



The Northern Maritime Corridor (NMC) is an Interreg IIB project covering the Northern Periphery and North Sea areas, with associate partners in Northwest Russia. A total of 20 regions in 9 countries participate in the project. The project promotes and develops short sea shipping, considering also the environmental and safety aspects. The connections currently being developed via the NMC project are between the European Union and neighbouring countries and regions, particularly Russia, Norway and Iceland.

The following text considers the major Interreg IIB NMC Scapa Flow development in regard to this consultation, and summarises the Scapa Flow initiative in the context of the Northern Maritime Corridor, TEN-T and Motorways of the Sea Policy. The Interreg IIB NMC Lead Regional Partners for Highlands & Islands are proposing the Scapa Flow International Container Transshipment Terminal, given its pan-European significance, as a potential TEN-T Priority Project.

### **Overview of Interreg IIB NMC Scapa Flow Container Transshipment Terminal Project**

A preferred development company is now in place to build the Scapa Flow transshipment terminal, which will help the EU overcome some of the problems and challenges resulting from rapid freight growth. The focus of the terminal will be on transshipment markets stretching from Ireland, UK and France in the south, to Iceland in the west, Baltic/Scandinavia in the east, and the Barents Sea region in the north. Transport markets served by the new transshipment terminal will therefore include many states within the enlarged EU, as well as neighbouring countries.

The terminal will permit deep-sea and feeder lines to offer improved transport connections by avoiding worsening congestion within the Le Havre-Hamburg and southern UK mainport range. For the EU as a whole, the Scapa Flow terminal offers a major new Motorways of the Sea potential, with focus on an important new axis.

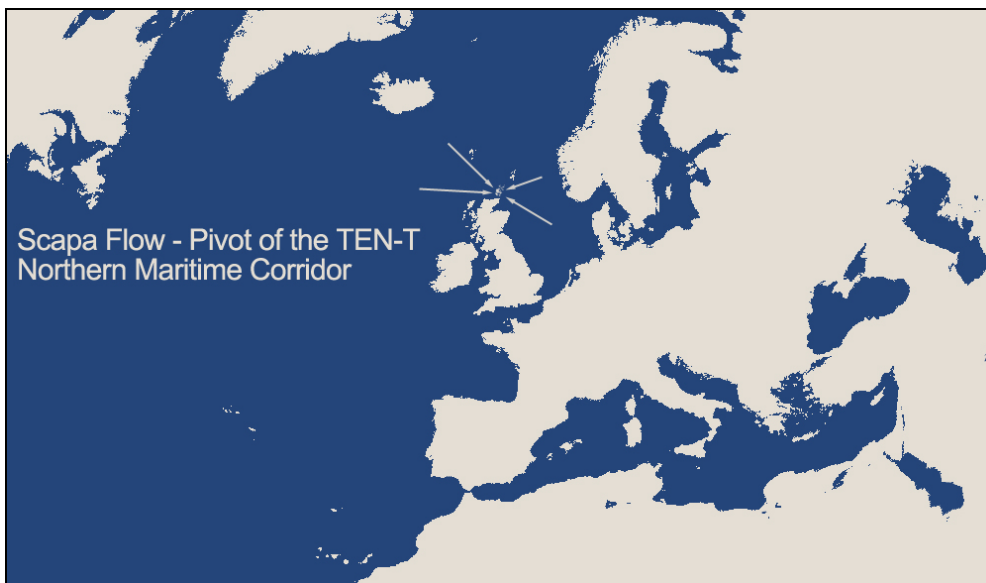
In addition to offering improved productivity and reduced transport costs, the Scapa Flow terminal will provide improved safety and security for freight, and for instance will help ease the requirements of the US Container Security Initiative. The concept of ‘offshore’ transshipment hubs is not new and the idea for such a terminal in northern Europe comes about due to sharing of best practice elsewhere in the EU, and in particular the development over recent years of several offshore transshipment terminals in the Mediterranean (e.g. in Calabria, Sardinia, Malta etc.).

