

VIRU KEEMIA GRUPP
YEARBOOK 2023

Advancing Estonia's
chemical industry heritage
through innovation and
dedication

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Chairman's letter

Dear reader!

In 2023, Viru Keemia Grupp (VKG) focused on three key areas – ensuring reliability in production, developing a safety culture and restructuring the company with the aim of both ensuring the sustainability of existing oil production and creating the best preconditions for new development projects. A determined effort resulted in record oil production volumes and a company structure that clearly separates the refining of fossil raw materials from carbon neutral industrial production solutions.

In general, VKG's operating environment was similar to recent years, meaning that the key themes were the same: the war in Ukraine and the mixed perspectives regarding the Green Transition. The ongoing war has made foreign investors more cautious about Estonia as a neighbour of Russia, and is also forcing local companies to reassess their expectations of return on capital. VKG decided to complete its exit from regulated businesses and sold OÜ VKG Elektrivõrgud at the end of 2023. We also decided to sell OÜ Viru RMT, a subsidiary specialising in the construction of electrical and metal structures. The closing of these transactions, although it took until 2024, marked VKG's full commitment to the manufacturing industry.

Things with the Green Transition have become even more confusing than before. VKG's proposal to initiate a process of legislative drafting of a climate law to agree on the objectives, ambitions and principles of climate neutrality was included in the coalition agreement signed after the 2023 parliamentary elections, but in practice, unfortunately, the principles of the law have not even been formulated. What is very clear is that Estonia participates in pan-European debates without having a clear view of what it wants to achieve and what risks it is prepared to take. All in all, it has to be acknowledged that the assessment of market, technological, currency, etc. risks to investment has been heavily influenced by the regulatory risk of the Estonian government.

In 2023, we processed 4.8 million tonnes of oil shale, from which we produced a record 669,000 tonnes of shale oil products and 900 GWh of energy for our customers. The good production results were driven by the stable operation of the Petroter I plant, which was reconstructed a year earlier, and the shutdown of coke production. The most significant event of the year in the oil shale sector was the opening of the Uus-Kiviõli Mine, namely the construction of an inclined shaft and the start of blasting and excavation works. The biggest challenge in the coming years will be to ensure that the new mine has sufficient production capacity by the time the Ojamaa Mine is exhausted and closes. The Uus-Kiviõli Mine will provide us with raw materials until 2038 and give people in the region the certainty of continued employment.


Last year, we completely overhauled the structure of the company, bringing it in line with the changing market situation and regulatory trends. As the first step, we separated all VKG's new development projects from fossil production assets and their operation. It was already clear that it had become impossible to raise external capital from EU banks for the oil shale sector. The legal and substantive separation of new development assets from the oil shale industry will provide a green light for VKG to finance the production of bioproducts, circular economy projects and solar and wind energy projects.

As a result of the anti-Russian sanctions, trade in oil products in the Baltic Sea region decreased significantly. Higher freight prices due to the decrease in shipping traffic had a negative impact on sales margins and we felt a clear need to expand and move closer to our customer base. At the end of 2023, we transferred the management and financing of all sales activities and the strategic management of the Group's investments to our Swiss entity, and strengthened our sales organisation through local recruitments.

We entered 2024 with a clear organisational structure and a renewed strategy. VKG's aim is to develop and operate projects in the manufacturing industry. The production of shale oil is the cornerstone of our business, which we will continue to develop to meet strong global demand. At the same time, we will continue to develop circular economy and bioproduction projects. VKG's broader ambition is to contribute to the development of the Estonian manufacturing industry with all the knowledge and experience that VKG has to offer, and with the potential of the Ida-Viru County region and its people.

Ahti Asmann

JUHATUSE ESIMEES





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About the company

Viru Keemia Grupp, a private capital based enterprise located in Kohtla-Järve, is the largest shale oil producer in Estonia, proudly continuing the Estonian tradition of adding value to oil shale that dates back to 1924. The enterprise is based on private capital since 1997 as a result of the privatisation of AS Kiviter.

Our values

Openness • Dedication • Progress

Our central values are openness, dedication to our work, and continuous development. We believe that every step and every action we take must create value for everyone – our employees, partners, clients, and the local community alike.

The Group's strategic objectives

- 1 Extracting the maximum amount of energy from oil shale,
- 2 Adding maximum value to end products,
- 3 Promoting an organisation culture aimed at efficiency,
- 4 Competitiveness of shale oil products,
- 5 Development of new business verticals supporting a climate-proof economy

In order to add maximum value to oil shale as the main input in oil production, we also operate in the following areas in addition to our core activity

- Excavation of oil shale;
- Production and sales of oil shale fine chemicals;
- Production and sales of heat and electricity;
- Design, construction and repairs of electrical equipment and electricity networks;
- Construction, assembly, repairs and maintenance of technological equipment.

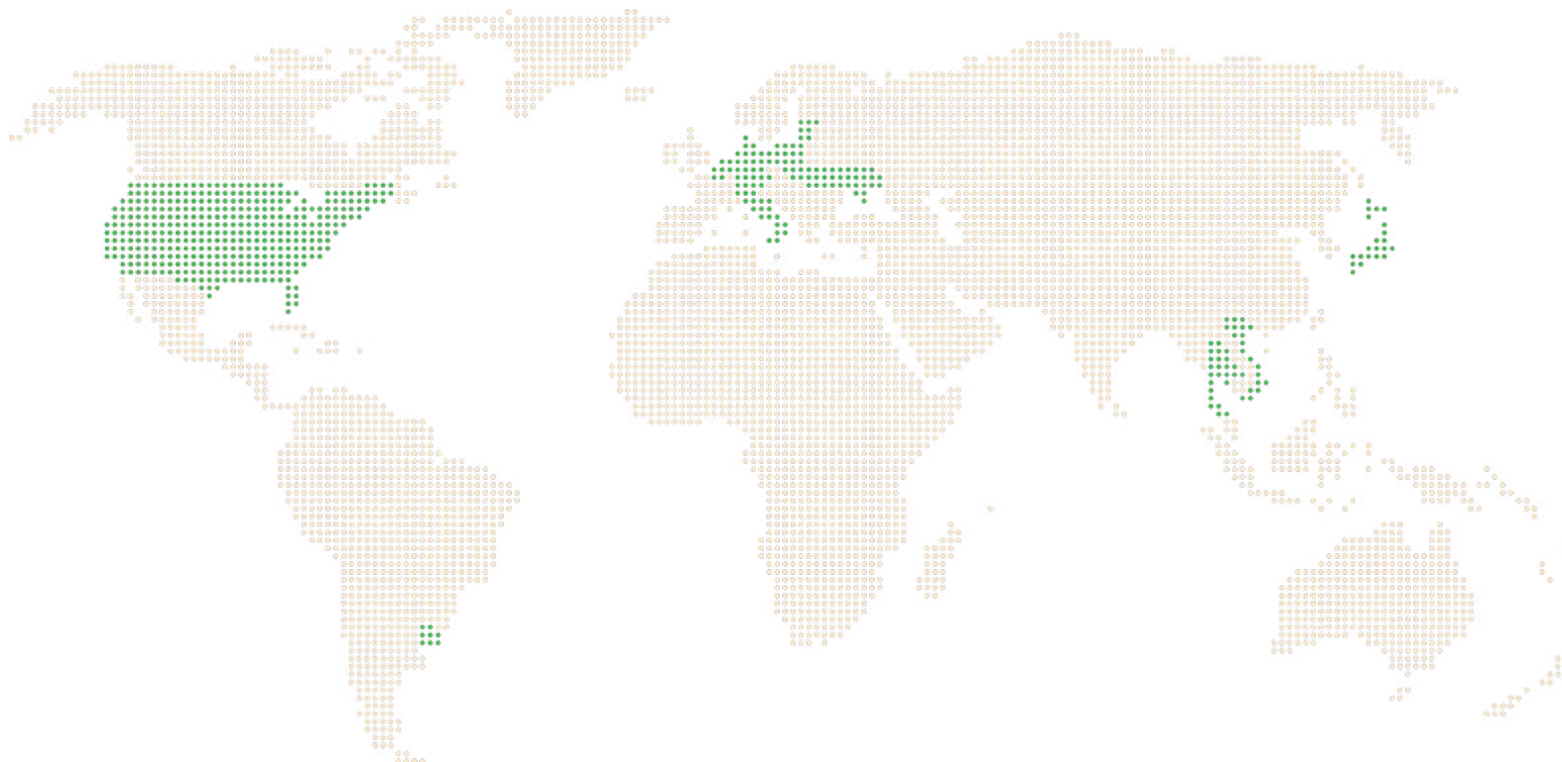
Our main products and services



- Ship fuels
- Heating oils for local heating boiler plants
- Oil shale fine chemical products for perfumery, cosmetics, and textile industries
- Oil shale gas for the production of heat and power
- Steam and conditioned air for large-scale industrial companies
- Production, transfer and sale of heat and electricity
- Repair, assembly and rental of machinery and equipment
- Consulting services in the field of oil shale processing technology

Geographical sales distribution of the Group's products

Belgium	Thailand	Poland	Vietnam
Netherlands	China	USA	Japan
Switzerland	Lithuania	Italy	Denmark
Estonia	Ukraine	Germany	Uruguay
Latvia	India		



