



Northern Periphery and
Arctic Programme
2014–2020



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Investing in your future
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GREBE

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Business Enterprise

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WELCOME TO GREBE PROJECT E-ZINE

Welcome to the fifth GREBE Project e-zine. Since Easter we have continued to carry out the project activities and meet our objectives. We held our 6th partner meeting in Narvik, Norway in June, and the Western Development Commission, Action Renewables, the Environmental Research Institute and the Natural Resources Institute attended the Arctic Project Clustering Event in Skelleftea, Sweden, organised by the NPA, Interreg Nord, Botnia-Atlantia and Kolartik Programmes. Our partners in Finland and Norway held Industry Advisory Group meetings and details can be found on page 5. To coincide with this, a policy workshop was organised by Narvik Science Park with details on page 6.

Our work is continuing on other project activities. Narvik Science Park has published a [Report on Innovations from Local Technology and Business Solutions](#), the details can be found on page 7.

Our Entrepreneur Enabler Scheme in Northern Ireland is complete and we have started to roll it out in Finland and Scotland, details can be found on page 10.

6TH PARTNER MEETING IN NORWAY

The GREBE project partners held their sixth partner meeting in Narvik, Norway in June. The Western Development Commission and the Norwegian partners Narvik Science Park worked together to prepare a programme to fit in as much as possible.

The first part of our partner meeting we discussed our activities since our meeting in Finland in February and progress on rolling out our Entrepreneur Enabler Scheme to the partner regions, and plans for the next six months. Discussions also took place on other work package activities including the development of our online Funding Options Decision Making Tool, our Virtual Energy Ideas Hub and the development of a Renewable Energy Resource Assessment Toolkit.



Norway Site Visit



Norway Partner Meeting



6TH PARTNER MEETING IN NARVIK



Norway Site Visit

As part of the meeting the Norwegian partner, Narvik Science Park, organised visits to hydropower installations and wind parks, as well as meetings with companies operating in the renewable energy sector in Norway.

The first meeting was held with Dag Smedbold of Statkraft (<https://www.statkraft.com/>). Statkraft is a leading company in hydropower internationally and Europe's largest generator of renewable energy. The Group produces hydropower, wind power, gas-fired power and district heating and is a global player in energy market operations. Statkraft has 3800 employees in more than 20 countries. Dag outlined their development and the leading role they play in renewable energy in Norway and in Europe, particularly in the hydro sector.



Norway Site Visit

Following our meeting with Statkraft, we met with Matthew Homola of Nordkraft (<http://www.nordkraft.no/>). Nordkraft is an energy group focusing on the development, development, production and distribution of all natural renewable energy. The group also has interests in power sales and other energy-related businesses. The renewable energy production comes from magazine power plants, small hydro and wind power. The distribution network covers Narvik Municipality, as well as wall in Evenes Municipality.

The group's history dates back to 1913, when the first power plant was put into operation in Håkvik valley in Narvik municipality. It has mainly been public or publicly-owned owners all the time, except for some years in the 2000s when Danish E2 / Dong Energy were owners. As a result of this came the wind power initiative.

Matthew brought us Nygårdsfjellet wind farm, which was acquired by Fortum along with two other wind power projects in late 2016. Nordkraft continue to manage and operate this project. This wind farm consists of 14 turbines with a total capacity of 32,2MW. Windmills have an installed capacity of 2,3MW each. The entry of Nygårdsfjellet wind farm was done in two stages. The first 3 turbines were put into operation in 2006 and the last 11 in 2011. Average annual production is 105GWh, corresponding to normal consumption of about 5200 Norwegian households.

Our last visit was to Nordkrafts first power plant in Håkvik valley. Fred Johansen of Narvik Science Park outlined the history of the development of this hydropower plant and the development of renewable energy in northern Norway.



Arctic Project Clustering Event - Sweden

The GREBE Project were pleased to be invited to participate in the Arctic Project Clustering Event held in Skellefteå May 10-11th 2017. This event gathered more than 90 participants from the programme areas of Botnia-Atlantica, Interreg Nord, Northern Periphery and Arctic programme and Kolarctic CBC. The aim of the event was to find synergies between ongoing projects in the different programmes, share good examples and challenges as well as identify future cooperation possibilities.

The event began with a presentation of Skellefteå held by Helena Renström, Marking Director at Skellefteå municipality, providing insight into the specific areas of interest and growth as well as development potential in Skellefteå.