The main purpose of the Scapa Flow container transshipment terminal will be to serve long distance and international freight traffic markets. This will include deep-sea intercontinental traffic, as well as intra-Europe freight movements, with container freight transfers between deep-sea and feeder vessels (hub & spoke), between deep-sea and deep-sea vessels (relay), and between feeder and feeder vessels (intra-Europe).

The Scapa Flow project offers a number of environmental benefits. Due to natural deep water within Scapa Flow, there is zero channel dredging required. The unique yet plentiful availability of flat land adjacent to deep water (site for the development

is on the island of Flotta, which in Norse means ‘flat’) helps to reduce the need for reclamation to a minimum. The terminal will have no need for rail or major road connections, as 99% of traffic will comprise transshipment. Due to its excellent location, at the exact point where the North Sea meets the Atlantic Ocean, there will be reductions in deep-sea ship steaming time in northern Europe by up to two-thirds, and also a 20% reduction in average feeder distance. These latter factors will help to reduce overall transport movement, and hence energy consumption and emissions will fall compared with today. By avoiding heavily congested ports, shallow/narrow port entrances, and busy estuaries and shipping straits in the North Sea Basin/English Channel area, the Scapa Flow terminal will provide users with a far safer and hence less risky alternative, as well as taking pressure away from congested transport networks.

The Scapa Flow terminal will lead to significant modal shift in the EU. As virtually all traffic will arrive and depart by sea, the extensive feeder connections will be expected to draw more regional ports into the network, the latter formerly having been served by long-distance land transport via established gateway hubs. Through dynamic feeder-feeder connections, this will further ensure a low cost and fast transport option even for current intra-Europe trailer and container traffic, which at the moment tends to maximize use of road transport.



The Scapa Flow terminal will be developed by the private sector in collaboration with the port authority, the latter being a department of Orkney Islands Council. This means that for the most part the investors will recover their investments through user charges.

The competitiveness of the terminal will be due to a number of key factors. First, building an offshore transshipment terminal will cost approximately 50% of the cost of a similar sized terminal at established city ports. This is due to the absence of dredging costs, limited reclamation costs, lower relative land costs, and minimal land connection infrastructure costs. So there is clearly a major infrastructure capital cost

advantage to begin with. The strategic location of the hub will help to reduce deep-sea liner costs and feeder costs through substantial voyage distance savings (plus avoiding Kiel Canal costs) compared to today. Far higher productivity levels recorded at pure transshipment hubs, typically at least a third better than gateway ports, will also save costs for users by speeding up ship turnaround and reducing container dwell times, and this will be aided through lower relative port labour costs at the offshore location compared to established traditional city ports. Finally, avoiding delays encountered at heavily congested gateway ports in the EU core will improve efficiency, enhance reliability and also reduce costs. In summary, by lowering total costs and improving overall efficiency, the Scapa Flow terminal offers the opportunity for established transshipment markets throughout northern Europe to improve their regional and global competitiveness.

We consider the above text essential in order to give the Commission a fuller appreciation and understanding of the pan-European importance and significance of the Interreg IIIB NMC Scapa Flow container transshipment hub development, and its potential in helping the EU to develop a more sustainable and competitive transport system.

Our response to the specific consultation questions is as follows.

### **Which are the Major Axes?**

What are the main transport axes, including motorways of the sea, connecting the European Union to the neighbouring countries or broader regions today? What will these axes be with a time horizon of 2020?

The initiative from the NMC Highlands & Islands regional partners in Scotland to develop a major European international container transshipment terminal at Scapa Flow in the Orkney Islands has to be taken into account when considering this issue. Scapa Flow is a unique natural deep-water harbour, strategically located at the northern entrance to the North Sea, directly on the Atlantic Ocean Great Circle route. In earlier times an entrepot for Viking fleets, and the famous Hudson Bay Company, Scapa Flow was also the main northern base for the British Navy during two World Wars. Today, Scapa Flow is one of Europe's largest international oil transshipment ports. Under the control of Orkney Islands Council as Harbour Authority, the port has 30 years' experience of handling international oil transshipment.