2023 in figures

4 800 000

million tonnes of oil shale processed

+12,4% ↑

661 729

tonnes of commercial oil shale

+15,7% ↑

1 911

tonnes of fine chemistry and phenol products

-9,7% ↓

900

GWh of heat and electricity

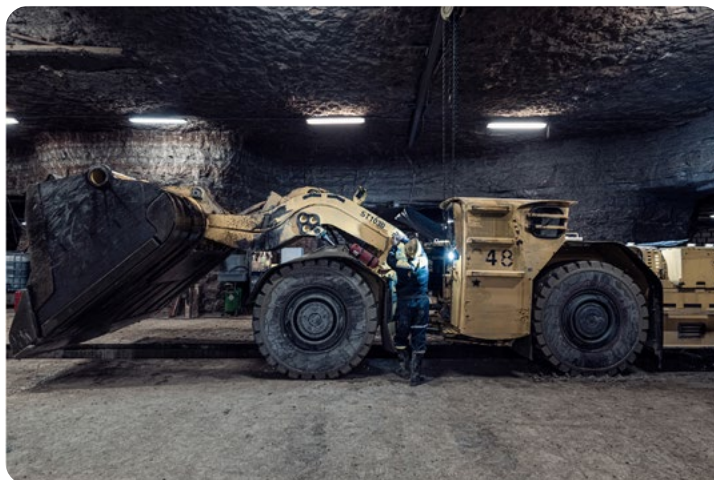
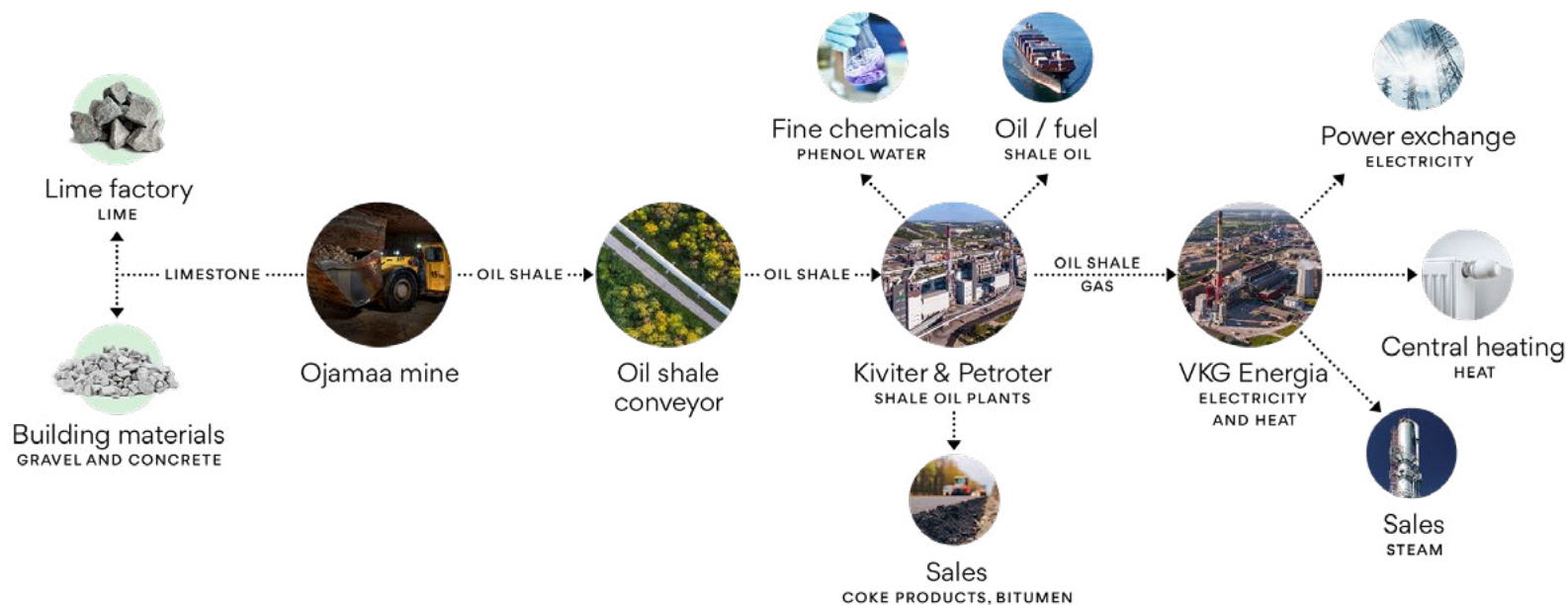
+15,9% ↑



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Fields of activity

Our goal and one consistently important principle is adding value to the oil shale processing value chain, and its extension.



Excavation of oil shale

We extract oil shale in the Ojamaa Mine which will celebrate its 15th anniversary in 2024. Since the layer of oil shale is deposited in a bed that is more than 30 metres deep, underground extraction is used at Ojamaa.

In 2023, the Ojamaa Mine continued its normal operations of extracting, enriching and transporting oil shale to oil production according to the agreed quantity and quality. Throughout 2023, the biggest challenge for VKG Kaevandused was the reliability of the conveyor belt linking mining and oil production. As the 25 km long belt on the 12.5 km conveyor had been in

operation for more than 10 years, the belt joints were beginning to show signs of failure. In order to ensure the reliability of the conveyor, repeated downtimes were carried out during the year to repair the most critical joints and this ensured the reliability of the conveyor until the arrival of the new belt in December.

Production volumes of the Ojamaa Mine

2021

4,39

million tonnes of commercial oil shale

+6% ↑

2022

4,25

million tonnes of commercial oil shale

-3% ↓

2023

4,44

million tonnes of commercial oil shale

+4,5% ↑

The Ojamaa Mine in figures

525

employees

23,7

km² area

4,5

million tonnes of commercial oil shale
a year in terms of production capacity

150

wheeled equipment units

27

km of conveyors

90

honorary miners



Why is Uus-Kiviõli important?

VKG's plan is to start supplying oil shale from the Uus-Kiviõli Mine for oil production when the Ojamaa Mine is depleted in 2026-2027. We have been actively preparing for this over the past few years. We have invested in aboveground infrastructure on the basis of established plans, and have launched an international construction and design procurement for the construction of aboveground and underground conveyors. The connection to the electricity network must be completed by mid-2025. Considering that the construction of the Elering substation will take 28 months from the announcement of the procurement to completion, this is a very urgent issue. By last spring, VKG had a right of superficies for the substation on state land, but there was no personal right of use for the Elering substation, which can only be granted by the landowner, namely the state in the form of the Minister of Economic Affairs. Obtaining the Minister's approval for a valid mining permit is a standard technical procedure, which was pending since the end of 2022 and which caused confusion for the whole sector in March last year.

IT TOOK 15 YEARS TO GET THE UUS-KIVIÕLI MINING RIGHT

VKG's journey to the Uus-Kiviõli mining site has been a long and challenging one. The Group applied for a permit to mine Uus-Kiviõli in 2004. A year later, Eesti Energia submitted a similar application, and seven years later the Ministry of Climate issued a mining permit to Eesti Energia. Since the Earth's Crust Act would have required the permit to be is-

sued to VKG, VKG sued the Ministry of Climate. In March 2014, the Supreme Court partially upheld VKG's appeal and annulled the decision of the Ministry of Climate. After the judgment came into force, Eesti Energia and VKG entered into negotiations to reach a reasonable compromise on the division of Uus-Kiviõli. The parties reached a nuanced agreement in 2019, dividing the Uus-Kiviõli mining site into two mining claims in the proportion of two thirds to Eesti Energia and one third to Viru Keemia Grupp. The Environmental Board agreed with this solution and issued us the corresponding mining permit in 2019, which is valid until 2049 and has a permitted annual limit of 2 million tonnes of geological reserves (the total reserves of the mining claim are nearly 70 million tonnes). We need to use 5 million tonnes of oil shale per year to ensure our normal production process, which is why the cooperation agreement between the two companies also foresees a plan to increase the extraction capacity of the issued mining permits. Our aim is to achieve legal certainty for the extraction of up to 5 million tonnes of oil shale per year, and we are currently carrying out environmental impact assessments in order to adjust the mining permits accordingly.

As the process of modifying mining permits is a time-consuming process and VKG needs to bring the new mine into operation in the near future, in the summer of 2022 we agreed with the state-owned company that until they start using the mine, VKG can take a share of their annual production limit. As a result of this agreement, we will be allowed to mine five million tonnes per year at Uus-Kiviõli until Eesti Energia starts mining.

Availability of raw material

VKG assesses the availability of the oil shale resource in the short-term perspective, i.e. current supply, and in the long-term perspective, i.e. future supply.

CURRENT SUPPLY

Considering all the oil production capacities, VKG's need for oil shale is a total of 5.1 million tonnes of commercial shale a year. The mining permits issued to VKG allow the extraction of 3.5 million tonnes of commercial oil shale at the Ojamaa Mine, and if other market participants do not extract their allowed volume in the full extent, the extraction volumes at the Ojamaa Mine can be increased to 4.35 million tonnes through the retrospective extraction mechanism. This means that in order to purchase the missing 750,000 tonnes of commercial shale (i.e. 15% of VKG's total oil shale need), VKG has to reach agreements with other market participants or, if this cannot be achieved, VKG will have to shut down part of its production capacity due to a shortage of raw material.

Oil shale purchasing cooperation with Kiviõli Keemiatööstus continued in 2023. However, it has still not been possible to reach an agreement on a fair sales price for oil shale with Eesti Energia, Estonia's biggest extractor of oil shale. Due to this, one of the three VKG's Kiviter oil plants has been conserved since 2020 and is waiting for the time when VKG will perhaps itself be able to supply this production capacity after the opening of the Uus-Kiviõli Mine.

FUTURE SUPPLY

Considering VKG's extraction volumes and assessing the resource available from the Ojamaa Mine, we shall probably exhaust the Ojamaa Mine by 2028. In order to ensure raw material supply, VKG started actively investing into the opening of the Uus-Kiviõli Mine in 2019, as a smooth transition from one mine to another requires long-term planning and strict adherence to plans. Although we have reached an agreement with Eesti Energia to the effect that until the successful completion of the new environmental impact assessment VKG can use the extraction limits allocated to Eesti Energia at Uus-Kiviõli, there is still a risk that if raising the extraction limits fails, VKG's raw material supply may be endangered, should Eesti Energia decide to come to extract oil shale at Uus-Kiviõli simultaneously with VKG. In order to mitigate this risk, VKG has been seeking a compromise with Eesti Energia throughout the year and has also involved the Competition Authority in the discussions, but as at the date of this report no solution has been found. This represents a big risk for VKG – the search for a solution will continue into 2024, because a private company cannot make a 100 million euro investment without contractual assurance that it can extract a sufficient volume of oil shale from the mine to be opened.

Despite the risk described above, VKG Kaevandused continued to invest in the opening of the Uus-Kiviõli Mine in 2023, as the company has no alternatives to supplying raw materials for oil production. The Uus-Kiviõli Mine should ensure the Group's oil shale supply until 2038. In the environmental context, the Uus-Kiviõli Mine is the only right solution, as this mining field is logistically in the best location with regard to the shale oil plants in Kohtla-Järve and allows us to use the existing infrastructure to the maximum possible extent. The conveyor belt system used at Uus-Kiviõli is by far the most environmentally friendly way to transport oil shale. Its close proximity to the Kohtla-Järve production area also means lower energy consumption. The oil shale enrichment plant located at the Ojamaa Mine is capable of ensuring the processing of the raw material extracted from the new mining field and therefore there is no need for additional aboveground construction works and nature disruptions.



Production of shale oil

The main product of VKG is shale oil, which is obtained as a result of processing oil shale.

In 2023, VKG Oil continued its normal activities of thermal processing of oil shale into oil products using equipment based on both Petroter and Kiviter technologies. VKG Oil processed 4.80 million tonnes of oil shale in 2023, an increase of 12% compared to 2022. The increase in the oil shale processing volume was mainly due to the reconstruction of the Petroter I plants in 2022, in addition to an overall improvement in equipment reliability. At the same time, the production of shale oil products increased by 15%, which shows that for the third year in a row we have managed to improve the output of oil products produced from one tonne of shale oil. In 2023, this leap was mainly due to the mid-year closure of the coking plant and the diversion of all raw material to the production of oil products.