Nils Arne Johnsen, Arctic Director at Ramboll, gave an overview of what is meant by the Arctic and the special features and actors of operating in the area. Johnsen concluded that many of the challenges in the Arctic are also provide opportunities for investment and development.

The second day of the event Baiba Liepa, Project Manager at the Interact programme, provided a framework for territorial cooperation, the reasoning behind different programme types and how Interreg programmes and projects connect to overall goals of the European Union.

During the first day plenary session Ole Damsgaard, Head of Secretariat at the Northern Periphery and Arctic programme, presented the Arctic cooperation within which the four programmes come together to share knowledge, organise joint activities and combine resources to obtain greater impact. The second day representatives for all four programmes, Jenny Bergkvist, Programme Director at Botnia-Atlantica, Lena Anttila Programme Director at Interreg Nord, Marjaana Lahdenranta, CBC Expert at Kolarctic CBC and Ole Damsgaard presented the programmes in more detail. Similarities and differences were highlighted together with complementary goals that provide cooperation opportunities for projects implemented in the different programmes. The possibility to apply for financing for clustering projects was also announced by the Northern Periphery and Arctic programme.





Arctic Project Clustering Event - Sweden



The clustering of projects was organised through thematic workshops within E-health, Energy efficiency, Bio-sconomy and Entrepreneurship, to which selected projects and external guests from all four programmes were invited. The aim of the workshops was to present ongoing projects in the different programmes, find synergies and identify knowledge gaps and common interests.

The workshop within E-health was moderated by David Heaney, from Rossal Research & Consultancy. Common themes were connecting health prevention and detection to technology and data collecting as well as receiving input from SME's in the field.

Michael Jalmby, ESAM, moderated the Energy efficiency workshop in which the importance of energy efficient and sustainable solutions for renovations were discussed together with existing gaps between knowledge and implementation of best practices.



The Bio-economy workshop was moderated by Ian Brannigan from Western Development Commission Ireland and Michael Doran from Action Renewables. Common themes were how to disseminate project results to ensure real impact and developing research findings into marketable solutions for SME's.

The workshop within Entrepreneurship was moderated by Camilla Sehlin, Incita AB and discussed how to identify different needs of SME's and deliver the right results as well as ways of bringing different types of companies together.

The workshop discussions were concluded at the end of the event to give insight into the outcomes of the different themes.

During the event a study visit was organised to the innovation house The Great Northern where Phil Hopkin, Business Community Manager, told about the history and ideology behind The Great Northern and how the identity of a region can be utilized in creating new opportunities.



IAG meeting in Finland

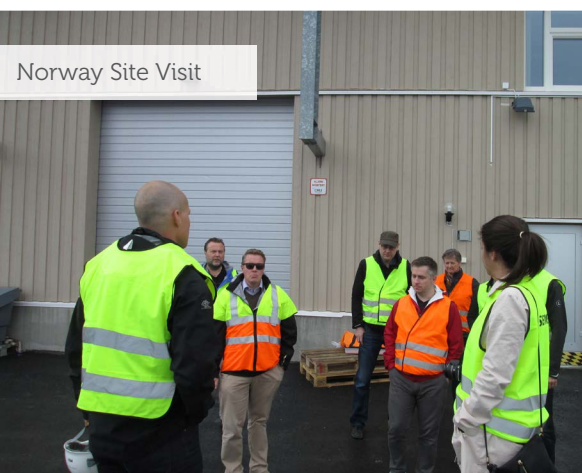
INDUSTRY ADVISORY GROUP MEETING IN FINLAND

GREBE Industry Advisory Groups (IAG) contributes towards dissemination of GREBE outputs and learnings among their wider networks, including at local, regional and national policy level where possible.

The second annual meeting was organized at LUKE, Metla-talo Joensuu on Wednesday 26th of April 2017. Finnish GREBE project partners updated the IAG on the project developments and outcomes over the last year, introduced the GREBE Renewable Business Portal (Robert Prinz, LUKE) and its contribution to the business mentoring through the Entrepreneurship Enabler Scheme (Lasse Okkonen, Karelia UAS).

The group discussion was interesting and highlighted the importance of marketing & sales skills in companies and SME's. The discussion also included the planned online/virtual course preparation and video production of Finnish technology & renewable energy cases showing the entire chain from the raw material to the end-use. The IAG provided valuable insights for the GREBE activities on support scheme, business calculations, entrepreneur enabler scheme and demonstration cases and mentioned the importance of National languages in dissemination material such as in videos or other selected material.

