



Contents

Highlights and development areas in 2017	3
CEO's statement	4
Organisation	5
Megatrends	8
CORPORATE RESPONSIBILITY AT VAPO	10
Responsibility programme	11
The importance of stakeholder cooperation	14
Values and Code of Conduct	18
Objectives for 2018–2021	19
WE TAKE CARE OF NATURE	20
Management and organisation of environmental issues	21
Life cycle impact of products and solutions	23
Emissions into waterways from peat production	25 27
Energy efficiency Airborne emissions	27 27
	27 29
Biodiversity	29 30
Objectives for 2018–2021	30
WE DEVELOP CONTINUOUSLY	31
Delivery reliability and the security of supply by making use of digitality	32

Customer satisfaction	33
Innovations for sustainable development	34
Development of competence	35
Objectives for 2018–2021	36

WE GUARANTEE QUALITY AND SAFETY	37
Quality and cost-efficiency of products and services	38
Health and safety of personnel	39
Health and safety of contractors	40
Assessment of suppliers according to relevant criteria concerning environmental and social aspects	41
Objectives for 2018–2021	42

WE CREATE WELL-BEING	43
Job satisfaction and well-being of personnel	44
Equality and diversity	46
Local employment effects	47
Economic impact	48
Objectives for 2018–2021	49
DATA	50

60

REPORTING PRINCIPLES AND GRI INDEX

Editor in Chief Ahti Martikainen *ahti.martikainen@vapo.fi* Subeditor Raija Rinttilä, Economic responsibility Antti Koivula, Environmental responsibility Teija Hartikka ja Katja Oksala, Social responsibility Jaana Helanen Team: Katja Anttonen, Nina Kinnunen, Teijo Liimatainen, Esa Marttila, Jani Mökkönen, Jari Mörö, Marko Pätsi, Pirkko Seitsalo, Mia Suominen and Eija Tiura Layout Miltton Oy

GRI – Global Reporting Initiative

Vapo Group's corporate responsibility reporting is based on the Global Reporting Initiative (GRI), which is the world's most widely used responsibility reporting framework. Vapo reports on the economic, environmental and social impacts of its operations in accordance with the GRI Standards core scope and the Electric Utilities Sector Supplement.

This is the first corporate responsibility report that covers Vapo Group in its entirety. The scope of the previous reports was limited to Vapo Oy's operations in Finland. Reporting is based on a materiality analysis that was used to determine the views of Vapo's stakeholders and the company itself regarding the most material corporate responsibility topics related to the company's operations.

GRI is the most widely used international corporate responsibility reporting framework. GRI reporting helps companies measure and understand their corporate responsibility impacts, communicate them as well as set targets and develop operations further. Reporting in accordance with the GRI framework also makes it possible to compare information between different companies.

55 The world is changin

The world is changing and we must change with it. Operating responsibly is a key aspect of Vapo's strategy both now and in the future.

Vesa Tempakka Chief Executive Officer

HIGHLIGHTS IN 2017

The measures we are taking now will have an impact far into the future. Our investments in young people, energy efficiency and environmentally sustainable operations will define our future.

A record number of seasonal workers in summer 2017

Vapo Oy had some 390 permanent employees in Finland and as many as 100 young seasonal workers.

Ranked 68th in the Universum Most Attractive Employer survey

In 2016, Vapo's first year of participation in the survey, the company ranked 85th. The goal is to achieve a top 50 ranking.

A new boiler plant fuelled by bioenergy was commissioned at Valio's Jyväskylä dairy on 1 September 2017.

Vapo's steam boiler plant made it possible for Valio to discontinue the use of oil almost entirely in heating production at the Jyväskylä dairy and reduced CO2 emissions by nearly a third.

Kekkilä developed a growing media product that is fully biodegradable, including the packaging it comes in.

Natural Control, a growing media for growing cucumbers, tomatoes and strawberries in greenhouses, combines the best attributes of moss and peat.

Approximately 1,200 hectares in mires with significant nature value

were brought under hourly monitoring

in summer 2017, enabling optimal and

fuel-efficient production control.

All of Vapo Oy's

networks

17 district heating

were sold to the state of Finland for conservation purposes in Northern Ostrobothnia and Southern Finland. Since 2012, Vapo has sold more than 3,700 hectares of land for conservation purposes in various regions of Finland.

The areas in which our performance fell short of our plans in 2017

1. We did not reach our peat production target

Due to the unfavourable weather conditions of summer 2017, our peat production volume was only slightly over 60 per cent of the target. This had a negative effect of approximately EUR 9 million on our result.

2. Cooperation between organisations

According to our personnel survey, the most significant challenges are related to cooperation between organisations. The themes with the lowest scores in the survey included the achievement of common goals (7.38), a culture of working together (7.66) and employees feeling that they are perceived as an important resource for the company (7.71).

3. The number of workplace accidents

The Group's target was to have no workplace accidents leading to absence from work. A total of 19 workplace accidents were reported in 2017, with three of them resulting in sickness-related absence.

The frequency of accidents leading to absence from work declined: $8 \Rightarrow 2.3$

The target of zero accidents leading to absence from work was achieved by Kekkilä Group and AS Tootsi Turvas.

The landfill disposal of ash

from Vapo's heat and power plants was reduced in Finland: $26\% \Rightarrow 14\%$ % and the reutilisation rate of ash increased: $27\% \Rightarrow 46\%$

Kekkilä Group began cooperating with Natural Step

on issues such as assessing the life cycle impacts of peat.

CEO'S STATEMENT

The world is changing and we must change with it. The past year has been marked by a renewal of our strategy and structure. However, one thing has not changed — and will not change. Operating responsibly is a key aspect of Vapo's strategy both now and in the future.

Vapo Group operates in three countries: Finland, Sweden and Estonia. In all three countries, we engage in the energy business as well as industrial activities related to various gardening products for professional and home gardeners. As our products and services play a role in the daily lives of millions of people, responsibility is the foundation of our strategy. We produce local fuels - namely peat, energy chips and pellets - for our customers and the customers of our customers as well as heat, electricity and steam produced from these fuels. In the cultivation-related business, product safety is an absolute requirement - especially in food production. The responsibility requirements are high in both home gardening and professional growing. Consumers only want to buy responsibly produced and clean food products.

The megatrends of urbanisation, population growth and shortages of clean fresh water support our operations as a producer of growing media, among other things. Horticultural peat makes plants thrive, enabling the production of clean food with minimal irrigation and without the use of pesticides. After their use in cultivation, growing media produced from natural materials can be used for soil conditioning instead of becoming problem waste.

Vapo's business strategy is built on local raw materials and their responsible processing. In peat production, legal compliance is the absolute minimum requirement in all of our operations. We have also made several voluntary environmental commitments and we exceed the legal requirements concerning the frequency and quality of environmental monitoring. Furthermore, we aim to quickly move cutaway peatlands on to subsequent land uses after production has ceased.

In the energy business, our focus in recent years has been on leveraging the digital transformation to increase the degree of automation in our production plants. Through smarter production plants, we have been able to significantly increase the energy efficiency of our plants, which reduces fuel consumption and lowers carbon dioxide emissions. The remote operations centre for boiler plants, built in Vantaa's Tikkurila district, and the fully automated large district heating batteries that automatically optimise district heating production are good examples of how the digital transformation is changing the energy sector.

New innovations to the rescue

Unfortunately, the Earth is becoming polluted at an increasing rate. Over the recent years, we have worked in our laboratory to develop peat-based products that could help solve this growing problem. The project that is currently the most advanced involves a new method for producing activated carbon from peat for purposes such as water and air purification. We have already produced high-quality activated carbon under laboratory conditions and are now seriously considering the start of industrial production.

During the past few years, we have invested tens of millions of euros in minimising



the environmental impacts of peat production as well as employee health care, training and occupational safety. The materiality analysis we conducted among our stakeholders showed that the measures we have taken have not gone unnoticed. Based on the analysis, environmental issues are currently not perceived as being acute problems to the extent they were in the early 2010s. Stakeholders are now increasingly interested in information related to social and economic responsibility. One area that was highlighted is the need to assess the life cycle impacts of products.

Responsibility programme based on a materiality analysis

Based on our materiality analysis, we have drafted a responsibility programme for Vapo Group for the next four-year period. The areas highlighted for special monitoring and development in the programme include the calculation of product life cycle impacts, the occupational safety and health of subcontractors, the thorough auditing of subcontractors and suppliers with respect to environmental impacts and social responsibility criteria as well as emphasising business ethics and anti-corruption in all areas.

This is the first time we are publishing our corporate responsibility report for Vapo Group as a whole. The scope of our previous reports was limited to the Group's operations in Finland. The world is changing and we want to change with it in order to respond to our customers' needs in all of our markets.

The shift from a structure built around country-specific companies to an international operating model requires changes in many areas, including the collection of data.

In our reporting, the organisational restructuring means that this is something of a "Year 0" and we do not yet have data on all of our reporting themes that has been collected in a consistent manner. Our goal is that, by the next report, we will be able to offer substantially more comprehensive Group-level reporting to our customers and stakeholders. **Vesa Tempakka** *CEO*

ORGANISATION

Vapo Group reorganised its operations effective from 1 May 2018. As before, the Group's parent company is Vapo Oy, but the Group's operations are now managed under a divisional structure instead of country-specific companies. The structural reforms did not affect the company's legal structure.



Energy

The Energy division is responsible for the sale of fuels, i.e. energy peat, wood chips and pellets. It is also responsible for fuel wood purchasing as well as the purchasing raw material for pellets and producing pellets in Finland. The division also handles the Group's heating, electricity and steam production and their sale to businesses, communities and consumers as well as the production of various digital energy services for the Group's own facilities and external customers. The Energy division consists of the Finnish energy businesses that were previously under Vapo Oy as well as Neova AB's Swedish energy businesses and AS Tootsi Turvas' energy businesses in Estonia.

Their combined turnover is approximately EUR 280 million. Rather than pursuing significant growth in turnover, the aim is to increase the share of long-term customer relationships and tailored energy solutions and services in the portfolio. These measures are also aimed at higher profitability.

Advanced energy solutions and renewable biofuels currently account for approximately 50 per cent of the division's operating result. Over the next few years, the goal is to achieve significant growth in business based on industrial and community energy solutions and the supply of renewable biofuels. We will also continue offering and developing services to meet the needs of our customers. Examples of typical services are remote operation services offered to all energy producers, which are based on the most advanced operations centre in the sector. We will improve our profitability and, above all, increase our shareholder value.

The Energy division is responsible for operating seven power plants and about five other boiler plants in the Group's countries of operation. It also operates some 36 district heating networks in various countries. The division has approximately 200 employees.

Grow&Care

The Grow&Care division consists of the entity previously known as Kekkilä Group as well as the Group's businesses focused on the sale of bedding peat and raw materials. Kekkilä Group comprised Kekkilä Garden, Hasselfors Garden and Kekkilä Professional. These strong brands will continue to operate under the new Grow&-Care division. Kekkilä Group's business was — and still is — divided into three main customer segments: consumers, landscaping customers and professional growers.

Kekkilä Garden is a well-known consumer and landscaping brand in Finland and the Baltic countries. Hasselfors Garden operates in the same markets in Sweden. The Hasselfors Garden brand also has a presence in the Norwegian market, represented by Nordic Garden. Kekkilä Professional is focused on the global professional grower market and its products are exported to more than 70 countries through distributors.

The Grow&Care division also includes the use and processing of peat raw material for purposes other than energy, namely horticultural peat and bedding peat. Grow&Care is responsible for the Group's bedding peat marketing as well as the sale of peat for use as raw material by refiner customers in the home markets and the global export markets. Grow&Care is also responsible for the continued development and commercialisation of the fibre business originally developed by the Group's product development unit.

Grow&Care is a leading European producer of peat as a raw material in the growing media business and it aims to become the strongest operator in its field in Europe. It is already the market leader in Finland and Sweden. The division's strategic goal is to increase its share of the European garden growing media market and improve the refining rate of its products. Growth is particularly sought from the professional growing business.

Our target for Grow&Care is to achieve significant growth in turnover during the next five-year period. Investing in our brands, sustainability, personnel, product development and the Group's internal cooperation will give us an excellent opportunity to achieve our goals.

The division's annual turnover is around EUR 130 million and it employs approximately 240 people. The Group's six growing media production facilities process about a million cubic metres of horticultural peat annually. A similar amount of peat is supplied for use as bedding peat and nearly two million cubic metres is sold to other producers of growing media products as raw material.

New Businesses

The New Businesses division uses our inhouse product development activities to create new innovations based on refining peat and other natural materials into entirely new products. The Ventures unit is responsible for the development and refining of new innovations in the New Businesses division. When a business initiative is ready for commercialisation, it will be separated into a business of its own or transferred to one of the existing divisions.

The fibre business is currently the furthest along on this path, and we have moved it under the Grow&Care division because the first products are mainly related to growing. Another promising initiative is producing active carbons from peat. The Carbons business has reached the stage where our aim is to make the decision on the construction of the first production plant within the next few months.

Product development requires money, resources and time, but the most valuable resource in this area, as in any area, is highly competent people.

Supply Chain Management

Our structure was previously built around having independent companies in our different countries of operation. The new operating model involves more cooperation and consolidation of our resources in procurement and logistics. It also improves our ability to share best practices between business functions and countries in areas such as peat production and its planning as well as the development of environmental and quality-related matters.

These are the main reasons behind our decision to establish a shared Supply Chain Management function for the Group. The SCM function is genuinely international and operates as a single organisation across all of the Group's countries of operation. The SCM function employs some 200 people in total.

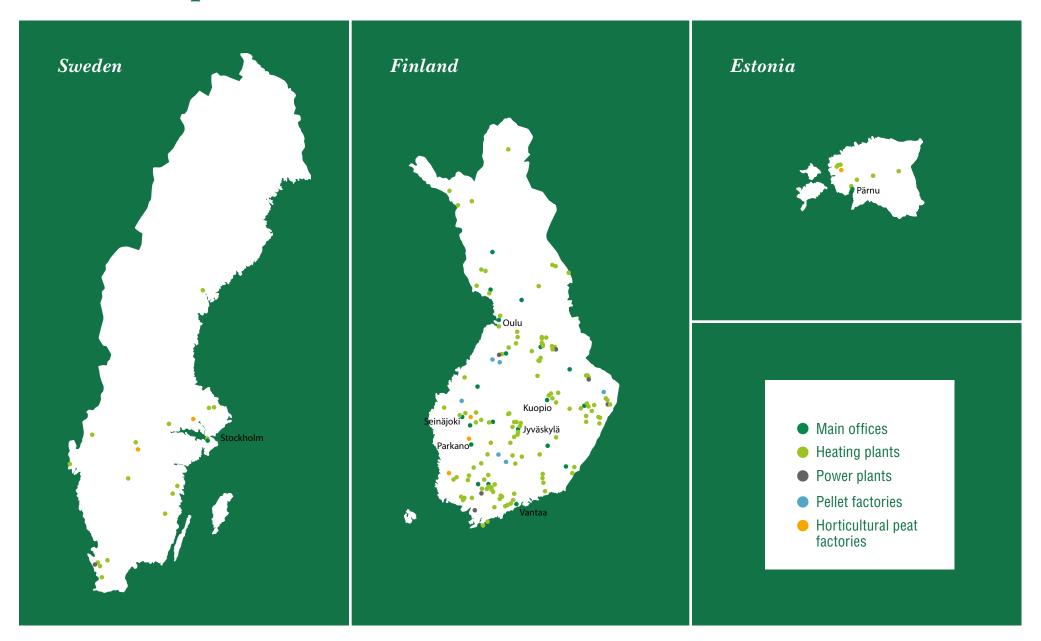
The new organisation's goals are ambitious: developing a supply chain that is among the best in the industry. We seek to engage in comprehensive management and development of the supply chain, from raw material sources to customers, which we hope will create significant synergies and, above all, greater added value.

Group Services

Group Services are the Group's shared support functions. As the name implies, Group Services are responsible for serving the business functions and other organisations in the best possible manner. Engaging in closer cooperation in these areas will allow us to eliminate overlapping functions and unnecessary investments that can be avoided by cooperation.

In areas such as software, online shops and invoicing, just to name a few, better collaboration will lead to cost savings, higher quality and more effective cooperation across national and divisional boundaries.

Where we operate



MEGATRENDS SHAPE OUR OPERATIONS

Urbanisation, the growing demand for clean local food and the digital transformation provide us with opportunities for sustainable growth. The lack of fresh water and growing pollution problems are among the challenges we want to develop new solutions for.

Vapo and its Group companies in Finland, Sweden and Estonia produce products and services in two main areas: the energy business and the Grow&Care business. The Grow&Care business comprises professional growing in greenrooms and tunnels, home gardening and the creation of pleasant living environments through landscaping. Vapo's professional growing products are developed under the Kekkilä Professional brand, which is widely known in the global market. Vapo also owns the Kekkilä Garden brand, which has a strong tradition and a market-leading position in the gardening industry in Finland. In Sweden, the gardening and landscaping business is conducted under the Hasselfors Garden brand, which was established in the 17th century.

The company's operating environment is currently in a strong state of flux. Climate change and the restrictions it brings for non-renewable fuels, urbanisation and the growing demand for local food together with living environments becoming polluted and droughts pestering many countries present us with threats and opportunities at the same time. Simultaneously, the digital transformation provides completely new opportunities for making operations more efficient.

Vapo has renewed its strategy and structure, and is now ready for change. Our goal is to decrease our dependency on energy peat in a controlled manner and, in its place, increase the share of peat-based garden growing media and bedding peat in our business. In addition, we will offer an increasingly diverse response to urban consumers' need to make their surroundings greener.

