



**DRYPORT**

a modal shift in practice



# The Dryport project

## developing key links in today's logistics chains

### Why Dryport?

A dryport is an inland intermodal freight transport hub handling containers and other cargoes. Put simply, it does almost everything that a conventional seaport does – but without the sea as its boundary.

Many seaports are almost full with no room to grow. Often they are next to conservation areas, beautiful countryside, sensitive coastlines or located on the 'wrong' side of a city, so it's hard to find suitable land for logistics activities.

With careful planning and in the right location, a dryport can operate as an extension to an existing seaport, increasing capacity and efficiency – and also moving traffic off the roads and onto rail or inland waterways, wherever possible.

A dryport can help local infrastructure to cope as seaports handle growing volumes of cargo. It provides valuable space for customs clearance, unpacking and packing containers, warehousing, added value activities and distribution.

A successful dryport is a way of extending the sea perspective into the hinterland and can move traffic off

the roads and onto rail or inland waterways thus supporting the reduction of carbon emissions within the logistics chain.

### 'Dryport': a three-year € 4.8 million European project

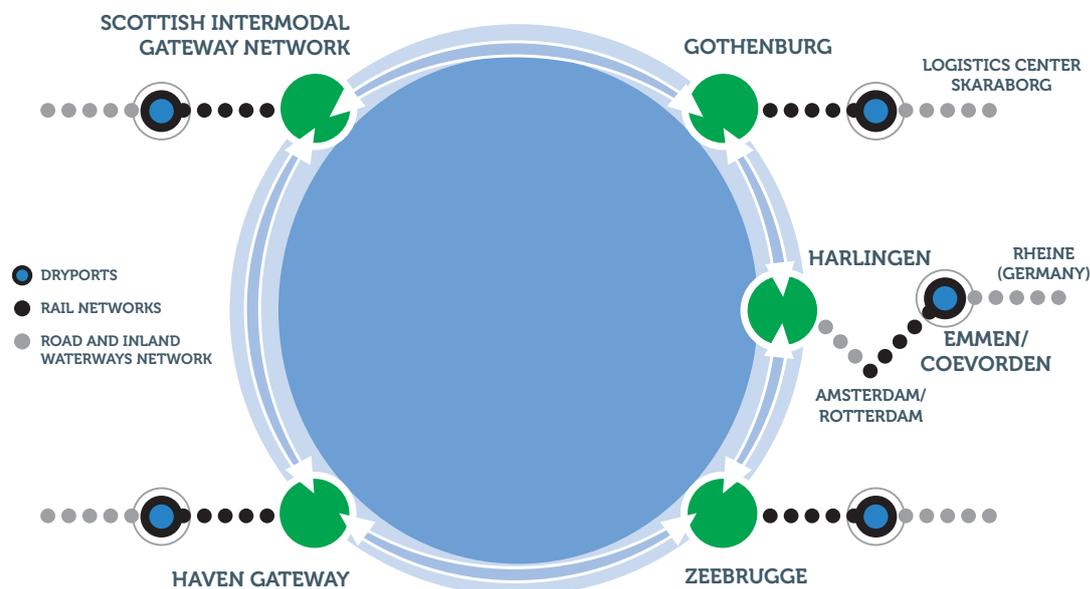
**Dryport** is a three-year public/private sector Interreg North Sea Region project with partners from the ports and logistics sector, from local authorities representing important logistics areas and from key universities.

Working together through a programme of workshops, studies and site visits, the **Dryport** partners will examine the development, design and effective operation of dryports that are fully integrated with the freight handling systems of the seaport facilities they serve.

**Dryport** is about helping to support port capacity by improving hinterland distribution hubs and looking at the potential of 'inland ports' with multimodal connections.

Each of the partners will be working on their own specific projects and plans, with input and support from the rest of the **Dryport** 'team'.

The total funding for **Dryport** is € 4,870,750. Of this, 50% is ERDF Interreg IVB North Sea Region funding.





# Dryport: the objectives

World trade is continuing to grow. More goods are being transported over longer distances and more frequently than ever before. Many ports are facing capacity issues. At the same time, priorities such as reducing costs, improving supply chain efficiency and ensuring environmental protection are firmly at the top of the agenda.

