



**SOCIAL RESPONSIBILITY AND SUSTAINABLE
DEVELOPMENT REPORT**

2012



Photo from VKG organised photo competition "Virumaa is wonderful!"
Author: Silver Kämärä

Viru Keemia Grupp AS (VKG) is Estonia's largest oil shale processing enterprise, producing approximately **60%** of total Estonian shale oil.

In the year 2012 the oil shale processing volume of Viru Keemia Grupp was **2.4 million tonnes** and its profit exceeded **38 million euros**.

The Group includes 12 business enterprises which provide jobs for a total of approximately **2,000 people**.

The total amount of environmental investments of the Group for the past 9 years exceeds **66 million euros**.

This sustainable development report is the fourth such report to be issued in the history of the organisation. With this report we intend to highlight our openness and commitment to environment protection and social development of the region.



vastutustundlik
ettevõtte 2012



Photo from VKG organised photo competition "Virumaa is wonderful!"
Author: Janek Laanemäe

Introduction of sustainable development report

This is the fourth sustainable development report of Viru Keemia Grupp AS (VKG) and its goal is to publish the economical, social, environmental and organisational data of VKG for the year 2012.

The report reflects mainly the developments of the Group for the year 2012, compares the results to those of previous years and provides a moderate prognosis for the years 2013–2014.

With this report, VKG intends to introduce and promote the concept of sustainable development and the basics of responsible entrepreneurship in Ida-Viru County and in Estonia as a whole.

In addition to that, our goal is to:

- **Increase the transparency of our organisation's activities;**
- **Establish a relationship of trust between the parties interested in the activities of the enterprise, the residents of the region, and the employees of VKG.**

Structure and methods of the report

The sustainable development report of VKG is based on guidelines of the Global Reporting Initiative (GRI). The GRI is a voluntary organisation promoting reporting and gathering enterprises that value sustainable development all over the world. This organisation is considered to be the founder of the concept of sustainable development and it has developed recommended guidelines for sustainable development reports.

This report conforms to the GRI Application Level B. You can read more about the report's conformity to the disclosure requirements on the report's last page which lists a GRI summary.

Read more about the organisation and the guidelines at www.globalreporting.org.

The preparing of the report was also guided by the document "Oil and Gas Industry Guidance on Voluntary Sustainability Reporting" issued in cooperation of the International Petroleum Industry Environmental Conservation Association (IPIECA) and the American Petroleum Institute (API).

The ISO and OHSAS certification materials of the enterprise were also used in preparing the report. The data pertaining to environment protection and occupational safety conform to the requirements prescribed in the relevant standards.

The report has been prepared in cooperation with advisory and audit provider Ernst & Young Baltic AS.

All questions related to the report can be sent to Julia Piilmann, Public Relations Manager of VKG (julia.piilmann@vkg.ee).

Target groups

The sustainable development report of VKG for the year 2012 is a public document available in Estonian, English and Russian languages on paper and in electronic form via the website of the Group. With this report, we primarily want to introduce our enterprise in more detail to:

- **Strategic investors, in order to allow informed investment decisions;**
- **The population of Ida-Viru County, in order to present the developments of recent years and the plans for future;**
- **The employees of VKG, in order to explain more aspects of organisational changes and activities.**

Limitations of the report

Preparing of sustainable development reports is a voluntary activity for organisations. The economic data for the year 2012 and the prognoses for the years 2013–2014 are prepared by VKG and they have not been audited. For that reason the data for the year 2011 may be somewhat different from the data stated in the approved annual report.

The enterprise is presenting the data in its report on the basis of the principles of transparency and good business practice.

CONTENTS

11

9	Introduction	16	Developmental activities	49	Occupational health and safety
11	Contents, Abbreviations	20	VKG's management	52	Social responsibility policy
13	Foreword from the Chair of the Management Board	33	Environment protection	59	Economic indicators
15	Description of the enterprise	45	Employees	62	GRI content index

ABBREVIATIONS

VKG	Viru Keemia Grupp AS
mln €	million euros
th €	thousand euros
HPP	heat and power plant
tfe	ton of fuel equivalent (indicator for expressing any gaseous or solid fuels as tonnes)
EU	European Union
GRI	Global Reporting Initiative



FOREWORD FROM THE CHAIR OF THE MANAGEMENT BOARD

Oil shale industry has fast and exciting times ahead

In major industry, 10 years is a short time. But for VKG, the past 10 years have been a period of extremely fast development that raised our production quality to a new level, brought along new technologies in oil shale mining and processing, and qualitatively changed the approach to the industry's environmental impacts.

Back in 2002, VKG's motto of valuing oil shale sounded like mere advertisement. Now we are starting to produce diesel fuel from shale oil, to be followed by cement production from oil shale in near future. Production of construction materials has been initiated; refined chemicals are being produced as raw material for machine and textile industry. Road construction from oil shale mining waste is being tested and this could be implemented all over Estonia in the future.

As one of the largest employers of our region, we know well that the biggest value for an enterprise is its people. We value our employees highly and strive to provide them with good conditions and development opportunities. Cooperating with Estonian universities and providing grants is part of our future-oriented activities intended to bring active and talented young people to Ida-Viru County. We wish the region to be not only a good economic environment, but also a good living environment – for that purpose, VKG has participated in promoting the cultural life of Ida-Viru County for years and has supported various local initiatives and organisations.

VKG's contribution in promoting corporate responsibility was also awarded internationally in 2012: the Group was among the top three enterprises at the prestigious Swedish Business Awards in "Sustainable Growth" category. Positive economic results and contributing to environmental and social sustainability for which we were awarded will remain an important part of our activities in the future as well.

We were able to reach today's level from a stagnated production enterprise in just a little over 12 years. When looking at the global trends of oil shale industry, right decisions in the coming years may establish a basis for not only the development of one industrial enterprise, but for economic proliferation of the entire region and the country as a whole. But this requires that the favourable economic environment and development be supported by smart political and macro-economical decisions.

VKG is planning to create maximum value from the future development of oil shale industry.

PRIIT ROHUMAA

Chair of the Management Board of VKG



Photo from VKG organised photo competition "Virumaa is wonderful!"
Author: Ilja Ivanov

DESCRIPTION OF THE ENTERPRISE

Viru Keemia Grupp AS is the largest Estonian oil shale processing enterprise, based on private capital. The main field of activities of the Group is producing shale oil and generating heat and electricity.

VKG'S MISSION

Valuing the brown gold of Estonia.

VKG'S VISION

To be the leader of Estonian oil shale industry and the world leader in opening the potential of oil shale.

VKG'S BUSINESS PHILOSOPHY

The business philosophy of VKG is the full opening of the mineral and organic potential of Estonia's most valued earth deposit, for the benefit of the traditional Estonian industry and the growth and development of the entire industrial region of Ida-Viru County.

VKG'S VALUES

OPENNESS to new knowledge, the region and its problems, tasks and changes.

COMMITMENT to our production, the people working here and the region where we operate.

DEVELOPMENT as the main feature of our Group since its first year of activity up to the present day.

The production activities and services supporting the Group's main activity are divided between separate subsidiaries, the shares of which are 100% owned by the parent enterprise.

The fields of activities of the subsidiaries in VKG

VKG KAEVANDUSED OÜ

Mining oil shale as the Group's main raw material

VKG OIL AS

Producing shale oil and refined chemicals

VKG ENERGIA OÜ

Generating heat and electricity

VKG SOOJUS AS

Distributing and selling heat

VKG PLOKK OÜ

Producing construction materials from oil shale ash

VKG ELEKTRIVÖRGUD OÜ

Selling and distributing electricity

VKG TRANSPORT AS

Providing logistics services for road and railway transportation

VIRU RMT OÜ

Providing repair and assembly services

VKG ELEKTRIEHITUS AS

Providing industrial energy supply and electricity installation services

VKG DIISEL OÜ

Performing follow-up processing of shale oils

VKG TSEMENT OÜ

Producing cement

DEVELOPMENTAL ACTIVITIES

CHRONOLOGY OF THE GROUP

1999

Founding **Viru Keemia Grupp AS** on the basis of the state enterprise Kiviter

2002

Starting to **separate refined chemicals** from oil shale

2004

Starting to **utilise oil shale retort gas** in boilers of VKG Energia

2005

Expanding the oil shale processing plant, **4 new retorts**

2006

Starting the **industrial production of refined chemicals**

Completing the largest environmental project for reduction of organic content in oil shale processing waste by up to 8%

2007

Constructing and commissioning the shale oil purifying plant, thus solving an 80-year problem of oil shale filtering. The implemented technology is a protected invention of the engineers of VKG Oil

Starting the construction of the **Petroter I plant**

2008

Commissioning the sulphur scrubbing unit

Obtaining the surveying and mining permit for the Boltshyski deposit

2009

Obtaining state support for the project of developing technology for producing diesel fuel from shale oil. Starting the construction of the **Ojamaa mine**

December 21, 2009 – **Opening the the Petroter I plant**

2010

The Petroter I plant achieved full capacity
Issuing the first proper social responsibility and sustainable development report of VKG; it's also the first in Estonia

Starting the project of a **heat pipeline** running from Kohtla-Järve to Ahtme

2011

Purchasing the enterprise Kohtla-Järve Soojus AS (the new name of the enterprise becomes **VKG Soojus**)

Opening the reserve and top load boiler plant of Kohtla-Järve Soojus AS

Purchasing the bankruptcy estate of Silbet Plokk OÜ; establishing a new enterprise in October – **VKG Plokk OÜ**

Opening a new turbine of VKG Energia

VKG restored the tradition of Miners' Day in Ida-Viru County

2012

Commissioning the production line of VKG Plokk OÜ, establishing the trademark of **Roclite**.

Commissioning a long-distance aboveground conveyor from the Ojamaa mine

Opening the Ojamaa mine; the mine achieving its full capacity

Starting the construction of the **Petroter II plant**

Implementing the project of a heat pipeline running from Kohtla-Järve to Ahtme

RECOGNITION IN 2012



For the third year in a row,
VKG received the title of “Responsible
Estonian Enterprise”.

On February 23, 2012, Nikolai Petrovitš,
Management Board Member of VKG and
Director of VKG Oil received a **Fourth
Class Order of the White Star** from
Toomas Hendrik Ilves, the President
of the Republic of Estonia, for supporting
the region’s development. Nikolai Petrovitš
said that his Order really belongs to the
entire collective of VKG.



2013

Commissioning the Kohtla-Järve – **Ahtme heat pipeline**, terminating the activity of Ahtme HPP
Starting the construction of the **Petroter III plant**
Starting the project of a **second turbine** for VKG, for the purpose of efficient cogeneration of electricity and heat

2014

Constructing the second sulphur scrubbing unit
Starting the commissioning of the Petroter II plant

2015

Constructing the third sulphur scrubbing unit
Starting the project of a cement factory

2016

Commissioning the follow-up processing plant for shale oils and the **production of diesel fuel** in VKG
Constructing the cement factory

Photo from VKG organised photo competition “Virumaa is wonderful!”
Author: Lilia Alamets



In October 2012, VKG was among the top
three enterprises at Swedish Business
Awards in “Sustainable Growth” category.

DEVELOPMENTAL ACTIVITIES

MAIN EVENTS OF THE REPORTING PERIOD

January

Initiated an electrical safety campaign intended primarily for children in the pre-school and basic school age; awareness-raising posters, an online game pertaining to electrical safety and a theatre play on the same topic were prepared for the campaign.

Read more at www.vkgev.ee/lastele.

VKG Soojus took over the heat networks and clients in the city of Kohtla-Järve, becoming a single Kohtla-Järve – Ahtme – Jõhvi heat network enterprise. With this, the enterprise started providing heat supply for a region with more than 60,000 residents and took on responsibility for its supply security. VKG Energia, on the other hand, became an industrial energy supplier with the goal of sufficient and efficient cogeneration of electricity and heat.

February

VKG Soojus signed a main contracting agreement for heat pipelines with KVL Tekniikka OY. Construction works for the nearly 18.5 kilometre Kohtla-Järve – Ahtme heat pipeline were started.

The second photo competition of the Virumaa region started, led by VKG and Jõhvi Concert Hall. Read more about this initiative at www.vkgssoojus.ee/konkurss.

March

VKG Plokk restarted production of construction blocks from oil shale ash, restoring 70 jobs to the region. The new brand is named Roclite.

VKG started cooperation with Estonian Art University, planning to restore the old oil factory tower (an architectural heritage object located in the production territory of VKG) and to organise annual practical training for art students at the Group's industrial sites.

An enrichment plant and a crushing and sorting plant were commissioned in the territory of the Ojamaa mine.

April

A 13-kilometre snake conveyor was commissioned in the territory of the Ojamaa mine; it is a unique conveyor in Estonia.

Cooperation agreement was signed with Tartu Art College in order to provide practical training opportunities for students and to find other cooperation projects.

May

Another Chemists' Day event took place, led by VKG. The event also included another Environment Day intended for the region's top specialists of the field and for local interested parties.

At the end of May, VKG in cooperation with its biggest cultural partner Eesti Kontsert planted over 1,000 new trees in Maidla Municipality; this is planned to become a tradition. The next planting event will take place on May 20, 2013.

August

Kohtla-Järve city government granted its consent for the construction of the Petroter II plant. Preparations for construction works were started immediately.

VKG organised another Miners' Day; over 25,000 people participated in the festive event.

October

VKG signed a cooperation agreement with Estonian Road Administration for the purpose of testing the use of oil shale mining and processing wastes in Estonian road construction. Construction of a test road stated in October 2012; the first results are expected in spring 2013. VKG assumed all costs of the project.

VKG opened an oil shale themed exposition in the fourth terminal of Tallinn Airport for the purpose of introducing passengers passing the airport to the traditions, history and nature of Estonian industry. The motto of the exposition is "Estonia's own major industry"; with this, VKG wishes to stress that oil shale industry has been one of the most important whales on which Estonian economy has stood since the start of the country's independence.