In the energy business, we will move further along in the value chain, which will see the relative share of peat, pellets and wood chips sold as fuels decrease in favour of tailored energy solutions and digital services based on our expertise. Under the new operating model, we will produce some of the services alone, but increasingly, we will produce them together with our customers and partners. Renewable fuels are already a significant part of our fuel selection, and their share will only increase.

We also have to reinvent peat, or develop completely new, refined products out of peat

and other natural materials that will bring new turnover for us and added value for our customers.

The most significant megatrends that drive the renewal of our strategy and operations are climate change, urbanisation, the digital transformation and the well-being of people and the environment. Identifying the trends that affect our operations allows us to better anticipate and respond to future challenges and opportunities.

1. URBANISATION

Forecasts suggest that, in 2030, more than 70 per cent of the global population will live in cities. Urbanisation means minimising the need to transport people and goods, which corresponds to minimising logistics expenses. Urbanisation will increase the importance of energy-efficient construction as well as energy production based on local renewable fuels. District heating is an environmentally sound and energy-efficient solution for producing heating for large communities.

Urbanisation and population growth go hand in hand. The demand for clean and locally produced food will increase. At the same time, it is increasingly important to ensure that the materials used in food production and cultivation in general are natural, efficient in terms of water consumption and recyclable to the greatest possible extent.

Urbanisation also means growing demand for products used for air, water and soil purification.

Our response:

- Growing media for global plant-based food production.
- Products that promote urban farming in Finland, Sweden and Estonia.

- We engage consumers in product development.
- We promote sustainable environmental construction.
- We increase the energy efficiency of heat and power plants by optimising combustion processes, fuel use and production.
- We develop and deliver solutions that help our energy customers enhance their operations. In the face of increasing traffic congestion in growing cities, the efficient planning of logistics and managing the interim storage of fuels on the customers' behalf will help us ensure the delivery reliability of our customers' district heating

under all circumstances.

- Energy efficiency and fuel optimisation will allow us to ensure the competitive pricing of district heating, even in small population centres.
- Natural animal litter that can be used for soil improvement after use.

2. THE DIGITAL TRANSFORMATION

Leveraging the digital transformation is vital in the consumer business and, in operations

at the industrial scale, it represents a tremendous opportunity. Developments such as online commerce and the Internet of Things will enable great leaps in profitability. The operations of businesses and their employees will become more efficient and work, expertise and service provision will no longer be dependent on location.

The digital transformation makes it possible to optimise the processes of heat and power plants, which improves fuel efficiency. The optimisation of logistics, in turn, means lower transport costs and lower emissions per transported tonne.

Our response:

- Better service online. We will increasingly serve our consumer and SME customers online in addition to the traditional channels. Our recently redesigned online store is among the most advanced in its market. In 2017, Kekkilä Garden launched an online store that sells products to consumers interested in plantscaping and gardening.
- Leveraging data. We have produced a data-based service portal for our district heating customers to provide them with a clear overview of their heating consumption and needs.
- Services that are not tied to a specific place. By using our operating service, our energy customers can have our highly educated specialist operators control and optimise their power plants remotely from our operations centre in Vantaa, eliminating the need for local staff at the plant. This also allows us to optimise individual power plants based on the data we have collected from 10 other plants.

3. CLIMATE CHANGE

Climate change affects the way we, our customers and their customers operate.

Mitigating climate change calls for increasing energy efficiency, adopting best practices and purposefully moving towards sustainable energy solutions.

Climate change also means droughts and fresh water shortages. Using solutions such as peat-based growing media makes it possible to grow many times more food or plants using the same amount of water than on open land or in growing media with weaker water retention attributes.

Our response:

- We will develop new solutions to promote our climate-related and environmental activities. These solutions will also open up future business opportunities in areas such as the circular economy, water treatment and the digital transformation.
- Energy efficiency investments, plant optimisation and the use of renewable energy to mitigate climate change play a key role on this front.
- We will ensure that decommissioned production areas are quickly shifted to subsequent land uses to enable them to serve as carbon sinks; for example, as growing forests.
- We develop and produce innovative products for gardening.
- We compost and create new growing media using solutions that conserve nature.

4. THE INCREASING SIGNIFICANCE OF THE WELL-BEING OF THE ENVIRONMENT AND PEOPLE

Being ecological is not a corporate value. It is a requirement in all of our businesses. It can also be referred to as responsibility. Responsibility also means focusing on innovating new products that can improve contaminated environments or developing materials that can increase the comfort of buildings and living environments as well as promote construction safety.

A responsible company can maintain a good balance between economic, social and environmental responsibility in its operations. Responsibility includes minimising environmental impacts as well as looking after employee well-being and increasing the local tax footprint.

Investing in the well-being of the environment and people is a positive megatrend. Our function is to enable the well-being of the environment and people through green areas, gardening and plantscaping. More and more people want to grow their own food and increase biodiversity around them by starting a garden on their balcony or yard. At the global scale, we see ourselves holding a significant role in promoting responsible plant-based food production through Kekkilä Professional's growing media and solutions.

Vapo Group has established a separate division focused on the innovation of new products to promote the development of new products from natural materials. The projects that are currently the most advanced include the production of peat-based activated carbon, which can be used for water and air purification, and manufacturing various boards and insulating materials from peat fibre.

Our response:

• We will ensure that we keep the promises we make with regard to environmental responsibility. Vapo's strict Code of Conduct covers the environmental impacts of our operations. We will ensure adherence to the Code of Conduct not only in our own operations, but also in the work performed by our subcontractors.

- We will work together with our customers to develop new circular economy solutions and environmental solutions. For example, our ash collection service helps our customers recycle the ash from their power plants.
- We promote local employment and energy production. Labour represents more than 50 per cent of local energy. In local production, all this money stays in the local economy and maintains the vitality of the community.
- We develop new products for air and water purification.
- We develop safe and environmentally friendly fibre products for purposes such as safe construction.
- We compost biowaste at our composting plants and use the composted materials in landscaping to create green areas that bring pleasure to people.
- We use industrial side streams in landscaping growing media, such as bark sand from UPM's pulp mills.
- We have begun LCA assessments of our products and services and started to create operating plans that make responsibility a core aspect of our business operations.

CORPORATE RESPONSIBILITY AT VAPO

• Responsibility programme

 \mathcal{O}

 \bigcirc

Ø

- The importance of stakeholder cooperation
- Values and Code of Conduct
- *Objectives for 2018–2021*

RESPONSIBILITY PROGRAMME

"Sustainable growth and well-being from nature", the first responsibility programme that covers the entire Vapo Group, is based on a materiality analysis on responsibility carried out in autumn 2017.



We take care of nature

- Life cycle impact of products and solutions
- Emissions into waterways from peat production
- Energy efficiency
- Airborne emissions
- Biodiversity



We develop continuously

- Delivery reliability and the security of supply by making use of digitality
- Customer satisfaction
- Innovations for sustainable
 development
- Development of competence



We guarantee quality and safety

- Quality and cost-efficiency of products and services
- Health and safety of personnel
- Health and safety of contractors
- Assessment of suppliers according to relevant criteria concerning environmental and social aspects



We create wellbeing

- Job satisfaction and well-being of personnel
- Equality and diversity
- Local employment effects
- Economic impact

Responsible operating principles, transparent and active communications

Our policies, commitments, reporting and stakeholder communications guide our operations.

RESPONSIBLE OPERATING PRINCIPLES

The new responsibility programme supports the company's new strategy, which was announced in spring 2018. According to our strategy, we satisfy the basic needs of our customers by focusing on the following:

- We promote healthy and local food production.
- We are part of the solution to the world's fresh water problem.
- We provide local heating production.
- We offer new solutions for cleaning up polluted environments.
- We create well-being.

Materiality analysis

The first materiality analysis to cover the entire Vapo Group was based on an online survey and interviews. The Management Team also validated and assessed the material themes. The materiality analysis had the GRI framework's reporting principles as its starting point.

The online survey was distributed to 200 stakeholder representatives and the company's employees were also offered the chance to complete the survey on Vapo's intranet. Nearly a hundred respondents completed the survey, representing employees, customers, Vapo Group's Board of Directors, partners and the authorities. The online survey was also complemented by interviews with the representatives of 13 different stakeholders.

In their responses, all of the stakeholders emphasised the importance of legal compliance and ethics in operations. The interviewees attributed the importance of legal and ethical compliance to the existence of contradicting views related to peat, although the stakeholders' default assumption and belief is that Vapo complies with all applicable legislation in its operations. The responses by customers and partners highlighted the importance of delivery reliability and the security of supply as well as the quality and reliability of products and services. Employees emphasised occupational health and safety more than other stakeholders. Customer satisfaction and the impact of peat production on waterways were also highlighted in the responses.

Compared to the previous materiality analysis, conducted in 2015 and limited in scope to Vapo's Finnish companies, the perceived importance of legal and ethical compliance increased and the importance of environmental issues decreased. The significant environmental investments made by Vapo Group in recent years and the Group's environmental management were widely praised by the interviewees, which was also reflected in environmental issues being assigned lower significance in their responses. The significance of social responsibility increased. Products and services as well as customer satisfaction also grew in importance in the analysis.

Defining the themes, vision and targets

Following the completion of the materiality analysis, Vapo Group's responsibility programme was drafted by a working group consisting of Board member Pirita Mikkanen and the entire team tasked with producing the GRI corporate responsibility report, led by Ahti Martikainen, the Director in charge of Vapo Group's corporate responsibility reporting.

Based on the results of the materiality analysis, the working group defined the vision and themes for the responsibility programme. The themes are: We take care of nature; We develop continuously; We guarantee quality and safety; and We create well-being.

The shared foundation for these four themes is provided by Vapo Group's responsible operating principles, which are promoted by transparent and active communication as well as policies and commitments that guide operations. The goal is to make responsibility reporting increasingly comprehensive from one year to the next and to actively communicate the results to various stakeholders.

The working group evaluated the current status of each material aspect as well as a target level for the year 2021, using a scale of 0–4. The material aspects for which the current status and target level were at least two steps apart on the fourpoint scale will be given special attention during the period from 2018 to 2021.

The working group also defined the aspects that are subject to a zero tolerance policy and the aspects whose development can be promoted by various quantifiable targets. Examples of areas subject to zero tolerance include corruption, all forms of discrimination and legal violations.

Management of corporate responsibility at Vapo Group

At Vapo Group, the CEO is in charge of corporate responsibility and its implementation. Business-level management is in charge of the practical measures related to responsibility in each business area.

The Chief Financial Officer is responsible for reporting on economic responsibility, the Environmental Director is responsible for areas related to environmental responsibility and the Human Resources Director is responsible for areas related to social responsibility. The Director of Communications and Public Affairs is responsible for the planning, composition and production of the report.

The corporate responsibility report is reviewed and approved by Vapo's Board of Directors and the Audit Committee.

Vapo's responsibility policy, related activities and the corporate responsibility report are published on the company website in Finnish and English. The corporate responsibility report is published annually. The reporting period is the calendar year, except for financial figures, which are for the financial year 1 May 2017–30 April 2018.

The previous corporate responsibility report was published in June 2017. For the first time, the figures in the 2017 report cover Vapo Group's operations in three countries, i.e. Finland, Sweden and Estonia, to the extent that the relevant information was available. The charts, tables and reporting principles indicate which companies the information applies to. The boundaries of the material aspects have been defined in more detail in the section on reporting principles.

The UN Sustainable Development Goals and Vapo Group

Vapo Group is committed to supporting the UN Sustainable Development Goals (SDGs). The five most relevant goals from the perspective of Vapo and its stakeholders are:

- Zero hunger
- Clean water and sanitation
- Affordable and clean energy
- Sustainable industry, innovation and infrastructure
- Decent work and economic growth.

Vapo Group's materiality matrix

We take care of nature

- Life cycle impact of products and solutions
- Emissions into waterways from peat production
- Energy efficiency
- Airborne emissions
- Biodiversity

We develop continuously

- F Delivery reliability and the security of supply
- Customer satisfaction
- Innovations for sustainable development
- Development of competence

We guarantee quality and safety

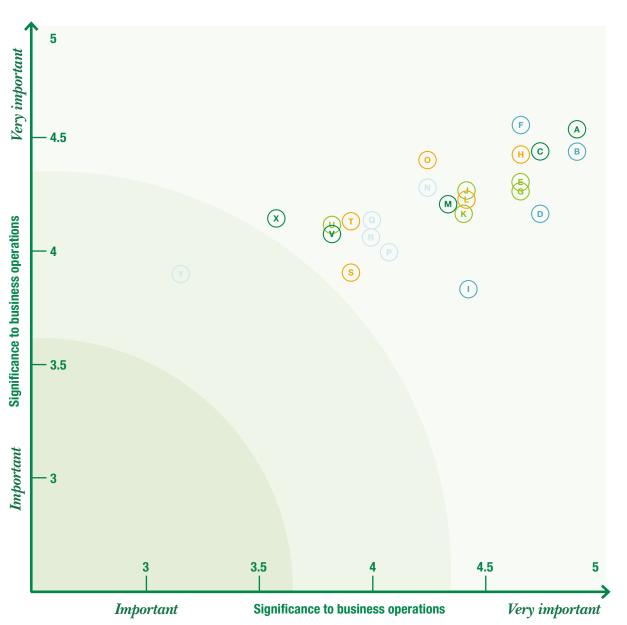
- L Cost-efficiency of products and services
- Health and safety of personnel
- Thealth and safety of suppliers
- Assessment of suppliers according to relevant criteria concerning environmental and social issues
- Quality, sustainability and reliability of products and services

We create well-being

- J Fair conditions of employment*
- G Job satisfaction and wellbeing of personnel
- K Equality and diversity
- E Economic impact
- U Local employment effects

Responsible operating principles, transparent and open communication

- Compliance with laws and regulations related to social, economic and environmental issues
- © Business ethics and anticorruption
- M Compliance with the rules of fair competition
- V Truthful marketing communications
- 🗴 Business transparency
- * Combined in the responsibility programme as Job satisfaction and well-being of personnel



THE IMPORTANCE OF STAKEHOLDER COOPERATION

Our strategy is based on satisfying the basic needs of people and communities. It is vital for us to engage in very close cooperation with our stakeholders. Vapo Group's internationalisation and the growing significance of the gardening and landscaping sector will influence stakeholder cooperation in new ways in the future. Local stakeholder engagement will increasingly need to be complemented by international stakeholder cooperation across borders.

Dialogue, feedback and good cooperation are the key methods for promoting mutual understanding between stakeholders and Vapo. Vapo Group aims to build networks with important parties as well as collect and share information that is relevant to the Group's business and customers. Feedback from stakeholders is one of the inputs considered in the development of products and services, and it also influences how the company operates. Vapo also monitors and evaluates public discussion.

Stakeholders are defined as those parties that are affected by Vapo Group's operations and who have an impact on Vapo Group. Vapo's most important stakeholders are customers, owners, peatland lessors and land owners as well as the Group's personnel and subcontractors. Stakeholder expectations and Vapo's response to them are described in more detail in the table on the next page.

Stakeholders' interests and concerns were surveyed in questionnaires and interviews conducted in autumn 2017 in connection with Vapo Group's materiality analysis on responsibility.

Vapo organises open house events at its peat production areas in Finland and Sweden for members of the public, neighbours, the authorities and anyone else interested in peat production and related environmental issues. Visits to heat and power plants have also been organised in both countries. Customer events are an important form of stakeholder engagement. Vapo's annual Energy Seminar for the Group's energy customers was organised in April at Vapo's offices in Vantaa. The event's theme was the digital transformation of the energy sector and the competitive advantages derived from it. More than 50 of Vapo's energy customers attended the event.

In 2017, Kekkilä Group recorded a total of more than 1,000 safety observations, which meant that each operating country was given the opportunity to donate EUR 1,000 to a charity that promotes the safety of children and young people. The chosen recipients were as follows:

- Finland: Panelia Volunteer Fire Department, youth and early youth section
- Sweden: Botildenborg Foundation
- Estonia: Social welfare for low-income families in the rural municipality of Lääne-Nigula
- The rest of the world: UNICEF

Social media and Polte magazine

Dialogue with various stakeholders increasingly takes place on social media. The Vapo blog — which is published on the Group's Finnish-language website as well as the online paper Uusi Suomi — and its open comment section also serve to increase dialogue and stakeholder engagement.

Kekkilä maintains the popular Facebook group Puutarha ja Piha (Garden and Yard),

99

In 2017, Kekkilä Group recorded a total of more than 1,000 safety observations, which meant that each operating country was given the opportunity to donate EUR 1,000 to a charity that promotes the safety of children and young people.

which has over 80,000 members. The group gives gardening enthusiasts of various ages the opportunity to share their experiences with their peers. Kekkilä also invites interested members of the group to participate in product testing. A consumer panel made up of members of the Facebook group participated in the product development of Kekkilä's new series of plant stands, for example.

In Finland, Vapo publishes Polte, a stakeholder and customer magazine that features information on the Group's operations and business environment. The magazine is published quarterly and it is also available online at www.poltelehti.fi.

Students

Vapo participates in the Energy in Finland school cooperation campaign organised

by Finnish Energy Industries. Nearly 1,500 students and teachers visited peat production areas across Finland in autumn 2017. Vapo's experts also visited schools to present information on local energy production.

Vapo provides summer jobs to students in related fields and also offers topics and opportunities for academic theses. Kekkilä also regularly hires trainees from educational institutions to work in various roles within the organisation and visits schools to deliver guest lectures on subjects such as marketing and the gardening industry. Kekkilä's production facilities in all of the operating countries also host visiting student groups.

Vapo requires its partners to operate responsibly. Vapo does not support any political parties.

Vapo Group's memberships in 2017

From the perspective of corporate responsibility, the Group's key cooperation network is the FIBS corporate responsibility network. Vapo is a member of the network.

