STATE OF PLAY

North Sea Region Programme 2014-2019

ABBREVIATED

Interreg
North Sea Region
European Regional Development Fund

EUROPEAN UNION

Contents

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1 Introduction

In May 2018, the European Commission presented its proposal for Interreg provisions for the 2021-2027 programme period. The regulations that set the rules and framework for Interreg present several significant changes compared to those of the current period, while some rules, tools, and procedures in place for the VB programme will carry over to the next programme with only slight modifications.

The aim of this report is to provide an overview of the state of play of the current North Sea Region Programme and offer a set of 'lessons learned' which can be used as a foundation for planning the next programme period.

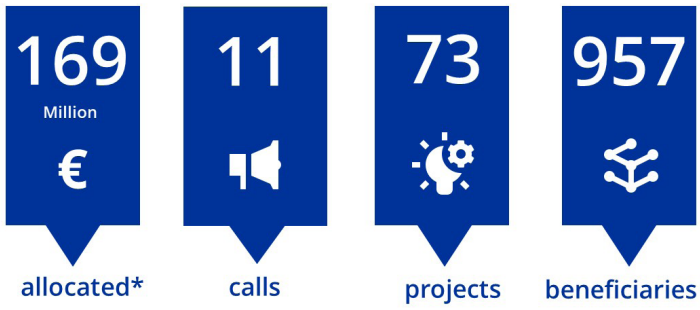
This document is based on the Joint Secretariat's experience with programme implementation in the VB period. Data was gathered from the Programme's Online Monitoring System, surveys, and other sources available to the Secretariat. Thus, the report does not represent a systematic evaluation of the programme. An independent, formal evaluation is being undertaken by Ramboll.

2 Programme inventory

a) State of implementation

A quick overview

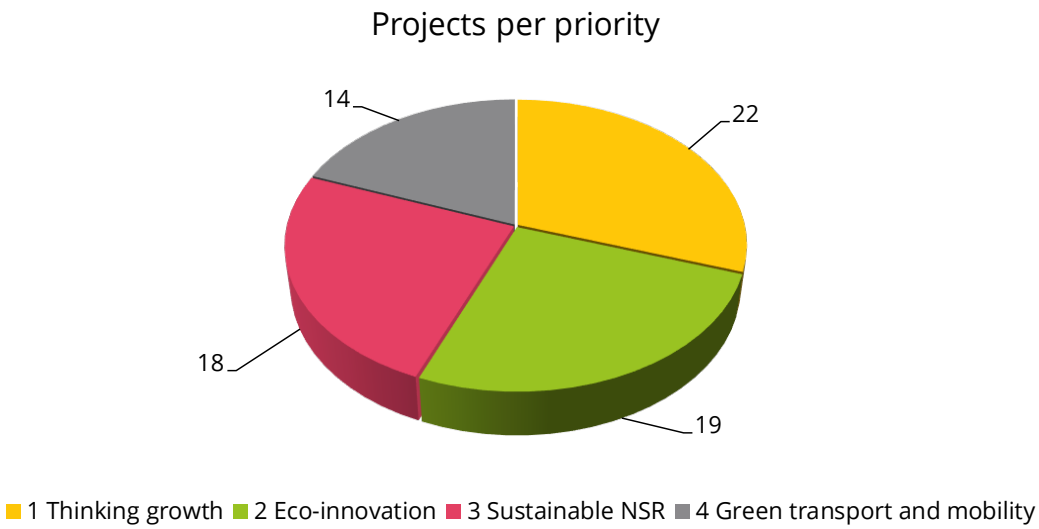
The graphic below provides some key numbers roughly summarising the current status of the VB Programme. The following sections take a closer look at the information behind these numbers.



*€161.5 million ERDF and €8 million in Norwegian funding

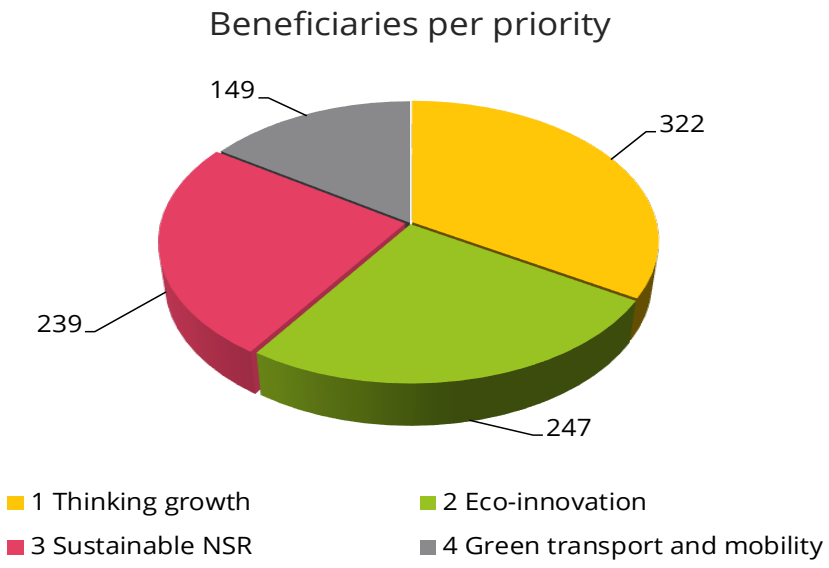
Projects within thematic priorities

The North Sea Region Programme currently funds 73 projects. These projects are split into four thematic priorities covering nine specific objectives:

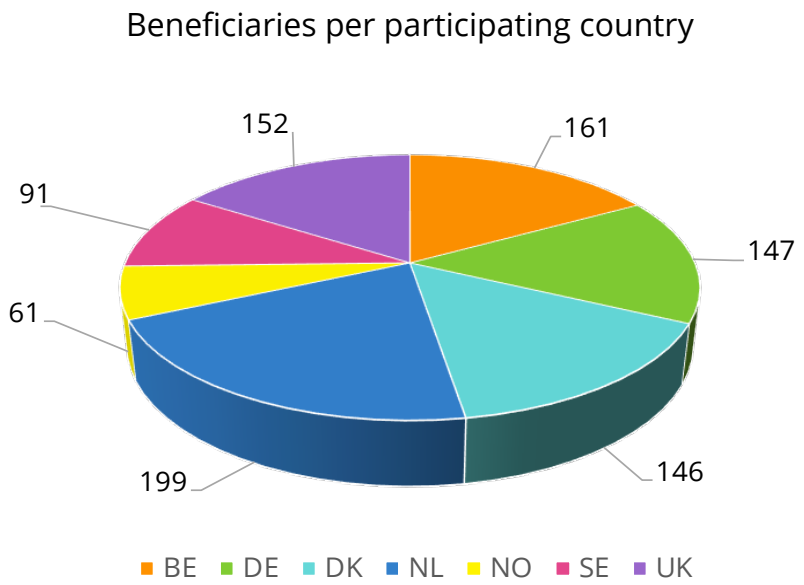


Project beneficiaries in numbers

A total of 957 beneficiaries from all seven partner countries participate in the 73 North Sea Region projects. The average project involves 13 beneficiaries. Partnerships range from six beneficiaries in the SURFLOGH project to 28 in the project Lean Landing. The diagram below shows how the beneficiaries are divided across priorities.

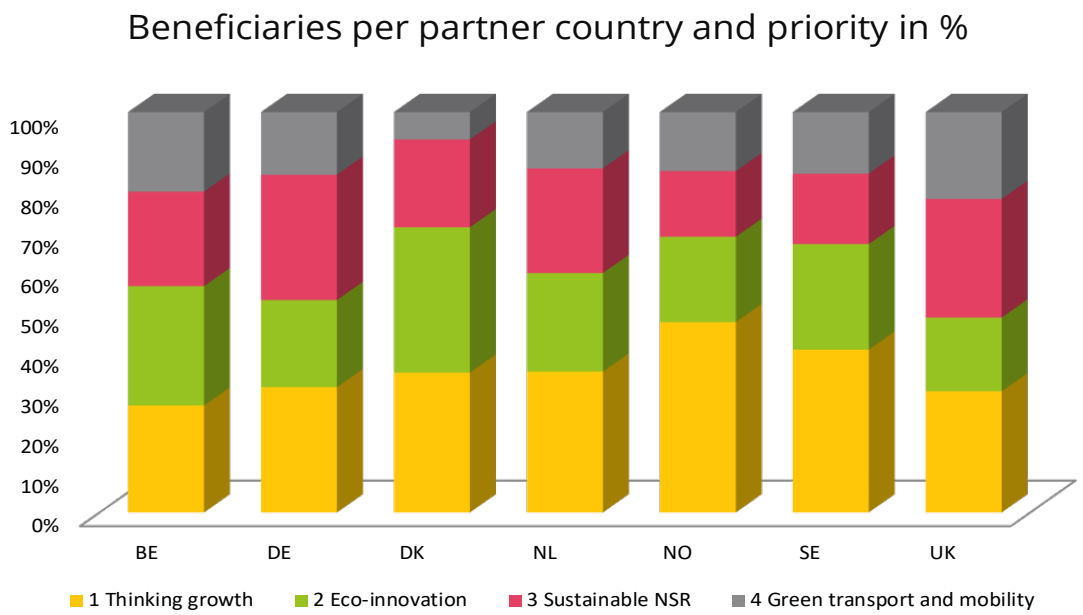


The number of beneficiaries varies between the involved member states. The largest number of beneficiaries comes from the Netherlands (199), while Sweden has the fewest (91).



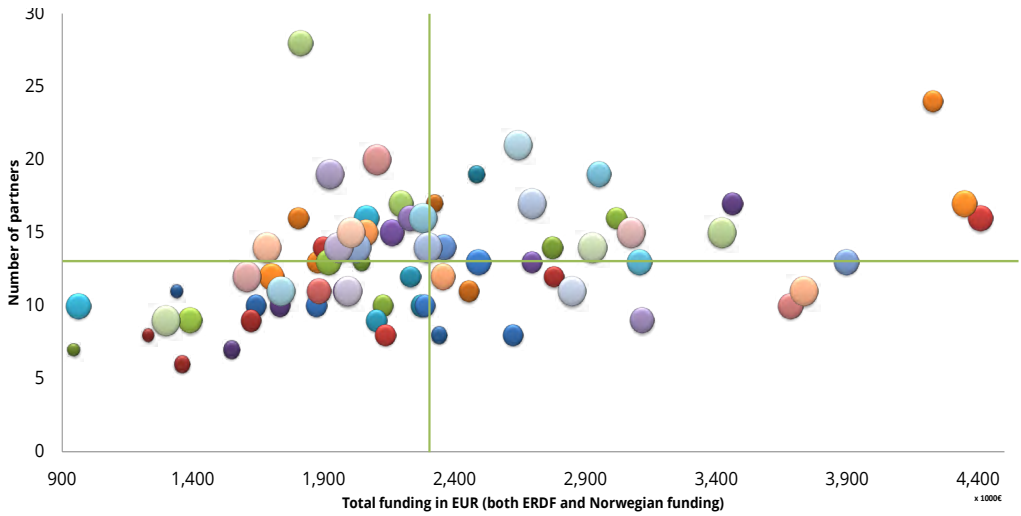
The diagram below shows how beneficiaries are split across the priorities in each partner country: The majority of Norwegian beneficiaries are involved in Priority 1 (innovation), Danish beneficiaries in priority 2 (Eco-innovation), German beneficiaries in priority 3 (Sustainable NSR), and UK beneficiaries in priority 4 (Transport).

In absolute numbers the priority 'leaders' are slightly different. The country with most beneficiaries in priority 1 is The Netherlands (70), in priority 2 Denmark (53), in priority 3 the Netherlands (52) and in priority 4 the United Kingdom (33).



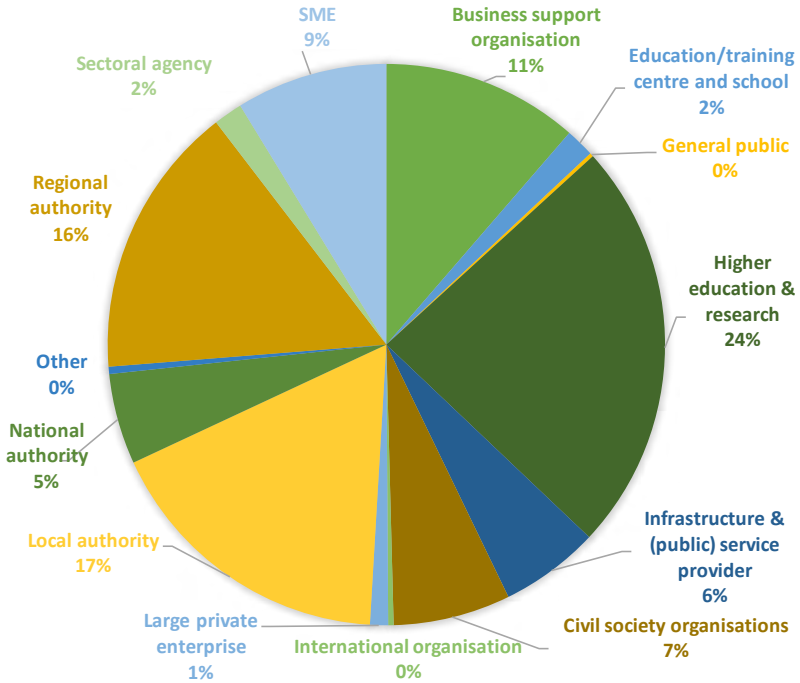
The programme requires that a project partnership includes at least two beneficiaries from two different countries; however, the typical North Sea Region project has a partnership ranging between three and seven partner countries.

There is no direct correlation between grant size and number of beneficiaries. Some projects have a small number of beneficiaries but a relatively high budget and vice versa. In the chart below, the green cross reflects the average number of beneficiaries and the average total funding granted per project. The bubble size indicates the number of partner countries involved in a project.

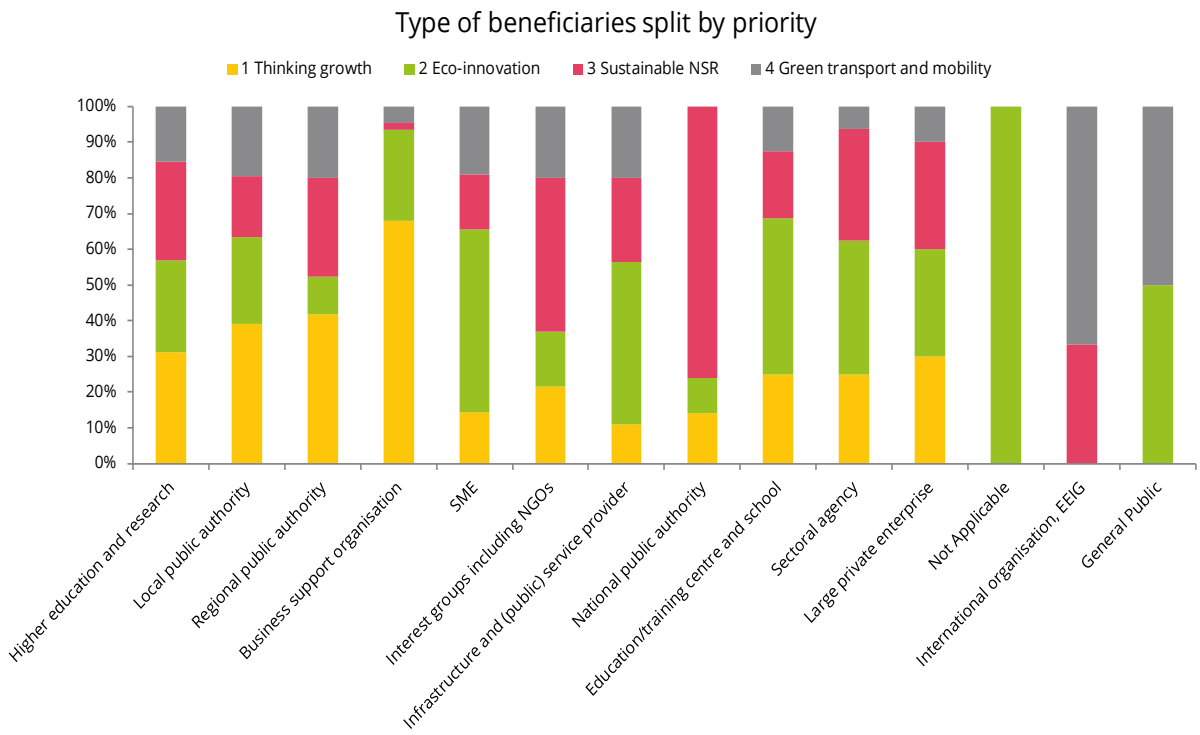


Types of beneficiaries

A wide range of beneficiaries can apply to participate in projects. The top three are: Higher education and research (24%), local public authority (17%), and regional public authority (16%). They jointly represent 57% of all beneficiaries involved in a North Sea Region project.