In the light of soaring energy prices, improving the energy efficiency of production became a priority for VKG Oil in 2023. As a result, the energy consumption (i.e. the amount of electricity and natural gas used) per tonne of oil products produced was

reduced by 15%. The improvement in energy efficiency will be a continuous objective in the years ahead.

The second major project launched in 2023 is the third phase of the circulation oil purification project, which is expected to be completed by the end of 2024 and will provide an additional 3% of production output compared to 2023. The circulation oil purification is an extension of the production capacity built at the Petroter facilities as a result of the development work of VKG' engineers and technologists, which will allow to process 20-30% more oil shale in the same reactor compared to the original project capacity. The first trial of this type was carried out in 2017, and has by now proven itself enough to divert all the Petroter plants' circulation oils to this equipment for purification. As with any new development, there are risks involved, and as the owner of the technology, we have to figure out how to manage these risks.

The Group's shale oil production in tonnes





Oil shale chemicals

In addition to oil products, VKG also produces oil shale fine chemistry products. The organic part is used for producing very expensive chemicals with a purity level of over 99%, which are used in cosmetics, pharmaceutical, tyre and electronics industries.

End users include renowned companies such as Schwarzkopf, Lexus, Samsung.

In total, 1,911 tonnes of fine chemistry and phenol products were produced in 2023. With the currently used technology, the production of oil shale fine chemistry is based on the re-processing of a process residue of the Kiviter plants – phenol water. In view of the changing market conditions in the fine chemistry market (price impact), last year we focused on the production of two phenol products: Rezol and Honeyol. The phenol products, Rezol, Honeyol and pure resorcinols are primarily exported to chemical industry enterprises. China, the United Kingdom, India, Italy, Germany and the United States are the target markets.

For economic and environmental reasons, we decided to conserve the coking plant and discontinue the production of synthetic and fine chemical products. Coke production was stopped in May and conservation took place during August and September.





Production of heat, steam and electricity

A hundred years of experience in refining oil shale has taught us to get much more than just oil out of oil shale. Refining oil shale in VKG means the combined production of oil, heat and power, which is the most eco-friendly and economically efficient way to use this resource.

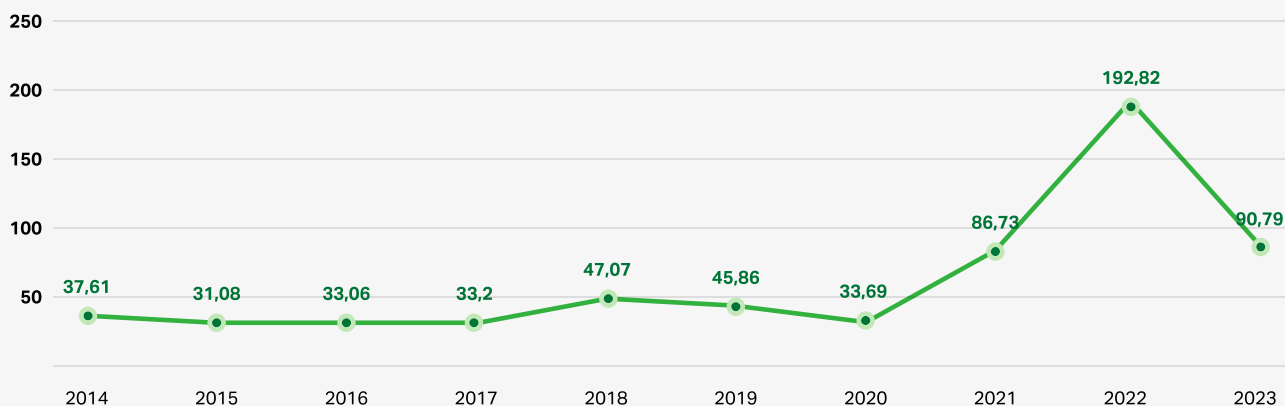
Refining oil shale in VKG means the combined production of oil, heat and power, which is the most eco-friendly and economically efficient way to use this resource.

As a side product, the shale oil production process generates oil shale gases that do not condense into oils and are transferred to VKG Energia where they are used for producing heat, steam, and electricity. Heat energy is forwarded to the local central heating system, steam is sold to production companies located in the neighbourhood, and most of the electricity is consumed by the companies of the Group. In addition to that, we also use oil shale gases at the limestone plant, whose produce is consumed by our own sulphur-trapping devices that purify flue gases. This production chain guarantees the ultimately efficient and environmentally-friendly use of energy contained in oil shale.

In 2023, VKG Energia received 15% more input energy than in 2022 and produced 449 GWh of electricity, 23% more than in the previous year. The higher increase in electricity production was due to an 8% decrease in heat production, mainly due to a decrease in purchases from one large customer, but also to warmer weather on the average. VKG Energia's electricity production in 2023 accounted for 9.1% of the total electricity produced in Estonia and 5.5% of the total electricity consumed in Estonia (4.2% and 3.8% in 2022, respectively).

While in 2022 electricity prices reached record highs, 2023 brought electricity prices back down. As Estonia is a participant in the Nord Pool electricity exchange, our electricity prices are influenced by a number of factors outside our domestic markets, such as water levels in Norwegian hydro reservoirs, the output of Finland's Olkiluoto 3 nuclear power plant, and weather related factors. Electricity prices also fell due to low natural gas prices in 2023.

PRICE OF ELECTRICITY ON THE EXCHANGE NPS EE, EUR/MWH



The 2023 average electricity price on the NPS EE exchange decreased to around the 2021 price level. VKG Energia's average electricity sales price was 132.87 in 2023, decreasing by 2% in a year (136.18 EUR/MWh in 2022). The price decrease was small since 49% of electricity sales were at a fixed price, which was above the average exchange price.





Special projects: from the construction of substations to the production of metal structures

The Group's subsidiary Viru RMT is an engineering and project management centre with diverse know-how operating in the international market.

Mitme aastakümne pikkuse kogemusega ettevõtte pakub remondi- ja montaažiteenuseid ning metallkonstruktsioonide ja metalldetailide tootmist, paigaldamist ja hooldust.

Areas of activity of Viru RMT

- 1 electrical works from the lamps in the ceiling to transforming substations
- 2 design, production and installation of technical equipment
- 3 design, installation and configuration of automated control systems
- 4 repair and calibration of control and measuring instruments
- 5 lifting works and maintenance and repair of lifting equipment
- 6 project management for the performance of integral technical solutions.

Main projects launched and implemented in 2023

- Hedinn hf Iceland,
Manufacturing of pipeline foundations;
- Hedinn hf Iceland,
Steam separator construction;
- Kreenholm Str. 60 and 64 in Narva
Power supply construction in the area;
- A. Puškin Str. 29 and the surrounding area in Narva city
Power supply construction of the schoolhouse;
- Audru
Renovation and connection of the Audru 110kV substation;
- Viimsi,
Renovation of the Viimsi 110kV substation;
- Kehra,
Construction of the connection of the Kehra 110/35/10 kV substation;
- Tapa
Connection of the Tapa 110kV substation;
- Delivery, design and installation of a battery pack and charger (Põhja Thermal Power Station);
- First stage of the reconstruction of the power supply in Sirgala and Viikonna.

On 19 March 2024, the Group sold Viru RMT, which is engaged in the production of metal structures, to a new owner – ICESTONIA OÜ, run by Indrek Metsatalu, a member of the Management Board of Viru RMT.

”

“A company with the profile of Viru RMT requires a very strong management focus, both in terms of corporate strategy and day-to-day operations. VKG, on the other hand, is a chemical industry company with business focus and competences primarily directed towards the development of industrial production in Ida-Viru County. We have therefore made a proposal to the current head of Viru RMT, Indrek Metsatalu, to acquire the company and we are pleased that Indrek was interested.”

Jaanis Sepp

VICE CHAIRMAN OF THE MANAGEMENT BOARD AND FINANCIAL DIRECTOR



An overview of the works performed is available on the homepage of Viru RMT

www.virurmt.com

Business and economic activity

In 2023, VKG continued the restructuring of the Group and the reorganisation of its work functions, which had already begun last year, with the main objective of ensuring the company's competitiveness in a changing economic environment.



Work safety and operational reliability continued to be priorities in production.

VKG's core activities are divided into **three major stages in the process chain**: the extraction of oil shale, the production of shale oil products, and the production of energy. The Group also includes two service companies which provide logistics and repair services mainly to other Group companies.

In addition to the ongoing structural reorganisation of the Group, VKG's main priorities as a manufacturing company in 2023 were **to improve the energy efficiency of production and ensure the reliability of equipment and the occupational safety of employees**.

The production of 669,000 tonnes of oil products by VKG in 2023 was the best result so far for the Group, so in terms of reliability the result is satisfactory. However, we continue to see room for improvement, as there were a number of emergency shutdowns throughout the year, caused either by subcontractors' mistakes, carelessness from our own employees or miscalculations regarding equipment durability. We are pleased with the progress made in improving the energy efficiency of the production process. In 2023, the energy consumption (i.e. the amount of electricity and natural gas) per tonne of oil products was 12% lower than in 2022 and 13% lower than in 2021. There is still room for improvement in this area as well, particularly in terms of energy production efficiency. However, the occupational safety results for 2023 were not positive. Although the target was set to reduce the number of accidents at work leading to incapacity for work, the actual number of accidents at work turned out to be almost 25% higher than in the previous year. There were certainly some improvements in the area of occupational safety in 2023 (see the chapter 'Working environment and occupational safety' for more details), but the overall result was not satisfactory and work will continue in 2024 to improve safety in production.

When comparing production figures for 2023 with the previous year, it should be noted that 2022 was only half a production year. In addition, VKG no longer holds non-current assets related to production, but rents these from Kirde Varad AS under a long-term contract. Pursuant to the requirements of IFRS 16, VKG still reports long-term lease obligations as non-current assets. While as at 31 December 2022 VKG continued to own the assets related to oil shale extraction, as at 31 December 2023 those assets have also been transferred to Kirde Varad and VKG will purchase the oil shale required for oil production from Kirde Varad's subsidiary VKG Kaevandused OÜ on the basis of a long-term contract. This is the reason for the drop in both the balance sheet volume and equity compared with the previous year. Although market conditions were worse in 2023 than in 2022, both profit and net profit margin have improved. This is due to the fact that Petroter I was idle for a large part of the second half of 2022 due to major repairs, resulting in lower than normal production and sales in 2022.



Impact of external environment

As a producer of shale oil products, VKG operates in a field where a company's performance largely depends on developments in the external environment, mainly in three areas.