Scapa Flow is soon expected to become one of northern Europe's main container transshipment hubs, serving both global and intra-European markets. Over the last 3 years, Orkney Islands Council and Highlands & Islands Enterprise have been working with the Interreg IIIB *Northern Maritime Corridor* (NMC) Project to bring the Scapa Flow concept to fruition, and today a private sector development consortium is now in place to make the initiative a reality within the next few years.

Scapa Flow is considered vital to help counteract bottlenecks at the major EU container ports. Port congestion, road and rail access problems, and lack of sufficient water depth for megaships characterize the north European ports industry today. This all adds costs to the supply chain and reduces the EU's international competitiveness.

New port capacity is urgently needed as world container trade is doubling every 10 years. In northern Europe, containerport traffic doubled between 1992-2002, from 17.3 million teu (20' equivalent units) to 34 million teu, with forecasts of 40.0 million teu in 2007, and 53.0 million teu in 2015. Transshipment growth (i.e. transfer of containers between ships in port) is even more rapid than overall traffic growth, some 1.5 times faster, making the need for bespoke transshipment terminal capacity even more acute.

Environmental and physical constraints associated with handling larger ships and cargo volumes in congested city ports drive the search for deep-water 'offshore' transshipment hubs. Several 'offshore' hubs have been built in southern Europe (e.g. Gioia Tauro, Malta, Taranto etc.), and the NMC Interreg IIIB Scapa Flow project represents the north European equivalent of these initiatives.

A Scapa Flow hub primarily serving the fast growing transshipment markets of north Europe and Baltic/Scandinavia will enable shipping lines to reduce megaship deviation time in north Europe by two-thirds, and shorten average feeder distances by 20%. This means transport movement and costs will fall, while transit times improve.

Natural water depth of 30m implies zero dredging at Scapa Flow, whereas environmentally damaging channel deepening at major ports costs hundreds of €millions, and mostly this is public finance. Scapa Flow therefore offers environmental benefits, plus safer handling of megaships, as well as reduced need for public finance to create and maintain deeper artificial navigation channels. And with no road or rail infrastructure necessary, capital cost of an 'offshore' transshipment terminal at Scapa Flow is only half that of a cityport terminal!

**A hub port at Scapa Flow serving north Europe's fast growing container transshipment markets therefore offers major savings (compared with current congested hubs in the Le Havre-Hamburg range) in terms of (a) transport cost and time, (b) terminal capital and operating costs, and (c) environmental costs.**

The Scapa Flow initiative fully meets the objectives of EU TEN-T and Motorways of the Sea policy in regard to the following aspects: enlargement of EU-25; fostering economic/social cohesion; reducing peripherality; modal shift; transport innovation (project is ground-breaking in North Europe); improving links with EU neighbouring countries; environmental benefits; taking pressure off heavily congested transport networks; improving EU competitiveness; and helping develop a more sustainable transport system.

This major public/private project will therefore help to cement the creation of a *new Northern Maritime Corridor axis for TEN-T*:

**[Baltic Sea – North Sea – Irish Sea – Norwegian Sea – Barents Sea – Iceland Sea]**

- with Scapa Flow playing a pivotal role. It is therefore important to ensure that the significance of the Northern Maritime Corridor is fully appreciated, and that highly influential and practical Interreg IIIB initiatives such as the Scapa Flow international container transshipment terminal become a TEN-T priority.

What is the balance between the different transport modes?

The dominating mode of transport along this axis is sea transport. However, serving peripheral markets throughout the Northern Maritime Corridor area tends to mostly involve access via the more congested hub ports in the southern North Sea area. For ever-larger containerships serving key global markets (e.g. Asia, Americas etc.) this also represents considerable additional steaming time (and hence ship emissions) compared with say the Scapa Flow hub, the latter able to reduce mainline ship deviation time in northern Europe by two-thirds.