The distribution of different types of beneficiary organisations varies between the priorities, as seen in the diagram below. For example, the majority of beneficiaries in priority 1 are higher education and research institutions, regional/local authorities, or business support organisations, while the majority of beneficiaries in priority 3 are interest groups (including NGOs) or national authorities.



Allocated funding

As of December 2019, the programme had allocated a total of €169 million, divided between €161.5 million in ERDF and nearly €8 million in Norwegian funding through 11 calls for applications. This represents an overall allocation rate of 102.7% of ERDF and 97.9% of Norwegian funding. The Monitoring Committee (MC) has approved an allocation rate per priority of 105%, which means that some funds remain available.

Project selection

From Call 1 to 11, the programme received 127 full applications (the second of a two-stage process – see more on this in section 3a). With 73 projects approved, this means an average approval rate of 57%. The number of full applications received declined steadily from call 1 to call 11: From 30 applications in Call 1 to 9 in Call 11.

The project approval rate was relatively low in the first couple of calls. The lowest rate of 43% was in Call 1, while Calls 7 and 8 each saw an approval rate of 80%.

Priority 1


THINKING
GROWTH
Innovation support measures launched for businesses
100
53
Innovation support measures launched for public service delivery
Enterprises cooperating in knowledge partnerships
1856

b) Priority 1

Basic Facts

Priority 1, Thinking Growth: Supporting growth in North Sea Region economies, focuses on how the North Sea Region can promote sustainable economic growth through innovation. The region is one of the most prosperous parts of the EU and the region's countries represent the innovation core of Europe. In order to remain at the innovative forefront, the North Sea Region needs to maintain the pace and spread of innovation.

More specifically, priority 1 is set against the background of the recognised need to strengthen the knowledge economy to generate growth and jobs, especially in SMEs, to improve the commercial take-up of research results and to improve framework conditions for new and expanding companies. In terms of public service innovation, the region needs to further stimulate innovation in public service delivery and ensure that public administrations - where possible - use public investments as a driver for innovation. Overall, priority 1 seeks to ensure that all parts of the region actively develop their innovation potential based on their own positions of strength.

Transnational cooperation offers the relevant stakeholders an effective framework for establishing partnerships and a wider circle of partners, as well access to successful methods from other countries. This is especially important as innovation is carried out increasingly not as a closed off activity within individual organisations but rather in partnerships with other companies, customers and researchers. Moreover, transnational cooperation contributes to the internationalisation of regional innovation activities to ensure that businesses across the region can access the best innovation partners in their field.

The main target group of priority 1 is businesses, clusters and the public sector. In terms of businesses, actions are particularly targeted towards support for SMEs, which often lack relevant capacity and resources and must be offered a supportive environment for innovation. Public service innovation is also an important opportunity. In many countries, finances for the public sector are under severe pressure and there is a need to deliver public services more effectively and efficiently.

By the end of 2019, 22 projects had been approved in priority 1 with a total of € 43,621,685 in ERDF and €3,497,254 in Norwegian funding. This leaves €732,100 in ERDF for future projects.

i.Intro to priority achievements

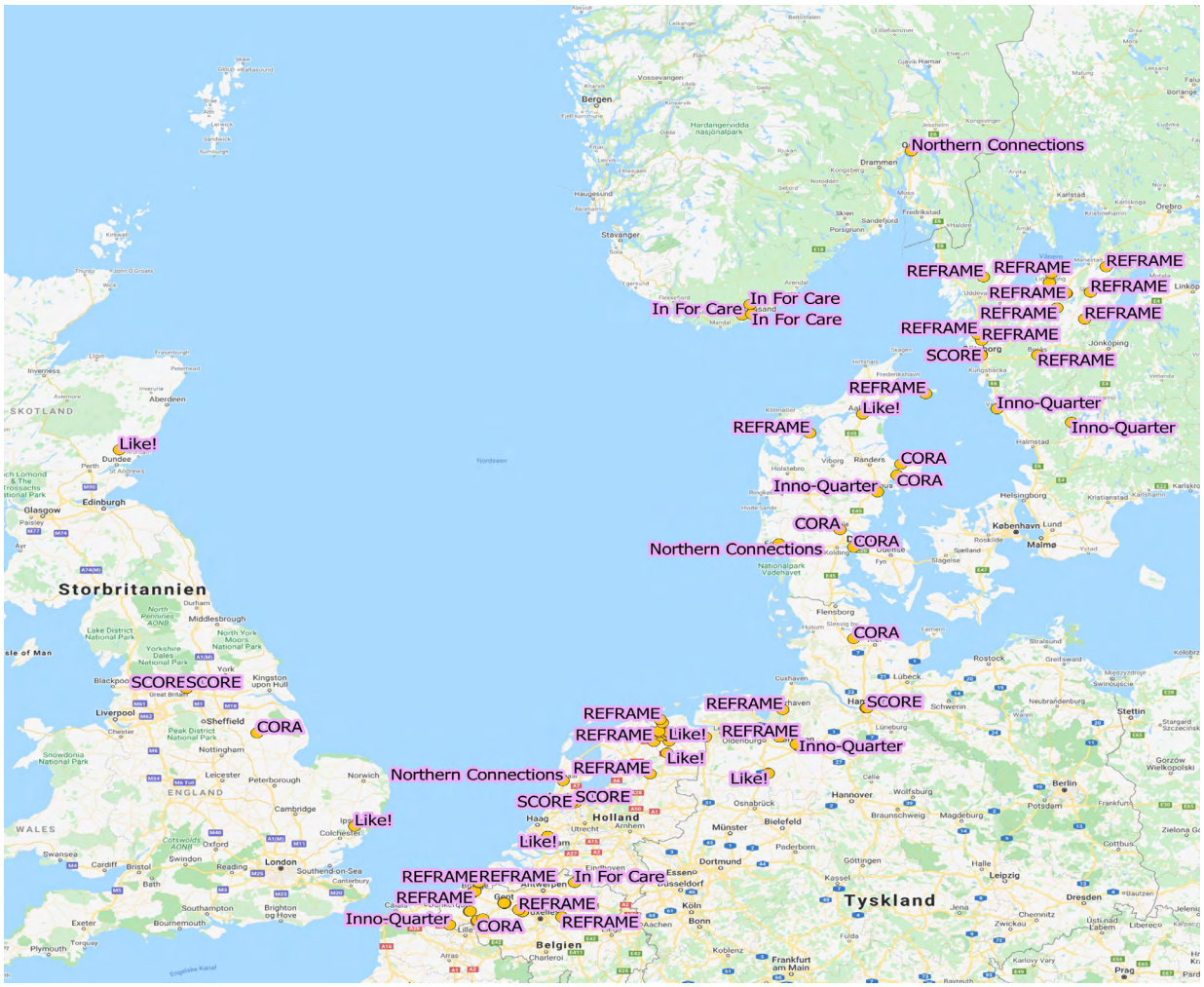
Main areas of achievements within priority 1 – Thinking Growth:

- Future-proofing skills for the region's emerging sectors
- Creation and introduction of new (e)-services
- SMEs as key targets
- Supporting innovation levels in regional hubs.

Main sectors:

- Societal challenges: Healthcare, ageing and population retention
- Business development in different sectors: Creatives, IoT/ Industry 4.0, internationalisation/ export, local supply chains, blue growth, renewable energies
- Innovative public service delivery.

ii.Map of Pilots

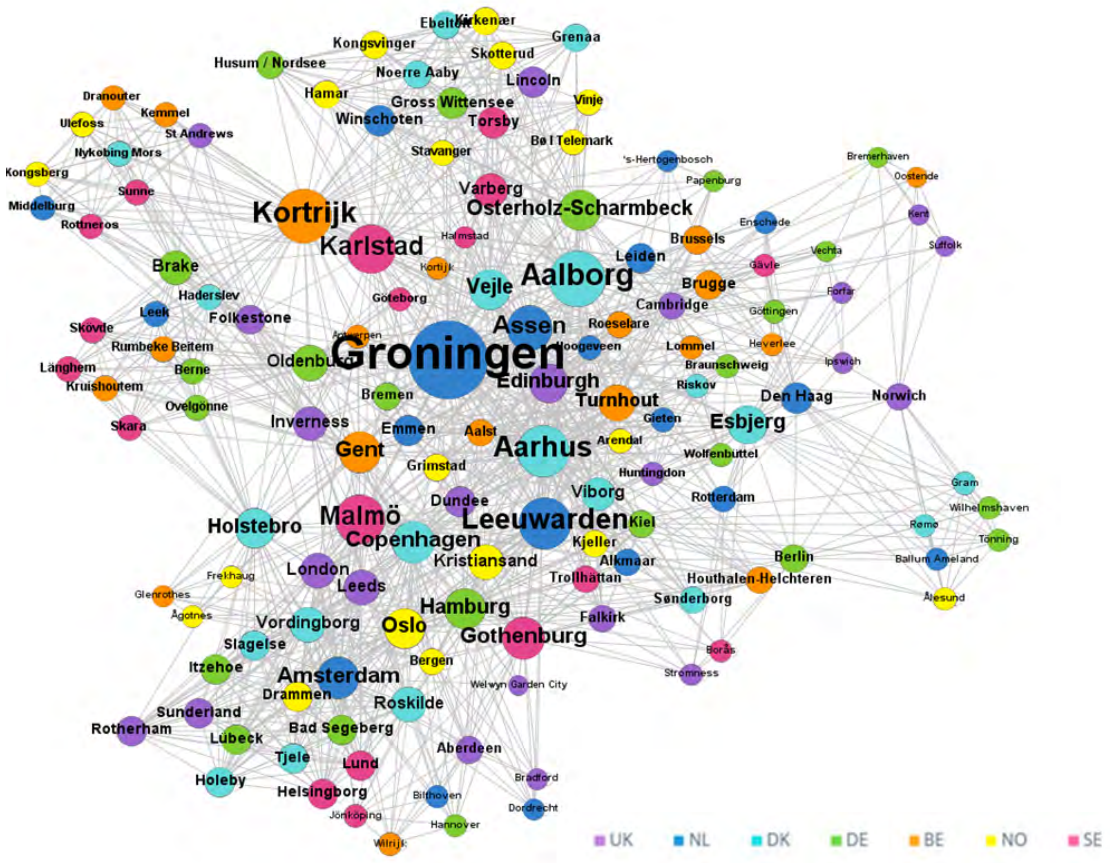


The map reflects the data available on 15 January 2020, provided by projects. Please note that the pilots as well as the data available to the Joint Secretariat are subject to constant changes. Please see Annex 2 for larger maps.

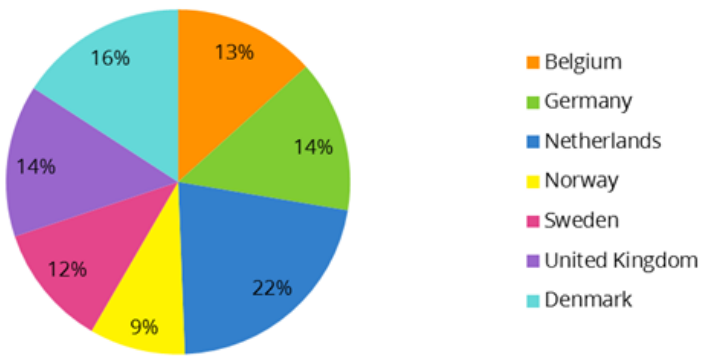
iii. Network Analysis

In the network analysis below, each dot represents a city where one or more priority 1 beneficiaries are located. The size of the dot indicates the number of links to cities elsewhere in the region.

The Dutch city of Groningen is clearly a major networking hub for regional innovation funded by the North Sea Region Programme. Groningen is followed by Flemish Kortrijk, Danish Aalborg and Aarhus, Swedish Malmö, and Dutch Leeuwarden.



iv.Beneficiary Distribution



Analysis

i.Priority 1 in the Cooperation Programme

Priority 1, Thinking Growth, focuses on how the North Sea Region can promote sustainable economic growth through innovation. All actions in this priority are particularly targeted towards support for SMEs, as this is both the largest category of business and the area where innovation is generally weakest. The following areas were identified as relevant for Priority 1:

- Strengthen the knowledge economy to generate growth and jobs especially in SM
- Improve the commercial take-up of research results + Improve framework conditions for new and expanding companies
- Ensure that all parts of the region actively develop their innovation potential based on their own positions of strength
- Stimulate innovation in public service delivery
- Ensure that public administrations where possible use public investments as a driver for innovation.

Thinking Growth covers three specific objectives dedicated to sustainable growth through innovation.

Specific Objective 1.1: Knowledge Partnerships
Activities cover exchange of knowledge on how to engage businesses and researchers in active knowledge partnerships, and how to ensure that this involvement leads to the development of new products and services, which results in creating growth and jobs.

Cooperation also facilitates innovation processes by establishing long-term links between related businesses, and between businesses and knowledge institutions in different countries. This requires tools that can effectively support trust building and overcome the distance barrier. The public sector has an important role to play as broker in creating these new knowledge partnerships.

Specific Objective 1.2: Enhancing regional innovation support capacity
A region's innovation capacity depends on the successful combination of a wide range of factors including education, types of sectors present, research intensity and the support of public authorities.

Cooperation in this specific objective fosters exchange of knowledge on different development strategies and success factors and identification of regions with complementary skills and assets. This exchange is rooted in demonstration actions targeted at innovation gaps in the regions. Projects involving a wide range of regional interests and including target businesses have shown to be most successful.

Specific Objective 1.3: The Public Sector as Innovation Driver

The public sector is a major part of the economy in all North Sea Region countries. The need for innovation arises from requirements to maintain service levels against a background of shrinking budgets and in many cases, an increasing demand for services.

Transnational cooperation in this specific objective has fostered shared knowledge on how to improve service delivery. Efficiency and cost reduction in public service delivery are also important for the competitiveness of the North Sea Region. This objective builds on strong stakeholder support for measures that promote public service innovation while stimulating private sector product development through procurement procedures.

ii. Success stories/ good practice examples

Entry to foreign markets for micro-SMEs

On 21 November 2018, Lean Landing received the Grand Jury Prize of the European Enterprise Promotion Awards for their innovative approach to helping micro-SMEs enter new European markets. Policymakers increasingly recognise the importance of SME internationalisation in European job creation. Lean Landing addresses this challenge through hands-on support including regional incubators, a Soft Landing platform, and visits to meet potential business partners abroad. By end2018, the Lean Landing network was used by 233 SMEs and 113 SMEs had so far participated in meetings abroad.

"The jury considers Lean Landing to be highly innovative with an original approach" - Kristin Schreiber, Director for SME Policy and the COSME Programme of DG GROW, the European Commission.

Blue economy, smart specialisation and innovation

To understand and open up emerging technological and market opportunities, which lead to sustainable innovations, PERISCOPE will establish an entrepreneurial discovery process to reinforce the knowledge base, identify and valorise innovation ideas, and open up a blue growth ecosystem to stimulate industry-driven action on the concrete opportunities ahead. At the European Week of Regions and Cities in 2018, session moderator Anne-Grete Ellingsen, CEO of GCE NODE, the oil and gas cluster in southern Norway, said: *"PERISCOPE could be the industry-led flagship supporting the blue economy, regional smart specialisation and cross-border innovation."*

Digital innovation in public services

The Like! project helps local governments improve their public service delivery by building a digital innovation culture and using citizen co-creation. Through its activities, Like! introduced concepts such as a hackathon for the elderly, a chatbot for customer services, an app based on blockchain technology for elections and digi-coaches in public administrations. The project also prepared several pilots on both place value and city-dashboards, worked on platforms for citizen engagement, addressed special target groups, developed new tools and strategies for customer services, piloted

Internet of Things (IoT) applications, and shared findings on innovation culture.

iv. Achievements on outputs/ specific objectives

Priority 1 has three main output indicators, one per specific objective as shown in the table below. At Programme level, significant overachievement is seen for all three indicators. At project level, the first indicator target has been met, while the two others have achieved more than 50% so far.

			PROGRAMME LEVEL		PROJECT LEVEL	
Specific Objective	Indicator	Achieved	Target	Achieved (%)	Target	Achieved (%)
1.1	No. of enterprises cooperating with new / improved knowledge partnerships	1856	477	389%	1789	104%
1.2	No. of improved or new innovation support measures launched for businesses	100	20	500%	182	55%
1.3	No. of improved or new innovation support measures launched for public service delivery	53	20	265%	91	58%

v. Policy uptake/ contributions

Projects under priority 1 have contributed to a number of European policies such as the Digital Agenda and the Digital Single Market, Blue Growth, the Agenda for New Skills and Jobs and the Agenda for e-Government.

