

Annual Review 2019

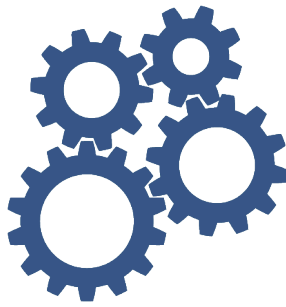


Nopef

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Activities in 2019



66

new projects



€2.3m

in project financing



36

Nordic SME's established on new markets

The year 2019 was characterised by a good project activity, especially during the second half of the year, and by a growing application activity among Nordic companies with operations and solutions related to renewable energy and climate solutions. Nopef's annual budget from the Nordic Council of Ministers (NCM) for 2019 amounted to EUR 2.1 million. By the end of the year, all of the agreed targets with NCM had been exceeded, including the targets for new loans and for number of completed projects.

During the year, Nopef approved financing totalling EUR 2.3 million to 66 new projects. Moreover, 36 Nordic companies finalised their projects by establishing international business operations, through a subsidiary, joint venture or a comparable investment in the project country.

The share of financed feasibility studies resulting in a completed international establishment (36 projects), rose to 73% compared to 64% a year earlier. These projects were distributed across 17 project countries, of which 7 projects in the USA, 7 in China and 3 in India. The projects are expected to generate investments in the project countries totalling some EUR 36 million.

Despite increased relevance and continued high interest in Nopef's financing, the global market situation during the year posed many challenges to the international ambitions of Nordic small and medium-sized enterprises (SMEs). Deteriorating export prospects and an unstable investment climate in a number of international markets contributed to some companies choosing to postpone their investment decisions and in turn companies have held back on applying for financing. In 2019, Nopef received 79 applications for funding from Nordic companies, slightly lower than in the previous year, but with an increasing activity towards the end of the year, of which 66 were approved for financing.

At year-end 2019, Nopef's project portfolio comprised 156 conditional loans totalling EUR 5.2 million compared with 151 conditional loans totalling EUR 4.9 million a year earlier. There was a slight rise from 1.9 years to 2.1 years in average project lifetime, reflecting the growing uncertainty in the world economy.

APPROVED PROJECTS IN 2019



Geographical spread

The above world map shows the geographical spread of approved Nopef projects in 2019. The projects are spread over all continents in 26 countries as following: Asia 48%, North America 18%, South- and Central America 12%, Africa 11%, Eastern Europe 8% and Australia 3%. Countries with the highest number of projects are the USA (12), China (9), Brazil (5) and Taiwan (5).

Geographical spread

Figure 1 shows the geographical spread of approved Nopef projects in 2019.

Figure 1

Geographical spread of approved projects 2019 (Compared to 2018)

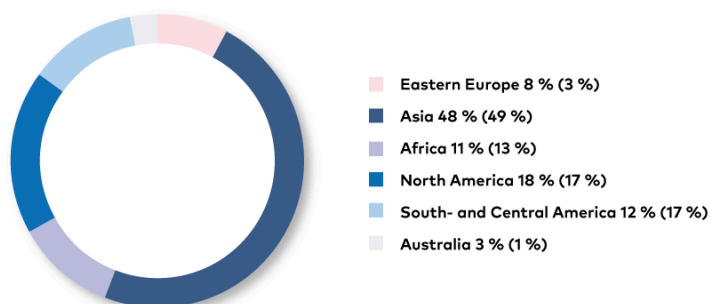




Photo: Trond Moe, NEFCO

25

renewable energy projects

15

energy efficiency projects

15

resource efficiency and sustainable
consumption projects

Climate and environment

Of the 66 feasibility studies for which Nopef granted funding in 2019, 42 are categorised as climate projects with the potential to deliver lower greenhouse gas emissions through greater energy efficiency, increased production of renewable energy, or through climate change adaptation efforts that contribute to increased resilience in the project countries. The approved projects are divided into the following environmental areas: renewable energy (25 projects), energy efficiency (15 projects), resource efficiency and sustainable consumption (15 projects), waste and emissions reduction (6 projects), food, agriculture, forestry and fishery (3 projects) as well as climate change adaptation (1 project).