The axis of the Northern Maritime Corridor will represent a potential for shifting cargo from road to sea. Moreover, any shift of direct EU import/export container traffic to feeder traffic via Scapa Flow is expected to generate new feeder routes serving more regional ports, and this will also lead to modal shift from road to sea. The potential for enhanced transport routing options for intra-European freight traffic flows using feeder-feeder service possibilities via a Scapa Flow transshipment hub raises even greater prospects for modal shift.

What are the current traffic volumes, both passenger and freight, on the proposed axes?

Combined, all of the transshipment markets in the Northern Maritime Corridor area today account for over 10 million teu, or around 150 million tonnes. This is approximately equivalent to one third of the container traffic moving through the Le Havre-Hamburg major port range. As transshipment is the fastest growing sector of the containerport market, growing 1.5 times faster than direct import/export port growth, this is expected to rise to about 20 million teu by 2015, equivalent to some 300 million tonnes. Given the very long distances involved, in terms of tonne-kilometres the numbers will be vast even compared with some of the traffic moving via EU core ports at the moment. So, although Northern Maritime Corridor container transshipment markets today accounts for one third of Le Havre-Hamburg range major port traffic, in terms of tonne-kilometres this is probably in excess of 50%. On this basis alone, and taking into account the much faster growth of the transshipment sector, the Northern Maritime Corridor is highly important and clearly merits consideration as a TEN-T axis in its own right, with major NMC infrastructure projects such as the Scapa Flow container transshipment terminal regarded as a key priority.

What is the amount and share of international traffic to/from the Union or between the neighbouring regions?

The Scapa Flow container transshipment initiative is designed to serve global and intra-European markets (including near neighbour states). The freight volumes given above relate mainly to deep-sea transshipment traffic (i.e. global markets), which implies that intra-regional traffic will be over and above this. Intra-regional traffic volume in Europe is believed to be even greater than Europe's global traffic, as is the case also in Asia (the intra-Asian container trade is regarded as the largest single 'trade' in the world). The Scapa Flow initiative is therefore aiming at handling intra-

regional traffic as well as global deep-sea traffic. In this respect spoke (i.e. regional feeder) ports shipping global (i.e. deep-sea) cargo to/from the Scapa Flow hub, will also be able to ship EU intra-regional traffic, the latter piggybacking on frequent feeder services. As stated above, if current north European deep-sea container transshipment volumes (according to Ocean Shipping Consultants) are in the region of about 10 million teu, or 150 million tonnes (excluding oil), then assuming intra-Europe volumes moving between transshipment markets are at the same level, then this essentially doubles the present market size to some 20 million teu (300 million tonnes) today.

#### How will these traffic volumes develop by 2020?

Ocean Shipping Consultants data shows that total container transshipment volumes will exceed 20 million teu by 2020, equivalent to 300 million tonnes. More or less all of the Northern Maritime Corridor regions are feeder/transshipment markets. This traffic mainly relates to global cargo. We assume, rather conservatively in our view, that intra-regional traffic will at least be equivalent to global traffic, which would result in a total Northern Maritime Corridor ‘market’ size of 40 million teu (600 million tonnes) by 2020.

The NMC Scapa Flow container transshipment terminal is expected to have a significant impact given its role as entrepot for northern Europe’s feeder/transshipment markets, that is for both global and intra-regional traffic.

#### Are there particularly environmentally sensitive areas that must be taken into account when identifying major axes?

The Scapa Flow project will result in less ship steaming time overall and hence will reduce emissions. Diversion of ships and traffic will reduce pressure on existing bottleneck city ports. There is zero dredging at Scapa Flow due to the already naturally deep channel, and minimal reclamation through using for terminal land what is a flat island directly adjacent to deep water. There is very limited environmental constraint in regard to this project, and certainly far less compared with ongoing strong environmental opposition to megaport developments in the congested core ports (e.g. Southampton – at which no further development permitted, London, Antwerp, Rotterdam/Maasvlakte, Hamburg etc.). Scapa Flow harbour access is directly on the open sea/ocean (both Atlantic Ocean and North Sea meet at the entrance to the port), thereby avoiding navigation along heavily congested shipping channels (e.g., English Channel/Dover Strait) or for large ships dangerous-to-navigate-in shallow rivers (e.g. Thames/Haven, Westerschelde, Elbe, Weser, Rhine, Seine etc.) where the probability of collision or incident is many times greater. Scapa Flow has operated as an oil transshipment port for ULCC’s for 30 years without any major incidents.