TARGETS AND CHALLENGES OF THE UPCOMING PERIOD (2013–2014)

Achieving full capacity of the Ojamaa mine and increasing its output to
3.8 million tonnes per year

Ensuring long-term resources for VKG also in Uus-Kiviõli or Sonda deposits

Successful completion of the
Petroter II project

Starting the projects of shale oil follow-up processing plant and the Petroter III plant

FORECASTS FOR 2013

Oil shale processing
2.8 million tonnes

Processing volume of Petroter I
0.9 million tonnes

Number of employees in VKG
2,100

In cooperation with the City Government of Kohtla-Järve, VKG organised a traditional Elderly People's Day dedicated to all elderly people whose work has made a contribution to the city's development.

November

Construction of the concrete foundation of the Petroter II plant reached the ground level and VKG organised a cornerstone-placing event of the Petroter II plant. The cornerstone of the new plant was placed by Priit Rohumaa, Chair of the Management Board of VKG, Nikolai Petrovitš, Management Board Member of VKG Oil and Jevgeni Solovjov, Mayor of Kohtla-Järve.

A large-scale crisis exercise took place in the industrial territory of VKG, lasting for the entire day and involving nearly all employees of the production territory. The purpose of the exercise was to provide the employees of the Group's various subsidiaries with some experience of how to act in a crisis situation.

December

On December 4, the Association of Responsible Entrepreneurship was established in participation of VKG and 17 other Estonian enterprises.

The largest photo competition of the Virumaa region: "Virumaa is wonderful" („Ilus oled, Virumaa!") ended; winners were awarded on December 5.

Photo from VKG organised photo competition "Virumaa is wonderful!"

Author: Natalia Abel

VKG'S MANAGEMENT

ORGANISATIONAL CHANGES OF VKG IN THE YEAR 2012

In order to ensure the necessary development speed of the Group, VKG has strengthened the management teams of its subsidiaries to ensure ongoing presence of management in all fields. The management teams of three subsidiaries of VKG were expanded at the beginning of 2013.

Andres Veske, a Management Board Member of **VKG Soojus**, the enterprise active in the field of administration of Kohtla-Järve – Jõhvi heat networks, heat supply and client service, is now accompanied by a new Management Board Member, Aleksandr Shablinski. Sergei Kulikov, a former Management Board Member of VKG Soojus will fully commit to Management Board Member's duties in VKG Energia, the enterprise active in the field of industrial energy supply.

Uku-Madis Savisto, a Management Board Member of **Viru RMT**, the enterprise active in the field of repair and assembly services, is now accompanied by a new Management Board Member, Peeter Ilves.

A change was also made in VKG's flagship enterprise **VKG Oil**; its long-time Director Nikolai Petrovitš is now accompanied by a new Management Board Member, Priit Pärn. The main domain of the new manager is planning sales and marketing activities of VKG Oil, Estonia's largest producer of fuel oils. The challenge of the job lies both in new EU requirements for sulphur content of fuel oils that will enter into force on January 1, 2015 and in VKG's plans for producing diesel fuel.

On May 22, 2012 a new subsidiary of VKG was established – **VKG Diesel**; it is managed by Jaanus Purga, Management Board Member and Development Director of VKG and Ahti Puur, Financial Director and Deputy Chair of the Management Board of VKG. Both members of

the Management Board represent the enterprise jointly. The new subsidiary's field of activities is construction and commissioning of the new shale oil follow-up processing plant. The plant will produce modern motor fuels from shale oil, with end product being EURO V standard diesel fuel, 0.1% sulphur marine fuel and stabilised petrol instead of the current fuel oils.

Jaanus Purga, Development Director of VKG and the initiator of the refinery plant explained: "Oil shale is Estonia's treasure and VKG's vision is to use it wisely. It is possible and reasonable to produce both highly-priced chemicals and high-quality filling-ready motor fuel from Estonian oil shale. When mining oil shale, we need to be able to utilise its energetic and chemical potential to the maximum possible extent and to produce products with the highest possible added value. I am fully convinced that VKG's one-time dream of covering most of Estonia's domestic diesel fuel demand is very much feasible in today's conditions."

The planned production capacity of the shale oil follow-up plant is 14,000 barrels of raw shale oil per day. The entire raw oil yield from VKG's production processes will be directed into follow-up processing. Most of the design works of the refinery plant were performed in line with preparing the environmental impact assessment in 2012, and construction works for the plant can start in the year 2013.

CORPORATE GOVERNANCE

GOOD PRACTICES OF CORPORATE GOVERNANCE

VKG follows the good practices of corporate governance in its activities. The good practices of corporate governance are intended to be followed primarily by enterprises having their shares traded in the Estonian regulated market, but they are also recommended for other enterprises subject to public interest. The objective of VKG is to follow the good practices of corporate governance and to present the activities of the enterprise in a transparent manner; thus the sustainable development report includes a chapter dedicated to description of the good practices of corporate governance.

SHARES AND SHARE CAPITAL

As of 01.01.2013, the nominal value of the share capital of VKG was 6,391,164.21 euros. There were no changes in the share capital in the years 2008–2012. VKG's shares are not noted on the securities market.

The Group has four shareholders with the following holdings as of 01.01.2013:

OÜ Tristen Trade	38,91%
OÜ Alvekor	25,49%
Ants Laos	19,53%
OÜ Sergos Invest	16,07%

GENERAL MEETING EXERCISING THE RIGHTS OF SHAREHOLDERS

The highest management body of VKG is the general meeting of shareholders. General meetings can be regular and extraordinary. The competence of the general meeting is prescribed in the Commercial Code of Estonia and in the Articles of Association of VKG.

General meetings are summoned by the Management Board of VKG. The notice of summoning a regular general meeting of shareholders is sent to the shareholders at least 3 weeks before the date of holding the general meeting; the notice of summoning an extraordinary general meeting is sent at least 1 week before the date of holding the meeting. Annual reports are available to shareholders at least 2 weeks before the date of holding the general meeting.

A general meeting of shareholders is competent to make decisions if more than 50% of the votes granted by shares are represented at the meeting. The meeting that approved the annual report of 2011 was held on May 2, 2012 with the participation of 100% of the votes granted by shares.

The following decisions were made in the course of the general meeting of shareholders:

- To approve the annual report of the financial year 2011;
- To approve the net profit of the year 2011 in the amount of 164,656,527 euros as of 31.12.2011;
- To pay a total of 640,000 euros as dividends from the net profit of the year 2011.

VKG'S MANAGEMENT

MANAGEMENT BOARD. STAFF, DUTIES AND REMUNERATION

MANAGEMENT OF THE PARENT ENTERPRISE

The Management Board of Viru Keemia Grupp AS consists of six members: Chair of the Management Board, Deputy Chair of the Management Board and Financial Director, Development Director, Technical Director, Management Board Member of VKG Kaevandused OÜ and Management Board Member of VKG Oil AS.

Four Management Board Members – Priit Rohumaa, Ahti Puur, Jaanus Purga and Meelis Eldermann – manage the activities of the Group as a whole and are also Supervisory Board Members of subsidiaries.

Two Management Board Members – Margus Kottise and Nikolai Petrovitš – are the Managers of the strategically most important subsidiaries of the Group.

The duties of the Management Board include everyday management of VKG's economic activities and representing the business association.

In all legal procedures of the Group, an enterprise is always represented by two Management Board Members together, whereas one of them must be the Chair or Deputy Chair of the Management Board.

START TIMES OF TERMS OF OFFICE OF MANAGEMENT BOARD MEMBERS

Priit Rohumaa, Chair of the Management Board – 11.09.2000

Ahti Puur, Deputy Chair of the Management Board – 07.10.2009

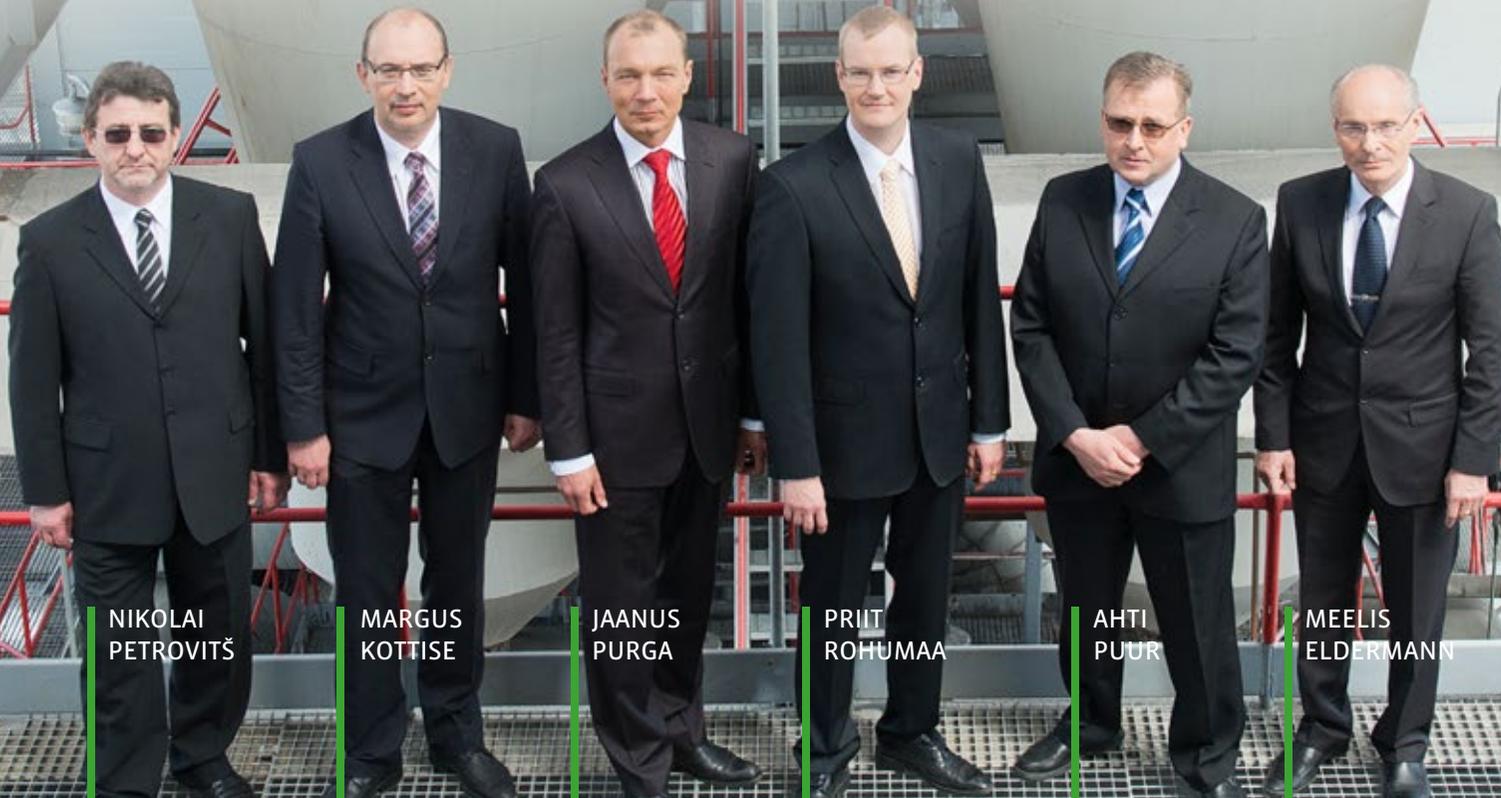
Jaanus Purga, Management Board Member, Development Director – 26.01.2001

Meelis Eldermann, Management Board Member, Technical Director – 06.03.2008

Margus Kottise, Management Board Member – 09.05.2000

Nikolai Petrovitš, Management Board Member – 16.11.1999

The Management Board Members are paid a monthly remuneration consisting of the pay for performing the duties of a Management Board Member and the pay for keeping business secrets and for respecting the competition prohibition. The duties of Management Board Members are stated in service contracts signed with the Management Board Members. According to the service contracts, the Management Board Members can get additional monetary remuneration which is paid according to the relevant decisions of the Supervisory Board.



NIKOLAI
PETROVIŠ

MARGUS
KOTTISE

JAANUS
PURGA

PRIIT
ROHUMAA

AHTI
PUUR

MEELIS
ELDERMANN

SUPERVISION OVER THE MANAGEMENT BOARD'S ACTIVITIES

Supervision over the activities of the parent enterprise's Management Board is effected by the Supervisory Board, consisting of six Members since 01.02.2012. Meetings of the Supervisory Board take place once per month, on the last Wednesday of every month. Urgent matters requiring approval of the Supervisory Board are constructively decided over telephone and e-mail.

Pursuant to the Authorised Public Accountants Act of the Republic of Estonia, VKG is considered to be an entity subject to public interest and is thus required to have an Audit Committee. The members of the Audit Committee of VKG are Ants laos (Chair of the Committee), Priit Piilmann, Margus Kangro and Elar Sarapuu. According to the Statutes, the Audit Committee is an advisory body for the Supervisory Board of VKG in the fields of accountancy, auditing, risk management, internal audits, supervision and budgeting and also legality of activities. Meetings of the Audit Committee are held at least twice a year.

The staff of the Management Boards and Supervisory Boards of the parent enterprise and subsidiaries of the Group is stated in the following table. →

COOPERATION BETWEEN THE MANAGEMENT BOARD AND THE SUPERVISORY BOARD

Cooperation between the Management Board and the Supervisory Board takes place in a constructive manner. In addition to regular monthly meetings of the Supervisory Board, any urgent matters requiring approval of the Supervisory Board are decided without summoning a meeting. Consultations are provided as well.