Nopef's project activity within renewable energy has continued to increase and at year-end the sector represented 30% of the active portfolio. During the year, 25 new projects were approved, including 16 projects concerning technology and solutions for the wind power sector. Taiwan has continued to be the most active target market for the Nordic wind power sector, but also efforts aimed at the wind sector in USA and China were granted financing. A number of solar power projects were approved during the year. These projects are mostly targeted at Africa, where financing was granted for solar power projects in South Africa, Ghana and Uganda. Two projects concerning biogas plants were also approved, with production based on organic waste from the industrial and agricultural sectors.

Nopef promotes climate action by supporting Nordic solutions that contribute to increased energy efficiency both in industry and private households. In 2019, Nopef granted financing to 15 new projects in this category, including projects concerning technology and infrastructure for electric vehicles, digital solutions for energy efficiency in buildings, energy-efficient pumps, fans and other industrial equipment, sensors for optimisation in the transport sector as well as energy storage systems based on lithium-ion technology.



Growing number of resource efficiency projects

One of the clearest trends seen during the past year was a growing activity from Nordic SME's contributing to the transition to a circular economy and a resource-efficient society. In 2019, Nopef granted financing for 15 new projects for efficient use of production resources and solutions for sustainable consumption. Approved projects include Nordic solutions to reduce the use of plastic and harmful chemicals in industry. Other projects funded during the year relate to reduced water consumption in industry, technology for increased use of recycled materials in industry, as well as digital solutions for the healthcare sector.

Nopef's project activity within sustainable foods as well as agriculture, forestry and fishery was somewhat lower than in previous years, partly because of the economic slowdown in a number of the larger emerging economies. In 2019, Nopef approved financing for 3 new projects involving sustainable equipment for the fishing industry, agricultural machinery and other equipment for the agriculture sector.

During the year, financing was approved for 6 new projects concerning solutions and technology relating to waste management and emission abatement technologies. The projects relate to system treatment of industrial wastewater, the production of fertiliser from organic waste, sensors and environmental measuring instruments for waste management, the treatment of contaminated waste as well as knowledge transfer and network collaboration within sea-based waste management.

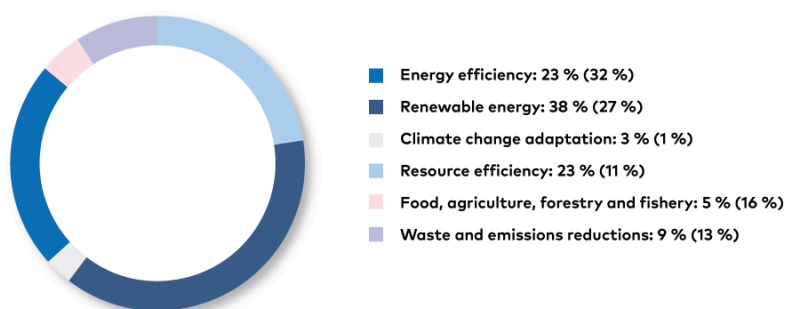
All projects financed by Nopef during the year contribute to promoting Agenda 2030 and the UN Sustainable Development Goals (SDGs) with a particular focus on goal 7 - affordable and clean energy, goal 9 - industry, innovations and infrastructure, goal 11 - sustainable cities and communities and goal 12 - responsible consumption and production.

Environmental sectors

Figure 2 shows the division of environmental sectors of approved Nopef projects in 2019.

Figure 2

Division of environmental sectors of approved projects in 2019 (Compared to 2018)



Nordic impact



350

new jobs annually



€32m

in annual investments generated



70%

use of Nordic subcontractors

By providing support for the assessment of green investments, Nopef is contributing to increased Nordic employment, knowledge development and sustainable business models. Nopef has a particularly important role and additionality in helping to identify and mitigate the risks for innovative small and medium-sized growth companies when preparing to launch onto world markets.

The results of the annually conducted customer surveys among recipients of Nopef's financing show that supported projects have a positive impact on the companies' employment, both in the Nordic countries and in the project countries. Each international business that has been established with the support of Nopef has on average created 11 new jobs, of which 2 are in the Nordic countries, according to results from the customer survey in 2019. Given the current project activity and outcome level, Nopef can expect to contribute annually to the creation of more than 350 new jobs, 50 of which are in the Nordic countries.

