

DryportQuarterly

ISSUE 3 | SPRING 2010

The best colour is green – don't let it fade



With Europe's largest supermarket giants pushing a very "green" agenda, it's clear that the drive for low-carbon, environmentally efficient supply chains is still gaining strength – even in the face of recession. Indeed, in difficult and uncertain times, people are often more open to new and innovative ways of doing things.

Supermarkets are responding to consumer demand by looking at the whole picture when they source the products they put on their shelves. That means paying more and more attention to the total carbon footprint of producing and transporting those products, as well as their ethical sourcing and production.

All of this puts tremendous pressure on the ports and logistics sector to pull "green" solutions out of the bag. Dryports – inland intermodal logistics hubs – can play a role in this by helping to smooth the flow of goods, cutting out unnecessary or empty road miles, and reducing road congestion by shifting cargo to rail or inland waterway. Making lorry transport local.

But a key question is how to encourage such intermodality and how to link ports and dryports in the most environmentally friendly way.

This specific Dryport issue will be examined at Multimodal in Birmingham on April 28. During a workshop, the Dryport project partners will share their experiences and discuss the real practicalities and potential cost savings of achieving a true intermodal solution.

"Achieving a modal shift is one of the key messages of Dryport," says project manager Dirk Harmsen. "There can be challenges with finding enough commitment or 'base load' to encourage a rail operator to start a shuttle service; there can be a waterway to the heart of a city but a shortage of barge landing points; there can be local authority rules about trucks on the road at night, when moving containers in off-peak times could dramatically reduce road congestion in the day."

A supermarket group might go ahead with plans for a "portcentric" solution with environmentally friendly warehousing; but the missing link can be the choice of onward transport. With the intermodal piece of the jigsaw missing, that supermarket will still opt for road transport.

"We have to put up our hand each time and ask – where is the sustainable transport aspect?" says Mr Harmsen. "It isn't in the planning. Even now ports are being developed without enough focus on the intermodal potential, so that most containers, for example, will go by road."



As a project, Dryport will continue to focus on this important issue. Its partners are drawn from both the public and private sector, so there are good opportunities to gain a better understanding of each side's pressures.

"The logistics world often doesn't understand how planning works and gets annoyed by all the rules; and planning doesn't know anything about logistics and as a result can introduce rules that make life very difficult," says Mr Harmsen. "It is up to us all to share our experiences and listen more carefully to each other."

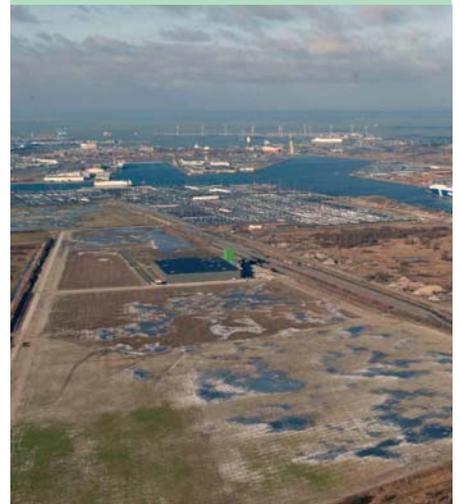
Dirk Harmsen | Dryport

Our ports partners

In our latest Dryport Quarterly newsletter, we focus on the experiences and aspirations of our ports partners.

Each of them brings different ideas and expectations to the project and clearly there is much they can learn from each other.

- Felixstowe was named "Business of the Year" at the UK's annual Rail Freight Group awards;
- Gothenburg has achieved the target of 50% of its containers being transported by rail;
- Grangemouth, Scotland's largest container port, is looking at ways to expand its coverage by rail;
- Harlingen is moving forward with its plans for a barge service around the IJsselmeer;
- Zeebrugge's multimodal, environmentally friendly maritime logistics zone, below, is well under way.