## **Which investments and how?**

Which are the most pressing congestion, traffic safety or geographical bottlenecks on the major axes that could justify investments?

Congestion at major ports in the core EU area (i.e. Le Havre-Hamburg and south UK major seaport range) is a serious problem for all peripheral areas, especially as regions and countries situated along the Northern Maritime Corridor combined account for one third of the overall containerport market, as well as proportionately even more of the oil transport market. Megaships and feederships queuing to get a berth in Le Havre-Hamburg range ports, added to road and rail access constraints, lack of terminal capacity, and inability to handle the largest deep-draft ships – these are all issues that need to be addressed in order to improve EU competitiveness. Initiatives taken forward in the NMC project, such as the Scapa Flow transshipment hub, can help to address these significant problems. The EU should not always assume that these core ports are the ONLY solution, as clearly they are not.

Signposting the Northern Maritime Corridor as a TEN-T priority axis, and at the same time helping to develop important NMC transport infrastructure initiatives such as the innovative Scapa Flow Transshipment Terminal, will not only reduce pressure on core EU ports, it will also help to improve EU competitiveness, enhance integration and cohesion, and at the same time contribute towards sustainability and enlargement, in addition to providing improved access to neighbouring countries.

The main challenge for all the peripheral areas of the neighbouring countries in the north is to have regular, reliable, fast, seamless and competitive sea transport services so that the resources and production in the north can be available to the European Union in all senses. The NMC Scapa Flow project will certainly tackle this in a highly strategic and innovative way, and will address the bottlenecks of cargo flows to Russia and the East via the Baltic area and through the eastern European countries, be it cargo from the European Union or from Atlantic area countries, as well as with respect to global markets.

What kind of improvements (rehabilitation, new construction) to the infrastructure would be needed to remove the bottlenecks?

The Interreg IIIB NMC project has identified the major Scapa Flow Container Transshipment Terminal initiative as a key infrastructure vehicle in helping the Northern Maritime Corridor as a whole – from Ireland and UK in the south, to Iceland in the west, to Norway in the north, and to Russia in the east, and all areas in between. The Scapa Flow project involves mainly private finance. This nevertheless creates some problems as all major container terminals on the continent are very heavily publicly financed. The TEN-T Programme must therefore be used to help enable the Scapa Flow infrastructure project come to fruition, in an effort to overcome market distortions caused by ongoing public sector financing of alternative shallow, artificial, and heavily congested city ports in the EU core. In this regard the Scapa Flow project fits very well with TEN-T requirements and guidelines for funding, also taking into consideration the many other positive aspects of this initiative such as sustainable



development, cohesion, enlargement, modal shift, competitiveness, safety/security, freight growth, reducing peripherality, and private/public partnership.

What is the time horizon for the realisation of such a project?

The Scapa Flow project is expected to be operational before 2010.

What would the economic, environmental and safety benefits of such a project be?

For the Scapa Flow container transshipment terminal, economic benefits include lower transport costs and faster transit times to market for all the Northern Maritime Corridor areas served. In this regard it is important to stress that this is not simply a 'UK port' development as such; indeed, the vast majority of traffic is expected to be for other countries within the EU, as well as neighbouring states, given the traffic hinterland stretches from Ireland to Iceland to Russia, and all areas in between. Shipping and transport organisations are also expected to save money through such efficiency improvements. A key factor here is the free-flow of trade. At the moment, due to heavily congested ports and a concentration of major port capacity in the wrong place, EU trade is heavily constrained. The Scapa Flow hub would alleviate this to a large extent for all peripheral markets in the Northern Maritime Corridor region.