Lessons learned

- The rules surrounding state aid, especially around final recipients, are often limiting the scope of the projects in this priority.
- The breadth of the specific objectives have allowed for unexpected "niche" projects, such as I2I, NorthTick, BLING or InnoQuarters.
- The distinction between Thinking Growth and innovation per se is not always clear to Programme stakeholders, especially when factoring in state aid limitations.
- The need to pre-define results in innovation-focused projects limits their ambition and does not allow for truly innovative projects.

Priority 2


Green products, services and processes piloted or adopted
195
ECO
INNOVATION

c) Priority 2

Basic facts

The eco-innovation priority addresses the need to develop new approaches that can promote a more sustainable use of resources and reduce carbon emissions.

There are two main areas of activities in priority 2. The first addresses the greening of the North Sea Region economy. Through piloting, projects demonstrate how resource use and carbon emissions can be significantly reduced and/or how non-renewable resources can be substituted with renewable and preferably local materials.The second addresses renewable energy generation and overall energy use around the North Sea. Limited resources and the need for alternatives for fossil fuels drive activities in this area, as the region is a key producer of energy, exploitation and production technologies and an important exporter of gas and oil.

The main target groups of priority 2 are businesses, clusters, universities and the public sector. Several projects in priority 2 are highly successful in influencing regional, national, and European legislation. Others have initiated the implementation of new concepts and processes on a regional scale and beyond. Some projects have even managed to attract additional investments that surpass the original scope of their project aims.

By the end of 2019, 19 projects had been approved in Priority 2 with a total of €45,556,432 in ERDF and €1,635,912 in Norwegian funding. This leaves €-3,587,732 in ERDF funding for future projects (the deficit is due to approved overallocation).

i.Intro to Priority Achievements

Main areas of achievements within priority 2 – eco-innovation:

- Attention to low carbon solutions and low carbon economy
- Transition of energy systems
- Building links to the circular economy
- Citizens involvement
- Procurement as a means
- Renewable energy generation
- Reduction of energy use

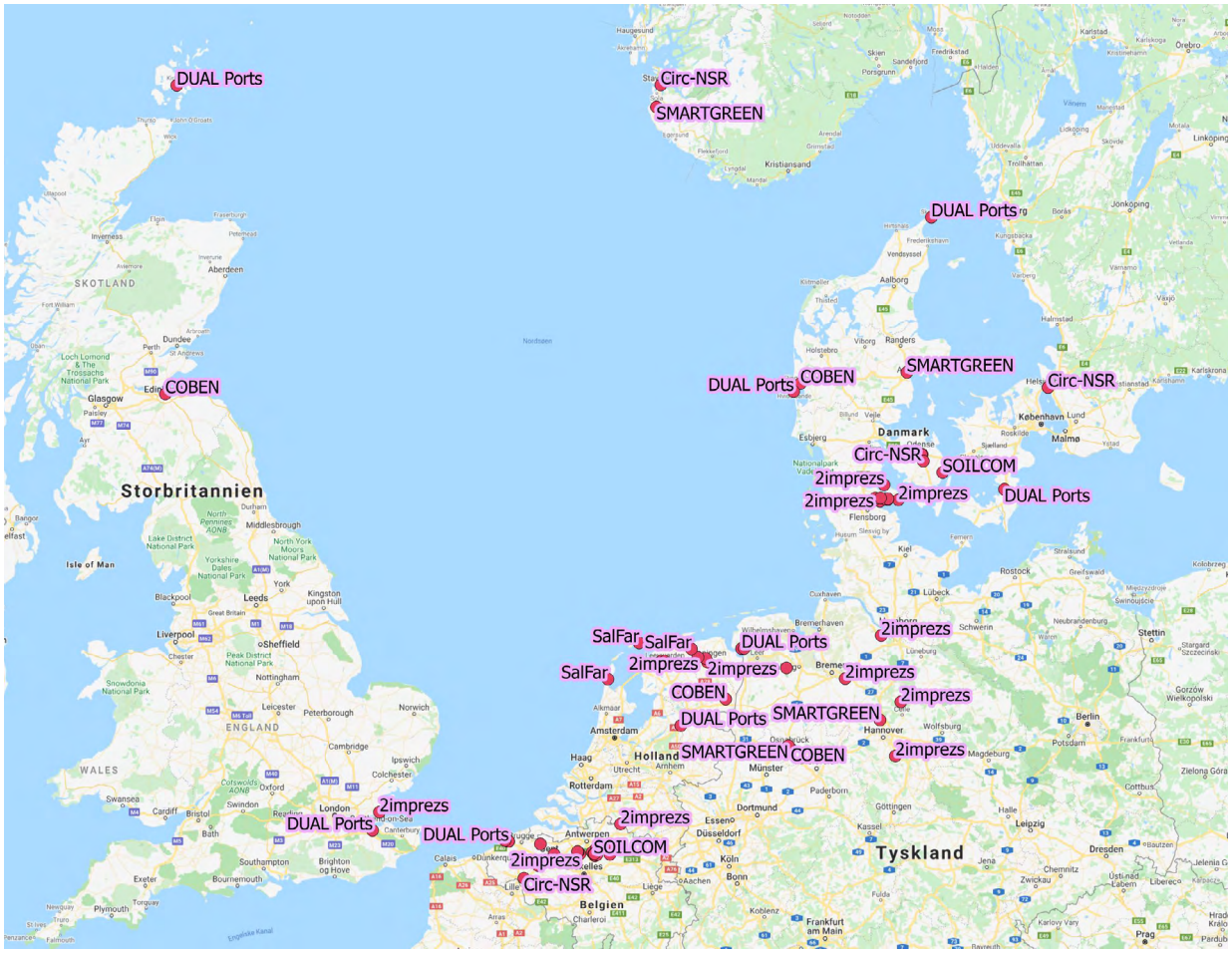
Main sectors:

- Agriculture and horticulture
- Maritime shipping and ports

- Renewable energy
- Energy-efficient buildings
- Clean-tech
- SMEs
- Schools
- Blue growth industry

Examples of Measures:

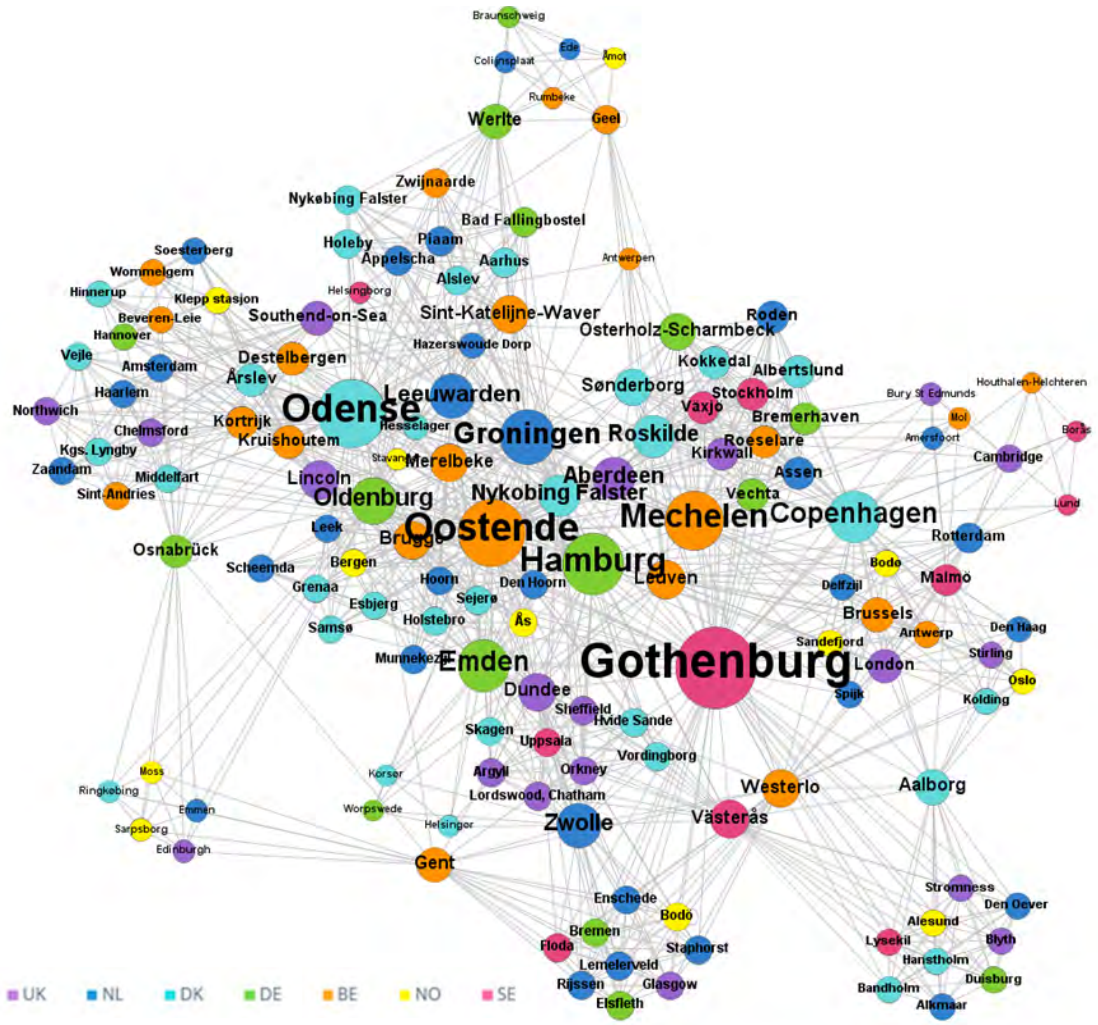
- Uptake of green innovations by SME's
- Energy savings methods implemented in schools
- Decarbonisation measures for regional ports
- Energy neutral houses
- Civic energy and citizen's involvement
- Greening the growth in horticultural production
- Implementation of low carbon energy smart systems
- Implementation of circular procurement



The map reflects the data available on 15 January 2020, provided by projects. Please note that the pilots as well as the data available to the Joint Secretariat are subject to constant changes. Please see Annex 2 for larger maps.

iii.Network Analysis

Swedish Gothenburg is the largest priority 2 hub, while Danish Odense, Flemish Oostende, German Hamburg and Dutch Groningen are additional centres of priority 2 activity



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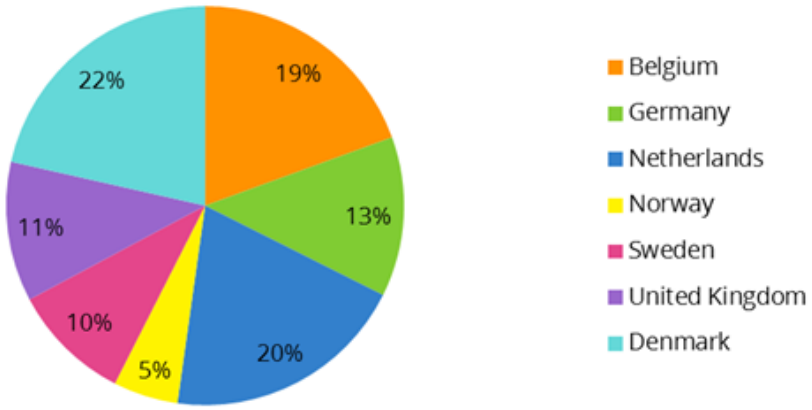


Analysis

i.Priority 2 in the Cooperation Programme

This priority's main focus areas are carbon reduction and promotion of green economic activity. The aim of the priority is to identify measures to improve the environmental footprint of the North Sea Region economy and wider society including carbon and resource use. The priority is divided into two specific objectives:

2.1 Promote the development and adoption of products, services and processes to accelerate greening of the North Sea Region economy

Specific objective 2.1 addresses the need to develop new approaches that can promote the more sustainable use of resources and reduce carbon emissions. One aim of this objective is to spread awareness of practical steps that can already be taken and promote the take up of new technologies and processes. Another aim is to stimulate the development of technologies and processes which reduce natural resource use and increase investment in the region's existing natural assets.

Promoting the green economy is another important aim of specific objective 2.1. Greening in this context refers not only to support for traditional green sectors of the economy but also to improvements in sustainability in any part of the North Sea Region economy. 'Green economy' means more than supporting traditionally green sectors like renewables; it also refers to efforts to improve environmental performance in all sectors.

This is a long-term process and the aim of this objective is to provide inspiration and show what can be achieved by applying new sustainable approaches. This should result in a developing body of transnational good practice on how to increase resource efficiency and can also lead to reduced carbon emissions and manufacturing costs. Actions include:

- Pilots to identify resource savings through innovative industrial design and manufacturing process
- Pilots to experiment with new uses of renewable and locally sourced materials
- Increased recycling of non-renewable materials supported by improved lifecycle design
- Awareness raising of greening methods and results
- Preserving natural capital (avoiding irreversible damage and restoring damaged assets)
- Using better production methods (reducing material use and waste generation)
- Changing consumption patterns (promoting healthy choices with a low environmental footprint)
- Ensuring that economic decisions also take proper account of environmental and social costs
- Greater use renewable materials
- Increasing reuse and recycling
- Identifying ways of reducing raw material usage in different sectors.

2.2 Stimulate the adoption of new products, services and processes to reduce the environmental footprint of regions around the North Sea

This specific objective addresses the need to increase renewable energy generation and reduce overall energy use. The objective focuses on energy use and generation and achieving 2030 targets. Projects are expected to provide inspiration on new approaches for reducing energy use, increasing the use of renewables, and other ways of reducing the environmental impact of communities in the North Sea Region.

Renewed transnational efforts should therefore be made to identify areas where technological development, wider take-up of proven technologies, changes to working practices and/or behavioral change can provide new energy savings. There is also potential in looking at energy generation and building on successful pilots that have demonstrated the possibility of transforming local energy production to a much greater use of renewables. In the North Sea Region infrastructure projects are currently underway that should lessen some of the bottlenecks to integrating more renewables in the energy mix. Enabling technologies for smart grids are also becoming widely available and will allow greater use of renewables and considerable energy savings.

Actions include:

- Identify viable opportunities for installing additional renewables infrastructure
- Pilot installation of newer renewable technologies such as wave power and blue energy
- Demonstrate the application of smart grid technologies as a way of saving energy and integrating more renewable power in the energy mix
- Reduce overall energy use by changing behavior and increasing take-up of energy saving and energy efficient technologies
- Help change attitudes to energy use
- Support the development of more energy efficient processes

ii. Success stories/ good practice examples

Supporting cleantech industry to reduce carbon emissions

SCALE-UP helps clean-tech SMEs bring 40 green services and products onto the market. Through targeted 'Meet the Buyer' events, SMEs can pitch their innovative concepts to procurement officers of large buyers. The project has contributed to moving towards decarbonisation by accelerating the uptake of new technology aimed at reducing the CO2 levels. So far 18 success cases have been implemented, leading to an average of over 30% CO2 reduction. Overall, over 30 solutions have been demonstrated in relation to climate change adaptation. In total the project has triggered nearly €29 million in investments. Efforts in this area must be intensified for the North Sea Region to become climate-neutral.

Involving kids in raising the energy efficiency of school buildings

2imprezs empowers school children at 141 schools in the North Sea Region to take a leading role in reaching 30% energy savings, reducing emissions by 7,320 tons of CO2. The project recognizes the strategic role of school kids who are considered 'agents of change' and are involved in all core activities, from conducting energy audits for school buildings to assess their schools' current energy situation and designing a plan for improvements and energy savings. Each school nominates 'Energisers' amongst the students and engages all school children in interactive events. More than 20,000 students participated in the project's Energy Challenges campaign in 2018 alone. The project won Interact's 'project slam' at the 2019 European Week of Regions and Cities.

Fast-tracking cost-effective energy renovation

INDU-ZERO presented their project at the Steering Committee meeting in Rotterdam in December 2019. They explained that the project was developing renovation packages that provide quick and inexpensive sustainability improvements to existing homes. Fourteen organisations from six countries are working together to design a blueprint for a factory that can produce these renovation packages at an industrial scale. As part of the project, sites will be selected, and businesses sought to build and operate the factory.

iv.Achievement on outputs/ specific objectives

Projects under specific objective 2.1 and specific objective 2.2 share a common main output indicator, namely "green products, services and processes piloted and/or adopted by the project". According to the Cooperation Programme, a 'green' product, service or process is one that offers improved environmental performance in terms of preserving natural capital, using better production methods, and / or changing consumption patterns. Green solutions should provide a demonstrable reduction in carbon and other emissions and/or resource use.