Dryports can be a solution. The objectives of the **Dryport** project are to:

- *Identify suitable dryport sites in parallel with port developments and regional policies and consider the best ways to design, develop and operate effective hinterland intermodal freight transport hubs, fully integrated with the freight handling systems of the seaports with which they connect.*
- *Analyse, study and report on the facilities and activities that can be incorporated at dryports – from storage and consolidation through to container repair and maintenance, customs clearance and even logistics training.*
- *Work towards a business model blueprint for a dryport. This will include a local focus, with partners discussing and developing their own independent projects.*
- *Assess the environmental and socio-economic impact of making better use of intermodal solutions, including monitoring the carbon dioxide effects of using dryports.*
- *Look at the integration of dryports into the EU's Motorways of the Sea concept. With concentrated goods flows from seaport to dryport, the concept can make a substantial difference in shifting cargo from road onto rail or inland waterway.*
- *Consider other issues ranging from IT solutions to goods flows analysis, from logistic knowledge for planners to reach out courses for small and medium enterprises.*

Four Work Packages make up the programme, covering:

- *Financial and land assessment decisions*
- *Modular physical planning of dryports*
- *Delivery of an IT system and investor pack as a blueprint for dryports across Europe*
- *The environmental interface, including delivery of monitoring data for carbon neutral freight handling*

**Dryport** also includes a more 'local' focus for each of the partners, who will bring their own individual projects into the programme for discussion and development.

The **Dryport** way of working will encourage 'positive interference' by the partners, who will be studying and influencing each other's specific projects and plans in order to deliver best practice.



# Dryport Partners

The partners in **Dryport** are key players with strong regional and national impact and connections. They are all positioned to have influence in national policy-making and regulations.

The Region of Västra Götaland in Sweden, is the lead partner in **Dryport**. The other core partners in the project are:

- *Municipality of Falköping, Port of Göteborg, Swedish Road Administration and Swedish Rail Administration, Sweden*
- *Port of Zeebrugge and VOKA, Chamber of Commerce, West-Vlaanderen, Belgium*
- *Haven Gateway and Babergh District Council, England, UK*
- *Transport Research Institute (TRI), Edinburgh Napier University and SEStran (South East of Scotland Transport Partnership), Scotland, UK*
- *Province of Fryslân and Harlingen Seaport, the Netherlands*
- *Municipalities of Emmen and Coevorden, Province of Drenthe, the Netherlands*

Each of the **Dryport** partners has provided match funding for the project and is taking an active role within the overall **Dryport** project:

- Contributing at workshops, studies and best practice site visits
- Developing their own individual dryport projects within the framework of the Dryport project

Partners' individual projects will play a major part in the **Dryport** project. These plans include:

- The transformation of a combi-terminal into a dryport encouraging a major shift of freight traffic from road to rail and/or inland waterways
- The development of an inland site as a close or mid-range dryport, in order to maintain high levels of rail and inland waterway transport
- Identifying potential sites with the intention of introducing a regular rail shuttle from seaports to dryports
- A strengthening of inland waterway connections and a study of cross-border rail potential
- The transformation of a conventional goods terminal into a dryport structure to enable smart rail and inland waterway connections to major seaport gateways
- The **Dryport** project actively seeks cooperation with similar studies and projects



# Västra Götaland - Logistic Center Skaraborg

Situated at the heart of Scandinavia, Västra Götaland is the second largest region in Sweden and the most important for industrial, transport and logistics activities.

- *Göteborg is Scandinavia's largest port*
- *About two thirds of the Swedish container traffic passes through the Port of Göteborg*
- *Half of the transports to and from the Port of Göteborg go by rail*
- *In 2007, 42,000 tonnes of carbon dioxide were saved by transporting goods in and out of the Port of Göteborg by rail instead of by road*
- *Strong industries include automotive, wireless communication, IT, electronics, pharmaceuticals, food and wood industry*
- *50 % of the Swedish Logistic Research is performed in the region*

Region Västra Götaland is the lead partner in the project. An extensive Swedish network exists of the regional administration, the Municipality of Falköping, the Port of Göteborg and the Swedish Road as well as Rail Administration. This network is strongly supported by Chalmers University of technology and the University of Gothenburg - School of Economics, Business and Law.