COMMERCIAL NAME	MANAGEMENT BOARD MEMBERS	SUPERVISORY BOARD MEMBERS
Viru Keemia Grupp AS	Priit Rohumaa (Chair) Ahti Puur Jaanus Purga Nikolai Petrovitš Meelis Eldermann Margus Kottise	Toomas Tamme (Chair) Priit Piilmann Margus Kangro Ants Laos Elar Sarapuu Jaan-Mihkel Uustalu
VKG Oil AS	Nikolai Petrovitš Priit Pärn	Priit Rohumaa (Chair) Meelis Eldermann Ahti Puur
VKG Transport AS	Raimond Niinepuu	Priit Rohumaa (Chair) Meelis Eldermann Ahti Puur
Viru RMT OÜ	Uku-Madis Savisto Peeter Ilves	Priit Rohumaa (Chair) Meelis Eldermann Ahti Puur
VKG Kaevandused OÜ	Ahti Puur (Chair) Margus Kottise Aleksandr Borovkov	Priit Rohumaa (Chair) Jaanus Purga Meelis Eldermann
VKG Elektrivõrgud OÜ	Marek Tull	Priit Rohumaa (Chair) Toomas Rätsep Ahti Puur
VKG Energia OÜ	Sergei Kulikov Tarmo Tiits	Priit Rohumaa (Chair) Meelis Eldermann Ahti Puur
VKG Elektrihitus AS	Andry Pärnpuu	Priit Rohumaa (Chair) Toomas Rätsep Ahti Puur
VKG Soojus AS	Andres Veske Aleksandr Šablinski	Priit Rohumaa (Chair) Meelis Eldermann Ahti Puur
VKG Plokk OÜ	Hannes Niinepuu	Priit Rohumaa (Chair) Jaanus Purga Meelis Eldermann
VKG Diisel OÜ	Jaanus Purga Ahti Puur	Supervisory Board Members will be appointed later.
VKG Tsement OÜ	Jaanus Purga	Priit Rohumaa (Chair) Meelis Eldermann Ahti Puur



FOREWORD OF THE CHAIR OF THE SUPERVISORY BOARD

Formal rules alone will not suffice for a successful management of a large industrial enterprise.

VKG has been characterised throughout the years by quick development which continued in the year 2012 as well. That quick development was accompanied by large investments into production, resulting from environmental requirements becoming stricter. The main events of 2012 in that field were the opening of the Ojamaa mine and the commissioning of Kohtla-Järve – Ahtme heat pipeline.

Due to large-scale investments, investors have more and more of a role in the Group's daily activities. For VKG, the largest investors are the biggest North-European banks i.e. Nordea, SEB and Pohjola. Although VKG is not planning to have its shares noted on stock exchange now or in near future, we consider good corporate governance an important principle to follow. With this, we are hoping to ensure a good investment climate and good trust and sense of security between us and our partners.

In VKG, good corporate governance primarily means establishing and implementing the Group's management policy. This is the formal framework of the Group's everyday work, describing its principles, procedures and traditions i.e. the way the Group's everyday work is performed. It is supplemented by the Management Board by setting targets for the employees and creating motivation and inspiration for them. The latter is a much more complex task than creating the aforementioned rules.

Over the years, we have been able to establish a clear management structure and control system in VKG. On the other hand, it would be incorrect to say that formal rules alone would be sufficient in a large industry enterprise with more than 2,000 people. According to my assessment, it is also very important to ensure the soft direction of good corporate governance i.e. the values, loyalty and high motivation of employees; my personal opinion is that creating and maintaining this among the employees is the biggest skill and talent of managers. Both motivated employees and a good management system are equally important in every well-functioning enterprise that fulfils the expectations of its owners and investors.

For me, the sign of good management of an enterprise is multi-language operations. For investors we have the language of clear structure, procedures and development plans. With employees we speak in the language of supporting regional development, joint events and values. All these languages are necessary management tools, and we assess that the management of VKG wields these tools skilfully.

TOOMAS TAMME

Chair of the Supervisory Board of VKG

VKG'S MANAGEMENT

SUPERVISORY BOARD. STAFF AND DUTIES

The Supervisory Board plans the activities of the Group, organises its managing and exercises supervision over the Management Board; according to the Articles of Association the Supervisory Board has three to seven members.

TOOMAS TAMME (Chair)

PRIIT PIILMANN

MARGUS KANGRO

ANTS LAOS

ELAR SARAPUU

JAAN-MIHKEL UUSTALU

Advisor of the Supervisory Board – **JENS HAUG**

The Articles of Association of the Group state that transactions and activities on behalf of the Group require consent of the Supervisory Board if they bring about the following:

- Acquiring and terminating holdings in other associations;
- Acquiring, transferring or terminating an enterprise;
- Acquiring, transferring and encumbering immovable property;

- Acquiring, transferring and encumbering constructions;
- Establishing and closing foreign subsidiaries;
- Making investments which exceed the investment funds allocated from the budget for the current financial year;
- Taking loans and assuming debt obligations in amounts exceeding the relevant allocations in the year's budget or under terms differing from those approved by the Supervisory Board;
- Granting loans, if outside the scope of everyday activities;
- Securing debt obligations;
- Deleting hopeless accounts receivable;
- Signing any employment contracts with employees, if those contracts grant pension and/or benefits after the end of the employment relation;
- Approving the annual budget of the Group;
- Establishing and terminating subsidiaries.

CONFLICTS OF INTEREST

Management Board Members are prohibited from competing with Viru Keemia Grupp AS in its field of activities, unless having the prior consent of the Supervisory Board.

In the year 2012, no Management Board Member notified about own actual or intended direct or indirect participation in entrepreneurship in the field of activities of Viru Keemia Grupp AS.

In order to avoid conflicts of interest, all Management Board Members and middle-level managers of the business associations belonging to the Group are required to submit upon any and all changes a declaration in approved format, stating their holdings in legal entities and/or membership in management bodies of legal entities and/or activities as self-employed persons.

FINANCIAL REPORTING AND AUDITING

The Management Board of Viru Keemia Grupp AS has the duty of preparing financial reports. The accounting principles and methods of presenting information, utilised in accountancy of all VKG's subsidiaries, conform to the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and to the relevant issued interpretations. Decisions about VKG's largest transactions and about its strategic financial targets are made by the Management Board of the Group at its weekly meetings.

The Financial Division of the Group manages and plans the everyday cash flows, i.e. prepares the budgets of the Group and its subsidiaries, exercises supervision over the respecting of those budgets, prepares business projects, and communicates with sources of financing. The Financial Division of the Group is aided in this by Financial Divisions of subsidiaries, which have the duty of analysing the economic activities of the relevant subsidiary. All technical financial transactions are performed by the centralised Accountancy Department of the Group, located at the head office of VKG. The Accountancy Department makes the necessary payouts, accounts the salaries, makes the payments of vacation pay and sick pay, and prepares the annual balance sheet of the financial year. An accounting entity is required to ensure the availability of relevant, significant, objective and comparable information about its financial state, economic results and cash flows. If the internal regulations don't describe

an event occurring in the accountancy of VKG, then the event is accounted according to the International Financial Reporting Standards (IFRS), the Accounting Act of the Republic of Estonia, the guidelines issued by the Estonian Accounting Standards Board (EASB), and other legal acts.

The accounting period is a financial year with the length of 12 months. The financial year begins on January 1 and ends on December 31. Upon establishing or terminating an accounting entity, changing its starting date of the financial year, and in other cases prescribed in the law, the financial year can be shorter or longer than 12 months but it can never exceed 18 months.

VKG has the right and obligation to keep independent accounts on the basis of the internal regulations of accountancy approved according to the procedure prescribed in the Articles of Association of the Group. The internal regulations of accountancy are replaced and amended with the approval of the owners of VKG, if necessitated by economic considerations, reorganisation of the activities of the Group, amendments of the accounting principles on the basis of the contents of the International Financial Reporting Standards (IFRS) and the guidelines and recommended methods issued by the Estonian Accounting Standards Board (EASB) or on the basis of amendments of the national tax laws and tax guidelines, or by other reasons.

The enterprise is required to document all its economic transactions and to register those transactions in its accounting ledgers. Economic transactions are carried on debit accounts and credit accounts according to the double entry method.

Economic transactions are recorded in chronological and systematic accounting registries at the moment of them taking place or immediately after. An accounting registry is a database used in accountancy. An accounting registry is formed in chronological order (ledger) and as accounts (turnover balance). All reports and registries of accounts are prepared on the basis of the accounting software in use. Reports and registries of accounts are preserved on computer diskettes, CDs and/or as paper printouts. Since January 1, 2001 the Baan software for resource planning and financial management of subsidiaries is used in the accountancy of the Group. The auditor of Viru Keemia Grupp AS is assigned with a decision of the general meeting of shareholders.

The Management Board organises a competition to find an auditor, with the goal of finding the auditor for the next financial year. The latest competition to find an auditor took place in the year 2011 when a decision of the general meeting assigned KPMG Baltics OÜ to be the auditor; the relevant contract was signed for 2 years.

VKG'S MANAGEMENT

RISK MANAGEMENT

RISK MANAGEMENT SYSTEM

The Management Board of the Group has the duty of shaping the risk management policy and effecting the risk management of Viru Keemia Grupp AS.

The goals of risk management of VKG are as follows:

- To support the making of management decisions;
- To avoid or diminish any damages to the Group's assets and reputation;
- To increase the effectiveness of the Group's activities;
- To increase the efficiency of using the Group's resources (capital, energy);
- To reduce occurrences of unexpected situations and to prepare action plans and risk scenarios for such situations.

In the year 2011 the main risks of VKG were mapped and the base document for risk management was prepared. The document provides descriptions of significant risks of the Group, assessments of those risks, and opportunities to hedge them. The risks are determined on the basis of the Group's most important targets, related to VKG's striving to value oil shale as much as possible and to process it as efficiently as possible. Risks are reassessed every year.

The results of risk assessment highlight the risks which should be considered more and which require a further plan of actions for hedging them. The risk assessment document has been approved by the Management Board of VKG, and a responsible person from among the Management Board Members has been assigned to every significant risk, whereas such responsible persons must ensure that the Group actually hedges the relevant risk. The person responsible for managing the risk prepares an action plan for hedging the risk and presents the action plan to the responsible Management Board Member.

BUSINESS RISKS

Business risks are the main strategic risks of VKG. Regular attention must be paid to the risk of delivery continuity of raw material, the risk of competitiveness of oil shale processing and the risk of managing capital-intensive investments.

The delivery continuity of raw material is one of the main business risks in the production chain of shale oils. In order to secure the availability of oil shale resource and to hedge the relevant risk, VKG opened the Ojamaa oil shale mine in the year 2012; it was the largest investment of the Group for the period of 2008-2012.

Oil shale processing may become uncompetitive primarily due to new environmental regulations or a significant decrease of the global price of

crude oil (market risk). VKG is carefully following the prescribed environmental requirements and participates actively in activities of professional associations, in order to be in knowledge about future regulations. The Environmental Department of the Group is centralised and internal monitoring processes have been developed for it. New investments are continually made in case of environmental regulations becoming stricter.

The activity of VKG depends on timely making and financial success of large investments. In order to hedge risks, attention must be paid to management of investments – planning, project management and follow-up assessment. A comprehensive process is used for budgeting investments: investment budgets are prepared across subsidiaries and a separate project team is assigned for more important investments, involving relevant specialists from all levels of responsibility within the Group. Securing the financing of investments is also considered an important part of managing investments. A syndicate loan agreement signed in the year 2010 was used for refinancing the Group's loan portfolio and for ensuring financing for ongoing large investments like the Petroter I oil plant, construction of a turbine unit for VKG Energia OÜ, and establishing of the Ojamaa mine. For new capital-intensive investments, new targeted loans will be undertaken on the basis of the syndicate loan. The Group's syndicate loan agreement is financed by AS SEB Pank, Nordea Bank Finland Plc Estonian Branch and Pohjola Bank Plc.

MARKET RISKS

The most influential of the Group's strategic market risks are changes of the crude oil price and the exchange rate of US dollar; these would cause the Group to have insufficient cash flows. Also, more and more attention must be paid to market prices of CO₂, because dependency on those prices may continually increase in the future as environmental directives will cause less and less emission quotas to be allocated for carbon-intensive producers.

The risk of changes of global prices is an inevitable part of the Group's activities. Most of the shale oil sales contracts of VKG Oil AS are directly dependent on stock market prices of crude oil and crude oil products. The rest of sales prices of shale oils (domestic sales) are also indirectly dependant on global prices. The prices in the global market also affect the Group's production costs, primarily via the price of natural gas used in the production process and the price of raw oils purchased from other producers. The purpose of monitoring that risk for the enterprise is to conduct ongoing analysis of the sensitivity of budgeted profit to changes of global prices for crude oil and crude oil products. A change of the crude oil specification "Brent" by 1 US dollar per barrel would bring about a change of the annual profit by ca. 1 mln EUR. In order to hedge the risk of a sharp drop of crude oil prices, the Group is acquiring oil price fixation options and gathering a liquidity reserve. The risk is indirectly hedged through activities of the Group's Financial Division which regularly monitors market overviews and analyses the Group's readiness to a market decline.

In the year 2012, 70% of the Group's turnover came from sales to the European Union and to third countries. The most important sales currencies are euro and US dollar. The Group's expenditure is mainly in euros. Contracts are primarily signed with the currency of the country of location, and open currency positions are being avoided in organising everyday activities. The most important foreign contracts are signed in euros and in US dollars. The Group has not signed any contracts for derivative instruments for the purpose of hedging the currency risk. The dollar risk is indirectly hedged with oil price fixing options signed in euros. The Group is conducting an ongoing monitoring of currency risk, in order to analyse the sensitivity of the budgeted profit to changes of the exchange rate of US dollar. A change of the exchange rate between euro and US dollar by 0.02 EUR/USD would bring about a change of the profit by ca. 1 mln EUR.

No financial instruments have been acquired for hedging the market risk of CO₂. The Group has been allocated emission quotas within the current allocation plan for 2008-2012. Continual monitoring will be conducted until adoption of allocation plan for the next period, similar to monitoring other environmental regulations; long-term plans consider possible risk scenarios and develop competence regarding emissions trading.

ENVIRONMENTAL RISKS

VKG has an environment-intensive production cycle. Environmental impacts are expressed upon mining the resource and there is environmental risk present in both producing and marketing of shale oils. Environmental risks are assessed very highly and attention is being paid to those risks in many aspects.

Centralisation of the Environmental Department and mapping of risks on the Group's level ensure an integral availability of environmental knowledge and competences. Environmental risks are mapped in the production cycles of each enterprise, quality standards for environmental management are adopted, and environmental risks are taken into account when establishing new investments, utilising independent experts for assessing the environmental impacts. Environmental risks are hedged via fulfilment of all legal requirements and via exercising of supervision. There is cooperation with the Rescue Board, and conformity to the requirements prescribed by regulations is being audited.

