted EBITDA is calculated by excluding from EBITDA all items not related to the main business and having a one-time effect.
[3] Adjusted Attributable EBITDA is calculated as an 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 Budenovskoye JV LLP's EBITDA due to minor effect it has during each reporting period) less non-controlling share of adjusted EBITDA of Appak LLP and Inkai JV LLP less any changes in the unrealized gain in the Group.

Consolidated revenues were KZT 436.6 billion in 2018, an increase of 58% compared to 2017, mainly due to an increase in sales of uranium products reflecting market share growth and the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

The operating profit in 2018 was KZT 77.5 billion, an increase of 138% compared to 2017, which was mainly due to the increase of U_3O_8 sales volumes, appreciation of USD against KZT, and higher average sales price.

Net profit for the year was KZT 380.3 billion, an increase of 173% compared to 2017. However, a significant portion of the year-over-year increase is associated with one-time effects of transactions in both years, especially the exercise of the put option in 2017 and the change in investment value resulting from the inclusion of JV "Inkai" LLP, "Karatau" LLP, JV "Akbastau" JSC in the consolidation (see section 4.2 *Change in the Group structure* on page 9 for details). The one-time effects of these transactions increased net income by KZT 107.7 billion and KZT 313.5 billion in 2017 and 2018 respectively. Adjusting for those effects, adjusted net profit was KZT 66.8 billion, an increase of 112% compared to 2017.

Adjusted EBITDA totaled KZT 131.3 billion in 2018, an increase of 36% compared to 2017, while Adjusted Attributable EBITDA was KZT 140.2 billion in 2018, an increase of 9% compared to 2017. The increases were mainly driven by increased operating profit and the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

For a similar reason, operating cash flows totaled KZT 58.3 billion, an increase of 149% compared to 2017.

5.2 Production and Sales metrics

		2017	2018	Change
Production volume as U_3O_8 (100% basis)	tU	23,321	21,705	(7)%
Group production volume as U_3O_8 (attributable basis)[1]	tU	12,093	11,476	(5)%
U_3O_8 sales volume (consolidated)	tU	10,111	16,647	65%
Including KAP HQ/THK U_3O_8 sales volume	tU	9,300	15,287	64%
Group inventory of finished goods (U_3O_8)	tU	9,085	7,892	(13)%
KAP/THK inventory finished goods (U_3O_8)	tU	8,999	7,353	(18)%
Average sales price of the Group	KZT/kg	20,222	21,930	8%
Average sales price of the Group	USD/lb	23.85	24.46	3%
Average weekly spot price	USD/lb	22.07	24.64	12%
Average month-end spot price	USD/lb	21.78	24.59	13%

[1] the Group production volumes as U_3O_8 (attributable basis) is not equal to the volumes purchased by Company and THK.

Production volumes of U_3O_8 on a 100% basis decreased by 7% at all uranium mining entities for 2018, compared to 2017. Production was reduced in accordance with the Company's decision that saw production at all operations reduce by 20% against subsoil use license volumes. Attributable production volumes were lower for the same reason.

Consolidated U_3O_8 sales volumes in 2018 totaled 16,647 tonnes, an increase of 65% compared to 2017. Consolidated sales in 2018 were favourably impacted by the sale of 3,112 tU to uranium fund Yellow Cake LLC following its initial public offering; the effect of the change in the Group structure; and transformation of the Group's marketing sales function that included the creation of THK, which resulted in the acquisition of new customers and higher direct contracting without the use of intermediaries.

Consolidated Group inventory of finished U_3O_8 products at 31 December 2018 amounted to 7,892 tU, which is 13% lower than at the end of 2017. At the HQ/THK level, inventory of finished U_3O_8 products was 7,353 tU, a decrease of 18% compared to 2017. The lower inventory levels are the result of an increase in sales volumes in 2018, as well as the Company's target to maintain an optimum inventory level of approximately six months of annual attributable production.

The average KZT sales price realized by the Group in 2018 was KZT 21,930 per kg (24.46 USD/lb), an increase of 8% compared to 2017 due to the increase of average spot price for uranium products and the appreciation of USD against KZT.

5.3 Uranium segment financial metrics

(KZT billion unless noted)		**2017**	**2018**	**Change**
Average exchange rate for the period	KZT/USD	326.08	344.90	6%
Uranium segment revenue		205.6	366.8	78%
Including U_3O_8 sales proceeds (across the Group)		204.5	365.1	79%
Share of a revenue from uranium products	%	74%	84%	13%
Attributable cash cost	USD/lb	12.02	11.56	(4)%
Attributable all-in sustaining cost	USD/lb	16.09	15.08	(6)%
Investments of mining companies (100% basis)[1]		81.5	75.4	(7)%

[1] Excludes liquidation funds and closure costs and includes expansion investments. In section 6.0 *Capital Expenditures Review* total results includes liquidation funds and closure cost.

Consolidated U_3O_8 sales were KZT 365.1 billion in 2018, an increase of 79% compared to 2017, mainly due to an increase in sales of uranium products, reflecting market share growth and the change in the Group structure.

Attributable Cash Cost (C1) and All-In-Sustaining Costs (AISC) decreased by 4% and 6% respectively in 2018, compared to 2017. The decreases were primarily due to depreciation of KZT. It should be noted that despite of the 7% decrease in production volumes (see section 5.2 *Production and Sales metrics* on page 13 for details), the cost of production per unit in KZT changed insignificantly due to cost optimization efforts to further position the Group's U_3O_8 unit production costs among the lowest in the industry.

Investment costs of mining companies (on 100% basis) totaled KZT 75.4 billion, a decrease of 7% compared to 2017, mainly due to the decrease of sustaining capital costs substantiated by the cost optimization program (see section 6.0 *Capital Expenditures Review* on page 16 for details).

5.4 UMP Segment

Rare metals products		**2017**	**2018**	**Change**
Beryllium products	KZT/kg	8,267	10,447	26%
	Sales, tonnes	1,599.6	1,662.1	4%
Tantalum products	KZT/kg	95,369	104,076	9%
	Sales, tonnes	135.0	137.7	2%
Niobium products	KZT/kg	19,906	24,088	21%
	Sales, tonnes	23.7	22.9	(3)%

Increased consumer demand for beryllium and tantalum products in 2018 resulted in higher sales.