The Group also cooperates with advocacy groups related to its industries, including the following:

- The Bioenergy Association of Finland
- Finnish Forest Industries
- Finnish Energy Industries
- The Confederation of Finnish Industries
- EPE (Energy Peat Europe)
- AEBIOM (European Biomass Association)
- Growing Media Europe
- Swedish Peat Association
- Estonian Peat Association
- IPS (International Peat Society) and its Finnish branch, the Finnish Peatland Society
- Foundation for Responsibly Produced Peat
- International Blueberry Organisation IBO

Vapo is also a member of the following organisations:

- The Thousand Lakes Enterprise Agency
- The Carbon Neutral Municipalities (HINKU) forum
- The Finnish Quality Association

Vapo is also represented on several permanent working groups and stakeholder bodies established by the public authorities, such as::

- The Joint Working Group for the National Coordination of Environmental Protection and Nature Conservation in Peat Production set by the Finnish Ministry of the Environment
- The regional joint working groups on water treatment coordinated by Centres for Economic Development, Transport and the Environment
- The Energy Supply Sector and the Domestic Fuels Department under the National Emergency Supply Agency

Stakeholder engagement during the reporting period

Key stakeholders	Contact channels	Stakeholder expectations	Examples of responding to expectations during the 2017 reporting period
Personnel	Skype meetings, daily communication, Yammer, Intra, workspaces, website, personnel satisfaction survey, development discussions, seminars, internal training,	Participation in shared affairs, the flow of information, deciding on shared issues, planning the future, occupational health and safety, sharing knowledge	Personnel magazine, Vapo Studio, Skype meetings, safety observation tools such as Nappi and Obs
	online training	and expertise	MMP training programme, online training
Customers	Meetings, phone calls, e-mail, customer magazine, events, customer satisfaction survey, website, digital service channels, customer seminar	High-quality, competitive and responsibly produced fuels, energy and services. Key factors from the customers' perspective include delivery reliability and the security of supply as well as the quality and reliability of products and services	Annual customer satisfaction survey, customers addressed in the Annual Report and the Corporate Responsibility Report, mobile portal for district heating customers, online store for consumer customers
Owners	General Meeting, Board of Directors' meetings, Supervisory Board meetings, the annual owner seminar, regular meetings between the CEO, CFO and representatives of the owners, website, Annual Report, Corporate Responsibility Report	Stable dividend payout capacity, increase in shareholder value, ensuring responsibility in operations. Key aspects include the importance of legal and ethical compliance.	The annual owner seminar, reporting on responsibility commitments in the Board of Directors' meetings, the responsibility programme
Public authorities	Annual meetings, supervision inspections, cooperation groups on the management of waterways, one-on-one meetings	Compliance with environmental permits and legislation, open and truthful communication	Annual reporting of the information stipulated by environmental permit decisions. Cooperation with the authorities; for example, in the form of various notifications, inspections and annual meetings. Active participation in cooperation groups on the management of waterways, among other things.
Peatland lessors and land owners	Customer and stakeholder magazine Polte (published quarterly), Annual Report, customer letters as necessary, direct communication based on the contact details indicated in the register of leases, website	Obtain information on the company's strategy and operating policies, ensuring responsibility in operations and future yield expectations	Providing information via the website and distributing the customer magazine Polte
Scientists, researchers, research institutes	Publications, meetings, joint projects, website	Mutually beneficial cooperation, establishing new research projects and taking advantage of them in business and within the scientific community	The Innoturve ("Innopeat") project between Vapo Fibers and the University of Oulu. Oulu University of Applied Sciences (OAMK)/PaiBiRa project: bio-based raw materials to serve the changing needs of the construction industry. Innovative bioproducts programme
Schools and students	Organising student visits, Me & MyCity cooperation, Energy in Finland school project, partner classes, website	Obtaining information on peat production and the company's other operations	Some 1,500 students and teachers visited peat production areas across Finland during the reporting period and Vapo's personnel also visited schools
Non-governmental organisations	Annual stakeholder seminar, open house events at peat production sites, website	Distributing up-to-date information on the company's environmental responsibility strategy and engaging in open dialogue with NGOs. The key aspect is legal and ethical compliance.	Stakeholder seminar in April 2017, open house events at peat production areas as well as heat and power plants

Key stakeholders	Contact channels	Stakeholder expectations	Examples of responding to expectations during the 2017 reporting period
HR partners and external stakeholders	Agreed-upon forums and meetings, website	Understanding Vapo's business and knowing Vapo's objectives, cooperation models	Regular meetings with HR partners, such as the occupational health service provider
Suppliers, service providers, contractors	Bioenergy industry events and seminars, training and feedback events for entrepreneurs, cooperative development projects with suppliers	Developing a competitive and profitable operating environment in bioenergy supply chains, creating business and investment opportunities for entrep- reneurs, cooperation relationships that are mutually beneficial, flexible and responsive	Entrepreneur training events and production feedback events in the autumn and spring. Regional supp- lier-entrepreneur days in Finland: five entrepreneur events, 10 tractor operating permit training events, two customer service training events related to enhanced pellet services
Political decision-makers	Regular one-on-one meetings with Members of Parliament, their assistants and parliamentary groups and maintaining contact with the background influencers and officers of political parties; meetings and production site visits organised for municipal decision-makers; the annual seminar whose invitees include Members of Parliament and their assistants; stakeholder magazine; website	Access to up-to-date information on Vapo's business strategy and the progress of environmental responsibility projects	Stakeholder seminar in April 2017, met with Members of Parliament, representatives of youth organisations, assistants and party officers. Visits with municipal decision-makers were also organised.
Citizens, media, labour market organisations	Cooperation days and meetings, joint projects, website	Exchanging information, establishing rules and trust, legal and regulatory compliance, open and truthful communication	Open house events, open stakeholder communication, Kurajuhlat 2017 "mud party" at the Aitoneva bog in Kihniö. Organised in cooperation with local businesses and associations, the one-day event attracted about 1,500 visitors.

VALUES AND CODE OF CONDUCT

Vapo Oy's and Kekkilä Group's values and Code of Conduct specify in detail what the company expects from its employees and subcontractors and what it is committed to in delivering products and services to its customers.

Our values

Vapo's current values were defined in 2014 as responsibility, results-orientation and renewal. Responsibility is a vital precondition for the existence of Vapo's business. All of the company's operations must be transparent and publicly acceptable. Everyone at Vapo must take responsibility for their work.

Results orientation is not only related to financial targets — it also gives the company the tenacity to follow through, even on things that are difficult, when doing so is in the longterm interest of the company's business and customers.

Renewal is essential. The world is changing, and adapting to the changes is the only way to guarantee Vapo's future. The company must be sensitive to indications — and even weak signals — of how the customers want Vapo to develop its operations. Vapo Group's focus on renewal is reflected in the newly established New Businesses division, which is aimed at using shared Group-wide innovation activities to create novel solutions based on, among other things, peat and other natural materials.

Kekkilä Group redefined its values in late 2016 to reflect the key priorities of Kekkilä Group's personnel and customers as indicated by surveys. Summarised in the words focus, trust, agility and together, the main purpose of the new values is to guide day-to-day operations. The values are a noticeable element of the working day of every Kekkilä Group employee in each operating country and they are regularly highlighted in various situations. The values are also the foundation of the Growing Together personnel development programme. Operating in line with the values helps execute Kekkilä Group's mission, the joy of growing, and moves Kekkilä Group towards its vision: the most trusted partner in growth.

Code of Conduct

Vapo's strict and comprehensive Code of Conduct covers the entire Group and is applicable as an appendix to contracts even with the most demanding customers. The requirements concerning the responsibility of operations apply not only to Vapo Group's own personnel, but also the entire supply chain, from subcontractors to customer deliveries. In Kekkilä Group, the Code of Conduct also governs the operations of distributors and retailers.

Vapo's Code of Conduct covers the requirements applicable to the company itself and its subcontractors in the following contexts:

- Human rights
- Basic workers' rights
- Wages and working hours
- Occupational health and safety
- Environmental impacts
- Responsible business operations
- Management system

The Code of Conduct is a fixed component of our processes, personnel training and the orientation of new employees. The personnel familiarise themselves with the company's operating principles by means of online training. The training makes it clear that compliance with the Code of Conduct is not

Vapo Oy's policies and operating principles:

- HR policy
- Quality policy
- Environmental policy
- Occupational safety policy
- Risk management policy
- Data security policy
- Innovation and IPR policy

- Procurement policy
- Financial policies and operating principles
- Internal control, operating principle
- Code of Conduct

a recommendation. It is an unconditional and binding operating model.

To ensure that the Code of Conduct is put into practice in day-to-day operations, the company's internal network includes a whistleblowing channel. Anyone at Vapo can use it to anonymously report conduct that is not compliant with the Code of Conduct.

The implementation of the Code of Conduct is monitored as part of the internal and external audits of the company's quality system. The assurance of ethicality in operations is also emphasised in internal audits. The Code of Conduct is available on the Vapo website at <u>www.vapo.com/en/responsibility/the-way-we-operate/code-of-conduct</u>.

Highlights in 2017

Of the Group's personnel, 711 had completed the Code of Conduct online course and final examination by the end of 2017. In addition to personnel, Vapo also provides training to its subcontractors on the requirements stipulated by the Code of Conduct in entrepreneur training and by means of an online training programme.

Four anonymous reports were received via the whistleblowing channel in 2017, and corrective action was taken in response to these reports.

There were no incidents of misconduct or breaches of the Code of Conduct in 2017.

Objectives for 2018

Following the renewal of the Group's strategy, Vapo Group will review and potentially revise its values, vision and mission in 2018 to reflect the new strategy. The personnel development programme currently in effect in the Grow&-Care division will be taken into consideration in these efforts.

RESPONSIBLE OPERATING PRINCIPLES WE DO NOT COMPROMISE ON

Compliance with laws and regulations

- No infringements of environmental legislation or the conditions of environmental permits
- No infringements of laws and regulations related to financial and social matters

Ensuring truthful marketing communications

• No infringements of laws and regulations related to marketing communications

Compliance with the rules of fair competition

• No infringements or legal action related to the rules of fair competition

Business ethics and anti-corruption

• No incidents of corruption

Equality and diversity

• No incidents of discrimination

TRANSPARENT AND ACTIVE COMMUNICATIONS — OBJECTIVES FOR 2018–2021

Business ethics and anti-corruption

Target

- Organising training on anti-corruption activities
- All Vapo Group employees regularly complete a training course on the Code of Conduct

All of Vapo's strategically significant suppliers regularly complete a training course on the Code of Conduct

Business transparency

Target

Reporting in compliance with the GRI CORE level

Joining the UN Global Compact

WE TAKE CARE OF NATURE

- Life cycle impact of products and solutions
- Emissions into waterways from peat production
- Energy efficiency
- Airborne emissions
- Biodiversity

 \mathcal{O}

 \bigcirc

 \bigcirc

MANAGEMENT AND ORGANISATION OF ENVIRONMENTAL ISSUES

Diversions and other exceptional incidents have been reduced by investments made and other measures taken by the Group.

Vapo's management of environmental issues is guided by its environmental policy and environmental strategy 2020. Vapo is committed to continuously improving its operations and developing its environmental efforts. The Group's environmental objectives include the sustainable use of natural resources, reducing greenhouse gas emissions and waste, improving material efficiency and promoting sustainable development in cooperation with the value chain. Each of Vapo's businesses has an environmental programme in accordance with the environmental strategy. The environmental programmes specify the most significant aspects of environmental responsibility along with annual environmental targets. Key environmental issues, including the status of responsibility commitments related to peat production, are regularly reported to Vapo's Board of Directors.

Vapo's environmental policy and strategy as well as the responsibility commitments related to peat production and existing certificates are available online at <u>www.vapo.fi/</u> en/responsibility/the-way-we-operate.

Each of Vapo's businesses has a person responsible for environmental issues who, together with the management of the business

Vapo Group's certificates

Finland	ISO 9001	ISO 14001	PEFC	FSC	RHP	OHSAS 18001
Vаро Оу	\checkmark	\checkmark	\checkmark			
Kekkilä Oy	\checkmark	\checkmark				
Sweden						
Neova AB		\checkmark				
Hasselfors Garden AB	\checkmark	\checkmark				
Estonia						
AS Tootsi Turvas				\checkmark	\checkmark	
Kekkilä Eesti OÜ	\checkmark	\checkmark				\checkmark

area, is responsible for environmental management and stakeholder cooperation with regard to environmental issues. The practical responsibility for the effective management of environmental issues is borne by all Vapo employees and contractors. Environmental responsibility is part of our day-to-day operations and our aim is to be an organisation that is recognised for its responsibility.

Vapo maintains and develops its environmental expertise through training aimed at employees and entrepreneurs. New contractors used in peat production and their drivers receive introductory environmental training for peat production as part of their tractor operating permit training.

Achievements in 2017

A total of 17 days of environmental and quality training were organised in Vapo Oy in 2017, with 291 people participating. Environmental Safety Card training for peat production accounted for seven days of this total, with 130 people participating. Training will continue in 2018. In 2017, Vapo Oy placed significant emphasis on environmental and quality management competence as part of the training programme On the Path to Global Leadership.

A certified management system is a practical tool for the management of environmental issues. Vapo Group has a certified ISO 14001 environmental management system and ISO 9001 quality management system. Vapo adopted the revised ISO14001:2015 standard in 2017. AS Tootsi



Vapo Group's finnish - Vapo Group's Finland operations

Turvas also holds the RHP certificate. The sustainability and traceability of Vapo Oy's wood raw materials is verified by means of PEFC certificates. The pellet business has also been awarded the Key Flag Symbol to certify the origin of the pellets. In 2017, Kekkilä Group started the process of obtaining RPP certificates. The aim is to obtain the first certificates in 2018.

Statutory and other obligations related to the environment

The operations of Vapo's power plants, composting plants and peat production are regulated by environmental permits issued by the environmental authorities. In addition, some of Vapo's heating plants are subject to an environmental permit or registration procedure. The permit decisions include requirements related to topics such as emission limits and emission reduction as well as assessment and reporting. The environmental authorities regularly inspect the production facilities. In 2017, the environmental authorities made 160 inspection visits to Vapo Group's peat production areas.

Feedback and irregularities in 2017

Environmental feedback and irregularities are handled by the business area in question and reported to the Board of Directors. Vapo Group recorded a total of 43 incidents of environmental feedback or irregularities in Finland in 2017. Accidents accounted for 21 of these incidents, mainly involving fires at peat production areas. Six were permit-related irregularities and 12 were expressions of concern. The total number of feedback increased significantly from the previous year, mainly due to exceptional circumstances arising from the very rainy summer.

Diversion incidents in peat production and their management are monitored. In 2017, drainage waters from peat production had to be rerouted to diversion culverts and dams on 51 occasions to prevent damage to water protection structures, for an average of five days per incident. The number of diversion incidents decreased by 35 per cent from the previous year and their duration was reduced by 39 per cent. Diversion is allowed under the conditions of the environmental permits provided that the incidents are reported to the supervising environmental authority. The causes of diversion incidents are investigated and the necessary measures are taken to rectify the situation.

Vapo Oy's environmental objectives 2014-2017

The environmental objectives presented in this report are primarily Vapo Oy's objectives. Group-level objectives will be defined during the current financial year.

Objective	Target	Achieved 2017
Sustainable use of natural resources	 We will monitor the load on waterways from our operations We will reduce the load on waterways from our operations We will protect biodiversity through the active use of cutaway peatlands We will manage the origin chain in accordance with PEFC and FSC certification We will use certified wood raw material in pellet production Sustainable use of natural resources 	 In the emissions monitoring of peat production in Finland, 9,155 samples were collected and 78,484 analyses were performed. Emissions into waterways from peat production in Finland decreased from the previous year. Solid matter load (t/a) decreased by 15% and the phosphorus load (t/a) decreased by 8%. The nitrogen load (t/a), however, increased by 3% The rainy summer contributed to the increase in the nitrogen load. In Finland, some 608 hectares of land was reforested and wetlands were built in an area totalling 199 hectares. The wood business and the pellet business are PEFC certified. The raw material used in pellet production was 88% certified. The wood raw materials used by the Fuels business were 58% certified. Kekkilä started a sustainability project that will continue in 2018. In some Kekkilä products, imported raw materials have been replaced by domestic raw materials and plastic has been replaced by biodegradable film.
Reduction of greenhouse gas emissions	 We will transform cutaway peat production areas into carbon sinks such as forests and fields We will replace fossil fuels, oil and coal, with local fuels and energy solutions We will improve energy efficiency We will reduce energy consumption We will reduce transport emissions 	 Some 608 hectares of land was reforested in Finland. The use of domestic fuels increased slightly compared to the previous year at Vapo Oy's energy production plants in Finland. The use of coal and fuel oil decreased from the previous year. Neova achieved its target of 1% oil consumption (MWh/MWh of energy delivered). The coefficient of efficiency for Vapo's energy production plants in Finland remained on par with the previous year. Neova's heating plants achieved their energy efficiency target of 87%. Kekkilä's production facilities have implemented changes to heating systems to reduce energy consumption by 10–15%. Vapo Group's electricity consumption in Finland increased by 18% year-on-year. The higher electricity consumption was due to the increased need for pumping caused by the rainy summer. The carbon dioxide emissions from fuel transport in Finland increased by 7% from the previous year.
Improving material efficiency	We will optimise material efficiency and reduce raw material losses	 Kekkilä used a significant amount of recycled raw materials and will continue to increase the use of recycled raw materials. Kekkilä also reduced its material losses. At pellet factories, the raw material loss rate increased to 3.5% from the previous year's level of 2.3%.
Waste	 We will reduce the amount of landfill waste We will utilise ash generated in energy production for purposes such as forest fertilisation and soil construction. 	 The amount of landfill waste decreased by 34% from the previous year. Stack plastic in peat production was recovered at a rate of 100%. The landfill disposal of ash from Vapo's heat and power plants in Finland was significantly reduced compared to the previous years. The reutilisation rate of ash increased by 19 percentage points from the previous year.