The IAG also discussed on how to link and work together with other activities, projects and support and how GREBE activities can most effectively be implemented, based on their own experience of working in or supporting the renewable energy. The IAG in Finland includes representatives from the renewable energy SMEs, research and education, business development companies, regional authority and agricultural producers and forest owners union.



Narvik Science Park (NSP) hosted a green business/renewable energy workshop from 21th to 22th March 2017 – with focus on new policy mechanisms and the policy agenda in different sectors of renewable energy. A registration of 110 participants means that renewable energy is hot also in the Arctic areas.

The arrangement of policy workshops in the GREBE is to provide information on the existing policies and business support funding mechanisms in each partner region, which relate to developing business opportunities in the renewables sector – and (for the Narvik policy workshop) also to provide access to professional contacts/networks in Northern Norway (NPA Region), in order to disseminate information on new policy models and business funding options.

The workshops are a fundamental part of identifying the existing policies and business support funding mechanisms that already exist in each partner region, and in assessing how effective those policies and mechanisms have been. The work will then concentrate on identifying new initiatives which will further promote renewable energy business development in each partner region and ensure that interventions are made.

The key objectives of this workshops was:

1. To identify and promote opportunities for policy to provide an effective supporting framework for sustainable renewable energy business.
2. To promote awareness and understanding of funding support, mechanisms available to assist renewable energy businesses, start-ups and SME enterprises in NPA regions.

The sectors represented at the workshop included:

- 1) Co2- capture and storage (CCS)
- 2) Hydro Power
- 3) Electricity Distribution
- 4) Energy Efficiency
- 5) Solar Cell Technology
- 6) Wind Technology
- 7) Small Hydro Power Plants



REPORT ON INNOVATIONS FROM **LOCAL TECHNOLOGY & BUSINESS SOLUTIONS**

THE CLIMATE AFFECTED ECONOMY IN THE NPA-REGIONS

The second report from Work Package 4 in the GREBE Project was presented at the GREBE partner meeting in Narvik in June. The results from the survey shows that the extreme climate has an effect on the economy and the financial outcome for businesses in NPA GREBE partner regions. Impacts of extreme weather / weather events on infrastructure is estimated to cost around €11 million only in Norway. This will give an estimated cost for the 6 NPA regions included in the GREBE project a weather dependent cost for the SMEs of approximately €60 – 80 million each year.

GREBES REPORT ON THE INFLUENCE OF ENVIRONMENTAL CONDITIONS IN NPA AND ARCTIC REGIONS AND THE NEXT STEPS

Rural businesses in the energy sector as well as other sectors provide an important livelihood in the northern peripheral areas of Europe. The harsh climatic conditions experienced in many NPA regions, particularly high north and arctic regions, present significant challenges to SMEs and start-ups that can seriously impact on the viability of their businesses. In the **Report on the Influence of Environmental Conditions in NPA and Arctic Regions** there was findings that indicate that it exists significant climate challenges in the partner regions with different types of harsh weather. Low temperature, hard winds, and rain / snow conditions can be extreme in the NPA regions.

In the GREBE Report on Innovations from Local Technology and Business Solutions the question is: How do businesses located in these areas compensate or cope with unforeseen climate change effects?



Report on Innovations from local technology and business solutions

Authors:

Peter Wide UiT-The Arctic University of Norway

Fred R. Johansen, Forskningsparken Narvik

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REPORT ON INNOVATIONS FROM **LOCAL TECHNOLOGY** & BUSINESS SOLUTIONS

WHAT IS EXTREME WEATHER?

An extreme weather occurrence can be defined in different ways and the metrological institutes in each GREBE partner region have their definition made to optimize the specific conditions in each region. A broad institutional indication is often presented when life and values may be lost caused by the extreme weather condition. However, in this report the definition used is:

“Extreme weather conditions are weather that most likely provide problems for people, business and infrastructure”.

“Local extreme weather” is the weather impact on societal infrastructure in the different NPA regions and is considered to affect the business activities. The phenomenon of “local extreme weather” is serious for the single business when it occurs and may have serious consequences for a business competing in an open market.