VKG'S MANAGEMENT

RISKS OF DESTRUCTION OF ASSETS

Destruction of assets can be caused by risks of production technology and in turn it can cause liquidity risk. The main cash flows of the Group depend on the oil industry, thus diagnostics need to be performed and repair schedules of equipment need to be followed. Mapping significant elements of the production process allows timely reactions to occurrences of technological risks. In order to systematise this activity and to hedge the risk, an asset management programme has been implemented.

VKG has signed a complex property insurance agreement for business interruptions, in order to protect itself against destruction of assets. The complex property insurance agreement includes all subsidiaries (except VKG Soojus, VKG Plokk and VKG Elektrivõrgud which have signed separate property insurance agreements) and the insurance provider is SVAG Schwarzmeer und Ostsee. The insured object is the immovable and movable property which belongs to the insured entity, is administrated or controlled by the insured entity, or for which the insured entity bears legal liability. Separate construction insurance agreements are signed for major investments.

CREDIT RISKS

Credit risk is an inevitable part of entrepreneurship. Upon managing credit risks, careful attention is paid to payment discipline of partners, their financial state is analysed and if necessary then third parties are involved as guarantors in transactions. In case of pre-payments to suppliers, the beneficiary of the payment is requested to present a bank guarantee. We grant business credit fundamentally only to our long-term cooperation partners. In case of one-off transactions and new clients we always request either pre-payment or a letter of credit.

Delayed accounts receivable from clients are managed on daily basis. In case of exceeding a payment deadline of an invoice issued to a buyer, the debtor is sent reminder notices and warnings. Conditions have been determined for initiating a court action for collecting the debt. Signing of special agreements belongs to the Management Board's competence. The maximum credit risk resulting from unsecured claims is ca. 11 million euros as of the balance sheet date.

Liquid funds of the Group are held in short-term deposits of banks with highest credit ratings. Deposits with moderate risk level are used for hedging liquidity risk in addition to credit risk: the Group has a target of ensuring availability of at least 12 months' funds for loan repayments and interest payments.

INTEREST RISKS

As of 31.12.2012 the Group has interest-bearing liabilities in the amount of 111 million euros, making up 23% of the balance sheet volume. Due to the large share of interest-bearing liabilities, the management considers the risk of increase of money market interest rates to be a significant risk to the Group's activity. Regarding loan obligations, the Group has primarily the risk of decrease of cash flows. In the period of 2013-2020 the Group is planning to make extremely capital-intensive investments (ca. 1 billion euros), and these will increase the interest risk. The loan interests of the Group are based on the interest rate of (2.2-2.4%) plus 1 month's Euribor. In relation with possible fluctuations of Euribor, the Group is analysing the sensitivity of its cash flows and profit to an increase of the interest rate by 1%. The analysis performed indicates that an increase of interest rates by 1% would influence the cash flows generated by the Group in the year 2013 and would affect the profit before income tax in the extent of ca. 1.5 million euros.

INTERNAL AUDITING DEPARTMENT

An important part of risk management is ensuring and monitoring the functioning of internal auditing systems. VKG has established the Internal Auditing Department for that function; the Department is a structural unit that operates independently from VKG and monitors the activities of the Group, its subsidiaries and their subsidiaries, and other business associations belonging to the consolidated group of VKG, in order to make sure that those activities conform to the laws of the Republic of Estonia and to other legal acts, the Articles of Association of VKG, decisions of general meetings of shareholders, decisions of the Supervisory Board and the Management Board, and internal regulations and action guidelines of the Group and its subsidiaries.

The central task of the Group's Internal Auditing Department is to study and assess the economic activities of the Group on the basis of trustworthiness and efficiency of internal auditing. This task requires the following:

- **Verifying the correctness of economic data;**
- **Verifying the sufficiency of action guidelines and regulations and their conformity to the prescribed requirements, and presenting suggestions for enhancing them if necessary;**
- **Monitoring the respecting of action guidelines and regulations;**
- **Verifying the effectiveness of property protection and efficiency of resource use;**
- **Verifying the effectiveness of the supervision system;**
- **Monitoring the risk management.**

The task of internal auditing is to identify possible shortcomings in the activities of the employees of the Group and its subsidiaries, their possible work errors and cases of abandoning of duties and exceeding of authorisations, to draw attention to those, and to make suggestions for avoiding those in the future.

The internal auditor prepares an act or report of internal auditing and presents it to the audited entity for reviewing and opinion-taking. The Internal Auditing Department prepares reports of discovered shortcomings together with assessments, conclusions and suggestions, consolidates data about the activities of the Group and its subsidiaries, and prepares overviews and analyses thereof for presenting to the Executive Managers and Management Board Members of the Group and/or its subsidiaries depending on their importance and level of generalisation.

INTERNATIONAL MANAGEMENT SYSTEMS

International management systems like ISO and OHSAS have separate procedures for risk hedging in quality management, environmental management and occupational safety management. Those internationally recognised systems are in effect in VKG as well. The table below lists the management systems in use in the Group's subsidiaries.

NAME OF SUBSIDIARY	ISO CERTIFICATES (environmental and quality management systems)	OHSASI CERTIFICATE (occupational health and safety management system)
VKG	ISO 9001, ISO 14001	–
VKG Oil AS	ISO 9001, ISO 14001	OHSAS18001
VKG Energia OÜ	ISO 9001, ISO 14001	OHSAS 18001
VKG Transport AS	ISO 9001, ISO 14001	OHSAS 18001
Viru RMT OÜ	ISO 9001	OHSAS 18001
VKG Elektrivõrgud OÜ	ISO 9001	OHSAS 18001
VKG Elektrihitus AS	ISO 9001, ISO 14001	OHSAS 18001



Photo from VKG organised photo competition "Virumaa is wonderful!"
Author: Jevgeni Fjodorov

ENVIRONMENT PROTECTION

VKG pays much attention to environment protection in its activities. The main priorities are prevention or minimisation of environmental impacts resulting from production activities.

The Group has developed a unified environmental policy, based on the following principles:

- Acting upon an environmental management system conforming to the international standard ISO 14001;
- Identifying the ecological aspects and environmental impact of the enterprise's production activities and assessing their conformity to the legislation in force and to other applicable requirements;
- In our everyday activities we follow the requirements prescribed in legal acts, conventions and agreements of Estonia and the European Union;

- We consider it important to inform the region's institutions and population about the enterprise's activities and possible environmental impacts of those activities;
- We pay much attention to promoting sustainable development in the enterprise, by way of reusing as much as possible the materials and wastes generated from the production process;
- We consider it important to have good cooperation with research and development institutions, both for solving environmental issues and for developing new technologies;

- We encourage our employees to improve their knowledge about environment protection and we recognise and encourage practical use of that knowledge;
- We work towards valuing oil shale, creating additional value with our oil shale products.

Most of the subsidiaries of VKG are employing an environmental management system conforming to the international standard ISO 14001.

ENVIRONMENT PROTECTION

INVESTMENTS INTO ENVIRONMENT PROTECTION

VKG has an environmental priority of reducing the environmental impacts of valuing oil shale as an earth deposit. Investments into best available technology and environment protection, participation in the developing of legislation, monitoring the production process and the environment, modelling the outside atmosphere, and optimising the production process are the means by which the Group ensures sustainable development of shale oil production.

The Group follows the requirements prescribed in the legislation, takes into account the relevant opinions of various interested parties, and acts as a reliable partner for state institutions, local governments and the local community. VKG considers it important to have good cooperation with research and development institutions.

The recent years have seen much work being done for the benefit of environment; tens of millions of euros have been invested and signif-

icant shifts toward more environment-friendly production have been made. At the same time, the legislation of the European Union and the Republic of Estonia and the increasing production needs are setting higher and higher requirements and new, higher environmental targets for the Group's enterprises.

In the year 2012, VKG directly invested a total of approximately 2.3 million euros into environment protection measures; this is ca. 34% more than in the previous year. The most significant investment was closing the hazardous waste deposit. There are still large investments being made into development activities; plans for those investments take into account requirements of best available technology and the ever stricter limit values. Environmental investments are expected to increase in the coming years, because VKG Energia is planning to commission new sulphur scrubbing equipment by 2014 and 2016.

Other significant environmental activities in the year 2012 were:

- Determining the amount of greenhouse gas emissions caused by fuels produced from shale oil (ecological footprint) and participating in negotiations on that subject in the European Commission;
- Participating in developing the best available technology document for shale oil industry;
- Preparing an action plan for eliminating sources of air pollution;
- Tidying hazardous wastes deposits and improving the technology related to waste water handling.

ENVIRONMENTAL EXPENDITURE 2007–2012 (MLN €)



LARGEST COMPLETED AND ONGOING ENVIRONMENTAL PROJECTS

SHALE OILS FILTRATION PLANT

VKG Oil AS completed a shale oils filtration plant. The implementing of the relevant process allows eliminating several sources of atmospheric pollution and reducing emissions and production losses. As a result of implementing the new technological scheme, no hazardous liquid wastes of oil shale pitch are generated anymore, and instead a fine-dispersing solid fuel – filter cake is produced.

TANK FLEETS

Other measures of reducing atmospheric emissions are investments into the tank fleet and reconstructing of the heavy oil cycle of shale oils. In the year 2008 a tank fleet was constructed and scrubbing equipment was installed for the shale oil storage and the distillation plant. These investments resulted in significant reduction of emissions of hydrocarbons and phenols. By the end of the year 2009, an absorber for the tank fleet of shale oils was completed; this unit binds up to 70% of volatile organic compounds. Since the beginning of the year 2013, emissions of organic volatiles from the absorber of the distillation unit's tank fleet are fully eliminated. Also, the tank fleet of the phenol water dephenolation unit is being reconstructed. The years 2013–2014 will see the catching systems of other tank fleets being made more effective as well.

PETROTER OIL PLANTS

In the year 2009 the first Petroter oil plant was completed, allowing the use of fine oil shale for oil production. This plant has several devices for environment protection. Its chimney stack has a continuous monitoring device for flue gases; it allows us to monitor the concentration of pollutants emitted into the atmosphere and to react immediately in case of any exceeding of limits. The plant also has an utilisation boiler for using up the waste gases and the heat resulting from those gases. The solid wastes resulting

from processing of oil shale in that plant are also more environment-friendly, because the organics content of the generated ash is significantly lower and thus conforms to the requirements prescribed in the legislation.

Construction works of the Petroter II plant are currently in progress. The second plant will have several additional measures for environment protection and conservative resource use, compared to the first plant:

- **The utilisation boiler will be enhanced, allowing for even more efficient use of the organic content and carbon dioxide in the fuel gases;**
- **Other equipment (ash heat exchanger, flash furnace) will be enhanced as well, allowing for more efficient use of heat generated from the production process, producing steam and heating water.**

As a summary it can be said that more than one hundred big and small changes will be made in the Petroter II plant, all for the main goal of ensuring more efficient and environment-friendly functioning of the process. This will allow higher production volume with less raw material and thereby with less emissions. The changes will also allow for maximum use of heat energy generated in the process and for reduction of regular maintenance and standstill periods. The changes will ensure stability of the process, rendering it more effective and environment-friendly.

WASTE DEPOSITS

In the year 2007 a new semi-coke solid waste deposit was completed, conforming to all environmental requirements; the depositing technology used excludes any seeping of storm water into the body of the deposit. The leachate is collected into a separate water-tight pool and is treated in the regional waste water treatment plant if necessary. Due to special inclines, the

time of contact between storm water and the deposit surface is minimal, thus minimising the polluting of storm water. Tidying of old hazardous waste deposits will continue until summer 2013, rendering them all watertight. Tidying of the old waste deposits will minimise their environmental impact.

OIL REMOVAL UNIT

In the previous years, Viru Vesi AS completed the 1st stage of reconstructing the oil removal unit, with the cost of 1.4 million euros. The equipment is intended for treating the water of the territory to remove oil shale processing wastes. The new floatation devices allow pre-treating of the industrial waste water and ensure the required water quality on exit from the oil removal unit. In the beginning of the year 2012, the 2nd stage of reconstructing the oil removal unit was completed, with the cost of 1.1 million euros. The new unit allows better pre-treatment of industrial waste water to remove various mechanical additives. In the year 2013, atmospheric emissions from that unit will be eliminated.

BELT CONVEYOR

A significant environmental project is the 12.5 kilometre belt conveyor for oil shale, constructed by VKG Kaevandused OÜ in the years 2010–2012 to run from the Ojamaa mine to the Kohtla-Järve industrial territory. The belt conveyor helps to reduce significantly the environmental load resulting from road transport.

LIME PRODUCTION PLANT

There are plans to commission a lime production plant of VKG Energia in the year 2014, for the purpose of maximum reuse of mining scrap from the Ojamaa mine, to produce low-quality lime necessary for SO₂ capture. The plant's design takes into account all requirements of best available technology, in order to ensure minimum emissions.

ENVIRONMENT PROTECTION

STRATEGIC VISION OF REDUCING THE IMPACT OF THE INDUSTRY

The main directions of environmental activities for the years 2012–2018 include reducing atmospheric emissions. Also, heightened attention will be paid to improving the quality of storm water and waste water and to enhancing of treatment technologies. There are also issues planned to be solved regarding depositing of oil shale ash and bottom ash and regarding closing of the wet deposit.

The main environmental targets for the next 5 years are as follows:

- Reducing the sources of air pollutants and emissions of aliphatic hydrocarbons and hydrosulphide;
- More efficient and complex monitoring of the Group's air pollution and precise forecast modelling of the effect of expansion;
- Reducing the quantities and concentrations of sulphur dioxide emission, by installing two additional sulphur scrubbers;
- Closing and tidying old hazardous waste deposits, thus reducing the pollution load of soil water and ground water;
- More efficient treatment of storm water and waste water;
- More conservative resource use, by way of developing energy efficiency (with energy audit) and conserving natural resources (research of using mining water as coolant water);

- Implementing an environmental management system in VKG Energia and VKG Soojus;
- Development of the best available technology for oil shale processing, and implementing it in construction of the new Petroter II and III plants and in improvement of the existing production.

