

FENNOVOIMA

Year 2016

Corporate Responsibility Report



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Our mission is a carbon-free future

The basis of our company is laid in providing carbon-free energy at a stable price for our owners.

According to the United Nations' Sustainable Development Goals, affordable and clean energy is seen essential for sustainable economic growth and improved human wellbeing. Energy needs to be produced and consumed sustainably if the devastating impacts of climate change are to be mitigated.

Finland's National Energy and Climate Strategy for 2030 sets the framework for energy production in Finland for the coming years with a clear goal of aiming towards a carbon-free society. The Hanhikivi 1 project is in line with this objective. By constructing and later operating Finland's sixth nuclear power plant we are directly contributing to the sustainable development of energy production and halting the progress of climate change.

In addition, the Hanhikivi 1 nuclear power plant will replace the production capacity that will exit the Finnish market and will help reduce the shortage of electricity supply in the future. As a by-product, the project will stimulate the Finnish economy and employment.

Before we achieve our goal of commissioning the Hanhikivi 1 nuclear power plant we have still some years of hard work ahead of us. The decisions we take now pave the way for our future. That is why corporate responsibility is an integrated part of our operations and it is paid attention in our project objectives and our Key Performance Indicators throughout the project.



Toni Hemminki
Fennovoima's CEO

2016 – a year of organizational growth and development

The past years our organization has been growing significantly both from organizational development and headcount perspective. In 2016 we recruited 84 talented new colleagues. Also our operations, processes and practices were strongly developed to be ready for the construction of the actual nuclear power plant.

We submitted batches of design documentation of the nuclear power plant to the Radiation and Nuclear Safety Authority STUK. We also submitted the Environmental Impact Assessment Program concerning the final disposal of spent nuclear fuel, thus fulfilling the requirement of the 2010 Decision-in-Principle.

During the year the construction work at the plant site progressed and the first buildings were completed. Approximately 150 people, mostly Finnish, were carrying out daily work at the plant site. Over time we will see an entry of construction workers of many different nationalities at the construction site.

All the work that we have done and are doing to set common guidelines and practices will support us maintaining a functioning and safe construction site where contractors and workers abide by the Finnish legislation and our Code of Conduct.

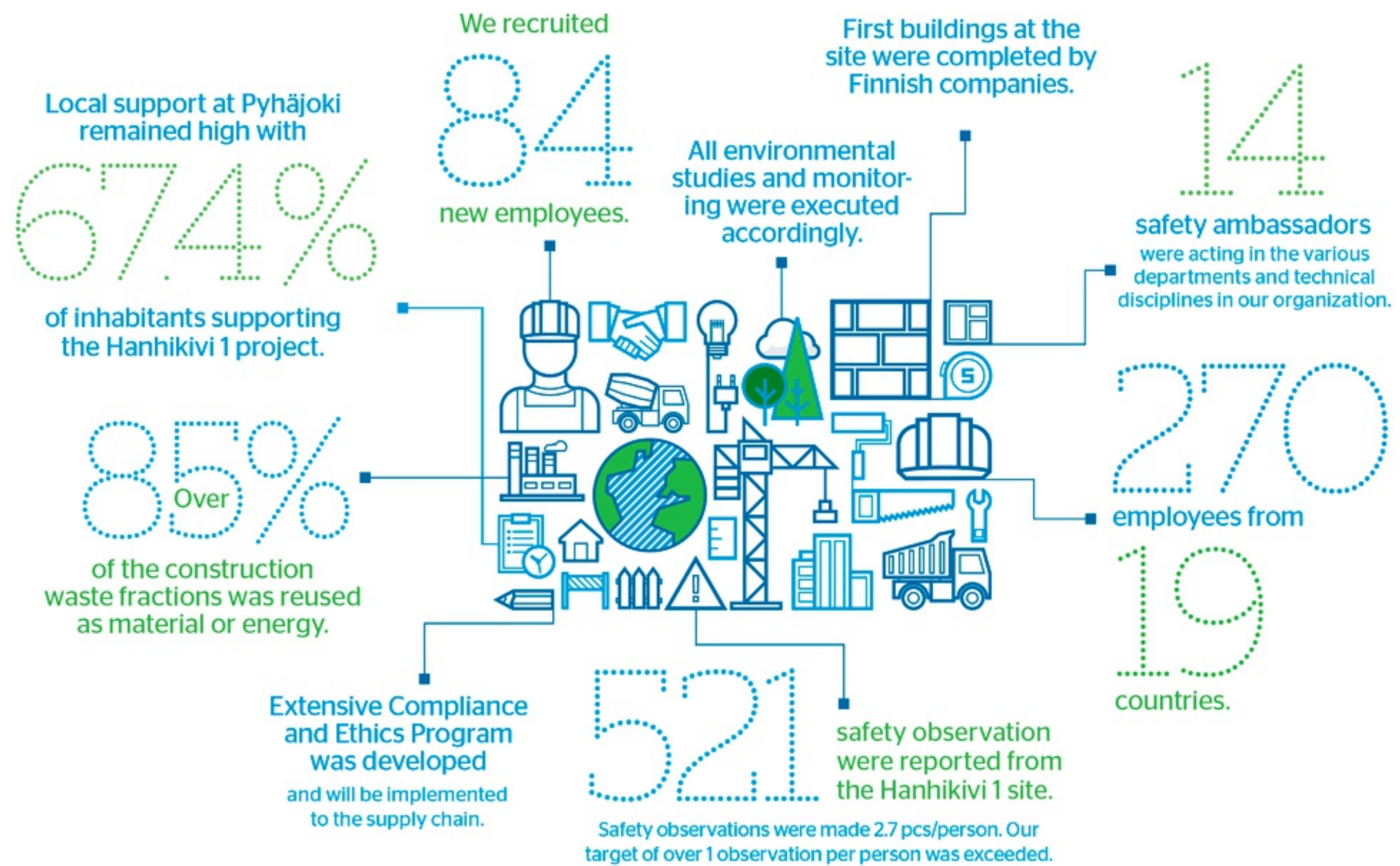
One of our key responsibility focus areas in 2016 was developing a new Compliance and Ethics Program, which was launched in January 2017. During this year we will review our procedures and develop our operations in order to ensure that the principles of our Compliance and Ethics Program are taken into account in all our operations and within our supply chain.

Looking ahead

Our cooperation with the plant supplier progresses constantly. Our main priority in 2017 is to deliver the planning documentation of the nuclear power plant to STUK on time to receive the Construction License in 2018. Also the competence and process development within our own organisation continues to be a high priority.

As part of the Compliance and Ethics development, Fennovoima signed the United Nations' Global Compact initiative in the beginning of 2017. With the signature we agreed to align our strategy and operations with the ten principles of the initiative concerning human rights, labour rights, environmental protection and anti-corruption. The commitment to the principles was a natural, albeit significant, continuation of our sustainability efforts.

Highlights



Organizational development

Fennovoima has strongly developed its organization and safety culture to support the nuclear power plant project and its implementation. During 2016, the company recruited 84 specialists in seven recruitment phases, and at the end of the year, it had 270 employees.

Construction site

Preparatory work at the construction site in Pyhäjoki's Hanhikivi headland continued. During 2016, approximately 150 people were carrying out daily work at the site. Also, the first two common representatives of workers at the construction site began their work in January.

The first permanent building, the training center, was completed at the end of September. Two concrete batching plants were completed in June and August. The construction of the sorted waste station began in 2016 and will be completed and taken into use in the spring of 2017. The objective is that 85% of waste generated at the construction site will be utilized as materials or energy.

FENNOVOIMA

Technical development

In the spring, Rolls-Royce Civil Nuclear SAS was confirmed as the designer of the *instrumentation and control systems architecture* for the Hanhikivi 1 nuclear power plant.

In June, *Fennovoima signed a service agreement with Posiva's subsidiary Posiva Solutions Oy*. The agreement enables Fennovoima to utilize Posiva's know-how in the final disposal of spent nuclear fuel.

In August, the plant supplier RAOS Project Oy and GE Alstom Power Systems signed *an agreement about the delivery of the turbine generator unit*. The agreement covers the turbine generator's design and delivery, as well as expert support for its installation and commissioning work.

Fennovoima submitted design documentation related to its Construction License Application to the Finnish Radiation and Nuclear Safety Authority (STUK) for evaluation. The material describes, among other things, the nuclear power plant's safety design principles and procedures used in the development work.

Environmental management

In June, Fennovoima was granted *an environmental permit for the operation of nuclear power plant and for its back-up power production* by the permit authority, the Northern Finland Regional State Administrative Agency. Also, several other conventional permits were granted for the activities in at the plant site.

The Environmental Impact Assessment (EIA) procedure for the transmission lines and national grid connection was carried out in cooperation with Fingrid Oyj. The EIA report was submitted in May 2016 to the coordinating authority (the Centre for Economic Development, Transport and the Environment), which issued its statement about the report in October 2016. In connection with the EIA procedure for the transmission lines, the Natura 2000 assessment was also completed.

In June, Fennovoima submitted to the Ministry of Economic Affairs and the Employment (MEAE) its *Environmental Impact Assessment Program regarding final disposal facility of spent nuclear fuel*, thus fulfilling the requirement set in the Decision-in-Principle from 2010. The EIA Program includes two alternative locations for the final disposal facility, Eurajoki and Pyhäjoki.

Local support

Support for the project has remained stable in Pyhäjoki.

An opinion poll conducted in December 2016 indicates that 67.4% (68.1% in 2015) of the citizens in Pyhäjoki support the Hanhikivi 1 project. Altogether, 62% (65.7% in 2015) of the residents of Pyhäjoki and its adjoining municipalities of Kalajoki, Merijärvi, Oulainen and Raahen support the project.



Business practices and company structure

Company structure

The annual general meeting of shareholders elects five to eleven actual members and four deputies to the Board of Directors for one year at a time. The CEO heads the company, assisted by the Management Team.

Fennovoima's operations are divided into departments, each headed by a member of the Management Team. He or she, in turn, will report to the CEO, who is Mr. Toni Hemminki. The Board of Directors ensures that the CEO carries out his obligations and works for the best of the company.

Fennovoima has the following committees nominated by the Board of Directors: Nuclear Safety Committee, Project Execution Committee, Finance Committee, and Nominating Committee.

Business practices

Fennovoima complies with good governance and accounting principles. Our principles are defined in the Fennovoima Code of Conduct, which all employees must follow without exceptions.

The duties and responsibilities of the various departments of Fennovoima are defined distinctly. Irrespective of position, no person in Fennovoima may either require or allow illegal activity. Corruption and bribery are prohibited in all Fennovoima's operations.

BOARD OF DIRECTORS (2016)	COMMITTEES	NATIONALITY
Mr. Juhani Pitkääkoski (Chairman)	Project execution committee (chairman), Nominating committee	Finnish
Mr. Pekka Erkkilä (Deputy Chairman)	Project execution committee	Finnish
Mr. Nikita Konstantinov	-	Ukrainian
Mr. Juha Mäkitalo	Project execution committee, Nominating committee	Finnish
Mr. Seppo Siljama	-	Finnish
Mr. Stefan Storholm	Project execution committee	Finnish
Mrs. Anastasia Zoteeva	-	Russian

The committees included also the following members: Project execution committee: Mr. Grigory Gromov and Mr. Djurica Tankosic; Finance committee: Mr. Esa Lager (chairman), Mr. Jussi Lehto and Mr. Vyacheslav Ivanov; Nominating committee: Mrs. Olga Vechtomova; Nuclear safety committee: Mr. Ami Rastas (Chairman), Mrs. Kirsi Kavonius-Hietanen, Mr. Juhani Hyvärinen, Mr. Peter Tuominen, Mr. Gabor Vamos, Mr. Timo Äikäs

FENNOVOIMA MANAGEMENT TEAM (2016)	AREA OF RESPONSIBILITY	NATIONALITY
Mr. Toni Hemminki	CEO	Finnish
Mrs. Minna Forsström	Project	Finnish
Mr. Wilhelm Guthwert	Legal	Finnish
Mrs. Maira Kettunen	Communications and Public Affairs	Finnish
Mr. Juha Nurmi	Quality	Finnish
Mr. Vesa Ruuska	Nuclear Safety	Finnish
Mrs. Eija Salo	Human Resources and Administration	Finnish
Mr. Otso Tomiainen	Finance	Finnish

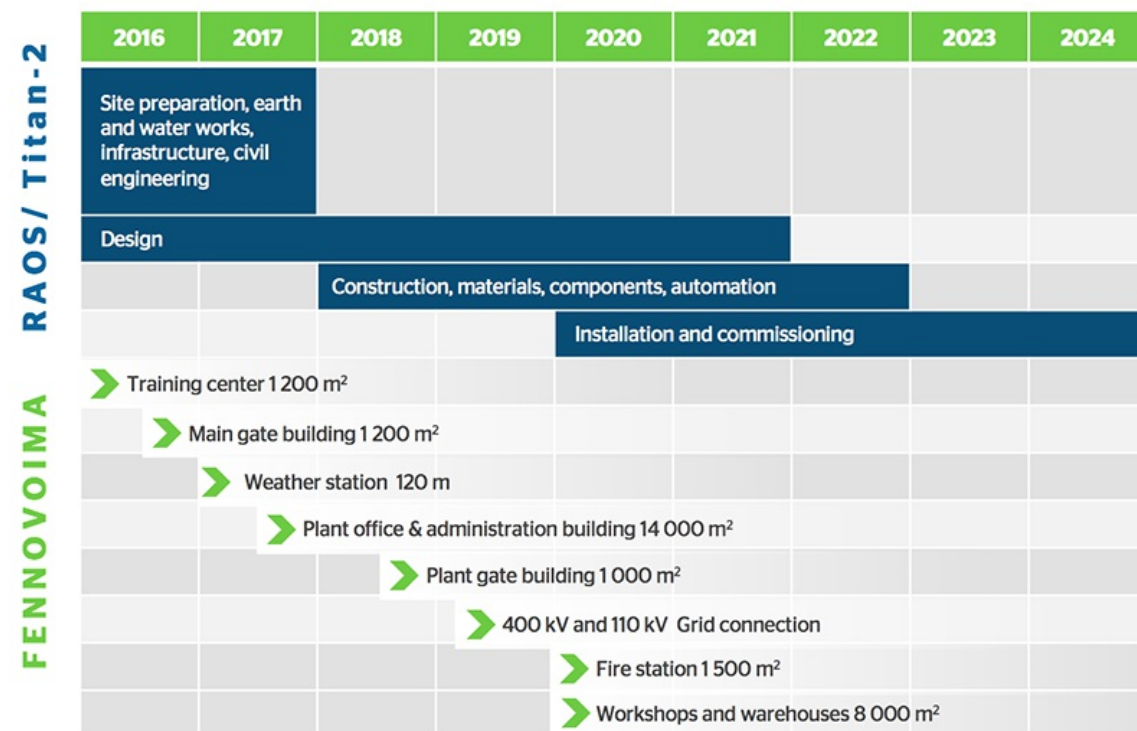
Fennovoima's role in the project

Fennovoima is the owner of the Hanhikivi-1 project and will become the operator of the finished power plant. Fennovoima has granted an EPC contract for a complete turn-key delivery of the nuclear power plant to RAOS Project Oy.

The plant supplier RAOS Project Oy has four main subcontractors. Titan-2, as the main construction contractor of the Hanhikivi 1 project, is in charge of site preparation and infrastructure works, construction of the nuclear and turbine island, installation works, materials and equipment, as well as I&C equipment.

Fennovoima is responsible for applying for the required licenses including the construction and operating licenses.

Fennovoima's own construction scope primarily covers auxiliary buildings such as the training center, the administration building and the plant office, as presented in the picture below.



Regulatory requirements

The nuclear energy sector is a strictly regulated and supervised business environment where compliance with all applicable legislation and regulations is crucial for the operation of the power plant.

The Ministry of Economic Affairs and Employment (MEAE) is responsible for the overall supervision of the use of nuclear energy in Finland. The Ministry prepares license decisions, drafts proposals to improve legislation, and steers the planning and implementation of nuclear waste management. The National Nuclear Waste Management Fund operates in connection with the Ministry.

Nuclear activities in Finland are governed by three main legislative instruments, which are supplemented by various secondary instruments. The main acts are:

- the Nuclear Energy Act 1987
- the Radiation Protection Act 1991
- the Nuclear Liability Act 1972

The Nuclear Energy Act (990/1987) and the Nuclear Energy Decree (161/1988) ensure that the use of nuclear energy is in line with the overall good of the society. The use of nuclear energy must be safe for both man and the environment, and it may not promote the spread of nuclear weapons.

The Nuclear Energy Act was amended on July 2015, and the mandate of the Radiation and Nuclear Safety Authority (STUK) was expanded. STUK also received a mandate to issue binding regulations on technical details concerning nuclear safety principles.

During the current licensing phase of the Hanhikivi 1 project, the regulatory guides on nuclear safety (YVL Guides) are the main regulatory instruction. The YVL Guides cover all issues influencing the safety of a nuclear power plant, such as design, operation, safety of the plant and its environment, nuclear materials, nuclear waste, structures and equipment. The renewed guides were published in late 2013 and have been applied to Fennovoima's nuclear power plant project.

The Nuclear Liability Act provides that the operators of nuclear facilities located in Finland have unlimited liability for damage caused to third parties in Finland. Fennovoima is also required to make annual contributions to the National Nuclear Waste Management Fund. The purpose of the fund is to collect, store and reliably invest the funds that are going to be needed to take care of nuclear waste in the future. Through the fund, society has a financial guarantee that nuclear waste management can be arranged under all circumstances.

In addition, several other laws under general legislation, such as the Companies Act, labor and privacy legislation, and legislation preventing underground economy, affect the Hanhikivi 1 project directly. To ensure compliance with all applicable legislation, every employee must have sufficient knowledge and understanding of the legislation and regulations that affect our actions and operations. That is safeguarded with continuous training of our personnel.

Vision, mission and principles

OUR MISSION

We build carbon-free future for Finland.

OUR VISION

We operate a safe, modern and efficient FH1 nuclear power plant to produce electricity for Fennovoima's shareholders.

OUR PRINCIPLES

Nuclear safety is the core of our operations, and our behavior is based on four principles:

Commitment: put nuclear safety first, take responsibility and show good example

Awareness: know what you are doing and why

Transparency: communicate and co-operate

Continuous improvement: take initiative and seek to learn more



Hanhikivi 1 nuclear power plant: Photo: Fennovoima.

Organizational structure and growth

Fennovoima's organizational structure, responsibilities and activities are developed in accordance with the requirements set in the YVL Guides and other binding laws and regulations.

Fennovoima's operations are divided into sections, each headed by a member of the Management Team. He or she in turn reports to the CEO. The Board of Directors ensures that the CEO works in accordance with the rules and regulations applicable to the company and for the best of the company.

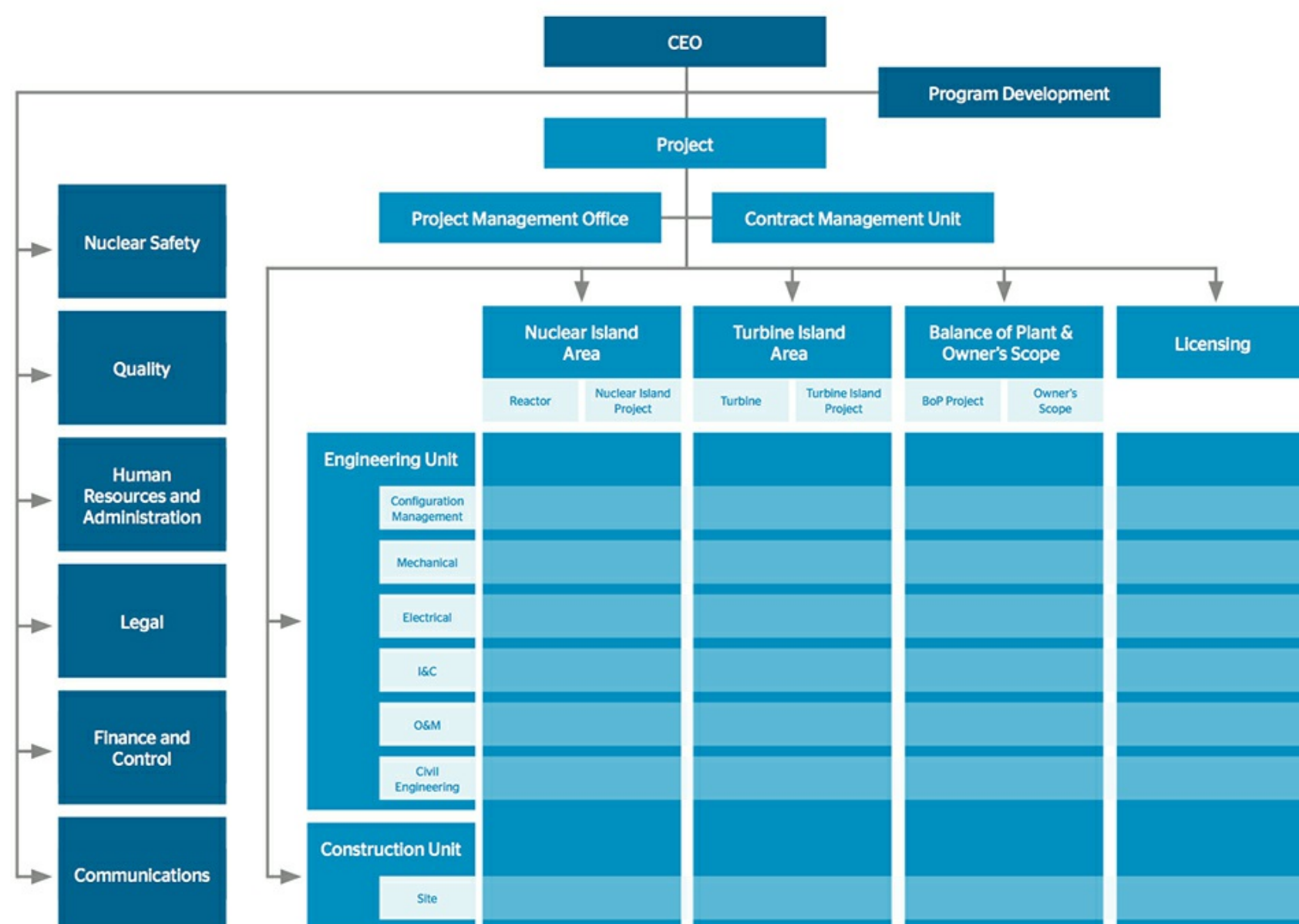
In 2016, the Program Development (PD) unit was separated from the Project department to focus on strategy development, program planning, annual work planning, organization planning and corporate-level reporting, as well as risk management. The unit reports to the CEO. Fennovoima's organizational structure is presented in the figure below.