The following table provides an overview of the level of achievement on this output indicator. In total, priority 2 projects have piloted and/or adopted 195 green products, services and processes to date. The programme set out to achieve 51 on this output indicator, meaning the projects have overachieved the programme level target by 382%. On project level, the projects promised to deliver 147 pilots, meaning that the achievement rate to date is 133%.

			PROGRAMME LEVEL		PROJECT LEVEL	
Specific Objective	Indicator	Achieved	Target	Achieved (%)	Target	Achieved (%)
2.1 & 2.2	No. of green products, services or processes piloted or adopted by the project	195	51	382%	147	133%

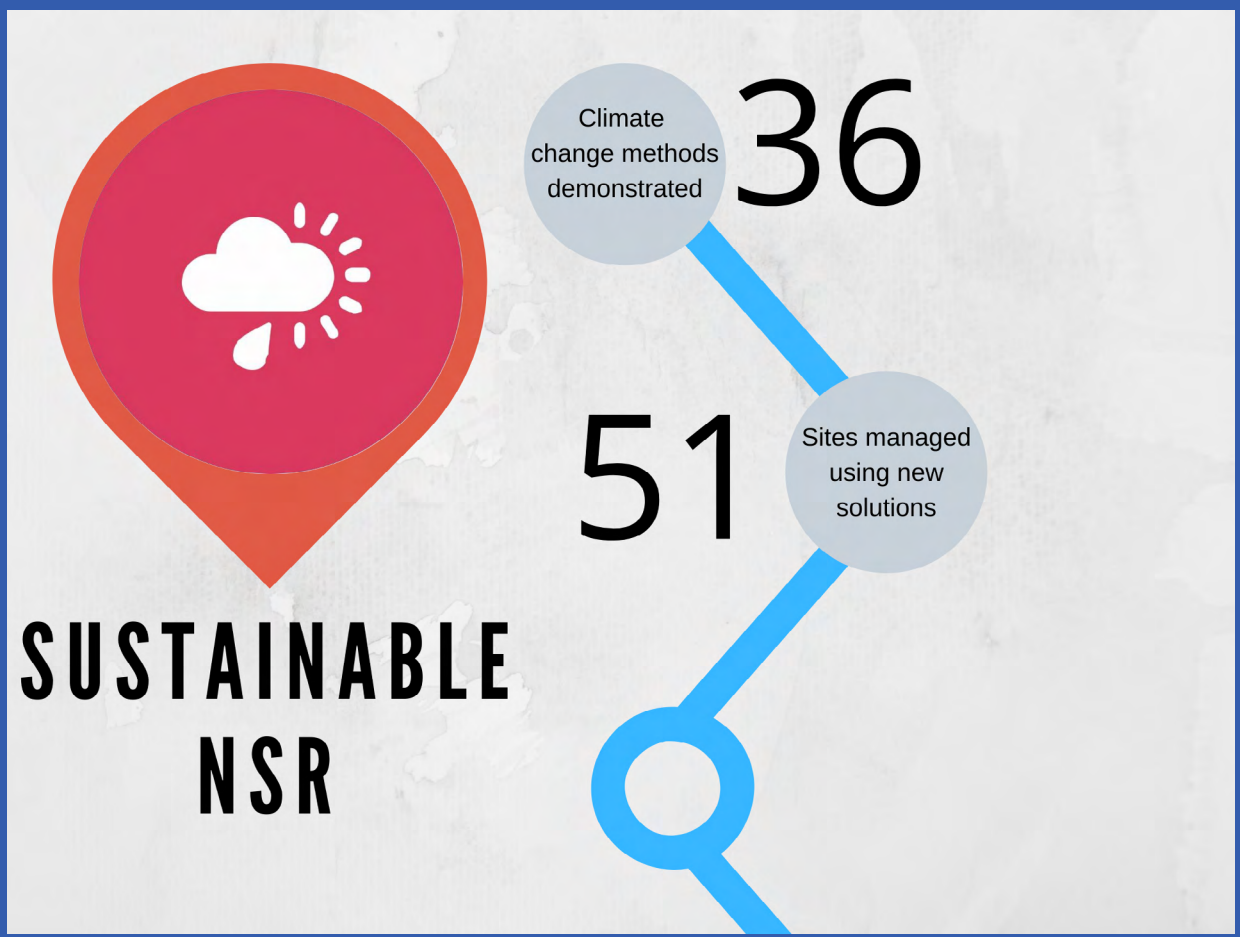
v. Policy uptake/ contributions

Projects in priority 2 have contributed to a number of European policies such as the Clean Energy for All Europeans package (2018); EU Directive on Internal Electricity Market, §16 on community energy initiatives; EU Energy Efficiency Directive 2018; Eco-Innovation Action Plan; the Energy Performance of Buildings Directive; and EU Action Plan for the Circular Economy.

Lessons learned

- Continue the implementation of circular economy projects in the future
- Continue with pilots and demonstrations as vital parts of the project lifecycle
- Supplement future projects with their work on 'legacy' and on activities and results that will be maintained after the end of the EU funding, and examine how the projects can ensure the resources needed to sustain them.
- Another lesson for the future is the involvement of the waste and recycling sector. There are ample opportunities for businesses to introduce zero waste production and consumption methods ('use and re-use'), encourage high quality waste management, and increase recycling efforts (incineration of non-recyclable waste only and phase out of landfills). While BIOCAS examines this broad area to a limited extent, an entire project looking at this problem is still lacking within the project portfolio.

Priority 3


Climate change methods demonstrated
36
51
Sites managed using new solutions
SUSTAINABLE
NSR

d) Priority 3

Basic facts

The North Sea Region has a rich natural environment with a varied coastline, river estuaries, wetlands, woods, hills and mountains providing a varied and valuable landscape and marine environment. Valuable habitats are protected through a large number of terrestrial and marine Natura 2000 sites and numerous national and regional conservation schemes. However, there are many shared environmental threats such as degradation of the marine environment, spread of air and water borne pollutants, degraded habitats and ecosystems, and vulnerable coastal and waterside areas. Thus, land- and sea-based ecosystems face strong pressures on their long-term sustainability.

In addition, there are shared long-term threats to the environment caused by climate change. Sea levels rose on average by 9 cm in the 20th century and the rate has accelerated to more than 3 mm per year. The North Sea Region faces a significant increase in the frequency and severity of storms and associated flood risks. Such climate change impacts lie on top of existing pressures on the environment and require increased attention to flood risks in low-lying coastal areas, improved solutions for management of water-catchments and estuaries as well making ecosystems, crops and cities more resilient to increased temperatures.

Priority 3 is the North Sea Region Programme's answer to the challenges described above. Projects in this priority focus on long-term maintenance of the sustainability of the North Sea Region in terms of protecting against climate change and preserving the environment and its ecosystems.

By the end of 2019 (after Calls 1, 2, 3, 5, 7, 9 and 11), 18 projects had been approved in Priority 3 with a total of € 43,828,066 in ERDF and € 745,505 in Norwegian funding. This leaves € -146,821 in ERDF funding for future projects. The deficit is due to approved overallocation of funds.

i.Intro to Priority Achievements

Main areas of achievements within priority 3 – Sustainable NSR:

- New or better tools to protect aquatic ecosystems
- Mainstreaming methods and techniques for monitoring of pollutants and state of ecosystems in the marine environment
- Testing measures to maintain and improve biodiversity of ecosystems in the North Sea Region
- Improving existing and new measures for climate adaptation such as improved catchment and ground-water management

- Piloting and strengthening coastal flood protection measures targeting 'build with nature' methods
- Improving urban resilience to climate change

Main sectors:

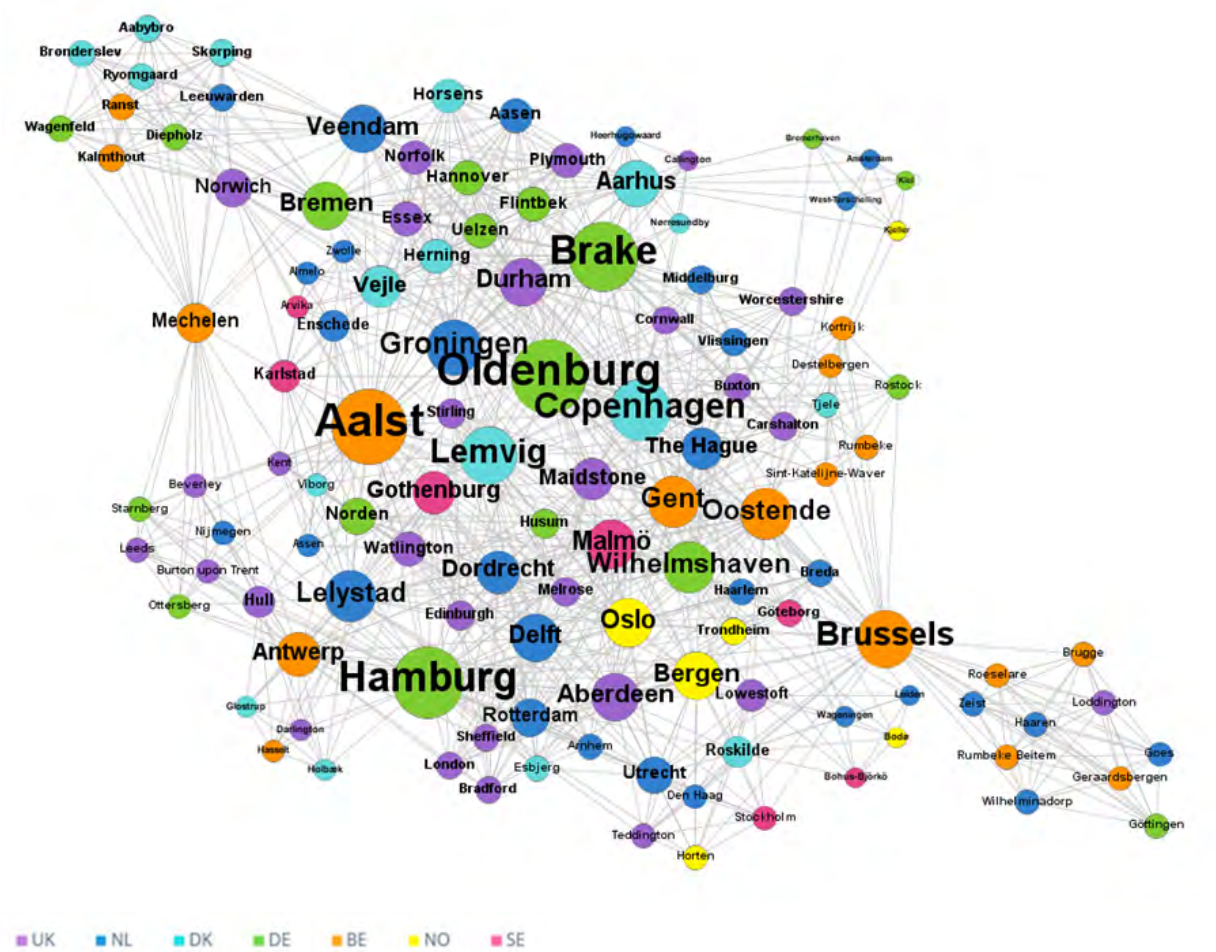
- National, regional and municipal environmental and spatial planning authorities
- Water utilities
- Green NGOs
- Citizens' initiatives/organisations/science
- NGOs for out-door activities – such as hunters and fishermen
- Farmers' organisations, nationally and locally
- Clean-tech companies – in particular working with water and ecosystem services

ii Map of pilots

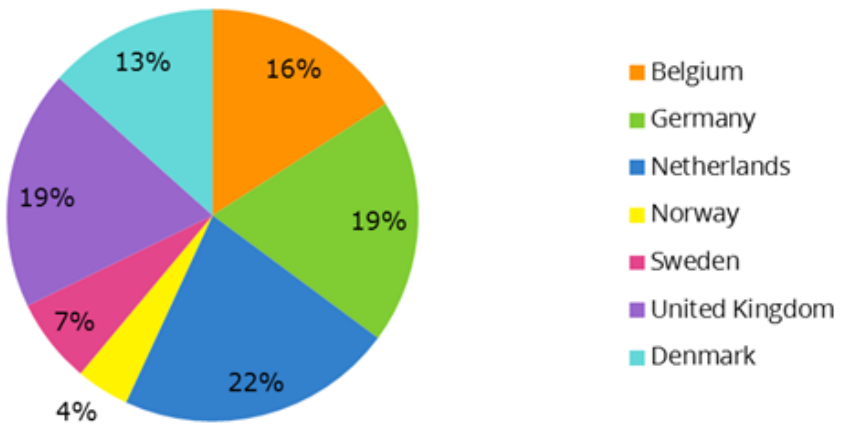
The map reflects the data available on 15 January 2020, provided by projects. Please note that the pilots as well as the data available to the Joint Secretariat are subject to constant changes. Please see Annex 2 for larger pilot maps.

iii. Network Analysis

German Hamburg, Oldenburg and Brake as well as Flemish Aalst are prominent within this priority, while all North Sea Region countries are well represented.



iv. Beneficiary Distribution



Analysis

i.Priority 3 in the Cooperation Programme

Priority 3 on "Sustainable North Sea Region: Protecting against climate change and preserving the environment" has two specific objectives addressing climate adaptation and resilience and long-term sustainable management of ecosystems in the North Sea Region.

Objective 3.1: Demonstrate new and/or improved methods for improving the climate resilience of target sites
Most coastal areas around the North Sea basin are low-lying and subject to storm surges as well as larger inland flood risks from rivers and groundwater caused by increased precipitation. Projects under the climate resilience objective 3.1 have worked primarily with:

- Flood defense construction techniques targeting especially 'build with nature' methods
- Improving environmental and catchment management to preempt flood risk and other negative impacts such as drought and increased nutrient leaching
- Demonstrating new urban planning and infrastructure approaches to improve resilience of cities and towns and mobilise stakeholder support for adaptation measures
- Integrating adaptation perspectives in regional planning and development

Objective 3.2: Develop new methods for the long-term sustainable management of North Sea ecosystems.
Pressure is mounting to maintain a robust natural environment in the NS region that provides food and resources and regulates water and air quality and nutrient cycle. Sustainable management aims to ensure that human impacts do not exceed the sustainable limits of the North Sea region's ecosystems so that a natural balance can be maintained. This includes ways to reduce nitrogen and phosphorous overloads, pollution, and biodiversity loss, as well as to ensure sustainable limits for resource extraction, freshwater use and land use.

Projects on sustainable management of North Sea ecosystems have focused mainly on the following topics and issues:

- Worked with new methods and technologies for tackling environmental problems
- Mainstreamed successful methods and approaches into public policies and management
- Promoted long-term strategies, such as supporting integrated maritime spatial planning approaches, for sustainable management of North Sea landscapes and the North Sea itself
- Implemented participatory processes winning stakeholder support for environmental measures and understanding of ecosystem services.

ii. Success stories/ good practice examples

Climate resilience and environmental management issues are often interlinked – for example, river catchment management must address resilience, quality of the aquatic environment, and the quantity and flow of water. There are also stronger interactions between environmental management and climate change challenges than most people recognize. This applies to off-shore wind and maritime spatial planning, as well as to land use and management, e.g. peatlands, and sequestration of carbon in the soil, to name two examples. Thus, a substantial number of the projects in priority 3 work with linkages between climate resilience, sustainable environmental management, and reduction of carbon from natural processes.

Climate adaptation and resilience

Building with Nature (BwN) integrates natural dynamics and landscape structures in innovative flood defense systems. The project, which comprises 13 pilots, explores the potential of using natural structures – such as nourishment of dunes and sandy shores and giving more space to riverbeds – in flood defense. BWN documents the costs and effects of the different interventions and will inform decisions about future investments into climate adaptation measures. The project is highlighted in the 2018 UN World Water Development report Nature Based Solutions for Water and in the UN Climate Summit 2019 compendium for Nature-Based Solutions, prepared together with US Army Corps of Engineers.

Water management

TOPSOIL fosters ntegrated management of the quantity and quality of groundwater, based on ground-breaking topsoil mapping techniques. Current knowledge about the top 30-70 m layers of soil and groundwater aquifers is poor, which makes it hard to know which scenario is more likely in a specific area. TOPSOIL deploys advanced technology to map subsoil structures and processes. The project has demonstrated 15 new solutions that have evolved into important tools for long-term groundwater management as part of climate adaptation. A major spin-off from the project has been the uptake of solutions in NL, UK and DK. 17 organisations in the programme area have used the tTem mapping system and beyond the North Sea Region, including in New Zealand and the US. TOPSOIL partners are collaborating with climate adaptation projects in North Sea Region, EU Life and other Interreg funding schemes.