ECONOMIC ENVIRONMENT

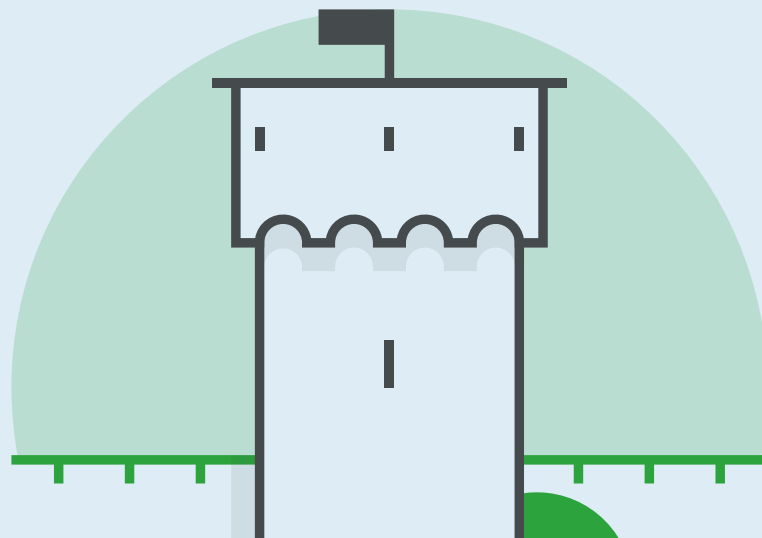
Shale oil as VKG's main product competes with other fuels in a globally open raw materials market where the balance of demand and supply depends on the overall economic environment and the decisions of producers with significant market influence.

REGULATIVE ENVIRONMENT

The political decisions made at the European Union level as well as at Estonia's level are like a strong headwind that impedes VKG's competitiveness in the fight for its place in the global market of oil products.

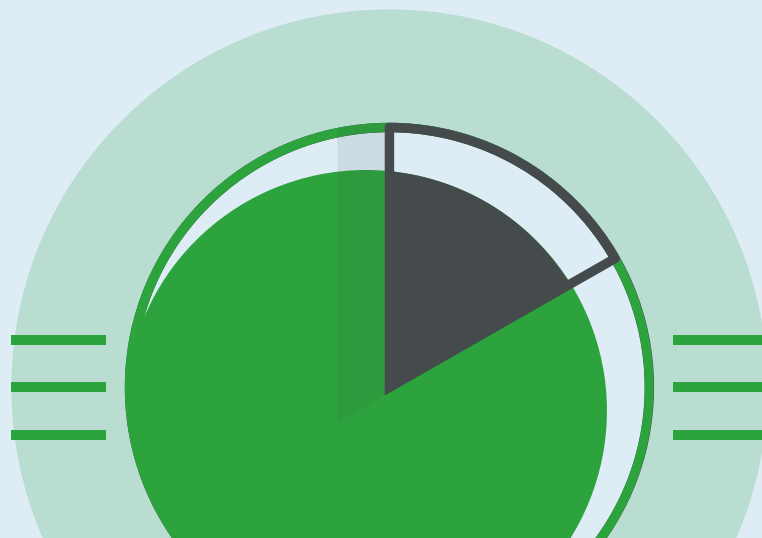
AVAILABILITY OF RAW MATERIAL

The availability of oil shale as VKG's main production input depends on national decisions in shaping the oil shale distribution system. In competition with a state-owned company, VKG has to actively stand for its rights to make sure that such decisions do not tend to be favourable towards the state-owned company.



Economic environment

Despite the challenging conditions, the global economy held up well and managed to grow by 3.1% in 2023, according to the International Monetary Fund (IMF).



The ongoing war in Ukraine, the addition of the Israeli-Hamas war to the geopolitical mix, rapid inflation and high interest rates were the dominant themes driving the global economy in 2023. Despite the challenging conditions, the global economy held up well and managed to grow by 3.1% in 2023, according to the International Monetary Fund (IMF). However, since 2021, the global economic growth has been on a slight downward trend, below its historical average of 3.8% over the period of 2000–2019. With the global economic growth of 6% in 2021 and 3.4% in 2022, IMF's projections show that growth will in the future remain at a similar level to 2023. Global growth is projected at 3.1% in 2024 and 3.2% in 2025, as central bank interest rates are raised to fight inflation and economic activity is low. Although the global economy as a whole grew in 2023, the economic situation varied across countries.

The euro area's gross domestic product (GDP) grew by 0.4% last year according to Eurostat, which is significantly lower than the global economic growth and the euro area's own growth of 4–5% in the previous few years. Growth in both the euro area and the global economy was most constrained by high interest rates. From 2022 onwards, both the US Federal Reserve and the European Central Bank have gradually raised interest rates, taking base interest rates to record levels by 2023. By the end of the year, the US Federal Reserve's interest rate stood at 5.33%, its highest level in the past 23 years, and the European Central Bank's at 4.5%, its highest level since the global financial crisis of 2007–2008. The rate hikes were necessary to combat the rapid inflation caused by the expansionary monetary policies of central banks during the COVID-19 pandemic and the subsequent Russian invasion of Ukraine, which pushed up the prices of energy and raw materials.

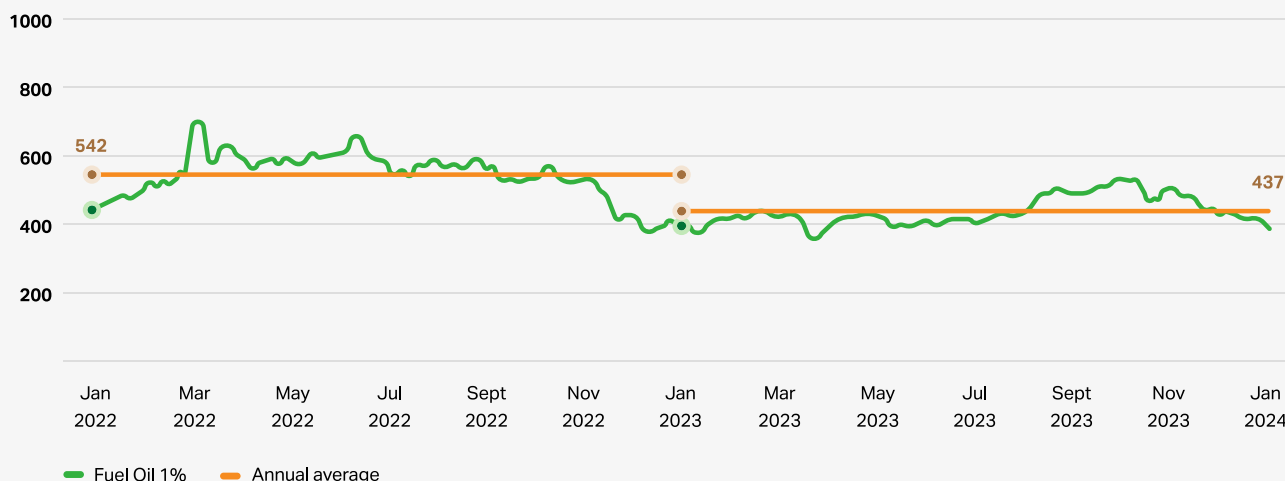
The state of the Estonian economy is even bleaker. According to Statistics Estonia, Estonia's GDP fell by 3% in 2023 (a drop of 1.3% in 2022). Estonia has not seen such a large-scale recession since the housing market crash in 2008. The weak performance in the last two years has been driven by a rapid price increase, which has left its mark on the competitiveness

of the Estonian economy. In addition to rising energy and raw material prices, Estonia's inflation has been driven by continued increases in labour costs. While in 2022, for the first time in 12 years, inflation in Estonia (+19.4%) outpaced the rise in average gross wages (+8.9%), in 2023 average gross wages (+11.3%) again outpaced inflation (+9.2%). According to the forecast, the economic recession in Estonia will continue in 2024, which should according to economic theory also lead to an increase in unemployment and a slowdown in the salary rally. While central banks are trying to curb inflation with their monetary policy the Estonian government is boosting inflation with tax increases from 20% to 22% in VAT and 5% in excise duties on alcohol and tobacco from the beginning of 2024.

The economic results of the VKG Group are influenced the most by developments in the global oil market. Compared to 2022, price volatility was lower in 2023, but still significant. Declining economic activity and the adjustment of the oil market to the sanctions imposed on Russia in 2022 kept oil prices on a downward trend in the first half of the year. In June, Brent reached the lowest point of the year of 72 dollars a barrel. OPEC+ production cuts and renewed geopolitical conflicts in Israel and the Red Sea pushed crude oil prices to their highest level of the year at the end of September at 97 dollars a barrel. The continuing economic downturn pushed crude prices back down again at the end of the year, with Brent ending the year at 77 dollars a barrel. The average Brent price for 2023 was 82 dollars a barrel, down 17% from the previous year.

VKG sells most of the produced oils on the basis of the price of fuel oil with 1% sulphur content. Compared to the Brent crude oil, the 1% fuel oil market is less liquid and the price of fuel oil may move differently from Brent, depending on the ratio between supply and demand. As the oil market transacts in dollars, but VKG's expenses are denominated in euros, the company's results are also influenced by the US dollar to euro rate. Thus, the Group's results are best characterised by the following fuel oil price curve.

THE PRICE OF 1% FUEL OIL IN 2022-2023, €/T



As can be seen from the above diagram, the price movements of 1% fuel oil in 2022 and 2023, starting 2023 at €400/t and trading below the annual average in the first half of the year, rising in the second half of the year and peaking at €539/t at the end of September. At the end of the year, 1% fuel oil prices fell again due to reduced economic activity, ending the year at €405/t. The average price of heating oil for the year was €437/t, 19% lower than a year earlier. Compared to Brent, the average price of 1% sulphur content fuel oil fell a little more, mainly due to lower dollar exchange rates, averaging 1.08 (2022: 1.05).

VKG's exports as a percentage of consolidated net sales were 62% in 2023 (36% in 2022). Although the vast majority of the final customers for the products are outside Estonia, the share of exports was lower than usual in 2023 and especially in 2022,

as one of the main buyers has a permanent establishment and VAT number in Estonia, and therefore VKG reported these sales as local sales.

In managing the Group's financial risks, it is crucial to take into account the volatility of the oil market and the increasing production cost trends. In order to ensure the sustainability of the company in a volatile market environment, it is important to maintain higher liquidity buffers than normal companies in order to be able to survive a sharp fall in market prices. As a producer of base products competing in a global commodity market, we need to keep production costs under constant control to ensure the competitiveness of our production, even in periods of oil market downturn.