At the moment

Our operations focus on the supervision of the plant design, quality and project management, and applications for various permits and licenses. The largest department in Fennovoima's organization during the current phase is the project department, with the nuclear safety and quality departments closely supporting it.

The Project Execution Committee, appointed by Fennovoima's Board of Directors, supports the project management and supervises the progress of the project, identifies targets for development and monitors the achievement of project objectives.

During the construction phase, when the focus shifts from planning to the execution of the project, the structure of our organization is planned to remain roughly the same as in the licensing phase.



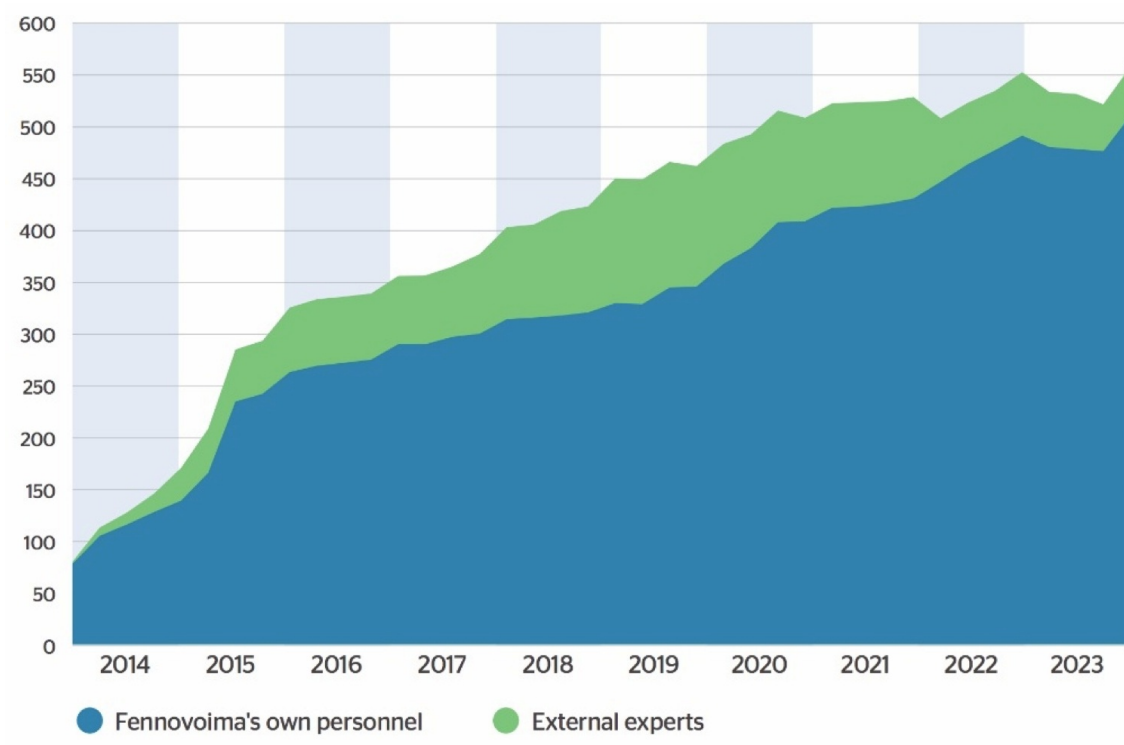
Fennovoima's organization structure.

Organizational growth

Fennovoima's Human Resource Plan covers the years 2014-2023 and it presents the planned organizational growth. The personnel forecast is based on the project needs set by program milestones, schedules and related workload estimations. The Resource Plan is updated annually, and recruitment activities are carried out in accordance with the Fennovoima Recruitment Process.

During 2016, the growth rate of Fennovoima's headcount has been more moderate than before and will also be moderate in 2017 compared to the previous years. Visible growth can still be expected, as Fennovoima will continue to develop its own organization. Fennovoima has focused on the recruitment of various technical experts and project professionals. In 2016, recruitments were divided into seven planned phases and one extra phase that took place in the summer.

Fennovoima's partners in recruitment has been Psycon Oy and a few headhunting companies. The most important recruitment channel is Fennovoima's own employees and their network. Fennovoima's recruitment team works closely with the line managers.



Fennovoima's personnel estimate 2014-2018.



Operational environment

Trends affecting the operational environment

Climate change and EU-level requirements concerning e.g. greenhouse gas emissions, emission trading and renewable energy sources

Integration of European energy markets

Support for renewables leads to increased capacity, lowering electricity prices

Changes in the political environment

Transformation of the energy markets and regulatory framework

Changes in customer preferences

Technological innovations



Similarities with large-scale infrastructure projects

Fennovoima's operational environment could be seen from two perspectives. Prior to commercial operations, Fennovoima's operations have similarities with large-scale infrastructure projects. At this stage, factors such as availability of resources (labor, raw materials and know-how) impacting the project implementation play a key role.

After the start of commercial operations or in the utility company phase, Fennovoima's operational environment is characterized by factors typical for nuclear power plants. For the operating plant, the factors affecting the plant operations, output, production costs, and electricity demand and market price are the most vital.

Energy markets and political environment

Fennovoima is dependent on the trends related to the energy markets and political environment.

A global climate agreement was reached at the United Nations Climate Change Conference in Paris in December 2015. For the first time, nearly all countries in the world committed themselves to tackling climate change, e.g. by reducing carbon dioxide emissions from electricity production. This is a welcome and challenging task. To achieve the goal, all emission-free energy forms are needed. Nuclear power capacity worldwide is increasing steadily, with over 60 reactors under construction in 15 countries.

In Europe, the pursuit of emission-free power generation has led to vast utilization of subsidies for renewable energy resources. However, in Finland, nuclear power plays a major role in the implementation of the Finnish Climate and Energy Strategy towards a carbon-free society, and currently more than 33 % of electricity production is based on nuclear energy.

Also, current international political trends can have an effect on Fennovoima's project. Before the nuclear power plant is in operation, Fennovoima is dependent on the EPC Contractor, which is a Russian state company. Not only is the power plant being acquired from a Russian company, but also a significant amount of financing is being sourced from Russia. Thus, for instance, an escalation in the sanctions that have been imposed on Russia could affect negatively the project.

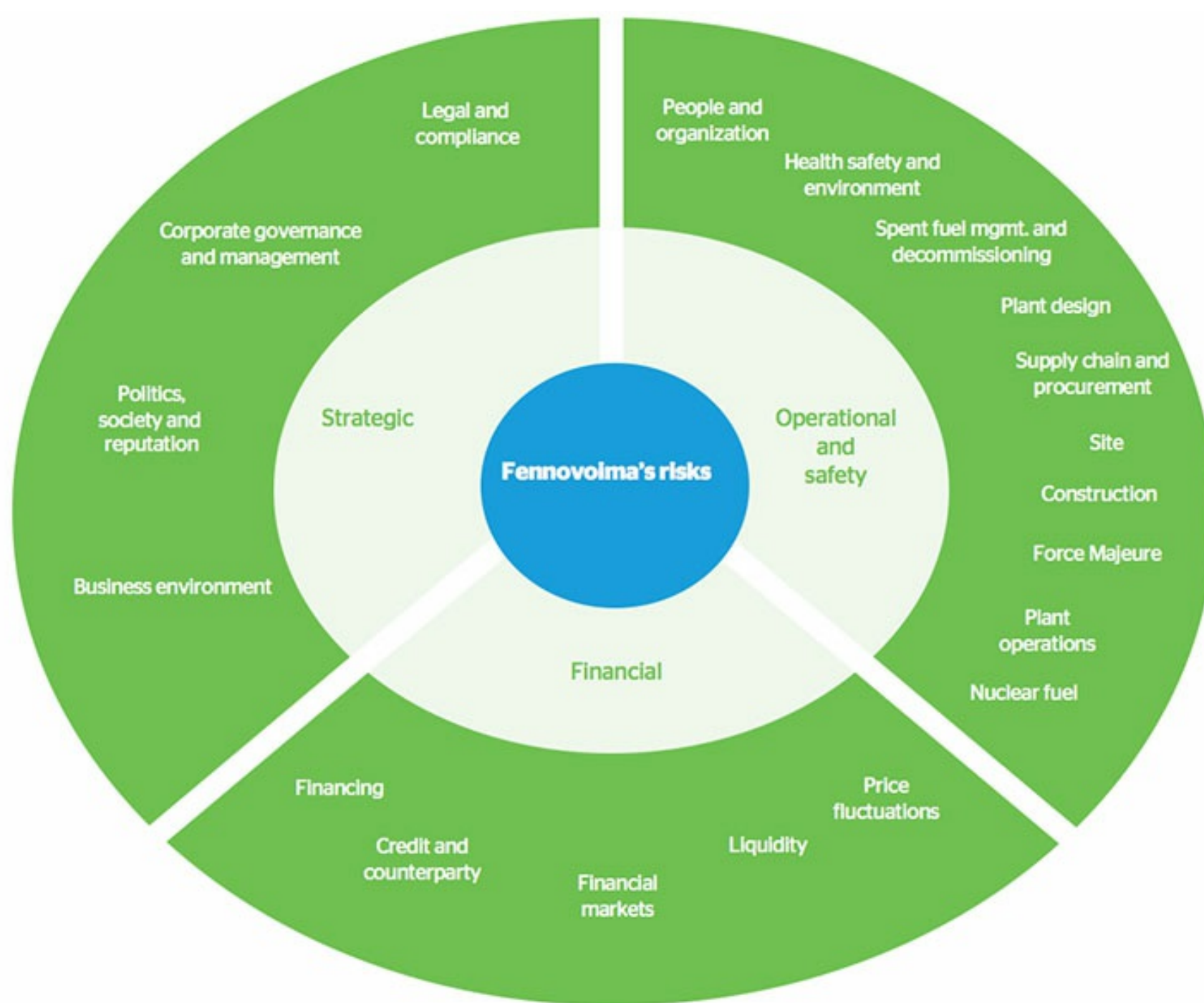
However, on a levelized basis, nuclear power is an economic source of electricity generation, combining the advantages of security, reliability, very low greenhouse gas emissions and cost competitiveness.

Risk management

As a nuclear power company, Fennovoima operates in an environment that is rigorously regulated at both national and international levels.

Corporate responsibility from a risk management perspective relates to effective and transparent corporate governance and management, people, nuclear safety and environment. Besides putting Fennovoima's reputation, and even operations, at risk, a breach of law or regulations could cause serious harm to society overall. As a responsible member of society, and complying with the regulatory requirements as well as Fennovoima's policies, Fennovoima's activities and decision-making are characterized by a low risk appetite.

The aim of Fennovoima's risk management is to support the achievement of the set objectives and prevent negative effects in all areas of Fennovoima's operations and to enhance safety, quality and security of operations, economic value creation, corporate responsibility, and cooperation and dialogue with stakeholders. This is done by identifying risks as early as possible, and by actively taking corrective and preventive measures.



Fennovoima's high-level risk map

Integrated risk management approach

Fennovoima applies the so-called "integrated risk management approach," where strategic, financial and operational and safety-related risks are integrated in an effective way (this approach is also promoted in e.g. IAEA TECDOC 1209). Fennovoima's entire organization is involved in risk management, which, however, is coordinated centrally. This allows the organization to use the best possible risk management and know-how in each area, as well as systematic methods and practices.

Since a significant part of the project's risks is in the hands of the plant supplier, Fennovoima ensures that the supplier's risk management is conducted in accordance with Fennovoima's requirements.

Efficient risk management

Fennovoima's risk management covers all phases of the Hanhikivi 1 project. Risk monitoring ensures that existing risks and newly discovered risks are effectively managed. Existing risks as well as the success of risk treatment are continuously followed and reported as part of Fennovoima's monthly reporting.

Nuclear and radiation safety: As a nuclear power company, Fennovoima puts nuclear and radiation safety first in all of its activities and decision-making. Nuclear and radiation safety comprises safety, security, emergency arrangements and nuclear safeguards at all stages of the use of nuclear energy.

YVL Guides set requirements for the overall use of Probabilistic Safety Assessment (PSA) for analysis of nuclear safety. PSAs are integrated into risk assessment of nuclear safety-related risks and the overall risk management process. The same also applies to radiation safety risks.

Occupational health and safety: Fennovoima has set a target of zero accidents for its operations. Occupational accidents and diseases shall be prevented by proactive measures. Efficient risk management is one of the most efficient tools to ensure the fulfilment of the target. Fennovoima, as the Project Owner, ensures that occupational health and safety risks have been eliminated or mitigated, and construction work is executed safely without endangering the health of employees.

Environmental affairs: In order to ensure the prevention and mitigation of the environmental impacts of its operations, Fennovoima sets high standards for its environmental management activities. Risk management is to be integrated with each operation that may have impacts on the environment.

Quality: In order to ensure safety, Fennovoima sets high standards on the quality of its activities. The quality criteria for activities and products are set according to their significance with regard to safety.

According to YVL requirements (e.g. A.7 301), the strictest quality requirements are assigned to products and functions with the highest risk significance. Thus, risk mitigation and control measures are reflected in the quality requirements. Quality affects the project mostly through safety, technical performance or other aspects ultimately affecting licensability, schedule, costs or plant features.

Security: Corporate security ensures the security of operations, information security, personnel security, physical security, crime prevention, fire protection and preparedness. It also discusses business continuity planning as well as crisis management. YVLs (A.12) require that Fennovoima has an information security management system in place, including specific information security risk assessment and management.

The most significant financial risks

The most significant financial risks in the nuclear power plant's development and construction phase are related to cost overruns, the availability and cost of debt financing, as well as any delays in commissioning the plant.

Fennovoima has a fixed price, turn-key contract with RAOS Project Oy (the plant supplier) with regard to the planning, implementation and commissioning of the Hanhikivi 1 nuclear power plant. The plant supplier is therefore responsible for the delivery in its entirety, having limited interfaces with Fennovoima's responsibilities. Fennovoima's responsibilities are mainly related to preparatory work at the plant site.

The availability and cost of debt typically have a significant impact on the economic viability of nuclear power projects. REIN, which is the plant supplier through its subsidiary RAOS Project and a significant minority shareholder of Fennovoima, has, on the basis of the shareholders' agreement, committed to procuring the necessary debt financing for the project during the construction phase. According to REIN's plan, the major part of the project's financing will be received from Russia, and in connection with this, in 2015, the company signed a long-term loan agreement with REIN for EUR 2.4 billion. Due to fluctuations in the exchange rate with the ruble, it is now known that the maximum amount of the above-mentioned loan agreement will not be fully realized.

However, economic sanctions, as well as a number of other factors, can affect the ability of Russian government, Russian banks, and other financial and/or export credit agencies providing financing for the project, to provide the related guarantees or achieve the desired interest rates of the debt financing.

The most significant risks which could cause the delay of the power plant's commissioning are connected with the Construction License application and the progress of the project's construction phase. Fennovoima has identified risks related to the operations, organization, resources and subcontractors of RAOS Project Oy, which can delay the overall schedule. Fennovoima has ensured against the risks connected with the Construction License application by developing its own procedures and staff and assisting in the preparation of the licensing documentation. Fennovoima has introduced supply chain evaluation and approval procedures as part of the supply chain risk management.

Fennovoima Management System

Effective project management and high-standard quality management have substantial significance in Fennovoima's project. Fennovoima Management System is in place to support responsible decision-making and high-quality operations in the organization, as required in the nuclear energy sector.



Fennovoima Management System supports responsible decision-making

Fennovoima Management System (FMS) gathers all functions of the company into one balanced, integrated whole and ensures that nuclear and radiation safety is always considered primary in all operations in order to meet the requirements set by applicable laws and good corporate governance, to bear the responsibilities of a nuclear licensee, and to oversee shareholders' and other key stakeholders' interests.

FMS is an integrated management system that covers management areas such as quality, environmental, and occupational health and safety management. It is constructed hierarchically to proceed from top-level general principles presented in policies to detailed work instructions, enabling everyone to easily navigate in the system and to find the information they need. The implementation of the system is performed through a web interface, training and internal communication.

The management system is under continuous development

The ability of the FMS to meet the phase-specific needs is objectively assessed and monitored systematically. The development and applicable intermediate actions are reported monthly, and results of development plan compliance are presented in management reviews, where corrective actions are defined, if applicable.

During 2016, the FMS development was on-going, with a large amount of participants from all over our organization. The management system was unified into a more coherent whole, and a large amount of instructions and processes were reviewed. Also an independent assessment for the Fennovoima Management System was conducted to review the readiness of the system and to identify further development needs.

In 2017, we are focusing on improving the usability of the FMS further and emphasizing the training in the management system by i.e. launching a new FMS training program and also company-wide training in the review and approval process.

FENNOVOIMA

Internal auditing

Fennovoima conducts regular internal audits and reviews where the Fennovoima Management System and compliance with its processes and instructions are monitored and development needs are identified. Internal audits are made according to an internal audit program, and 17 audits were made in 2016.

All of Fennovoima's operations must comply with the regulatory nuclear safety (YVL) requirements. In 2016, we conducted a self-review of compliance with the YVL requirements. Our bi-annual management reviews, which are routine evaluations of whether management systems are performing as intended, were also organized as planned.

A large-scale internal audit program will be conducted also during the years 2017–2019.

Certifications

Fennovoima received ISO 9001 Quality Management System certification in 2015, and a certification audit follow-up was made in 2016. The Occupational Health and Safety Management System was audited according to the OHSAS 18001 standard at the end of the year, and the certificate was issued at the beginning of 2017. An Environmental Management System certification audit will take place in 2017.

Our approach

Our responsibility objective is to be a good corporate citizen. To us, this means constant weighing of the safety impacts and social, economic and environmental effects of our decision-making, and absolute compliance with all applicable legislation.



Effective project management and high-standard quality management have substantial significance in our project. Our management practices are based on openness and bearing the responsibility in all operations. All decision-making must be accurate.

Our organization is growing strongly, and therefore continuous organizational development and improving our ways of action is important. We pay special attention to information and knowledge management, and we invest in training and continuous learning of personnel.

Clear organizational structure and management practices, transparent division of responsibilities and a comprehensive management system facilitate the control of the risks associated with the project.

As a licensee, we have an undivided responsibility for the safety of the future nuclear power plant. With efficient project and quality management, we ensure the safety of the project and that the project is executed in accordance with the project plans, within budget and on schedule. It is of the utmost importance that the whole organization works seamlessly towards our common objectives.

We carry on dialogue with our most important stakeholder groups, and we respect their opinions. Fennovoima aims to maintain and strengthen its reputation, generate confidence, contribute to the commitment of all project participants, including shareholders, and develop positive stakeholder relations.

Meeting the expectations of our external and internal stakeholders. All Fennovoima's stakeholders have clear expectations of how a company like Fennovoima should conduct itself towards external and internal actors. The legitimization of the project is granted by the Finnish Government and the Parliament. Therefore, it is of utmost importance that Fennovoima is regarded by the authorities and other stakeholder groups as a professional, transparent, respectable and reliable organization.

Following high business ethics. Hanhikivi 1 is a complex project with a relatively long life cycle. The CR Program helps us in ensuring that the project fulfils the requirements of responsible and ethical behavior that is expected from us at all times.

Attracting, retaining and motivating the best people.

Employees want to work for a company that they respect. Creating a diverse company culture, adopting leading employment practices, and demonstrating our commitment to social and environmental issues can help us to attract the best people.

Enhancing our reputation. We will reduce the risk of adverse publicity by ensuring that our work complies fully with regulations and standards.