Blue growth, maritime spatial planning and marine ecosystems

NorthSEE is supporting implementation of the EU Maritime Spatial Planning Directive in the North Sea Basin. It is the first of its kind to stimulate transnational cooperation, experience sharing and cooperation of 6 countries between Maritime Spatial Planning (MSP) authorities in the North Sea Region. Focusing on particular relevant MSP aspects in the region – offshore energy, shipping, and protected marine areas – it provides new insights for the current planning processes. The NorthSEE project is cooperating inter alia with BalticLINes in the BSR and SÉANSE in the North Sea. In 2016, seven countries with coastlines along the North Sea signed a political declaration to work together

on specific MSP aspects. Thus, NorthSEE is enabling Member States to build their capacities in MSP. The capacities are needed for implementing the MSP Directive which requires national maritime spatial plans to be completed by the end of 1st quarter of 2021.

Farmland biodiversity and ecosystem services

PARTRIDGE will bring back farmland birds and insects, raising biodiversity in its pilots by 30%. The project takes a bottom-up approach, where farmers and hunters collaborate with civic society Organizations such as Hunting and Ornithology and public agencies to identify and test solutions. Partridge is extremely active in involving stakeholders. There are for example 69 farmers who have signed to implement project measures at demo sites on their land, together with 39 hunters and 100 volunteers. The project has also involved 21 researchers, more than 200 students and around 150 members of the general public in monitoring activities.

Carbon sequestration: Keeping carbon in the ground

CANAPE in priority 3 is an example of integrating carbon storage in peat soils, climate adaptation and restoration of ecosystem services. CANAPE restores degraded peatlands and promotes sustainable peatland farming, locking the carbon safely underground. Once peatlands are drained, they keep releasing large amounts of carbon year on year. Conversely, rewetting and restoring these lands can halt emissions. Some of the largest areas of degrading peatlands are found in Europe. CANAPE is testing and providing proof of concept on peat-soil restoration and agriculture on wet peat – called paludi-culture. To create local economy benefits and cover the costs of restoration, CANAPE promotes products (compost, charcoal, insulation material, and paper) made from plants that grow naturally in the wet environment. Some partners are actively involved in national implementation strategies on wetlands for carbon sequestration and surface water retention and storage. CANAPE also liaises with the peatland expert group of the Nordic Council of Ministers, the Ramsar Convention on climate regulating wetlands and projects in the Baltic Sea Region and North West Europe programmes.

iii. Achievements on outputs/ specific objectives

Priority 3 has two main output indicators. Projects under specific objective 3.1 deliver on the main output indicator “new and/or improved climate change adaptation solutions demonstrated”. A climate change adaptation solution is a method that prevents climate change damage to a target site or reduces the negative impact of such damage.

The main output indicator for specific objective 3.2 is “sites managed using new solutions supporting long-term sustainability”. According to the Cooperation Programme, this output aims to capture the take-up of new environmental management solutions across the North Sea Region. A ‘site’ means a geographically separate area managed in line with the new solution. Please see more information in the table below.

			PROGRAMME LEVEL		PROJECT LEVEL	
Specific Objective	Indicator	Achieved	Target	Achieved (%)	Target	Achieved (%)
3.1	Number of new and/ or improved climate adaptation methods demonstrated	36	25	144%	81	44%
3.2	Number of sites managed using new solutions supporting long-term sustainability	51	42	121%	172	30%

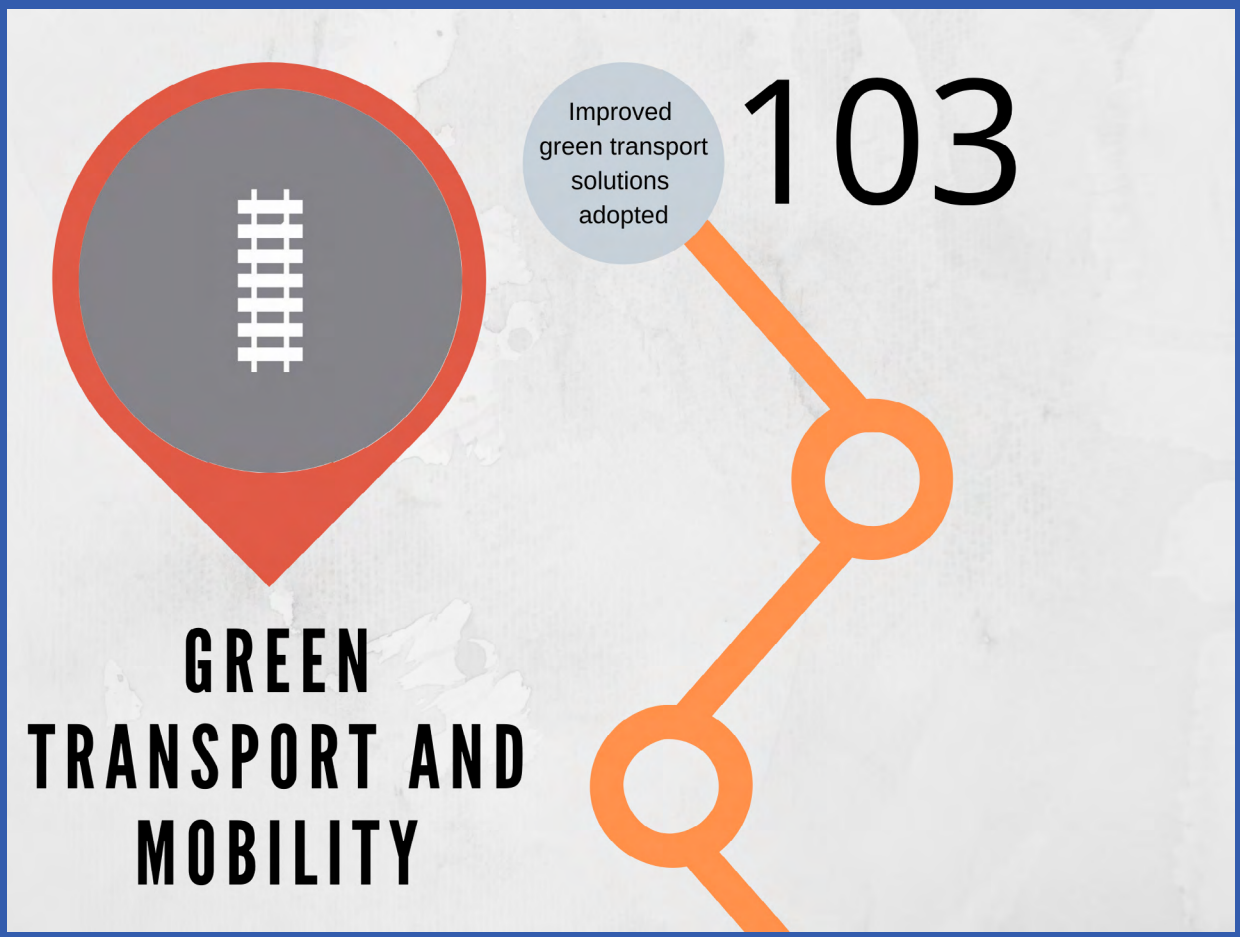
v.Policy uptake/ contributions

Projects under priority 3 have contributed to a number of policies. Most of the projects ground their work in policies at the EU level when applying, although it is the national, regional and local-level policies that many refer to in their reports. Environment policies include those on agricultural, chemicals, climate mitigation, climate adaptation, energy, low carbon economy, marine and coastal, nature and biodiversity, soil, sustainable maritime spatial planning, integrated water management, water scarcity and droughts. These topics are mainly represented by the EU Water Framework Directive, EU Flood Risk Management Directive, EU Habitats and Birds Directive, EU Marine Strategy Framework Directive, EU Common Agricultural Policy, EU blue growth and maritime policies, EU carbon emissions reduction policy, EU Climate Adaptation strategy, the OSPAR convention etc.

Lessons learned

- During the VB programme period, the Programme has seen a strong demand as well as a need for environmental protection, climate adaptation and biodiversity projects.
- This priority bridges two areas of activities/goals – adaptation and mitigation. The current programme set up has been flexible enough to allow projects to respond to demands and needs in both areas.
- Priority 3 projects have been very successful at reaching citizens; this priority is very 'human-centric' and supports the concept of bringing 'science to people.'
- The administrative set up for projects in this priority needs to be flexible due to uncontrollable conditions such as weather, changes in geographic landscape, etc.
- The full scale of impacts of priority 3 projects will turn up after project completion. It is very hard to measure the full impact by the end of the project lifetime.

Priority 4


Improved green transport solutions adopted
103
GREEN TRANSPORT AND MOBILITY

e) Priority 4

Basic facts

Priority 4 focuses on demonstrating a potential for change in North Sea Region transport systems. The North Sea region is the international trade hub for most of the continent because of its deep water ports. The transport sector is therefore a major contributor to the region's economy and provides essential links to the outside world.

However, it faces enormous challenges if it is to break the region's reliance of transport on fossil fuels, especially as transport flows continue to increase. This trend affects the local and regional levels in particular, as transport systems are generally based around car and truck use and local and regional throughways. By having a specific priority on transport - Green Transport and Mobility – the programme brings focus and an impetus to efforts to demonstrate how the North Sea Region can start to move away from fossil fuels for transport.

The projects in priority 4 cover a wide range of topics in terms of different transport technologies and applications. Together these projects have addressed the main challenges in the region regarding greening freight and personal transport and improving accessibility from different angles. This has helped the North Sea region remain a frontrunner in terms of adopting sustainable and innovative transport solutions.

By the end of 2019 (after Calls 1, 2, 3, 5, 7, 9 and 11), 14 projects had been approved in Priority 4 with a total of € 27,198,403 in ERDF and € 1,901,645 in Norwegian funding. This leaves € -1,303,405 in ERDF funding for future projects. The deficit is due to approved overallocation of funds.

i.Intro to priority achievements

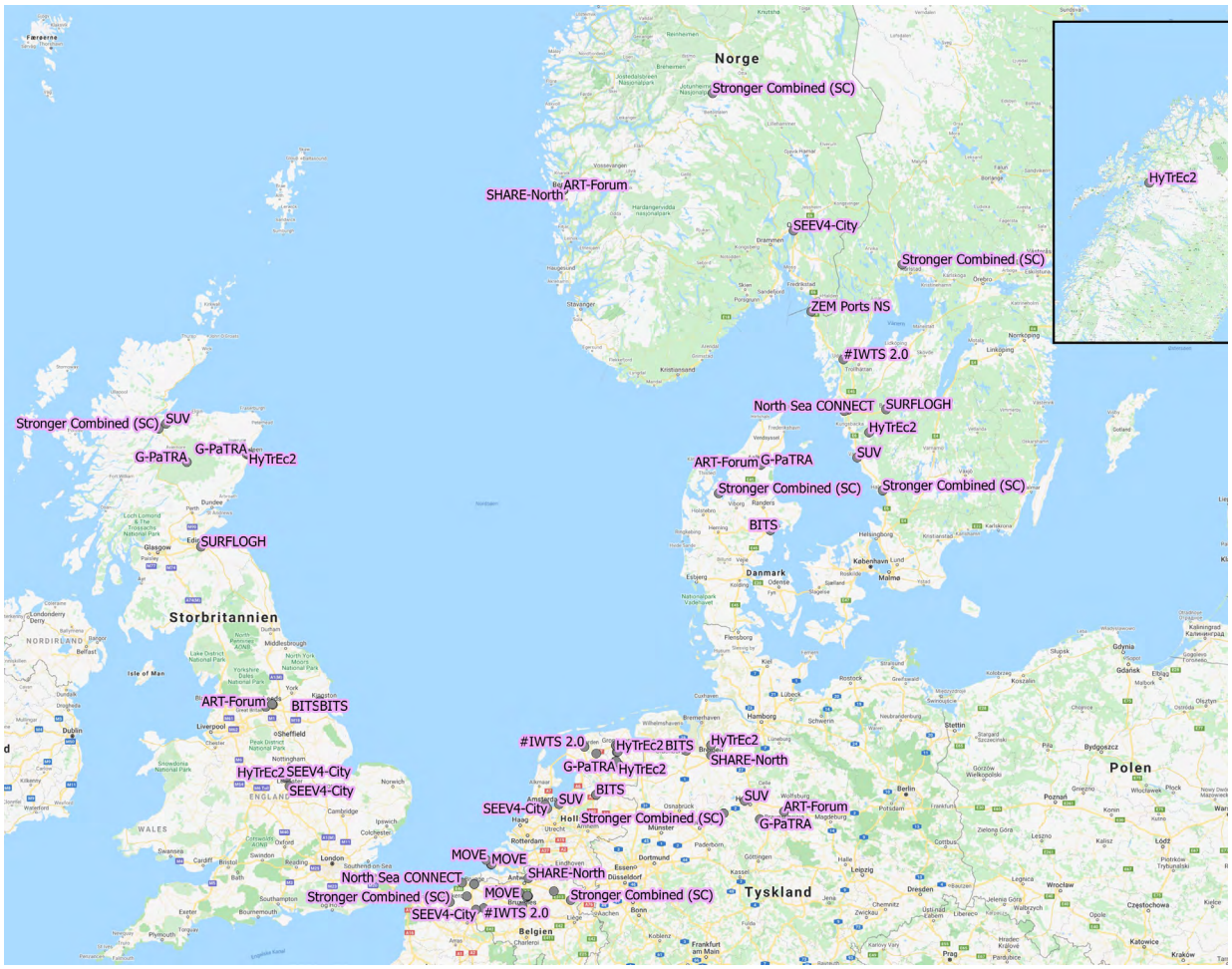
Main areas of achievements:

- Making (public) passenger transport more efficient
- Attention on green logistics and modal shifts
- Preparing and planning for the next generation of mobility and fuels
- Improving mobility in rural areas
- Reducing automobile use in urban areas
- Promoting smart cycling
- Increasing viability of zero emission vehicles
- Raising profile of challenges related to autonomous road transport
- Smart last-mile freight delivery in urban areas

Main sectors:

- Public transport providers, both local and regional
- NGOs focused on the 'sharing economy'
- Green energy providers
- Ship-building and vehicle manufacturers
- Ports