Dryport: the targets

"Dryport – a modal shift in practice" is a three-year public/private sector project set up with Interreg IVB North Sea Region funding to examine the way in which hinterland intermodal freight transport hubs can best operate to cope with current and future traffic flows and the challenges of port congestion.

The project was launched in Gothenburg in September 2008. Partners work individually on their own projects and together at workshops, seminars and port visits.

Multimodal excellence offers perfect package

The economically important Port of Grangemouth in Scotland is perfectly placed to be at the centre of a dryport hub-and-spoke operation which would involve established and new shortsea and coastal shipping services to be co-ordinated with a planned expansion of existing strategic rail links.

Nik Scott-Gray, business development manager for Forth Ports' Scottish operations, believes that Scotland's main container port has hidden its light under a bushel for too long. "We need to tell the world what we are doing – and what we can do," he says. "We have much of the infrastructure and services already in place and, as well as being in the ideal position to feed Glasgow and Edinburgh, we are seeing good volumes coming in that are destined for outside the 'central belt'."

This potentially includes imported containers heading by rail northwards to Inverness and Aberdeen – a service already operating – or southwards to Lockerbie, the Borders and even into northern England, he says.

Grangemouth handled more than 150,000 containers in 2008 and, together with its sister port Rosyth nearby, is the key focus for the Scottish Dryport partners, Edinburgh Napier University's Transport Research Institute (TRI) and the South East of Scotland Transport Partnership (SEStran).

Mr Scott-Gray highlights supply chains already in place such as Tesco's use of rail to transfer goods from Grangemouth to Inverness and says that

with some modest rail upgrades, much more could be achieved.

"The supermarkets are already showing there is demand – we are having detailed conversations with several retailers, who see the environmental and economic benefits of shipping directly into Grangemouth rather than through other consolidation points. Shipping directly to Scotland optimises cargo flows and increases the efficiency of supply chains," he says.

"If cargo comes in from one of the European mother ports – Rotterdam, Antwerp, or even Felixstowe – Grangemouth is in a good position. We have no congestion in the port and we have the capacity – it is just a case of getting the rail services in place."

Scotland has a special advantage in that it continues to be export-driven by the spirits trade; hence there is always demand for empties. And geographically, Grangemouth could be described as "an east coast port almost on the west coast", because of the Firth of Forth, he adds.

Feederlink, Mediterranean Shipping Company, BG Freight Lines and Samskip are all operating regular shortsea/feeder services into the port.

"The Dryport concept also fits very well into our Scottish coastal shipping strategy," says Mr Scott-Gray. "Issues such as road congestion, the price of fuel and the shortage of drivers mean there are massive opportunities to bring cargo from the southeast UK, as well as direct from mainland Europe, without compromising service levels."



Felixstowe – a rail hub champion



Felixstowe is already the UK's largest container port by far and the seventh largest, by volume, in Europe.

And expansion is under way; Hutchison Ports (UK) is investing £300 million in its Felixstowe South extension, which will provide much-needed additional deepwater berthing for the world's largest container ships, and also place the port in a strong position for when the economic recovery begins.

Felixstowe handled 3.3 million teu in 2008 and, although volumes were lost in 2009, the port took a relatively small knock when compared to some of its mainland Europe competitors.

It stands to reason that as the UK emerges from recession, so volumes will begin to increase once again – and so will the need for logistics land and facilities.

"There is limited land availability close to the port, so it makes sense to look also at potential sites further afield and at the way in which we can link these to the port," says Murray Gibson, HPUK's head of sales and marketing.

The needs of the UK logistics sector differ from the European model, in that distances are shorter and inland waterways do not play such a prominent role.

For Felixstowe, handling the major deepsea calls goes hand in hand with an increasing number of coastal services feeding into northern UK ports and a massive rail operation linking the port with strategic destinations throughout the country.

Felixstowe is also one of the UK's leaders in the development and success of "port-centric" supply chain solutions, which encourage the unloading, storage, processing and onward distribution of goods direct from the port – substantially reducing empty or unnecessary road miles.