Possible cost savings. Efficiency in processes and smooth and responsible operations facilitate the progress of the project and can produce cost savings in the long term.

Corporate policies and compliance

Fennovoima aims to be a world-class nuclear power company with a good safety culture and the highest level of integrity in everything we do.



It is crucial that all activities are performed honestly and responsibly. We comply with all applicable legislation, protect human and labor rights, employ fair labor practices, and never accept any form of bribery or corruption.

The Fennovoima Code of Conduct and Company Policy define the responsible way to implement all our operations that everyone working for Fennovoima is required to adhere to in all actions.

The Code of Conduct incorporates the principles that are taken into account in all of our actions and operations. Our Code of Conduct follows the principles of the United Nations' Global Compact, which promotes sustainable development and responsible business practices. Fennovoima expects its suppliers to comply with Fennovoima's policies and with all applicable laws.

Fennovoima Company Policy supports our mission, vision and strategy. The Company Policy defines the principles according to which Fennovoima takes care of nuclear and radiation safety in its functions, ensures the quality of its activities and products and secures the working environment. It includes aspects related to nuclear and radiation safety, quality, human resources, occupational health and safety, security, environment, and communication. Our Company Policy was last updated in 2016. A revision of the Company Policy is made on a regular basis, according to the Fennovoima Management System processes.

Development of the Compliance and Ethics Program

A new Compliance function was established to develop the Compliance and Ethics Program and is responsible for the Compliance and Ethics Program planning and development, handling compliance concerns, providing advice and training to the organization and taking necessary actions regarding suspected compliance violations.

All of the new contractual parties of Fennovoima are expected to confirm awareness of the content and to comply with the Code of Conduct as part of the contract. In 2017 the Fennovoima external audit program will include specific compliance related parts.

The Compliance and Ethics Program includes the following main components:

Strategic and organizational planning: The Fennovoima Compliance and Ethics Program is based on inserting compliance into the overall strategy process and into the existing Fennovoima Management System and the related risk register. The Compliance Program is approved by the Board of Directors while the CEO acts as its owner. The CEO is responsible for the Compliance and Ethics Program being executed and complied with in Fennovoima. Regular reports are made to the Board of Directors about the fulfilment of the Program principles.

Compliance function: A team of compliance professionals provides advice and training to the Fennovoima organization.

Policies and instruction: The Fennovoima Compliance and Ethics Program includes the Code of Conduct and the instructions on prevention of money laundering and terrorist financing and the instructions on anti-bribery and corruption.

Compliance tool: A new independent whistleblowing tool that enables anonymous reporting was developed during 2016. The tool has been made available to allow employees sharing concerns relating to compliance even anonymously. The Compliance Function is responsible for evaluating all received reports of suspected compliance violations and ensuring that appropriate action is always taken.

At Fennovoima, the primary way of raising compliance concerns is reporting them to the person's direct supervisor or to the compliance function. The compliance function is available and encourages employees to raise their concerns, ask in case of any questions and speak up if they suspect any misconduct or violations.

Training: A compulsory training on compliance matters is organized to all Fennovoima employees during 2017.

Compliance risks

In 2016 a risk assessment related to corruption was conducted covering Fennovoima's entire operations. The main areas with risk exposure were identified to include potential risks of corruption, unjust influencing, conflicts of interest, non-compliance with legislation and risks relating to the supply-chain. Based on the risk assessment the Fennovoima Compliance and Ethics Program was developed to mitigate the identified risks. Implementation of the Program is planned for 2017.

During 2016 there were no legal proceedings relating to compliance violations.

UN Global Compact initiative

As part of the Compliance and Ethics development, Fennovoima signed the United Nations Global Compact initiative and agreed to align the company strategy and operations with the ten principles concerning human rights, labor, environment and anti-corruption.

Fennovoima's commitment was approved by the UN in January 2017.

Our approach to anti-bribery and anti-corruption

Fennovoima operates fairly and does not offer improper benefits to others; nor do we accept them. No employee may directly or indirectly offer, promise, grant or authorize the giving of money or anything else of value to anyone to influence official action or to obtain an improper advantage. Any offer, promise, grant or gift must comply with applicable laws and Fennovoima's instructions.

Business party identification procedures are a part of internal risk assessment. Fennovoima takes potential cases of corruption seriously and responds to them professionally. All necessary actions will be started without delay.

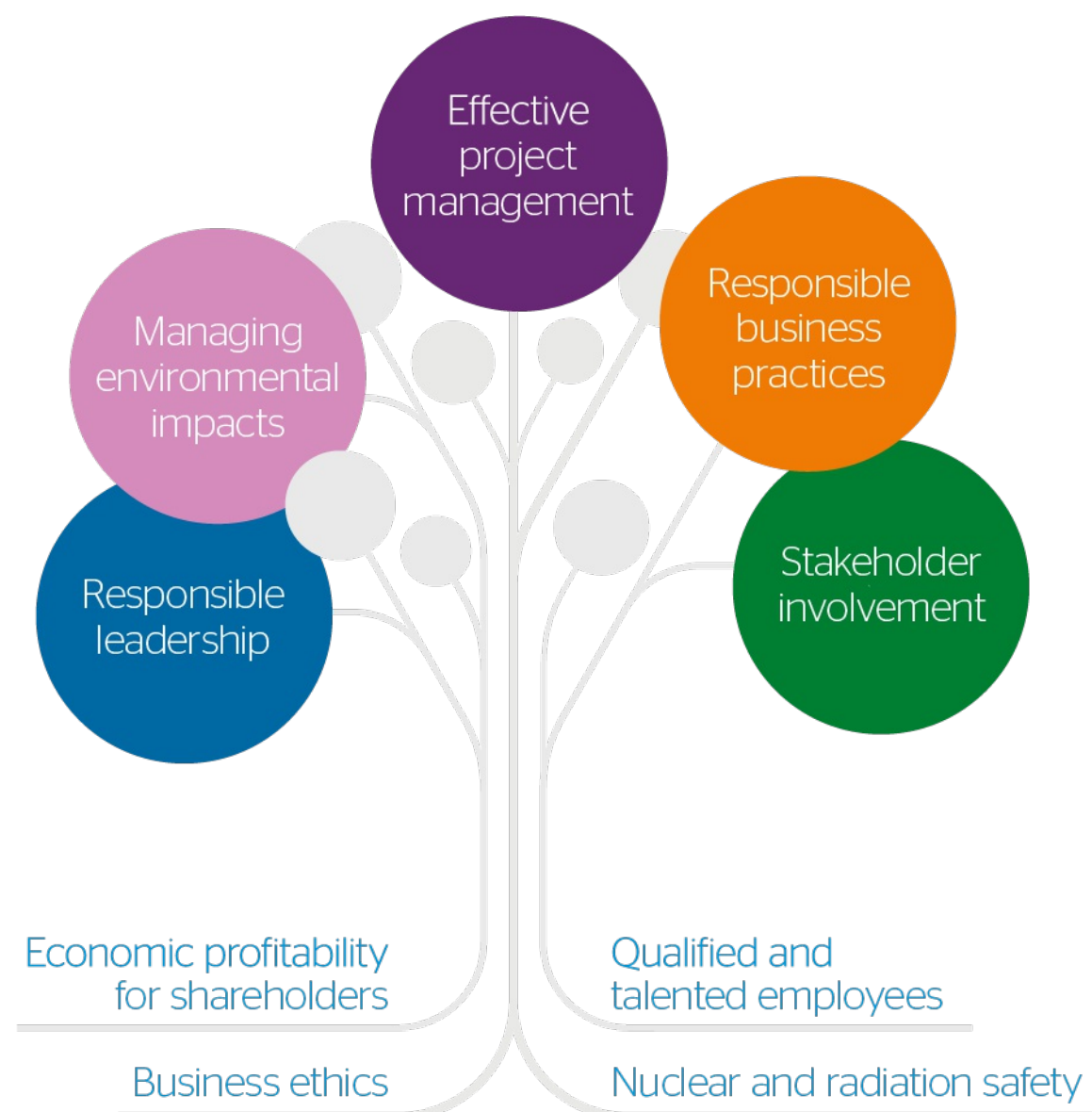
Our approach to money laundering

Fennovoima is committed to international standards of preventing money laundering and terrorist financing and complies with applicable laws. We have set up appropriate risk-based identification and due diligence procedures for suppliers and other contracting parties. These are designed to minimize risks of receiving, or being involved in arrangements where funds come from illegal sources.

Fennovoima is committed to reporting any violations to the authorities.

Corporate Responsibility Program

Our Corporate Responsibility Program was defined in 2015 to meet the themes specified in our materiality matrix and to focus on the matters that are essential to our stakeholders and us during the present licensing phase of the project. The program sets the responsibility objectives and targets for the years 2015-2018.



The Corporate Responsibility Program

The program covers all operations of the organization. It is an integrated part of the Fennovoima Management System (FMS), which facilitates the efficient execution of the CR Program and monitoring of the targets and objectives.

The Program is based on four strategically significant foundation pillars, or cornerstones, which are prominent for the whole life cycle of the project and which must be taken into consideration in all the decision-making of the company. The foundation pillars are: highest possible nuclear and radiation safety, responsible business practices, qualified and talented employees, and economic profitability of the project for our owners.

In addition the matters emphasized in our Responsibility Program during the current project phase are: efficient project management, responsible management of our people, stakeholder engagement, responsible business practices, and environmental management.

In our organization, responsibility and sustainability matters are led by the Management Team (FMT) with the assistance of a Communications Officer.

Objectives and targets

The objectives and targets of our corporate responsibility change as the project proceeds. The different project phases require us to focus on matters that are specific to that phase.

During the current licensing phase, we focus on developing our organization and our processes from organizational and nuclear safety perspectives, set the basis for responsible and safe construction of the nuclear power plant, and secure that our processes and practices comply with the legal requirements and standards. In short, we secure that our organization is fully ready to handle a complex nuclear power plant construction site safely and mitigate the risks related to different project phases.

Our Corporate Responsibility Program was defined in 2015 to meet the themes specified in our materiality matrix and to focus on the matters that are essential to us and our stakeholders. The program sets the responsibility objectives and targets for the years 2015-2018.

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Nuclear Safety	Safe nuclear energy and nuclear waste management	<ul style="list-style-type: none"> · Highest level of nuclear safety · Highest level of occupational radiation safety
Environment	Environmental management	<ul style="list-style-type: none"> · Well-functioning environmental management system · Proactive prevention and mitigation of environmental impacts · Nature conservation areas and protected species are preserved · Efficient construction waste management
Governance and Management	Effective project management, responsible business practices and leadership	<ul style="list-style-type: none"> · Compliance with all applicable legislation and agreements · Project is on time and on budget · No non-compliances · High quality leadership
	Fennovoima Management System	<ul style="list-style-type: none"> · FMS is in place and well-functioning, and in compliance with all regulatory requirements · FMS structure and procedures are effective and easily available
	Supply chain and partnership management	<ul style="list-style-type: none"> · Qualified and a well-functioning supply chain · Means and tools for efficient adjustments · Requirements of Site Agreement are clear for all parties
	Transparency, open communication and stakeholder collaboration	<ul style="list-style-type: none"> · Communication is proactive and accurate · Strong reputation and operating responsibly · Positive contribution to the economy and society
People	Labour relations and practices	<ul style="list-style-type: none"> · Compliance with all applicable legislation and agreements · No cases of underground economy · Fair labour practices, protection of human rights
	Resourcing and competence development	<ul style="list-style-type: none"> · Recruitment of top experts · Core competences in-house · Continuous development of competences and qualifications
	Occupational health and safety	<ul style="list-style-type: none"> · A healthy and safe workplace, which complies with legislative requirements · Strong OHS safety culture · Efficient risk management system
	Corporate culture, wellbeing and employee engagement	<ul style="list-style-type: none"> · Strong corporate culture · Personnel wellbeing · Highly engaged and satisfied employees
	Employer image	<ul style="list-style-type: none"> · High and continuously improving employer image · Recognised as a responsible employer

Fennovoima's CR objectives 2015-2018



Awareness building

Fennovoima project has a significant social dimension, both domestically and internationally. Fennovoima is aware of the responsibilities and expectations generated by this dimension and aims to communicate accordingly at all times.



The purpose of all communication at Fennovoima is to contribute to and support the company in achieving its goals. This includes maintaining and strengthening the reputation of the company, generating confidence in the project, contributing to the commitment of all project participants, including shareholders, and developing positive stakeholder relations.

The legitimization of the project is granted by the Finnish Government and Parliament, and therefore, the corporate citizenship and responsibilities related to this position are essential.

Fennovoima's management is committed to ensuring that the communication and information needs and expectations of our key stakeholder groups are taken into account. This includes continual proactive communications on a daily basis and responding in a timely manner and accurately in all situations.

The most important stakeholders (not in order of importance) include our employees and owners, the region of Pyhäjoki, the plant supplier and all our contractors, related authorities and decision-makers, Finnish labor market organizations, educational institutions in the technical field, our peer companies and organizations within the industry, the media, the public sphere, and NGOs in the field.

More information on our engagement with Pyhäjoki and its surrounding area can be found from the Local engagement section of this report.

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Survey of key stakeholder groups

Fennovoima conducted a survey of key stakeholders' views of Fennovoima in November-December 2015. The stakeholder groups included in the study were the general public, political decision-makers, members of the media and Fennovoima's employees. Later, during February-April 2016, the same survey was carried out for potential future employees. The surveys were carried out by the T-Media research agency.

According to the results, responsibility is the most important material aspect to the general public and potential future employees. Responsibility is also ranked in the top four material aspects by the other stakeholder groups.

All stakeholder groups emphasize the importance of increased transparency and openness, proactive communication, and good governance.

Proactive communication is the most important material aspect to political decision-makers. In addition, the general public, political decision-makers and potential future employees expect Fennovoima to deliver on the promise to produce electricity at a stable price in the future and increase domestic energy production and energy self-sufficiency.

Fennovoima's employees are the best to evaluate Fennovoima as an employer and naturally rank this aspect the highest. They also expect Fennovoima's Management Team to show exemplary leadership and business practices, and to be open and transparent in its communication and actions.

Fennovoima draws attention to these matters in its plans and everyday actions. The key stakeholder surveys will be continued on a regular basis.

Media and social media

Fennovoima published six press releases and 38 news items during 2016.

We respond without delay to media contact requests, which concern our project. We utilize social media channels such as Twitter and Facebook to be able to reach our key stakeholder groups quickly and effectively when news arise. We organize biannual events at the plant site for the members of the media, in which Fennovoima's experts provide information about the proceeding of the project. In May 2016 we also hosted an international journalist visit to Pyhäjoki. We also address current topics in our stakeholder magazine Fennonen.

The topics picked up by the media also generate a lot of discussion in social media channels. Fennovoima is present in social media and we actively take part in discussions. We continuously encourage our personnel, including the Management Team, to take part in conversations related to Fennovoima, the Hanhikivi 1 project, and broader themes such as energy, nuclear power and climate change.

MAIN MEDIA TOPICS IN 2016

SENTIMENT OF THE ARTICLES

The economic and employment effects of the Hanhikivi 1 project	Positive
New contract agreements	Positive
Proceeding of the construction work at the plant site	Positive
Fennovoima's ongoing recruitments	Positive
Final disposal of spent nuclear fuel	Neutral or negative
Fennovoima's submittal of plant design documentation to STUK	Neutral or negative
The status of Fennovoima's safety culture	Negative
Fennovoima's plant supplier	Neutral or negative
Activist protests at the plant site	Neutral or negative
Effects of the EU's sanctions against Russia for the project	Neutral or negative

PARTNERS AND MEMBERSHIPS

Association for Finnish Work	Foratom	Project Management Association Finland
European Nuclear Society (ENS)	Helsinki Region Chamber of Commerce	PSK Standardisation Association
Federation of Finnish Enterprises, Northern Ostrobothnia	Industrial Lawyers Association	Taxpayers Association of Finland
FIBS Corporate Responsibility Network	International Atomic Energy Agency (IAEA)	World Association of Nuclear Operators (WANO)
Finnish Energy	Oulu Chamber of Commerce	World Energy Council
FinNuclear		

Communications at international level

The key objective of Fennovoima's international communications is to keep the international stakeholders up to date on how the project is proceeding and to openly communicate about the project.

The key stakeholders internationally are EU-level civil servants, mainly at the European Commission and at the Euratom Supply Agency. In view of transparency, Fennovoima also engages particularly with the Finnish Members of the European Parliament.

In June 2015, the European Commission (EC) issued its opinion about the Fennovoima project under Euratom Treaty Art 41/43 to the Government of Finland. In its opinion, the Commission gave a positive assessment of the Hanhikivi 1 project, under the condition that certain open questions would be resolved as planned. The process has been ongoing since. Fennovoima has submitted all required information to the Ministry of Economic Affairs and Employment, which is to see to the closure of the process.

To further strengthen the company profile as a member of the EU's energy industry and nuclear community, Fennovoima conducted a number of PR activities in international forums, such as participating in and acting as a sponsor of a nuclear power event organized by Platts in London in May 2016.

Furthermore, Fennovoima was successful in triggering and arranging a large number of positive publications, articles and interviews about the Hanhikivi 1 project in international media, including a detailed feature article in the Financial Times.

Communications-related cooperation and planning with the Russian parties in the project continued, mainly with RAOS Project and Titan-2. The Public Relations Working Group, consisting of communications professionals from Fennovoima, RAOS Project and Titan-2, convened to discuss and plan communications activities five times in 2016.

Fennovoima monitored the EU-level energy policy debate closely, especially regarding the Energy Union, EU Energy Security Strategy, EU-Russia sanctions, and general nuclear energy policy.

Dialogue with the project opponents

Opposition to the project can be seen most clearly in social media discussions and as activist protests in Pyhäjoki. Fennovoima's communications operations aim to serve the general public, regardless of their position towards Fennovoima. We have actively shared information and participated in the discussions in social media and answered the questions and concerns of the general public. We also organized public events, in which people can discuss with Fennovoima's experts.

A local non-governmental organization called Pro Hanhikivi has been opposing the Hanhikivi 1 project with the goal of hindering the progress of Fennovoima's nuclear power plant project and bringing it to an end if possible.

Protests and activism

Since the construction work began at the plant site in the Hanhikivi headland in 2014, activists have periodically attempted to stop the proceeding of the construction work. The activists held a "Reclaim the cape action week" in April 2015 and again in 2016. Up to 100 activists took part in the protests.

Management of the protests required a substantial amount of police resources in 2016 as well as in 2015. During 2016, approximately 100 reports of an offence were made to the police about the actions of the activists. After the police dismantled the activist campsite in the end of April, the protests ceased, and the rest of the year at Hanhikivi headland was calm.

Fennovoima has reacted to the protests e.g. by increasing security measures and surveillance at the plant site. Fennovoima's personnel have been instructed about how to act in threatening or otherwise exceptional situations with the activists.

We respect the right of people to express their opinions and to organize peaceful demonstrations. However, Fennovoima does not accept activists endangering the safety of construction workers, local people, the authorities or themselves. The destruction of property, machinery and the environment is also unacceptable.



Key financial figures

Fennovoima Oy has one major task, which is to build a new nuclear power plant in Finland and to produce electricity at a stable price for its shareholders.

Fennovoima's Finnish shareholders consist of industrial companies and municipal energy companies that utilize energy in their own operations. Fennovoima's Hanhikivi 1 project will benefit the whole of Finland due to the increased carbon-free electricity supply.

