Green Inland Ports

Good Practices

Funded by
the European Union

Interregional cooperation programmes

Interregional cooperation programmes

1.1 Description

INTERREG Europe is an interregional cooperation programme, co-funded by the European Union. The INTERREG programme contributes to the objective to reduce disparities in the levels of development, growth and quality of life in and across Europe's regions (Interreg Europe, n.d.-c).The INTERREG programme focuses on the following topics: a smarter Europe, a greener Europe, more connected Europe, more social Europe, Europe closer to citizens and better regional governance (Interreg Europe, n.d.-c). The programme is intended for public authorities and organisations relevant for regional development policies. Inland ports can be supported by INTERREG with a funding to start sustainability programmes.

1.2 Specific aim of the measure

As indicated, INTERREG focusses on many different topics. For inland ports, the most relevant topics are:

- "Smarter Europe", as digital innovation plays a key role for inland ports to become more sustainable and to streamline port activities
- "Greener Europe", many of the goals within this topic are very applicable to inland ports, such as increased energy efficiency, more renewable energy, smart energy systems, circular economy, water management, nature & biodiversity, and zero-carbon urban mobility
- "More connected Europe", as inland ports are very important nodes within the transport network (Interreg Europe, n.d.-c).

For each INTERREG subsidized project, the specific goals may differ.

Port of Basel has joined the CRANE project, which is a climate resilience project together with upper Rhine ports, whose goal it is to map the climate risks and to discuss possible mitigation measures. The goal is to be able to produce a fitting climate resilience strategy that covers current and new risks. An example mentioned by the port of Basel is that when high temperatures occur during summer months, measures could be taken to implement greening (plants and vegetation) on walls and roofs of houses and buildings to prevent it heating up quickly (Roethlingshoefer, F., 2023). Another example published by the University of Basel is a long-term climate change experiment that will investigate how forests in Switzerland will respond to changes in precipitation. Between 2018 and 2038, the goal is to research which temperate tree species are the most resistant to drought events and why, if mature trees can acclimate to new climate and what the consequences are of drought events for ecosystem services that temperate forests deliver to society (University of Basel, n.d.).

Niedersachsen Ports have joined two past INTERREG projects, namely the DUAL Ports project and project NON-STOP.

DUAL Ports (Developing Low carbon Utilities, Abilities and potential of regional entrepreneurial Ports) aims to decarbonize regional ports and reduce their environmental footprint. The project will target energy efficiency to improve port performance and enable cost reduction as well as decarbonization. At Niedersachsen Ports, the following pilot projects were implemented (Niedersachsen Ports, n.d.-a):

- Green Port Officer: The initial structures for sustainable and innovative port management were created. This includes the initiation of pilot measures in the areas of energy efficiency and renewable energies, a sustainability management system, a sustainability strategy and a sustainability reporting system. Many lessons have been learned from this pilot, such as that sustainability itself is not a project, but a mindset that will take a lot of patience to be implemented, but funding can help accelerate this (Niedersachsen Ports, 2022).
- LED: To reduce CO2 emissions and optimize the use of port lighting, a new intelligent and innovative lighting system have been installed. The heart of the system is an intelligent control system, utilizing motion sensors as well as light and track sensors to detect the respective situation. For more information, see good practice LED and Smart Lighting. Currently, a guideline for environmentally friendly lighting is being created because of the pilot (Niedersachsen Ports, 2022).
- Sediment treatment: In this pilot project, an innovative and sustainable concept for pollutant removal in sediments has been developed. More on this in the good practice Eco-conscious dredging.

NON-STOP aims to develop a concept for smart sediment and water management system at the Port of Emden. The project was committed to three project goals (Niedersachsen Ports, n.d.-b):

- Reduction of the influx of materials from the river Ems into the port,
- Improvement of the drainage of the hinterland of Emden,
- Long-term support of maintenance dredging.

North Sea Port is currently working on an INTERREG project called “Go North Sea Port District”. The project tries to involve other stakeholders, such as companies, civil society organizations and citizens and focuses on the following three pillars (Interreg Europe, n.d.-a):

- Efficient and sustainable governance, to guarantee that opportunities and obstacles in the border region can be decisively dealt with.
- Involve residents and other stakeholders to make sure that the execution of actions and projects can be taken together.
- Promote the North Sea Port District among residents, stakeholders, national governments and Europe as a cross-border dynamic growth and experimental region with a good liveability and work possibilities.

1.3 Ports that made use of INTERREG support

- Niedersachsen Ports
- North Sea Port
- Port of Basel

1.4 Stakeholders

- Port authority: In all INTERREG projects that are aimed on inland ports, the port authority plays a key-role in initiating the projects within the port area. The port authority decides if they want to join or set-up a project.
- Other stakeholders, such as companies, residents, governments or environmental organizations: It depends on the project that is being executed. For example "Go North Sea Port District" (North Sea Port) also has the aim to make the North Sea Port District more known to the public, which include residents, governments and other stakeholders. Within the INTERREG projects that Niedersachsen joined, a few of the pilots also include companies to take care of the LED lighting or dredging solutions.
- INTERREG Europe: They are responsible for the subsidies that make the INTERREG projects possible.

1.5 Voluntary or mandatory

Joining an INTERREG project is voluntary. However, to remain relevant as an inland port, it becomes more and more necessary to comply with the increasing demand for sustainability and it must remain an important and well-connected node within the transportation network. INTERREG can play an important role in this.

1.6 Realised/potential impact

Niedersachsen Ports is the only port that has finished INTERREG projects. Firstly, the NON-STOP pilot project in the Port of Emden has demonstrated that an intelligent sediment and water management system can effectively contribute to reducing material influx. The long-term commitment to an optimized maintenance dredging strategy ensures that the port can continue to operate optimally. The results from the pilot project could serve as a model for similar projects for other organisations. The insights gained into microbiology and sediment-fluid-mud-water systems, as well as the developed monitoring and infrastructure solutions, are valuable resources for future initiatives in sediment and water management. The findings of this project are highly relevant for other projects developed by Niedersachsen Ports, such as the AMISIA funded project, which aims to create a concept for an optimized, automated dredging vessel for the port of Emden (Niedersachsen Ports, 2019). Secondly, because of the Green Port Officer Pilot and LED Pilot within the DUAL ports project, Niedersachsen Ports came to the following ambitions: to rent roof space to place solar based systems, to implement smart, remote controlled LED-lighting in all ports, an electrification of port vehicle fleet (maybe

even H^2 vehicles), to expand the bike fleet, and to implement 100% green energy in all ports (Niedersachsen Ports, 2022).

1.7 Possible obstacles when implementing good practice

- It is possible that a project received an unproportionally small funding, which would make it relatively difficult for a (collection of) ports to carry out a project (Interreg Europe, n.d.-b).
- Applying for INTERREG can be considered as a difficult task. This is why companies have been set up that will aid you/take over the application process in exchange for a fee.
- There are many challenges that could make interregional collaboration more difficult, such as legal/administrative barriers, social-cultural mismatch, asymmetric levels of policy competence and/or research capabilities and lack of trust/potential mismatch (Amanatdou, E., 2020).
- Large differences between different regions, on a regional and on national level, such as unclear/limited responsibilities, different degrees of regional autonomy, limited coordination/lack of shared understanding, lack of human capital (Amanatdou, E., 2020).

1.8 Key learnings

- INTERREG subsidy is an important stimulus to help initiate sustainability programmes, as it alleviates the economic burden, but getting a fund from INTERREG is a rather difficult task.

1.9 Sources

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