LIFE CYCLE IMPACT OF PRODUCTS AND SOLUTIONS

First life cycle assessments of growing media products to be made in 2018.

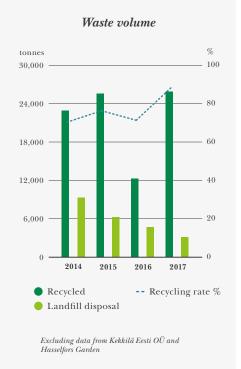
New growth from recycling

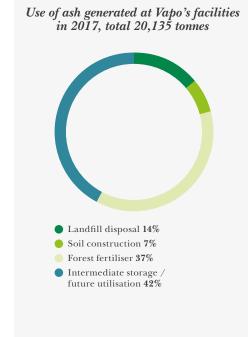
Launched in 2017, the Kekkilä Recycling business is built around a new recycling-based business model that is focused on refining biomass to generate new growth. Kekkilä Recycling provides solutions for the needs of sustainable development and the circular economy by making efficient and nature-conserving use of various material fractions and different types of waste. Instead of increasing competition, the focus is on continuously seeking new forms of cooperation to generate added value for the various parties involved, including society.

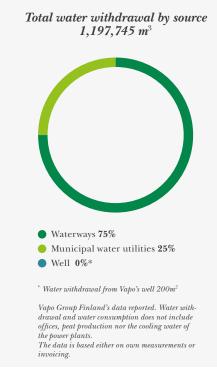
Kekkilä Recycling provides regional processing service solutions for waste and by-products to customers including industrial operators and municipal waste management companies. Alternative processing solutions will be developed to complement traditional composting. The end products of these processing activities are high-quality recycled fertilisers. Recycled fertilisers benefit people by supporting the development of green areas and new parks.

Recycling and reutilisation in 2017

Vapo is actively seeking to increase waste recycling and reutilisation throughout the Group. Some 89 per cent of the waste generated in 2017 was recycled. The most significant waste fractions are ash and used stack plastic. Stack plastic was 100 per cent reutilised in 2017. In the previous year, only 30 per cent of stack plastic was utilised as recycled material. Other measures that have been already implemented include







the utilisation of recycled raw materials in Kekkilä's operations as well as the reduction of material losses.

Vapo continued its measures to increase the utilisation of ash originating from its heat and power plants and pellet factories. Vapo's ash primarily originates from the burning of wood and peat, and measures to promote the reutilisation of ash continued in 2017. The majority (46 per cent) of the ash generated in 2017 was reutilised in soil construction or as forest fertiliser. Some 42 per cent of the ash was placed in temporary storage to await utilisation. The landfill disposal of ash was reduced to 14 per cent from 26 per cent in the previous year.

Assessing the life cycle impacts of peat

Peat is the most important raw material in Vapo's products and its significance is further highlighted with the implementation of the new Group structure. Northern peat is particularly well suited to the cultivation of plants and in the from of Kekkilä Professional's highly refined growing media, it enjoys strong demand in the international market for plant-based food production.

In 2017, Kekkilä Group began cooperating with Natural Step, an international network of experts and agencies that shares the same name, principles and a strategic foundation for sustainable development. The cooperation is aimed at assessing the current status of responsibility and working together with personnel to decide on the key responsibility projects for the coming years. Responsibility is already a natural element of the division's products and business, and the project will make it possible to develop it into an even stronger competitive advantage. Assessing the life cycle impacts of peat is part of this broader effort.

In 2017, Kekkilä Group conducted an internal assessment of the life cycle impacts of the peat used in its growing media products and found indications that the Central European research results concerning peat production are not directly applicable to Northern Europe. This means that there is a need for further unbiased research.

The life cycle analysis is divided into two areas: changes in land use and the impacts of growing media production. As the binding and releasing of carbon are part of an ongoing natural process in mires, the impacts are evaluated over a period of 100 years, in different stages of peat production and mire restoration. In addition to assessing climate and ecosystem impacts, the aim is to establish an overall understanding of horticultural peat's life cycle impacts on human well-being.

Plans for 2018

A growing awareness of the importance of environmental protection and the potential environmental impacts associated with the use manufacturing and consumption of products and services inspired Vapo to update the life cycle assessments of various products.

We evaluated the current situation and the need for life cycle analyses of products and services by conducting a survey across our various businesses in early 2018. The goal was to determine whether the LCA calculations of products and services need to be expanded or updated to ensure that our environmental responsibility covers the full life cycle of our products. Our assessment revealed that the need for life cycle analyses particularly involves new/future products. The information obtained from the surveys of life cycle assessments will be used as part of Vapo's broader decision-making processes and environmental management practices. There is no single method for conducting life cycle assessments. The choice of method and the assessments themselves will be made during the next few years for the following products:

- 1. Sphagnum moss LCA calculations
- 2. Fibre product moss LCA calculations, and
- 3. LCA recalculations for pellets.

EMISSIONS INTO WATERWAYS FROM PEAT PRODUCTION

The results of monitoring emissions and waterways are based on nearly 200,000 analyses.

Impacts on watercourses and reducing the load on waterways

Vapo's peat production business in Finland is committed to having all of Vapo's peat production areas subjected to emissions monitoring during the peat production season, and half of the production areas subjected to year-round emissions monitoring. The goal is to maintain the implementation of the voluntary emissions monitoring programme at the current scale for three years to obtain sufficient continuous data on the quality of the water that flows out of production areas.

Water quality in peat production is monitored in accordance with the conditions of environmental permits and inspection programmes approved by the authorities.

Vapo does not take measurements related to inspection programmes itself. Instead, the measurements are taken by specialised external service providers that are responsible for taking water samples, analysing the samples and compiling reports and submitting them to the authorities.

The results of the monitoring of emissions and waterways in Vapo's peat production are available on Vapo's website at www.vapo.com/turvetuotantoavastuullisesti/tarkkailuraportit.

The Our Peatlands on the Web online service includes comprehensive data on Vapo's peat production areas in Finland, the water treatment methods used and the annual load on waterways. Vapo has measured the load on peat production areas using continuously operating measuring stations for several years now. At the peak of the continuous monitoring programme, there were 33 measuring stations across Finland. The current number of measuring stations is 10. Produced by Valmet, the real-time water quality measurement service increases openness and transparency in the monitoring of the impact of peat production on waterways. The measurement results are available on the website of the service provider, Valmet Oyj, at www. valmet.com/ymparistodatapalvelu.

Emissions into waterways

-				
Specific load (kg/ha/a)	2014	2015	2016	2017
Solid matter	38.2	40.1	37	30
Nitrogen	6.6	9.2	9.7	6.8
Phosphorus	0.20	0.33	0.35	0.21
Total load (t/a)				
Solid matter	2,116	2,193	1,923	1,631
Nitrogen	367	428	362	374
Phosphorus	11	13	12	11

Continuous load measurement comple-

ments the emissions monitoring activities

required by environmental permits and

produces transparent, independent and

garding the environmental load arising

measurement and monitoring provides

into and out of peat production areas is

monitored. The environmental permits

include emission limits based on qualita-

of peat production on waterways.

from peat production. More accurate load

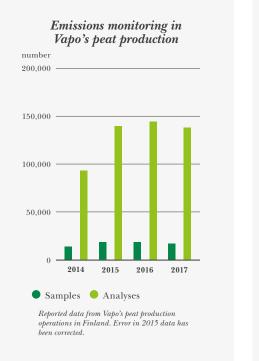
more detailed information on the impacts

In Sweden, the quality of water flowing

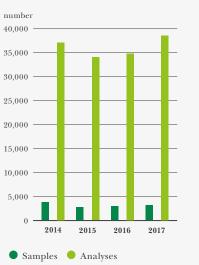
reliable information for the public re-

For emissions into waterways, report nitrogen, phosphorus and solid matter emissions for those Finnish operations whose environmental permits include the obligation to calculate the annual load. The calculations are based on samples. With regard to samples and analyses in the monitoring of emissions and waterways, information for Vapo Oy's peat production has been reported.

Produced by Valmet, the real-time water quality measurement service increases openness and transparency in the monitoring of the impact of peat production on waterways.



Vapo's monitoring of waterways



Reported data from Vapo's peat production operations in Finland. Error in 2015 data has been corrected.

wws. water treatment is in line with the Best Availhe able Techniques (BAT).

> Vapo continues the enhanced monitoring of the effectiveness of water treatment structures at peat production areas. Vapo has required peat contractors to inspect water treatment structures at two-week intervals since 2012. In addition, environmental inspectors hired for the summer season have inspected the water treatment methods and environmental permit compliance at production areas since 2011.

Achievements in 2017

In 2017, emissions into waterways from Vapo's peat production operations in Finland were significantly reduced from the previous year with respect to solid matter and total phosphorus. The total nitrogen emissions increased by three per cent.

The number of samples and analyses under Vapo Oy's emissions monitoring programme in 2017 decreased significantly compared to the previous year. In 2017, emissions into waterways from Vapo Oy's peat production decreased from the previous year. In addition to the monitoring of emissions and waterways by consultants, Vapo takes additional samples during periods of high flow and heavy rain as well as in problem situations. A total of 344 such samples were taken in 2017.

Preliminary monitoring determines targets

Vapo Oy is committed to ensuring that, from the year 2016 onwards, the solid matter and humus load of new peat production areas will be lower than that of the same bog before peat production. In 2017, Vapo carried out preliminary monitoring at sites planned for future peat production to assess initial water quality. In 2017, a total of 978 samples were taken at such sites, with approximately 6,800 analyses performed on the samples. Preliminary monitoring has provided a great deal of information, mainly on the water quality of ditched peatlands and differences in water quality across Finland. The analyses conducted on the samples always include at least solid matter, humus, phosphorus and nitrogen concentrations as well as the pH and colour values. The operating conditions of water treatment methods used in peat production were developed in 2017 in accordance with the principle of continuous improvement. Efforts were made to share proven practices and operating methods between different areas. Tests conducted during the year on entirely new water treatment methods produced promising results. The usability of the methods in peat production will continue to be evaluated in 2018.

Water consumption

The total withdrawal of water associated with the Finnish production operations of Vapo and Kekkilä amounted to 1,197,745 cubic metres in 2017. Of this total volume of water, 75 per cent was drawn from waterways and 25 per cent came from municipal water utilities.

tive comparisons of inflows and outflows. An annual summary is produced for the authorities on all peat production areas.

At the Group's peat production areas in Estonia, the monitoring activities stipulated by environmental permits involve taking samples twice during the production season. The samples are taken by the company itself or by a consultant. The accuracy of sample collection is ensured by requiring that sample collectors are certified. The results are reported to the local environmental authorities.

BAT water treatment methods and selfmonitoring

Starting from summer 2016, Vapo has only used production areas in Finland where

Vapo has required peat contractors to inspect water treatment structures at two-week intervals since 2012.

ENERGY EFFICIENCY

A flue gas scrubber improves energy efficiency by as much as 25 per cent.

Energy efficiency — a key environmental objective for the Group

Improving energy efficiency is one of the Group's environmental goals. In 2017, Vapo continued its own power and heating plants' multi-year development programme aimed at improving energy efficiency and reducing oil consumption. The most significant energy efficiency investments in 2017 were the deployment of a flue gas scrubber at the Vekaranjärvi heating plant and the introduction of remote operation at the Forssa power plant. Several efficiency improvement measures were also implemented at other power plants and heating plants in all of the Group's operating countries. The energy efficiency of peat production has been developed by assessing the opportunities for using solar power and the remote monitoring of pump stations. Development efforts are also underway to minimise the energy consumption associated with the pumping of bog waters by optimising the operating times of pump stations, pump sizes and rotation speeds as well as water pumping levels. Optimising pump station operations appears to offer the largest potential for savings.

The improvement of energy efficiency in the Kekkilä organisation has included enhancing the heating systems of production facilities and replacing old lighting systems with LED lights. In the pellet business, a multi-year development project was completed to further improve the condensing power recovery and condensate polishing of the flue gas scrubber at the Vilppula factory.

Neova has conducted an energy review, among other things. The review has helped identify several potential initiatives for reducing energy consumption, some of which are now being implemented.

The total electricity consumption of Vapo's Finnish operations in 2017 amounted to 43,737 MWh (excluding the electricity consumption of power plants). Electricity consumption increased by 18 per cent. The factors behind the increase include the higher production volume of pellet factories and the rainy summer, which meant more water pumping at peat production areas than in the previous summers. The entire Group's electricity consumption totalled 45,733 MWh. The electricity consumption of power plants is not reported under electricity consumption. Consumption figures are based on consumption data or invoices provided by the supplier.

Vapo's heating and electricity generation and the fuels used in these activities are reported on pages 52–53.

AIRBORNE EMISSIONS

Dust, noise and emissions are monitored.

Monitoring dust and noise

The minimisation of noise and dust impacts is taken into consideration in all of Vapo's operations. Operations, production methods and equipment are continuously developed to reduce dust levels. In addition, among other things, peat production contractors are provided with training on environmental working methods and driving style to minimise dust and noise impacts. Environmental permit decisions include limits on airborne emissions and noise. Noise and dust was monitored at 28 of Vapo Group's operating locations in 2017.

At certain peat production areas, the monitoring of negative impacts from noise and dust is based on a letter distributed to local residents asking them to report any negative impacts.

99

The main factors behind the significant decrease in sulfur dioxide are the reduced use of oil and coal as well as the shift from heavy fuel oil to low-sulfur or sulfur-free fuel oil.

Emissions

The fossil-based carbon dioxide emissions of Vapo's heat and power plants in Finland increased by three per cent, while NOx emissions increased by nine per cent. SO_a emissions decreased by 31 per cent and particle emissions by 11 per cent. The increase in CO₂ emissions was due to the higher use of peat compared to the previous year. The most significant reasons behind the decrease in SO₂ emissions were the deployment of new flue gas scrubbers and shifting from heavy fuel oil to low-sulfur or sulfur-free fuel oil. Newly commissioned flue gas scrubbers helped reduce particle emissions. The environmental monitoring of heating plants is carried out in accordance with the regulations issued by the authorities in each country of operation.

The emissions from Vapo's transport operations are minor in significance compared to the emissions from heat and power plants. The majority of Vapo's transport operations involve transporting peat by road. Vehicles in emissions category 5 or 6 accounted for 65 per cent of Vapo's peat transport in Finland. The emissions limits for these categories are more stringent than those of categories 1-4. In 2017, the carbon dioxide emissions from fuel transport operations increased by seven per cent year-on-year. However, relative emissions remained unchanged from the previous years and amounted to approximately 50 grams of CO₉ per 1,000 km. The CO₉ emissions arising from the transport of Kekkilä's packaged products totalled 1,198 CO_o tonnes. Transports include fuel transport for Finnish operations (peat and wood chips) and the domestic transport of Kekkilä's packaged products. For CO_a emissions, the calculations are based on the emission factors specified in the fuel classification published by Statistics Finland.

Vapo Oy's environmental commitments exceed the statutory obligations

- We will continue the enhanced monitoring of the effectiveness of water treatment structures.
- We will present the contact persons for each production area on our website as well as reports on emissions and the monitoring of waterways.
- In addition to collecting samples in accordance with the environmental permits, we will use continuously operating devices to monitor the load on waterways.
- We will continue to exchange Vapo-owned mires with

significant nature value with ditched peatlands or sell such mires for use for conservation purposes.

- We are committed to ensuring that, from the year 2016 onwards, the solid matter and humus load of new peat production areas will be lower than it was before peat production.
- Areas released from Vapo's peat production will be in their next use within two years of the end of production operations.

BIODIVERSITY

Vapo established a policy in 2012 to not apply for environmental permits for peat production for category 4 and 5 peatlands, which are mires in the most natural state.

In accordance with the national mire and peatland strategy, Vapo allocates its peat production in Finland to ditched peatlands that are no longer in their natural state. At peatlands ditched for use in forestry, basic drainage has already been carried out and water filtration routes have been altered. This means that starting peat production at ditched peatlands does not increase the overall load on waterways as much as it would in a mire in its natural state. This also helps prevent a decline in the number of mires in their natural state.

Vapo has classified the peatlands and mires it owns in Finland in accordance with the Finnish government's classification system, in which category 0 is the most altered state and category 5 is the most natural state. Some 98 per cent of the peatlands owned by Vapo are in categories 0–3. Vapo established a policy in 2012 to not apply for environmental permits for peat production for category 4 and 5 peatlands, which are mires in the most natural state.

Each year, approximately a thousand hectares of land is released from Vapo's peat production in Finland. Part of this total is returned to land owners, part is sold, and the remainder is prepared for subsequent land use methods. The most common use of cutaway peatlands is forestation, agriculture or the construction of different types of wetlands. The process of ecological succession, which refers to natural changes in the species structure, means that wetlands change over time and the process of paludification starts over. Vapo is committed to having areas owned by it and released from peat production in active after-use within two years of the end of production operations.

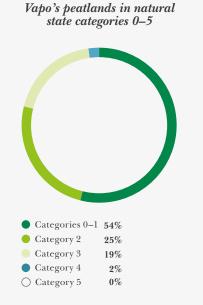
Achievements in 2017

Vapo participated in the Lake Kuivasjärvi catchment area restoration project in 2017. Vapo has participated in the project annually. The project has involved creating wetlands in areas donated by land owners to reduce the overall load on the lake.