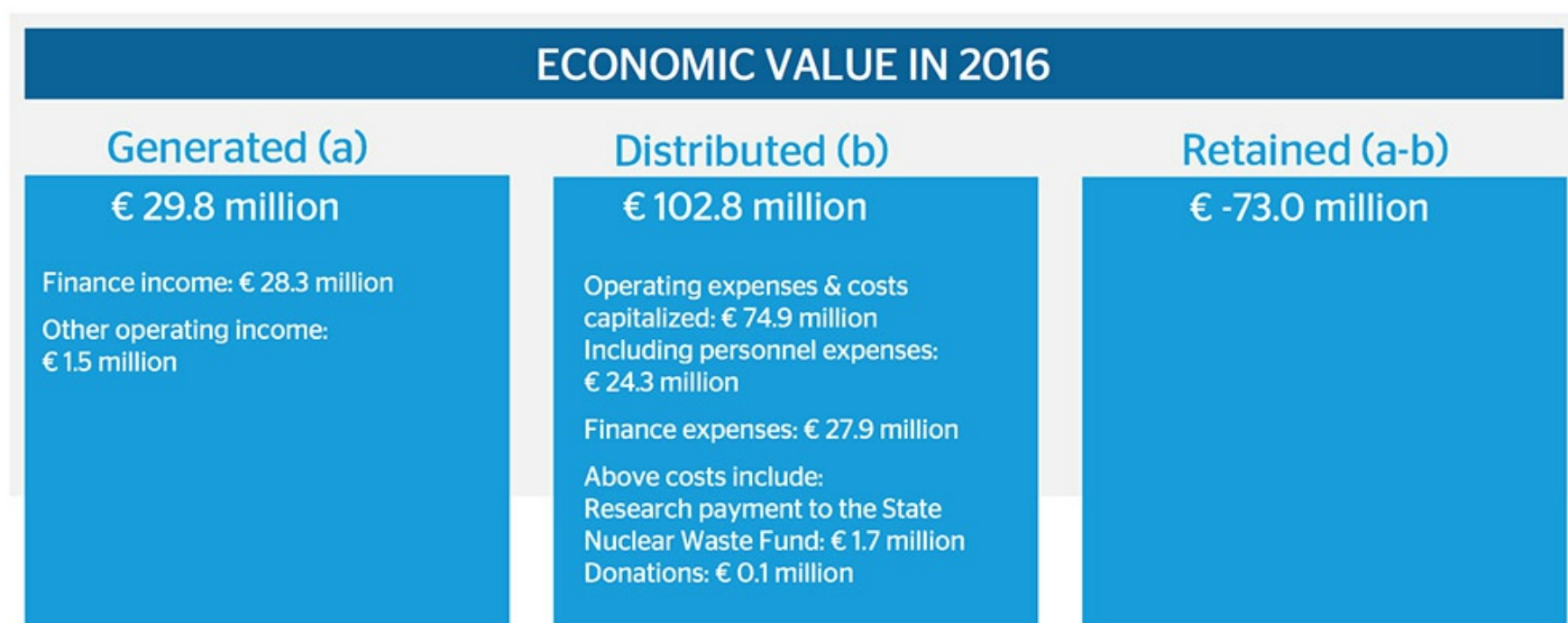
Fennovoima will be operating on the cost-price principle (the "Mankala principle"), whereby the shareholders are entitled to the electricity generated by the nuclear power plant at cost price in proportion to their ownership in the company. As a result of this principle, Fennovoima will not make a profit nor pay dividends in the normal course of its business.

Fennovoima has offices in Helsinki and Pyhäjoki. The headquarters is in Helsinki. Fennovoima Oy has a 100%-owned subsidiary, OOO Fennovoima Rus, in Russia. The subsidiary was registered in November 2015 to control procurement in Russia. OOO Fennovoima Rus has an office in St. Petersburg, Russia.



Financial year 2016

Fennovoima had no turnover in 2016. The reason is that the company is still in the project phase and does not own any revenue-generating assets yet. The construction of the actual plant will begin as soon as the site is prepared and the Construction License is granted by the Government of Finland. The construction and commissioning of Hanhikivi 1 is planned to be completed by 2024, after which the plant will be in commercial use. As a result, all the costs of Fennovoima basically relate to the design, construction and commissioning of this nuclear power plant. The distribution of economic value is described in the following figure.



As there are no revenues expected before the plant begins commercial operations:

- **The economic value generated (a)** remains at a modest level, consisting mainly of financing income related to the loan facilities and liquidity management.
- **The economic value distributed (b)** is naturally considerable prior to commercial operations, because the whole plant investment is spent during this period. Fennovoima is not yet able to generate revenues nor economic value that it could distribute as a typical enterprise. Instead, the company distributes the invested capital to various stakeholders: its own personnel, external services, authorities, EPC contractors, etc. which contributes to the completion of the power plant.
- As a result, **the economic value retained (a - b)** is currently negative. After the plant starts commercial operations, the economic value generated is going to cover the economic value distributed. However, due to the Mankala principle applied by the company, the economic value retained is expected to be close to zero, even during commercial operations.

National and local economic impacts

The construction of the Hanhikivi 1 nuclear power plant is a EUR 1.8–2.7 billion domestic investment, the effects of which extend to the whole of Finland and the national economy.

In 2014, *VTT Technical Research Centre of Finland* * conducted independent research on the economic impacts of the new nuclear power investments in Finland**. The following information refers to the research report of VTT, unless otherwise stated.

According to the research, the Hanhikivi 1 nuclear power plant investment of Fennovoima will increase domestic investments by nearly 1 per cent in the 2020s and the gross domestic product by more than 0.25 per cent. Nearly half of the growth of the gross domestic product is related to increased investments throughout the 2020s.



Effects on employment

The investments related to the project will increase employment, especially in the construction industry. The effect on employment growth will be about one-third of the additional domestic product growth. The growth of industrial investment in the 2020s is subject to sectors manufacturing capital goods. Other export industry investments will start to grow by the 2030s.

According to estimates from *Pöyry Finland* (formerly Pöyry Energy Oy)*** in 2008, the employment effects of the power plant construction are 24,000 – 36,000 person-years in Finland, if the domestic content is 45 per cent. The nuclear power plant is being built by up to 4,000 people, and during the operation phase, the power plant will directly employ 400 – 500 people.

The building of new nuclear power gives birth to significant additional investments, not only within the energy sector and construction, but also in capital goods-producing industries.

Increased purchasing power of households

The additional income that is created by the investments will increase the purchasing power of households and stimulate consumer demand. The purchasing power of households will also be improved as the price of energy will rise more moderately than without the construction of new nuclear power.

The moderate energy price development is very important for Finland, because it improves the competitiveness of the whole country. The growth in the purchasing power of households will increase investments in the fields of trade and of private services in the 2020s.

In the model calculations from VTT Technical Research Centre of Finland, the basic estimate of electricity demand was based on the basic scenario of the 2013 Energy and Climate Strategy of Finland, which takes into account, inter alia, short-term economic forecasts.

* Lehtilä, Honkatukia & Koljonen (2014) Ydinvoimapäätösten energia- ja kansantaloudelliset vaikutukset. Tutkimusraportti VTT-R-03704-14, VTT Technical Research Centre of Finland. ** Fennovoima's proportion of the economic impacts presented in VTT's study has been calculated by dividing the values presented in the study equally between new nuclear power plant projects.

*** Pöyry Energy Oy (2008) Aluetaloudellisten vaikutusten arvioinnin taustaselvitys.

Economic impacts during 2015-2016

In December 2016 to January 2017, Fennovoima and *Pohjois-Pohjanmaan Yrittäjät* conducted together for the first time a web survey about the local economic impacts of the Hanhikivi 1 project during the years 2015 – 2016.

Approximately 42 % of the respondents indicated that the Hanhikivi 1 project has already had some positive impact on their company, but the actual impact on turnover remained still close to €0 (72 %) or under €23,000 (15%). Only 2.2% of the respondents reported an impact on turnover between €1 million and €20 million.

In total, 53 % of the respondents expect the Hanhikivi 1 project to have a positive impact on their turnover during the years 2017 – 2018.

The respondents were mainly SMEs from Northern Ostrobothnia (90%) with 1 to 5 employees (52%) and with a turnover under €500,000 (53 %). Approximately 90% of the respondents were from companies that employed under 50 employees and had a turnover under €5 million. The survey got 316 responses.

Supply chain management

The purpose of Fennovoima's supply chain management is to provide a way of managing, monitoring and developing the performance of the entire supply chain of the Hanhikivi 1 project.



The scope of supply chain management in Fennovoima includes supplier approval, supplier follow-up, supplier steering and supplier data management.

Fennovoima ensures that the plant supplier and sub-suppliers delivering services and products important to safety are in compliance with the safety requirements and have in place procedures to ensure the conformity and acceptability of the products and services they provide, as compliance with safety requirements is a basic condition for engagement with Fennovoima.

Process development

Our supply chain management procedures and process development follow the project phases. During the year 2016, we focused on intensive process development, controlling the supply chain documentation of RAOS Project, and arranging supply chain management training with the main suppliers.

During 2017, we will focus on the development of RAOS Project's sub-suppliers controlling procedures and processes, and document implementation.

Supplier approval and follow-up

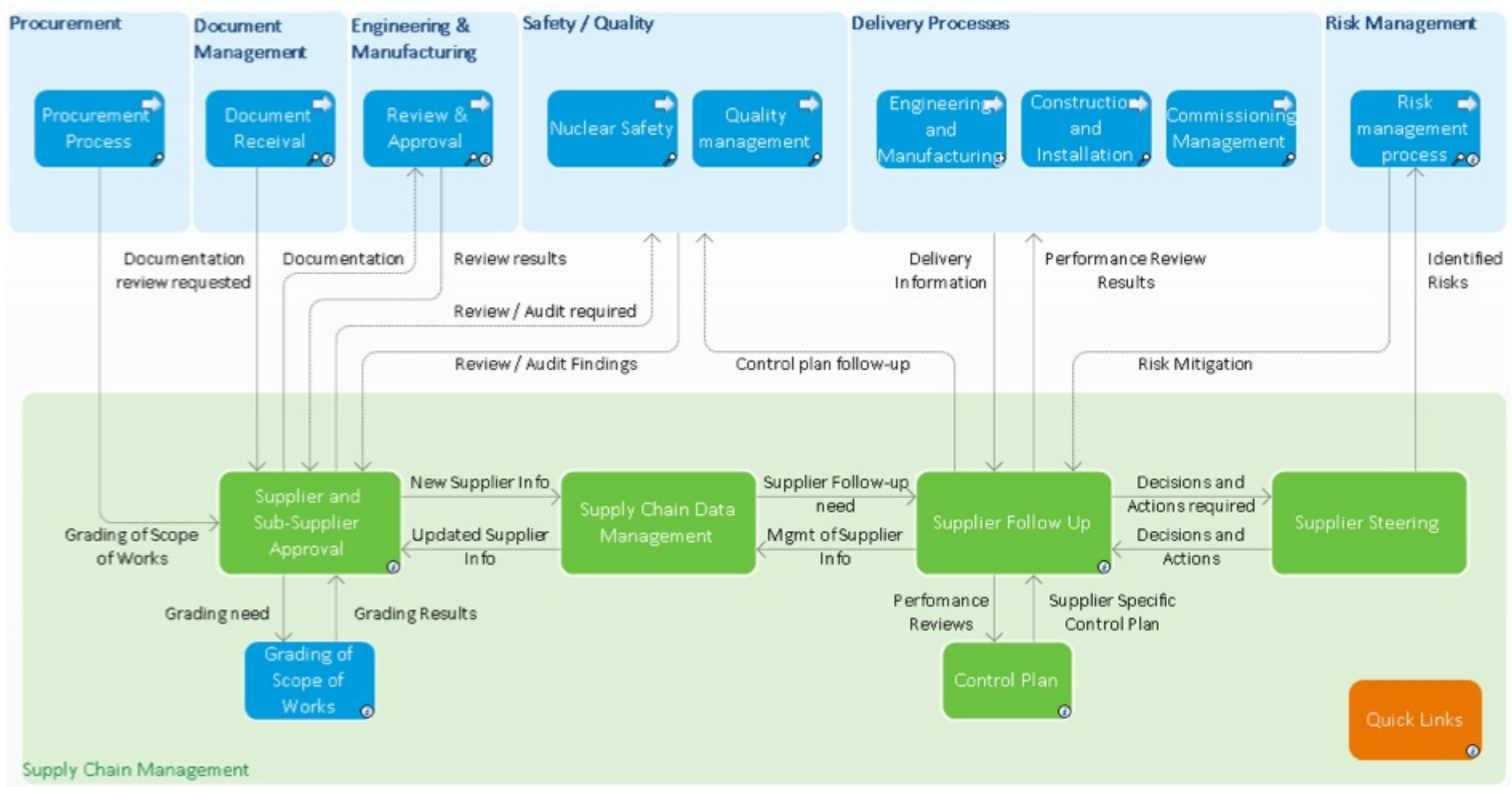
Initiative for the supplier approval process may arise from Fennovoima's own need to place an order, from the plant supplier RAOS Project, or from the nuclear fuel supplier TVEL in an official approval request. Supply Chain Management is responsible for the coordination of the review process and distribution of the supplier approval or rejection decision.

Fennovoima Supply Chain Management assesses the potential supplier companies in a comprehensive manner. All services and activities provided by the suppliers are classified according to their importance to nuclear safety and treated accordingly. In addition to the nuclear safety criteria, numerous other factors are emphasized in the supplier selection. The supplier must fulfil technical, financial and safety requirements to act as a supplier in the Hanhikivi 1 project.

In addition, safety-related suppliers must have a quality management system that is appropriately certified or independently evaluated by a third party, e.g. ISO 9001 certification, and suppliers must have in place processes to control the operations of their own sub-suppliers. Suppliers must comply with the occupational safety and environmental requirements of the OHSAS 18001 and ISO 14001 standards. Also matters such as prior experience of similar work are checked.

The conditions for the supplier's use of subcontractors and the communication and relaying of requirements within the supply chain are defined in the Supply Chain Manual, procurement plans and purchasing procedures of Fennovoima and in those of the plant supplier to ensure that safety requirements are fulfilled within the entire supply chain.

We require our suppliers and sub-suppliers to comply with all applicable Finnish and international laws and regulations, and to meet the regulatory requirements and contractual conditions. We also expect our partners to follow ethical business practices, respect the environment and human rights, and offer a safe and fair work environment for their employees.



Supply Chain Management Process Integration Map

Supply chain structure

Fennovoima’s supply chain structure is divided into Fennovoima’s own scope of works and the RAOS Project’s scope of works, which is agreed in the turnkey EPC (Engineering, Procurement and Construction) contract of the nuclear power plant supply.

Fennovoima’s scope of work

The owner’s scope covers the engineering and site construction work performed by contractors and consultants directly contracted by Fennovoima. It includes all the work preceding and related to licensing, conventional permits, site preparation, construction and other work and services (e.g. grid connection project, regional infrastructure projects, spent fuel interim storage, low and intermediate level waste final disposal facility), excluding the EPC contract scope.

Fennovoima’s own scope of construction covers mainly the auxiliary buildings, such as the training center, administration building and plant office.

Finnish companies as a majority

During 2016, Finnish companies have realized nearly all of the work within Fennovoima’s scope.

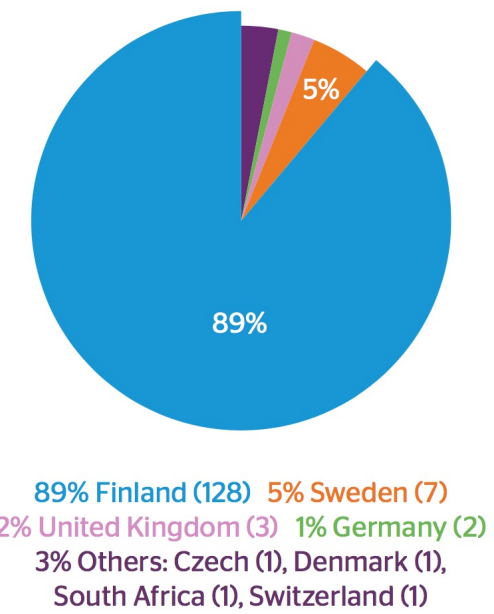
The training building was completed at the end of September as the first permanent building of the project. Its construction was implemented by **Rakennusliike Sorvoja Oy** from Oulainen.

Ruskon Betoni’s two concrete batching plants were completed in June and August. The plants were built by **Steel-Kamet Oy** from Kalajoki.

Lapin Teollisuusrakennus Oy built the sorted waste station, which will be completed and taken into use in the spring of 2017. The station is operated by **Sita Oy**.

Destia excavated the site pit level -2 meters, and **Graniittirakennus Kallio** completed the work, which included the road areas, parking areas, as well as the water and sewage pipelines.

VS Turva-aidat completed the fencing of the site in November.



Fennovoima's suppliers by country of origin. Total number of suppliers 158. (Situation 12/2016).

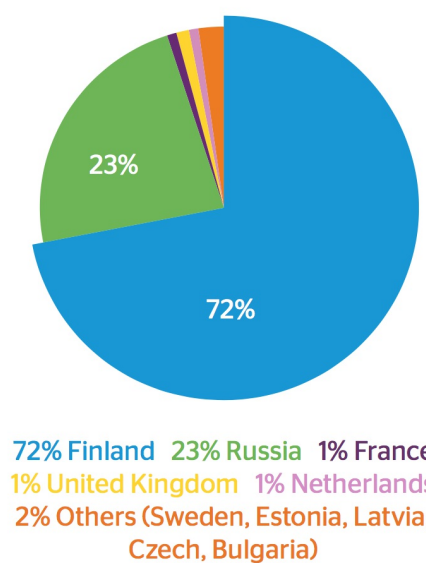
RAOS Project Oy’s scope of work

According to the EPC contract, the plant supplier RAOS Project is responsible for the supply of the nuclear power plant on a turn key basis.

RAOS Project Oy has established representative offices in St. Petersburg, Moscow, Helsinki and Pyhäjoki. During the current project phase, the RAOS Project Oy representative office in St Petersburg coordinates and consolidates the activities of all representative offices. RAOS Project’s Pyhäjoki office will have the following functions:

- Construction site organization and management
- Organization and monitoring of Hanhikivi 1 nuclear power plant construction
- Physical protection and security at the construction site
- Coordination and supervision of construction and installation sub-suppliers
- Occupational safety and health protection, fire safety and environmental protection at the construction site
- Interaction with Fennovoima, the sub-suppliers, the municipality of Pyhäjoki, and supervisory and regulatory authorities

Most of the key organizations in the Hanhikivi 1 project EPC supply chain are subsidiaries of Rosatom. Rosatom incorporates companies from all stages of the technological chain, such as uranium mining and enrichment, nuclear fuel fabrication, equipment manufacture and engineering, operation of nuclear power plants, and management of spent nuclear fuel and nuclear waste. Nowadays, Rosatom encompasses more than 350 enterprises and organizations with a workforce above 250,000.



RAOS Project's suppliers in Hanhikivi 1 project by country. Number of suppliers 210, excluding lower tier sub-suppliers for earth removal works. (Situation 12/2016).

FENNOVOIMA

On-going supply chain development

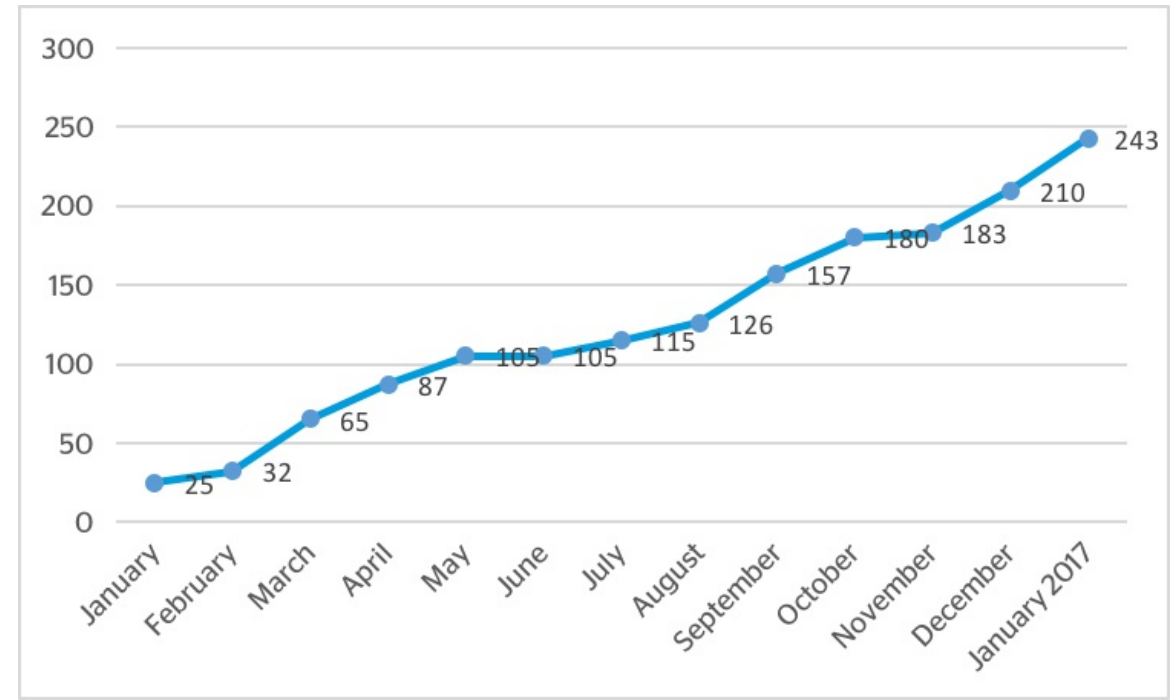
So far, the Rosatom subsidiary *JSC Atomproekt* has been selected to act as a general designer with overall responsibility for ensuring that the design of the Hanhikivi 1 nuclear power plant is developed in accordance with and fulfils Finnish legislation and regulatory requirements, and the requirements set in the EPC contract.

JSC OKB Gidropress, also a Rosatom subsidiary, has been selected for developing the reactor plant basic design. The reactor plant chief designer Gidropress is responsible for integrated elaboration of the reactor plant design, including systems of safety, control, diagnosis and safety assurance in the design boundaries of the reactor plant.