Sales of niobium in 2018 decreased compared to the prior year due to a reduction in quantity of orders for niobium alloying additives and for niobium-containing sublimates.

UO_2 powder and Fuel pellets		2017	2018	Change
Fuel pellets	Sales, tonnes	75.2	84.3	12%
Ceramic powder	Sales, tonnes	10.2	10.2	-
Dioxide from scraps	Sales, tonnes	15.3	8.3	(46)%

Sales of fuel pellets in 2018 increased to 84.3 tonnes, 12% higher than in 2017 due to increased amounts of tolling services according to customer agreements.

Sales volumes of ceramic powder in 2018 were unchanged compared to 2017.

The decline in sales volumes of dioxide from scraps is due to a reduction in scrap recycling.

5.5 Other Segments

(KZT billion unless noted)	2017	2018	Change
Revenue[1]	80.3	79.2	(1)%
Including external revenue	39.1	31.4	(20)%
Cost of sales[1]	75.3	77.0	2%
Gross profit[1]	5.0	2.2	(57)%

[1] All indicators include intra-group transactions (eliminations), for more details see the Annual Financial Statements.

Other segments include services such as drilling, transportation of commodities and sulfuric acid, R&D and training which are provided to mining entities.

Total external revenue from other segments was 79.2 billion in 2018, which was similar to 2017. External revenue from the Other segments represented about 7% of the Group's total consolidated revenue in 2018, compared to about 14% in 2017. A decrease in the Other segments gross profit is mainly due to the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

6.0 CAPITAL EXPENDITURES REVIEW

The Group primarily incurs capital expenditures in relation to its subsidiaries engaged in the mining of natural uranium, as well as expenditures of a similar nature relating to its JVs and Associates engaged in the mining of natural uranium. Such expenditures are comprised of the following key components:

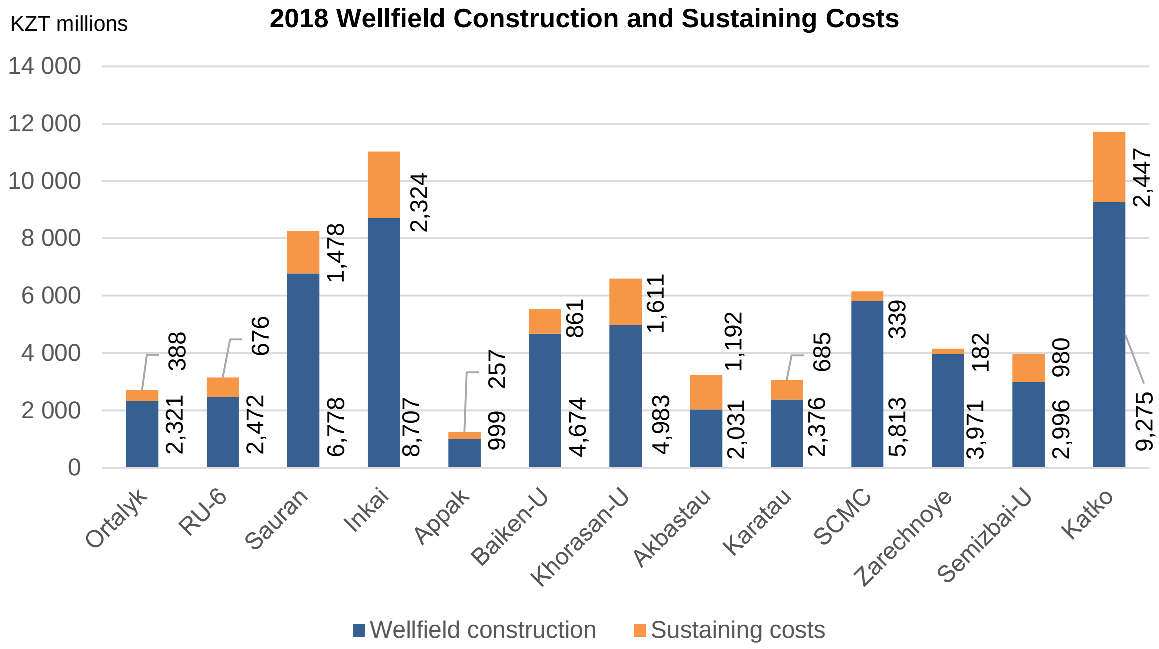
- well construction costs;
- expansion costs, which typically include expansion of processing facilities, extension of services and transport routes to new wellfield areas, implementation of new systems and processes;
- sustaining capital – largely reflecting recurring, infrastructure, maintenance and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

The following table provides the capital expenditures for the Group's subsidiaries, 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 are strongly cautioned to not place undue reliance on capital expenditure information, as it represents unaudited unconsolidated financial information on an accounting basis which is not in compliance with IFRS.

(KZT millions)	2017					2018				
	Owner ship	WC[1]	S[2]	LF/C[3]	Total	Owner ship	WC[1]	S[2]	LF/C[3]	Total
Ortalyk LLP	100%	2,555	543	169	**3,267**	100%	2,321	5,010[4]	171	**7,502**
Kazatomprom-SaUran LLP	100%	5,197	1,185	639	**7,020**	100%	6,778	1,478	2,990	**11,245**
RU-6 LLP	100%	2,453	541	282	**3,276**	100%	2,472	676	1,062	**4,210**
Appak LLP	65%	2,046	209	87	**2,341**	65%	999	257	68	**1,325**
JV Inkai LLP	40%	5,258	8,077	—	**13,335**	60%	8,707	2,324	31	**11,062**
Semizbay-U LLP	51%	2,364	470	137	**2,971**	51%	2,996	980	115	**4,091**
Karatau LLP	50%	4,369	2,558	99	**7,026**	50%	2,376	685	80	**3,141**
JV Akbastau JSC	50%	3,103	2,486	144	**5,733**	50%	2,031	1,192	79	**3,301**
JV Zarechnoye JSC	49.98%	3,386	535	11	**3,931**	49.98%	3,971	182	10	**4,162**
JV Katco LLP	49%	10,252	2,866	768	**13,886**	49%	9,275	2,447	1,368	**13,090**
JV Khorassan-U LLP	34%	6,582	254	182	**7,018**	34%	4,983	1,611	142	**6,736**
JV SMCC LLP	30%	3,962	2,761	858	**7,582**	30%	5,813	339	535	**6,688**
Baiken-U LLP	5%	4,389	3,051	233	**7,674**	5%	4,674	861	146	**5,681**
Total of mining assets		**55,918**	**25,535**	**3,609**	**85,061**		**57,396**	**18,041**	**6,798**	**82,235**

[1] Well construction
[2] Sustaining
[3] Liquidation fund / closure
[4] Includes expansion investments in amount of KZT 4.6 billion.