CLIMATE EFFECTS ON SOCIETY BUSINESS:

The impact of **“local extreme weather”** is considered manageable and moderate in most of the northern EU regions, and structural activities that can minimize the negative effects of harsh weather on small, rural energy companies:

- i. Regional cooperation** - The diverse geographical areas of northern Europe, are experiencing a number of joint challenges in relation to location, but also possible opportunities that can be overcome and realized by regional cooperation. The experience from each region may be introduced to other Northern European areas and innovations from different parts in society can be used to create specific growth initiatives and common efficient business opportunities of the European Northern and Arctic regions in a climate efficient way. One major impact of challenges and initiatives in business operations is the influence of weather conditions on society and in the extension of SME business operations and productivity located in these areas.
- ii. Strategic handling** - Today, many operators in society refer to weather as a restriction in budget and argue that it is a phenomenon that has an actual impact on business. However, the weather can be a strong benefit for the business when an updated insight into the specific local conditions is available and by using a strategic handling document based upon regional knowledge and experience from other businesses. Even national weather organizations are today providing companies this service.
- iii. Variety of weather** - The final implication is that a change in weather pattern will result in a variety of weather phenomenon that can affect the NPA regions in a different matter. There are different effects on the society, depending upon the specific region, i.e. flooding, wind, and disturbance on roads by fallen trees or avalanche.

RESULTS FROM THE GREBE SURVEY

RESULTS FROM THE GREBE SURVEY

As part of the GREBE Report on Innovations from Local Technology and Business Solutions, it was found that SMEs compensate for weather constraints and disruptions by:

- Timing, operational planning and using experienced contractors
- Compensating investments in fertiliser storage capacities
- Avoiding challenging times in transportations (thaws)
- Planning in construction phase (needed insulations) for arctic conditions
- During processes by preventing freezing (heating, antifreezes)

Business strategy - A minimal planning strategy for weather related disturbance in business are generally lacking both in long and in short seasonal terms. The absence of business strategies tends to characterise SMEs in rural GREBE regions both in limited financial contingency as well as in maintaining physical systems and services. There are some cost related economic factors that will affect the small business in a rural areas of Northern Europe and it may be time to consider a new weather and climate economy that compensates the businesses that are fighting against the nature and experience higher costs in their energy operations. These companies are strategically located in rural areas which require entrepreneurs, employment opportunities and an innovative environment.

The full Report on Innovations from Local Technology and Business Solutions can be downloaded from the GREBE website <http://grebeproject.eu/wp-content/uploads/2017/06/GREBE-Report-on-Innovations-from-local-technology-and-business-solutions-May-2017.pdf>





ROLLOUT OF EES IN PARTNER REGIONS



THREE FINNISH COMPANIES SELECTED FOR THE ENTREPRENEURSHIP ENABLER SCHEME

An open call for businesses to attend EES in Finland was launched in April 5th and ended in May 12th. Three companies to attend in EES mentoring process during next autumn are Eno Energy Cooperative, Rajaforest Ltd. and Havel Ltd.

GREBE partner Karelia UAS shared information on the Finnish EES roll-out in public industry events and website. The scheme received attention in SMEs considering renewing their business strategy and improving production development and efficiency. The selected companies are famous for long-term operation and innovation activities in forest energy.

Eno Energy Cooperative has been an example of heat entrepreneurship based on local forest raw materials. The cooperative with 54 members (mostly forest owners), was rewarded in 2014 as a Heat Entrepreneur/enterprise of the year. The cooperative is also famous as active developer in the sector, and generates significant socio-economic benefits to its surrounding region.

Rajaforest Ltd. is a forest contracting company and a heat enterprise. The company supplies timber and forest fuels, operates three municipal biomass district heating plant in Tohmajärvi, and owns and operates one in Kesälahti.

Havel Ltd. is a metal and plastic products manufacturer located in Ilomantsi. The company is famous of innovative product developer for forest technology and forest energy sector, among others. The company has also significant growth potential, in which GREBE EES can provide tailored support.

The EES in Finland has been started with preliminary interviews and mentoring sessions will begin in Autumn 2017.





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Contact

Western Development Commission,
Dillon House, Ballaghaderreen,
Co. Roscommon, F45 WY26, Ireland.
Tel: +353 (0)94 986 1441
Email: paulineleonard@wdc.ie

Project Partners

GREBE will be operated by eight partner organisations across six regions:



About GREBE

GREBE is a €1.77m, 3-year (2015-2018) transnational project to support the renewable energy sector. It is co-funded by the EU's Northern Periphery & Arctic (NPA) Programme. It will focus on the challenges of peripheral and arctic regions as places for doing business, and help develop renewable energy business opportunities provided by extreme conditions.