Consolidated income statement

In thousands of euros

	2020	2021	2022	2023
Sales revenue	207 841	285 523	184 747	339 518
Cost of goods sold	-216 077	-275 880	-200 414	-404 092
GROSS PROFIT	-8 236	-9 643	-15 667	-64 574
Marketing expenses	-5 548	-5 232	-2 380	-4 894
General administrative expenses	-11 179	-12 722	-7 371	-14 722
Other business earnings	40 942	66 283	42 495	109 604
Other business expenses	-1 232	-1 793	-5 133	-1 687
BUSINESS PROFIT	14 748	56 178	11 944	23 727
Total financial income and expenses	-4 424	-1 860	-6 785	-4 402
PROFIT BEFORE INCOME TAX	10 324	54 319	5 158	19 325
Extraordinary expenses				
Income tax	-244	-4 532	-1 099	-1 619
NET PROFIT FOR THE REPORTING YEAR	10 080	49 787	4 059	17 706

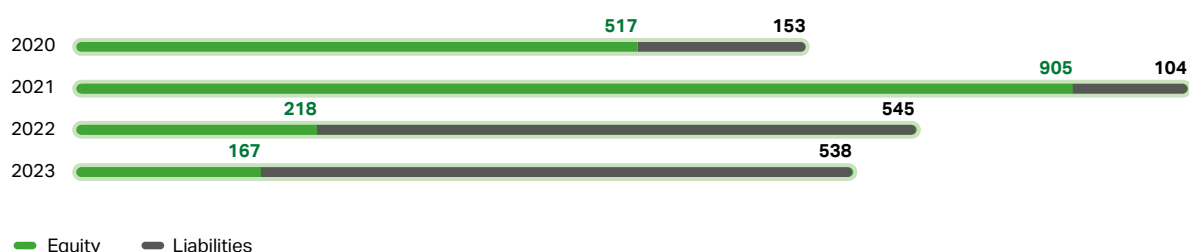
Consolidated balance sheet

In thousands of euros

	2020	2021	2022	2023
ASSETS				
Current assets	158 937	198 028	337 535	147 669
Fixed assets	511 394	811 342	426 292	557 844
TOTAL ASSETS	670 331	1 009 370	763 827	705 513
LIABILITIES AND EQUITY				
Total current liabilities	51 435	76 586	266 478	259 822
Total long-term liabilities	102 191	27 333	278 855	278 200
TOTAL LIABILITIES	153 626	103 920	545 333	538 022
Total equity	516 705	905 451	218 494	167 491
TOTAL LIABILITIES AND EQUITY	670 331	1 009 370	763 827	705 513

Balance sheet volume

In millions of euros



Regulative framework

The regulatory environment has a major impact on VKG's activities. A stable environment helps the company to plan its business and adapt to the impacts. When regulations change rapidly, and government messages are unclear and unexpected, they hinder both day-to-day business operations and future investments.



The year 2023 was characterised by a very volatile regulatory environment, mainly due to the parliamentary elections in March. One of the main objectives of the new government was to implement the Green Transition in Estonia, often with the ends justifying the means. When the state needed additional revenue for the budget, environmental taxes were raised in such a way that stakeholders essentially had no say, because

more money was needed in the budget immediately. When new oil shale mining permits were suspended, the reason given was the need to agree on the content of the Climate Act before deciding whether and how oil shale could be mined in Estonia. These are just a few examples of the complex and turbulent regulatory environment in which VKG has to operate.

The main regulatory changes or initiatives affecting VKG in 2023



AMENDMENT TO THE ENVIRONMENTAL CHARGES ACT

At the end of 2023, an amendment to the Environmental Charges Act was hastily introduced to gradually increase pollution charges until 2027, without any assessment of impact. As a result, VKG will have to pay higher environmental charges for pollutants released into air and water, as well as for ash and semi-coke disposal, as of July 2024. For VKG, this means an increase in pollution charges to 9 million euros in 2024 (+12% compared to 2023) and 13.5 million euros in 2027 (+70%), a very short period in terms of legal certainty.

AMENDMENT TO THE EARTH'S CRUST ACT

In September, the Ministry of Climate initiated a draft act to amend the Earth's Crust Act with the aim of suspending the issuance of oil shale mining permits until the approval of the Climate Act. In addition to mining permits, pending environmental impact assessments are also suspended. For VKG, it was important that applications for amendments to mining permits and impact assessments that had already reached the final stage of the procedure would not be halted, but would be finalised, including amendments to VKG's Ojamaa and Uus-Kiviõli mining permits.

CLIMATE ACT

In September 2023, the Ministry of Climate initiated the drafting of the Climate Act. This is expected to become a framework law establishing climate neutrality at a legislative basis by 2050, along with the interim objectives for different sectors. VKG came up with a proposal for the Climate Act as early as 2021 in order to launch a broader debate in the country on the climate objectives that are within our reach, and to raise awareness of the impacts, opportunities and risks that these objectives entail. This will require a balanced and reasoned societal debate that not only sets objectives, but also analyses the feasibility of achieving them, the availability of the necessary technologies, the costs involved and the environmental impacts beyond one-dimensional CO₂ emissions. The first discussions showed that the state does not have a clear vision of what they want to achieve with the Climate Act beyond setting national greenhouse gas reduction objectives to reach climate neutrality in 2050. VKG is therefore rather sceptical about this process. The drafting of the Climate Act is expected to be completed in 2024, with the Act to enter into effect in 2025.



KESKKONNAPÄEV

12. septembril toimus Arvo Pärdi Keskuses Viru Keemia Grupi korraldatud keskkonnapäev, mille fookuses oli kliimaseaduse loomise vajalikkus Eestis. Päeva vältel esitasid erinevad valdkonna tipptegijad oma nägemuse kliimaseadusest ja rohereformi mõjust. Avaettekande tegi kliimaminister Kristen Michal, kes tutvustas publikule kliimaseaduse poliitilist vaadet.

Ettekanded ja videod on leitavad siit:

www.vkg.ee/keskkond/

BEST AVAILABLE TECHNOLOGY FOR THE PRODUCTION OF SHALE OIL

In 2023, the Ministry of Climate started the review of the Best Available Technology (BAT) reference document for shale oil production, which is expected to be completed in 2024.

USE OF DEDICATED DIESEL FUEL

As a result of the 2020 amendment to the Alcohol, Tobacco, Fuel and Electricity Excise Duty Act and the Fiscal Marking of Liquid Fuel Act, oil shale mines were also granted the right to use dedicated diesel at minimum European Union levels. In 2023, the Estonian Government decided to end this right as of 1 May 2024. In VKG's assessment, this is a discriminatory decision, as the fuel excise duty is intended for the maintenance of public roads, but mining machinery only drives on the territory of the mines, while agricultural machinery which continues to benefit from this discount may still occasionally drive on public roads. For VKG, this change will mean an additional tax burden increase of 1.34 million euros per year.

AMENDMENT TO THE EUROPEAN UNION'S REGULATION ON THE FREE ALLOCATION OF EMISSION ALLOWANCES

Sectors at risk of carbon leakage in the European Union's Emissions Trading System (EU ETS), including VKG, are given free CO₂ allowances. Previously, the principles were agreed until the end of 2025. At the end of 2023, an agreement was reached on the principles for free allocation of allowances until 2030. As a result of the changes, the number of free allowances to the company will be reduced, but to a lesser extent than the European Commission offered as an interim proposal. This will give VKG some certainty until 2030. The European Union's plans for CO₂ taxation beyond 2030 are currently unclear, as they will largely depend on developments in the European Parliament elections in June 2024.



8

Taking care of the environment

The management of environmental impacts is a prerequisite to the sustainable development of companies.

VKG has created an integral and systemic approach to environmental issues, which is in accordance with European Union and Estonian legal acts as well as the environmental requirements arising from the Best Available Technology (BAT) framework documents. VKG's production units are in conformity with the

applicable environmental requirements, but we are still looking for ways to optimise processes and reduce the production footprint. Our aim is to make full and effective use of the potential of oil shale in accordance with the principles of a circular economy with the smallest possible footprint.

Environment-related focal areas in 2023

GREENHOUSE GASES (GHG)

In 2023, VKG direct CO₂ emissions were 2.05 tonnes per a tonne of oil products, remaining on the same level as in 2022, but being 5.2% lower than in 2021. VKG continues its efforts to reduce the direct CO₂ emissions related to the production of oil products per one produced tonne. It should be theoretically and technically possible to capture the majority of the direct CO₂ emissions related to VKG's oil production by installing the respective capturing devices on chimneys. On the one hand, this would mean an additional investment and on the other hand, it would entail a significant increase in expenses, as the CO₂ capturing process is energy-intensive. In the coming years, VKG intends to explore CO₂ capturing technologies more closely in order to be ready to invest in carbon capturing equipment in 2045 with the aim to achieve carbon neutral oil production by 2050. Hopefully, the European Union will by that time find a solution to how and where all the captured carbon will be stored.

In addition to efforts made in reducing the carbon footprint, VKG for the first time ordered the carbon footprint assessments of its scopes 1, 2 and 3 in accordance with the principles of the Corporate Sustainability Reporting Directive (CSRD) from external consultants UAB Vesta Consulting and Nomine Consult OÜ in 2023. According to the report concerning scopes 1 and 2 drawn up in the first stage, direct greenhouse gas emissions, i.e. emission arising from production processes make up the majority of the Group's emissions. In order to reduce direct emissions, we conduct annual energy and fuel consumption audits and look for the newest innovative technologies. Indirect emissions from the use of energy (scope 2) are related to the use of non-renewable electricity. An in-depth analysis of emissions (scope 3) related to the use of external products and services and the use of the Group's products by consumers will be completed in 2024.

BEST AVAILABLE TECHNOLOGY (BAT) FOR PRODUCING SHALE OIL

After the official approval of the results of a new base study, the updating of the shale oil production BAT reference document

or conclusions started in 2023. This includes a review of the environmental requirements established for the entire shale oil production in Estonia, bringing these into conformity with the newest technological developments and legal regulations. For VKG's oil production facilities, this will entail new and/or stricter environmental requirements the more precise content of which will presumably be set in place in 2024. The production activities must be brought into line with the new requirements (i.e. the necessary investments must be made) within four years from the entry into force of the updated BAT reference document.

REDUCTION OF ODORIFEROUS DISTURBANCES

We continued analysing and adjusting the operation modes of production equipment in situations where odoriferous disturbances occur, in order to minimise the intensity and duration of odoriferous disturbances arising from VKG's production activities and the combined effect of the activities of other companies. According to VKG's constant monitoring station, the hourly average air quality limit of hydrogen sulphide (H₂S) which characterises the intensity of a disturbance was in the case of wind blowing from the direction of VKG Oil's production territory exceeded on 120 occasions, which was 41% less than in 2022.