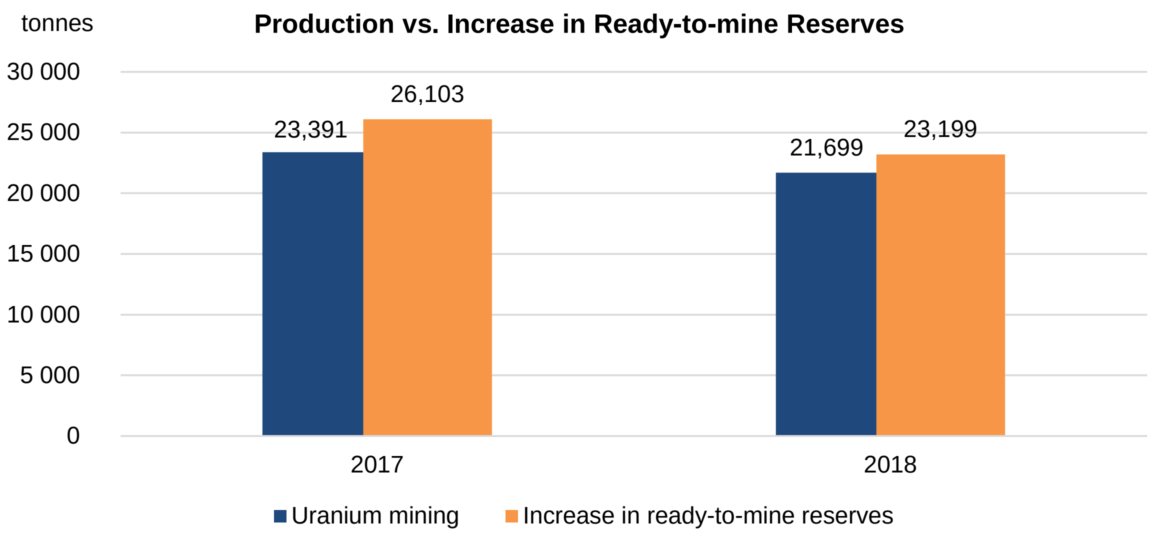
In order to achieve the planned levels of production, on an annual basis, the Group's mining companies assess the required level of wellfield and mining preparation based upon the availability of reserves. These costs relate to the capitalized costs of maintaining the sites, with the main component being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



(KZT millions)	2017	2018	Change
Well construction	55,918	57,395	3%
Sustaining	25,535	13,419	(47)%
Total wellfield construction and sustaining costs	**81,452**	**70,814**[1]	**(13)%**

[1] Excludes expansion investments of KZT 4.6 billion.

Wellfield construction and sustaining costs for the 13 mining entities in 2018 amounted to KZT 70.8 billion, which is 13% lower than in 2017. The change was mainly due to the decrease of sustaining capital expenses related a cost optimization program. A 3% rise in the cost of well construction is related to higher piping costs, higher pump prices combined with KZT depreciation.

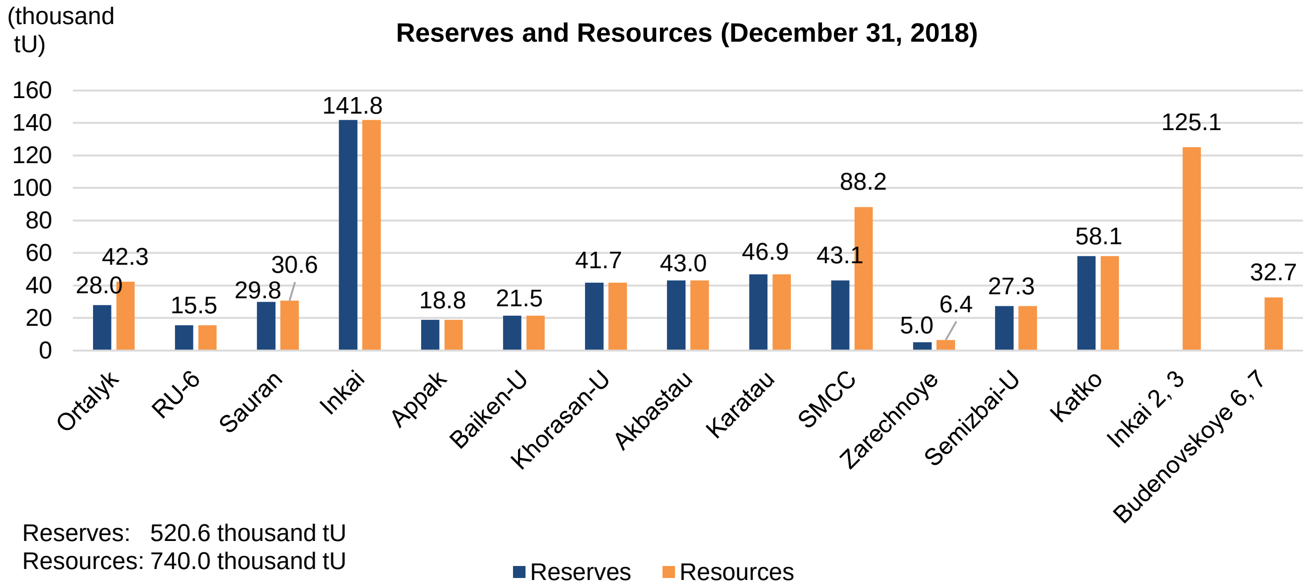


During 2018, 23,199 tU of reserves were added to production, which is 11% lower than in 2017. The increase in ready-to-mine reserves was smaller due to lower uranium production volumes in the mine plan in 2018 compared to 2017.