Biodiversity was also promoted in 2017 in conjunction with the after-use of peatlands following peat production by building 200 hectares of wetlands and reforesting more than 600 hectares of decommissioned production sites.

In 2017, Vapo Oy continued to actively sell peatlands with significant nature value for conservation purposes. A list of peatlands sold for conservation purposes in 2012–2017 is available on Vapo's website. www.vapo.com/turvetuotantoavastuullisesti/ymparistonsuojelu/luontoarvosoiden-suojelu

In 2018, Vapo Group will continue to take measures related to the after-use of peatlands as well as sell mires with significant nature value for use for conservation purposes.



WE TAKE CARE OF NATURE — OBJECTIVES FOR 2018–2021



Life cycle impact of products and solutions

Objective

We will optimise material efficiency and reduce raw material losses

We will manage the origin chain in accordance with the PEFC certificate

In pellet production, our target is to use 95 per cent certified raw materials

We will utilise ash generated in energy production as fertiliser and in soil construction.

We will increase recycling and reduce the amount of landfill waste:

- The proportion of ash from power and heating plants that ends up will decrease to 13 per cent by 2020
- The recovery rate of stack plastic from peat production will reach 100 per cent by 2021

Emissions into waterways from peat production

Objective

We will monitor the load on waterways from our operations, exceeding the requirements stipulated by the authorities

We will reduce the load on waterways from our operations

Energy efficiency

Objective

We will improve energy efficiency

We will reduce energy consumption

Emissions into the air

Objective

We will replace fossil fuels — oil and coal — with local fuels and energy solutions

We will reduce transport emissions

We will transform cutaway peat production areas into carbon sinks such as forests

Biodiversity

Objective

We will protect biodiversity through the active use of cutaway peatlands

We will participate in at least one voluntary watercourse restoration project annually

WE DEVELOP Continuously

- Delivery reliability and the security of supply by making use of digitality
- Customer satisfaction

 \mathcal{O}

 \bigcirc

Ø

- Innovations for sustainable development
- Development of competence

DELIVERY RELIABILITY AND THE SECURITY OF SUPPLY BY MAKING USE OF DIGITALITY

Digital services increase customer satisfaction and improve delivery reliability.

Vapo aims to lead the energy industry in terms of the speed of its digital transformation. Heat and power plant operating services and digital solutions related to the fuel supply chain improve customer service and offer an even higher level of delivery reliability for the customer. The operating service provides customers with access to extensive experience on the cost-efficient operation of various types of boilers. In the fuel supply chain, digitalisation enables the customer to be more certain of receiving the right quality of fuel at the right time. Mobile and internet-based solutions make the customer's daily life easier, which is reflected in higher customer satisfaction.

Vapo's fuels heat the homes of more than a million people

The fuels and heat supplied by Vapo constitute approximately three per cent of Finland's energy consumption. Vapo is growing as a significant supplier of domestic fuel and energy solutions. Vapo supplies fuels to 300 power and heating plants, heat and process steam energy to more than 100 industrial and building customers as well as district heating in Finland, Sweden and Estonia. Vapo's fuels - peat, wood and pellets - are also used by thousands of detached homes, cattle farms and greenhouses. Vapo plays a significant regional role in Finland, Sweden and Estonia as a local fuel supplier and in heat and power production - the homes of more than a million people are heated by energy supplied by Vapo.

Fuels supplied by region in 2017

The overall demand for the fuels supplied by Vapo — peat, wood and pellets — was on par with the previous year. There were differences between regions and customer segments. The transition from peat to wood continued. Peat deliveries only increased for a few customers. Decisions made on energy taxes and subsidies support the increased use of wood. Combined with the low prices of coal and oil, this has a negative impact on peat's market position.

The use of energy peat and wood fuels has also been affected by replacement investments and supplementary investments made in customers' power plant boilers. The investments have expanded the fuel range of power plant boilers. The demand for peat and wood for the production of condensing power has been low due to the low price of electricity. The sales of Vapo's wood fuels comprise forest fuels supplied in the form of chips and stemwood as well as sawmill byproducts, namely bark and sawdust. Forest fuels are acquired by purchasing and harvesting fuel wood, felling waste and stumps. Wood is processed into chips at roadside storage facilities and wood fuel terminals, but also on site at customers' combustion plants. The demand for wood fuels is expected to increase further in the coming years, and Vapo is well positioned to benefit from that growth.

Pellets can be used in place of both coal and natural gas at power plants. The demand for pellets is growing steadily across all customer segments: industry, district heating production, large properties and among consumer customers. The majority of the growth in the coming years will be seen in industrial steam, district heating and heating solutions for large properties.

Production targets and stockpiles in 2017

The third consecutive poor peat production summer in Finland saw peat stockpiles decline, but buffer stocks produced in the previous summers in accordance with Vapo's customer promise were sufficient to ensure peat deliveries during the 2017–2018 heating season.

Vapo's heat and power production in 2017

Vapo's heat and power production in 2017 increased from the previous year thanks to new customer relationships. As in the case of the preceding years, the year 2017 was warmer than average, which reduced the demand for district heating and pellet heating. The effect of the warm weather on industrial steam production was not as substantial. Heat and steam deliveries began in 2017 in Ristijärvi, the Halli unit in Jämsä and at Valio's production plants in Jyväskylä. Energy efficiency investments continued at Vapo's heat and power plants, which helped fuel consumption remain on par with the previous year.

Future outlook

The consumption of wood fuels and pellets is expected to see continued growth. Finland's energy and climate strategy relies heavily on biofuels in liquid transport fuels, energy production for industry and the production of district heating. Peat will remain as part of the Finnish energy palette for a long time yet due to its local economic significance. Customer feedback on Vapo's fuel solutions and digital services provide a strong foundation for the development of new energy services and business models.

55

The fuel needs of contract customers are secured.

CUSTOMER SATISFACTION

Vapo is perceived as an increasingly responsible environmental operator throughout the production and supply chain.

Vapo's customer satisfaction related to peat and wood has been measured since 1998. In 2013, customer satisfaction began to be measured with the help of a survey that covers all customer segments, products and services. Some 700-800 customers complete the survey each year and the response rate is typically around 60 per cent. The results are used in the development of operations. Customer satisfaction is part of the customer relationship management process, which is aimed at ensuring customer satisfaction and increasing customer value. Active feedback and suggestions received from customers are at the heart of new service development. In recent years, customer relations have been largely managed based on feedback, and the development of customer satisfaction is also one of Vapo's employee performance measures. The measurement of customer responsibility has previously been the responsibility of customer region Finland, led by the Chief Operating Officer. Going forward, the responsibility will be assigned to business units across national boundaries.

Results in 2017

The 2017 customer survey revealed that delivery reliability, the overall smoothness of operations and product quality are at a very high level. The customers indicated that listening to customers and competitiveness are two areas in which Vapo has particularly improved. Vapo was also perceived as an increasingly responsible environmental operator throughout the production and supply chain. The areas highlighted for further development by the respondents included pricing, quality and the creation of added value. The NPS score awarded by the customers was 28 (2016: 19). The scale for NPS scores is from -100 to +100. Overall customer satisfaction stood at 81 per cent (2016: 79%). The sample size was 1,229 customer evaluations and the response rate was 60 per cent.

Objectives for 2018

The goal for 2018 is to expand the measurement of customer satisfaction and the customer experience to make it even more real time. A shared survey tool has been acquired for Vapo Group to harmonise the measurement and management of customer satisfaction across different businesses. The goal is to assess the quality of the customer's service experience and react to customer feedback faster, which enables the Group to serve its customers even better and more flexibly in accordance with their needs.

Customer satisfaction in Kekkilä Group

Customer satisfaction is a very high priority for Kekkilä Group, as reflected in its vision, "the most trusted partner in growth". In 2017, customer satisfaction was surveyed in Kekkilä Group's businesses by an NPS questionnaire that also included open-ended questions. The results of the survey were evaluated against the results of the extensive customer survey conducted in 2015. Based on the results of the survey, decisions were made on the measures to be taken, their timetables and the persons responsible for them in each business unit. Kekkilä Group also deployed the Salesforce CRM solution, which enables easier and more systematic continuous monitoring of customer feedback and customer satisfaction.

Satisfaction with the Kekkilä Garden and Hasselfors Garden brands is measured annually by a brand track survey conducted by Carat. Consumers are also active in sending feedback via Facebook pages, and the customer service function handles feedback on a daily basis.

Customer satisfaction is discussed as a key theme in business-level management teams as well as the Kekkilä Group management team.

Achievements in 2017

Consumer preference towards Kekkilä Garden increased by seven percentage points compared to the previous survey, while in Sweden, the preference for Hasselfors Garden increased by 13 percentage points. The NPS scores were 42 for Kekkilä Garden, 21 for Hasselfors Garden and 65 for Kekkilä Professional. Consumers were engaged in the product development of plant stands by forming a consumer panel from the members of a Facebook group maintained by Kekkilä, which has more than 80,000 members. Consumers in Finland also provided a lot of spontaneous positive feedback on Kekkilä's TV advertising. An annual calendar was created in 2017 for customer satisfaction surveys. As part of the project, the internal workshops aimed to identify the key questions for monitoring customer perceptions of Kekkilä Group as the most trusted partner in growth. The project will continue with a different partner in 2018 and customer views will also be incorporated into the process.

Plans for 2018

Regular NPS measurements will begin in May and they will be carried out according to a plan. NPS scores and customer feedback will be regularly monitored in customer feedback forums held for each business unit at least once a year.

The forums will agree on corrective measures to be taken, celebrate successes and share lessons on best practices. The forums will be led by the branding and communication unit in cooperation with the customer service function.

Tootsi and Neova

AS Tootsi Turvas and Neova AB did not conduct a customer satisfaction survey in 2017. Neova has carried out a qualitative customer satisfaction survey of its district heating customers at two-year intervals the form of a telephone interview. The sample size has been approximately 200 customers. The next survey will be conducted in 2018 by Supportföretaget TMJ Group AB.

INNOVATIONS FOR SUSTAINABLE DEVELOPMENT

Vapo has a new energy-efficient method for producing activated carbon

Vapo Ventures develops and commercialises Vapo's new businesses based on the company's strengths, emerging customer needs, raw material resources, competencies and networks. Ventures is also responsible for the Group's innovation and IPR (Intellectual Property Rights) management. The aim is to find solutions based on the sustainable use of natural resources to increase the refining rate and produce new products and services. The operations are guided by the Group's Innovation and IPR policy (Vapo's Board of Directors 8/2016). The Ventures unit is led by a Business Area Director.

Effective from 1 May 2018, the operations are organised into the New Businesses division, which has two businesses under it: Ventures and Carbons.

Vapo Fibers

Vapo Fibers® is a new business initiative developed by the Vapo Ventures unit with the aim of introducing peat as a raw material for industrial operators. Peat fibre has been found to have special properties that can bring added value to diverse applications of fibre. Examples of the potential uses include building boards for the construction industry, mouldings for the packaging industry, composite solutions, professional growing media and oil absorption products. Surveys indicate that the size of the potential market for peat fibre is in the billions of euros, and even a small market share or individual breakthrough can create significant sales.

Peat fibre is also an environmentally sound raw material. Unlike the manufac-

ture of many other fibre materials, the production of peat fibre does not require fields or forests, fertilisers or crop protection products. The preservation of biodiversity is ensured in connection with environmental permit processes and the production areas will be returned to subsequent land uses without delay after production operations are discontinued. Wetland habitats for birds are an excellent example of the renewal of nature values.

Achievements in 2017

In 2017, resources were focused on the development of selected products that are believed to have strong potential for market entry and that highlight the special properties of peat fibre. Sini Säteri was recruited as Sales and Product Manager to lead the productisation and commercialisation effort.

Vapo Carbons

The Vapo Carbons project developed by Vapo Ventures is planning an investment in a production plant for activated carbon. Activated carbon is used in the purification of water and gases and it has a promising international market due to the growing need for air and water purification solutions. The majority of the world's activated carbons are currently produced from oil and coal. Vapo has developed a new energy-efficient method for producing activated carbon from peat. The method makes it possible for us to produce competitive and high-quality products. Vapo also has the capacity to guarantee long-term availability and reliable deliveries. The production plant's potential locations are Haapavesi, Ilomantsi and Seinäjoki. They all have sufficient and logistically sensible raw material reserves. Environmental permit applications were filed at these three locations in 2017.

The Vapo Clean Waters Ltd business, which focuses on the management and purification of natural waters, has implemented more than 40 water protection sites in agriculture, forestry and urban environments across Finland. The customer feedback received on these projects has been very positive.

Vapo Ventures' innovation activities have sought new business initiatives and their testing is currently underway. The new initiatives are particularly focused on the multi-purpose use of peat.

Plans for 2018

The new initiative that is currently the furthest along is Vapo Fibers, which was transferred to the Grow&Care division because the first products are mainly related to growing. The decision on the start of production will be made in 2018.

The Carbons business has reached the stage where our aim is to make the decision on the construction of the first production plant within 2018. Carbons is its own business unit and we recruited Jaakko Myllymäki to take charge of it.

As for Vapo Clean Waters Ltd, the business will unfortunately be wound down because the market for the treatment of natural waters has not supported the growth of the business. The aim was to attract enough external customers to make the business profitable within the first four years of operation.

The Group's innovation model will be renewed in 2018. Innovation activities are aimed at continuously identifying new business opportunities, and the focus in 2018 will be on testing their commercial and technological potential.

DEVELOPMENT OF COMPETENCE

In the strategy confirmed by Vapo's Board of Directors, the cornerstones of responsibility for personnel are employee competence and well-being at work. Internal training provides personnel with the tools for success as they take on more challenging tasks as required by the new organisation and strategy.

The focus areas in 2017 were the continued development of occupational safety and encouraging employees to develop their competence.

In 2017, Vapo Group was managed on a company-specific basis, including the management of human resources.

HR processes were consistent across Vapo Group's Finnish operations, namely Vapo Oy and Kekkilä Oy, but the other subsidiaries still had their own processes in 2017.

The Group started a project in 2017 aiming to define shared Group-level HR processes. In the first phase, a competitive bidding process began for a new HR system to be deployed throughout the Group. The aim is to acquire a technological platform that supports Group-level performance management and competence development. In addition, the system must continuously produce up-to-date information to help supervisors effectively manage their subordinates. Based on these criteria, Sympa was selected as the Group's HR system following the competitive bidding process. The Sympa system deployment project will begin in August 2018 and the aim is to have the system fully deployed by spring 2019.

The next phase involves defining the critical key competence areas that are necessary for success in each business as well as using GAP analysis to evaluate competence shortages. The results of these efforts will guide the training provided to employees and they will also be used in new recruitment.

One good example of effectively using the annual personnel surveys is the personnel development programme recently launched by the Grow&Care division. The respondents to the 2017 personnel survey sent a clear message. They want to be more involved in the development of their work community. This was the motivation behind starting the Growing Together development programme. The programme's target group spans the division's entire personnel and its goal is to improve values-driven operations. The programme has been implemented under the direction of Trainers' House. To date, the activities under the programme have included training Values Ambassadors chosen from various units within the organisation, arranging workshops and organising a 12-stop tour to communicate information about the programme. All of the events have been attended by the CEO, the HR Director and 2-3 Values Ambassadors. In addition to directly supporting the Growing Together development programme, the events have also given members of the sales team the opportunity to present information on commercial targets and the market situation.

Achievements in 2017

Vapo's HR policy highlights the importance of training and learning and encourages the personnel to pursue learning, as it is seen as the key to the renewal of the entire Group. Every member of Vapo's personnel has personal learning objectives, which creates more meaning for work. Employees are encouraged to assess the operating methods available to them, evaluate them critically and suggest improvements.

In the strategy confirmed by Vapo's Board of Directors, the two cornerstones of responsibility for personnel are employee competence and well-being at work. Training activities under the "On the Path to Global Leadership" programme, introduced in 2016, continued throughout the year. The number of participants was 344, which means than 90 per cent of the personnel participated in at least one training event. The average duration of these training events was two hours and fifteen minutes. With a total of 1,674 employees participating in the various training events, many Vapo employees took part in more than five different training events. This supports the findings of the personnel survey, which indicate that the employees have a very high level of interest in their own development.

The customised training for line managers that began in the previous year continued, with two separate "On the Path to Management" training events organised. The feedback regarding the training courses was very good. Similarly positive feedback was also received on two four-day field courses on peat production as well as the "Impress and Have an Impact" training focused on developing negotiation skills.

100 seasonal workers

With Finland celebrating the centenary of its independence in 2017, Vapo Oy hired a total of 100 young summer workers in summer 2017. Vapo also continued its effective cooperation with comprehensive school students. At the "Energy in Finland" events held across Finland, students have been invited on excursions to production sites.

In Finland, Vapo has participated in the Universum Most Attractive Employer survey on three occasions. Vapo's goal was to achieve a ranking among the Top 100 most attractive employers. This goal was achieved in 2016, when Vapo ranked 85th in the survey. The 2017 survey saw Vapo take 68th position on the list, and the company has now set a goal of cracking the Top 50 list of the most attractive employers in Finland. In Sweden, the goal is to achieve a ranking among the Top 100 most attractive employers.

Plans for 2018

Vapo Group has set a goal of providing feedback on performance to every employee. All office workers have scorecards and other tools, such as team-specific targets, are used at lower levels. In practice, performance assessment covers 100 per cent of the personnel. Personal performance and career development reviews cover approximately 75 per cent of the personnel.

The goal for 2018 is to harmonise the Group's HR and HRD policies to reflect the international organisational structure adopted on 1 May 2018. This is part of the HR function's reorganisation into a Group-level function, which is aimed at ensuring that HR better serves the needs of the Group's businesses.