There would be significant local employment generated at Scapa Flow in Orkney. A fully operational terminal with throughput of say 4 million teu, certainly a possibility by 2020, would employ upwards of 1,000 people, and this together with indirect and induced impacts could result in over 3,000 jobs being created in total. For an island group like Orkney this is a very substantial impact (and challenge), albeit this mirrors to some extent the earlier impacts of the North Sea oil industry's arrival there.

The environmental benefits of Scapa Flow are clear. Zero dredging, reduced movement (of large ships and feeder ships) and hence reduced emissions, improved safety, modal shift, plus less pressure on the constrained major city ports to have to continually expand in a highly expensive and artificial way.

Taking some of the largest ships in the world away from the congested, shallow channels and rivers in Europe's heavily congested core area will improve safety aspects. Scapa Flow's natural deep-water and close proximity to the open sea and ocean is viewed as a major navigational and safety benefit compared with current major port options in northern Europe. This benefit, added to closer proximity to all feeder markets throughout the Northern Maritime Corridor area, vastly reduces risk of accidents and pollution.

In terms of security, an offshore island hub is regarded as very much more secure than a typical congested cityport. Moreover, as all traffic will arrive and leave by ship, this is another positive aspect as land transport (road and rail) is certainly an easier and less secure target. As markets become globalised, trading opportunities can be improved by implementing security initiatives in global supply chains. An efficient and secure maritime supply chain can help build and sustain competitiveness of

internationally traded products by reducing transit time, reducing transport costs, and increasing reliability and cargo security. The Scapa Flow container transshipment hub will achieve all of these.

Are there alternative technical or modal options to remove or alleviate the bottleneck?

An undoubted trend in container shipping is the move towards deployment of larger ships. By 2006 there will be ships of 12,000 teu in service. The size of such ships (360m x 50m x 15.5m) demands very large, highly specialised port facilities, which are increasingly difficult to provide in the shallow rivers in core EU cities. This is also a global problem, with traditional ports such as New York, Los Angeles, Hong Kong, and Sydney facing the same problems and challenges as Rotterdam, Hamburg, Antwerp, Le Havre and Southampton. On the landside, the challenge is just as fierce. The consequence (of ever-larger ships and more traffic) is more and more ships piling up outside ports, as vessels take far longer to turnaround inside port, and acute congestion on the landside limits movement even further. The result is a far longer dwell time for containers in port – now between 7 and 8 days in most cases (compared to 2-3 days in pure transshipment hubs), which in turn means a vast loss of competitiveness for EU commerce.

Such grossly inefficient outcomes are also not entirely unrelated to the issue of security. For instance, the new US Customs 24-hour manifest rule (part of the Container Security Initiative) requires that ships manifests are sent 24 hours prior to the ship sailing from a EU port. This means all the cargo has to be delivered to the port one or two days earlier than previously, so adding to congestion in the yard. With transshipment via Scapa Flow, lines will be able to prepare ship manifests whilst feeders are en-route to the hub with cargo, and this means there will be no delay, and no added cost, also bearing in mind that port dwell time for containers at transshipment hubs is very short (2-3 days).

The global answer to ship upsizing, worsening port congestion, and heightened security, has been a move towards ‘offshore’ transshipment terminals. Terminals located closed to open ocean as well as close to feeder markets, with natural deep-water and relatively low cost land for terminal development and future expansion, are the way forward. Scapa Flow is basically the north European equivalent of new ‘offshore’ hubs that have developed in southern Europe (e.g. Gioia Tauro, Taranto, Cagliari, Suez and Algeciras), in the Caribbean (e.g. Kingston, Port of Spain, Freeport-Bahamas, Panama), the Mid-East /Gulf/East Africa (Salalah, Mauritius, Reunion), and Asia (Tanjung Pelepas, Pusan, Ningbo, Yangshang). At all these transshipment hubs, transshipment containers account for the majority of throughput, with direct import/export traffic kept to a minimum. Clearly, northern Europe has still to see development of similar ‘offshore’ container transshipment terminals. Until now, the major container ports in northern Europe have assumed that they must always expand, and then expand more, and so on (until local communities say enough is enough?). Hamburg, for instance, located 100 kms from the open sea along a heavily dredged access channel, has a current throughput of some 6 million teu, and is actually planning to handle 18 million teu by 2020!