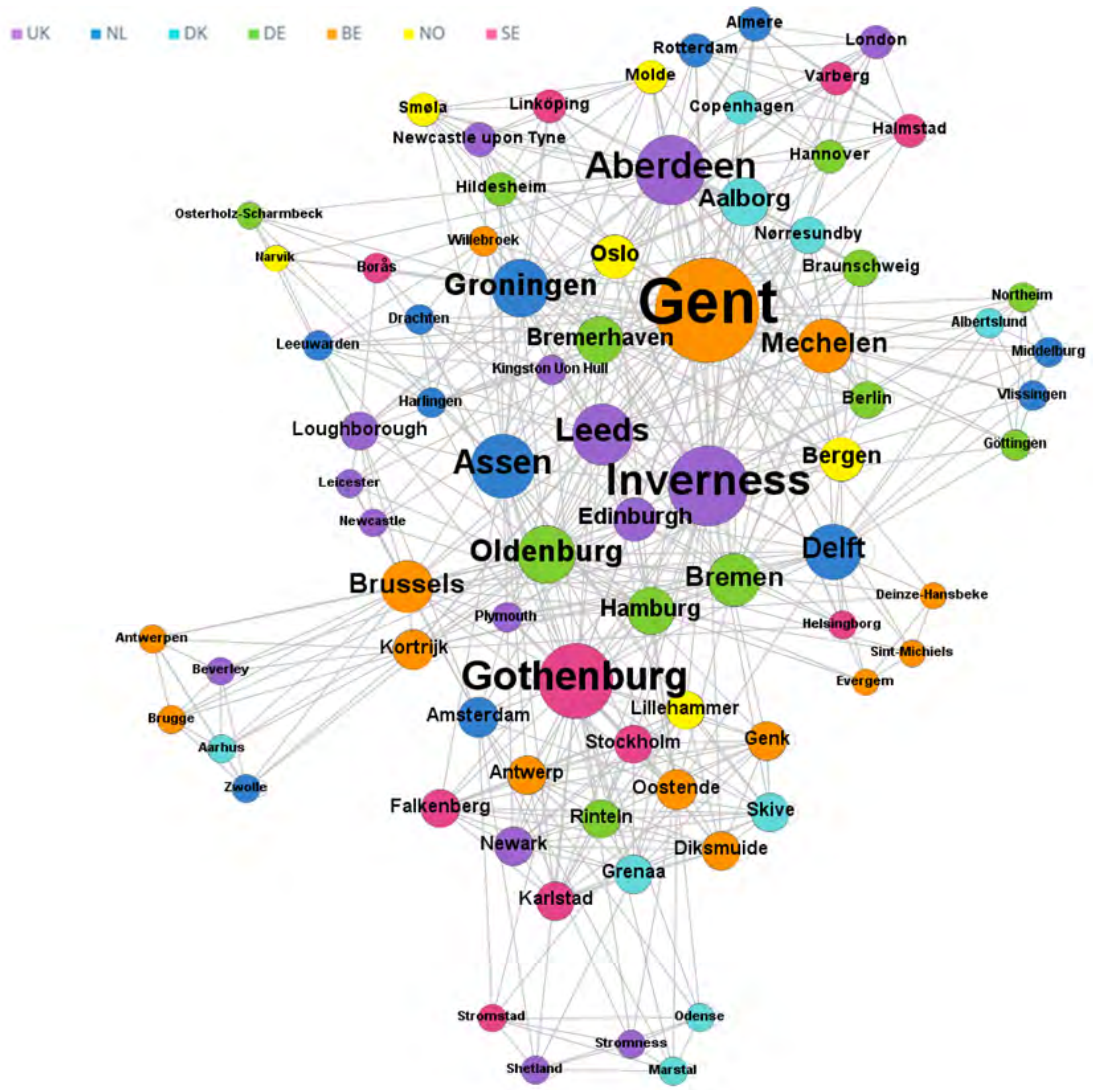
ii. Map of pilots



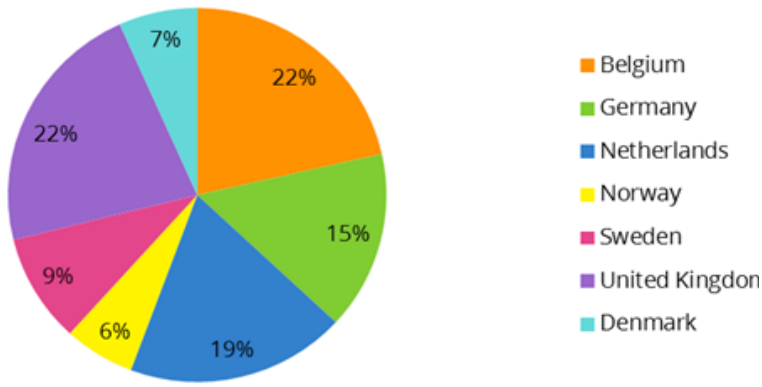
The map reflects the data available on 15 January 2020, provided by projects. Please note that the pilots, as well as the data that is available to the Joint Secretariat, are subject to constant changes. Please see annex 2 for larger maps.

iii.Network Analysis

The Flemish city of Gent is the largest hub for beneficiaries of North Sea Region transport projects. The UK cities Inverness, Leeds and Aberdeen as well as Dutch Assen and Swedish Gothenburg are additional strongholds for this priority.



iv.Beneficiary Distribution



Analysis

i.Priority 4 in the Cooperation Programme

Cars and trucks prevail as the predominant forms of passenger and freight transport in the North Sea region, and both contribute to greenhouse gas emissions, air pollution, congestion and injuries caused by traffic accidents. A central challenge for the region is the transition from fossil fuel-driven transport to more sustainable and low emission mobility. Priority 4 therefore seeks to demonstrate where alternative solutions can be applied.

Specific objective 4.1

The first specific objective in priority 4 focuses on the development of demonstrations of innovative and/or improved transport and logistics solutions with potential to move large volumes of freight away from long-distance road transportation. Many elements for increased multimodal transport, including under-used infrastructure, were already in place when the cooperation programme was written. It is considered key to connect the elements, mainly by making inland waterways more accessible for freight ships and to promote the use of alternatives to freight transport by trucks.

Specific objective 4.2

The second specific objective in priority 4 deals with the take-up and application of green transport solutions for regional freight and personal transport. Multimodal solutions apply mostly to long distance goods transport, while shorter journeys and personal transport require a different set of solutions. This specific objective therefore supports actions that demonstrate the potential of green solutions such as car-sharing, mobility as a service and alternative fuels. The policy sector is targeted in this objective to support changes to spatial planning and citizens travel needs. The North Sea region has proven to be a first mover in terms of adopting sustainable solutions to mitigate climate change. This is not only due to the strong research capacity on transport issues present in the region, but also because of strong business interests and a wealth of market opportunities in the area.

iii. Success stories/ good practice examples

Alternative fuels

Priority 4 projects have a very strong environmental aspect as many of them contribute to the energy transition. During the VB programme period, the development of technologies for low emission vehicles has gone through a vast acceleration. Projects have made use of these new opportunities by piloting different technologies for alternative fuels in different applications and settings, as well as investigating implications for city planning, economic/business models and public policies.

One of the examples in this field is ***SEEV4-City***. The project is demonstrating smart electric mobility solutions, integrating renewable-energy sources, and encouraging take-up of both in cities. The challenge they address is the difference in demand and supply of renewable energy. Electric vehicles are not always charged with electricity from renewable sources and electrical grid instability is a real concern. The objective of the project is to establish a system that allows electric vehicles to be charged by locally produced renewable energy using the EV batteries as short-term storage, through bidirectional chargers. This technique is known as Vehicle to Grid (V2G) and aims to balance out the curve of power demand over the day.

The pilots of the project are carried out in five cities in five European countries. SEEV4-City is making a huge step forward in how green city development plays a key role in enabling the introduction of new businesses for renewable energy and ultra-low emission mobility services as well as in supporting social acceptance studies, new management guidelines and policy frameworks.

Rural transport

The North Sea region programme has an important role in promoting accessibility and sustainability of transport from rural and remote areas to the TEN-T core axes. Rural populations are often heavily dependent on cars. Different projects in priority 4 therefore focus on maintaining and improving rural services at a reasonable cost. By doing this, they avoid the risk of social exclusion of non-car drivers, and ensure accessibility for tourists and visitors to rural areas which potentially increases economic activity in those areas.

G-PaTRA, which stands for Green Passenger Transport in Rural Areas, aims to promote green transport and mobility by enhancing the capacity of authorities to reduce CO_2 from personal transport in remote, rural and island areas. It will embed more zero emission vehicles in rural transport systems by improving and integrating available passenger transport resources. The consortium consists of 13 partners from across Europe and is running pilots such as bus services, including for example a primary school service, a secondary school service, a youth bus, a village bus service and rural 'mobile hubs'.

These initiatives do not only demonstrate the technical innovations required but also the institutional, operational, social innovation changes needed to make a change. By better understanding the legal, regulatory and funding regimes in partner countries, the project will also ensure that innovation is

transferable between jurisdictions. The project aims to improve the capacity of transport authorities to reduce CO_2 from rural transport and to demonstrate that a minimum 10% CO_2 reduction can be generated from innovative transport interventions with the same or better mobility for the residents in question.

Freight transport

Promoting the use of alternative modes for transport for freight (instead of road transport) is an important objective of the programme in light of reducing emissions, congestion and noise and preventing accidents. North Sea region projects contribute to this objective by identifying potential multimodal routes and barriers in these routes, piloting solutions, connecting services and routes to the TEN-T network and supporting improved logistics.

This is clearly the case in the ***#IWTS2.0*** project, which implements various waterway adaptations but also develops and tests smaller vessels, making different sections of waterways accessible for freight transport. There seems to be low awareness about small waterways transport opportunities, low innovation in small barge development and a lack of expertise in using small waterway opportunities. Therefore many waterways in Europe remain widely un- or underused in the past decades. Ten partners in five of the member states join forces to mobilise potentials and capacities to promote the use of alternative modes for transport. They are in total operating eight pilots, including the realisation of a quick modal shift by introducing new and proven logistic technologies, make better use of existing waterways by adapting them towards a sufficient standardised vessel and by developing innovative sustainable small barge concepts. Another objective is the modernisation of Inland Waterway transport education and training with a focus on navigation on smaller waterways.

iv.Challenges faced during implementation

Although the overall implementation of priority 4 has been a success, challenges do occur. In particular, the North Sea Region Programme cannot fund large infrastructure projects and investments to the extent that the Connected Europe Facility (CEF) can. Projects have had to operate on a smaller scale and focus on new technologies that make use of existing infrastructure. Some projects have faced resistance when implementing new solutions in symbiosis with existing practices of public service providers. It has not always been easy for priority 4 projects to engage different policy levels and stakeholders. In other cases, permission by public authorities/governments to operate new technologies (such as automated shipping or automated buses) has stalled or been delayed.

v.Achievement on outputs/ specific objectives

Projects under specific objective 4.1 and specific objective 4.2 share a common main output indicator: “New and/or improved green transport solutions adopted.” Please see the table below for further details.

			PROGRAMME LEVEL		PROJECT LEVEL	
Specific Objective	Indicator	Achieved	Target	Achieved (%)	Target	Achieved (%)
4.1 & 4.2	Number of new and/ or improved green transport solutions adopted	103	50	206%	151	68%

vi.Policy uptake/ contributions

Projects under priority 4 have contributed to a number of policies. Most of the projects ground their work in policies at the EU level when applying, although it is the national, regional and local-level policies that many refer to in their reports. Transport policies include those on urban mobility, alternative fuels, inlands waterways, resource-efficient transport systems and cycling. These topics are mainly represented by the Urban Mobility Package (Together towards competitive and resource-efficient urban mobility) and the EU White Paper on Transport 2011 "Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system". Transport projects have also contributed to the TEN-T network, connecting regions to the TEN-T corridors.

Lessons learned

- In contrast to IVB, the uptake of projects in priority 4 during VB was not very slow.
- Attracting projects under specific objective 4.1 was challenging.
- Outcomes show that North Sea Region projects are achieving a reduction of CO_2 emissions in this programme period.
- Finding support and legal permission for new technologies from national, regional and local governments and public transport service providers is not always easy.
- Some, if not many, priority 4 projects could fit under other themes – for example, urban planning (SHARE-North, ART-Forum, BITS).
- The projects in this priority focus on innovative technologies making use of existing infrastructure instead of building new infrastructure.
- Special role for the programme in completing the TEN-T comprehensive network, which feeds into the core network: Connecting rural and remote areas.
- The transport sector is developing rapidly, and North Sea Region projects were able to be flexible and respond quickly to new trends.
- There is a need to appeal to both regional and urban stakeholders when it comes to transport-related projects.

Measuring achievements

COOPERATION FOR THE FUTURE

811

IS THE NUMBER OF RESEARCH INSTITUTIONS PARTICIPATING IN TRANSNATIONAL RESEARCH PROJECTS

NUMBER OF ENTERPRISES PARTICIPATING IN TRANSNATIONAL RESEARCH PROJECTS IS

3,329

#NSR

#INTERREG

2,264

IS THE NUMBER OF ORGANISATIONS/ ENTERPRISES ADOPTING NEW SOLUTIONS BY PROJECT END

385,122

IS THE NUMBER OF ORGANISATIONS/ ENTERPRISES INFORMED ABOUT NEW SOLUTIONS BY PROJECT END

f) Measuring achievements

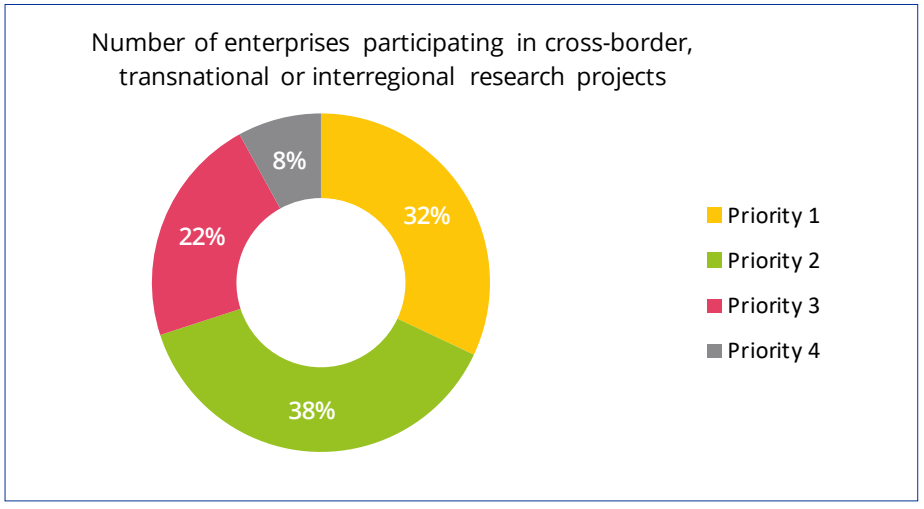
Background

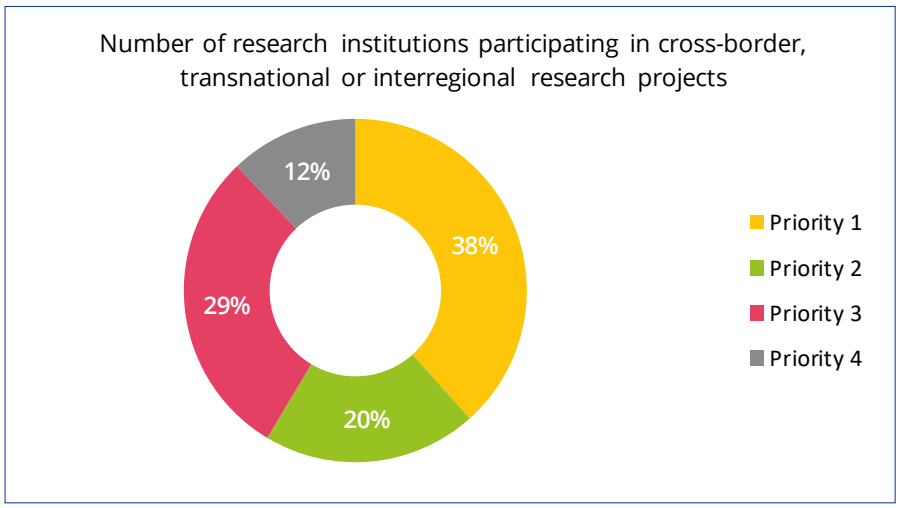
The North Sea Region Programme uses an indicator system to monitor the progress of projects and evaluate the effectiveness of the interventions funded by the programme. The system has two levels: programme and project. (See more on the programme's indicator system and intervention logic in section 3d.) The table below provides an overview of the current level of achievement on the programme's main indicators.

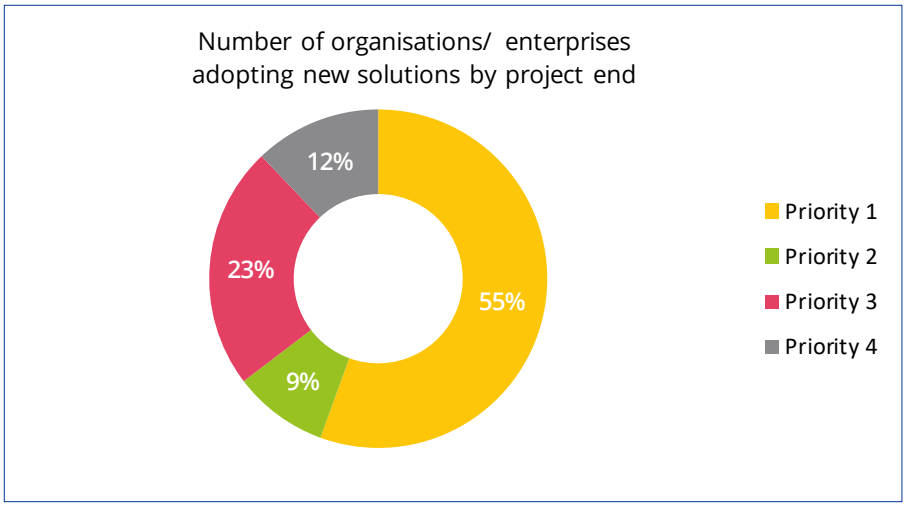
		PROGRAMME LEVEL		PROJECT LEVEL	
Indicator	Achieved	Target	Achieved (%)	Target	Achieved (%)
Number of enterprises participating in cross-border, transnational or interregional research projects	3329	79	4214%	5012	66%
Number of research institutions participating in cross-border, transnational or interregional research projects	811	80	1014%	746	109%
Number of organisations/ enterprises adopting new solutions by project end	2264	780	290%	6230	36%
Number of organisations/ enterprises informed about new solutions by project end	385122	7803	4936%	166891	231%

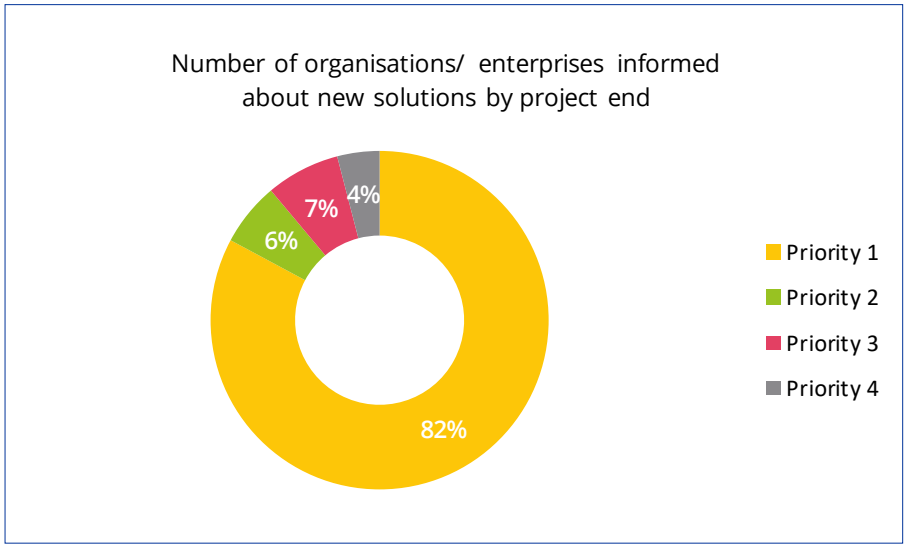
Priority contributions to compulsory indicators

The projects in the Programme's four priorities have contributed to different extents to the so-far reported achievements on the compulsory indicators.