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 as at 31 December 2018:

(KZT million unless noted)	PGR volumes (tU)	PGR	Exploration value	Book value of PPE (excl. wellstock)	Gross value of PPE (excl. wellstock)	D&A (excl. wellstock)
Ortalyk LLP	2,711	9,909	328	12,749	18,168	1,046
Kazatomprom-SaUran LLP	4,993	11,088	2,870	6,518	15,085	1,059
RU-6 LLP	2,954	7,838	-	3,058	5,589	391
Appak LLP	2,447	3,942	2,158	4,118	8,280	368
JV Inkai LLP	4,901	19,901	20,320	59,706	95,428	2,244
Semizbay-U LLP	2,902	5,611	31	7,990	16,346	809
Karatau LLP	3,070	6,772	3,202	11,733	22,708	1,272
JV Akbastau JSC	2,277	4,758	6,893	7,509	10,831	402
JV Zarechnoye JSC	2,502	8,406	664	2,811	8,435	668
JV Katco LLP	4,881	22,590	4,432	17,502	50,212	3,538
JV Khorassan-U LLP	4,108	9,637	9,893	10,738	15,379	681
JV SMCC LLP	4,813	9,615	6,479	12,290	19,269	1,949
Baiken-U LLP	3,176	9,246	7,193	11,318	19,475	1,135

7.0 RESERVES AND GEOLOGICAL SURVEYS



Mineral reserves of all mining assets as of December 31, 2018 (including annual depletion) totaled an estimated 520.6 thousand tU, (100% basis, 305.6 thousand tU attributable to the Company, or 59%). Total mineral resources (including reserves) were estimated at 740.0 thousand tU (100% basis, 476.7 thousand tU attributable to the Company). In comparison to the first half of 2018 as reported in the IPO prospectus, total resources increased by about 66,000 tU (100% basis, about 41,000 attributable).

The Company pays significant attention to the evaluation of prospective deposits and the projects portfolio, including exploration projects. In 2018, the Company was awarded uranium exploration contracts for site No. 2 and No. 3 of the Inkai deposit with a duration of 4 years. According to the Report of the Competent Authority of the Ministry of Energy of the Republic of Kazakhstan, as of July 01, 2017, the mineral resources for sites No. 2 and 3 are 125.1 thousand tonnes (of which 42.0 thousand tonnes are on site No. 2, and 83.1 thousand tonnes on site No.3). In 2019, the Company plans to start geological studies on site No.2 of the Inkai deposit.

8.0 FINANCIAL ANALYSIS

The table below shows financial information related to the consolidated results of the Group for 2017 and 2018:

(KZT millions)	2017	2018	Change
Revenue	**277,046**	**436,632**	**58%**
COGS	(209,934)	(313,817)	49%
Gross profit	**67,112**	**122,815**	**83%**
Selling expenses	(4,316)	(10,530)	144%
G&A	(30,194)	(34,805)	15%
Operating profit	**32,602**	**77,480**	**138%**
Other income/(loss), including:	77,294	312,436	304%
Gain on exercise of put option (one-time effect)	107,714		
Net gain from business combinations (one-time effect)[1]		313,517	
Share in the results of Associates	22,007	22,786	4%
Share of JVs' results	22,107	(4,743)	(121)%
Pre-tax income	**154,010**	**407,959**	**165%**
Corporate income tax	(17,287)	(28,797)	67%
Income from discontinued operations	2,431	1,104	(55)%
Net profit	**139,154**	**380,266**	**173%**
Adjusted Net profit (net of one-time effect)	**31,440**	**66,759**	**112%**
Net profit attributable to shareholders	*138,527*	*372,176*	*169%*
Net profit attributable to non-controlling interest	*627*	*8,090*	*1,191%*

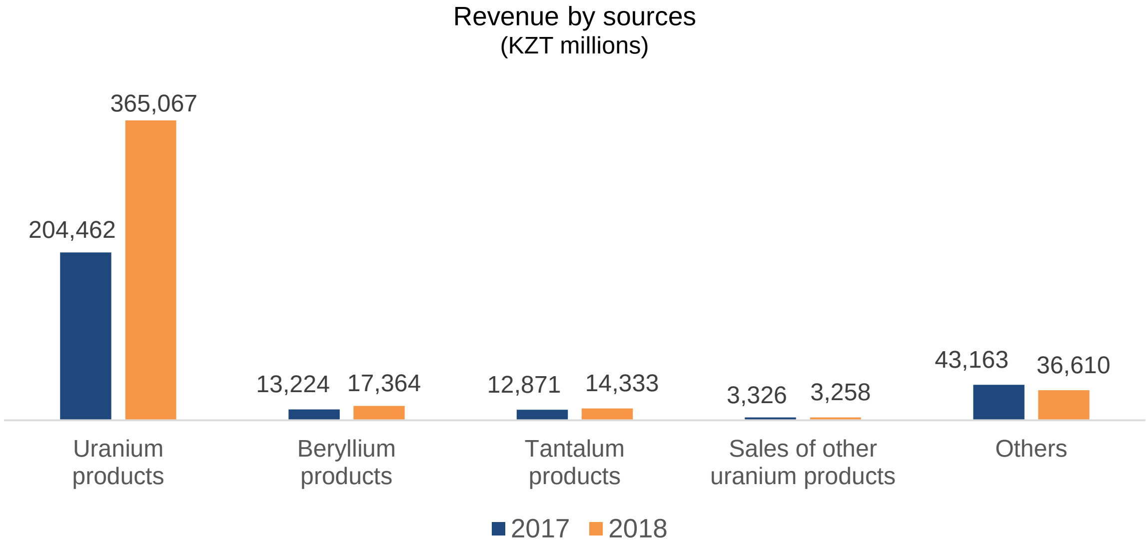
[1] Includes the gain in amount of KZT 5 million from other investments.