For these partners, the key **Dryport** project is the creation and expansion of Logistic Center Skaraborg, a concept that has been developed over the past few years.

Environmental considerations and the need for fast, efficient transport were the main factors behind the original idea for a regional logistics centre and combined transport terminal in Falköping. A small intermodal terminal covering three hectares is already in operation, but the vision ultimately is the development of a 70-hectare site to serve as a

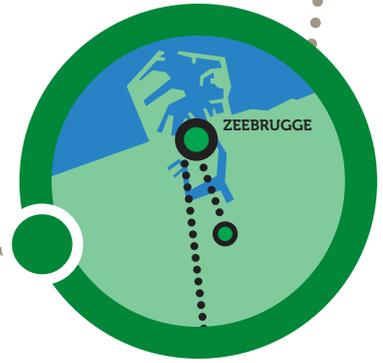
Dryport/Railport for the seaport of Göteborg and other regional harbours.

Operated by private sector companies, the terminal will handle containers, timber and other cargoes, with an interface between the different modes of transport. It will also encourage the creation of secondary logistics businesses providing services such as storage, handling, container repair/storage, terminal operations and training.

Environmental studies have been carried out and detailed discussions have started into physical planning, marketing and finance. The project has also involved major input from the Swedish national road and rail administrations, Chalmers University of technology and the University of Gothenburg - School of Economics, Business and Law, and companies including Stora Enso, ISS and Svensk Logistikpartner.



# Port of Zeebrugge



The Port of Zeebrugge handled 42 million tonnes of cargo in 2008, including 2.1m teu of containers. It is Belgium's second largest port by tonnage and an important passenger port.

- *Zeebrugge is a major hub for trade cars, handling up to 2 million vehicles a year*
- *It is an important roll-on/roll-off ferry port, handling up to 13 million tonnes of Ro-Ro freight*
- *More than 650,000 passengers travel through the port every year*
- *Zeebrugge Port Authority operates as a landlord. More than 300 companies are active within the Zeebrugge harbour area and overall the port generates employment for at least 11,000 people*
- *Additional Ro-Ro berths will be developed after a decision was taken to replace an old sealock and to create a new tidal area.*

A key partner is the VOKA, Chamber of Commerce, West-Vlaanderen, which, together with the Port of Zeebrugge, focuses on sustainable development and mobility in the region, and on increasing the use of rail and inland waterways. The **Dryport** project could play a critical part in its aims.

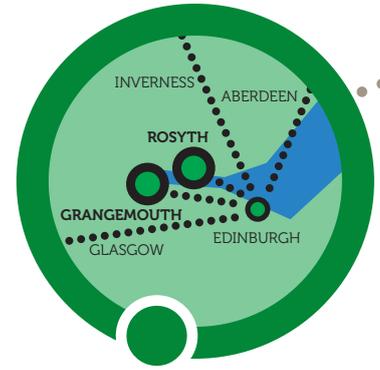
Plans have been drawn up to develop a 110-hectare maritime logistics zone adjacent to the existing port operational area, linked by road, rail, sea and inland waterway. The new zone will be supplied with a high level of 'green' energy through solar and wind power projects, tying in with Zeebrugge's commitment to environmental protection.

Meanwhile, the port continues to work on improving intermodal hinterland connection. Here, the major project would be the deepening and widening of an existing waterway to enable the transit of vessels up to 4,500 tonnes directly into the Gent region and on into France.

A cost benefit analysis has already been carried out and environmental studies are ongoing.

VOKA has been managing a Maritime & Logistics Business Club for the last 5 years. This provides the opportunity for companies come together each month to exchange experiences, to talk about future projects and to follow seminars about new developments in the maritime & logistic sector.





# Scottish Intermodal Gateway Network

The South East of Scotland Transport Partnership (SEStran) and the Transport Research Institute (TRI), Edinburgh Napier University are working together as the Scottish partners in **Dryport**.