Number of research institutions participating in cross-border, transnational or interregional research projects
38%
20%
29%
12%
Priority 1
Priority 2
Priority 3
Priority 4


Number of organisations/ enterprises adopting new solutions by project end
55%
9%
23%
12%
Priority 1
Priority 2
Priority 3
Priority 4


Number of organisations/ enterprises informed about new solutions by project end
82%
6%
7%
4%
Priority 1
Priority 2
Priority 3
Priority 4

Lessons learned

- At the programme level, all output targets have been surpassed; while this is not yet true at project level, the assumption – based on reported achievement thus far – is that these targets will also be surpassed. These trends should be considered when thinking ahead to the indicators for the next programme.
- After four years of project implementation there is generally a good level of achievement on results across priorities.
- Considering that projects need to set result indicators and targets themselves, this is a good example of indicators that work. There is no significant overachievement, as seen with the outputs.
- Many projects wait until close to project end before reporting on results; if a similar indicator system is used in the next programme, it is worth considering whether there should be requirements for when and how projects report on results.

g) Looking at achievements from another angle

Background

North Sea Region Programme projects apply within one of the programme's four thematic priorities and under one of the nine specific objectives available to them. However, it is clear that there are multiple cross-priority themes that could provide a new dimension for analysing the scope of the challenges targeted by projects.

Thinking outside the silos of the four priorities provides more insight to the wider thematic focus areas of the projects. To identify common challenges across priorities, the JS has defined six focus areas which the projects are addressing. These fall within three main challenge areas defined in the Cooperation Programme: Innovation, environment and transport.

Enhancing liveability – improving the quality of life in the North Sea Region by increasing social inclusion, fostering job creation in the hinterlands and making connections between rural and urban areas, as well as improving the region's resilience through adaptation to the impacts of climate change.

Improving resource utilisation – promoting a more sustainable or circular use of natural and human resources as well as public and financial resources in order to allow us to create more with less and to deliver greater value with less input.

Pushing digital transformation – making use of opportunities that digital technologies and big data management can provide.

Discovering new markets – identifying and creating new business opportunities in the region and enabling businesses and public organisations to access those opportunities

Managing ecosystems and biodiversity – contributing to halting biodiversity loss, restoring and delivering ecosystem conservation through long-term management.

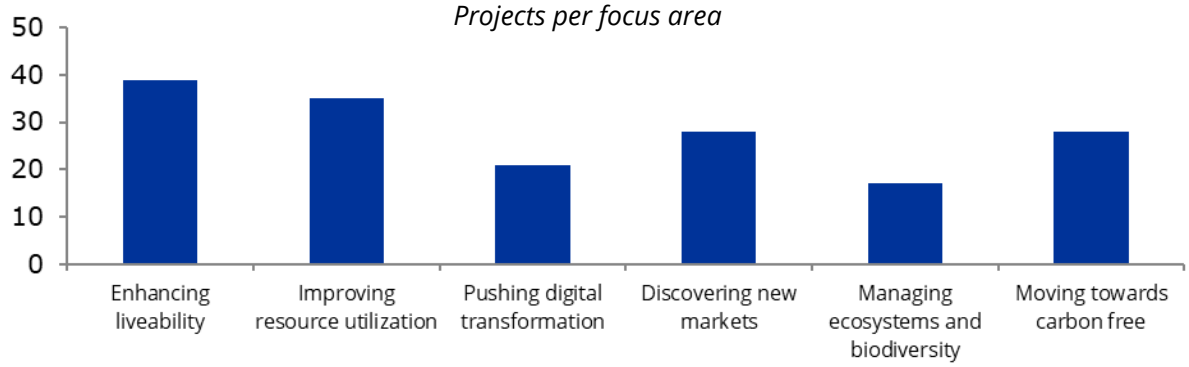
Moving towards carbon free – contributing to the reduction of CO2 emissions and other greenhouse gasses, whether directly and indirectly.

These focus areas reflect what the JS believes are the 'driving forces' behind projects, and the projects may each fall under more than one. Projects in priorities 2 and 4, for example, might be carrying

out activities that demonstrate 'moving towards carbon free' and 'improving resource utilisation'. Projects in priorities 1 and 3 might be working toward 'enhancing liveability', albeit in very different ways, and 'pushing digital transformation'.

Of the focus areas, enhancing liveability (57%) and improving resource utilisation (51%) are most widely represented in North Sea Region projects. Managing ecosystems and biodiversity is represented in only 25% of the projects.

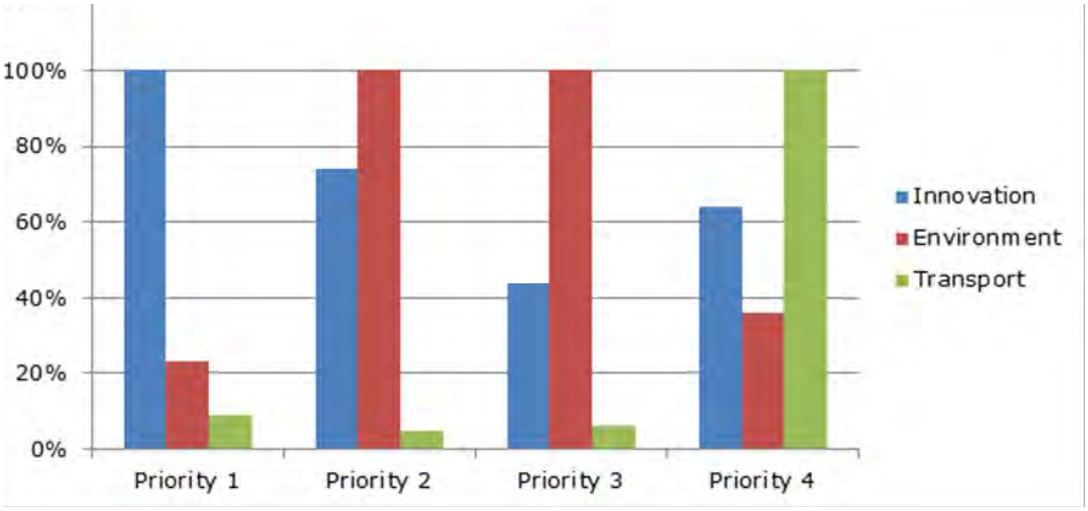
Projects per focus area



Main challenges in North Sea Region projects – split by priority

The figure below illustrates how each of the four priorities are linked to the three main challenges.

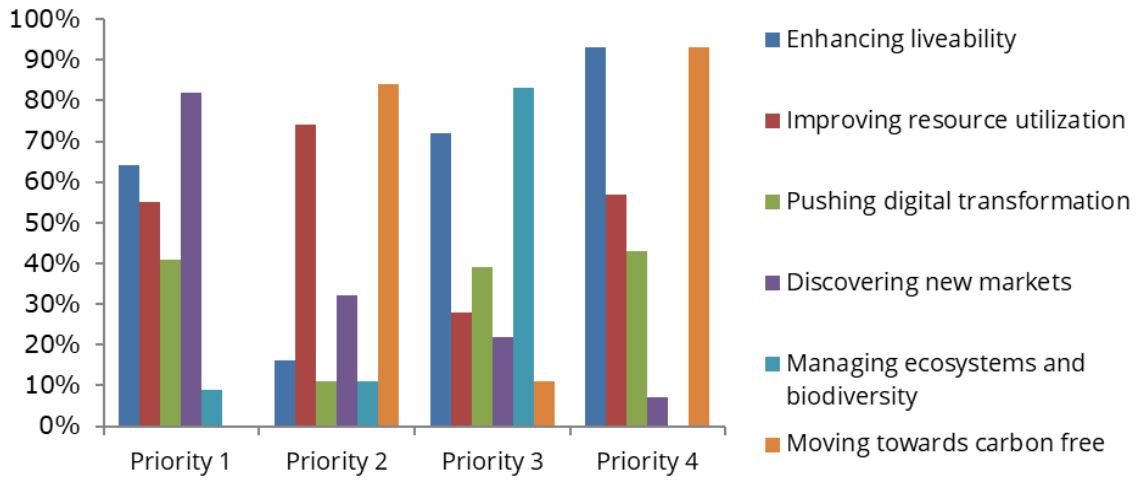
Projects per main challenge - split by priority



Focus areas in North Sea Region projects – split by priority

The focus areas are unevenly distributed across the focus areas, as seen the in the figure below.

Projects per focus area - split by priority



Lessons learned

- The focus areas help us to think about the projects outside the silos of the thematic priorities. Each focus area is targeted by at least 25% (and up to 57%) of all projects across the different priorities.
- Some priorities are closely connected in terms of targeting the same challenges or focus areas. For example, projects in priorities 2 and 4 both have a strong focus on moving towards carbon free, those in priorities 1 and 2 are both improving resource utilization, and projects in priorities 3 and 4 strongly enhance liveability.
- Thinking outside the box, as we have done by identifying overarching themes in the form of focus areas, is useful to capitalising on the programme's achievements.

h) Policy uptake & development

Background

The six thematic focus areas and three main challenges provide a framework to analyse the wider policy objectives to which the projects are contributing.

While the number of policies relevant to North Sea Region projects is large (over 180 are cited in the applications of ongoing projects), the overall thematic areas can be roughly aligned with the three main challenge areas: innovation, environment, and transport. Projects commonly operate with policy guidance panels, evaluating and recommending revisions to policy framework including EU policy. They seek to reach out to relevant political and administrative decision-makers.

Projects develop solutions to key challenges of the North Sea Region, test those solutions in specific settings, and deliver proofs of concept. This provides territorial evidence for adopting and implementing policies and strategies.

Policy areas covered by North Sea Region projects

Environment	Innovation	Transport
• Agricultural • Chemicals • Climate mitigation • Climate adaptation • Energy • Low carbon economy • Marine and coastal • Nature & biodiversity • Soil • Sustainable maritime spatial planning • Integrated water management • Water scarcity and droughts	• Blue growth • Circular economy • Digitalisation • Employment • Cultural heritage • Green public procurement • Health/Healthy ageing • Industrial/Industry 4.0 • Integrated maritime • Local and regional business support • Open Data Directive • RIS3 (Research and Innovation Strategies for Smart Specialisation) • Single market • Smart cities	• Urban mobility • Rural mobility • Alternative fuels • Inland waterways • Resource-efficient transport systems • Cycling

Projects address the challenges specific to their priorities, but they also deal with problems that are common to other priorities. Thus, there are policies addressed in the Programme that cut across all thematic priorities and should not be viewed as isolated to one or another. Example: Marine Spatial Planning Directive, addressed directly by NorthSEE but also in part by OESA on tidal and current energy, PERISCOPE on blue growth, and JOMOPANS and GEANS, which deliver solutions on protection of marine ecosystems.

Some key policies are mentioned myriad times across North Sea Region project applications. The 'top 10' (from most to least frequently mentioned in applications) are:

1. Digital Single Market
2. Water Framework & EU Flood Risk Management Directive
3. EU Habitats and Birds Directives
4. Digital Agenda for Europe
5. EU Action Plan for the Circular Economy
6. Marine Strategy Framework Directive
7. Common Agricultural Policy
8. Resource Efficient Europe
9. Blue growth and maritime policies
10. Low-carbon economy, energy efficiency & renewable energy

Each of the above is mentioned between three and ten times in the applications of the currently running projects. From this it is clear that quite a number of projects are focused on integrated water management, digitalisation, climate resilience and maritime policies, and resource efficiency - thus, covering environment and innovation, in principle. Below are some examples of projects that have worked toward influencing policy.

Innovation

The COBEN project enables a shift of energy value chains from centralised utilities to community-owned renewable energy enterprises that provide tangible economic, environmental and social benefits to enrolled citizens. Policy successes the project has enjoyed so far include:

- The policy rule on social acceptance adopted in Emmen's (NL) spatial planning regulations.
- A flexible and consistent methodology for Scottish Local Energy Plans has been developed and piloted.
- A guide for municipalities in East Flanders to create local economic return and local social benefits from investments in renewable energy.
- At a conference organized by the project partners in September 2019, the event concluded with the unanimous adoption of the European Commission’s invitation to set up a European Civic Energy Forum, which could allow Europe to capitalise on COBEN’s results and promote community energy on a large scale.

Transport

SHARE-North has been active in engaging high-level institutions and implementing or influencing transport policy, and getting shared mobility on the agenda of high-level events and strategies since it started in 2016. Some of their highlights include:

- Bremen was the first state in Germany to pass its own Carsharing Law. The passing of this law demonstrates a clear prioritisation and recognition by the state government of the added value that car-sharing brings for citizens and the environment.
- Contributions at the regional level to a Future Mobility Strategy in West Yorkshire (UK), which will identify how future mobility could contribute towards the high level objectives and mode share targets in the West Yorkshire Transport Strategy.
- Leiedal (FL), a project partner, has lobbied for integrating more prominently the sustainable mobility concepts explored in SHARE-North in the "vervoersregio's" (regional policy platform for public transport and mobility policy) in Flanders.
- Flemish beneficiary Autodelen.net supports local governments in setting up carsharing/shared mobility action plans. So far 26 local governments are being supported in this way. Taxistop, another Flemish organisation, is also creating and promoting multimodal hubs. Thus, shared mobility is at the heart of multimodal transport policies at local, regional and international transport policies in Flanders as a result of SHARE-North.

Environment

JOMOPANS strives to develop a standardisation scheme for monitoring ambient noise in the North Sea, with the expectation that this will contribute to establishing a worldwide set of standards. This initiative is grounded in the knowledge that 'blue growth' activities, which are increasing in the North Sea, could severely impact the marine environment and ecology. The JOMOPANS monitoring scheme directly supports member states' implementation of the Marine Strategy Framework Directive, eased by cooperation through the Oslo Paris Convention (OSPAR).

The EU Marine Strategy Framework Directive requires policymakers to define measures to improve the marine environmental status with respect to underwater noise. To do so, policymakers need information on the pressures of noise. JOMOPANS is developing tools to present this information in a coherent and understandable way and support policymakers' decision-making processes.

Lessons learned

- Projects clearly contribute to policymaking and policy implementation at all levels.
- There appears to be scope for even stronger alignment and synergies between projects and a wide range of European policies.

Conclusions

The North Sea Region Programme currently funds 73 projects run by altogether 957 beneficiaries. The average project involves 13 organisations. These projects are split into four priorities covering nine specific objectives. As of December 2019, the projects are divided as follows:

- **Priority 1** (Thinking growth): 22 projects and 322 beneficiaries
- **Priority 2** (Eco-Innovation): 19 projects and 247 beneficiaries
- **Priority 3** (Sustainable NSR): 18 projects and 239 beneficiaries
- **Priority 4** (Green transport and mobility): 14 projects and 149 beneficiaries.

The geographic involvement ranges from Norway (61 beneficiaries) to the Netherlands (199) .

The programme has allocated a total of €169 M thus far, split between €161,5 M in ERDF and close to €8M in Norwegian funding.