"In the absence of an extensive network of inland waterways, for our purposes, dryports and inland rail terminals are one and the same," says Mr Gibson. "Our rail services continue to expand – we are now offering 28 scheduled freight train arrivals and departures every day."

In September 2009, the Port of Felixstowe was named "Business of the Year" at the UK's annual Rail Freight Group awards, in recognition of the continual and extensive investments it has made in rail operations.

A series of major rail upgrades are a key part of the Felixstowe South container terminal expansion.

"One of our big areas of interest within Dryport is looking at the way inland terminals operate and how we can integrate better their operational systems with those of the port," says Mr Gibson. "The target is to be better connected in terms of systems, as well as the physical connection. The facilities may be a distance away, but better understanding in terms of management and operations can lead to improved efficiencies."

Sustainable targets

Ten years ago, the Port of Gothenburg set itself a target – that 50% of all new container business should be transported to and from the port by rail. Having achieved that in just a few years, there was a new vision – that 50% of all containers should go by rail.

A network of inland terminals, called RAILPORT Scandinavia, served by rail shuttles, has been developed and Gothenburg has now achieved this impressive target. More than half of all containers are carried to and from Sweden's main port by rail.

Gothenburg handles 66% of all Sweden's import and export containers and its throughput reached 860,000 teu in 2008. In the economic downturn total volumes slipped 5% in 2009 – but rail volumes actually rose by 7%.

"We now have 24 shuttles to production and consumption areas in Sweden and even one terminal in Norway," says the port's business developer, Arvid Guthed.

"But an interesting aspect for us – and the one that ties us in with the Dryport project – is to see what we can do with these inland terminals. How can we shift the port interface from Gothenburg to the inland destination, be it Falköping or Stockholm or Oslo? We are looking at how we can integrate inland terminals in our activities for the benefit of

the port and the inland terminals – and there is a huge willingness around Sweden for this concept."

Apart from the 25 rail shuttles, there are dedicated services for specific industrial customers – paper or steel mills, for example. With the rail shuttle system, Gothenburg wants to encourage more common-user services for containers or trailers.

One such shuttle service links the port with the Logistic Center Skaraborg at Falköping, a small intermodal terminal that is earmarked for huge expansion.

In an innovative project within Dryport, Banverket (Swedish Railways) has been piloting the use of RFID (radio frequency identification) tags on rail wagons, combined with trackside detectors, on the 130 km stretch of rail between Gothenburg and Falköping. Such a system could reduce maintenance costs, reduce disruption of traffic, allow more efficient shunting and help ensure correct train assembly. This system is also offered to other users such as ports.

"In the ordinary way, when we receive or despatch a train, we need to walk alongside all the wagons, check figures and take notes," says Mr Guthed. "This project is looking at replacing all this with RFID technology."

Post-recession, clearly Gothenburg can expect container volumes to start rising again and, for the rail solution to match that increase, swift handling at the port is critical, he says.

"We see huge potential for decreasing the slot time for the trains, so that we can then handle more trains in the same time. That means cost and time efficiency."

Gothenburg's rail options attract cargo that would not use the port if it were relying on road transport.

"We must show the residents of Gothenburg who may be concerned about port expansion that we can shift volumes from road to rail, to ease congestion on the access routes to the city and in the port area," says Mr Guthed.

"Eighty containers on rail is clearly a far better option than 80 trucks driving through the city."



'Green' logistics zone

The development of a multimodal 120-hectare maritime logistics zone is a key focus for Dryport partner Zeebrugge.

The zone, next to Zeebrugge's existing port operational area, is linked by road, rail, sea and inland waterway, including to a number of inland import hubs. It will be supplied with a high level of "green" energy through solar and wind power projects and includes Efico's € 30 million carbon-neutral coffee import centre, which will be in full operation this spring, *right*.

All of this ties in with the port's commitment to environmental protection and reducing its overall carbon footprint – and to its membership of Dryport.