WE DEVELOP CONTINUOUSLY – OBJECTIVES FOR 2018–2021



Delivery reliability and the security of supply by making use of digitality

Objective

Better delivery punctuality

Increasing order automation

We will be the most reliable supplier for our customers

Objective/Grow&Care

Digital delivery tracking based on chip technology, also linked to automatic customer communication and the extranet

Continuously developing the e-commerce offering to match B2B and B2C customer needs with respect to the product range, functionality and deliveries

Customer satisfaction

Objective

In 2021, the Net Promoter Scores per customer segment will be substantially higher than at present

We will be the most trusted partner in our industries (B2B and B2C)

Objective/Grow&Care

In 2020, the turnover-weighted Net Promoter Score will be 42

Innovations for sustainable development

Objective

Vapo's R&D expenses compared to the Finnish average (2.8% of GDP in 2016)

Number of new innovations per year

Development of competence

Objective

In the personnel survey, the score reflecting the employees' perception of learning new things will remain at an excellent level (at 8.7 at a minimum)

Strategic competence areas will guide personnel development programmes and recruitment

Increasing training hours per person

In the personnel survey, the score reflecting the perceived quality of managerial work will rise to an excellent level (at 8.7 at a minimum)

Vapo Group will be perceived as an attractive employer that is popular among new talent. Target rankings for Universum Most Attractive Employer surveys: Top 50 in Finland and Top 100 in Sweden.

Personal career development and target setting discussions included in the performance assessment system are held with every employee

WE GUARANTEE QUALITY AND SAFETY

 \mathcal{O}

 \bigcirc

Ì

- Quality and cost-efficiency of products and services
- Health and safety of personnel
- Health and safety of contractors
- Assessment of suppliers according to relevant criteria concerning environmental and social aspects

QUALITY AND COST-EFFICIENCY OF PRODUCTS AND SERVICES

Good management of feedback plays a key role in quality monitoring.

Vapo Group produces cost-efficient products and services, taking into account the needs and expectations of customers, owners and society. The cornerstones of operations are business profitability, developing the professional competence and job satisfaction of employees and continuously improving customer satisfaction at all levels, taking environmental issues and occupational safety into consideration.

Our customer-driven approach and ISO 9001 and ISO 14001 compliant management system ensure that our products and operations meet stakeholder needs. In the Kekkilä organisation, quality is also guided by Kekkilä's mission, "joy of growing", and vision, "the most the most trusted partner in growth". We adopted revised environmental and quality management standards in 2017. The scope of our certificates is discussed on page 21.

Quality control is an integral aspect of management and the day-to-day operating culture of our company. It is guided by a Quality Policy approved by Vapo's Board of Directors. We monitor the achievement of our quality targets by using quality indicators, which include customer feedback and the Net Promoter Score (NPS), which measures customer satisfaction and loyalty. A key role in our quality management is also played by internal and external audits focused on evaluating the effectiveness of our management system. As a result of external audits, Vapo Oy invested significantly in personnel development. Centralised procurement was also developed in the

Group's operations in Finland. Development opportunities were also identified in the areas of process descriptions, annual planning and complaint handling. Product quality is based on product-specific planning and quality control.

Achievements in 2017 and plans for 2018

Vapo began the development of feedback management in 2017 and these efforts will continue in 2018. We will enhance the collection of internal observations related to quality, environmental issues and occupational safety as well as customer feedback. We will utilise feedback in the development of our operations.

Kekkilä Group revised the measurement of customer satisfaction in all of its business areas. In 2018, we will also implement more active continuous measurement of customer satisfaction and utilisation of the results. The main emphasis in the development of quality management in 2017 was on establishing a daily meeting practice in the supply chain in accordance with the Lean approach.

Quality is created through the competent, responsible and ethical performance of us and our partners in all of our business functions.

The development of remote operating solutions for power plants has produced significant cost savings for Vapo and Vapo's customers. Vapo has played a key role in the legislative reforms that have enabled the remote operation of large power plants as well as the development of the remote operating solutions themselves. Remote operation was

22

Quality is created through the competent, responsible and ethical performance of us and our partners in all of our business functions.

introduced at Vapo's power plant in Forssa in spring 2017.

Remote operation has produced not only savings in operating and maintenance costs, but also improvements in the plants' energy efficiency and operability.

We have also been able to offer remote plant operating services to external customers, providing them with substantial cost savings potential. The most significant new initiative in this area was the cooperation we began on the operation and maintenance of the UPM Kalso steam boiler plant.

HEALTH AND SAFETY OF PERSONNEL

Nothing is more important than safety.

Vapo Group invests in the occupational safety and well-being of both employees and subcontractors. The goal is to provide a safe and healthy work environment under all circumstances. To ensure that everyone who works for Vapo Group gets to go home healthy at the end of the day, the safety of work is the starting point for all of our operations.

Vapo Group's safety organisation consists of the line organisation in which the supervisor represents the employer and is responsible for the employer's safety obligations. The line organisation's responsibility for safety extends from the line manager all the way up to the company's executive management. The Safety Manager is responsible for Vapo Oy's occupational safety and its development as well as the coordination of occupational safety throughout Vapo Group.

In addition to the line organisation's responsibilities, statutory cooperation on occupational health and safety is implemented by industrial safety committees that are formed for each OHS unit (Vapo Group Finland). The members of the industrial safety committees include occupational safety and health delegates elected by employees and occupational safety and health managers appointed by the employer.

Safety is based on the development of the company's safety culture. The commitment and example set by supervisors and the company's management plays a key role in this area. Our safety culture is based on open and two-way communication on safety. The safety targets and principles defined by senior management must be known throughout the supply chain, all the way down to the seasonal workers employed by subcontractors.

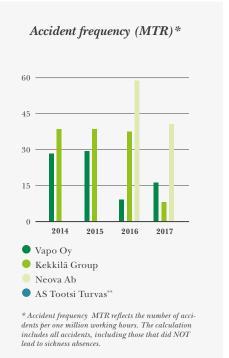
Safety management is a visible aspect of day-to-day operations rather than just a set of distant targets that are talked about. Safety-related dialogue takes place in contexts such as the management's safety walks, which give the personnel at different operating locations the opportunity to meet representatives of senior management.

Our approach to safety is based on being caring and proactive. Every individual must look after their own safety as well as the safety of the people they work with. In order for us to develop a proactive and caring safety culture, every individual must adopt "safety first" thinking.

Occupational safety in 2017

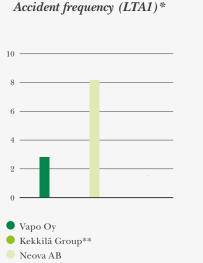
Vapo reports all workplace accidents that require a visit to occupational health services (MTR) and, separately, all workplace accidents that cause an absence of at least one day (LTA1). Accidents during commutes (between the home and workplace) are also included in the calculations. The accident frequency figures are calculated per one million working hours.

In 2017, Vapo Group's accident frequency (MTR), measured in terms of workplace accidents requiring a visit to occupational health services, was 15 (16). AS Tootsi Turvas had its third consecutive year of zero accidents. Kekkilä Group achieved the most significant



** No accidents after 2016

Graphs do not include subcontractors.

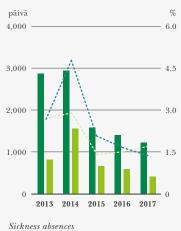


AS Tootsi Turvas**

* LTA1 frequency includes all incidents that lead to at least 1 day sickness absence. Includes also accidents during commutes; between the home and workplace.

** No accidents leading to absence

Sickness absences Vapo Group Finland



🛡 Vapo Oy 🛛 🗧 Kekkilä Oy

Cumulative sick leave -- Vapo Oy -- Kekkilä Oy decrease in workplace accidents.

In 2017, Vapo Group's accident frequency, measured in terms of workplace accidents causing an absence of at least one day (LTA1), was 2.3 (8). The number of workplace accidents leading to lost time was substantially reduced in all Group companies. Kekkilä Group and AS Tootsi Turvas had zero accidents leading to lost time.

Safety observations

The recording of safety observations has been proven to reduce accidents. In 2017, Vapo Group recorded a total of 3,375 (2,041) safety observations. Vapo Oy had the highest number of observations with 2,090 (1,618), followed by Kekkilä Group with 1,210 (365). The number of safety observations made in the AS Tootsi Turvas and Neova AB organisations were still low. A new digital tool (Nappi/OBS) was introduced in autumn 2017 to facilitate the recording and processing of safety observations. The deployment of the new system has substantially reduced the lead times of processing the observations.

The number of safety observations made in Kekkilä Group meant that each operating country was given the opportunity to donate EUR 1,000 to a charity that promotes the safety of children and young people. The chosen recipients were as follows:

- Finland: Panelia Volunteer Fire Department, youth and early youth section
- Sweden: Botildenborg Foundation (http://botildenborg.se/in-english/)
- Estonia: Social welfare for low-income families in the rural municipality of Lääne-Nigula
- The rest of the world: UNICEF

Plans for 2018

The target for 2018 is to have zero lost time caused by workplace accidents. Focus will be placed on the reporting of safety observations particularly in Neova AB and AS Tootsi Turvas. Safety reporting will be harmonised throughout the Group. The development of occupational safety culture will be promoted through systematic communication and employee training. The criteria for Vapo's safety award will be announced in 2018 and a values-driven discussion will be held with regard to occupational health and safety certification.

Occupational health services

Occupational health services for personnel are organised at the legally required level, at a minimum, in each operating country throughout the Group. In Finland, Suomen Terveystalo Oy is Vapo Group's nationwide occupational health partner. In addition to the treatment of illnesses, increasing emphasis has been placed on the management of risks related to work ability as well as flexible operating methods and ensuring that the services are easy to use. The Group's units in Finland have implemented electronic forms and a targeted booking portal to make occupational health services easy to manage within the company, both from the company's offices and from home. The online chat service, introduced last year to allow employees to have direct conversations with occupational health physicians, has been well received.

Job satisfaction has been increased by the model implemented by Vapo to allow employees to call in absent due to their own illness or a child's illness simply by notifying their direct supervisor, without having to provide a medical certificate. Medical certificates are only required for absences exceeding three days in the case of the employee's own illness and absences exceeding four days in the case of a child's illness.

The development measures implemented by the company have led to a significant reduction in sickness-related absences in recent years.

An early intervention model aimed at preventing substance abuse problems and reducing workplace accident risks is in use in Vapo Group's Finnish operations.

HEALTH AND SAFETY OF CONTRACTORS

A new digital tool makes it easier to record occupational safety observations.

For several years now, Vapo Group has invested in improving safety standards in the subcontracting chain through communication and training on the employer's most significant responsibilities related to safety. Subcontractors also agree to adhere to Vapo's management system and ensure that their subcontractors and employees are familiarised with the relevant policies and instructions. The safety-related obligations and responsibilities covered in Vapo's subcontracting agreements include occupational safety, environmental safety, fire safety and the safe use of machinery and equipment. In addition, each general contractor must have a valid occupational safety card. There have been signs of positive changes in safety-related attitudes among the managers of subcontracting companies in recent times. The continuity of safety communications is important throughout the supply chain to ensure that the employees of subcontracting companies are aware of their safety-related responsibilities and act accordingly. Subcontractor training events provide important opportunities for meetings to share best practices and operating methods between subcontractors.

Achievements in 2017

In 2017, some 85 per cent of all contractors participated in training that included content related to occupational safety and health. At feedback events, distinguished entrepreneurs have also received awards to recognise significant safety-related improvements.

In 2017, there were a few serious "near misses" in the subcontracting chain as well as one serious workplace accident, namely a road accident resulting in an injury to a driver of a heavy vehicle. There were no work-related fatalities during the year. The level of activity in recording safety observations in the subcontracting chain has remained low. In 2017, they represented less than 10 per cent (2%) of the total number of safety observations. In the second half of 2017, the new safety observation reporting tool Nappi/OBS was also deployed for use by subcontractors.

Plans for 2018

The target for 2018 is zero accidents leading to absence from work, both in the Group's own operations and in the subcontracting chain. The reporting of safety observations will be focused on in subcontractor training designed to familiarise subcontractors with the use of the new digital tool. The target is to increase the number of subcontractors' safety observations to at least 25 per cent of the total number of observations.

ASSESSMENT OF SUPPLIERS ACCORDING TO RELEVANT CRITERIA CONCERNING ENVIRONMENTAL AND SOCIAL ASPECTS

Vapo requires its suppliers to be fully committed to the Vapo Group Code of Conduct.

Each year, Vapo purchases products and services worth approximately EUR 350 million (this figure does not include pension insurance and tax expenses). Another EUR 39 million is spent on personnel expenses. The Group's most significant procurement-related expense items are peat, wood and logistics contracting. Vapo's network of suppliers currently includes approximately 700 contract suppliers and another 8,500 invoicing suppliers. Vapo's suppliers are largely local and their operations are based in Finland close to where their services are required. Vapo's procurement activities and their guiding principles are determined by Vapo's procurement policy. The procurement policy includes requirements pertaining to supplier responsibility and ethics. The Group Procurement Director is responsible for Vapo Group's procurement policy.

Vapo requires its suppliers of goods and services to have certified responsible operations, transparency and certainty that the goods and services are produced and implemented in an ethically sustainable manner. The supplier requirements concerning environmental and social perspectives have been incorporated into Vapo's Code of Conduct. Vapo's suppliers must be committed to compliance with Vapo's Code of Conduct and the requirements specified therein. An unconditional requirement in the selection of new suppliers is that they must satisfy the standards set out in the Code of Conduct.

Vapo assesses its suppliers of goods and services on a regular basis, in accordance with an annual assessment plan. Before the assessment plan is made, strategic suppliers are identified each year. From this group of identified strategic suppliers, some are selected for supplier audits based on their criticality and other relevant reasons. The preparation of the assessment plan and the implementation of the assessments themselves are the responsibility of Vapo's procurement function and regional organisations together. The supplier assessment criteria include environmental and social criteria. Vapo assesses its suppliers based on assessment criteria defined for different supplier groups. Requirements related to environmental and social aspects are used as assessment criteria in all supplier groups.

The implementation of the assessment programme is monitored and, in its area of responsibility, implemented, by Vapo's centralised procurement function. For suppliers in Vapo's customer regions, the implementation of assessments is the responsibility of the persons in charge of quality for each customer region. The same resources are also responsible for monitoring the implementation of measures that are initiated in response to the assessments. The results of the assessments are recorded in Vapo's procurement system, which is also used to monitor and report on the implementation of the practical measures arising from them.

The supplier assessments are aimed at preventing and identifying risks related to strategic suppliers, ensuring contractually compliant operations and supporting the supplier's capacity to produce quality, developing supplier cooperation and ensuring supplier compliance with the Code of Conduct. If any deficiencies are observed in the operations of a supplier, Vapo helps the supplier remedy the situation. Vapo only cooperates with suppliers that comply with the Code of Conduct. Infringements of the Code of Conduct may lead to contract termination.

Achievements in 2017

In 2017, Vapo incorporated the Code of Conduct into all new procurement agreements and familiarised contract suppliers with the requirements stipulated by the Code of Conduct. Supplier compliance with Vapo's criteria was taken into account in the selection of all new suppliers. Actual audits are made in connection with choosing suppliers based on a supplier risk assessment and the degree to which the procurement is critical. The Code of Conduct currently covers approximately 90 per cent of Vapo's procurement contracts.

Vapo Group has identified about 100 strategic suppliers. Of these, some 35 were assessed in accordance with the assessment plan in 2017. Corrective measures were identified based on the assessments. No serious deficiencies were observed and no partnerships were terminated based on the assessments.

Plans for 2018

The goal for 2018 is to incorporate the Code of Conduct into all procurement contracts, ensure that contractual partners are familiar with the Code of Conduct and take the Code of Conduct into account in the criteria applied in the selection of all new suppliers.

Based on the assessment plan, the target is to assess 40 strategic suppliers throughout Vapo Group.

The target is that Vapo Group's suppliers will have no serious nonconformities related to compliance with the Code of Conduct in 2018.

WE GUARANTEE QUALITY AND SAFETY – OBJECTIVES FOR 2018–2021



Quality and cost-efficiency of products and services

Objective

New products launched in the market will promote sustainable development

Reducing complaints pertaining to the quality of products and services

We are a competitive alternative in relation to other comparable operators

Health and safety of contractors

Objective

Contractors are 100% committed to the safety commitment and operate accordingly

Contractor health and safety training is organised annually as part of other training organised for contractors

Occupational health and safety of personnel

Objective

100% safety by 2021

10 occupational safety observations per person by 2021

Assessment of suppliers according to relevant criteria concerning environmental and social aspects

Objective

The number of audits of strategic contractual suppliers will be increased to 40 from the current level of 35

The Code of Conduct is incorporated into all contracting agreements (100%)

WE CREATE WELL-BEING

- Job satisfaction and well-being of personnel
- Equality and diversity
- Local employment effects
- Economic impact

 \mathcal{O}

 \bigcirc

 \bigcirc

JOB SATISFACTION AND WELL-BEING

Open communication promotes job satisfaction.

Vapo Group aims for continuous improvement in areas related to job satisfaction and employee well-being. Progress in these areas is measured by annual Group-wide personnel surveys, the results of which are reviewed at multiple levels, from the Group level down to teams. Based on the results, corrective measures are planned for various levels of the organisation.