In order to further reduce odoriferous disturbances, a cooperation agreement was concluded with Envirosuite Limited (hereinafter Envirosuite) at the end of 2023, thanks to which we are now connected to a software solution that also helps forecast pollution levels and minimise environmental impacts through decisions made on that basis. Envirosuite is introducing the environmental information platform Omnis in VKG, which will allow us to gain better situation-based information about pollution levels both in the production territory and outside. This in turn will allow us to optimise work processes and reduce environmental impacts. The platform is also supported by additional monitoring equipment which help us to faster detect the occurrence of higher pollution levels and promptly respond to prevent the spread of the effect outside VKG's production territory.

OIL SHALE INDUSTRY WASTE LANDFILL

In 2023, the Lūganuse Rural Municipality Government made a decision on the location selection of the municipal designated spatial plan for VKG's new industrial waste landfill and approved the report of the 1st stage of the strategic environmental impact assessment (SEIA), after which the preparation of a detailed solution for the designated spatial plan and the 2nd stage of the SEIA started. In parallel, negotiations were started with the Ministry of Climate to resolve the matters of ownership of the registered immovable properties adjacent to the landfill, which would allow expanding the existing landfill.

BIOPRODUCTS PRODUCTION COMPLEX

The draft of the decision on the preliminary selection of the location of VKG's bioproducts production complex as well as the

1st stage of the SEIA were completed in 2023, i.e. the Lūganuse Rural Municipality Government made a positive decision on the preliminary selection of the location under the designated spatial plan and approved the report on the 1st stage of the SEIA. The preparation of a detailed solution for the designated spatial plan and the analyses of the 2nd stage of the SEIA started thereafter.

PLASTIC WASTE PYROLYSIS PLANT

As a new development, the preliminary assessment of the environmental impact of the planned pyrolysis plant that would recycle plastic waste was initiated on the basis of the preliminary inputs received from technology providers, in order to determine all the environmental impacts related to this new plant and the respectively applicable environmental requirements before the potential investment decision and application for environmental permits.



One of the most important environmental activities in 2024 is contributing to the development of the shale oil BAT reference document in order to avoid the establishment of unrealistic environmental requirements for oil production. Another priority is ensuring all the environmental protection permits necessary for the activities of the Group companies as well as conducting environmental impact assessments necessary in the case of significant changes in production activities, in order to ensure the conformity of the all the companies'

activities that have an impact on the environment with the established environmental requirements (including developments of strategic importance, such as the oil shale industrial waste landfill, the bioproducts production complex and the plastic waste pyrolysis plant). A separate focus area is the installation of new air monitoring equipment in VKG's production territory, the introduction of new air monitoring data analysis software, and a further improvement of work processes to reduce odoriferous disturbances.



9

Developing future solutions

In 2023, two projects were in the focus of VKG's development activities: the establishment of a bioproducts production complex (BPC) in the rural municipality of Lügänuše and The establishment of a plastic waste chemical recycling plant in Kohtla-Järve.

In developing the BPC project, the primary focus was on supporting the process of the designated spatial plan and the strategic environmental impact assessment initiated in the Lügänuuse rural municipality. The report on the 1st stage of the designated spatial plan and the preliminary selection of location in the village of Aa were approved by the Council of the Lügänuuse rural municipality on 29 June 2023. The process continues with the assessment of environmental impacts in the selection location, which should culminate in the approval of

the designated spatial plan at the end of 2024. The majority of analyses and studies related to environmental impacts (a geodesic survey of the location, botanical inventories and determining the restrictions of the area, a study of traffic changes in the region, a resource availability and logistics study, surveys related to the effects of air and seawater) were conducted in 2023 and the completion of the assessment of the concept of water extraction was left in 2024.



The designated spatial plan process has moved along according to the time schedule. The preferred location is on 160 hectares of state land and 5 hectares of private land which the developer acquired in 2023. Preparations have also started to design the plant. For this purpose, preliminary inputs have been received from technology suppliers. The details of the technical solution have been developed in cooperation with the technology suppliers of this sector – Andritz and Valmet – and Sweco has prepared the preliminary placement of the plant on the selected immovable property.

The plastic waste chemical recycling plant plans to thermochemically process plastic waste generated in Estonia and to produce pyrolysis oil which petrochemical companies could reuse for producing plastic. That way, up to 75% of plastic waste can be recycled, i.e. made into new plastic. In 2023, the most suitable technology for the plant was chosen, on the basis of which a conceptual design was prepared. The first agreements of joint intentions have been concluded to ensure the flow of raw material and the sales of products. A preliminary assessment of environmental impacts has been prepared for select-

ing a location for the plant. All the above activities were aimed at initiating the design phase of the plant.

In addition to the aforementioned two projects, VKG, with the assistance of McKinsey & Co, mapped all the possible development verticals in 2023, where VKG could mitigate its environmental footprint and shape a business strategy that is sustainable in the long-term. About 60 different business areas were analysed, from amongst which we chose 3 to 4 areas that have the strongest prospects and best match VKG's profile, into which VKG will invest its development potential in the future (including the BPC and the plastic pyrolysis).

The development of the two large projects continues in 2024, to be carried out in VKG's subsidiaries VKG Plastic and VKG Fiber in the future. The designated spatial plan for the BPC should be approved in the Lügänuuse rural municipality and the designing should start. The plan is to also reach the design phase with the plastic waste circular economy project. VKG is also actively engaged in analysing additional business opportunities.



10

Social responsibility and sustainable activities

Management of sustainable development

Considering the Sustainable Development Goals, the Group's strategy has been shaped to be resilient to various scenarios. In strategic planning, we take into account risks and opportunities related to climate change and the uncertainty of the regulative and investment environment.

The Group conducted organisational changes and now focuses fully on the implementation of the strategy and the underlying goals, including that of sustainability. The responsible use and effective enrichment of natural resources is an integral part of our sustainability strategy. We understand that the extraction and production of any mineral resource has an impact on the surrounding environment and therefore we always strive to do more than prescribed by laws or regulations.

While focusing on VKG's core activity – the production of shale oil – we also continue the development of circular economy, renewable energy parks and bioproduction projects. New busi-

ness verticals support the principles of sustainability and are aimed at mitigating and resolving various green challenges.

In September 2015, the world's countries signed the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals at the UN General Assembly. Viru Keemia Grupp has selected eight high-priority areas on which we focus and to which we consistently contribute. These are: 'Good Health and Well-being', 'Quality Education', 'Affordable and Clean Energy', 'Decent Work and Economic Growth', 'Industry, Innovation and Infrastructure', 'Responsible Consumption and Production', and 'Climate Action'. VKG is working towards contributing to the achievement of the established goals not only within the framework of its core activities, but also by supporting and participating in regional projects and initiatives aimed at improving the quality of life and developing science and education, culture and environmental protection.

Cooperation with stakeholders

The Group has mapped stakeholder groups whose interests are notably related to our activities and may have a noticeable effect on the implementation of our strategic objectives. We place particular importance on the engagement of the local community in the case of development projects.

In order to keep the community up to date, we not only hold public discussions, but also organise non-formal meetings where we discuss topical matters of the day and gather feedback and opinions from the representatives of the community with regard to this or that topic/matter.

VKG's main stakeholder groups are the shareholders, clients, suppliers and partners, the state and the local governments, the local community, NGOs and citizens' associations, and professional unions. For cooperating with the stakeholder groups, we have developed various formats from regular meetings to open-doors events. Cooperation with stakeholders is based on the principles of respecting the interests of the parties, constructive cooperation, the transparency of the information concerning the Group's activities, the regularity of acting together, and fulfilling obligations.

The Group is a good partner to local organisations that help promote the region's culture, sports and education. Our particular focus is on the local youth. In 2023, the Group supported nearly 40 local initiatives and events with nearly 240,000 euros. For years, we support the Maternity and Paediatric Department of the Ida-Viru Central Hospital instead of making business presents. Twice a year, we tidy up the city in the framework of the Let's Do It and the World Cleanup Day, to which we engage our employees, their family members and the upper-secondary schools of the region. The Group is a long-term partner to blood centres and we hold donor days in our production territory four times a year. In 2023, 63 litres of donor blood was given. We also promote an active lifestyle among our employees and invested 50,000 euros in supporting it.



Organisation culture

For a large industrial enterprise, the integration of organisation culture with the principles of responsible business is of utmost importance. VKG's organisation culture supports the Group's values and strategic objectives. We believe that organisation culture is important from the viewpoint of a company's success and sustainability and helps create a safe and inspiring working environment.



We constantly contribute to a strong organisation culture, because this:

- emphasises ethical behaviour and honesty in all activities and relationships with employees, partners and stakeholder groups;
- encourages cooperation and teamwork, promoting open communication, exchange of knowledge, and collective responsibility;
- supports the employees' development and learning, offering training, mentorship and career opportunities;
- creates a positive working environment where employees feel motivated and involved, encouraging them to think along and provide honest feedback;
- encourages flexibility and improves adaptability, allowing the company to rapidly respond to changing market conditions and the needs of clients.

VKG's values – openness, commitment, development – are integral parts of our business activities and consolidate the interests of the Group and the employees. The values guide our decision-making, shape our reputation and determine our work principles.

Reporting

VKG has been preparing and publishing its Social Responsibility and Sustainable Development Report since 2008. The report is a public document available electronically on the Group's homepage in Estonian, English and Russian. The Social Responsibility and Sustainable Development Report for 2022 and 2023 is currently being prepared and will be published in the third quarter of 2024. The report is prepared in accordance with the Global Reporting Initiative (GRI) Principles for Sustainable Development Reporting (GRI Reporting Guidelines) and the respective parts of the GRI Oil and Gas Industry Guidance on

Voluntary Sustainability Reporting. In preparing the report, we also use ISO certification materials. The environmental and occupational safety data are in accordance with the requirements established in the standards.

In addition to the Social Responsibility and Sustainable Development Report, VKG must prepare a sustainability report in accordance with Directive (EU) 2022/2464. The first such report will be published in 2026. As it is a large-scale work process, preparation for its development are already underway.



11

Our employees

Viru Keemia Grupp is one of the biggest employers in Ida-Viru County. In addition to its 1,560 employees, the Group's wellbeing influences the wellbeing of another several thousand people in the region, who are related to the company via family members or the employees and family members of cooperation partners suppliers.

VKG aims to offer our people stability and a sense of security for the future, but given the volatility of the oil market and fickle government policies, achieving this is a major challenge.

Focal points of our personnel policy

- 1 We value
- 2 We recognise
- 3 We support the team spirit
- 4 We foster and develop young future employees
- 5 We create a safe working environment

Viru Keemia Grupp's success is based on competent and motivated employees who are dedicated and loyal in their work duties and jointly create value.

As at the end of December 2023, the Group employed 1,502 employees, including 1,184 men and 353 women. The number of male employees is significantly higher due to the larger proportion of physical work and positions in which it is not possible for women to work. The average age of employees is 46 years, with nearly 874 employees in the 35 to 54 age group. In 2023, 177 new employees joined, most in the age group of 25 to 44 years. The employment relationship ended with 208 em-

ployees. The labour turnover rate was 13% in 2023, of which voluntary turnover was 7%.