The following research is planned for the year 2013:

- Project of allowed emission quantities of the Petroter III plant and environmental impact assessment, assessing the effect of the additional pollution sources on the surrounding territory;
- Research into various technological solutions for sulphur scrubbing;
- Updating the software for ongoing monitoring of the industrial territory;
- Research into possibilities for treating storm water;
- Energy audit of the Group, to find opportunities for increasing energy efficiency;
- Research to assess the possibility and feasibility of using mining water as coolant water.
- Report of baseline conditions of the soil and the ground water in the Group's industrial territory;

- Research of environmental impact and deposit-suitability of hazardous wastes generated in the Group;
- Proving the CO₂ emission quantities generated in the Group;
- Project of allowed emission quantities of the synthetic resin unit of VKG Oil AS.

The following main environmental investments are planned for the year 2013:

- Completing the tidying works of the ash deposit and starting the construction of a new waste deposit conforming to all prescribed requirements;
- Works to ensure air-tightness of VKG Oil's gas retort stations;
- Eliminating odorous pollution sources in the production territory;
- Starting the construction works of storm water sewage system;
- Renovating the tank fleet of the oil-containing waste water pre-treatment plant;
- Starting the construction works for the sulphur scrubbing equipment of VKG Energia's Northern HPP;
- Acquiring waste gas analysers.

INDUSTRIAL WASTES

HAZARDOUS WASTES

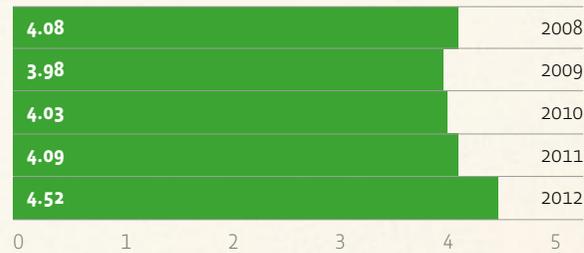
In the year 2012 the Group generated 1.71 million tonnes of hazardous wastes, which is 7.6% more than in the year 2011. The increase of hazardous wastes is caused by more oil shale ash and semi-coke being deposited in the hazardous wastes deposit, due to transitioning to oil shale from the Ojamaa mine with higher mineral content.

In addition to changes in the quality of oil shale, the higher production of waste is also caused by the increase in the use of fine oil shale in the Petroter plant. As fine oil shale has a lower content of organic matter and a higher content of mineral substances, the process results in a higher waste output compared to the Kiviter technology.

VKG Energia generated 3,147 tonnes of hazardous wastes in the year 2012 and 10 tonnes in the year 2011. The increase of hazardous wastes when compared to the year 2011 resulted from starting to use oil shale ash in addition to lime for removal of SO₂.

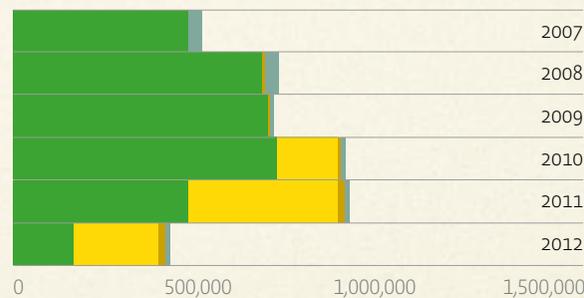
HAZARDOUS WASTES GENERATED BY THE GROUP	2009	2010	2011	2012
Hazardous wastes (mil t)	1.11	1.33	1.58	1.71
incl. oil shale pitch (t)	3,200	1,432	1,643	365
incl. oil shale ash (t)	8,100	150,000	382,637	423,777
incl. semi-coke (t)	772,600	791,000	794,975	868,885

GENERATED HAZARDOUS WASTES PER 1 TONNE OF PRODUCED SHALE OIL IN VKG OIL



The figure presents the quantities of hazardous wastes generated per 1 tonne of produced shale oil. The production volume in the year 2012 decreased by 7,791 tonnes and the quantities of generated hazardous wastes increased by 127,484 tonnes when compared to the year 2011. The increase of that ratio comes from transitioning to oil shale from the Ojamaa mine, the higher mineral content of which causes more wastes to be generated from oil shale processing.

DEPOSIT QUANTITIES OF SOLID WASTES (T)

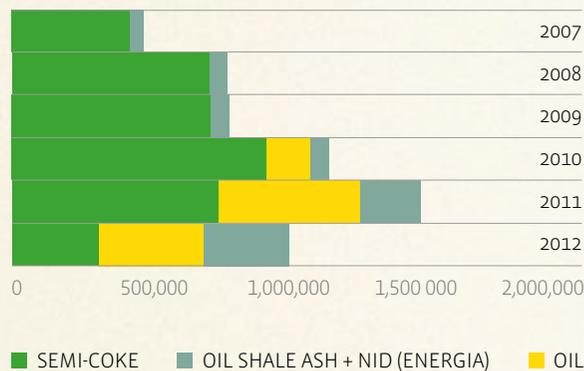


The total quantity of solid wastes deposited in the year 2012 was 423,444 tonnes, meaning a decrease by 529,932 tonnes. The decrease of deposited wastes was the result of reusing generated ash and semi-coke in closing of hazardous waste deposits.

■ SEMI-COKE (RETORTS) ■ OIL SHALE ASH (ENERGIA) ■ NID (ENERGIA) ■ OIL SHALE ASH (PETROTHER)

ENVIRONMENT PROTECTION

SOLID WASTES DEPOSITING FEES (€)



The total amount of solid wastes depositing fees for the year 2012 was ca. 1 million euros. The decrease of pollution fees from waste depositing by 35.6% when compared to the previous year is mainly due to reuse of wastes in closing of hazardous waste deposits.

NON-HAZARDOUS WASTES

In the year 2012 the Group generated a total amount of 739,653 tonnes of non-hazardous wastes, which is approximately 18 times more than a year before. The main waste types are mixed wastes from construction and demolition, common wastes, and mining scrap from oil shale mining. The increase of non-hazardous wastes is primarily caused by mining scrap generated from the Ojamaa mine and by wide-scale reconditioning works in VKG's production territory.

NON-HAZARDOUS WASTES GENERATED

	2009	2010	2011	2012
Non-hazardous wastes (t)	5,469	8,270	15,340	739,653
incl. construction and demolition wastes	62	253	662	434
incl. common wastes	204	201	219	229
incl. calcium-based reaction wastes from sulphur scrubbing	5,174	7,352	14,459	17,758
incl. mining scrap	0	0	0	714,914

REUSABLE WASTES

In the year 2012 the Group reused 2.03 million tonnes of hazardous and non-hazardous wastes, which is nearly 3 times more than a year before.

The main wastes taken into reuse were:

- phenol water used for producing phenol fractions and refined chemicals;
- semi-coke and oil shale ash used as construction material for closing the old semi-coke hills;
- mining scrap used as filler and raw material for crushed stone.

REUSE OF WASTES

	2009	2010	2011	2012
Reusable wastes (t)	336,500	386,970	698,831	2,025,319
incl. construction wastes	0	0	25,577	0
incl. phenol water	336,500	386,970	402,735	419,599
incl. semi-coke	0	0	238,695	694,211
incl. oil shale ash	0	0	0	192,135
incl. mining scrap	0	0	0	714,914

ATMOSPHERIC EMISSIONS

CO₂ EMISSIONS

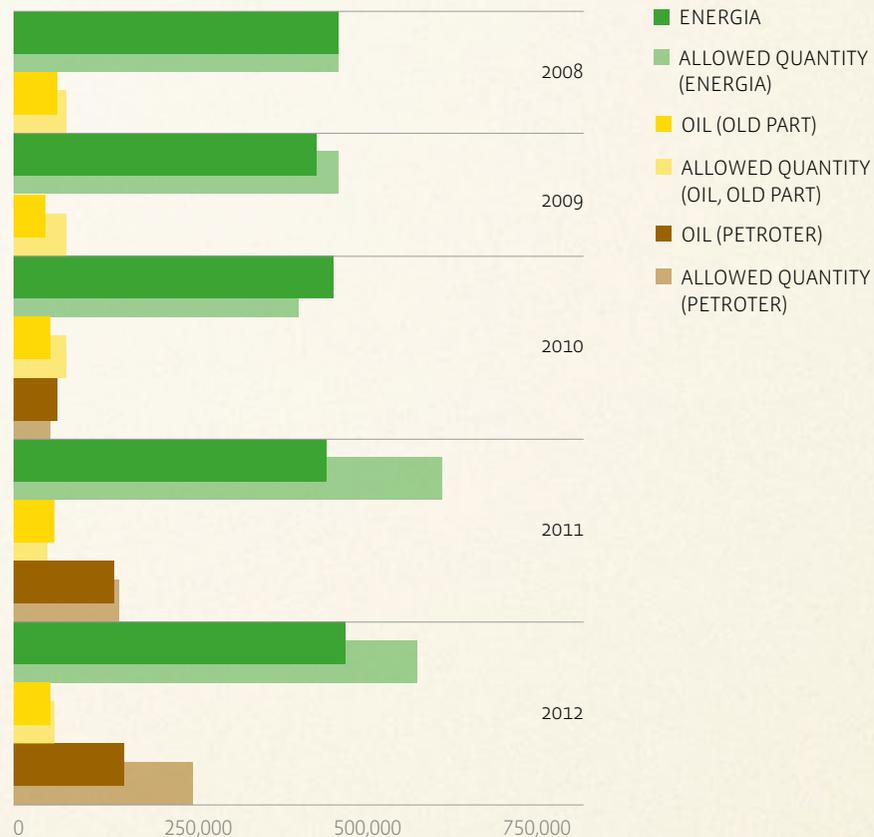
The industrial enterprises of the Group emitted a total of 685,356 tonnes of CO₂ in the year 2012, which is 41,725 tonnes more than in the year 2011. The increase of CO₂ emissions when comparing to the year 2011 results from increase of production capacity of the Petroter I plant and increase of fuel volumes combusted in VKG Energia.

Most of the carbon dioxide emissions (446,908 tonnes in the year 2011 and 472,759 tonnes in the year 2012) were generated in VKG Energia upon combusting the retort gas and semi-coke gas generated in the course of thermal processing of oil shale, and also upon combusting oil shale and filter cake.

VKG Oil emitted 196,721 tonnes of carbon dioxide in the year 2011 and 212,597 tonnes in the year 2012. The emissions resulted from combustion of waste gases (retort gas, coke gas, separator gas) and natural gas in the shale oil distillation plant, the phenol rectification plant and the electrode coke producing plant, and in the course of operation of the Petroter I plant.

There were no atmospheric emissions of carbon dioxide from other subsidiaries.

CO₂ EMISSIONS (T)



ENVIRONMENT PROTECTION

SO₂ EMISSIONS

In the year 2012 the Group emitted a total of 8,888 tonnes of sulphur dioxide, which is 766 tonnes more than in the year 2011.

The increase of sulphur dioxide emissions is due to three main circumstances:

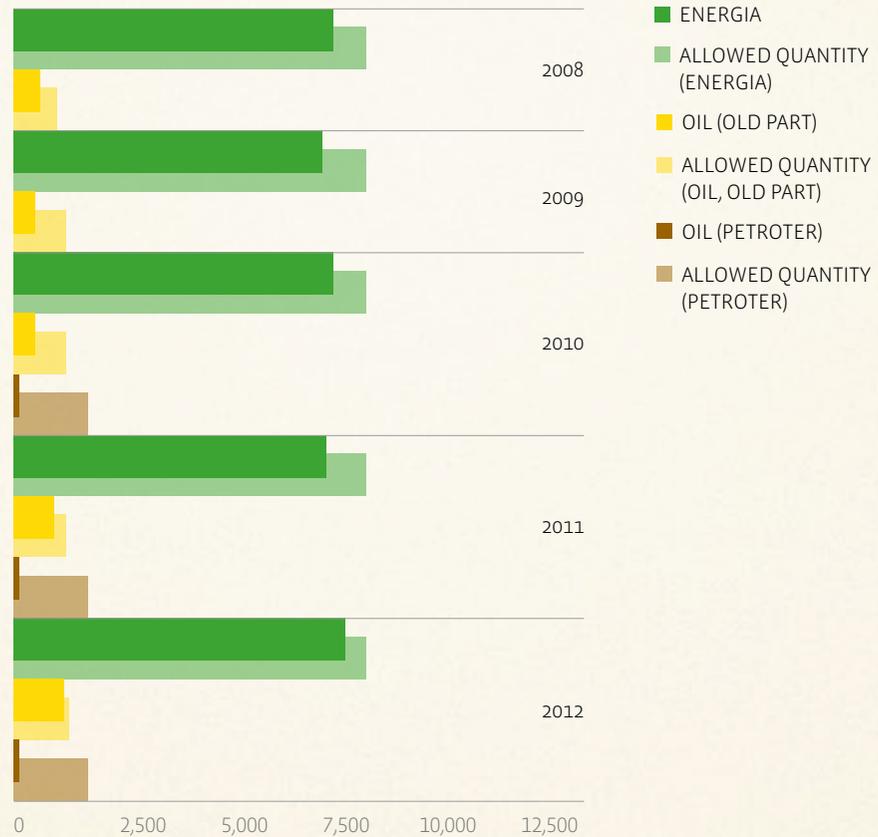
- VKG Oil reduced the combustion quantities of natural gas and increased the combustion quantities of waste gas;
- The heat demand of Northern HPP has increased, so the plant started combusting solid fuel in addition to gaseous fuel. This means an increase of fuel combustion in VKG Energia;
- In relation to the Petroter plant, the production of semi-coke gases has increased, and the latter are directed to VKG Energia for burning. The construction work of the 2nd sulphur trap commenced in 2013 in order to reduce SO₂. It is planned to put the 2nd NID into operation in 2014.

Most of the SO₂ emissions, i.e. 7,846 tonnes in the year 2012 and 7,215 tonnes in the year 2011 were emitted from VKG Energia upon combusting the retort gas and semi-coke gas generated in the course of thermal processing of oil shale, and upon combusting oil shale and filter cake.

VKG Oil emitted 1,041 tonnes of SO₂ in the year 2012 and 907 tonnes in the year 2011. The emissions resulted from combustion of waste gases (retort gas, coke gas, separator gas) in the shale oil distillation plant and the electrode coke producing plant, and in the course of operation of the new Petroter plant.

There were no atmospheric emissions of sulphur dioxide from other subsidiaries.