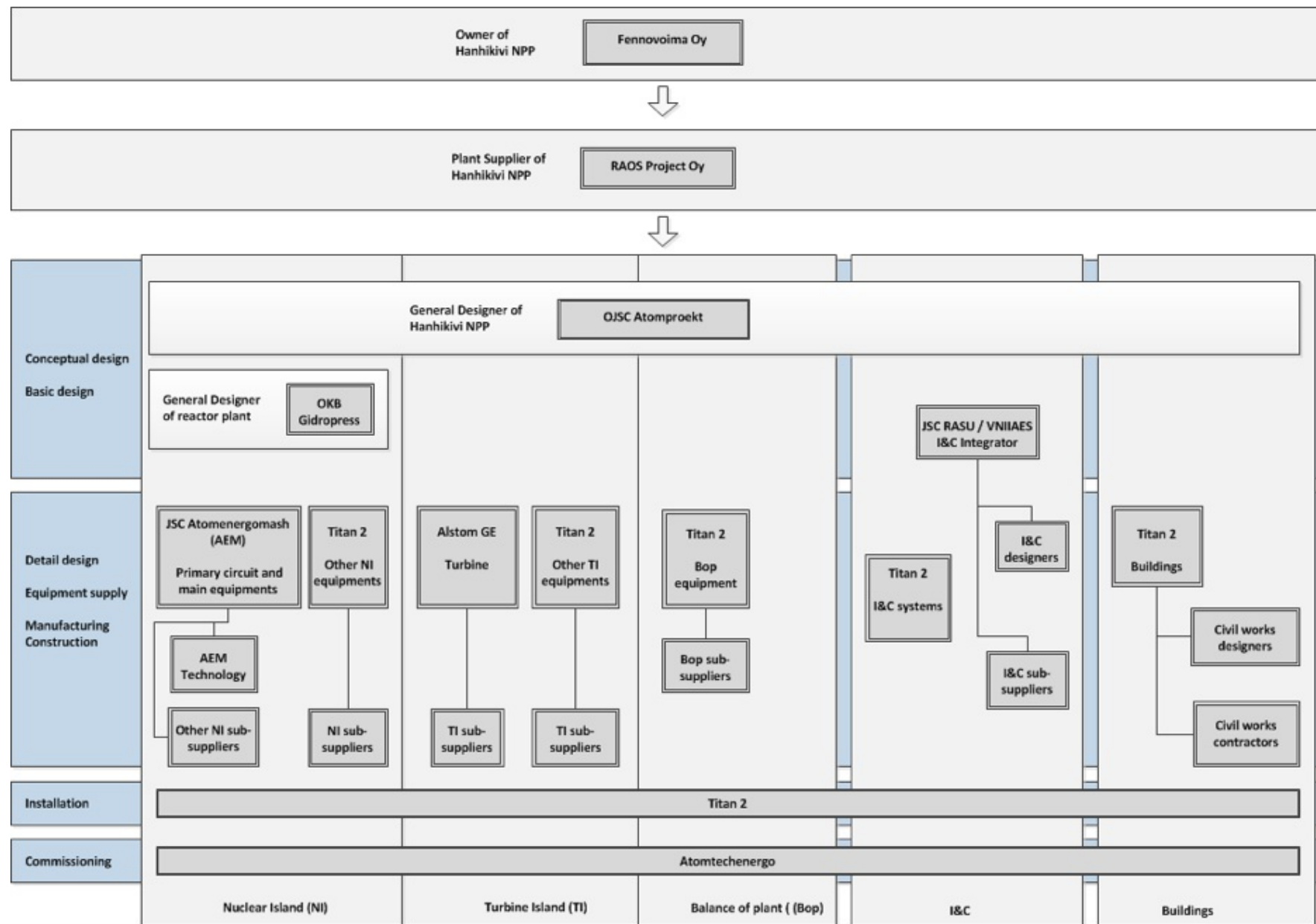
JSC Concern TITAN-2 has been approved as the main contractor, being responsible for organization of detailed design and construction operations for the Hanhikivi 1 nuclear power plant.

SC Atomenergomash (AEM), which is also part of the Rosatom corporation, will provide the reactor building Long Lead Equipment, such as the nuclear steam supply system, to the Hanhikivi 1 project.

One of the recent selections is the approval of *GE Alstom Power Systems* for the supply of complete turbine generator set. Later on, RAOS Project will select the companies for the training of the operators and commissioning of the nuclear power plant.



Number of companies included in the RAOS Project's supply chain from January 2016 to January 2017.



RAOS Project Oy main scopes and selected main sub-suppliers (December 2016)

Auditing the supply chain

Our supplier audit procedures are in place to ensure that legal, regulatory and contractual requirements are met and to confirm that the supplier has the required abilities to produce products or services it is contracted to.

Auditing is one of the methods that are used to ensure suppliers' capability to deliver high-quality products that meet the requirements. Fennovoima's audits cover all the safety significant suppliers of the Hanhikivi 1 project supply chain. Fennovoima conducted 41 audits of its own and the plant suppliers' supply chain in 2016.

The plant supplier performs its own audits of its sub-suppliers within the whole supply chain of the Hanhikivi 1 project. In addition to Fennovoima and the plant supplier, in different phases of the Hanhikivi 1 project, audits and inspections can be conducted by sub-suppliers, third parties or the Finnish Nuclear and Radiation Authority (STUK), if any audit is regarded necessary within the scope of work. STUK always has the authority to participate in these audits according to its own decision. Requirements to perform audits and assessments are referred to in the YVL guides.

Methods for auditing include:

- Interviewing auditee personnel
- Assessing documentation
- Assessing records
- Observing activities and processes
- Observing physical conditions

Sometimes non-conformities, which mean ways of action and procedures that do not meet the set demands and standards, are perceived in inspections and audits. In such cases, Fennovoima can refer to the legal and regulatory requirements, and to the contractual terms and conditions to point out the non-conformities in order to demand corrective actions.

In non-conformity situations, the subcontractors must be able to prove that corrections and corrective actions have been addressed on the agreed schedule before the operation can acceptably continue. If corrective actions for a critical non-conformity are not performed effectively, the supplier related to the project is to be suspended and it may result in withdrawal of the supplier approval.

Audits cover the safety significant suppliers

Fennovoima's audits cover the whole supply chain of the safety significant suppliers according to graded approach. During 2016, the main focus of the implemented audits was on the management system, safety culture and its security. Most of the remarks identified in the supplier audits were related to the flow of information. Specific safety culture audits of the supply chain were started in 2016.

Fennovoima also audited the EHS and OHS management systems of the plant supplier RAOS Project and its main contractor Titan-2. In addition, we participated as an observer in all audits that were conducted by the plant supplier.

New focus areas in 2017

During 2017, we will focus on clarifying the EPC agreement requirements and YVL Nuclear Safety Guides to the suppliers. Also, our self-assessment method will be further developed.

As the manufacturing of components critical for nuclear safety will begin in 2017, this will impact the scope of audits. Based on the non-conformity analysis of previous audits, more emphasis will be given to nuclear safety culture, requirements management, configuration management and the design review process in future audits.

As a new procedure, compliance audits will be implemented into the audit processes to monitor the implementation level and the compliance with the Compliance and Ethics Program within our own organization and the supply chain.

Gray economy prevention

Fennovoima's goal is a functional and safe construction site where labor relations are handled properly and the gray economy is effectively prevented.



Good preparations

Preventing the gray economy is an essential objective of the Hanhikivi 1 construction site management.

The subcontractor network will be managed and supervised, and the gray economy prevented through good preparations with labor and employer unions, the plant supplier, and different authorities. Fennovoima has assembled a working group of representatives from the main Finnish labor market organizations; the group is brainstorming solutions for the construction site's labor market challenges.

At most, an estimated 4,000 people will be working at the Hanhikivi 1 site. The construction site will have Finnish and foreign workers, and an extensive network of subcontractors.

Site agreement

Fennovoima, RAOS Project, and labor market organizations have signed a site agreement on the common rules at the construction site. The site agreement lays out the agreed collaboration practices that are followed at the construction site: among others, the exchange of information, problem-solving procedures, labor union representation at the construction site, and practical ways to prevent the gray economy.

Site register

A key tool for Fennovoima's fight against the gray economy is a site register, which was introduced in July 2015. The register is used to ensure that all required information regarding the supply chain companies and people working at the site are in order.

We do not accept unregistered companies or persons to work at the site. With the site register, we aim to secure that our construction site complies with applicable legal obligations at all times. In addition to the reports submitted to the tax authorities, the register allows us to deliver real-time information on the people working at the site, orientation training they have received, and occupational safety at the construction site to the Regional State Administrative Agency. The tax authorities, Regional State Administrative Agency and STUK have the right to obtain a status report of the site register information whenever necessary.

In practice, the site register is a centralized registration system that contains information (e.g. insurance and collective bargain information, all certifications and information required by the Contractor's Liability Act) from all companies and workers on site, regardless of their nationality. The site register also includes the necessary processes to manage this information. The system contains a lot of automated functionalities that facilitate the management of a large construction site. Such functionalities are, for instance, automatic checking of the contractor's liability information and transfer of the data directly to authorities, as has been agreed with them. The register system also allows real-time worker inspections on site.

Securing nuclear and radiation safety in all project phases

Continuous observation of safety principles is a fundamental precondition for the safe construction, operation and decommissioning of Fennovoima's nuclear power plant.



Nuclear safety is the core of our operations, and our behaviour is based on four principles, which are:

Commitment: set nuclear safety first, take responsibility and show good example

Awareness: know what you are doing and why

Transparency: communicate and cooperate

Continuous improvement: take initiative and seek to learn more



Nuclear safety principles

Fennovoima upholds and develops a good safety culture. Prioritizing safety, being mindful of the importance of one's own actions, bearing responsibility, openness, learning from others and encouraging partners to act safely are key elements of Fennovoima's safety culture.

It is of the utmost importance that there is a consensus among all project parties on what is meant by safety, and that everyone working in the project bears the responsibility for safety. Shared safety culture principles were agreed upon in order to ensure a coherent approach to safety, which all parties involved in the project must follow.

Fennovoima assesses safety regularly and strives for continuous improvement of the level of safety.

We employ the defense-in-depth approach in both the plant's technical solutions and our operations, which means that established working practices are such that no single human error or a process or system failure can threaten nuclear safety.

STUK is responsible for the national-level oversight of the safe use of nuclear energy in Finland. STUK performs reviews and inspections, issues statements and decisions, and gives recommendations in radiological emergencies. STUK conducts inspections of Fennovoima to verify that Fennovoima's operations fulfil the requirements of the relevant nuclear legislation, YVL Guides and official decisions.

Nuclear and radiation safety

Fennovoima and STUK will supervise the construction of the nuclear power plant and its safety at all stages of the work. Fennovoima will ensure that the plant will be constructed in accordance with safety requirements, using accepted plans and procedures.

As Fennovoima's nuclear power plant project proceeds, the overall safety of the nuclear power plant will be assessed during the Construction License and Operating License application processes, as well as at maximum intervals of ten years during the operation of the power plant, in connection with Operating License renewals or periodic safety reviews. The operation of the nuclear power plant cannot begin until STUK has approved that Fennovoima's nuclear power plant and operating organization meet the set safety requirements.

Decommissioning of the Hanhikivi 1 nuclear power plant is taken into account already in the design phase of the plant. Appropriate design of the plant can reduce the volume of decommissioning waste that will require final disposal, as well as the radiation exposure of decommissioning workers.

Continuous improvement of safety at Fennovoima's facility will include modifications based on technological advances and development of the plant's operating procedures based on the results of new safety analyses.

Safety inspections by the Finnish Radiation and Nuclear Safety Authority STUK

From September 2015 onwards, the Finnish Radiation and Nuclear Safety Authority (STUK) began its inspection program for safety assessment (RKT) regarding the Hanhikivi 1 nuclear power plant. STUK utilizes the results of these inspections in their final safety assessment of the Construction License. Altogether, 15 inspections were conducted in 2016, as listed below.

Spring

Fennovoima's management system and key processes, follow-up

Fennovoima's civil engineering and spatial planning – preparation for internal and external hazards

Review procedures and safety assessment of the main designer of the plant's primary circuit, OKB Hidropress

Review procedures and safety assessment of the plant supplier, RAOS Project Oy

Operations relating to the initiation of manufacturing of Long Lead Items (LLI) at Fennovoima

Fennovoima's management and safety review and assessment, follow-up

Autumn

RAOS Project Oy, follow-up

Fennovoima's human resources, follow-up

Kurchatov Institute

JSC concern TITAN-2

Fennovoima's security arrangements, follow-up

JSC Atomproekt, follow-up

Fennovoima's electrical and emergency power supply equipment

Fennovoima's safeguards

Fennovoima's safety culture, follow-up

Promoting nuclear and radiation safety

Fennovoima and STUK will supervise the construction of the nuclear power plant and its safety at all stages of the work.

Fennovoima ensures that the plant will be constructed in accordance with the safety requirements, using accepted plans and procedures. Fennovoima also ensures that the plant supplier and the subcontractors that produce services and products important to safety operate in accordance with the safety requirements and understand the importance of the requirements.

Only suppliers who possess the prerequisites for operations that meet these requirements, and who use clear quality management and assurance procedures, can take part in deliveries that have safety significance.

Fennovoima has established procedures for the assessment, approval, supervision and steering of the suppliers of products that have safety significance. The procedures cover the entire supply chain and all the phases in the life cycle of the products. The nuclear safety of Fennovoima's nuclear power plant is built up by deliverables produced by Fennovoima or Fennovoima's suppliers, the plant supplier or their sub-suppliers. As the sole responsible party for the nuclear safety of the plant, Fennovoima employs the best available knowledge and resources to ensure that the deliverables support nuclear safety.



Safety awareness

Safety awareness is maintained and emphasized in Fennovoima's growing organization through continuous open communication and training.

Safety culture is introduced to our new employees already during the first working days as safety culture training is given value in the two weeks long orientation training that is mandatory for all new employees. Other training operations are carried out to ensure that all employees working in various positions in the organization are aware of the safety significance of their work and that the personnel is familiar with the requirements of the nuclear energy field, and adopts and maintains a high safety culture.

Safety culture is also included in the site access training as one topic. During 2016 the site access training material was revised so that the safety culture principles are more clearly present in all trained topics. An additional Safety Culture Lecture Series was started with three lectures available for all Fennovoima personnel: human and organizational factors, organizational accidents, and safety leadership.

During 2016 our whole organization went through discussions on how safety culture is realized in the daily work. This was carried out in team- and unit-level meetings, and each team made also a concrete promise on how they can contribute to each of the four safety culture principles of Fennovoima. All of these promises were gathered and compressed to four Fennovoima-level commitments, which were followed up during the year.

We also began the work for gathering safety culture-related lessons learned from previous nuclear power plant construction projects and relevant incidents. A database for recording the lessons and needed actions at Fennovoima was constructed. The work will continue in 2017.

At Fennovoima, safety culture is also promoted via the intranet and Fennovoima's internal bi-monthly letter to supervisors, which regularly includes safety as a topic, as does Fennovoima's bi-monthly digital stakeholder magazine Fenنونen.

Safety culture ambassadors

A group of safety culture ambassadors was established to promote safety culture within the organization in spring 2015. In 2016, fourteen ambassadors were acting in the various departments and technical disciplines at Fennovoima.

Official ambassador meetings were organized five times. In addition, the ambassadors acted as contact points for employees in safety issues, shared safety related information, facilitated the safety culture principles implementation and commitments exercise, participated in safety culture audits, provided training in safety culture issues, and provided help to the safety culture manager in various other issues.

Monitoring safety

Fennovoima's safety culture has been continuously monitored since 2008.



Fennovoima's internal audits include safety culture as one of the audited elements. Questionnaires are used to collect employees' views on safety culture. All teams evaluate annually how the safety culture principles are realized in daily work. These findings are summarized and reported to management, and corrective actions are taken when needed.

Safety observations

Safety observations are openly shared in Fennovoima. In order to ensure that all observations relevant to nuclear safety are reported and acted upon, a new Observation feature was implemented in our integrated data management system during 2016. All personnel at Fennovoima may report any issue they consider important for development of operations, have the observation investigated, and get feedback on it. All types of observations (non-conformities, safety concerns and initiatives) can be made anonymously in the new system.

The aim of the observation system is to facilitate organizational learning and employee involvement. A safety concern can be reported if a person feels an issue is not getting the attention warranted by its significance. This issue can concern e.g. human resources, legal issues, project management, engineering, nuclear safety, security, occupational health and safety, or safety culture in general. This process supports good safety culture by giving a legitimate route for reporting and by increasing transparency in the organization.

All observations are processed

The observations are evaluated and processed without delay, at the organizational level appropriate to their significance, and any improvements carried out are communicated appropriately.

In 2016, a total of 18 concerns were received and handled. Two main apparent cause categories underlying the concerns were communication and collaboration, and processes and procedures. The concern process, and safety culture development in general, was also monitored by the independent Nuclear Safety Committee. Safety culture is also followed in Fennovoima's management reviews.

Nuclear Safety Assessment

Nuclear Safety Assessments compare the characteristics and performance of the plant, systems, equipment, structures, working methods and quality management to the requirements set for them. Through Safety Assessment, insight into the current level of performance and the adequacy of safety requirements is established.

Nuclear Safety Assessment is performed for all documents constituting or affecting the overall safety case of the plant. The overall safety case is the collection of arguments and evidence for the nuclear safety of the plant and is based on the plant technology, the organization and the site.

Nuclear Safety Committee

The Nuclear Safety Committee (FNSC) convenes on a regular basis to handle safety-related topics and issue recommendations thereon, as required in the Government Decree on the Safety of Nuclear Power Plants (717/2013). The FNSC provides advice to the CEO and the management of Fennovoima on all topics related to nuclear safety.

The FNSC has the following specific tasks for the licensing phase of the Hanhikivi 1 nuclear power plant:

- with its experience, to ensure that nuclear safety is taken into account in the development of the organization and management system
- with its leadership, to promote development of good nuclear safety culture
- with its networks, to assist in adoption of best practices in nuclear safety management
- with its knowledge, to support in addressing technical development and nuclear licensing issues, which have nuclear safety aspects
- with its expertise, to provide comments on plans, manuals, reports and other documents having nuclear safety relevance

The members of the Nuclear Safety Committee are: Ami Rastas (chairman), Juhani Hyvärinen, Kirsi Kavonius-Hietanen, Peter Tuominen, Gabor Vamos and Timo Äikäs.

Facilitating safety culture in the Supply Chain

Fennovoima sets requirements for safety culture in the EPC contract. The fulfilment of these requirements is assured by management system audits and targeted safety culture audits.



Auditing process development

During 2016, Fennovoima's process of auditing safety culture was elaborated, and a separate instruction was made for conducting targeted safety culture audits. A pilot audit was conducted in June 2016 at the Titan-2 Pyhäjoki offices. Safety culture audits of Atomproekt and Atomenergomash were carried out during autumn, and audits of Gidropress and RAOS Project have been scheduled for early 2017.

Safety Culture Working group

A nuclear safety culture working group was established in 2015, and all major safety-critical contracting parties and sub-suppliers are required to appoint a representative to the working group. The working group aims to clarify common safety culture expectations, increase awareness of the topic among all parties, and control and monitor the development of safety culture in the entire supply chain and at the plant site.

Safety culture program approvals

Fennovoima approved the Safety Culture Program of the plant supplier RAOS Project in 2015, and during 2016, the safety culture programs of the four main safety critical sub-suppliers were approved: Atomproekt, Gidropress, Atomenergomash and Titan-2. Safety culture is a regular topic in all quality audits that Fennovoima conducts.

Safety culture events

Fennovoima also participated in two parallel safety culture related events organized by Rosatom: the XI International Nuclear Forum "*Safety of nuclear technologies: safety culture*" and the 5th International Safety Culture School, which was organized in October in St. Petersburg, Russia. They were hosted by Rosatom CICE&T. The Forum and the School included several presentations by Fennovoima's Safety Culture Manager. Two days of the School were dedicated to the Hanhikivi 1 project, and especially to intercultural communication issues. More than 80 specialists involved in the Hanhikivi 1 project participated in the safety culture school.

Occupational health and safety

Our occupational safety culture provides that occupational safety is always set to the first priority together with nuclear safety.



The occupational safety culture of an organization includes all the values, practices and procedures adopted by the organization that play a role in controlling and defining the organization's occupational safety. It refers to the organization's way of treating all matters related to the employees' safety, health, continuing ability to work, and well-being.

The zero-accident principle

Fennovoima follows the zero-accident principle, and the company's whole personnel participates in ensuring occupational health and safety. In our working community, the objective is to create a shared mindset where safety is everybody's business and all employees understand thoroughly the importance of occupational safety culture.

Fennovoima's occupational health and safety concept covers the entire subcontracting chain, and we require commitment to the zero-incident principles from everyone working at the construction site. Fennovoima is establishing and overseeing the work site safety regulations in cooperation with the plant supplier and main contractors of the construction site.

Managing risks

An efficient risk management process and reacting proactively to detected risks play a key role in creating a safe working environment for all workers at the construction site. Comprehensive, regularly assessed risk management processes and active reporting of safety observations form an important part of preventive management of occupational health and safety.

Currently, the work at the plant site is regular construction work and civil engineering work, and there are not any operations which have high incident or disease risks. However, in future the construction work will include several tasks where the risk of incidents is augmented, such as working in confined spaces and tunnels, or working at high altitude or underwater. Fennovoima constantly monitors the situation at the plant site, and we guide and train our personnel and partners to obey common safety procedures and guidelines.