In reality, the offshore hub concept is well proven elsewhere and Scapa Flow represents a groundbreaking and innovative project in this regard, for both the Northern Maritime Corridor, and also for northern Europe as a whole. The Scapa Flow project therefore represents a significant strategic shift, which is vital if transport competitiveness in the EU is to be maintained in the long term.

How can the project best be financed? What could be the role for private sector involvement and user charges?

The Scapa Flow port authority (Orkney Islands Council) has selected a private developer to take the project forward and make the necessary investments. However, given the distortions that exist elsewhere in the major container ports sector, and particularly in the Le Havre – Hamburg range, plus the groundbreaking nature of the project, there is expected to be a need for some public sector support. Nevertheless, most of the investments will be made by the private sector, and recovered through user charges. The main users of the Scapa Flow terminal will be the major global container lines, plus leading intra-Europe feeder and short sea carriers. Several of these entities are also expected to participate in the equity of the terminal.

**How to ensure seamless and efficient use of the axes?**

What are the main technical and administrative bottlenecks on the axes?

For global markets, the US Customs 24-hour rule is mentioned above, and the Scapa Flow development will enable EU commerce to minimise costs in respect to this and other similar security initiatives. Technically, the main problem just now is worsening congestion at major ports in the EU core, with transport today (and tomorrow if nothing changes) neither seamless nor efficient. One relatively straightforward and fast way to rectify this is via creation of ‘offshore’ hub terminals, as envisaged at Scapa Flow, and in evidence in many other regions around the world, including southern Europe. Indeed, simply placing ever more port capacity within the core EU ports will only serve to make matters worse, as the major problems there are on the landside access to/from seaports, with road and rail access infrastructure simply unable to keep pace with the growth in trade, and the upsizing of ships. Technically, it is of course far easier to handle the largest ships within a natural deep-water harbour like Scapa Flow, and this is infinitely preferable compared to literally squeezing such vessels through the EU countryside via long, and narrow man-made channels that are highly expensive for the public sector to create and maintain. Such technical bottlenecks may in turn represent a disincentive for transport operators to upsize ships and thereby benefit industry from further economies of scale and reduced transport costs. As transport costs are a function of ship size, and hence economies of scale, such a constraint would be highly negative for EU commerce. The principal technical solution to core EU port bottlenecks should therefore be development of offshore hubs, like Scapa Flow, thereby bringing to northern Europe what is now a proven global solution that is employed in southern Europe and elsewhere.

### Are there problems of interoperability when crossing borders or changing modes?

There is not envisaged to be any major problems with interoperability or changing modes. However, for growing intra-Europe trade the 45' pallet-wide container is expected to gain in prominence.

### Is safety or security a major concern along an axis?

The island hub of Scapa Flow is expected to strengthen EU security through enhanced compliance with US Customs regulation requirements and in avoiding heavily congested and delicate cityport regions for a large volume of transshipment traffic. Diversion of this part of the containerport business (i.e. existing transshipment flows) will also help to improve safety in the shallow congested seaport areas of the North Sea Basin.

### What could be done to solve the bottlenecks today and with a time horizon of 2020?

Continued unhindered expansion of major city ports in the Le Havre-Hamburg range will only worsen existing bottlenecks. The Northern Maritime Corridor regions can be more easily and better served via the Scapa Flow transshipment hub development. This 'offshore' hub should be regarded as a priority TEN-T initiative, designed to help eradicate bottlenecks and also to reduce rising port development costs, much of which is paid by the public sector (i.e. through avoiding excessive dredging costs, and very high relative land costs at cityport locations, in addition to road and rail expansion). Transfer of transshipment traffic out of congested core EU ports will free up their capacity to enable them to handle future growth in direct import/export traffic. At the moment these established hubs seek to attract all the business they can, yet transshipment business is not really their core purpose.