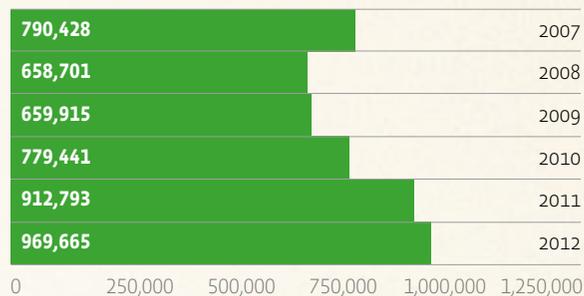
SO₂ EMISSIONS (T)



AIR POLLUTION FEES

The increase of the pollution fees by ca. 6.2% when compared to the previous year is mainly due to increase of pollution fee rates and SO₂ emissions.

AIR POLLUTION FEES IN THE GROUP (€)

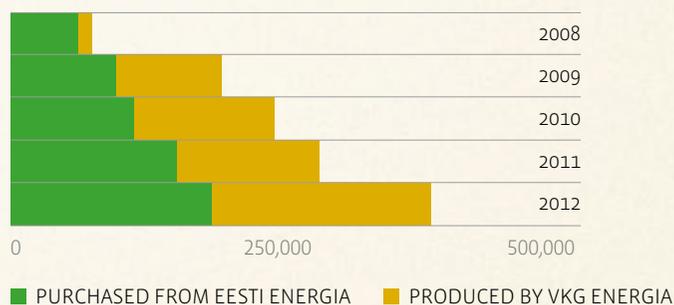


RESOURCE USE

ELECTRICITY CONSUMPTION

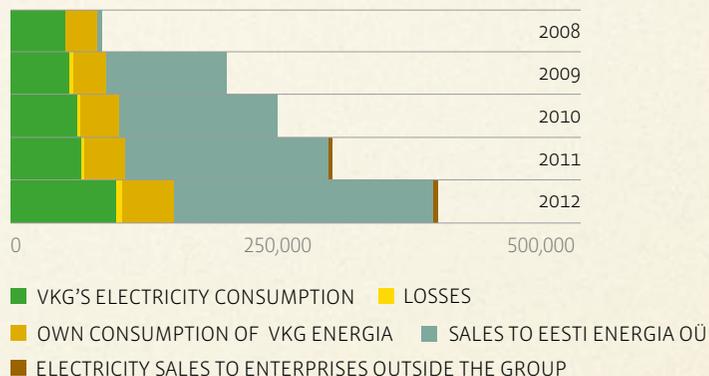
The following table shows VKG's electricity consumption and purchases in the past five years.

OVERALL ELECTRICITY BALANCE (MWh)



In the year 2012 the electricity consumption of the entire Group was 149,803 MWh, whereas the largest consumers of electricity were VKG Oil and VKG Energia. The Group consumed 28,585 MWh more electricity in the year 2012 than in the year 2011. The increase of electricity consumption in the year 2012 was caused mainly by the Ojamaa mine. Electricity consumption in the Group was as follows.

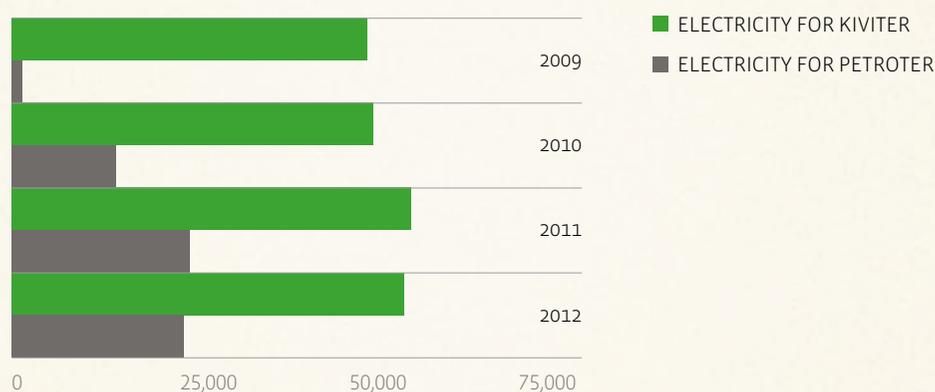
VKG'S ELECTRICITY SALES AND CONSUMPTION BALANCE (MWh)



ENVIRONMENT PROTECTION

In the year 2012, VKG Oil consumed 77,691 MWh of electricity, of which 23,881 MWh was consumed by the Petroter I oil shale processing plant. Out of the entire electricity consumption of VKG Oil, 5,251 MWh was consumed by lighting and 72,440 MWh was consumed by technological equipment (see the graph). VKG Oil consumed 2,511 MWh less electricity in the year 2012 than in the year 2011. The decrease of electricity consumption in the year 2012 is due to achieving a stable work regime of the Petroter I plant.

VKG OIL'S ELECTRICITY CONSUMPTION (MWh/a)



VKG Energia consumed 44,869 MWh of electricity in the year 2012. The enterprise also produced electricity in the amount of 209,537 MWh.

ENERGY PRODUCED BY VKG ENERZIA (MWh)



In relation with an increase of heat demand in the year 2012, VKG Energia started also to use solid fuels – filter cake and oil shale. Semi-coke gas consumption of the Petroter I plant and retort gas consumption of the plants using Kiviter technology increased significantly. Natural gas consumption decreased somewhat. 32,593 tfe of semi-coke gas, 110,236 tfe of retort gas, 414 tfe of natural gas, 10,239 tfe of 34 bar steam from the Petroter I plant, 634 tfe of oil shale and 1,143 tfe of filter cake were consumed in the year 2012.

FUEL CONSUMED BY VKG ENERZIA (TFE)



WATER CONSUMPTION AND WATER EMISSIONS

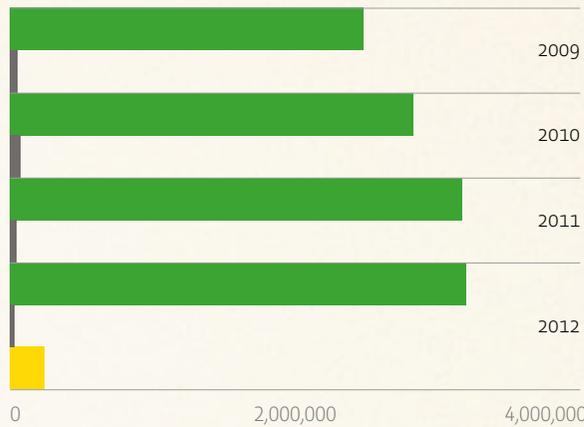
In the year 2012 a total of 3,677,000 m³ of water was consumed; of this, 41,000 m³ was ground water, 3,454,000 m³ was lake water and 182,000 m³ was water used in the refinery plant. In the year 2011 the total water consumption was 3,426,000 m³, which is 251,000 m³ less than in the year 2012. The increase of water consumption when compared to the year 2011 resulted mainly from the Ojamaa mine, where ground water is used for common needs and sediment pool water is used for the enrichment plant.

In the year 2012, the Group's total water emissions were 8.36 million m³, of this, 1.32 mln m³ was effluent from the industrial territory, ca. 0.97 mln m³ was waste water and 6.07 mln m³ was mine effluent from the sediment pool. In the year 2011 the Group's total water emissions were 6.56 mln m³, of this, 1.14 mln m³ was storm water, 0.85 mln m³ was waste water and 4.57 mln m³ was mine effluent. Water emissions increased by 1.8 mln m³, which was mainly due to increase of water pumped out of the mine.

The Ojamaa mine commenced operation in 2010 and achieved its designed capacity in 2012. The data concerning the water consumption and effluent for the previous years (2009-2010) is reflected only as regards the Group and it does not include the environmental impact arising from the oil shale delivered by Eesti Energia Kaevandused OÜ.

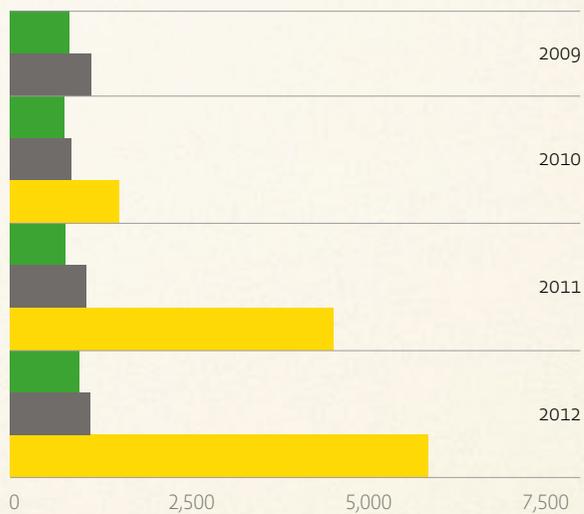
The increase of water pollution charges by 41% in the year 2012 when compared to the previous year is mainly due to increase of water emissions and special use of water from the mine and largely also due to increase of pollution charge rates.

WATER CONSUMPTION OF THE GROUP (m³)



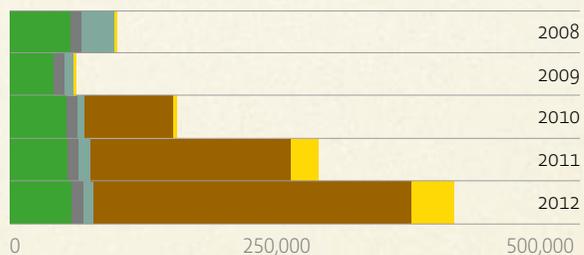
- LAKE WATER
- GROUND WATER
- MINE WATER

WATER EMISSIONS FROM THE GROUP (TH m³)



- WASTE WATER
- STORM WATER
- EFFLUENT FROM THE MINE (SEDIMENT POOL)

WATER POLLUTION CHARGES (€)



- LAKE WATER SPECIAL USE CHARGE OF VKG ENERGIA
- GROUND WATER SPECIAL USE CHARGE OF VKG ENERGIA
- STORM WATER POLLUTION CHARGE OF VKG OIL
- WATER SPECIAL USE CHARGE OF VKG KAEVANDUSED
- WATER POLLUTION CHARGE OF VKG KAEVANDUSED



Photo from VKG organised photo competition "Virumaa is wonderful!"
Author: Natalia Abel

The main indicator of the value of every enterprise and the carriers of its culture and experience are its employees.

VKG AS AN EMPLOYER

Oil shale industry is a specific industrial branch requiring high-qualified manpower with specialized professional education. VKG keeps its high-qualified personnel employed with an advantageous system of salaries, working environment and the culture of the enterprise. There is a collective labour contract made between the employer and the employees. The enterprise guarantees herewith many extra advantages to its employees, such as higher salary rates for evening and night work, additional holiday payment for service length, bonuses for jubilee birthdays, allowances for family occasions, etc.

The enterprise celebrates various events in employees' lives together with them. Once in two months VKG congratulates its employees aged 50 years and older, and also congratulates them for jubilees of service length starting from 20 years of working in VKG. Every fall the enterprise organises a party for its employees' children starting their 1st year of school and for their parents, where the children are given presents of school items and the employee gets to spend a day in a spa with his or her child.

VKG SEEKS TO SECURE EQUAL OPPORTUNITIES TO ALL ITS EMPLOYEES

During the year 2012, the Group's number of employees increased by nearly 300. as of 31.12.2012 the Group's subsidiaries were employing 1,981 people, of this 1,397 men and 584 women. VKG aims to secure gender equality of its employees, but specifics of the processing industry are to be considered as well.

167 employees of the enterprise are aged up to 25 years and 170 employees are older than 60 years (incl. 10 people aged over 70 years). The youngest employee is 19 years old and the oldest is 74 years old.

Representatives of 20 different ethnic backgrounds are being employed at the Group; the biggest ethnic staff segments are composed of Russians, Estonians, Byelorussians and Ukrainians.

Ca. 90% of VKG's employees are working in production, 15% of them being technical engineering personnel and 85% being shift workers. Only 10% of the enterprise's employees belong to its administration structure.

In the year 2012 the average gross salary in the enterprise was 1,181 euros; this exceeds the average salary level of both Ida-Viru County and Estonia as a whole.

VALUED EMPLOYER

Results of the survey "Estonia's most valued employers in 2012" conducted by CV-Online indicate that VKG has the 15th position among Estonia's most prestigious enterprises. The qualities valued so highly are sense of security provided by working in a stable organisation, good reputation of the organisation, and the employer being the leader of its field.

Read more about the survey:
www.cv.ee/blog/eesti-hinnatuimad-tooandjad-2012/

EMPLOYEES

TRAINING AND PROFESSIONAL DEVELOPMENT

VKG's employees belong for the most part to the regular labour force prepared at the time of the former Soviet republic of Estonia. Due to their ageing they start leaving the labour market. The average age of VKG's personnel is now 44.1 years and this index is not high for an industrial enterprise. At the same time the Group is constantly working to provide itself with young engineers. For that purpose, VKG helps to promote engineering education in oil shale field on both national and local levels through student grants and providing opportunities for practical training.

There are two directions of professional training VKG can propose to its employees:

- **Training and examination system within the Group, aiming first of all to meet requirements of occupational safety and to gather knowledge in the field of oil shale industry and sustain working experience;**
- **Training outside the Group, targeting professional development and education of the personnel.**

To enable a newcomer to work independently, the new employee is first assigned an instructor and has to complete a training programme (up to three months); at the end of the test period the new employee must pass an examination in

order to be allowed to work independently. Employees who wish to upgrade their qualification and get higher salary can pass a qualification examination for a higher level.

Guidance in occupational safety takes place periodically once in six months or once a year. The length of the period depends on the danger level of the working place. Occupational safety instruction includes introduction of safety devices and reminds about actions to be taken in case of emergency.

Training outside the Group is budgeted in each subsidiary for each financial year. The goal of training outside the Group is mainly professional development and education of the personnel.

The main training fields of the year 2012 were:

- **Management training (top-level managers);**
- **Conducting development interviews (related to implementing development interviews in VKG and in other enterprises of the Group);**
- **Business English;**
- **Project management for managers and specialists of various levels.**

VKG has organised a dedicated training class for professional training, providing comfortable conditions for both learners and teachers.