Right knowledge and skills

We are committed to ensure that everyone working in the Hanhikivi 1 project has the required knowledge and skills regarding safe working methods, best safety practices, and that they use personal protective equipment.

Everyone working in the Hanhikivi 1 project has the responsibility to intervene in improper operations and report immediately near misses, accidents and other concerns related to health and safety. We take immediate action to minimize or eliminate any risk factors identified.

Occupational safety training

Occupational safety is promoted at the Hanhikivi 1 site, in particular, by active training of contractors. Since the beginning of the construction work, Fennovoima has trained all people working at the site by site access training. Also, other on-site training methods have been used.

For example, Toolbox talks is a short on-site training about topical occupational health and safety issues that is held for the contractors approximately once in a month. The training material is given to contractors, who then give the training to their own workers.

As the project progresses, Fennovoima will organize a number of training courses for those working at the site. For example, first aid, occupational safety card and hot work card training has already been organized.

Occupational health and safety development

During 2016, the occupational health and safety management systems of the Hanhikivi 1 construction site, including Fennovoima's OHS management system and those of plant supplier RAOS Project and main contractor Titan-2, have been developed to correspond with the requirements of the OHSAS 18001 standard.

We were also focused on developing the cooperation practices with the site contractors' and creating a good safety culture at the Hanhikivi 1 site. As the project owner, Fennovoima requires site operators' commitment to continuous improvement of occupational safety.

The development of the occupational health and safety management system continues in 2017. In addition, new occupational health and safety training for supervisors at the plant site will be launched. Also, new practices to supervise contractors' working at the plant site will be implemented.

Targets and objectives

Fennovoima has defined long-term occupational health and safety objectives, and targets that are expected to be filled every year. Occupational safety targets are updated each year when operations change and evolve.

Precise indicators are specified for each target area, and performance in those areas is monitored by the OHS Manager, who reports weekly to the Construction Director and monthly to the Management Team of Fennovoima.

OCCUPATIONAL HEALTH AND SAFETY

Safety observations	521 safety observations were reported from the Hanhikivi 1 site. 185 observations were made from Fennovoima's scope of work and 336 from the EPC scope. Safety observations were made 2.7 observations per person (target > 1observation/person/year). An observation reporting system was established in August 2015.
Occupational accidents at the construction site	3 occupational accidents leading to absence* happened for the contractors (2015: 6). A total of 9 working days were lost as a result of these accidents (2015: 66)
The average Severity of Lost Time accidents, fatalities and the Lost Time Injury Frequency Rate (LTIFR)**	The average severity of Lost Time accidents was 3 working days (2015: 11). There were no fatalities (2015: 0). LTIFR was 8.08
Occupational diseases	No occupational diseases were identified (2015: 0)
Investigations of the occupational accidents and near miss situations	100 % of occupational accidents (3) were investigated within 7 days (2015: 100 %) 3 out of 5 near miss situations were handled within two days, and all near miss situations were appropriately handled.
TR and MVR occupational health and safety measurement index	The target level of > 90 % was achieved 123/129 times. Measurements were carried out every week in every construction site at the Hanhikivi 1 project area.

* a) First-aid level injuries are not included in the IR; b) fatalities are included in the IR; c) lost day indicates loss of one full work shift; d) "days" means scheduled work days; e) count begins from the day after the accident (one full work shift). If the injured person is treated on the accident day and he/she returns to work on the next day, the injury is reported as a first-aid case.

**LTIFR is calculated by number of lost time accident per million worked hour. A lost time accident is an accident that causes at least one work shift absence from work.

Our people

Our human resources management focuses on responsible and continuous development of the organization.



Our key objective for the moment is to develop an organization that has all the competencies and personnel for ensuring the statutory and legal requirements set for the construction phase of the nuclear power plant. Resource planning and competence management are critical success factors for Fennovoima. Fennovoima's Human Resource Manual as well as Organizational Manual are integrated parts of the Fennovoima Management System. Fennovoima has wellbeing management and other processes in place in order to create a good and equal working environment.

During 2016 our competence pool was complemented with new areas of expertise, and many existing competence areas were strengthened with new resources. Development of Fennovoima's competence model was started and the company core and leadership competences were defined and implemented. Development programs of leadership and management skills for Fennovoima managers were executed and they continue annually.

EMPLOYMENT DATA

Total number of employees	270 incl. own personnel and 46 resource plan consultants
New contracts by contract type: by gender and by age group	72 in Helsinki and 12 in Pyhäjoki, total 84 (2015:119) of which 73 new personnel with permanent or renewed temporary contract, 11 short term temporary contracts (incl. summer employees), 19 women and 65 men Under 30 years: 17, 30-39 years: 38, 40-49 years: 12, 50-59 years: 13, 60 years and over: 4
Personnel voluntary turnover rate* by contract type, location, age and gender	7.04 % 31 ended contracts in Helsinki and 3 in Pyhäjoki, of which 14 ended temporary contracts (incl. summer employees) 11 women and 23 men Under 30 years: 4.2 %, 30-39 years: 8.1 %, 40-49 years: 7.4 %, 50-59 years: 7.0 %, 60 years and over: 10.0%
Change in the employment number	+55
Personnel covered by collective bargaining agreement	100 %
The average age of the personnel	41 years
Nationality of the personnel	19 nationalities

*Voluntary turnover rate: voluntarily resigned/total number of employees Dec. 31. 2016 x 100

Principles of equality and non-discrimination

We want that Fennovoima is a good place to work for all of us. Fennovoima aims to provide a non-discriminatory, equal working environment in which all genders, employees with different duties and from different backgrounds receive equal treatment and are able to participate without discrimination in all activities.

The management team and supervisors are responsible for promoting equality and non-discrimination in their work and follow-up realization of it in Fennovoima. Each Fennovoima employee has the responsibility to promote equality and non-discrimination in their own working environment. The principles of non-discrimination, diversity and equal opportunity are described in our Equality and Non-discrimination plan.

No reported incidents of discrimination during 2016.

Competence development

Fennovoima ensures that it has the necessary expertise and competence in all phases of the project and pays deep attention to the continuous development of its organization.



At present, particular attention is paid to the development of management practices, increasing the organization's competences by recruitment and development of employees' skills, and to the development of the organization's safety culture.

Recruitment

Recruitment activities are carried out in accordance with the Fennovoima Recruitment Process, which is part of the Fennovoima Management System. The emphasis on recruitment during 2016 was continuing to strengthen Fennovoima's engineering, nuclear and turbine island areas, project management and nuclear safety organizations. The recruitment focus will remain quite the same during 2017.

The recruitment decisions are made based on the competence, qualifications, motivation and suitability of the candidate related to the open position in question, i.e. the gender, age or nationality do not affect the selection. Fennovoima encourages career development and transparency in filling the positions by publishing all the open positions on the intranet. Every employee can apply for open jobs.

In 2016, Fennovoima recruited four employees over 60 years old in order to strengthen the competence base and share knowledge in the organization. During the year 2016, no employees retired. Fennovoima has also recruited young professionals. In summer 2016, we had nine summer trainees, of whom four continued working for Fennovoima after their trainee period ended.

Training

During 2016, our training activities have been further developed and new training modules have been launched. Training is organized based on the annual Training Plan, which is updated regularly according to the needs of the project, the organization and the employees, as well as regulatory requirements.

Fennovoima develops its leadership culture and emphasizes management and leadership skills. These skills are developed by training, individual and group coaching, and mentoring.

All employees are offered training regularly, and there are several mandatory training courses related to matters such as VVER plant technology, YVL guides, nuclear safety culture, the Fennovoima Management System and internal tools.

The first pilot supplier training regarding plant technology was launched in November. The pilot of the next part, Basic Plant Course II, was organized in January 2017. These courses are held by ROSATOM-CICE&T. Also, training on management processes and procedures have been actively developed and documented. The employee competence model has been developed further. The first version of the model, which also includes technical skills, is expected to be ready in 2017.

During the coming years, the number of training days will grow as more plant technology-specific training will be provided by the plant supplier.

Introduction training

To ensure the fluent integration of the new employees into the working environment, all new personnel participate in a two-week introduction training program at the beginning of their employment. The introduction period includes mandatory introduction training, self-studies, mentoring and supervisor guidance.

The objective of the training is to familiarize the new employees with the requirements of the nuclear industry and nuclear safety culture, and to guarantee sufficient basic know-how of different areas related to the project according to the personal introduction plan that is created for each new employee.

Personal development discussions

Personal development discussions are seen as the most important tool of performance management, and they are held annually. The discussion includes target setting and follow-up, wellbeing, feedback, competence evaluation and personal development plans. Agreed targets and action plans are followed up and updated continuously.

COMPETENCE DEVELOPMENT

Average training hours per employee	46 h
Average hours of training per employee category and by gender	Management Team: Women 13h, men 38h Supervisors: women 40h, men 37h Others: women 44h, men 50h The differences in the training hours depend on the attendance at the introduction training as only new employees attend the training.
Percentage of Personal Development Discussions (PDD)	PDDs were held for 97 % of the employees (target 100%)

Workplace wellbeing

High-quality management and leadership skills are a key factor in workplace wellbeing.



We devote attention to the leadership culture and management practices in Fennovoima. We train our management continuously to secure skillful management and uniform ways of action.

Early caring and intervention approach

Fennovoima's occupational health care is more comprehensive than legal requirements dictate. In order to maintain a good working ability, Fennovoima has adopted an early caring and intervention approach. It means that all sick leave is registered and monitored, and if sick leave occurs frequently, preventive and health-maintaining measures can be addressed in time.

Early caring means also that a supervisor (or another employee) should react and start the discussion already at as early a phase as possible, already before any possible sick leave occurs

Promoting wellbeing

We facilitate work-life balance with several methods, such as working hour arrangements, other work arrangements, individual adjustments, and by increasing awareness among management. Thanks to flexible working hours, it is possible for Fennovoima employees to manage their time better and to make arrangements that suit their personal lives.

Fennovoima also promotes physical wellbeing and encourages employees to do sports and to attend different events and happenings. Fennovoima's staff sports club meets actively to try out a variety of sports, and we also participate in sports campaigns together. Fennovoima's staff cultural club organizes various cultural activities throughout the year.

Monitoring wellbeing

The level of the work welfare is followed in cooperation with occupational health care, which conducts a Pulse survey two to three times a year to measure the overall workplace wellbeing at Fennovoima. A ParTy® survey implemented by the Finnish Institute of Occupational Health is made biannually.

Both of the surveys are a basis and a tool for management, supervisors and employees to develop further the areas that influence the wellbeing and work results in Fennovoima.

FENNOVOIMA

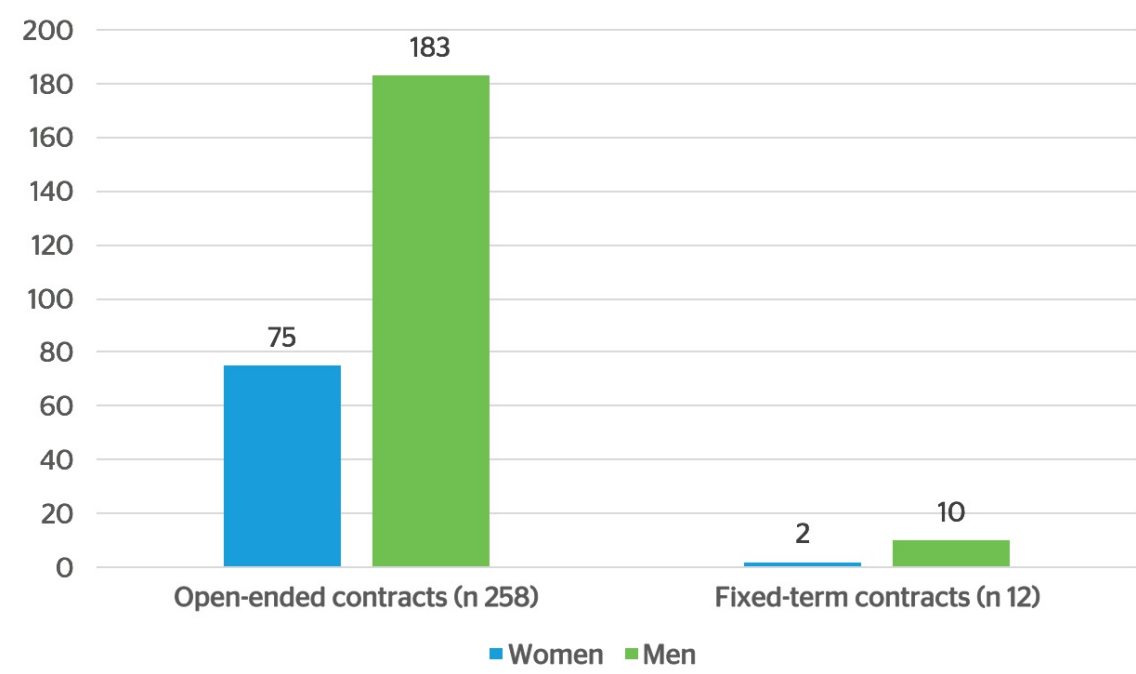
Work and flexibility

Fennovoima applies mostly open-ended employment contracts. Fixed-term contracts are used only for e.g. temporary positions when an employee will take parental or study leave, summer jobs, or to cover short-time project needs. The possibility to have reduced working hours has mostly been used for part-time child-care leave.

The working time instructions at Fennovoima comply with all applicable legislation, such as the Employment Contract Act, Working Hours Act, and all applicable collective agreements of Finnish Energy Industries. The working time instructions are in place to ensure work-life balance in unison with the fulfilment of the work objectives.

Working time at Fennovoima is flexible. Flexible working time allows individual adjustment in the daily working times. Working time is monitored with a time management system, and it is mandatory to use the system. Each employee can and is encouraged to monitor her or his own accumulation of hours.

HR reports employees' working hours to supervisors monthly, and each supervisor is responsible for following the accumulation of total hours to promote good work-life balance and introduce corrective actions if needed. Fennovoima encourages employees to use accumulated hours to balance the workload. The use of accumulated hours is flexible and can be agreed with the supervisor.



Employees by contract type and gender in 2016.

PERSONNEL WELLBEING

Absentee rate of the personnel	2.07 % (target <2.5 %)
Pulse wellbeing index (scale of 0-6, national average 4.53)	4.76 (1/2016) and 4.63 (11/2016) (target 4.5)
Party survey result (scale of 0-20, manufacturing sector average 13.9)	14.5 (target 14.0)
Occupational health costs	634€/person/year, over market average due to the more extensive occupational health care check at the beginning of the employment and strong organizational growth
Full-time and part time employees by gender, by contract type and location	260 full time employees: 73 women, 187 men with fixed-term contract: 65 women and 168 men in Helsinki, 8 women and 13 men in Pyhäjoki 10 part-time employees: 4 women and 6 men with fixed-term contract: 1 woman and 2 men in Helsinki, 1 woman in Pyhäjoki

Local engagement

A large construction project such as Hanhikivi 1 sets requirements also for the surrounding municipalities. Fennovoima has sought to work closely with the public, private and third sector actors from the early stages of the project.

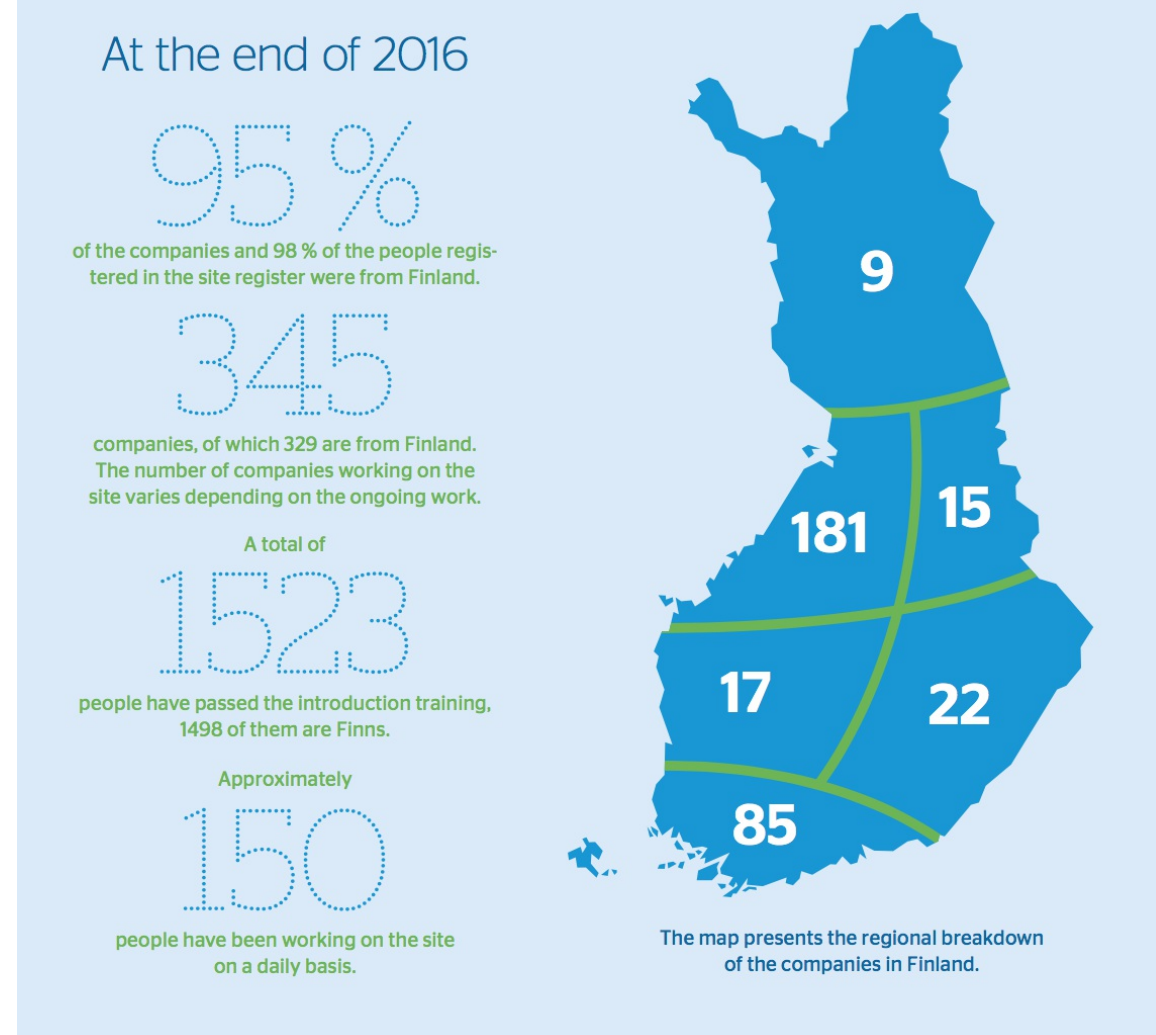


Cooperating with local business and public sector

Fennovoima has sought to work closely with the private and third sector actors from the early stages of the project. A significant form of cooperation has been participation in collaboration projects that focus on improving the capabilities of the local actors to prepare for the Hanhikivi 1 project. The main objective of these preparations is to maximize the positive impact of the Hanhikivi 1 project on the region, to increase the attractiveness of the region and creating prerequisites for capacity-building.

We encourage Finnish companies to take part in the Hanhikivi 1 project and provide related information through various events and forums that are organized in the plant site region or other parts of Finland. In addition, Pyhäjoki municipality, business associations and business development organizations provide information about the employment and contracting opportunities at the Hanhikivi 1 construction site. We also help the plant supplier RAOS Project and the main contractor Titan-2 to collaborate with Finnish companies.

Companies from all over Finland are involved in the Hanhikivi 1 nuclear power plant project



Local companies have a major role

As the Hanhikivi 1 project has already been a boost for the local economy and employment in the surrounding areas, the effects on the economy and employment will increase significantly as the project proceeds. Local companies have a major role in providing support services to the plant site area. Later, when the amount of workers at the site increases, the need for e.g. local housing solutions, health care and other services will also grow significantly.

Collaboration projects

A significant form of cooperation has been participation in collaboration projects that focus on improving the capabilities of the local actors to prepare for the Hanhikivi 1 project.

Education – Ydinsaajat

We are participating in a higher education network called the Northern Finland Higher Education Cooperation Advisory Board, which gathers together 17 educational institutions, such as the University of Oulu and all the Northern Finland polytechnics, as well as some vocational colleges and providers of further education, from Kokkola, Kajaani and Rovaniemi.

The aim of the network is to strengthen the regional impact of higher education institutions through networking and cooperation. For us, it means more security in the supply of highly educated professionals from the region.

During autumn 2016, we organized, jointly with the Ydinsaajat advisory board, teacher training sessions and info sessions for students at the educational institutions of 9 different municipalities.

Approximately 200 teachers and 500 students took part in the training and info sessions.

Municipalities and the authorities – Hanhikivi connection project

The Hanhikivi connection project aims above all to improve the capabilities of the municipality to respond to the requirements that the increasing amount of foreign workers will bring, as well as to develop the public services.