The Group-level results are published on

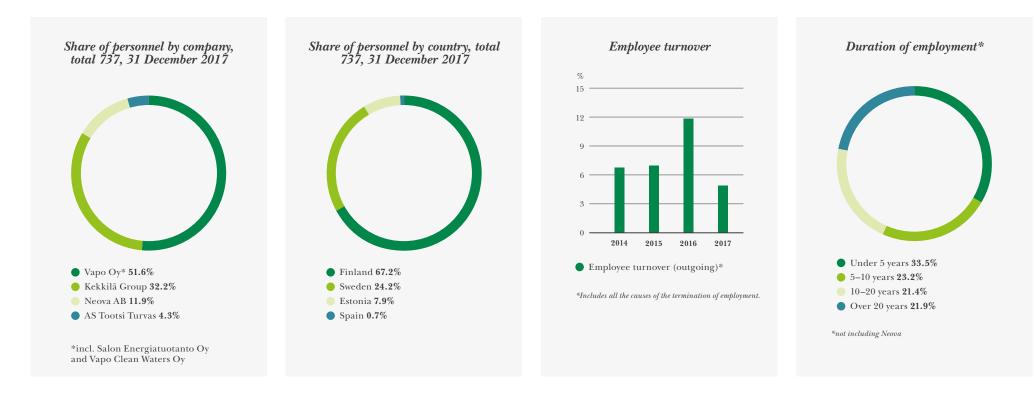
the intranet. The results are also reviewed by supervisors. Ongoing and open internal communication aims to promote job satisfaction among the personnel, and employees are also encouraged to offer constructive criticism and suggestions for improvement. The Group's intranet includes a function for submitting anonymous comments.

To activate internal communication between various groups, dozens of Yammer

groups have been created on the intranet. The responsibility for content production lies with the groups themselves. The content of the Yammer groups is not monitored.

In 2017, Vapo Studio was introduced as a new digital channel for internal communication. Vapo Studio is a live-streamed videoconference that covers current topics and gives the personnel the opportunity to present questions to management. Vapo Studio events in 2017 covered topics such as the Group's interim results, the land sale project, the plans for new businesses and the company's strategic and structural reforms. Participating in the Vapo Studio events is voluntary.

Vapo Group also aims to promote the well-being of its personnel by encouraging them to engage in sports and cultural activities.



Number of personnel

There were no significant codetermination procedures related to personnel reductions in the Group in 2017. At the end of the financial year, the number of personnel was 719, down from 745 a year earlier. Employee turnover was 4.9 per cent.

The first Group-level personnel survey

Vapo Group conducted its first Group-level personnel survey at the turn of the year 2017–2018. The survey was implemented as an anonymous online questionnaire. The response rate was very high at 87.2 per cent. The respondents awarded scores for various areas on a scale of 4–10.

The Group's average score for all of the surveyed areas was 8.43. The highest scores from personnel were received in areas related to the respondents' own work (8.65), managerial work (8.54) and teamwork (8.50). The score awarded for the questions that were focused on cooperation between organisations was 8.07, highlighting this as a development area where job satisfaction should be improved further.

The best scores in the most recent survey were awarded for questions concerning the employees' desire to develop their competence (9.26). The respondents also appreciated the fact that customer service and its improvement are among the company's key objectives (9.03). A third factor that employees perceived as significantly improving job satisfaction was the support received from colleagues (8.96).

The areas with the lowest scores in the survey included the achievement of common goals (7.38), a culture of working together (7.66) and the employees' feeling of whether they are perceived as an important resource for the company (7.71).

The results of the survey have already been put to use in the development of the

new Group-level HR organisation. The results were also used to establish objectives for the coming years in order to make the employees feel that they are the company's most important resource. The purpose of this One Company objective is to ensure that all employee groups have an equal opportunity to perform well in their work and receive training. As part of this objective, the organisation has agreed on a zero tolerance policy regarding all forms of discrimination and improper conduct.

Plans for 2018

Based on the personnel survey, a three-year development target was set for the Group. The Group's target score for the year 2021 was set at 8.7. A particular priority will be developing a culture in which goals are achieved by working together. The target overall score set for the personnel survey to be conducted in January 2019 is 8.5.

55

The best scores in the most recent survey were awarded for questions concerning the employees' desire to develop their competence (9.26).

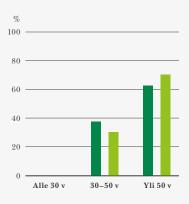
EQUALITY AND DIVERSITY

Zero tolerance for discrimination and improper conduct.

At Vapo, we respect — and comply with international human rights agreements. We monitor the impacts of our operations on human rights and, if necessary, make changes to our operations in order to avoid human rights violations.

We do not condone discrimination based on race, nationality, ethnic origin, age, religion, political convictions, gender or other such factors. We do not use child labour and we do not condone working conditions

Composition of administrative bodies



 Composition of Vapo's Board of Directors*

Composition of Group Management

*Eight members in total: five men (62.5%) and three women (37.5%). under 30 yrs: 0; 30-50 yrs: 3 (37,5%), over 50 yrs: 5 (62,5%)

10 members in total: 8 men (80%) and two women (20%). under 30 yrs: 0; 30-50 yrs: 3 (30%), over 50 yrs: 7 (70 %) or treatment of workers that violates the legislation of the countries we operate in. The management was not informed of any incidents of discrimination in 2017.

In the personnel survey conducted in January 2018, the employees were asked whether they have experienced or observed any discrimination or inappropriate treatment. According to the responses, 7.6 per cent of the Group's personnel have experienced discrimination and 12.5 per cent have observed inappropriate treatment. The timing of the observations was not revealed by the survey. In order for the management to establish a clearer picture of the issue, supervisors were instructed to bring up the topic with every employee in performance reviews. The question will be phrased more precisely in the next personnel survey.

Vapo does not employ any workers aged under 15 years or the minimum age according to national legislation (whichever is higher) in line with the ILO Convention 138 on child labour. We ensure that employing young people above minimum age but under 18 years does not jeopardise their education, health, safety or morals. Our recruitment choices are based on professional skills and expertise. We treat all employees equally and follow procedures that promote equality and non-discrimination in our operations.

We respect the right of our employees to form collectives or trade unions in order to negotiate and protect their labour rights. We do not discriminate against employees based on membership of a trade union, nor do we make recruitment conditional on giving up membership of a trade union or refusing to join a trade union. If we operate in a country in which only state-approved organisations are permitted, we support our employees' opportunities to assemble to discuss work-related matters and to bring up such matters with the management.

We pay employees at least the minimum wage and applicable overtime wages and bonuses related to working conditions as defined by national laws or any applicable collective agreements. We comply with country-specific legislation and collective agreements pertaining to working hours. If no such laws or collective agreements exist, working hours will not exceed 48 hours per week.

In hiring new personnel, the selection is based on the applicants' qualifications and ability to perform the job. A further goal is for gender to have no effect on pay.

Some 70 per cent of the Group's personnel are men and 30 per cent are women. The reason for the difference is that, for example, in heat and power plants as well as peat production, many jobs are physically demanding. If there were more female applicants for these jobs, the company would be very pleased to hire them to balance out the gender ratio.

Three of the eight members of Vapo's Board of Directors are women. Of the 10 members of Vapo's Supervisory Board, three are women, and there is one woman among the nine members of Vapo's management team.

The company monitors the development of pay for jobs at different levels via Mercer. At certain levels, the reliability of the comparisons is reduced by one gender being significantly less represented than the other.

Objectives for 2018

- No incidents of discrimination
- No improper conduct
- Equal pay for equally demanding jobs
- Balancing out the gender ratio among the company's personnel

LOCAL EMPLOYMENT EFFECTS

Vapo is a significant employer outside cities and urban areas.

Vapo's local impacts as an employer, taxpayer and buyer of products and services are significant, particularly in the Group's main operating countries of Finland, Sweden and Estonia.

Vapo's total investments in Finland amounted to approximately EUR 23.4 million in 2017. The corresponding figure for the previous year was more than EUR 26.3 million. The most significant investments were the construction of Valio's heating plant in Jyväskylä and the renovation of the Vekaranjärvi heating plant.

Plans for 2018

Vapo Group's business is very local. The company aims to continue to use the services of local businesses and subcontractors where possible. The company has no current plans to reduce the size of its network of operating locations.

Wages paid by Vapo Group's Finnish companies by region in 2017

The map indicates the wages paid by Vapo Group's Finnish companies by region and order of magnitude.

0-499,999€

● 500,000-1,999,999 €

● 2,000,000-4,999,999 €

● 5,000,000-€

Wages paid by Vapo Group's Finnish companies in 2017, top 20 municipalities, EUR million

Municipality	Taxable income
Jyväskylä	5,103,887
Helsinki	2,104,201
Espoo	1,566,233
Seinäjoki	1,272,202
Vantaa	1,216,154
Oulu	964,017
Parkano	839,110
Киоріо	573,168
Siikalatva	506,596
Forssa	440,418
Salo	425,523
Eura	389,079
Kihniö	389,063
Lieksa	365,337
Mikkeli	337,579
Janakkala	332,815
Jalasjärvi	292,082
Eurajoki	286,749
Sotkamo	273,634
Laukaa	269,133
Total	17,946,978

ECONOMIC IMPACT

Turnover turned to growth and profitability improved.

Profitable business is the foundation for economic responsibility. During the past five years, Vapo has made significant investments in improving profitability and developing new businesses to ensure the company's continued existence and the livelihood of its employees and partners far into the future.

The financial year 1 May 2017–30 April 2018 was fairly satisfactory financially. The Group's turnover grew by seven per cent after declining for several years. Profitability also improved. The Group's operating profit was EUR 26.3 million (EUR 20 million), up by nearly a third compared to the previous financial year. Profitability improved across all of the Group's businesses.

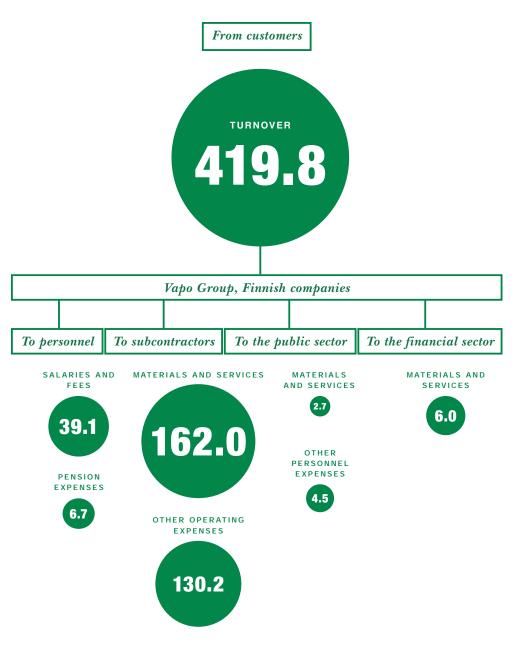
The Group's free cash flow was on par with the previous year at EUR 73 million. Thanks to moderate investments and strong cash flow, the Group was able to substantially reduce its net debt. At the end of the financial year, the equity ratio stood at 51 per cent (43%).

The new businesses announced in 2016, Vapo Fibers and Vapo Carbons, are good examples of new business initiatives that are based on Vapo's strengths and help build the company's future competitiveness. Vapo Fibers moved from the product development stage to the commercialisation stage at the end of the financial year. The Group has applied for environmental permits in Haapavesi, Ilomantsi and Seinäjoki for Vapo Carbons' potential production facility for activated carbon. Vapo Oy's Board of Directors will make the final investment decision once the environmental permits are legally valid. Vapo Group companies pay all of their statutory taxes, based on their own business operations, to the country in which they operate. Vapo Group companies do not engage in aggressive tax planning. None of the Group companies have unpaid taxes or pending appeal processes. Group administration is responsible for the implementation of Vapo's tax strategy and compliance with country-specific tax regulations.

Plans for 2018

The Group expects its turnover to grow and profitability to be at least on par with the previous year.

New businesses will significantly increase the company's investments in the coming years if new production capacity will be built.



Economic impacts during the financial 1 May 2017-30 April 2018, (EUR million)

WE CREATE WELL-BEING - OBJECTIVES FOR 2018-2021



Job satisfaction and well-being of personnel

Objective

Excellent results in the personnel survey (minimum score 8.7)

The employees' perception of being treated as a valuable resource will be at least at a good level in the personnel survey (minimum score 8.5)

Local employment effects

Objective

Contracting and transport agreements are always signed with domestic and local entrepreneurs when possible

Equality and diversity

Objective

Men and women receive the same basic pay for equally demanding jobs

We will increase the number of women among our personnel

Economic impact

Objective

Equity ratio above 40%

Vapo Group's long-term success is assessed in terms of its operational profitability and the following performance indicators: return on invested capital, ratio of net debt to operating margin and equity ratio.



 \mathcal{O}

 \bigcirc

Ó,

 \mathcal{O}

- We take care of nature
- We develop continuously
- We guarantee quality and safety
- We create well-being

WE TAKE CARE OF NATURE

Emissions into waterways

Specific load (kg/ha/a)	2013	2014	2015	2016	2017
Solid matter	43.8	38.2	40.1	37.0	30.0
Nitrogen	7.0	6.6	9.2	9.7	6.8
Phosphorus	0.3	0.2	0.3	0.4	0.2
Total load (t/a)					
Solid matter	3,002	2,116	2,193	1,923	1,631
Nitrogen	459	367	428	362	374
Phosphorus	18	11	13	12	11

Emissions into waterways are reported for Vapo Group's peat production operations in Finland. For emissions into waterways, report nitrogen, phosphorus and solid matter emissions for those Finnish operations whose environmental permits include the obligation to calculate the annual load. The calculations are based on samples.

Emissions from heat and power plants and pellet factories

	2015	2016	2017
CO ₂ emissions, 1,000 tonnes	335	344	345
Particles, t	179	138	115
NO _x , t	777	940	998
SO ₂ , t	503	637	421

For airborne emissions, SO_2 , NO_x , particle and carbon dioxide emissions are reported for all of Vapo's own power and heating plants. For pellet factories, report the parameters subject to monitoring by the authorities. Airborne emissions from plants are monitored by emission measurements taken by an external expert or by continuous emission measuring devices. The total airborne SO_2 , NO_x and particle emissions are calculated based on the emission factors applied to emission measurements and actual fuel consumption figures. The emission factors provided by Statistics Finland have been used in calculating carbon dioxide emissions.

Waste volume (tonnes)

	2013	2014	2015	2016	2017
Landfill disposal	8,130.0	9,402.0	7,512.7	4,758.0	3,164.0
Recycled	16,287.0	23,059.0	25,799.4	12,374.0	26,075.0
Total waste volume	24,417.0	32,461.0	33,312.0	17,132.0	29,237.0
Recycling rate, %	67	71	77	72	89

For waste volume and recycling rate, the reporting covers all of the Group's operations except Kekkilä Eesti OÜ and Hasselfors Garden.

WE DEVELOP CONTINUOUSLY

Fuels used in the production of electricity and heating – Vapo Oy

GWh	2013	2014	2015	2016	2017
Wood fuels	670	446	433	522	508
Pellet	204	194	173	171	172
Energy peat	663	740	821	798	837
Oil	79	72	74	68	57
Coal	67	42	25	38	25
Recovered fuel	3	2	2	1	1
Fuels total	1,687	1,496	1,529	1,598	1,599
Energy production total	1,371	1,320	1,305	1,321	1,405

Fuels used in the production of electricity and heating – Neova AB

GWh	2013	2014	2015	2016	2017
Wood fuels	357	354	382	397	378
Pellet	59	65	65	80	81
Energy peat	12	10	10	14	11
Oil	11	8	8	7	6
Coal	36	20	17	20	18
Recovered fuel	12	11	9	9	4
Fuels total	487	468	491	527	498
Energy production total	437	421	443	483	454

Fuels used in the production of electricity and heating – AS Tootsi Turvas

GWh	2013	2014	2015	2016	2017
Wood fuels				3	
Pellet	3	3	2	2	1
Energy peat	33	29	27	35	40
Oil	3	0,2	0,1	0,1	0,3
Coal					
Recovered fuel					
Fuels total	38	32	29	40	41
Energy production total	31	28	27	35	39

Fuels used in the production of electricity and heating – Vapo Group

GWh	2013	2014	2015	2016	2017
Wood fuels	1,027	800	815	922	886
Pellet	265	262	241	253	254
Energy peat	708	779	858	847	888
Oil	93	80	82	75	63
Coal	103	62	42	58	43
Recovered fuel	15	13	11	10	5
Fuels total	2,212	1,996	2,049	2,165	2,139
Energy production total	1,839	1,769	1,775	1,839	1,898

Vapo Group, fuels supplied by region (TWh)

	TWh	2013	2014	2015	2016	2017
CA Southeast	Pellet	0.1	0.1	0.1	0.2	0.3
	Wood fuels	0.6	0.3	0.3	0.2	0.2
	Energy peat	1.0	1.0	1.1	1.2	1.1
	Total	1.7	1.3	1.5	1.6	1.6
CA Southwest	Pellet	0.3	0.3	0.3	0.3	0.2
	Wood fuels	0.5	0.3	0.4	0.5	0.5
	Energy peat	1.5	2.1	2.1	2.0	1.9
	Total	2.3	2.7	2.8	2.8	2.6
CA East	Pellet	0.1	0.0	0.0	0.0	0.0
	Wood fuels	0.4	0.3	0.2	0.3	0.3
	Energy peat	1.5	1.2	1.3	1.4	1.2
	Total	1.9	1.6	1.6	1.8	1.6
CA West	Pellet	0.2	0.2	0.2	0.2	0.1
	Wood fuels	0.2	0.2	0.2	0.2	0.2
	Energy peat	2.5	2.3	2.4	2.7	2.5
	Total	2.9	2.7	2.7	3.0	2.9
CA North	Pellet	0.1	0.1	0.1	0.1	0.1
	Wood fuels	0.5	0.5	0.4	0.5	0.5
	Energy peat	3.1	2.9	2.5	2.2	2.4
	Total	3.7	3.6	3.0	2.8	3.0
Vapo Oy	Pellet	0.7	0.7	0.6	0.8	0.7
total	Wood fuels	2.2	1.6	1.5	1.6	1.8
	Energy peat	9.7	9.6	9.4	9.5	9.2
	Total	12.6	11.8	11.6	11.9	11.7