Net profit of the Group in 2018 is significantly affected by the transactions related to change in the Group structure:

- a gain from increase of additional interest in JV "Inkai" LLP of KZT 95,929 million
- a gain from the change of classification of "Karatau" LLP and JV "Akbastau" JSC to joint operations of KZT 124,632 million and KZT 92,951 million respectively

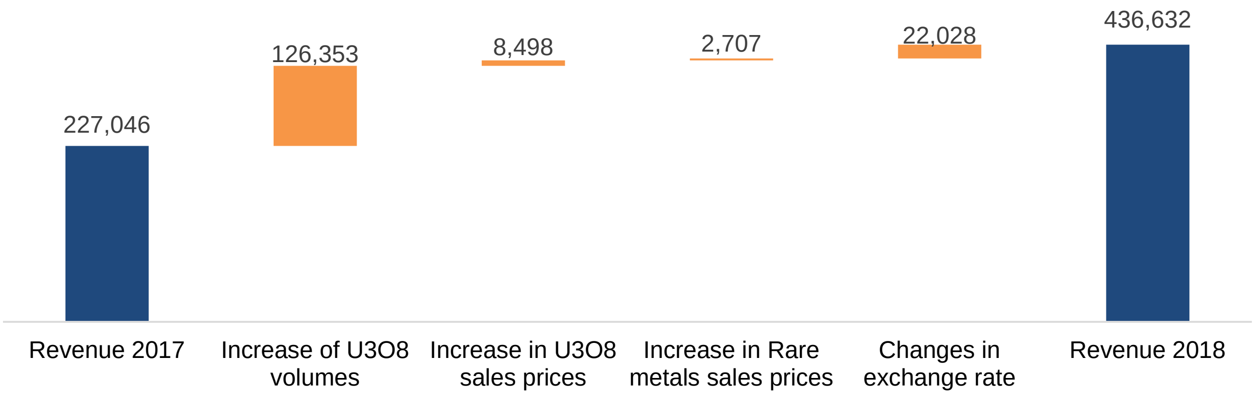
The components of revenue, cost of goods sold, general and administrative expenses, distribution costs, and other income and expenses are changed in 2018 compared to 2017 due to the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

8.1 Revenue



The main factors influencing the change in revenue in 2018 compared to 2017, are presented in the graph below:

Changes in Revenue
(KZT millions)



8.2 Cost of sales

Cost of sales totaled KZT 313,817 million in 2018, an increase of 49% compared to 2017. The increased is mainly due to higher uranium sales volumes in 2018 and the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

The table below shows the Group's cost of sales for 2017 and 2018 by component:

				Proportion of cost of sales	
(KZT millions)	**2017**	**2018**	**Change**	**2017**	**2018**
Materials and supplies	143,771	202,817	41%	69%	64%
Wages and salaries	22,830	24,024	5%	11%	8%
Processing and other services	5,052	10,354	105%	2%	3%
Depreciation and amortisation	13,623	39,866	193%	6%	13%
Taxes other than income tax	10,552	22,033	109%	5%	7%
Other	14,106	14,723	4%	7%	5%
Cost of Sales	**209,934**	**313,817**	**49%**	**100%**	**100%**

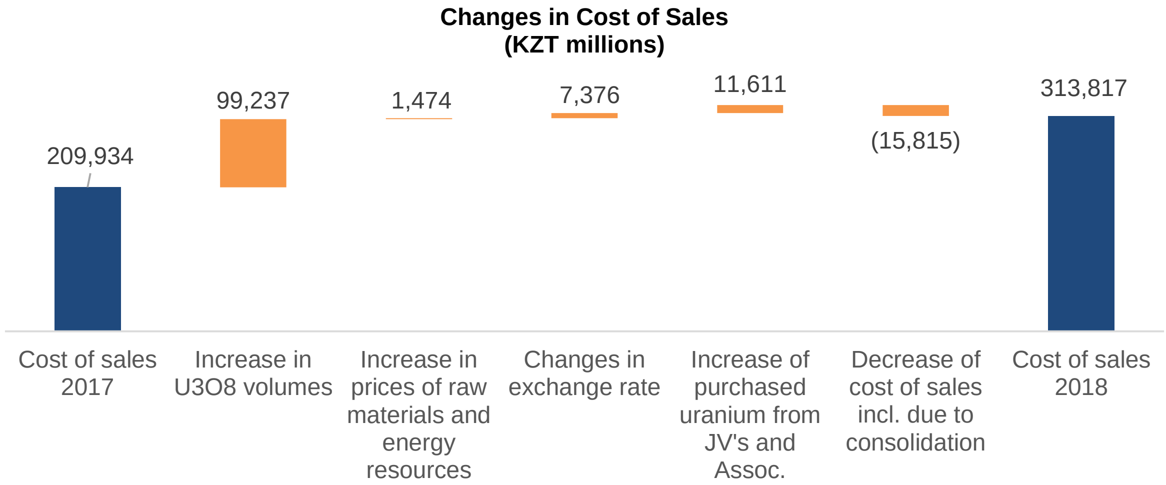
The cost of materials and supplies were KZT 202,817 million in 2018, an increase of 41% compared to 2017. The increase was largely due to higher uranium sales volumes and the change in the Group structure.

Wages and salaries totaled KZT 24,024 million in 2018, an increase of 5% compared to 2017, mainly due to the change in the Group structure.

The cost of processing and other services was KZT 10,354 million in 2018, an increase of 105% compared to 2017, mainly as a result of an increase in costs associated with third-party services.

The other categories of costs, including depreciation and amortization, taxes and other expenses, and other, totaled to KZT 76,622 million in 2018, an increase of 100% compared to 2017, mainly due to the consolidation of these expenses attributable to JV "Inkai" LLP, and the increase in sales of uranium products delivered by the Group compared to products purchased from JVs and Associates during 2018.

The main factors influencing the change in cost of sales in 2018 compared to 2017 are presented in the graph below:



8.3 Selling expenses

(KZT millions)	2017	2018	Change	Proportion of selling expenses 2017	2018
Shipping, transportation and storing	2,868	7,275	154%	66%	69%
Wages and salaries	484	950	96%	11%	9%
Rent	85	106	24%	2%	1%
Materials	169	221	31%	4%	2%
Depreciation and amortisation	65	67	3%	2%	1%
Others	645	1,911	196%	15%	18%
Selling expenses	**4,316**	**10,530**	**144%**	**100%**	**100%**

Selling expenses totaled to KZT 10,530 million in 2018, an increase of 144% compared to 2017, mainly due to an increase of the costs of loading, transporting and storing (associated with higher uranium sales volumes) and the change in the Group structure.