- *SEStran is one of seven regional statutory transport partners in Scotland – covering an area equivalent to one-quarter of the country's land mass, with the River Forth at its heart*
- *One of the key aims of SEStran's regional strategy is to shift traffic from road to rail and water*
- *The region's main ports are Grangemouth and Rosyth*
- *TRI is one of the UK's leading centres for transport research and consultancy, and regularly advises parliamentary bodies and other organisations*
- *Its activities cover a huge range of subjects, including maritime economics & business, rail systems, freight & logistics, and transport planning & engineering*
- *TRI's members include transport research groups and individual transport researchers across Scotland's universities.*



Large volumes of Scotland's international freight are shipped through ports in England, and consequently transported by road over long distances. A key **Dryport** aim is to attract more traffic through Scottish ports by improved hinterland access and reduced inland transport and handling costs.

The Scottish **Dryport** partnership is seeking to identify the bottlenecks, barriers and issues that lead to traffic being diverted to ports in England.

The driving force behind Scotland's involvement in the **Dryport** project is the wish to establish Scotland's Intermodal Gateway Network that can support the modal shift of freight from road to rail and sea modes.

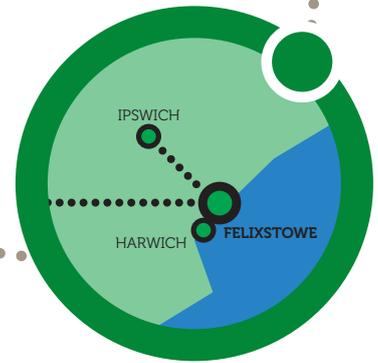
TRI's maritime researchers and SEStran are working together with the key ports and rail operators in the Forth estuary area analysing development plans and the possibilities of putting new intermodal operations in place. This includes the identification of a site for potential **Dryport** developments and creating a business case for its development.

For details on SEStran's activities see: [www.sestran.gov.uk](http://www.sestran.gov.uk)

For details on TRI's activities see: [www.tri-napier.org](http://www.tri-napier.org)



# Haven Gateway



The Haven Gateway sub-region is one of the fastest growing areas in the UK. It is based around one of the country's most important port clusters and includes:

- *Felixstowe, the largest deepsea container port in the UK and the fifth largest in Europe, with the huge Felixstowe South expansion underway*
- *Harwich, a major ro-ro ferry port, with plans approved for a new deepsea container terminal*
- *Ipswich, an important regional port and the UK's largest grain exporting point*
- *Mistley, a small upriver port handling niche cargoes*

The Haven Gateway Partnership brings together leading private sector companies, including British Telecom, Hutchison Ports (UK) and Associated British Ports, with district and county council representation from across the sub-region. The partners work together to promote economic opportunities and secure the future prosperity of this major gateway to the UK.

Babergh District Council and The Haven Gateway are co-operating to develop and study possible options for dryports within the sub-region. There will be a focus on environmental impact associated with dryports.

The sub-region's shipping, transport and logistics sector is of regional, national and international importance. It is benefiting from substantial improvements in road and rail links thanks to some very significant investments by port operator Hutchison Ports (UK) and public funding.

The development of dryports could be critical in handling increased demand from the sub-region's major port developments.

The Haven Gateway is seeking to identify suitable dryport sites which could be linked to the Haven ports by innovative short shuttle rail services. It will be examining the physical planning and economic viability of setting up dryport sites through a consortium of private companies.

Also within the **Dryport** project, the Haven Gateway plans to develop a port land study, a market trends study and a rail study.



## Province of Fryslân and Harlingen Seaport

The Province of Fryslân and Harlingen Seaport are working together as partners in **Dryport**. Harlingen is considered the gateway to the northern Netherlands. It is a multifunctional port with 20 quays and 200 hectares zoned for economic activity.

- *The port is favourably situated between Amsterdam and northern Germany, at a crossing of main highways and waterways*
- *Harlingen Seaport can be reached from the North Sea without having to pass bridges or locks*
- *By using Harlingen, ships can avoid the congestion of the hub ports such as Amsterdam and Rotterdam*

The main goal of these partners within the project is to create a **Dryport** and a possible inland barge system around Lake IJssel, to provide hinterland support and connections for Amsterdam and possibly Rotterdam.

The Port of Amsterdam is actively looking for connections to the hinterland in order to alleviate road congestion. Harlingen's dryport proposal is of obvious interest.