The average length of service of the Group's employees is 10 years. We have 129 employees whose length of service is more than 25 years and 21 of them have been working in the Group for more than 40 years.

Several structural changes took place in the Group in 2023, the most important of which was the restructuring of Viru RMT, with employees being transferred from Viru RMT to Viru Keemia Grupp, VKG Oil and VKG Logistika.

The total number of the Group's employees, changes in it and distribution across companies:

Viru Keemia Grupp

96

VKG Kaevandused

524

VKG Oil

623

VKG Energia

115

Viru RMT

15

VKG Logistika

129

Total

1 502

Effective and motivated work is directly reflected in a company's financial results. We base our pay on the labour market conditions in the region, the salary market conditions applicable in the sector, the level of responsibility and qualification of the employees. The salaries paid in the Group are higher than the average salaries paid in Ida-Viru County and we successfully compete in the labour market. The Group applies a transparent performance pay system with clearly defined principles.

A satisfaction survey conducted among all the employees shows the dedication and loyalty of the Group's employees. The 67-point dedication of VKG's employees is higher than the average in Estonia. The level of dedication shows the great loyalty of the employees, their belief in the future and pride in

working at VKG. A high willingness to recommend is also very important.

Expectations to the rules and principles of conduct of the employees are presented in a single document titled 'Code of Ethics and Operating Principles', the implementation of and compliance with which is under constant attention is everyday working life. Our employees' national, gender, age and language diversity places high demands on us with regard to equal treatment, inclusion and notification. The uniform rules of conduct described in the personnel policy, the corporate values and the ethical code of conduct ensure honest and fair employment relationships and the loyalty of the employees.



The 2023 priorities in the development of employees included a mid-level manager development programme which was completed by 249 employees, and an internal instructor, mentor and tutor programme aimed at ensuring a systemic internal conveyance of professional competences. In 2023, 561 employees took part in internal training.

The Group focuses on ensuring a continuous inflow of new workforce and offering development opportunities to employees. We are also a place of practice for many students. VKG Oil's new technological equipment operator project continued in 2023. Fourteen of VKG Oil's technological equipment operators study and work under the workplace-based study programme of the Ida-Viru Vocational Education Centre, obtaining a vocational education. A workplace-based study group was also opened for industrial automation specialists. Those who complete the workplace-based study groups are an important addition to our qualified workforce in 2023 and 2024. In 2023, 42 students were granted internships, with the largest number of interns coming from the Ida-Viru Vocational Education Centre.

We continued paying scholarships in 2023 via the TalTech Development Fund to students of applied higher education, bachelor's and master's degrees. Scholarships were awarded to seven students who are acquiring an education in the areas of electrical power engineering and mechatronics, Earth's crust resources, environmental, energy or chemical technology or thermal energy at the TalTech School of Engineering. The motivation of scholarship holders via the Development Fund continues also in 2024. In order to recognise and motivate the Group's employees, a scholarship was founded in 2023 for the employees of the VKG Group companies who are studying in the areas of chemical technology and sustainable chemical technologies at the TalTech Virumaa College. The Group also continues to award a specific gold scholarship to the first-year students of the TalTech Virumaa College who have finished the upper-secondary school with a gold medal.



12

Working environment and occupational safety

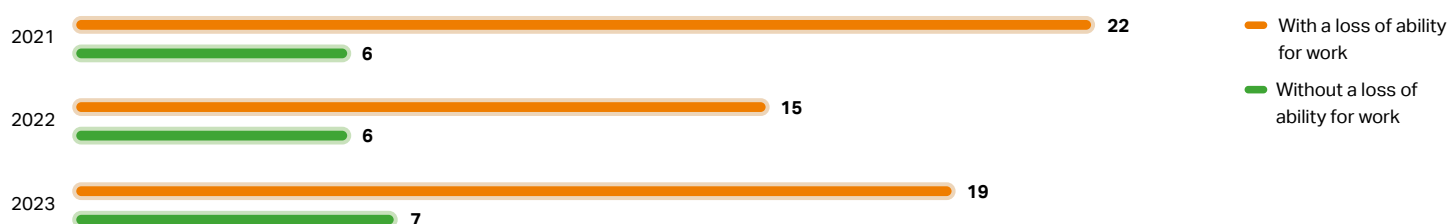
The working environment and work safety have always been important topics at Viru Keemia Grupp and we contribute to their development.

The area became of particular priority in 2021, when we established the goal of achieving a working environment free of work accidents and allocated the necessary resources for it. The years have shown that a safe working environment can be achieved by changing the work culture and that takes time.

In 2023, we paid particular attention to improving the working environment and work safety policy in order to ensure the maximum protection and wellbeing of our employees. We took important steps by approving uniform principles in our safety

policy. These principles include a preventive approach, which means increasing the employees' awareness and constant learning. We have determined that every accident or incident is also an opportunity to learn and improve systems, which helps us to avoid the recurrence of similar situations in the future. In order to improve our efficiency in responding to incidents, we have harmonised the principles of investigating incidents. This approach means that all the incidents are handled consistently and thoroughly, focusing not only on the symptoms, but also on the root causes.

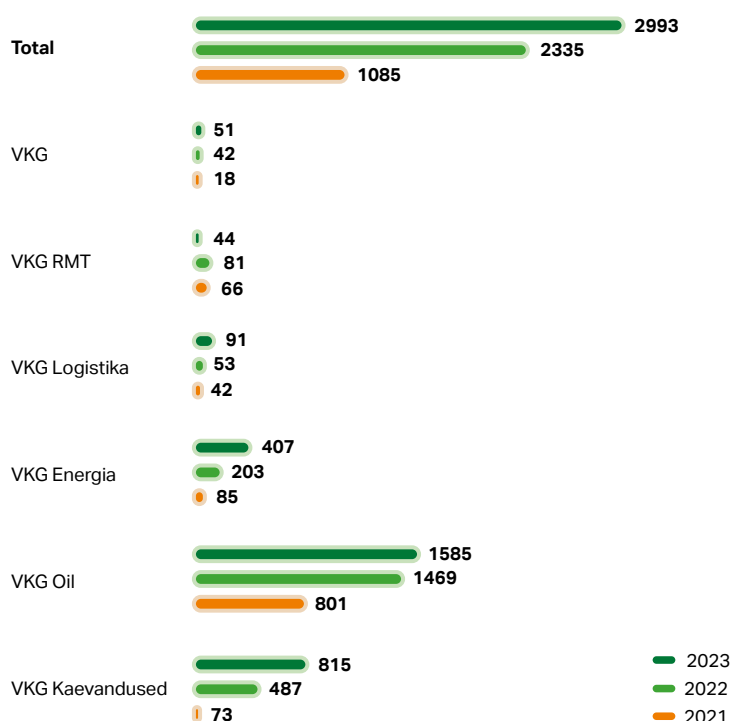
The number of work accidents registered in 2021–2023



Regardless of our efforts, the number of work accidents in the Group has remained the same in recent years. At the same time, there have been developments which allow us to expect a decrease in the number of work accidents in the coming years. VKG has adopted the strategic approach of encouraging the employees to more actively report all the incidents and happenings at the workplace. Our aim is to create a culture where

even the smallest traumas and breaches of safety requirements are highlighted and investigated. In 2023, the number of work accidents with a loss ability for work grew by more than 25% compared to the previous year. However, when we analyse the level of severity of the work accidents, the majority of work accidents in 2023 were rather of a non-severe nature.

The number of dangerous situations (including near-miss incidents) registered in 2021–2023



The focus is on the following objectives

- improving the quality of investigating the incidents;
- harmonising the working environment control principles;
- increasing the employees' awareness in the area of safety.

Management



The executive management of the Group is the responsibility of the Management Board of Viru Keemia Grupp, which consists of five members



Ahti Asmann (1973)
Chairman of the Management Board



Jaanis Sepp (1982)
Vice Chairman of the Management Board and Financial Director



Raivo Attikas (1979)
Member of the Management Board and Technical Director



Margus Kottise (1968)
Member of the Management Board and
Member of the Management Board of
VKG Kaevandused OÜ



Nikolai Petrovitš (1962)
Member of the Management Board and
Member of the Management Board of
VKG Oil AS

The Management Board of the parent company adopts all the important decisions concerning the economic activities of the VKG Group. During the year, one change took place in the Management Board – Vice Chairman of the Board and Technical Director Meelis Eldermann reached his well-earned retirement

in May and was replaced by Management Board Member and Technical Director **Raivo Attikas**. As an event after the balance sheet date, a change was made in the Management Board of VKG on 16 February 2024 and **Ervin Küttis** (1975) became a member of the Management Board, replacing Margus Kottis.

The Supervisory Board of VKG consists of four members:



Kristjan Piilmann
(1990)



Margus Kangro
(1974)



Ants Laos
(1943)

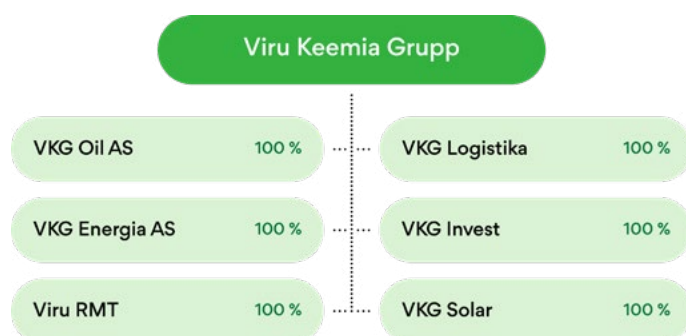


Elar Sarapuu
(1964)

The number of the members of the Supervisory Board was reduced to four as a result of the passing of the long-term Chairman of the Supervisory Board of VKG, Toomas Tamm, in October 2023.

Group structure

As at 31 December 2023, the legal structure of the VKG consolidation group was as follows:



The following changes took place in the structure of the VKG Group in 2023:

- on 27 March 2023, the merger of VKG Energiatootmise OÜ and VKG Energia OÜ was completed, after which VKG Energia continued its activities as a direct subsidiary of VKG AS;
- on 14 April 2024, VKG was divided, as a result of which VKG Kaevandused was split from VKG and the split entity merged with Kirde Varad AS. Although – considering the larger structure of the Group – the initial plan was to only separate extraction-related assets from VKG, we were forced to transfer the entire extraction activity to the business vertical of Kirde Varad in order to avoid certain risks;
- a number of steps were taken in 2023 to redistribute the functions of Viru RMT among other Group companies – in April, the lifting mechanisms unit moved to VKG Logistika, and in June, industrial automation specialists moved to VKG and automation mechanics to VKG Oil and electricians to VKG Energia;
- As an event after the balance sheet date, Viru RMT sold all the activities related to the maintenance of electricity networks to Viru Elektrivõrgud on 17 January 2024. As a result of a split effected on 8 March 2024, all the other assets of Viru RMT were transferred to VKG Energia, and on 19 March 2024 Viru RMT together with the remaining metal structure production was sold to ICESTONIA OÜ.