Selling expenses related to sales of HQ/THK volumes increased by 123% in 2018 compared to 2017. This increase constitutes 29% of the total selling expenses increase, while the rest of the selling cost rise relates to the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

8.4 General & Administrative expenses (G&A)

(KZT millions)	2017	2018	Change	Proportion of G&A expenses 2017	2018
Wages and salaries	16,556	17,809	8%	55%	51%
Consulting and information services	3,150	4,488	42%	10%	13%
Rent	1,086	1,166	7%	4%	3%
Depreciation and amortisation	696	808	16%	2%	2%
Other	8,706	10,534	21%	29%	31%
G&A expenses	**30,194**	**34,805**	**15%**	**100%**	**100%**

G&A expenses were primarily influenced by the change in the Group structure, including wages and salaries (KZT 17,809 million in 2018, 8% higher than 2017), rent expenses (1,166 million, 7% higher than 2017), and depreciation and amortisation (KZT 808 million, 16% higher than 2017).

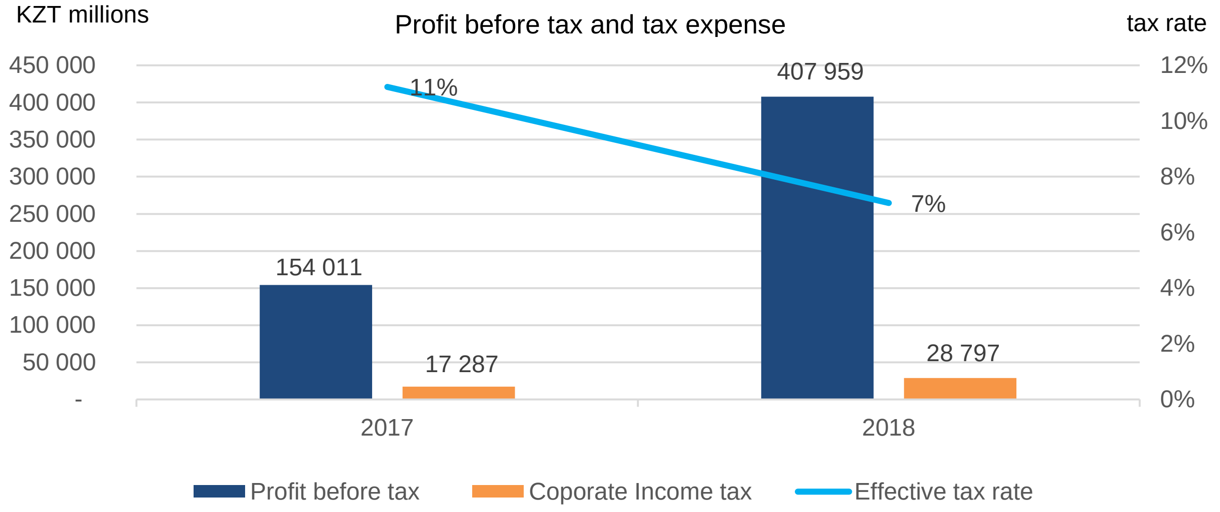
The cost of consulting and information services was KZT 4,488 million in 2018, an increase of 42% compared to 2017, largely due to an increase in services purchased by the Company during 2018.

Other expenses totaled KZT 10,534 million in 2018, an increase of 21% compared to 2017. The increase was largely related to expenses on the construction of social facilities in the newly formed Turkestani region. Other expenses also includes maintenance and repairs, travel expenses, communication expenses, materials, taxes other than income tax, utility costs, corporate events, fines and penalties, and certain other expenses.

8.5 The share of Associates' and JVs' results

The share of results of Associates and JVs in 2018 was KZT 18,042 million, a decrease of 59% compared to 2017. The decrease was mainly caused by the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details). The increase of average spot price in 2018 compared with 2017 positively impacted the operating results of the Associates and JVs and their resulting contributions to the Group.

8.6 Profit before tax and tax expense



(KZT millions)	2017	2018	Change
Profit before tax	154,010	407,959	165%
Non-taxable one-time effects	107,714	313,517	191%
Taxable Profit before tax	46,296	94,442	104%
Corporate income tax	17.287	28.797	67%

The Group's profit before tax is KZT 407,959 million in 2018, an increase of 165% compared to 2017. The increase was mainly due to the change in the Group structure, and the resulting recognition of a KZT 313.5 billion profit related to the business combination, as well as higher uranium sales volumes in 2018.

The corporate tax rate applicable to the majority of the Group's profits is 20% in 2018 and 2017. The Group's effective tax rates were 11% and 7% in 2017 and 2018, respectively. The effective tax rate differs from corporate income tax primarily due to certain elements of reported income that are not recognized in tax accounting.

9.0 LIQUIDITY AND CAPITAL RESOURCES

Kazatomprom's management pays special attention to preserving financial stability in a constantly changing market environment. The Group's financial management policy is aimed at maintaining a strong capital base to support existing operations and business development.

9.1 Capital resources

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, and to a smaller degree, external sources of financing, to fund its working capital and long-term capital requirements. It is expected that there will be no significant change in the sources of the Group's liquidity in the foreseeable future. As required, the Company will consider entering into project financing arrangements to fund certain investment projects. The Group also obtains capital for its operations through the formation of joint ventures with industry partners, and in the past, it has raised financing in the international debt capital markets.

9.2 Dividends received

The Company is the parent company for the Group, and in addition to revenue from its business operations, it receives dividends and other payments from its subsidiaries, JVs and Associates, and other investments. In 2017 and 2018, the Group received dividends of KZT 36,486 million and KZT 12,773 million, respectively, from its JVs and Associates and other investments. The decrease in 2018 was primarily due to the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details). The Company strives to use its voting power to maximise its dividend flow from subsidiaries, JVs and Associates. Dividends received by the Company from investees domiciled in the Republic of Kazakhstan are exempt from dividend tax.

In 2018, the Company paid dividends in the amount of KZT 161,661 million to Samruk-Kazyna.