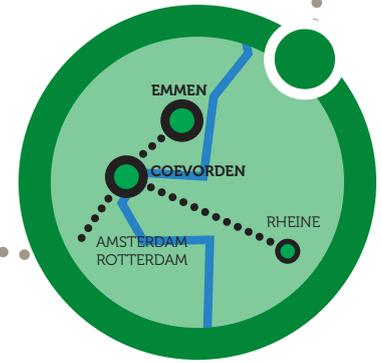
The partners will investigate whether the ports of Harlingen, Heerenveen and Kampen, all linked by inland waterway, could function effectively as a dryport, either individually or together. The likely environmental impact of such a plan will also be analysed.

Part of the research is to analyse how more containers could be transported by sea, inland waterway or rail between the primary partners



and the northern Netherlands. The area north of Amsterdam is densely populated, requiring the transport of high volumes of consumer goods. While land is in short supply closer to the capital, Harlingen can offer the much-needed space for warehousing, distribution and other activities.

The Province of Fryslân and Harlingen Seaport also plan to exploit 'dryport opportunities' through membership of a new Lake IJssel alliance.



## Emmen - Coevorden

The municipalities of Emmen and Coevorden are situated in the northern part of the Netherlands. Emmen is an important centre in a large region.

- *Both cities have the largest concentration of industry in the northern Netherlands, providing over 60,000 jobs, many of them focusing on plastics, electronics, gas & oil extraction, transport and processing. Agribusiness offers about 50,000 jobs.*
- *Stenden University, offering degrees in logistics and economics and ADPs, is situated in the city of Emmen.*
- *Well-known industrial names in Emmen and Coevorden include Teijin-Twaron, DSM, Iams Pet Care, Asus Europe, Euro Nuclear Services, Imtech, Cooper Tools, Ericsson Eurolab Netherlands, Draka Kabel, Honeywell, NAM, Wellman Pet Resins Europe and Norit Process Technology.*

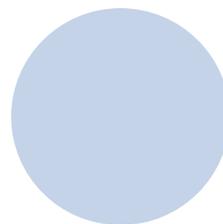
Emmen also has more hectares devoted to glasshouse horticulture than any other municipality in the northern part of the Netherlands.

Near Coevorden the freight-hub 'Euroterminal' connects the main European transport lines by rail, road and waterway.

Strategically located close to the German border with good traffic flow, Emmen and Coevorden have obvious advantages as a logistics centre. Hence a dryport plan for the region; the municipalities want to strengthen the Dutch-German cross-border rail connection and push forward the dryport potential for Dutch as well as German gateways.

Work within **Dryport** will include carrying out research and discussing opportunities with local stakeholders as well as with the major ports of Rotterdam, Amsterdam and Hamburg.

There will be a strong co-operation with the economic association 'EmsAchse' and with the German industries to analyse the freight combi traffic potential along the Dutch-German border.





# Motorways of the Sea - a perfect fit

Recent figures showed that freight transport volumes in Europe had grown 34% in a decade, including road, rail, inland navigation, maritime shipping and aviation. But in those same ten years, road increased its share of the inland freight transport market by 2.6% to 77%.

Transport's energy consumption, and therefore greenhouse gas emissions, has been steadily increasing because transport volumes are growing faster than the energy efficiency of different means of transport.

The EU's White Paper on Common Transport Policy called for a return of the alternative modes to their 1998 share by 2010, and then for an increase in the use of these more sustainable modes.

The development of dryports could play a key role in achieving a better balance.

Motorways don't have to be concrete and the most important aspect of the **Dryport** project will be promoting the shift of goods away from roads and onto rail and water. At the same time, **Dryport** is encouraging co-operation between private and public sectors, and promoting transnational co-operation.

All of these aspirations are a perfect fit with those of the European Commission's Motorways of the Sea concept, which seeks to improve port communications across Europe and strengthen networks by encouraging sea routes that save energy, reduce pollution and free up overland European transport networks.

The initiative offers funding for new intermodal maritime-based logistics chains in Europe which could ease the pressure on Europe's congested road system. That includes better use of rail and inland waterway connections.

**Dryport** has the potential to connect its work directly to the Motorways of the Sea concept.



Lead Partner



a modal shift in practice



European Union  The European Regional Development Fund

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