AS Tootsi	Wood fuels	0,2	0,3	0,3	0,3	0,4
Turvas	Energy peat	0,3	0,2	0,2	0,2	0,3
	Total	0,5	0,4	0,4	0,5	0,7
Neova AB	Pellet	1,2	0,5	0,0	0,0	0,0
	Wood fuels	0,0	0,0	0,1	0,1	0,1
	Energy peat	1,0	0,8	0,8	0,8	0,7
	Total	2,2	1,3	0,8	0,8	0,8
VAPO-	Pellet	1,9	1,2	0,6	0,8	0,7
GROUP TOTAL	Wood fuels	2,4	1,9	1,8	2,0	2,3
	Energy peat	11,0	10,6	10,4	10,4	10,2
	Total	15,3	13,6	12,8	13,2	13,2

Vapo Group's peat production by country

Country	1000 m³	2013	2014	2015	2016	2017
Finland	Milled fuel peat	15,173.1	13,945.9	7,376.3	6,148.2	5,685.6
	Sod peat	850.7	876.8	611.0	464.1	483.2
	Environmental peat	2,144.8	1,440.8	1,070.7	1,213.3	1,248.3
	Total	18,168.6	16,263.5	9,058.0	7,825.6	7,417.2
Sweden	Milled fuel peat	734.0	613.1	253.3	379.0	392.3
	Sod peat	634.1	647.4	326.9	269.1	215.4
	Environmental peat	1,141.6	815.2	718.4	887.3	1,036.0
	Total	2,509.8	2,075.7	1,298.7	1,535.4	1,643.7
Estonia	Milled fuel peat	507.7	225.9	11.8	0.0	0.0
	Sod peat	164.9	263.8	116.4	0.8	33.3
	Environmental peat	951.9	937.7	1,009.7	842.7	1,154.6
	Total	1,624.5	1,427.4	1,137.9	843.6	1,187.9
Norway	Milled fuel peat					
	Sod peat					
	Environmental peat	105.0	70.5	122.2	46.0	26.4
	Total	105.0	70.5	122.2	46.0	26.4
Latvia	Milled fuel peat					
	Sod peat	29.8				
	Environmental peat	423.6				
	Total	453.4				
VAPO-	Milled fuel peat	16,414.8	14,784.9	7,641.4	6,527.2	6,078.0
GROUP TOTAL	Sod peat	1,679.5	1,788.1	1,054.3	734.1	732.0
	Environmental peat	4,767.1	3,264.2	2,921.1	2,989.2	3,465.3
	Total	22,861.4	19,837.2	11,616.7	10,250.5	10,275.3

WE GUARANTEE QUALITY AND SAFETY

Accident frequency 2015–2017 (MTR*)

	2014	2015	2016	2017 women	2017 men	2017 total
Vаро Оу	21	24	7	4	7	11
Kekkilä Group	8	8	8	0	3	3
Neova AB	n/a	n/a	7	0	5	5
AS Tootsi Turvas	n/a	n/a	0	0	0	0
Total	29	32	22	4	15	19

* MTR includes all workplace accidents, including those that did NOT lead to sickness absences. Also includes accidents during commutes (between the home and workplace).

** 2014–2015 figures for Neova AB and AS Tootsi Turvas are not available

Accident frequency 2017 (LTA1**)

Recorded safety observations 2015-2017

	2017		2014	
Vаро Оу	2	Vаро Оу	519	
Kekkilä Group	0	Kekkilä Group	46	
Neova AB	1	Neova AB	n/a	
AS Tootsi Turvas	0	AS Tootsi Turvas	n/a	
Total	3	Total	565	

	2014	2015	2016	2017
Vаро Оу	519	555	1 618	2 090
Kekkilä Group	46	104	365	1 210
Neova AB	n/a	n/a	4	13
AS Tootsi Turvas	n/a	n/a	54	62
Total	565	659	2,041	3,375

** LTA1 includes workplace accidents that led to a sickness-related absence of at least one (1) day.

Sickness absences caused by workplace accidents, days

	2016	2017
Vapo Group, Finland	19	142*

* Two (2) workplace accidents leading to sickness absences, one of which led to an absence of 120 days

WE CREATE WELL-BEING

Purchases and investments by region in 2017, EUR

Region	Purchases	Change %	Investments	Change %	Total
South Karelia	7,191,510	-10.2%	920,216	18.8%	8,111,726
Southern Ostrobothnia	14,359,245	9.9%	1,255,284	-62.9%	15,614,530
Southern Savonia	2,344,613	-11.1%	479,708	-36.7%	2,824,320
Kainuu	3,954,784	49.7%	1,609,351	290.2%	5,564,135
Kanta-Häme	8,263,074	-5.3%	945,552	2.8%	9,208,626
Central Ostrobothnia	927,193	15.0%	54,534	-49.0%	981,727
Central Finland	8,652,203	16.7%	8,082,252	4.0%	16,734,455
Kymenlaakso	1,574,900	-18.6%	3,283,157	1245.8%	4,858,057
Lapland	5,940,524	-19.2%	186,848	-53.0%	6,127,373
Pirkanmaa	21,187,013	1.9%	1,745,688	-39.7%	22,932,700
Southern Ostrobothnia	390,240	119.0%	1,012,168	101.6%	1,402,408
Northern Karelia	9,926,808	-25.6%	852,630	-5.4%	10,779,438
Northern Ostrobothnia	12,972,147	-1.7%	860,948	-62.5%	13,833,095
Northern Savonia	4,545,278	12.2%	548,592	-20.5%	5,093,870
Päijät-Häme	867,180	3.1%	24,730	-89.8%	891,910
Satakunta	9,667,172	-21.1%	667,782	-26.2%	10,334,954
Uusimaa	6,016,621	61.7%	223,519	-92.7%	6,240,140
Southwest Finland	3,698,951	42.7%	602,824	33150.1%	4,301,775
Total	122,479,457	-0.9%	23,355,784	-11.1%	145,835,240

Personnel covered by collective bargaining agreements on 31 December 2017

	Number of personnel 2017	Personnel covered by CBAs, %	Number of CBAs
Vаро Оу	380	46%	7
Kekkilä Oy	115	42%	2
Hasselfors Garden AB	91	98%	2
Neova AB	88	99%	2
AS Tootsi Turvas	32	0%	0
Kekkilä Eesti OÜ	26	0%	0
Kekkilä Iberia S.L.	5	0%	0

Number of personnel on 31 December

	2015	2016	2017
Vаро Оу	425	372	380
Kekkilä Oy	112	109	115
Hasselfors Garden Ab	82	88	91
Neova AB	81	83	88
AS Tootsi Turvas	33	33	32
Kekkilä Eesti OÜ	24	24	26
Kekkilä Iberia S.L.	3	4	5
Total	760	713	737

Type of employment

	2015	2016	2017
Permanent	722	664	669
Fixed term	38	49	68
Total	760	713	737

Gender distribution

	2015	2016	2017
Women	218	207	227
Men	542	506	510
Total	760	713	737

Vapo Group's tax footprint, figures for the financial year 1 May 2017–30 April 2018, EUR million

	Finland	Sweden	Estonia	Spain
DIRECT TAXES PAYABLE FOR THE FINANCIAL YEAR, EUR MILLION				
Income taxes	1.691	0.200		
Employer contributions	0.297	2.654	0.626	
Property taxes	0.403	0.012	0.044	
Other taxes		0.108	0.088	
INDIRECT TAXES PAYABLE FOR THE FINANCIAL YEAR, EUR MILLION				
Excise taxes	2.074	0.097	0.248	
TAXES REMITTED FOR THE FINANCIAL YEAR, MEUR				
Withholding taxes	7.836	2.747	0.345	
Value added tax, sales	76.773	19.765	4.050	
Value added tax, purchases	56.669	14.794	4.920	0.012
Other taxes	0.229	0.146		
Turnover by country	328.725	77.546	26.991	0.449
Result before taxes by country	13.258	2.242	2.728	-0.009
Personnel by country	530	187	57	5
Net investments by country	18.786	5.635	0.720	
Grants and public subsidies		2.620		

REPORTING PRINCIPLES AND GRI INDEX

This is the first corporate responsibility report that covers Vapo Group as a whole. The scope of the previous reports was limited to Vapo Oy's operations in Finland. This report was drawn up based on the Global Reporting Initiative (GRI) Core scope and the Electric Utilities Sector Supplement.

The reporting period is 1 January–31 December 2017. The reporting period for financial information is Vapo Group's financial year, 1 May 2017–30 April 2018. The previous responsibility report for Vapo Oy was published in July 2017. The report has not been externally assured. Vapo Group will report on its responsibility annually.

This report is based on the first materiality analysis of responsibility covering the entire Vapo Group, which was conducted in late 2017. For each of the material aspects, objectives for 2018–2021 and performance indicators were defined in early 2018. Performance indicators concerning the entire Group will be reported more comprehensively in the next report on the year 2018.

Calculation principles and boundaries

The calculation principles and boundaries of environmental figures are primarily reported in the context of the relevant charts and tables.

Diversions

Diversions measures involving water treatment structures in Vapo's peat production operations in Finland are reported under spills.

Habitats protected or restored

For protected or restored habitats, report voluntary participation in waterway restoration projects related to peat production operations in Finland. Report in terms of the number of projects. Also report the sale of Vapo Oy-owned peatlands with significant nature value for conservation purposes. The information is reported in hectares. For Vapo Oy, the peatlands owned by the company according to the government's peatland classification (0–5) are reported, along with wetlands and reforested areas (in hectares) built on cutaway peatlands.

Material aspect	Boundary
Life cycle impact of products and solutions	Vapo Group's operations
Emissions into waterways from peat production	Vapo Group's peat production areas
Energy efficiency	Vapo Group's operations
Airborne emissions	Vapo Group's power and heating plants, pellet factories
Biodiversity	Vapo Group's current and decommissioned peat peat production areas
Delivery reliability and the security of supply by making use of digitality	Vapo Group's operations
Customer satisfaction	Vapo Group's operations
Innovations for sustainable development	Vapo Group's operations
Development of competence	Vapo Group's operations
Quality and cost-efficiency of products and services	Vapo Group's operations
Health and safety of personnel	Vapo Group's operations
Health and safety of contractors	Contractors
Assessment of suppliers according to relevant criteria concerning the environmen- tal and social aspects	Vapo Group's operations
Job satisfaction and well-being of the personnel	Vapo Group's operations
Equality and diversity	Vapo Group's operations
Local employment effects	Vapo Group's operations
Economic impact	Vapo Group's operations

Contact information

For more information on the data presented in this report, please contact the following persons:

Ahti Martikainen, Director, Communications and Public Relations

Environmental responsibility

Teija Hartikka, Senior Manager, Environment

Katja Oksala, Senior Manager, Quality

Economic responsibility Antti Koivula, Acting CFO

Social responsibility Jaana Helanen, Director, HR

E-mail address format: firstname.lastname@vapo.fi

GRI-INDEKSI

		Page number	Comments
ORGANISATION			
Disclosure 102-1	Name of the organization	1	
Disclosure 102-2	Activities, brands, products, and services	6	
Disclosure 102-3	Location of headquarters	Back cover	
Disclosure 102-4	Location of operations	7	
Disclosure 102-5	Ownership and legal form	GRI-index	The state of Finland has a holding of 50.1 per cent in the parent company Vapo Oy, while Suomen Energiavarat Oy holds 49.9 per cent.
Disclosure 102-6	Markets served	6 - 7, vapo.fi	
Disclosure 102-7	Scale of the organization	48, 7, 52, Finacial Statements and Board of Directors' Report 8 - 11	
Disclosure 102-8	Information on employees and other workers	47	Reported partly. Permanent and temporary employees not reported by gender and country. Full-time and part-time employees not reported. No significant employee number variations.
Disclosure 102-9	Supply chain	44	
Disclosure 102-10	Significant changes to the organization and its supply chain	GRI-index	No significant changes.
Disclosure 102-11	Precautionary Principle or approach	Finacial Statements and Board of Directors' Report 13 - 18	
Disclosure 102-12	External initiatives	GRI-index	No external initiatives.
Disclosure 102-13	Membership of associations	14	
STRATEGY			
Disclosure 102-14	Statement from senior decision-maker	4	
Disclosure 102-15	Key impacts, risks, and opportunities	8-9, 11, Financial Statement and Board of Directors' Report 13 - 18	
ETHICS AND INTEGRITY			
Disclosure 102-16	Values, principles, standards, and norms of behavior	17	
Disclosure 102-17	Mechanisms for advice and concerns about ethics	17	
GOVERNANCE			
Disclosure 102-18	Governance structure	12	
Disclosure 102-23	Chair of the highest governance body	Governance statement (in Finnish) xx	
Disclosure 102-26	Role of highest governance body in setting purpose, values, and strategy	Governance statement (in Finnish) xx	
Disclosure 102-32	Highest governance body's role in sustainability reporting	12	

		Page number	Comments
STAKEHOLDER ENGAGEMENT			
Disclosure 102-40	List of stakeholder groups	15 - 16	
Disclosure 102-41	Collective bargaining agreements	62	
Disclosure 102-42	Identifying and selecting stakeholders	13	
Disclosure 102-43	Approach to stakeholder engagement	13 - 14	
Disclosure 102-44	Key topics and concerns raised	15 - 16	
REPORTING PRACTICE			
Disclosure 102-45	Entities included in the consolidated financial statements	Financial Statement and Board of Directors' Report 37	
Disclosure 102-46	Defining report content and topic Boundaries	12	
Disclosure 102-47	List of material topics	13	
Disclosure 102-48	Restatements of information	27	
Disclosure 102-49	Changes in reporting	12-13	
Disclosure 102-50	Reporting period	64	
Disclosure 102-51	Date of most recent report	64	
Disclosure 102-52	Reporting cycle	64	
Disclosure 102-53	Contact point for questions regarding the report	64	
Disclosure 102-54	Claims of reporting in accordance with the GRI Standards	64	
Disclosure 102-55	GRI content index	65 - 68	
Disclosure 102-56	External assurance	64	
MANAGEMENT APPROACH			
Disclosure 103-1	Explanation of the material topic and its Boundary	64	
Disclosure 103-2	The management approach and its components	20 - 52	Management appproach presented in each material topic section.
Disclosure 103-3	Evaluation of the management approach	20 - 52	Management appproach presented in each material topic section.
ECONOMIC PERFORMANCE			
201-1	Direct economic value generated and distributed	52, 63	
ANTI-CORRUPTION			
205-3	Confirmed incidents of corruption and actions taken	18	No incidents.
ANTI-COMPETITIVE BEHAVIOR			
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	18	No incidents.
ENERGY			
302-1	Energy consumption within the organization	29	Reported partly. Group electricity consumption reported.

		Page number	Comments	
302-4	Energy consumption outside of the organization	29	Reported partly.	
G4-EU2	Net energy output broken down by primary energy source	56		
WATER				
303-1	Water withdrawal by source	23	Figures for Finland operations reported.	
BIODIVERSITY				
Own indicators	Amount of reforested land and wetlands, number of restoration projects	31		
EMISSIONS				
305-1	Direct (Scope 1) GHG emissions	55		
305-3	Other indirect (Scope 3) GHG emissions	30	Reported partly.	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	55	Reported partly. NOx, SOx figures reported.	
EFFLUENTS AND WASTE				
306-1	Water discharge by quality and destination	26 - 27, www.vapo.com/turvetuotantoavastuullisesti/ tarkkailuraportit (in Finnish)	Figures for Finland operations reported.	
306-2	Waste by type and disposal method	23		
306-3	Significant spills	22		
ENVIRONMENTAL COMPLIANCE				
307-1	Non-compliance with environmental laws and regulations	18	No incidents.	
SUPPLIER ENVIRONMENTAL ASSESSMENT				
Own indicator	Assessment of strategic / critical suppliers	45 - 46		
EMPLOYMENT				
401-1	New employee hires and employee turnover	48	Reported partly. Overall employee turnover figure reported.	
OCCUPATIONAL HEALTH AND SAFETY				
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	60	Reported partly. Injuries reported, sickness absences reported partly, no fatalities.	
G4-EU18	Contractor health and safety training	44		
TRAINING AND EDUCATION			Training and education	
404-2	Programs for upgrading employee skills and transition assistance programs	38 - 39	Reported partly. Transition assistance programs not reported.	
404-3	Percentage of employees receiving regular performance and career development reviews	39	Reported partly. Employess participating in the development discussions not reported by gender and employee category.	

	Page number	Comments
Diversity and equal opportunity	50	Reporetd partly. Diversity of governance bodies reported.
Incidents of discrimination and corrective actions taken	18	No incidents.
Assessment of strategic / critical suppliers	45 - 46	
Political contribution	15	Vapo doesn't support political parties.
Incidents of non-compliance concerning marketing communications	18	No incidents.
Non-compliance with laws and regulations in the social and economic area	18	No incidents.
	Incidents of discrimination and corrective actions taken Assessment of strategic / critical suppliers Political contribution Incidents of non-compliance concerning marketing communications Non-compliance with laws and regulations in the social	Diversity and equal opportunity 50 Incidents of discrimination and corrective actions taken 18 Assessment of strategic / critical suppliers 45 - 46 Political contribution 15 Incidents of non-compliance concerning marketing communications 18 Non-compliance with laws and regulations in the social 18

Vapo Oy

PL 22, 40101 Jyväskylä Yrjönkatu 42, 40100 Jyväskylä