The Scapa Flow port authority has control and monitoring responsibility for the Pentland Firth, where the North Sea meets the Atlantic Ocean, and an excellent safety record.

### How can intermodal transport be facilitated?

The Scapa Flow and Northern Maritime Corridor development is predicated on using megaships for deep-sea connections and feederships for both intra-European and transshipment cargo flows. Port productivity within a pure transshipment hub is at least one third better than that of congested city ports (e.g. due to higher container interchange/ship, plus yard cranes constantly feeding ship-to-shore cranes instead of supporting irregular train and truck arrivals. This helps vastly reduce container dwell time (from current 7-8 days to 2-3 days) and results in much faster ship turnaround, in turn enhancing berth utilisation and, as a consequence, raising throughput levels per metre of quay.

The expected large increase in transshipment and in cargo flows generally over the next 15 years will increase further the average ship size to 12,000 teu and above for

deep-sea, and to 2,000 teu and above for feeder/short sea. This will in turn generate even greater economies of scale advantages for sea transport relative to land modes. By comparison, a truck can only carry a single container on the road, and a container train carries typically less than 100 teu due to rail infrastructure (e.g. gauge, weight) limitations. Focus on relative unit transport costs by mode per mile emphasise the fundamental differences in unit costs, with cost/mile for both a truck and rail being about €1.50/container, whereas a 1,000 teu feedership has a cost/mile of approximately €0.15/container, being one tenth of land transport costs. In addition, of all these modes the only one that has any real scope to improve economies of scale even further in future is sea transport. Projects such as Scapa Flow and initiatives to move more freight traffic by feeder ship should therefore be promoted in the interests of future EU competitiveness.

The NMC project, providing an arena for networking between key actors, will in the coming years focus on further initiatives to pursue short sea shipping. Cooperation with national short sea promotion centers is part of this strategy.

#### What common market rules should be implemented to facilitate and speed up transport along an axis?

The taxation of road transport is one important means to speed up a shift from road to sea. It is also of great importance to look at the support mechanisms through the Marco Polo programme and the Motorways of the Sea regime in conjunction. In regard to Scapa Flow, it is anticipated that this project could merit Marco Polo applications covering different feeder services, and particularly where these services attract traffic that was formerly moved by road (i.e. from/to major container ports in the EU core).

#### Which policies or administrative procedures should be better integrated?

As mentioned the Marco Polo and the Motorways of the Sea regime should be well integrated. This goes also for programmes that are including Russia, like the TACIS programme.

#### What could be the role of the private sector?

In the Northern Maritime Corridor project the involvement of the private sector continues to be a fundamental aspect. All the short sea shipping initiatives taken by the NMC partners have been pursued together with the private sector, including shipping companies, transporters, forwarders, major industries and ports. In improving and developing ports, supply bases and container terminals, the private sector should be the main investor.

But where there is a need to promote a project of common European interest this may require some form of public sector intervention. Developing a new Northern Maritime Corridor based on major and ground-breaking intermodal projects such as Scapa Flow, designed to help provide alternative short sea shipping solutions in a market

that is already heavily subsidised (e.g. roads, railways, and major container hubs in the Le Havre-Hamburg range), is clearly going to need some form of intervention. Nevertheless, with substantial private sector interest and commitment already in such initiatives, added to the inherent cost advantages of infrastructure projects such as the Scapa Flow transshipment terminal compared to core EU major ports, the degree of intervention required is not considered to be significant, whilst the benefits across the board are believed to be very substantial indeed.

**On this basis, it is argued that the Northern Maritime Corridor should be designated a strategic TEN-T axis, and that the Scapa Flow International Container Transshipment Terminal, constituting a highly significant EU transport infrastructure initiative, should be considered as a TEN-T priority project.**

Yours faithfully,

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