Smaller, regional cities play a very important role in the programme. This strongly supports the argument that the impact of the programme reaches far beyond the usual centers of innovation and therefore has a beneficial impact on territorial cohesion within the North Sea Region.

This report substantiates that the projects co-funded by the Programme are supporting policy uptake within a range of policies (see page 49). The project cases described illustrate how the projects are supporting policy uptake, helping to make policies operational and enabling implementation of a broad range of EU strategies.

Projects are progressing well on all outputs and will most likely meet their targets. In terms of results, it seems that the projects are also meeting their targets, however many projects have not reported yet on these indicators. At the programme level, all compulsory output indicator targets have been met, and achievement of results is at a sufficient level.

The Programme identified six main focus areas of ongoing projects: 1. Enhancing liveability, 2. Improving resource utilisation, 3. Pushing digital transformation, 4. Discovering new markets, 5. Managing ecosystems and biodiversity, and 6. Moving towards carbon free.

In conclusion, at this stage in programme implementation, the projects demonstrate a good uptake of funds, satisfactory progress, and involvement in different focus areas that benefit the region as a whole.

3 Reflections on the future

Reflections on the future

This section concerns the overarching trends and agendas relevant to the future of the Programme. Please refer to the individual sections of this document and the full report for more detailed considerations on future programme management and administrative set-up.

Interreg North Sea Region VI B will be embedded within the policy framework of the EU Green Deal. Some key points of importance for regional cooperation in the Programme will be:

- Helping Europe to reach the reduction target for 2030 and become climate-neutral by 2050
- Decarbonising the energy sector
- Increasing offshore wind energy production
- Fostering energy efficiency of production and buildings
- Developing smart infrastructure for clean energy distribution
- Supporting industry to innovate and to become global leaders in the green economy
- Rolling out cleaner, cheaper and healthier forms of transport
- Improving biodiversity management
- Protecting marine ecosystem services and management of maritime space
- Promoting nature-based climate adaptation.

Other policies and frameworks that will impact the new programme include *Europe fit for the digital age* and the *Territorial Agenda 2030*.

In its orientation paper, the European Commission recommends that the Programme adopts three of the five policy objectives (PO) listed in the draft regulations in the next programme period:

- PO1 - A Smarter Europe
- PO2 - A Greener Europe
- PO5 - A Europe Closer to Citizens.

Based on this and the preceding analysis, it is possible to draw some trends and orientations for possible uptake in the next programming period:

Geographic scope

The Brexit situation has made a possible extension of the North Sea Region Programme geography relevant. The potential loss of innovative and state-of-the-art project partners from the UK makes it necessary to consider participation of additional regions in order to ensure that the programme can deliver on its contribution to the EU Green Deal, digital single market and the territorial agenda.

Thematic concentration

The analysis of cross-priority focus areas demonstrated that a more integrated approach in the programme is possible where projects contribute to one or more focus areas, and thus are not limited to the confines of the priority descriptions.

Projects in priority 1 have evolved from a focus on product development into creating supporting framework for the implementation of innovation measures regardless of the specific sectors addressed. Priority 1 projects can provide the support needed for innovation measures to be upscaled and taken up by the market in a majority of relevant North Sea Region sectors. From an EU Green Deal perspective, priority 1 could provide support measures for the uptake or upscaling of emergent innovative technologies or solutions, be it for business or for the public sector.

This report shows a large overlap between priority 2 and priority 3. Projects in both priorities could be a good fit for PO2 in the next programming period. Projects in priority 4 have not contributed to the development of transport infrastructure as such but rather have focused on alternative fuels and more efficient transport solutions in terms of modal shifts and urban transport. The thematic areas touched by projects in priority 4 would fit well under PO1 or PO2 in an upcoming programme.

While there is no direct equivalent to PO5 in the current set of thematic priorities supported by the Programme, several projects deal with citizen involvement and/or the exchange of knowledge in urban areas and between urban and rural areas, with a few pilots and demonstrations also in island communities.

As such, the programme could continue 'as is' within the framework of the new programming period, delivering projects similar to what we have funded in the VB period. However, there is scope for the North Sea Region to continue leading in the green transformation by creating a greater impact through daring, innovative projects. This includes taking chances, being open to new opportunities, and responding to new challenges and problems as they develop.

The "human-centric" focus of North Sea Region projects should continue, as it is relevant in terms of capitalisation but also for development and implementation as well as ensuring the durability and transferability of the project solutions.

Operational aspects

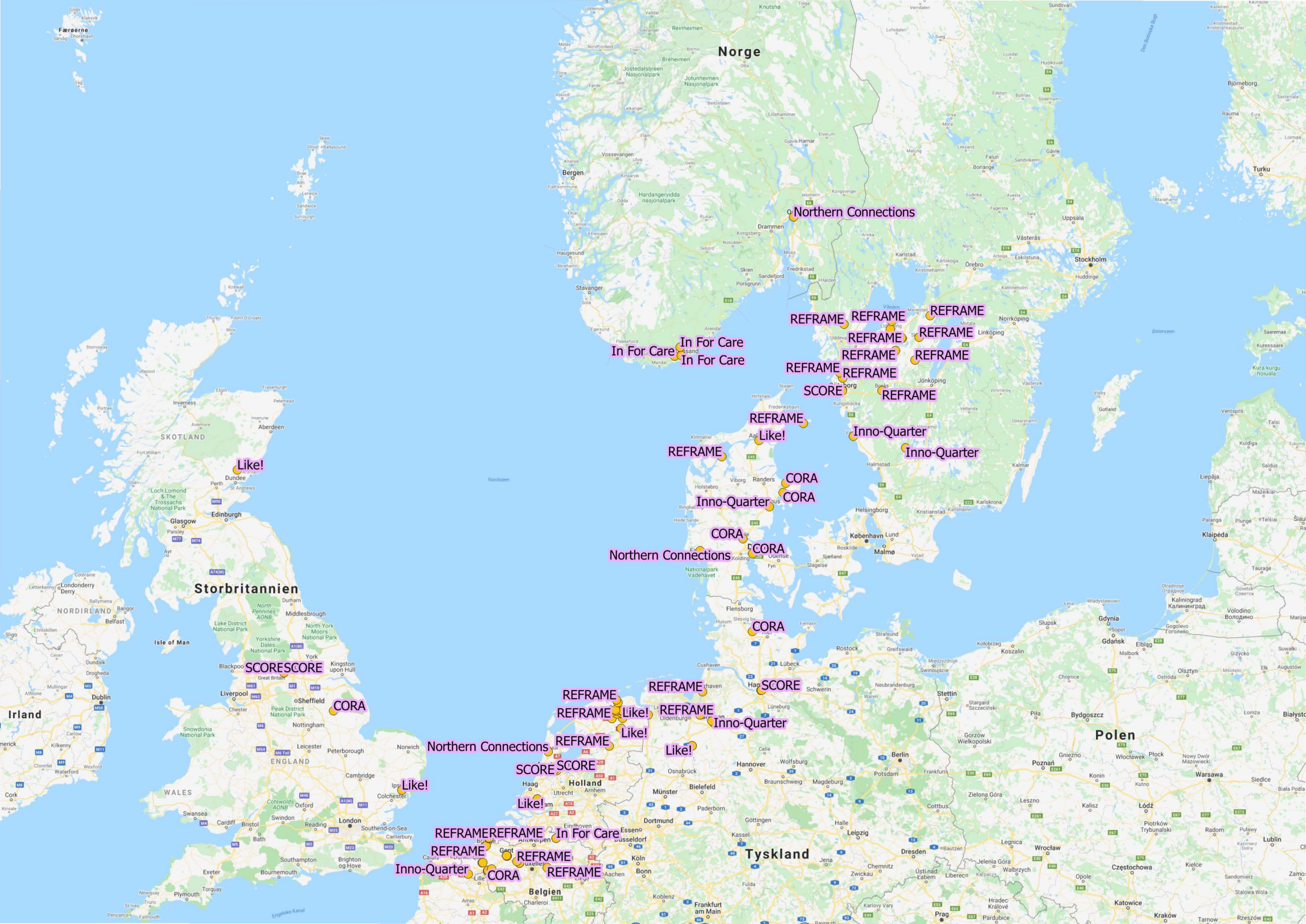
- The Programme could benefit from a greater cooperation among the stakeholders, especially between the Programme and the project community. One tool under consideration is an online platform integrated with the programme's digital systems and linking the relevant stakeholders.
- The role of the JS and NCPs to advise projects on which Policy Objective they would fall under will increase in importance because the objectives will be broader and would allow for more interchangeability/overlap between them.
- The Programme would benefit from working more closely with other programmes. This is

Communication aspects

- The Programme should continue and strengthen work to support project communication.
- The Programme's visual identity should be revised to enable unique branding of the North Sea Region Programme whilst still being part of Interreg co-branding efforts.
- Programme communication would greatly benefit from a new website that meets its needs (including project websites) and is fully integrated with the Programme's other online platforms.
- Continue European-level visibility efforts by taking part of European-level thematic events and campaigns, and continue to work closely together with Interact and Interreg programmmes.

Annex 1

PILOT MAPS



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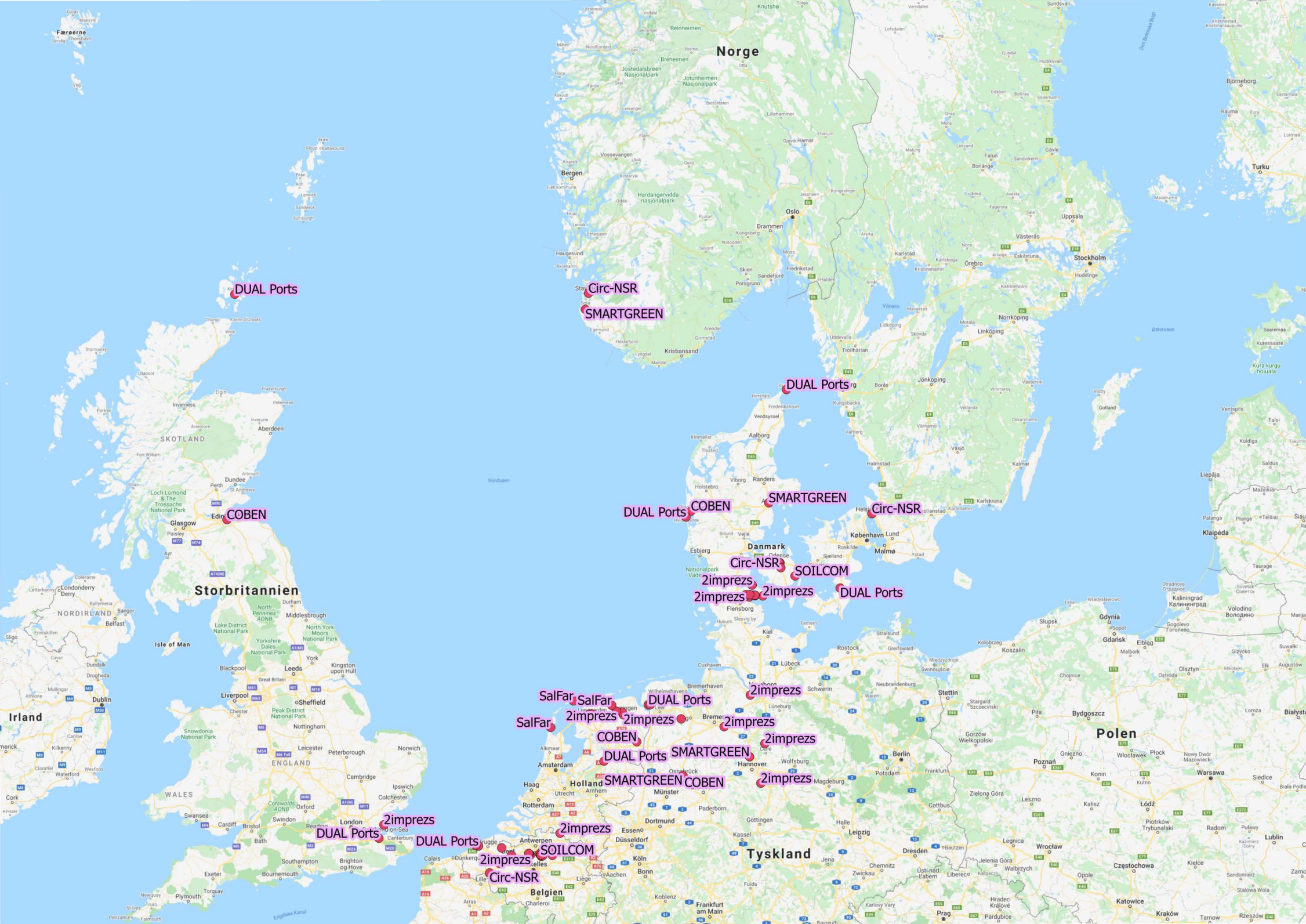
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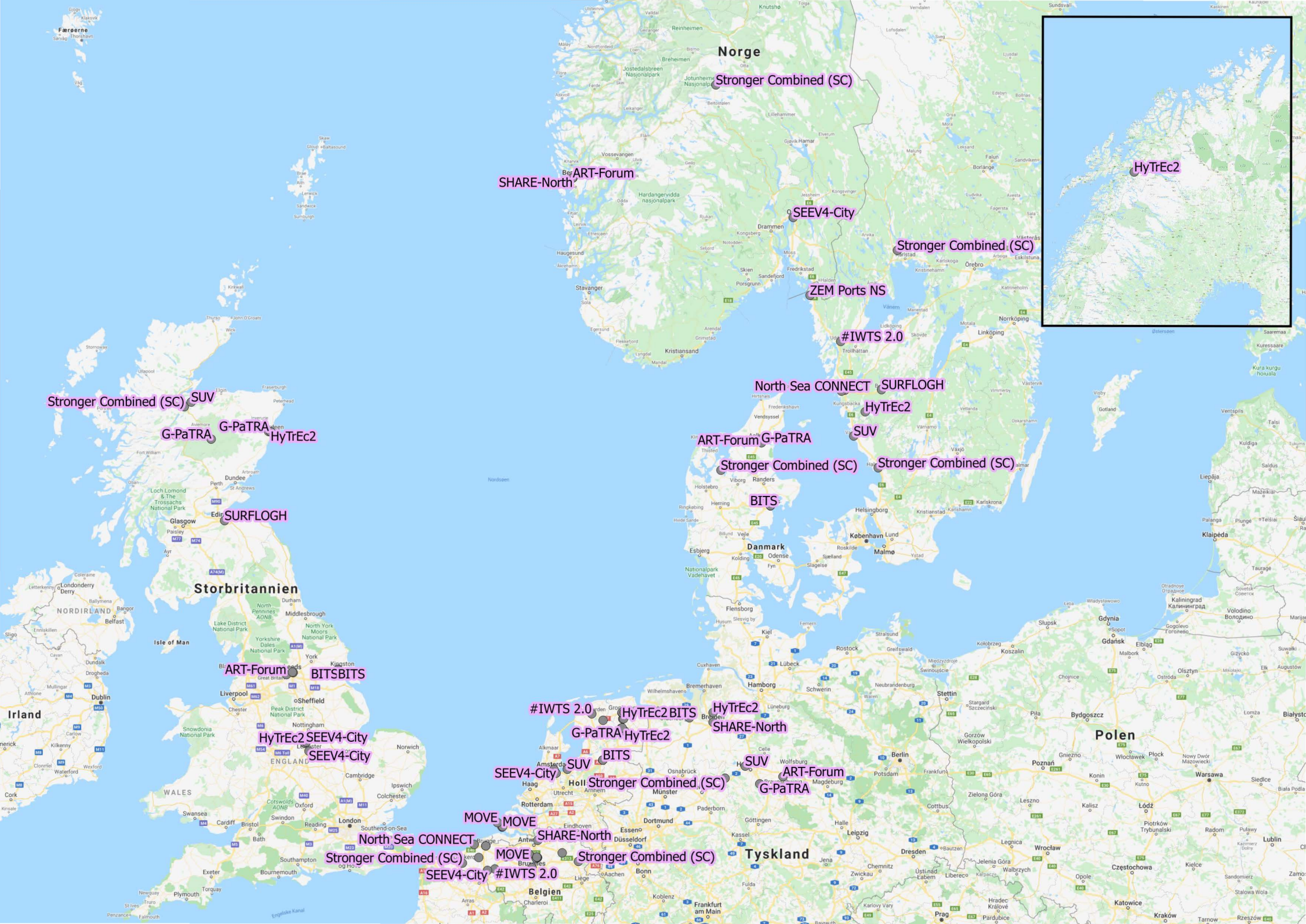
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