Combating the risk of corruption

The fight against corruption has always been important in the Group. VKG has identified three major risks of corruption together with the methods used for mitigating these risks:

- **Giving bribes to achieve the interests of the Group - VKG** is a responsible and transparent enterprise that has established zero tolerance for corruption and bribery.
- **Accepting bribes in the selection of suppliers and cooperation partners - VKG-s** on kehtestatud hankepoliitika, mille eesmärk on vältida kallutatud hankeid ja valida alati välja kontserni jaoks soodsaim koostööpartner. Hankepoliitika täitmist jälgib sisekontroll regulaarsete seiretega.
- Conflicts of interest of executive employees in representing the interests of the company – VKG has developed a procedure for submitting statements of economic interests, in the course of which executive employees have to report their holdings and connections in external companies. The members of the Management Board are prohibited from competing in any area of activity of VKG without the prior written consent of the Supervisory Board.

CONFIDENTIAL CHANNEL

There is a special confidential channel (vihje@vkg.ee), functioning in the Group, which can be used by employees or third persons to report violations related to the Group's activities, may these be issues related to corporate management, business ethics, adherence to human rights, work organisation, safety, work protection, the quality of products and services, or other matters of corruptive nature.



Prevention of possible conflicts of interest

The corporate management system of the Group incorporates a set of norms and procedures, which are aimed at the exclusion of conflicts of interest between the governing bodies of the Group.

If a conflict arises, there are certain mechanisms aimed at taking the necessary measures for the complete regulation of the conflict and for creating the conditions that would exclude such a conflict in the future.

The Group's Internal Audit Service and other competent sub-units are jointly engaged in the prevention of conflicts of interest. In order to prevent possible conflicts of interest, the Group has established clearly defined restrictions and requirements

for the members of the Supervisory Board and the Management Board. Management Board members are prohibited from competing in an area of activity of Viru Keemia Grupp without the prior written consent of the Supervisory Board.

No members of the Management Board or the Supervisory Board had any conflicts of interest during the reporting year.

In order to exclude the occurrence of conflicts of interest, the management board members and mid-level managers of the Group companies are upon any changes taking place obligated to submit a declaration in the approved format, stating their holdings in legal entities and/or membership in the governing bodies of legal entities and/or activities as a sole proprietor.



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Events of 2023

JANUARY



The 58th **Five Schools Competition** was held at Tamme Upper Secondary School in Tartu and the Ida-Viru team also participated. In the regional preliminary round, Jõhvi Upper Secondary School showed the strongest result and its students represented the region at the main competition.

FEBRUARY



A **commitment and satisfaction survey** was conducted among all the employees with the aim to understand what is the most important thing about work for the employees of VKG – what are the employees satisfied with, what requires more attention, and what should be changed.



Another '**Bring your child to work!**' day was held, in the course of which the children of VKG's employees were introduced to the company's IT world and were told about cyber security and safety. The day peaked with an excursion to the Petroter III plant.



VKG's Partners Day was held, which included a roundtable and a tour of the production territory together with the officials of the Environmental Board and the Ministry of Climate.



A festive handing-over of diplomas to new specialists – who also included graduates from the first '**Study and Work**' group – took place at the Ida-Viru Vocational Education Centre.

MARCH



The Group's safety policy was approved. The policy covers all the basic safety principles with which all the Group's employees must comply regardless of their position. The main aim of the safety policy is to ensure a safe working environment without break-downs and accidents. Ensuring a safe and healthy working environments for employees is of primary importance, as thanks to this the desired objectives are achieved in all the areas of activity.



The Group's brilliant team took part of the youth career trade show '**A Key to the Future**', introducing career opportunities at the Group, from chemical engineers to cyber security specialists, to young people.

APRIL



According to established tradition, April was the **month of safety and health** at the Group. The main topic last year was a positive work safety culture which can only be created together and in cooperation. The month included a number of information seminars, a panel discussion and, for the first time, a safety game which offered the participants a lot of emotions and useful knowledge.

MAY



In close partnership with Jõhvi Upper Secondary School, we continue conducting the **STEM elective subjects programme**. We are investing our time in organising the STEM course, as we wish to show young people that there are vital and innovative enterprises in their home region, where youngsters thinking about acquiring a qualification in engineering can do seriously big and important things.



LET'S DO IT 2023! Together with the Eastman team and the teachers and students of Kohtla-Järve, we organised a large-scale volunteer work day with the aim of making the urban space of Kohtla-Järve more beautiful and cleaner.



VKG's Supervisory Board appointed **Raivo Attikas** as a new Management Board Member and Technical Director of the Group.



In connection with the Member of the Management Board of Viru RMT, Andry Pärnpuu, moving to the position of a Member of the Management Board of VKG Energia, **Ivo Järvala** became the new Management Board Member of the subsidiary, while also continuing to manage VKG Elektrivõrgud.



The popular favourite event, the **Days of Chemists**, was held, with activities and entertainment for every age and taste. The programme of the day was full of surprises, exciting sports competitions and cool performers.

JUNE



A change was made in the **structure of the Ojamaa Mine**: the activity of the mine was divided into three areas – a production area, a technical and asset management area, and an area focused on the development of Uus-Kiviõli. The main aim of the production area is to ensure the smooth functioning of deliveries between VKG Oil and VKG Kaevandused, and the quality of oil shale. The expectations to the technical area are primarily related to ensuring the reliability of the equipment fleet as well as improving the efficiency indicators of production equipment. The main task of the area engaged in the development of Uus-Kiviõli is the opening of the mine by the planned term. A former member of the Management Board of VKG Logistika, Ervin Küttis, joined the team of the Ojamaa Mine to manage the technical and asset management area.



The strategic environmental impact assessment of and the preparation of a designated spatial plan for the bioproducts production complex (BPC) is taking place in the village of Aa in the rural municipality of Lügänu, scheduled to be completed at the end of 2024. On 29 June 2023, the Council of the rural municipality of Lügänu approved the report on the first stage of the designated spatial plan and made the preliminary selection of the location for the assessment of environmental impact. The designated spatial plan process has advanced exactly as scheduled and without setbacks. In the preceding months, we met with the residents of the region and given an overview of the progress of the project.

JULY



The rural municipality of Lügänuuse gave a green light to the second stage of the bioproducts production project. At the beginning of June, the **report on the first stage** of the preliminary selection of the location for the designated spatial plan and the strategic environmental impact assessment of our bioproducts production complex (BPC) project was completed.



Tarmo Vadi joined the team of Viru Keemia Grupp, replacing the former member of the Management Board of VKG Logistika, Ervin Küttis, who has in turn moved on to act as a member of the Management Board of VKG Kaevandused, where he is responsible for managing the technical and asset management area.



On 28 July, the international **Handcar Rally** started from Kohtla-Järve. The main aim of the race is to promote safe railway traffic.

AUGUST

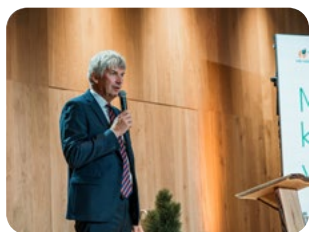


A festive day for first class students was held – a tradition that is over 20 years old – to enjoy the last summer days among the family and prepare for school.



The grand festivities of the **Miners' Day** brought all the friends of mining to ViruFest. According to tradition, the day to recognise the profession of miners is held on the last Sunday of August and includes the honorary miners' award ceremony.

SEPTEMBER



The Environmental Day organised by Viru Keemia Grupp was held at the Arvo Pärt Centre. The event included discussions about the Estonian Climate Act to be developed in the near future, as well as about the main topics of the climate policy. The representatives of areas and stakeholder group most influenced by the green reform took part.



The electrode coke equipment was shut down due to the market situation. The former sales volumes had significantly decreased by that time, as the sales of electrode coke was largely linked to the Ukrainian market.



A change took place in the management of VKG Oil – long-term Management Board Member Priit Pärn left the position. VKG Oil's Financial Director **Aleksei Holomejev** became the other member of the Management Board besides Nikolai Petrovitš.



In gratitude for long-term cooperation with the **Blood Centre**, the VKG Group was given its own blood group: #VKG_viru_keemia_grupp.

OCTOBER



The leading Baltic private capital fund **BaltCap** acquired a **100% holding in the second largest Estonian power distribution enterprise VKG Elektrivõrgud**. BaltCap sees considerable potential in the further development of the network enterprise in the area of providing additional services related to electricity and the network besides electricity network services and the sales of electricity. The sales transaction was concluded and the enterprise moved from the structure of the Group in January 2024.

NOVEMBER



The fourth drawing contest for children and young people, 'A New Era for Balley and Industry', was held in the framework of the **15th Jõhvi Balley Festival** which VKG has been supporting for years.

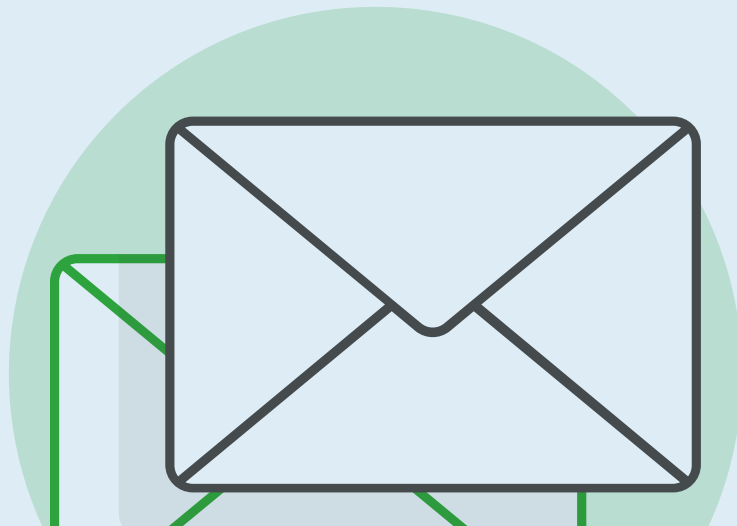
DETSEMBER



Preparations for the **Uus-Kiviõli Mine** reached a new stage, as an aboveground inclined shaft and two tunnels were completed. We started the renovation of the conveyor belt between the Ojamaa Mine and the Kohtla-Järve production territory, which will in the future be partly also used for transporting the oil shale mined at Uus-Kiviõli to oil shale plants.

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YEARBOOK DESIGN

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