

Circular Economy Hotspot

Groningen Seaports Delfzijl & Eemshaven

- 2800 hectares port and industrial area
- 720 hectares available



GRONINGEN SEAPORTS

CHEMICALS

- EU Hydrogen Valley
- Different utilities present
- Residual heat and steam available
- Tank storage facilities
- Heaviest category of industry (5.3) permitted

ENERGY

- 8,000 MW Installed Capacity
- Green energy mix
- Logistics hub in offshore wind
- Largest onshore wind farm of the Netherlands
- Ideal place for data centers

RECYCLING

- Multimodal accessibility
- Synergy & facility sharing possibilities
- Various feedstock streams
- Complete circular value chain
- Reduce, Reuse, Recycle

Startups and Scale-ups Facilities

We have a well-known startup incubator in our port, focused on industrial solutions. It is our ambition to create new business activity and economic growth and to improve the business climate in the seaports. We stimulate innovation by plugging in startups into our existing ecosystem. Within our startup community you can do pilot programs, tests and market studies while connecting with other companies in the port to help you grow within our region.

Facts and Figures

- Close-knit community
- Rental from complete offices to desks only
- Various accelerator and incubator programmes such as Startup-Assist and Startup in Residence
- Large young professionals network
- Flexible rented workplaces
- Pilot & test facilities

PARTNERS

- The Planet Calls
- Chemport Europe
- Community Plastic Free Waddensea
- MOI Offshore Entrepreneurs
- Van Hall Larenstein
- Province of Groningen
- Municipality of Eemdelta
- Municipality of Het Hogeland
- Municipality of Groningen
- Founded in Groningen
- Snel Uitzendbureau
- University of Groningen
- Hanzehogeschool
- Noorderpoort College
- Alfa College
- Campus Groningen
- SBE
- NOM
- Economic Board Groningen

Benefits of the Northern Netherlands

- Partners available along the circular value chain
- A shared focus between stakeholders
 - European funding
- Regional governmental support
 - Cooperation with nearby knowledge institutes
 - Large start- and scale-up network

Groningen Seaports

Tomorrow's circular hotspot

The Northern Netherlands is the best place in Europe to test and optimize your circular business model and supply chain, to test the market for circular products at an industrial scale before going to full production, and to plug in at the existing large-scale ecosystem.

Groningen Seaports has the feedstock:
With a wide variety of businesses in our port we have feedstock streams available which suit different companies.

- Plastic waste
 - E-waste
- Decommissioned wind blades
- Building materials



Plastic Waste

We have an ecosystem that creates the perfect launching path for the recycling of plastics, with existing companies in our port and the space to develop a wider value chain. Through strong partnerships with knowledge institutes we have set up programs to create awareness amongst citizens to use less plastic. The best value chain offers close by demand. With our local chemical companies we have an economically viable system that creates smart opportunities for your converted waste stream as a feedstock. Additionally, our chemical cluster is focused on producing biopackaging materials. Furthermore, companies that recycle waste streams into products are facilitated through public-private programs with our port as the logical center point. Furniture or toys, all sorts of products could be produced making sure we close loops around plastics and waste. The plastic waste consists of the following:

• Plastic soup

Groningen Seaports is working together with European partners to fight the plastic soup. As a port we have a shared responsibility for clean oceans. Our ecosystem facilitates startups specialized in collecting plastics which need to be recycled.

• Shipping waste

Groningen Seaports has a big ship waste management company in the harbor, Bek & Verburg. They have over one hundred separated waste streams, which are ready to be recycled.

• Post-consumer waste

EEW has recently invested in an expansion of their incineration plant in our port of Delfzijl. EEW uses municipality waste and they deliver to industries close by. They are always looking for partnerships that help making their process and the industry run more efficient.



• Reducing plastic pollution

We stimulate education and citizen awareness programs regarding circular design, prevention and reduction.

• Collecting plastic soup

We need to get waste and microplastics out of the water and our nature systems. Therefore we have designated test facility locations for start- & scale-ups to have their ideas and inventions tested in real circumstances.

• Converting plastic waste into feedstock

We're always looking for companies who convert plastics into feedstock. This feedstock can be further processed in the chemical park of Delfzijl.

• Recycling plastic waste into products

We help recycling companies by scouting customers for their products and enhancing a market in our region, for instance with the close by city of Groningen.