"Being part of a partnership like Dryport gives us the opportunity to discuss common issues and exchange opinions and experience on environmental issues and the whole range of issues relating to logistics hubs and dryports," says Patrick van Cauwenbergh, policy director of the socio-economic department in Zeebrugge.

"The world is changing and we need to look at new ideas together. And perhaps in difficult times it is even more important to have that network of people you can trust and with whom you can share opinions."

The other Dryport partners could learn much from Zeebrugge's own research and experience in developing its maritime logistics zone, he adds. "We did a lot of study work in preparation for this zone and are also considering developing another project. There is huge interest in our logistics area but we have taken care that we have only maritime-related activities and we are aiming for a diversification of port sectors."

Zeebrugge actually bucked the trend in 2009's downturn, with container volumes through the port increasing by 17.4% compared to 2008, to a total 24.9 million teu.

The port is successfully attracting both deepsea and shortsea container lines, as well intra-European ro-ro services. One of these, run by Norfolkline, links the port with another Dryport partner, at Rosyth, with obvious opportunities for developing ideas together.

Undoubtedly, Zeebrugge's position on the coast rather than upriver is a huge advantage. The port also offers regular services by "estuary barges", which have special permission to sail along the coastline, taking containers and ro-ro units into the Scheldt.

Alongside this, the port continues to work on improving intermodal/hinterland connections. Studies are being carried out into the potential



deepening and widening an existing waterway to enable the transit of vessels up to 4,500 tonnes directly into the Ghent region, offering connections into the French hinterland. "This would give us a direct link to the Ghent Canal via Terneuzen, and into the Scheldt and Rhine, and into Germany – which is very important for containers," says Mr van Cauwenbergh.

IJsselmeer opportunities

The virtues of transporting containers by barge are at the heart of the Port of Harlingen's aspirations as a Dryport partner.

"If we don't do anything, in a few years' time the Netherlands will be completely full of trucks and everybody will be sitting in traffic queues," says Harlingen port manager Jeroen van den Ende.

"We have to think smarter – shippers simply can't turn down the opportunities to transport their cargo in a greener and more cost-efficient way."

Harlingen is championing a plan to introduce a twice-weekly barge service around the IJsselmeer, to pick up and drop off containers that would otherwise be clogging up the roads between the region around Harlingen, in the northern Netherlands, and the giant ports of Rotterdam and Amsterdam.

And although the economic crisis has slowed things a little, Mr van den Ende says this plan is no longer just a concept – it is closer than ever to reality.

"The will is there, to use waterways for environmentally friendly and smart transport solutions," he says. "At the moment we have a barge four times a week between Harlingen and Rotterdam and this does pick up some cargoes on the way – but we don't yet have a service organised around the IJsselmeer. We are working to organise this and we really need the support of the local authorities and local politicians to achieve it."

Harlingen Seaport – which sees itself as a "wet dry port" – is only too well aware that exporters in its immediate area are routinely putting containers on to trucks to head down the hard-pressed motorway network to the main ports – when, through a little bit of planning, they could save money and also reduce their carbon footprint by choosing the barge option.

"We have to make these companies aware of the opportunities to use barge. They are busy trying to earn their money and they want to get rid of the container as fast as possible. It is up to us to make it easy for them and help them to find the smarter solution," says Mr van den Ende.

"After all, when you put 80 containers on a barge, you only need two people to run the barge. Put 80 containers on the road, and that is a potential queue of 80 trucks, driven by 80 drivers, heading to Rotterdam. We need to change this as fast as possible."

Harlingen has been in discussions with several barge operators about the proposed service and is optimistic that this will indeed become a reality in the next year or so. It is also keen to "export" the concept.

Contrary to the popular perception of waterways being the expensive option, in fact it has been proved that companies can make savings by putting their containers on to barge.

"When we can demonstrate to potential users that they can, indeed, make savings through this choice – then we are really in business!"



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