The customer survey further shows that Nopef financing has provided a high additionality for companies establishing international business operations, with 71% of companies considering that Nopef's support has had a significant impact on their decision to set up internationally. Each international establishment has on average generated investments of around EUR 0.9 million and sales of around EUR 2 million over a three-year period, which in relation to the financing provided by Nopef gives a multiplier effect of 16 for investments and of 33 for project-related sales achieved.

Most of the companies state that their project has improved their competitiveness, created new possibilities to transfer technology and increased employment in both the company itself and with its subcontractors. More than 70% of the companies make use of Nordic subcontractors in their operations in the project countries. The businesses established also generate long-term effects, with 91% of the companies still operating in the project country three years after they were initially set up.



Photo: Steelwrist AB

Fuel-saving solution for construction machines

The Swedish company Steelwrist AB develops, makes and sells solutions for construction machines. The company's most popular product, a tiltrotator, is a hydraulic tool that allows an excavator bucket to tilt at 45 degrees and rotate 360 degrees. "This allows operators to not only do their work more easily and efficiently, but also to use the machine in new types of work," says **Erik Hedenryd**, Group CFO at Steelwrist. A tiltrotator can increase productivity, which in turn results in fuel economy and lower CO₂ emissions. In the case of a normal-sized excavator, a tiltrotator with a control system can save about 30% in fuel consumption.

With support from Nopef, Steelwrist completed a successful feasibility study in Japan, registered a representative office in Tokyo and employed one person to build up sales on the Japanese market. "The most challenging part of expanding to another country is to find the right employees," says Hedenryd. "Nopef's support was crucial in the early stages. They provided resources which helped us to begin the search for the right, properly trained people." **Read more on nopef.com**

Ultrasound to clean fouling in industrial piping

Altum Technologies Oy, a Finnish company established in 2006, has developed a method to clean industrial process equipment using ultrasound. The company's solution results in major energy and emissions savings for end customers. Altum estimates that fouling in industrial processes is responsible for up to 2.5% of global CO₂ emissions. Altum's technology delivers energy savings since the processes do not need to be stopped for cleaning. The method also reduces the use of harsh chemicals and wastewater from cleaning.

Nopef granted Altum financing to study market potential in the USA, with the aim of establishing a subsidiary there and, going forward, also perhaps a production facility. As a result of the project, Altum has set up a subsidiary in Nevada, received the necessary permits and secured their first client in the country. Altum also signed an EUR 1 million loan agreement with NEFCO in March 2020 for further expanding its industrial cleaning technology to new markets and enable demonstration projects of its fouling solution at pulp and paper plants. **Read more on nefco.org.**

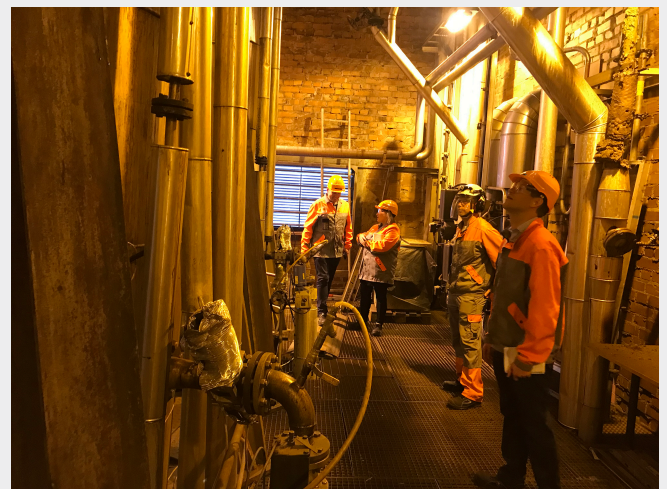


Photo: Dennis Hamro-Drotz, NEFCO



Photo: Joonas Vinnari for NEFCO

Future outlooks

Nopef has a long track record and good results from promoting green SME investments by providing support in the early stages of internationalisation. To further promote innovative Nordic technologies on international markets, Nopef revised its financing guidelines in 2019 and introduced a new financing opportunity for feasibility studies aiming at commercial demonstration and pilot projects for Nordic environmental and climate solutions.