9.3 Working capital

The table below provides the Group's working capital as at 31 December 2017 and 2018:

(KZT millions)	2017[1]	2018[2]	Change
Inventory	169,675	170,261	-
Receivables	58,085	94,477	63%
Recoverable VAT	24,182	29,799	23%
Other current assets	18,396	18,322	-
CIT prepayment	5,493	4,366	(21)%
Payables	(112,642)	(51,534)	(54)%
Employee remuneration liabilities	(173)	(147)	(15)%
Income tax liabilities	(5,618)	(977)	(83)%
Other taxes and compulsory payments liabilities	(4,168)	(10,711)	157%
Other current liabilities	(14,349)	(30,319)	111%
Net working capital	**138,881**	**223,537**	**61%**

[1] Include the MAEK as of 31 December 2017
[2] Excluding the MAEK due to the disposal from the Group.

The Group's net working capital remained positive during all periods under review.
The Company regularly monitors the cash position of its subsidiaries and focuses on effectively collecting excess cash from such subsidiaries.
The following table summarises the Group's turnover of inventories, receivables and payables, and provides details of the Group's cash conversion cycle (in days), at 31 December 2017 and 2018:

(days)	2017[1]	2018	Change
Inventories turnover	292	198	(32)%
Receivables turnover	70	79	13%
Payables turnover	208	60	(71)%
Cash conversion cycle	**154**	**217**	**41%**

[1] For the comparison purpose the Inventories, Receivables and Payables of the MAEK were excluded in 2017. Also, in the consolidated statement of Profit and Loss, the MAEK was reclassified as discontinued operations as in 2017.

The increase in the cash conversion cycle in 2018 is largely due to increased sales volumes of finished goods, repayments of accounts payable in 2018, and the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

The Group constantly monitors the uranium market and may pursue a strategy of increasing its inventories in unfavourable market conditions. The following table sets forth the components of the Group's inventories as at 31 December 2017 and 2018:

(KZT millions)	2017	2018	Change
Finished goods and goods for resale	140,533	130,157	(7)%
Work-in-process	17,563	19,768	13%
Raw materials	14,520	13,728	(5)%
Spare parts	819	720	(12)%
Materials in processing	762	1,226	61%
Fuel	889	1,875	111%
Other materials	2,842	5,459	92%
Provision for obsolesce and write-down to net realisable value	(8,253)	(2,672)	68%
Total inventories	**169,675**	**170,261**	**-**

The Group's largest inventory item is finished goods and goods for resale, which primarily consist of U_3O_8. In line with its market-oriented strategy, the Group's inventory levels decreased in 2018 due to the increase of sales volumes including U_3O_8 and other goods sold by the Group. Consolidated inventory levels of U_3O_8 decreased by 13% whereas Finished goods and goods for resale in the table above decreased by 7%. The difference is largely because inventories in 2018 includes uranium purchased from JVs and Associates, the cost of which was higher in 2018 compared to 2017 due to higher spot market prices and exchange rates in 2018.

The Company expects to maintain inventory levels of approximately six months of annual attributable production.

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 for 2017 and 2018:

(KZT millions)	2017[1]	2018
Cash flows from / (used in) operating activities[1]	23,355	58,327
Cash flows from / (used in) investing activities	215,575	(40,279)
Cash flows (used in) financing activities	(74,881)	(139,272)
Net increase / (decrease) in cash and cash equivalents	**164,049**	**(121,224)**

[1] Includes income tax and interest paid.

9.4.1 Cash Flows from Operating Activities

Cash flows generated from operating activities increased to KZT 58,327 million for 2018 from KZT 23,355 million for 2017. This change was primarily due to:

- a KZT 120,952 million increase in cash receipts from customers in 2018. This increase was largely due to an increase in the Group's sales volumes and the change the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).
- a KZT 69,024 million increase in payments to suppliers for 2018. This increase was largely due to payments of accounts payable in 2018 which were greater than payments of accounts payable during 2017, and the change the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

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9.4.2 Cash Flows from Investing Activities

There was net cash used in investing activities in 2018 of KZT 40,279 million compared to net cash from investing activities of KZT 215,575 million in 2017.

In the prior year, investing cash flows were significantly affected by the receipt of KZT 173,719 million relating to a put option held by the Company, which it exercised.

Other changes in investing cash flows in 2018 are due to:

- KZT 23,713 million decrease in dividends received from Associates, JVs and other investments as a result of the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).
- KZT 34,193 million payments for the acquisition of 40.05% shares in Energy Asia Limited and a 16.02% stake in the chartered/authorized capital of JV Khorasan-U LLP from Energy Asia Holdings (BVI) Limited. In the Consolidated Financial Statement it is presented as an "Acquisition of interest in controlled entities net of cash acquired" in accordance with IFRS.

9.4.3 Cash Flows from financing activities

Cash flows used in financing activities increased to KZT 139,272 million in 2018 from KZT 74,881 million for 2017. This change was primarily due to:

- an increase of KZT 95,812 million in dividends paid to Samruk-Kazyna in 2018 compared 2017;
- a KZT 86,324 million increase in cash used in repayment of loans and borrowings in 2018, due to early repayment for loans related to "Astana Solar" LLP, "MK KazSilicon" LLP and "Kazakhstan Solar Silicon" LLP, and the change in the Group structure (see section 4.2 *Change in the Group structure* on page 9 for details).

In 2018, there was a KZT 117,754 million, or 223%, increase in proceeds from loans and borrowings compared to the prior year. The increase was primarily attributable to short-term borrowings by the Group to finance the Group's payments for the increased share in Baiken-U LLP and Khorassan-U LLP, and working capital requirements.

9.5 Liquidity

The Group manages its liquidity requirements to ensure sufficient funds are available for operations and for settlement of financial obligations.

The Group ensures the availability of funds on demand in amounts sufficient to cover expected operating expenses using, among others, short-term as well as long-term corporate credit lines without collateral.

(KZT millions)	2017	2018	Change
Cash and cash equivalents	239,936	128,819	(46)%
Current term deposit	8,472	205	(98)%
Total cash	**248,408**	**129,024**	**(48)%**

The Group's cash and cash equivalents as at 31 December 2017 and 2018 were KZT 239,936 million (includes cash receipt from put-option exercising) and KZT 128,819 million, respectively. The decrease as of 31 December 2018 is mainly caused by dividends paid Samruk-Kazyna in 2018 and scheduled repayment of debt.