TRAINING EXPENDITURE OF VKG'S ENTERPRISES (TH €)	2010	2011	2012
VKG	13,2	28,9	47,1
VKG Kaevandused	0,6	0,1	5,6
VKG Oil	31,3	31,9	47,1
VKG Energia	5,5	2,9	9,5
VKG Soojus	0	7,6	6,9
Viru RMT	5,1	10,0	26,0
VKG Transport	6,6	17,1	18,9
VKG Elektrivõrgud	8,5	13,3	11,6
VKG Elektrihitus	3,7	4,3	11,4
VKG Plokk	0	0,5	3,8
TOTAL	74,5	116,5	187,8

PROMOTING SPORTS

VKG favours the sports activities of its employees, compensating their expenses for participation in sports events since the year 2012. The most popular sports are e.g. running, skiing and team ball games.

VKG's sports pride is football teams composed of the Groups' employees; these teams participate in major football games of Ida-Viru County. Trainings are also starting for VKG's volleyball team. Since the year 2013, all female employees of the Group are invited to participate in SEB Maijooks running event.

VKG has signed and will continue signing contracts with various enterprises for the purpose of establishing a network of local sports events and health promotion opportunities where the Group's employees could participate. This includes spas of Ida-Viru County.

PARTICIPATION OF EMPLOYEES IN DECISION-MAKING PROCESS

VKG has several procedures involving employees into the organisation's management process. First of all, employees have a right to express their opinion when drafting the next collective agreement.

The participation of employees in decision-making is being mediated by a trade union active in VKG. Trustees of the trade union who represent employees' interests have regular meetings with the management team members of VKG's enterprises once a month, delivering to them questions and requests of employees and discussing employee-related problems and their possible solutions. The specific members of the supervision or management team are selected for the meeting by the trade union.

The chemical workers trade union active in VKG includes the Group's subsidiaries and also other chemical industries of the city. The trade union includes the employees of VKG Oil, Viru RMT, VKG Energia, VKG Transport, VKG Soojus and also ISS Eesti, Nitrofert and Novotrade Invest. The professional association of employees of chemical enterprises has been active since the year 1948 when the first collective agreement was signed.

Directors of VKG's subsidiaries and top-level managers of the Group facilitate relations between administration and employees – the e-mail addresses and work telephones of the Management Board are open to employees, and members of the Management Board take part in corporate events and traditional meetings, being always ready to answer employees' questions and solve their problems.



Photo from VKG organised photo competition "Virumaa is wonderful!"
Author: Silver Kämärä

OCCUPATIONAL HEALTH AND SAFETY

STATISTICS OF OCCUPATIONAL ACCIDENTS

In the year 2012 a total of 16 occupational accidents took place in VKG, incl. 7 severe and 9 light accidents. There were no fatal accidents in the Group.

According to the statistics of Labour Inspectorate, a total of 3,897 occupational accidents were registered in the year 2012; this is 4% more than in the previous year.

In the year 2012, the accidents causing severe health damage took place in production: 4 accidents in VKG Kaevandused, 2 in VKG Oil and 1 in VKG Plokk. Light accidents were most numerous in Viru RMT (3), VKG Oil (2) and VKG Energia (2).

NUMBER OF OCCUPATIONAL ACCIDENTS IN THE YEAR 2012, ACROSS SUBSIDIARIES	TOTAL ACCIDENTS	SEVERE ACCIDENTS	LIGHT ACCIDENTS
VKG Kaevandused	5	4	1
VKG Oil	4	2	2
VIRU RMT	3	0	3
VKG Energia	2	0	2
VKG Plokk	1	1	0
VKG Soojus	1	0	1
VKG Transport	0	0	0
VKG Elektriehitus	0	0	0
VKG Elektrivõrgud	0	0	0
VKG Diisel	0	0	0
VKG Tsement	0	0	0
VKG	0	0	0
TOTAL	16	7	9

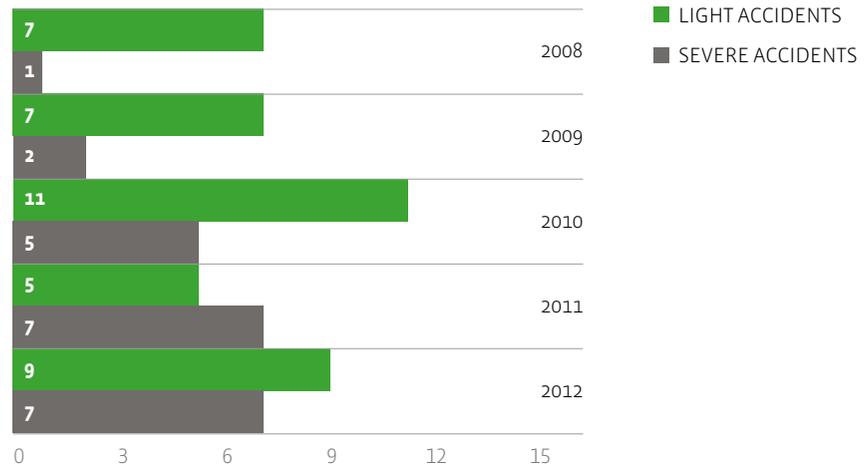
The most occupational accidents in the past five years took place in VKG Oil (18) and Viru RMT (14).

NUMBER OF OCCUPATIONAL ACCIDENTS IN THE GROUP IN THE YEARS 2008–2012	2008	2009	2010	2011	2012	TOTAL FOR 2008-2012
VKG Oil	2	3	6	3	4	18
VIRU RMT	5	3	2	1	3	14
VKG Kaevandused	0	0	1	3	5	9
VKG Energia	0	1	2	2	2	7
VKG Elektriehitus	1	2	2	1	0	6
VKG Elektrivõrgud	0	0	1	1	0	2
VKG Soojus	0	0	1	0	1	2
VKG Transport	0	0	0	1	0	1
VKG Plokk	0	0	0	0	1	1
VKG Diisel	0	0	0	0	0	0
VKG Tsement	0	0	0	0	0	0
VKG	0	0	1	0	0	1
TOTAL	8	9	16	12	16	61

OCCUPATIONAL HEALTH AND SAFETY

In the years 2008–2012 a total of 61 occupational accidents took place in the Group, incl. 22 severe and 39 light accidents.

OCCUPATIONAL ACCIDENTS IN THE GROUP IN 2008–2012, BY SEVERITY

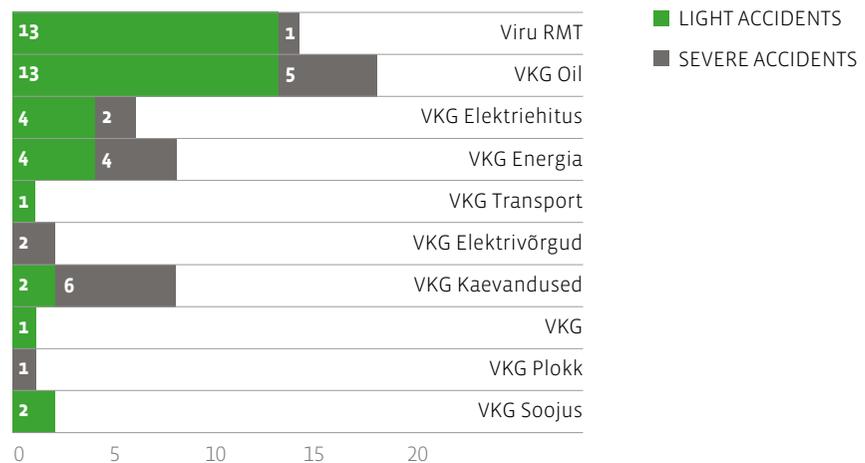


Most occupational accidents causing severe health damage took place in VKG Kaevandused – 6 accidents; 5 severe occupational accidents took place in VKG Oil and 4 in VKG Energia. Other enterprises of the Group had less or no severe occupational accidents.

The main causes of occupational accidents were:

- Employees violating occupational safety requirements;
- Lacking internal control of work environment;
- Not using personal protection equipment;
- The building, room or movement path not conforming to requirements;
- Lacking training or instructing;
- Violation of requirements when using hazardous chemicals.

SEVERITY OF OCCUPATIONAL ACCIDENTS BY ENTERPRISES IN THE PERIOD OF 2008–2012



ACCIDENT PREVENTION MEASURES

The Group's management ensures the necessary resources for better functioning of the management system. The ongoing functioning of the EVS 18001 occupational health and safety management system is based on:

- **Responsibility areas assigned for the management;**
- **Rights and obligations assigned to employees;**
- **Ongoing inspection and administration of the management system;**
- **Implementation of corrective actions.**

On the basis of management plans, the management of the Group and its subsidiaries has assigned and planned various actions and resources necessary to achieve the occupational health and safety targets set in the enterprises.

EMPLOYEES AND OCCUPATIONAL SAFETY

The enterprises of the Group have developed a system of requirements which ensures that all employees have the competence necessary for their work duties. The system involves requirements for education, skills and experience. The requirements for each job are determined by job descriptions, procedures, regulations and occupational safety manuals.

Both the employees and the owners are interested in the continuation and development of the Group's activities. Incompetent economic managing can lead a company to a cease of activities or even bankruptcy and thus to loss of jobs. Insufficient organisation of occupational health and safety measures on the other hand may lead to loss of an employee. Upon planning the activities of the Group, the Management

Board has considered the need to ensure a healthy and safe work environment and the need to establish and maintain a successful organisation of occupational health and safety.

Every subsidiary of the Group has determined a distribution of occupational health and safety duties among its employees and has established a work environment structure:

- Competent work environment specialists have been assigned to organising occupational health and safety measures in the enterprise;
- Employee representatives, i.e. work environment trustees have been elected to mediate the problems and worries of employees to the employer. A work environment trustee has the duty to ensure that the relevant occupational health and safety measures are implemented in each workplace and that the employees have proper and functioning personal protection equipment;
- Work environment councils have been established (these are cooperative bodies of the employer and the employees), where issues related to occupational health and safety in the enterprise are solved. The duty of a work environment council is to plan the measures promoting a good working environment, to ensure their implementation and functioning, and to promote cooperation between the employer and the employees in order to develop the work environment further. The work environment council is active in helping the employer to develop, monitor and improve occupational health and safety procedures. The work environment council regularly analyses the work conditions in the enterprise, registers all occurred problems, makes suggestions to the employer for solving those issues and monitors the performance of the adopted decisions.

An internal auditing system for occupational safety has been established in the Group's enterprises; this is purely internal verification system of the enterprise, intended for ensuring safety in all work activities. This internal auditing is a planned and systematic activity with the goal of ensuring the respecting of all legal acts related to occupational health and safety, thus preventing occupational accidents and occupational illnesses and protecting the employer's property.

Every subsidiary has conducted a risk analysis. This means identifying the risks factors of the work environment, measuring relevant parameters, assessing possible effects of the risk factors on the health of employees, and preparing action plans to manage the risk factors.

The Group's employees are provided with regular medical health checks. The enterprise also has an own medical office where employees can use the services of a general physician and a physiotherapist if necessary.

Very serious attention is paid to instructing and training of employees. Upon a new employee starting to work, the work environment specialist conducts an introductory instructing of that employee. Initial instructing of the employee at the workplace is conducted by the relevant person (Manager of the structural unit) assigned by the employer. Training of safe work practices takes place after the initial instructing. The training follows an approved programme. After absolving the training programme, the employee is allowed to an examination for verifying the employee's knowledge necessary for allowing him or her to work independently. Unsatisfactory level of knowledge displayed by an employee at the examination can be grounds for terminating the employment contract with that employee. Employees are also provided with in-service training and periodic instructing. Safety regulations are compulsory for all employees of the Group.

SOCIAL RESPONSIBILITY POLICY

VKG's integral policy of social responsibility and sustainable development was founded in the year 2009 and its purpose is to increase awareness of the Group's overall influence on the country's economy, social life and environment and to assess and manage this influence.



The concept of social responsibility and sustainable development is the basis of the Group's everyday activities and the framework for its decisions. VKG is following the international principles of a socially responsible enterprise in all its activities. VKG also promotes those principles on local and national level and recognises the fact that it cannot be a single actor.

VKG was among the first six enterprises in the Federation of Estonian Chemical Industries to join the chemical industry's global initiative "Responsible Care" in the year 2002. The initiative sees enterprises cooperating for continuous improvement of health, safety and environmental performance of products and technology processes.

In the year 2010 VKG joined the world's most influential social responsibility initiatives: the GRI and the United Nations Global Compact. VKG is a member of the Responsible Business Forum in Estonia. The enterprise received the title "Responsible Estonian Enterprise" in the years 2010, 2011 and 2012. Based on the Responsible Business Index of 2012, VKG was awarded a Bronze Quality Award.

Read more at www.csr.ee.

The support and sponsorship activities of VKG are clearly targeted to the Ida-Viru region and the people working and living here.

Directions of VKG's social responsibility and sustainable development policy:

- Environment protection. The environment protection policy of VKG was established in the year 2001. During the past 9 years the Group has invested more than 66 mln EUR into environment protection. VKG's environmental investments in the period of 2012–2020 will require additionally nearly 50 mln EUR;
- Social reporting i.e. full publishing of data about social, economic and environmental influence according to the Global Reporting Initiative (GRI);
- Socially responsible organisation of production in the enterprise itself (creating safe work conditions, motivating employees, additional benefits, additional pays, ongoing dialogue between the employees and the employer), and among employees (everyone accepts responsibility for everything);

- Public relations standards approved in the enterprise, prohibiting the publishing of incorrect or inaccurate data;
- Implementing social responsibility principles approved by international organisations (GRI, UN Global Compact) in the enterprise;
- Paying special attention to development of the region and to the local population (primarily via sponsorships and volunteer activities).

VKG's principles of social responsibility and sustainable development are implemented into the management process of the enterprise on the level of top management. In October 2011, the enterprise implemented the principles of responsible behaviour, and from the end of the same year the principles started to be implemented in the Group's everyday life. Introducing the principles among employees takes place via involving them into social initiatives (cooperation with the local food bank and children's institutions).

Photo from VKG organised photo competition "Virumaa is wonderful!"

Author: Irina Vasilieva

SOCIAL RESPONSIBILITY POLICY

VKG'S INFLUENCE ON REGIONAL AND NATIONAL ECONOMY

VKG acknowledges its major influence on the Estonian economy and the Ida-Viru region, and declares its willingness to accept responsibility before the public for its decisions. The study conducted within the framework of preparing VKG's first report of social responsibility and sustainable development for the years 2008–2009 indicated that VKG Group and its employees contribute ca. 4% of the budget of the City of Kohtla-Järve.