With this new offering, Nopef will be able to help small and innovative start-up companies to establish reference projects and customer relations for future growth in the target country. Supported projects will concern a technology, product, service or business model with a demonstration value and up-scaling potential in the target country, but which already has been commercially proven in the Nordic region. Relevant projects include solutions in areas such as energy efficiency, cleantech, infrastructure, industry, water treatment, waste management and renewable energy.

During the year, Nopef also developed an action plan for the next three-year period 2020-2022. The new action plan further builds on Nopef's financing experience, which has successfully contributed to growth, employment and the internationalisation of the Nordic SME sector. Looking ahead, Nopef in particular aims to increase its activity aimed at Nordic SME's which have developed environment and climate solutions of high demonstration value and with potential to be scaled up globally.

Nopef also has a significant development potential by responding to the challenges and opportunities created in the environmental and climate sector and within areas where Nordic environmental and climate solutions have a major global potential, such as renewable energy, energy efficiency, material technology, digitalisation, recycling and resource efficiency. Recent years have also seen Nopef create significant synergies with NEFCO's investment activities and there is also untapped potential to increase collaboration with other Nordic institutions and initiatives in the coming years.



Photo: Polar Fishing Gear

Innovative fishing gear reduces impact on the marine environment

Polar Fishing Gear, based in Reykjavik, Iceland, was established in 2003 driven by a business idea to develop effective, eco-friendly equipment for the fishing industry. Polar developed an innovative trawl door to guide and control the fishing nets, and so reduce the by-catch and the impact of fishing gear on the seabed. In addition, the trawl door improves efficiency and fuel economy.

"A modern vessel in the USA or Europe can generally save 5-7% in fuel costs, which is a lot for large vessels," says **Atli Már Jósafatsson**, Manager at Polar Fishing Gear. Nopef granted Polar financing to study the preconditions for setting up a sales and service company in Russia, one of the fastest growing markets for fishing gear, and with growing need for investments in new and upgraded equipment. Driven by their success in Russia, the company is now planning, with support from Nopef, a feasibility study of the market in China. **Read more on nopef.com**



Photo: Johannes Jansson

Governance

Nopef is managed by the Nordic Environment Finance Corporation (NEFCO) in accordance with a funds administration agreement between the Nordic Council of Ministers and NEFCO. A Steering Committee for the fund with members from each Nordic country is appointed by the Nordic Council of Ministers.

Nopef Steering Committee Members in 2019

Denmark

Ole Lindholm

Team Leader/Key Account Coordinator, Ministry of Foreign Affairs

Deputy

Morten Kruse

Commercial Counsellor and Teamleader, Energy and Maritime, The Trade Council China, Ministry of Foreign Affairs

Finland

Tiina Ingman

Head of Unit, Industrial Counsellor, Ministry of Economic Affairs and Employment

Deputy

Marko Laiho

Ministerial Advisor, Ministry of Economic Affairs and Employment

Iceland

Sigríður Valgeirsdóttir

Senior Advisor, Ministry of Industries and Innovation

Norway

Geir Ove Hansen

Head of Department – Financing Portfolio, Innovation Norway

Deputy

Randi Vesseltun

Director, Ministry of Trade, Industry and Fisheries

Sweden

Maria Olofsson

Senior Adviser, Ministry of Enterprise and Innovation

Observer

Anders Hedberg

Senior Adviser, Finance, Nordic Council of Ministers



About Nopef

Nopef, the Nordic Project Fund, was established by the Nordic countries in 1982 with the aim of strengthening the competitiveness of Nordic companies by providing support for feasibility studies and preparatory activities for internationalisation. Today, Nopef finances projects that contribute to the green transition, with a particular focus on the internationalisation of Nordic SME's providing environment and climate solutions with demonstration value and potential for scale-up and growth on global markets.

Nopef is managed by the Nordic Environment Finance Corporation and financed by the Nordic Council of Ministers. All funded projects have undergone an environmental evaluation, and have the potential to generate direct or indirect positive environmental impacts and increased environmental awareness in the project countries.

Since its activities began, Nopef has granted funding totalling more than EUR 108 million and contributed to more than 1,100 Nordic companies setting up international business operations. In its activities, Nopef strives to work in close collaboration with both national and Nordic export and business promotion organisations, and to provide a cost-effective complement to the other financing instruments available in the Nordic countries.

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