The corporate credit lines are an additional liquidity source for the Company. At 31 December 2018, the Company with certain subsidiaries had total available revolving credit facilities of USD 275 million of which USD 195 million or 70% was undrawn at that date.

10.0 INDEBTEDNESS

The financial liabilities of the Company are made up of loans and guarantees issued for loans of affiliated companies. The debt portfolio is primarily in USD, which is the main revenue currency (99% for 2018). As a result, the Company has a “natural” economic hedging of USD/KZT foreign currency risk without the use of derivative financial instruments.

(KZT millions)	2017	2018	Change
Loans, borrowings and finance lease liabilities	121,703	200,169	64%
Guarantees issued for loans of affiliated companies	14,732	13,935	(5)%
Total debt	**136,435**	**214,104**	**57%**

The following table summarises the Group’s indebtedness as of December 31, 2017 and 2018:

(KZT millions)	2017	2018	Change
Non-current debt, *including*	**39,204**	**16,620**	**(58)%**
Bank loans	38,557	16,270	(58)%
Non-bank loans	353	-	-
Finance lease liabilities	294	350	19%
Current debt, *including*	**82,498**	**183,549**	**122%**
Bank loans	82,374	147,694	79%
Non-bank loans	-	35,726	-
Finance lease liabilities	125	129	3%
Total debt	**121,703**	**200,169**	**64%**

Total debt increased by 64% largely due to the consolidation of Inkai JV LLP’s debt of KZT 35,085 million, and an increase in short-term loans to finance the Group’s payments for the increased share in Baiken-U LLP and Khorassan-U LLP, and for working capital requirements.

The following table summarises the Group’s weighted average interest rate on bank loans as at 31 December 2017 and 2018:

	2017	2018
Fixed interest rate	6.29	5.61
Floating interest rate	3.47	4.05

The Group’s credit facilities contain certain affirmative and negative covenants described in the Annual Financial Statements.

10.1 Net debt and debt leverage ratio

The following table summarises the key ratios used by the Company’s management to measure its financial stability as at 31 December 2017 and 2018:

(KZT millions)	2017	2018	Change
Total debt	121,703	200,169	64%
Total cash	248,408	129,024	(48)%
Net debt	**(126,705)**	**71,145**	156%
Adjusted EBITDA	96,733	131,208	36%
Net debt / Adjusted EBITDA	**(1.3)**	**0.54**	-

The above indicators reflect a stable financial position. They indicate the creditworthiness of the Company, achieved through the generation of adequate financial resources and capital, and moderate debt.

11.0 GUIDANCE FOR 2019

(exchange rate 370 KZT/1USD)	2019
Production volume (tU) (100% basis)[1]	22,750 – 22,800
Production volume (tU) (attributable basis)[2]	13,000 – 13,500
KAP/THK sales volume (tU)[3]	13,500 – 14,500
Group sales volume (tU)[3]	15,000 – 16,000
Total capital expenditures (KZT billions) (100% basis)[4]	85 – 95
Revenue - consolidated (KZT billions)	485 – 505
Revenue from Group U_3O_8 sales, included in consolidated revenue (KZT billions)	392 – 408
C1 Cash cost (attributable basis) (USD/lb)	$11.00 – $12.00
All-in Sustaining Cash cost (attributable C1+capital cost) (USD/lb)	$15.00 – $16.00

[1] Production volume (100% basis): Amounts represent the entirety of production of an entity in which the Company has an interest; it therefore disregards some portion of that production may be attributable to the Group's JV partners or other third-party shareholders.
[2] Production volume (attributable basis): Amounts represent the portion of production of an entity in which the Company has an interest, which corresponds only to the size of such interest; it excludes the remaining portion attributable to the JV partners or other third-party shareholders.
[3] KAP HQ/THK sales volume: includes only the consolidated sales of KAP HQ and THK. Intercompany transactions between KAP HQ and THK are not included.
[4] Total capital expenditures (100% basis): includes only capital expenditures of the mining entities
* Note that the conversion of kgU to pounds U_3O_8 is 2.5998.

In 2019, Kazatomprom expects to remain consistent with its previously announced intention to flex down planned production volumes by 20% for 2018 through 2020 (versus consolidated planned production levels under subsoil use licenses, which were increasing annually over that period). With the flex down, under the existing subsoil use licenses, production is expected to total approximately 22,750 to 22,800 tU (100% basis) in 2019; without the reduction, production would have exceeded 28,500 tU (100% basis) in 2019.

Kazatomprom expects to continue following a market-centric approach to uranium production, rather than the previous production-focused strategy. By leveraging the in-situ recovery mining method, the Company can adjust production levels and respond to changes in uranium market conditions very rapidly and cost-effectively.

The guidance for sales remains consistent with Kazatomprom's market-centric strategy. Sales in excess of planned attributable production are expected to be primarily sourced from inventories, and from KAP subsidiaries under contracts and agreements with JV partners and other third parties.

The Company expects to maintain an inventory level of approximately six months of annual attributable production at the 2019 year-end.

11.1 Sensitivity analysis for 2019 and finished products balance

The table below presents the correlation between the spot price and the U_3O_8 average sales price. This table is based on several key estimates and assumptions that are subject to risks and uncertainties outside the Group's control. These estimates are also based on assumptions regarding future business opportunities, which may change. This sensitivity analysis should be used only as a reference, and actual price changes may result in different values than those provided in the table below.

Nominal Spot Price (USD)	2019E	2020E	2021E	2022E	2023E
20	23	22	22	22	22
30	30	31	31	31	31
40	37	40	40	40	40
50	45	49	49	50	49
60	52	59	58	59	59
70	59	68	67	68	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 at 31 December 2018 and prepared for 2019–2023 on the basis of minimum annual sales of approximately 13.5 thousand tonnes of Uranium in form of U_3O_8, of which the volumes which are contracted as of 31 January 2019 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, while the rest of the sales would be largely based on spot prices;
- U_3O_8 will be sold under short-term contracts negotiated directly with the customers and based on spot prices.

12.0 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:

- 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 other energy sources may result in lower demand for nuclear energy, 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 regulation of the nuclear power industry;
- the Group's profitability is directly related to the market prices of uranium, which are volatile;
- 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 US and EU sanctions, and such sanctions could have a material impact;
- 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 and 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.

12.1 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.