Being a good neighbor

Pyhäjoki



Fennovoima's support in Pyhäjoki (12/2016) Norstat Finland Oy.

Fennovoima's support has remained stable in Pyhäjoki. A clear majority of 67.4 % of the inhabitants of Pyhäjoki support Fennovoima's project (2015: 68.1 %). The survey was conducted by *Norstat Finland Oy* in December 2016.

According to our surveys and discussion with people living in the Pyhäjoki region, the topics of interest regarding Fennovoima are effects of the project on the lives of the residents, employment opportunities, environmental impacts and safety. People are also interested in getting information about the final disposal of spent nuclear fuel, the possible location of the final disposal facility, the schedule of the nuclear power plant project and how it proceeds, the profitability and financing of the project, and the involvement of the Russian plant supplier in the project.

Meeting the people

Fennovoima is putting a strong emphasis on personal communication and face-to-face interaction with the local people in Pyhäjoki and the surrounding areas. Our Pyhäjoki office has been serving local residents and businesses since 2008. Furthermore, we arrange open door events and theme evenings for the public and share information about the project at different fairs, seminars and events.

A total of 4 theme events were organized during the year 2016 (2015: 9). The subjects of the theme events dealt with the final disposal of spent nuclear fuel, nuclear power plant technique, water use at the power plant, and the plant supplier and its main contractor. Additionally, we organized two media events at the plant site and public events for the neighboring municipalities of Ylivieska, Kalajoki and Oulainen.

We produce a regular newsletter about the topical issues at Pyhäjoki and publish Fennovoima's own magazine *Fennonen*, which is distributed to 130,000 households in the area twice a year and is available in digital form. In addition, we consider it important to engage with the community by supporting sports and cultural activities in Pyhäjoki and the surrounding areas.



Hanhikivi 1 site visit day in October gathered more than 1400 visitors.

Supporting local projects and activities

Sponsorship is a valuable way of cooperation to us. As stated in our sponsorship rules, Fennovoima provides sponsorship support to promote recreational opportunities and leisure activities: sports, culture and public interest projects in Pyhäjoki and the surrounding areas. Sponsorship focuses on children and young people. The supported projects and organizations are chosen annually through an open call. Locally Fennovoima made 31 annual sponsorship agreements.

In 2016, Fennovoima made a € 50,000 donation to the faculty of technology of the University of Oulu.

In addition, Fennovoima signed a main partner contract with the sports club Oulun Pyrintö concerning the Finnish National Championships in Athletics, Kalevan kisat, which was held on July 21–24, 2016 in Oulu.

In total Fennovoima's contribution to local activities was € 168,000.



Fennovoima organized a 4x100-meter relay for the children of the sports clubs, which are sponsored by Fennovoima during an intermission in the Championships.

Environmental management

Fennovoima's environmental management system is developed continuously to correspond to the changing conditions of the construction site. We assess environmental risks and monitor the state of the environment. We have gathered valuable information on previous and prevailing environmental conditions in the area and are able to define corrective measures when needed. Fennovoima supervises environmental actions at the entire construction site.



Our five main objectives of the environmental management are:

Proactively preventing and reducing the environmental impacts of the project.

Ensuring the preservation of the nature reserves and protected species at the Hanhikivi headland and in the nearby Natura 2000 area.

Ensuring that all operation is in compliance with the water and environmental permits.

Securing efficient construction site waste management.

Ensuring good relations with the environmental authorities and other external stakeholders.

Managing environmental impacts

Fennovoima's undertaking for continuous improvement of environmental management relies on training, motivation and leadership, good cooperation with the plant supplier, and effective communication with the environmental authorities and external stakeholders.

In accordance with our principles, all activities at the construction site must be carried out in a safe manner, and relevant environmental management procedures and instructions must be in place and followed. Related to that, Fennovoima is developing its own environmental management system (EMS) for the construction site. The management system sets the requirements for environmental management and provides guidance for the Hanhikivi 1 construction phase. The EMS is an integrated part of the Fennovoima Management System (FMS) and complies with the requirements of the ISO 14001 standard. The target for ISO 14001 certification is set for the end of 2017.

Environmental matters are managed in our organization by the Environment, Health and Safety (EHS) unit, which is part of the Quality department and the Construction unit at the plant site. Our site organization includes appointed persons for the continuous supervision and control of all civil construction works at the plant site.

Allocation of the responsibilities

The plant supplier RAOS Project and all subcontractors working at the project site bear the main responsibility for continuous environmental supervision and fulfilment of environmental requirements primarily within the scope of their own work. The plant supplier is required to supervise the environmental management of subcontractors who perform work within the supplier's scope of work.

The plant supplier is responsible for all activities and the fulfilment of all related environmental requirements and obligations set by legislation and permits for the plant supplier's scope of work. The plant supplier has to follow the instructions given by Fennovoima.

The plant supplier is responsible for preparing and implementing its own Environmental Management System (EMS) for the construction site activities and applying for any conventional permits needed for its work. The EMS is required to include an Environmental Management Manual and related instructions and to comply with the requirements of the ISO 14001 standard.

Water and environmental permits

The Hanhikivi 1 project requires numerous conventional permits to be applied for. The responsibilities between Fennovoima and the plant supplier regarding applying for conventional permits have been agreed.

Permits pursuant to the Water Act have been granted to Fennovoima in July 2015. Water permits are needed for the water construction work in the harbor area, cooling water intake structure, navigation channel and marine spoil area for dredged material. The granted permits include several permit obligations, which will be taken into consideration during construction.

An environmental permit for the excavation and crushing of rock material was granted to the plant supplier RAOS Project Oy in January 2016. In April 2016, an environmental permit for the concrete batching plant was also granted to RAOS Project. Both permits include obligations to monitor the emissions and discharges of these activities.

An exemption permit was granted to Fennovoima on January 2016. This exemption permit enabled to transfer yellow irises which grew near the Siikalahti nature conservation area shoreline to a new suitable habitat. The transfer of these yellow irises was conducted at the end of April. Fennovoima has also been granted an exemption permit in July 2011, which enables it to destroy a breeding area for moor frogs located near the future harbor area. During the breeding season of the moor frogs in spring 2016, Fennovoima attempted to transfer the moor frogs, but no moor frogs were found. According to the authority, Fennovoima's efforts to find the moor frogs were sufficient, and Fennovoima was able to proceed with the construction work at the harbor area.

In June 2016, Fennovoima was granted an environmental permit for the operation of the nuclear power plant and the back-up power production of the plant. The permit also includes the construction of cooling water outlet structures as well as a water permit for the sea water intake and use as cooling water of the nuclear power plant. The environmental permit includes e.g. limits for conventional emissions, and obligations to monitor the environment before and during the operation of the nuclear power plant. Complaints concerning the permit decision are, for the moment, in the handling of the Administrative Court of Vaasa.

During 2017, Fennovoima will submit a chemical permit application to the Finnish Safety and Chemicals Agency TUKES. The permit concerns the handling and storing of chemicals during the operation of the power plant.

Cooperation practices and training

During the year 2016, we focused on developing cooperation practices with all partners and stakeholders at the construction site. Operational practices have been specified and new cooperation groups and other regular meetings have been established to ensure information flow between all levels and each organization.

The development of Environmental Health and Safety training for the sub-supplier supervisors began together with RAOS Project and Titan-2. With the training module, we want to ensure that the set environmental requirements are considered carefully at the plant site.

Communicating environmental matters

In connection with the EIA procedure of the final disposal of spent nuclear fuel, MEAE and Fennovoima arranged public events in Pyhäjoki and Eurajoki in September 2016. These events provide the public an opportunity to express their views regarding the assessment of environmental impacts, get information and discuss the EIA procedure with Fennovoima, the Ministry and the experts who have been involved in the drafting of the EIA program.

In addition, Fennovoima arranged a theme evening about final disposal of the spent nuclear fuel for the residents of Pyhäjoki later in the autumn. Information about the progress of the construction work is provided on Fennovoima's webpage. The commencement of the dredging work was also made public with ads in local newspapers.

ENVIRONMENTAL MANAGEMENT

Risk assessment made to each construction work potentially causing environmental impacts	100 % of risk assessments were made. Contractors are required to make a risk assessment before starting the construction work.
Number of environmental observations per year	127 environmental observations, (exceeds the target > 50 observations/year).
Environmental training	100 % of contractors and sub-contractors received environmental training before the commencement of work.
Compliance with environmental and water permits	No reported non-compliances.

Environmental Impact Assessments

The environmental impact assessment (EIA) procedure is based on the Council Directive on the assessment of the impacts of certain public and private projects on the environment (85/337/EEC), which has been enforced in Finland through the EIA Act (Act on Environmental Impact Assessment Procedure (468/1994)) and the EIA Decree (Decree on Environmental Impact Assessment Procedure (713/2006)).

The objective of the EIA procedure is to improve the environmental impact assessments, ensure that environmental impacts are consistently taken into account in planning and decision-making, and increase the availability of information to citizens and the possibility for them to participate in the planning of projects. The EIA procedure does not involve any project-related decisions or solve any issues pertaining to permits or licenses.

YEAR ENVIRONMENTAL IMPACT ASSESSMENTS

LOCATION

2007-2008	EIA procedure for the construction and operation of a nuclear power plant of appr. 1,500-2,500 megawatts	Pyhäjoki, Ruotsinpyhtää and Simo
2013-2014	EIA procedure for the construction and operation of a nuclear power plant of approximately 1,200 megawatts	Hanhihiki headland, Pyhäjoki
2015-2016	EIA procedure for the power transmission lines (400 kV and 110 kV) in cooperation with Fingrid Oyj. In connection with the EIA procedure, an update to the Natura 2000 assessment was conducted.	Pyhäjoki, Raahe, Kalajoki and Merijärvi
2016	EIA program for spent nuclear fuel encapsulation plant and final disposal facility	Eurajoki and Pyhäjoki

Environmental studies

Fennovoima has conducted environmental monitoring and environmental and nature conservation studies on land and at sea since the very early phase of the project.



Dust is one of the environmental impacts of construction. Dust is continuously measured at Hanhikivi headland. Photo: Jarmo Tyyskä

So far, almost 90 studies have been conducted at the Hanhikivi headland and its surroundings. Environmental monitoring and studies ensure good knowledge of the status of the environment of the Hanhikivi headland.

The studies continue until the commencement of the construction of the power plant, and some will continue during the entire life cycle of the power plant. The studies provide information that is necessary for applying for permits, as well as for the design of the buildings and structures. As we want to ensure the neutrality of the research results, we contract external research and consultants to conduct the necessary studies.

On the land area, drillings and geophysical investigations have been carried out, with which the levels and characteristics of the bedrock, the ground water level and the thickness of soil layers have been investigated.

These studies provide information, for example, for the designing of the routes for the cooling water tunnels of the nuclear power plant. Also studies of e.g. vegetation and habitat type studies and different kinds of fauna studies related to birds, bats and moor frogs, for instance, have been implemented.

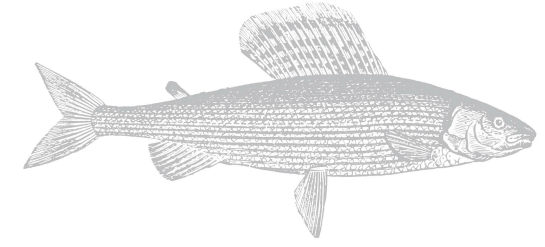
In the sea area, Fennovoima has commissioned water quality monitoring since 2009. The seabed near the Hanhikivi headland has been studied by carrying out seismic refraction surveys, drilling and aerial studies. Also, aquatic vegetation and benthic fauna have been studied by surface-supplied diving. The fish fauna in the area has been studied e.g. in several fishery research, reproduction studies and impact assessments on fish stock.

Fishery subsidies and compensations to professional fishermen were EUR 0.07 million in total in 2016.

FENNOVOIMA

Sea grayling investigation

Based on the obligation of the environmental permit of the nuclear power plant, we also conducted a separate investigation regarding sea grayling, which is a critically endangered fish species in 2016. The Liminkaoja river, located about 2 km south of the Hanhikivi headland, is a spawning area for sea grayling. The purpose of the investigation was to identify if sea grayling also spawn in the marine area near the Hanhikivi headland. A similar investigation has been done by Fennovoima once before, in 2012. The investigation included e.g. a survey of professional fishermen, experimental fishing and observation of sea grayling fry. No sea grayling spawning in the marine area nearby Hanhikivi headland has been observed, in spite of comprehensive studies. In 2017, Fennovoima will continue fishery and fishing industry monitoring as required in the water permits. In addition, a survey of free-time fishermen will be carried out.



Sea grayling

Environmental impacts during construction

Our objective is that the construction of the nuclear power plant would interfere as little as possible with the nature around the construction site area.

The construction period, which is approximately ten years, will have a significant impact on the environment. The site area in the Hanhikivi headland is a greenfield site – a natural state area, which has become an industrial site.

Landscape and land use

The power plant will be placed in a visible area at the tip of a headland reaching out into the open sea, and it changes the landscape significantly.

The beginning of the groundwork has already changed the land use in the area of the Hanhikivi headland. The plant site area has been fenced, and the access routes in the area have changed. A decree on restrictions of movement and presence on the Hanhikivi 1 plant site entered into force in November 2015.

Instead, land use on the north and north-east coasts that are significant ecologically remains largely unchanged. Access to a protected Hanhikivi boundary stone is not possible at the moment.

The most significant impacts of the project on the recreation use are connected with fishing and hunting.



Hanhikivi 1 construction site.

Water system and fishing

The construction of the nuclear power plant has local impacts on the water systems and fishery in the area. The coastline around the Hanhikivi headland is open and there are not many species of aquatic vegetation. The fish species typically found in the area are those typically found in the whole of the Bay of Bothnia.

Water construction work started with dredging work in November 2015 and continued in September 2016. The construction activities in the sea area cause temporary turbidity of the seawater in a small area, but it doesn't have a significant impact on the water quality. The impacts of turbidity are controlled with continuous measuring. The turbidity of the seawater off the coast of the Hanhikivi headland also naturally increases during storms or periods of heavy rainfall.

Fishing in the immediate vicinity of the water construction area and in the immediate vicinity is not possible during the water construction work. The construction activities in the sea area can also drive away fish from a larger area and temporarily influence the migration routes of fish. Excavation, in particular, causes underwater noise that may drive away fish from the area. The construction activities in the sea area destroy some whitefish and herring spawning areas in the dredging areas. The sea in front of Hanhikivi headland is significant both in terms of the fish stock and in terms of fishery, and there are professional fishermen whose livelihood the project will affect negatively.

In 2016, fishery and fishing industry monitoring were conducted as required in the water permits. The purpose of the monitoring is to assess the impacts that the water construction works cause to fishery. The monitoring included a survey of professional fishermen, fry production surveys of whitefish, vendace and herring, and experimental net fishing.



Fish monitoring.

Sea water quality monitoring

Fennovoima continued sea water quality monitoring at the sea area. The water samples are taken five times in a year at six monitoring points located around the Hanhikivi headland.

Based on obligations in water permits, turbidity monitoring began again on August 10, 2016 before the dredging work was commenced. Turbidity monitoring continued until November 16, 2016. Turbidity was monitored at six monitoring points, of which two were located in the marine spoil area approximately 10 km from the Hanhikivi headland and four were near the Hanhikivi headland.

In connection with the dredging work conducted by a sub-supplier, there were four oil spills at the coast of the Hanhikivi Headland in September and October 2016.

- September 6 - gear oil spilled after a propulsion unit hit an underwater obstacle (300 liters)
- September 16 - hydraulic oil spilled after a mechanical failure in a barge hopper's hydraulic system (50 liters)
- September 22 - gear oil spilled from the propulsion unit after the vessel grounded (30 litres)
- October 6 - gear oil spilled after propulsion unit hit an underwater obstacle (105 liters)

Based on the dilution and harmfulness of the substance in question, the oil spills did not cause any permanent damage to the environment. No oil was found on the shoreline of the Hanhikivi headland, which indicates that no harm was caused to the nearby flora and fauna. Fennovoima suspended the dredging work until a detailed report about the accident was received, and the required corrective measures and practices were taken.

Prior to the commencement of the dredging work in spring 2017, more emphasis is placed on the proactive prevention measures of all environmental accidents. Fennovoima, the plant supplier RAOS Project Oy, the main contractor Titan-2 and the dredging company have established a steering group for the dredging work. The thorough analysis of the accidents has resulted in improved prevention of environmental accidents and preparedness to act in similar situations. The oil spill response plan for the construction site was prepared together with the plant supplier, and it has been communicated to the authorities. All contractors at the plant site are obliged to follow the oil spill response plan.

Flora, fauna and protected areas

The direct impacts of the project during the construction phase affect the area in which the buildings and structures of the nuclear power plant and various related functions are built. The main part of the construction efforts will take place in an area of about 1 km² in the central part of the Hanhikivi headland.

As a result of the construction, the forest and coastal areas will change partially into built environment, and the species and habitat types found in the immediate environment of the built areas may change over the short or the long term. Construction work has also resulted in the fragmentation of continuous shore and forest areas. During the construction phase, the indirect impact of the noise and dust from the construction site and the related traffic, and the vibration from blasts and excavation, will affect the surrounding nature.

The Hanhikivi headland's nature conservation areas and areas defined as habitat types protected under the Nature Conservation Act remain outside the constructed areas, and construction work will not have any significant adverse impacts on these areas.

Construction workers are instructed and trained to avoid moving in the areas outside the site fence.

More information about protected areas can be found in the Nature conservation section.



Dredging work at the sea area in front of Hanhikivi headland in fall 2016.



Yellow iris (*Iris pseudacorus*).

Air quality

Dust and emissions from traffic affect the air quality. The impacts are, however, local and are estimated to have no major impacts on the protected areas in the Hanhikivi headland.

The earthwork, traffic at the site, and certain operations, such as rock crushing, will generate dust during the construction of the nuclear power plant. Most dust sources will be located at low elevation levels, so the dust cannot spread far and its impact on air quality will mainly be limited to the construction site.

The impacts of traffic emissions are very local, and their impacts on the air quality will depend, in addition to the emission volumes, on the traffic routes used.

The residential areas by these roads are mostly located at distances from the road where the increase in the contaminant concentrations will have no significance. The residential building closest to the new road in the Hanhikivi headland is located approximately 300 meters from the road, while the rest of the residential buildings are located at the distance of some 0.5–1 kilometers.

To decrease emissions from traffic, Fennovoima has paved the access road that connects the plant site to highway 8 with asphalt and set a speed limit of 30 km/h for the construction area and 40 km/h for the road that leads to Fennovoima's plant site office. Generation of road dust at the plant site is also decreased by irrigation.

Results

Dust monitoring was started in 2015 and continued in 2016. Fennovoima has conducted dust monitoring especially near the nature conservation areas. No increase in the dust levels have been detected since the beginning of the monitoring.

Noise

According to noise modelling, the noise caused by the project will remain below the guideline values set for residential areas and areas including holiday residences, both during construction and the operation of the plant. The noise levels may vary greatly depending on the on-going construction phase. The area influenced by noise during construction and operation will be less than one kilometer from the power plant site.

During the heaviest construction phase, the traffic noise from the road leading to the Hanhikivi headland will spread to fairly narrow zones, and there are no residences within the areas affected. The impact of noise on nesting or bird populations is not likely to be significant.

Results

Average noise levels at different measuring points have been 30-65 dB during 2016 (same level as 2015). The noise level has varied according to the location of the measuring point and the time of day (day versus night time). The individual peaks in the noise level are usually explained by the weather conditions such as strong wind or heavy rain.

More information on the assessment on environmental impacts during the construction can be found in Fennovoima's Environmental Impact Assessments that are available on our website:
www.fennovoima.fi/en/publications

No increase in
the dust levels

Average noise
levels at
different
measuring
points
between 30-65
dB

Nature conservation

The nature conservation areas and other valuable natural sites located in the vicinity of the construction site area are outside the construction site fence, and some of the most valuable areas are isolated with separate fences. This is to ensure protected areas and preservation of the natural values.