According to the study conducted by AS PricewaterhouseCoopers Advisors (PwC) in the year 2011, the total economic influence of VKG on

the Estonian economy was as high as 0.9% of the country's GDP in the year 2010. The Group's influence on the country's tax basis was on the level of 29.4 million euros, i.e. 0.6% of the total tax income of the country in the year 2010. Upon commissioning Ojamaa mine in the beginning of the year 2012, VKG provided jobs for a total of nearly 2,000 people and also creates hundreds of new jobs as a result of consumption of its products and services. Taking into account the fact that Ida-Viru County is one of the regions having the highest unemployment rate in Estonia, the jobs created by the Group are especially important for the region.

According to VKG's analyses, every mining employee creates four jobs within VKG and in turn, every employee of the Group creates four more jobs in Kohtla-Järve, Jõhvi and the surrounding municipalities.

VKG also has a marked influence on the export and foreign trade balance of the country, i.e. 0.9% and 14.6% respectively. All this shows VKG's importance for the Estonian economy.

IN THE YEAR 2012, VKG HAS PROVIDED SUPPORT AND AID TO:

ORGANISATIONS

Estonian Firefighting Sport Association
 Kohtla-Järve ice hockey club Viru Sputnik
 Maarja Päikesekodu Foundation
 Jõhvi Culture and Hobby Centre
 Kohtla-Järve Järve Upper Secondary School
 Kohtla-Järve Russian Upper Secondary School
 Ahtme Upper Secondary School
 Kohtla-Järve football club FC Lootus
 Mixed chorus of NPA Atsalama
 Mining ring of NPA Mäeinstituut
 Kohtla-Järve children's judo club Afina
 Rägavere Municipality's village association KAI

Kohtla-Järve Punamütsike kindergarten
 Kirderanniku choir
 Kiikla orphanage
 Kohtla-Järve orphanage
 Kohtla Municipality's Tuvike kindergarten
 Kohtla-Järve sports association Kalev
 Ahtme School of Arts
 Kohtla-Järve sports club NRK

EVENTS

Uljaste Triibu fishing event
 Alutaguse ski marathon
 Piret Niglas sports competition

SCO national winter games
 Sports day of Mäetaguse villages
 Mäetaguse Kalina marathon
 Lüganuse Municipality Day
 Kohtla-Nõmme health sports day
 Kiikla Village's sports day
 Maidla Municipality Days
 Colorado Oil Shale Symposium
 Oil shale conference by TUT Viru College
 Viru Marathon
 Five Schools Competition

VKG'S INITIATIVES FOR LOCAL CULTURE

VIRUMAA REGIONS FIRST PHOTO COMPETITION "VIRUMAA IS WONDERFUL!"

In the year 2012 VKG and Jõhvi Concert Hall organised the second photo competition dedicated to the Virumaa region and its people. The purpose of the initiative is to promote the beauty of Virumaa and its unique role in Estonia's life. The photos for the competition were required to be taken in the period of February 20 to November 1, 2012 in Ida-Viru or Lääne-Viru County.

The competition was founded by VKG and Jõhvi Concert Hall; later, other enterprises of the region joined the initiative. The competition is headed by Evelin Ilves and Kaupo Kikkas. More than 1,300 photos by nearly 70 authors were submitted to the competition; 31 prizes were awarded. A photo exhibition and a printed material on the subject of Virumaa region is planned, using the competition's results.

Read more about the competition at www.vkgsoojus.ee/konkurss.

KALJO KIISA GRANT FOR YOUNG FILMMAKERS

In the year 2009, VKG in cooperation with Jõhvi Concert Hall and Jõhvi Municipal Government established a grant for young filmmakers, in the memory of well-known director and actor Kaljo Kiisk (1925–2007) who was born in Ida-Viru County. The purpose of the 2,500 EUR grant is to support young filmmakers who have used Ida-Viru County in their works thus far, and to encourage young filmmakers to discover and record the variety of Ida-Viru County. The grant of 2012 was awarded to director Martti Helde and his creative team for the films "Risttuules" ("Cross-wind", Allfilm) and "Külm on" ("It's cold"). The grant of 2013 was awarded to director Anna Hints for the film "Vaba maa" ("Free country").

Read more about the competition at www.vkg.ee/kaljokiisk.

CHILDREN'S ELECTRICAL SAFETY CAMPAIGN

In the beginning of the year 2012, VKG Elektrivõrgud OÜ initiated an electrical safety campaign intended primarily for children in pre-school and basic school age. The purpose of the campaign is to inform children at an early age about the dangers of electricity and to increase their awareness. In the course of the campaign, an electrical safety poster and a relevant online game were developed; the online game is playable in Estonian and Russian languages at VKG's website. The posters were distributed to all local schools and kindergartens. In time the enterprise plans to supplement the children's part of its website with useful information and to add more general information about electrical safety. A safety-related theatrical play popular among children is performed in kindergartens and schools.

Read more about the campaign at www.vkgev.ee/lastele.

PROMOTING CHARITY AMONG EMPLOYEES

December 2012 rounded up a charity year in VKG's collective; the campaign was titled "It's easy to be a good person" ("Lihtne on olla hea inimene"). The enterprise created opportunities for its employees to participate in charity, e.g. donating foodstuffs to the Food Bank and children's toys and clothes to local orphanages and kindergartens. Cooperation continued between VKG and the local blood bank; the blood bank's medics visited VKG and its subsidiaries several times during the year. Forest-planting and cleaning-up events took place as well.

Read more about VKG's social initiatives in Facebook and on the Group's websites:

→ www.vkg.ee

→ www.vkgsoojus.ee

→ www.vkgev.ee



VKG Miners' Day 2012

RESPONSIBILITY SOCIAL POLICY

KEEPING TRADITIONS OF THE INDUSTRIAL REGION

CHEMISTS' DAY

A community celebration organised at the initiative of VKG and in cooperation with the region's largest chemical industry enterprises Nitrofert, Eastman, Remeks Centre and Novotrade Invest, taking place on the last Saturday of every May. The tradition of Chemists' Day was restored in the year 2000. More than 8,000 people participated in the event in 2012.

MINERS' DAY

In the year 2011, VKG restored the tradition of celebrating Miners' Day. The annual grand community celebration takes place on the last Sunday of every August. Organising the celebration is the enterprise's gesture of recognition and deep respect towards all miners and also their families. The event of the year 2012 saw the participation of more than 25,000 people and the community celebration's budget was in excess of 60,000 euros.

ELDERLY PEOPLE'S DAY

VKG organises the annual Elderly People's Day in cooperation with the City Government of Kohtla-Järve. The celebration takes place on October 1 of every year and involves retired people with long work experience in the oil shale industry and also all other elderly people whose work has made a contribution to the city's development.

VKG' PRINCIPLES OF SOCIALLY RESPONSIBLE BEHAVIOUR

- VKG identifies and studies the industry's effect on the environment and if possible then eliminates or minimises it. VKG conducts ongoing environmental monitoring;
- VKG develops resource-conservative and environment-friendly fields of technology and implements those into its production processes;
- VKG provides the public with regular reports about its activities;
- VKG communicates proactively with the media and the public, doesn't hide information and provides only accurate and truthful data about itself;
- VKG ensures safe and comfortable work environment for its employees;
- VKG has initiated motivational and developmental systems for its employees;
- VKG supports the trade union in its activities, offers additional benefits for its employees and supports ongoing dialogue between the management team and the employees;
- VKG promotes the idea of everyone accepting responsibility for their work: everything depends on everyone;
- VKG employs internationally recognised principles of social responsibility;
- VKG pays special attention to regional development, keeping active contact with the local authorities and residents;
- VKG supports important regional projects, especially cultural and sports events;
- VKG is a trustworthy partner for the state, for local authorities and for its business partners;
- VKG promotes the principles of social responsibility and recognises the fact that it cannot be a single actor.



Photo from VKG organised photo competition "Virumaa is wonderful!"
Author: Jevgenia Kravtšenko

This chapter presents VKG's consolidated economic results for the year 2012, compared with results of previous years.

Economic indicators for the year 2011 are based on the audited annual report of 2011; the data for the year 2012 are initial and not yet audited by the time of preparing this SDR, thus the data presented in this report may differ from the data presented in the annual report of 2012.

PROFIT

VKGs' consolidated net profit of the year 2012 was **35 MILLION EUROS**

The net profit of 2011 was **29 MILLION EUROS**

The total retained profit as of December 31, 2012 is **206 MILLION EUROS**

SALES REVENUE AND ITS DISTRIBUTION

VKG's sales revenue of the year 2011 was **183.5 MILLION EUROS**
 VKG's sales revenue for 2012 was **214.8 MILLION EUROS**

VKG exports 70% of its production. In addition to Estonia, VKG sells its products and services in Latvia, Lithuania, Sweden, Finland, Norway, Denmark, Poland, Belarus, Ukraine, Romania, United Kingdom, the Netherlands, Switzerland, Germany, Malta, Austria, France, Spain, Italy, China, India, New Zealand, Russia, United Arab Emirates, Japan and Iran.

CONSOLIDATED INCOME STATEMENT (TH €)	2008	2009	2010	2011	2012
Sales revenue	131,516	107,480	125,496	183,567	215,754
Targeted financing	92	139	188		
Revenue from sales of products	100,160	95,383	102,777	129,231	164,599
GROSS PROFIT	31,448	12,236	22,908	54,336	51,155
Marketing expenditure	2,957	3,261	3,514	3,563	4,923
General administrative expenditure	8,881	7,326	7,167	8,974	16,137
Other business revenue	1,546	9,481	9,990	6,054	15,611
Other business expenditure	2,249	583	645	12,262	7,171
BUSINESS PROFIT	18,907	10,547	21,574	35,591	38,533
Financial revenue and expenditure	-4,033	-1,348	-2,260	-5,980	-3,230
PROFIT BEFORE INCOME TAX	14,874	9,198	19,311	29,610	35,304
Unplanned expenditure					
Income tax	134		85	170	436
NET PROFIT OF FINANCIAL YEAR	14,740	9,198	19,227	29,440	34,867

ECONOMIC INDICATORS

BALANCE SHEET

VKG's balance sheet volume increased by 82 million euros during the year 2012, and was **476 MILLION EUROS** as of 31.12.2012.

Equity capital's share in the balance sheet volume was **63%**.

CONSOLIDATED BALANCE SHEET OF VIRU KEEMIA GRUPP AS (TH €)	2011	2012
Assets		
Current assets	53,385	75,949
Fixed assets	339,828	400,109
TOTAL ASSETS	393,212	476,058
LIABILITIES AND EQUITY CAPITAL		
Short-term liabilities	65,694	88,692
Long-term liabilities	106,214	88,480
Total liabilities	171,908	177,172
Equity capital	221,305	298,886
TOTAL LIABILITIES AND EQUITY CAPITAL	393,212	476,058

LOAN BURDEN

The existing loan burden of the Group is indicated in the following table, presenting the balance of all loans and financial lease agreements of subsidiaries which are signed with parties outside the Group, and also their payments for the year 2013.

In the year 2012 a loan agreement was signed for the purpose of financing the construction of the Petroter II plant and the accompanying investments. At the same time, loan burden as a whole decreased during the year. Earlier loans were repaid; the loans of VKG Kaevandused and the Petroter II plant were used in lower extent. Loan burden is expected to increase in the year 2013.

LOAN BURDEN (TH €)	LOAN BURDEN IN THE BEGINNING OF 2013	PAYMENTS IN 2013
VKG AS	106,660	29,605
VKG Transport	2,496	1,137
VKG Energia	43	6
Viru RMT	53	13
VKG Kaevandused	962	385
VKG Elektrivõrgud	5	4
VKG Elektrehitus	108	37
TOTAL	110,327	31,187

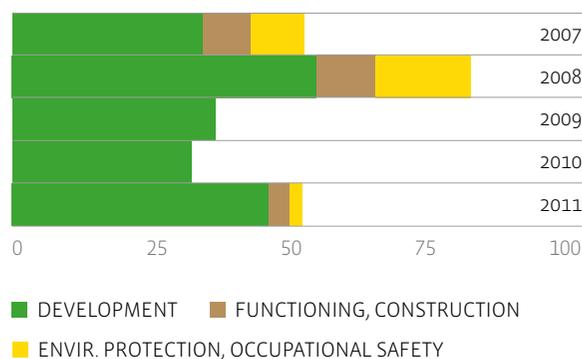
INVESTMENTS

The largest investment objects of the year 2012 were:

- **THE OJAMAA MINE** – 27 MILLION EUROS
- **THE KOHTLA-JÄRVE – AHTME HEAT PIPELINE** – 17.1 MILLION EUROS;
- **CONSTRUCTING THE B-30 RESIN PLANT** – 2 MILLION EUROS
- **VEHICLES AND SPECIALISED MACHINES** – 1.7 MILLION EUROS;
- **CLOSING THE AHTME ASH FIELD** – 1.6 MILLION EUROS.

INVESTMENTS OF VKG'S ENTERPRISES (TH €)	2011	2012
VKG AS	967	8,334
VKG Oil	2,379	11,468
VKG Transport	1,128	1,809
VKG Soojus	2,165	19,844
VKG Energia	4,276	4,905
Viru RMT	259	39
VKG Elektrivõrgud	1,286	1,709
VKG Elektrihitus	15	107
VKG Plokk	15	355
VKG Kaevandused	36,246	27,087

VKG'S INVESTMENTS (MLN €)



GRI CONTENT INDEX

Address of the board	13
Main products and services	15
Description of organizational structure	15-16
States where the organization operates	59
Shareholding structure	21
Reporting level	9
Key events of the reporting period	18-19
Certification within the reporting period	17
Reporting period, reporting cycle	9
Contact person for asking questions	9
Process to define report`s content	9, 52, 53
Restrictions related to the report	9
Index of GRI content	62
Management structure of the organization	20-26
Description of top governing body	21
Involving mechanism for employees and target groups	47, 52-57
List of target groups	9
Description (goals) of definition of target groups	9

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