The Value Chain

- EEW Energy from Waste
 - Bek & Verburg
 - Nature Group
- Bollegraaf Recycling Solutions
 - Subcoal International
 - Avantium
 - BioBTX
 - JPB Group
 - Virol



'World Clean Up day'
Next edition:
September 19, 2020

E-waste

Over the last couple of years the datacenter industry has invested over 1,5 billion euro's in their facilities in the port of Eemshaven, which will uniquely generate a steady flow of e-waste that needs to be recycled.

In addition to the massive datasector in our port, the surrounding ecosystem of governmental institutes, companies and schools will generate sustainable e-waste as well. The management and recycling of e-waste in a sustainable and green way has become an important focal point over the last years due to the ongoing increase of devices and the scarcity of usable materials.

For the recycling of e-waste we can collaborate with different local players, like Google and QTS. Although common waste and e-waste have different policy drivers and markets, both recycling systems have a natural fit within our ports.

Facts and Figures

- Close by Tech City Groningen
- Over 150 MW of datacenter permits are in place
- The datacenter cluster continues to grow rapidly

The Value Chain

- Google
- QTS
- ENGIE
- TenneT
- Enexis
- Local Primary Schools



Decommissioned wind blades

Our offshore wind port community is specialized in the operation and maintenance of large wind farms, over 16 North Sea based wind farms are built with our Eemshaven port as a logistic hub during construction. Furthermore, Eemshaven houses the largest onshore wind farm in the Netherlands.

The offshore wind farms will see a tremendous growth. In particular with the recently announced NorthH2 project together with Shell and Gasunie we aim to build an extra 10GW of installed offshore wind capacity.

We see great opportunities around decommissioning programs starting in the next few years. The decommissioning is in large part triggered by the repowering of current on- and offshore wind turbines. The experienced supply chain in Eemshaven will be a center point for the transportation of these new turbines and the old parts. We're active in the automotive sector as well, which is a possible market opportunity for companies that can recycle the composites from the wind blades into fibers.

Facts and Figures

Logistics

- 16 projects
- 1020 turbines
- 5.4 GW (of which 2.2 GW turbines and 3.2 GW foundations)

Operation & Maintenance

- 4 wind farms
- 1.7 GW
- 316 turbines

The Value Chain

- Siemens Gamesa
- Lagerwey
- MHI Vestas
- Enercon
- Innogy
- Energy
- Buss Terminal Eemshaven
- Virol

Eemshaven Automotive

- Volvo
- Volkswagen

These beams are made from recycled composites from wind blades, we use these beams in our own bridges from Groningen Seaports.

Building Materials

In our ports we have the complete value chain for primary and secondary building materials. We have different companies specialized in products and services for the soil, road, water and concrete construction industry. For example, Theo Pouw produces in Eemshaven sustainable concrete which consists of at least 30% recycled concrete granulate.

In Delfzijl Purified Metal Company recycles steel scrap contaminated with asbestos, or various hazardous components like mercury, PCB's or chrome VI into purified metal blocks, which are ready to be used as building material again.

Furthermore we're a partner in 'ED2050'. The objective of this program is to improve the ecological situation of the Eems Dollard, for example by extracting mud from the estuary and convert it into building blocks.

We work on this project together with the Dutch Ministry of Infrastructure and Water Management, the Province of Groningen, Water Board Hunze en Aa's, Het Groninger Landschap and Ecoshape.

The Value Chain

- Theo Pouw
- BuildinG Groningen
- Gebroeders Borg
- Purified Metal Company (PMC)
- Wageningen University & Research
- Heuvelman GSO
- Roba Metals
 - Arcadis
 - Boskalis
 - Van Oord
 - Deltares
 - Ecoshape
- Reym
- IHC
- HKV Lijn in Water
- Royal Haskoning DHV
- Witteveen+Bos

FACTS & FIGURES DELFIJL

- Transshipment 5,863,556 tonnes (2019)
- 15% of total Dutch chemical production
 - Surface area: 1,477 hectares
 - Available: 418 hectares
 - Quay length: 850 metres
 - Water depth: 9 metres
- Depth of inner basins: 5 metres

FACTS & FIGURES EEMSHAVEN

- Transshipment 6,806,759 tonnes (2019)
 - Surface area: 1,319 hectares
 - Available: 302 hectares
 - Quay length: 5,120 metres
 - Water depth: 14 metres
 - 1/3 of total Dutch energy production



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