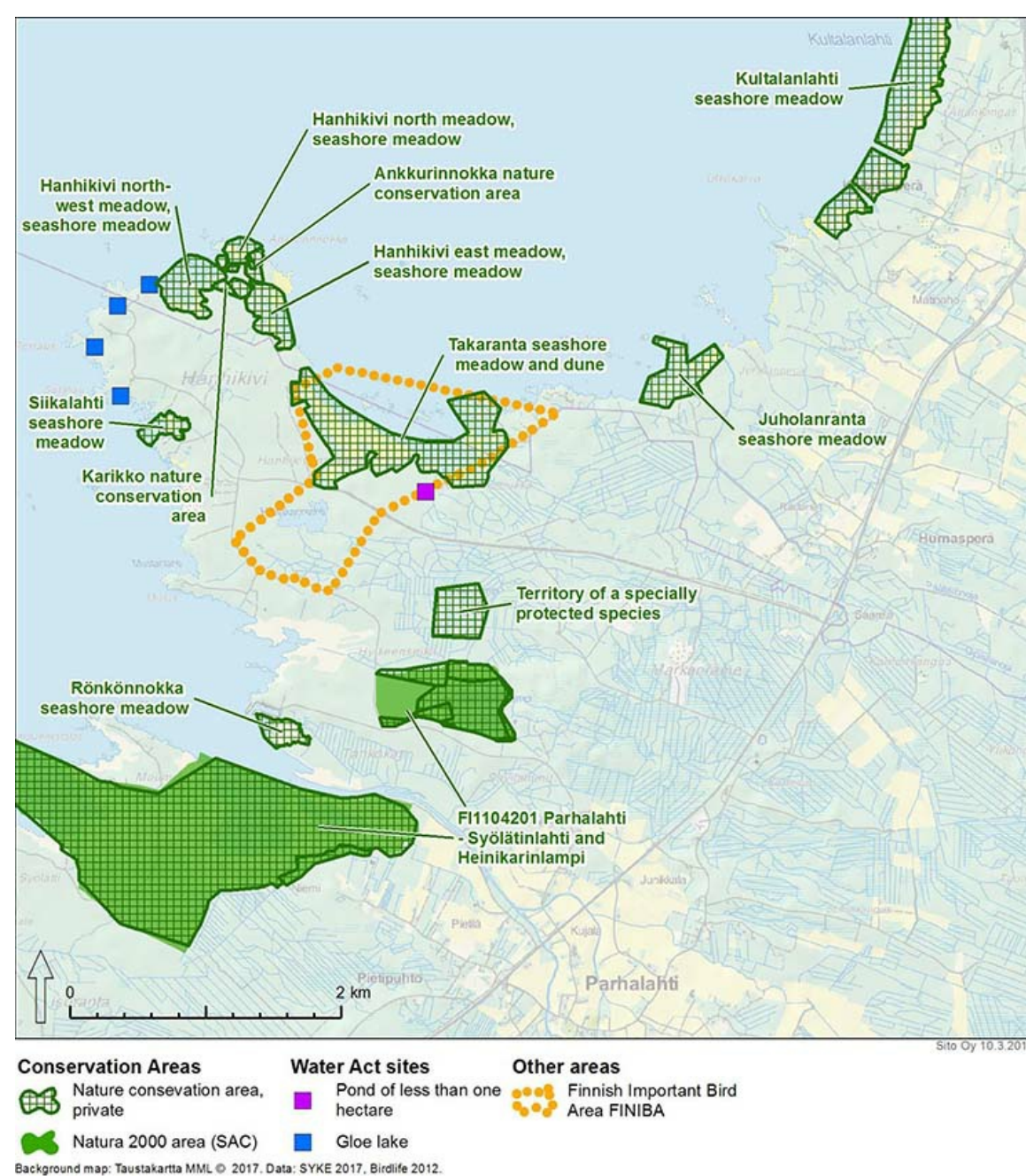
Some of the protected yellow iris (*Iris pseudacorus*, IUCN classification: **Least Concerned LC**) population was located in the construction area. The plants were transferred to another suitable habitat at the Hanhikivi headland in the end of April 2016. For the transfers, an exemption permit has been granted to Fennovoima. Monitoring of all transferred yellow irises was conducted in June 2016. The plants were well rooted to their new location.

A breeding area for moor frogs (*Rana arvalis*, IUCN classification **Least Concerned LC**) was located near the future harbor area. An exemption permit has been granted to Fennovoima which enables it to destroy this breeding area. The exemption permit included an obligation to transfer the moor frogs to another suitable habitat at the Hanhikivi headland.

At the end of April and the beginning of May 2016, during the breeding season of the moor frogs, Fennovoima attempted to transfer the moor frogs, but no moor frogs were found. According to the authority, Fennovoima's efforts to find the moor frogs were sufficient, and Fennovoima was able to proceed with the construction work at the harbor area.

The most significant impact on the bedrock is that the excavation takes place in the Hanhikivi conglomerate area that differs geologically from the rest of the region, which decreases the geological value of the area. Representative parts of the bedrock will be left exposed.

More information on flora and fauna can be found from Fennovoima's Environmental Assessment report 2014 chapter 7.6.4.5



Nature conservation areas and other protected areas in the vicinity of the construction site. Map: Sito Oy.

Waste management at the construction site

During the construction phase, management of construction waste will be arranged in accordance with the environmental guidelines in order to minimize the impacts of the waste and its treatment on the environment.



The primary objective is to reduce the amount of waste that is generated. The secondary option is to utilize waste in new applications and in the production of materials or energy. The last option is to appropriately dispose of the waste in a landfill site.

Construction waste management is based on efficient sorting of waste at the site of its generation, as well as on uniform and efficient instruction of the various parties and companies operating at the plant site on appropriate waste management procedures.

Waste generated during construction will be appropriately sorted and recycled, or utilized in energy production as far as possible. The earth-moving, excavation, and dredging masses generated during the construction phase will be utilized, as far as possible, in various on-site filling and levelling operations. The handling, storage, and transportation of hazardous waste will be arranged in accordance with the regulations.

85 % utilization target in construction waste management

During 2016, waste management was small scale because the construction work at the plant site was still at an early stage. A temporary waste collection point was taken into use to emphasize construction waste management. Before that, each contractor has been responsible for their own waste management according to the instructions of sorting the construction waste.

The majority of waste from the construction site consists of normal construction waste in different categories of waste (metal, wood, concrete, rock, energy mixed construction waste, bio waste, paper, cardboard, glass and WEEE).

Our target of 85 % of construction waste fractions to be utilized as material or energy was exceeded.

Waste

During 2016, a total of 491 metric tons of waste was generated at the Hanhikivi 1 construction site. The waste formed as a result of the construction of infrastructure and auxiliary buildings is presented in the below table. This amounts to 42 % of all waste generated at the plant site.

In addition, 259 metric tons of waste was generated from the demolition of old buildings and cottages at the Hanhikivi headland. This comprises 53 % of the total amount of waste.

Of demolition waste, 88 % was wood, concrete and energy waste, which was utilized as material or energy.

The remaining 5 % (24 metric tons) of the total amount of waste was hazardous waste, which includes e.g. oily stone material, bilge water, waste oil, batteries, paints and solvents.

CONSTRUCTION WASTE 2016	METRIC TONS (T)	% OF WASTE
Wood waste	132	64 %
Energy waste	50	24 %
Concrete and brick waste	14	6 %
Landfill construction waste	2	1 %
Other	10	5 %

Construction waste generated at the Hanhikivi 1 site in 2016 broken down by type and percentage. Category "Other" includes e.g. metal waste, paper, cardboard, bio waste and waste electrical and electronic equipment. The fraction of waste, which was generated from demolition of cottages in Hanhikivi headland (259 tons) is not included in the table. In addition, the amount of hazardous waste (24 tons) is not included in the table, since distinction between the fraction of hazardous waste generated from construction work or demolition work is not made.

Drainage water treatment

RAOS Project began excavation works of the reactor pit area in spring 2016, and by the end of the year reached the level of -2.0 meters. A total of 58447 m³ of drainage water from the reactor pit was treated with temporary container settling, after which it was discharged into the sea. Water from the reactor pit caused temporary turbidity of sea water near the discharge point. Water quality was monitored by taking monthly samples and turbidity of sea water was visually monitored.

Drainage water is visually monitored also at Fennovoima's excess soil area. Samples of the drainage water are taken every three years, next time in 2018. The first water samples were taken when the excess soil area was taken into use in 2015. Ditch expansions and small rock dams have been constructed, which delay the water flow and allow particles to settle from the drainage water.

During 2016, Fennovoima has built a comprehensive ditch system to the construction site to manage and collect the accumulated storm water. The ditches direct the storm water to the sea. Fennovoima has also built a storm water ditch outside the plant site to Puustellintie to ease the accumulation of melt water during spring time. The ditch has no connection to the sea directly, only during high tide.

Reporting principles

This is Fennovoima's first published Corporate Responsibility Report and it covers the financial year 2016. Fennovoima's Corporate Responsibility Report references to Disclosures of GRI Standards 2016 are presented in the GRI index. In addition, the report includes Fennovoima's own disclosures that we have defined as material to our corporate responsibility. When defining the materiality of issues impacting our operations, we consider the expectations of significant stakeholders inside and outside the company. For more information on our approach to materiality, see section Corporate Responsibility Program.

Data boundaries

The data presented in this report covers Fennovoima Oy's functions in Helsinki and Pyhäjoki and in the Hanhikivi 1 nuclear power plant construction site, if not otherwise stated.

Fennovoima's subsidiary Fennovoima RUS has only one employee. The subsidiary is not included in Fennovoima's corporate responsibility and performance targets and thus not included in this report.

To cover the Hanhikivi 1 construction site operations, relevant information related to the plant supplier RAOS Project Oy is also provided. The matters related to the plant supplier RAOS Project or main contractor Titan-2 that are not directly related to the material aspects of Fennovoima's corporate responsibility are excluded from this report.

The financial data presented in the document are from Fennovoima's audited financial statement. Supply chain data includes information from the Fennovoima Management System (FMS) and the Hanhikivi 1 site register. EPC scope related supply chain data is supplied by RAOS Project Oy.

Environmental data provided in this report covers the Hanhikivi 1 construction site. The information is collected from the Fennovoima Management System, Environmental Management System (EMS), monthly reports, Fennovoima's Environmental Impact Assessment Report for the construction and operation of a nuclear power plant (2014) and from independent experts' studies conducted at the plant site area. The construction waste data is from Fennovoima's own systems and contractors working at the construction site, from Fennovoima's waste management partners Remeo Oy and Pyhäjoen Leipä ja Kuljetus Pehkonen & Kump..

Human resources related data in this report covers Fennovoima's organization in Helsinki and Pyhäjoki. Occupational health and safety data describes the Hanhikivi 1 construction site.

External assurance

An independent third party, PricewaterhouseCoopers Oy, has provided limited assurance for the performance indicators on economic, social and environmental responsibility in the English language corporate responsibility report 2016. The congruence between responsibility information presented in the English and Finnish versions has been checked.

Reported GRI Standards

This material references to the following Disclosures of GRI Standards 2016 presented in the GRI index below. In addition, the report includes Fennovoima's own disclosures that Fennovoima has defined as material to its corporate responsibility.

GRI Index

DISCLOSURES	LOCATION AND COMMENTS	OMISSIONS
GRI 102: GENERAL DISCLOSURES 2016		
Organizational Profile		
102-1	Name of the organization	<i>Fennovoima</i>
102-2	Activities, brands, products, and services	Key financial figures
102-3	Location of headquarters	Key financial figures
102-4	Location of operations	Key financial figures
102-5	Ownership and legal form	<i>Limited company</i>
102-6	Markets served	Key financial figures
102-7	Scale of the organization	Key financial figures
102-8	Information on employees and other workers	Our people
102-9	Supply chain	Supply chain management, Supply chain structure, Auditing the supply chain
102-10	Significant changes to the organization and its supply chain	2016 highlights, Supply chain structure, Our people
102-11	Precautionary Principle or approach	Risk Management
102-12	External initiatives	<i>Fennovoima joined Global Compact on February 2017.</i>
102-13	Membership of associations	Awareness building
Strategy		
102-14	Statement from senior decision-maker	Letter from the CEO
102-15	Key impacts, risks, and opportunities	Operational environment, Risk management, Economic impacts, Local engagement, Environmental impacts during construction
Ethics and integrity		
102-16	Values, principles, standards, and norms of behavior	Letter from the CEO, Our mission, Our approach, Corporate policies and compliance, Corporate Responsibility Program
102-17	Mechanisms for advice and concerns about ethics	Corporate policies and compliance
Governance		
102-18	Governance structure	Business practices and company structure
102-20	Committees responsible for decision-making on economic, environmental, and social topics	Business practices and company structure

GRI 102: GENERAL DISCLOSURES 2016		
Stakeholder Engagement		
102-40	List of stakeholder groups	Awareness building
102-41	Collective bargaining agreements	Our people
102-42	Identifying and selecting stakeholders	Awareness building
102-43	Approach to stakeholder engagement	Awareness building, Local engagement, Good neighbor
102-44	Key topics and concerns raised	Awareness building, Local engagement, Good neighbor
Reporting practice		
102-45	Entities included in the consolidated financial statements	<i>Fennovoima and Fennovoima Rus</i>
102-46	Defining report content and topic Boundaries	Reporting principles
102-47	List of material topics	Corporate Responsibility Program
102-48	Restatements of information	<i>First report</i>
102-49	Changes in reporting	<i>First report</i>
102-50	Reporting period	<i>January 1 to December 31, 2016 (significant CR matters until February 2017)</i>
102-51	Date of most recent report	<i>First report</i>
102-52	Reporting cycle	<i>Annual</i>
102-53	Contact point for questions regarding the report	Back cover
102-54	Claims of reporting in accordance with the GRI Standards	Reporting principles
102-55	GRI content index	Reported Disclosures. <i>The report includes GRI Standard 2016 disclosures and Fennovoima's own disclosures according to material aspects.</i>
102-56	External Assurance	Reporting principles

MATERIAL TOPICS		
Economic performance		
GRI 201: Economic Performance		
GRI 103: Management approach 2016		Key financial figures
201-1	Direct economic value generated and distributed	Key financial figures
Indirect economic impacts		
GRI 203: Indirect economic impacts 2016		
GRI 103: Management approach 2016		Economic impacts
203-2	Significant indirect economic impacts	Letter from the CEO, Economic impacts
Anti-corruption		
GRI 205: Anti-corruption 2016		
GRI 103: Management approach 2016		Corporate policies and compliance, Gray economy prevention
205-1	Operations assessed for risks related to corruption	Corporate policies and compliance
205-2	Communication and training about anti-corruption policies and procedures	Corporate policies and compliance
205-3	Confirmed incidents of corruption and actions taken	<i>No legal proceedings relating to compliance violations</i>

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MATERIAL TOPICS			
Energy			
GRI 302: Energy 2016			
302-1	Energy consumption within the organization	<i>Total electricity consumption at the Hanhikivi 1 plant site in 2016 was 577.68 MWh. This includes both Fennovoima's and RAOS Project / Titan-2 electricity consumption and electricity consumption of the training center.</i>	No steam or cooling consumption at the construction site. The training centre is heated with geothermal heat. Data concerning fuel consumption not available.
Water			
GRI 303: Water 2016			
GRI 103: Management approach 2016		Environmental impacts during the construction, Environmental studies	
<i>Fennovoima disclosure</i>	Turbidity monitoring	Environmental studies, Environmental impacts during the construction: Seawater quality monitoring	
Biodiversity			
GRI 304: Biodiversity 2016			
GRI 103: Management approach 2016		Environmental management, Environmental studies, Environmental impacts during the construction. Fennovoima's EIA Report 2014 chapter 7	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Environmental management, Environmental studies, Nature conservation, Environmental impacts during the construction. Fennovoima's EIA Report 2014 chapter 7.6	
304-2	Significant impacts of activities, products, and services on biodiversity	Environmental impacts during the construction, Nature conservation. Fennovoima's EIA Report 2014 chapter 7.	At the moment nature conservation partnerships does not exist. However Fennovoima has discussions with the ELY centre concerning the preservation of the Moor frog and Yellow iris habitats.
304-3	Habitats protected or restored	Nature conservation, Environmental impacts during the construction. Fennovoima's EIA Report 2014 chapter 7.6	
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Nature conservation. Environmental impacts during construction, Fennovoima's EIA Report 2014 chapter 7.6.4.5	
<i>Fennovoima disclosure</i>	Noise and dust monitoring	Environmental impacts during the construction. Fennovoima's EIA Report 2014 chapter 7.3	
Effluents and waste			
GRI 306: Effluents and waste 2016			
GRI 103: Management approach 2016		Environmental management, Waste management	
306-1	Water discharge by quality and destination	Waste management, Environmental management	
306-2	Waste by type and disposal method	Waste management	Waste not reported by disposal methods, since all data was not available.
306-3	Significant spills	Environmental impacts during the construction	
<i>Fennovoima disclosure</i>	Percentage of construction waste fractions (excluding excess soil) to utilization as material or energy	Waste management. <i>Data related to the utilization of construction waste is partly based on estimates provided by our contractors and waste management partners.</i>	
Environmental Compliance			
GRI 307: Environmental compliance 2016			
GRI 103: Management approach 2016		Corporate policies and compliance, Environmental management	
307-1	Non-compliance with environmental laws and regulations	<i>Monetary value of significant fines was EUR 0. Total number of non-monetary sanctions for non-compliance with environmental laws and regulations was 0.</i>	
<i>Fennovoima disclosure</i>	Risk assessment made to each construction work potentially causing environmental impacts	Environmental management	
<i>Fennovoima disclosure</i>	Number of environmental observations per year	Environmental management	
<i>Fennovoima disclosure</i>	Environmental training	Environmental management	
<i>Fennovoima disclosure</i>	Compliance with environmental and water permits	Environmental management	

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MATERIAL TOPICS			
Employment			
GRI 401: Employment 2016			
GRI 103: Management approach 2016		Our people	
401-1	New employee hires and employee turnover	Our people	Reporting by region is not relevant to Fennovoima, since all the employees work for the same organization regardless of location.
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	<i>Employees with a temporary contract less than 6 months (e.g. summer trainees) are provided lunch coupons and mobile phone for work related calls. Employees with over 6 month temporary or with a permanent contract are provided Smartum lunch card and mobile phone benefit.</i>	
Fennovoima disclosure	Party survey index results and PULSE survey index	Workplace wellbeing	
Occupational health and safety			
GRI 403: Occupational health and safety 2016			
GRI 103: Management approach 2016		Occupational health and safety	
403-1	Workers representation in formal joint management-worker health and safety committees	<i>Fennovoima has an Occupational Health and Safety (OHS) committee. All employees in Salmisaari and Pyhäjoki are represented by the OHS committee. The OHS committee convened once in 2016 and participated to the work well-being day arranged for Fennovoima employees. Risk assessment meetings have been held and an OHS survey was sent to employees. A total of four meetings have been scheduled for 2017.</i>	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Occupational health and safety (data related to the construction site), Workplace wellbeing (data related to Fennovoima personnel).	
403-3	Workers with high incidence or high risk of diseases related to their occupation	Occupational health and safety	
403-4	Health and safety topics covered in formal agreements with trade unions	<i>Fennovoima has made Site Agreement with Rosatom and trade unions. The Site Agreement states that all operator at Hanhikivi 1 site must follow Finnish legislation and collective labor agreement. The Site agreement states that trade unions are allowed to name Joint Shop Steward and Joint OHS Delegate to Hanhikivi 1 site.</i>	
Fennovoima disclosure	Preventive measures: Safety observations, investigations of occupational accidents and near miss situations and implementation of preventive and corrective measures	Occupational health and safety	
Fennovoima disclosure	Average severity of occupational accidents	Occupational health and safety	
Fennovoima disclosure	TR and MVR index	Occupational health and safety	
Fennovoima disclosure	Occupational health costs	Workplace wellbeing	
Fennovoima disclosure	Personnel sick leaves and absences	Workplace wellbeing	
Training and education			
GRI 404: Training and education 2016			
GRI 103: Management approach 2016		Competence development, Our people	
404-1	Average hours of training per year per employee	2016 highlights, Competence development	
404-2	Programs for upgrading employee skills and transition assistance programs	Competence development, Workplace wellbeing <i>No retirements or transition assistance during 2016</i>	
404-3	Percentage of employees receiving regular performance and career development reviews	Competence development	Data not reported by gender and by category

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MATERIAL TOPICS			
Diversity and Equal opportunity			
GRI 405: Diversity and Equal opportunity 2016			
GRI 103: Management approach 2016		Corporate policies and compliance	
405-1	Diversity of governance bodies and employees	Our people, Business practices and governance	Reported data includes the average age and nationality of the personnel and the nationalities of the Board of Directors and the Management Team.
Non-discrimination			
GRI 406: Non-discrimination 2016			
GRI 103: Management approach 2016		Our people	
406-1	Incidents of discrimination and corrective actions taken	Our people	
Local Communities			
GRI 413: Local communities 2016			
GRI 103: Management approach 2016		Awareness building, Local engagement, Good neighbor, Economic impacts	
413-1	Operations with local community engagement, impact assessments, and development programs	Local engagement	Quantitative data not available
<i>Fennovoima disclosure</i>	Image study	Awareness building	
<i>Fennovoima disclosure</i>	Score in the local opinion poll	2016 highlights, Good neighbor	
Socioeconomic Compliance			
GRI 419: Socioeconomic Compliance 2016			
GRI 103: Management approach 2016		Corporate policies and compliance	
419-1	Non-compliance with laws and regulations in the social and economic area	<i>No legal proceedings relating to the social and economic area.</i>	
Safety			
GRI 103: Management approach 2016		Corporate policies and compliance, Nuclear safety, Promoting safety, Monitoring safety, Safety culture in the supply chain	
<i>Fennovoima disclosure</i>	Safety concerns	Monitoring safety	

Fennovoima Oy
Salmisaarenaukio 1, 00180 Helsinki
www.responsibility.fennovoima.com
www.fennovoima.com

