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SKÅNE

TransBaltic features the development of a number of pilot concepts that are being developed in close cooperation with the business sector; one of them addresses the very low share of rail transport in international freight operations between Norway and other countries in the Baltic Sea region (BSR). Eastern Norway County Network, managing the task, investigates the reasons for this and discusses current possible solutions to attract more freight to be carried by rail. In this context a partner organisation, Institute of Logistics and Warehousing (ILiM) in Poland, has made a complementary study on the possibilities to launch regular intermodal container transports between Poland and Scandinavia (specifically with Sweden and Norway).

"Emergency" terminals for rail freight transport

Lack of confidence in a railway's ability to deliver acceptable quality of freight transport is one of several reasons for the small volumes of rail freight transport between Norway and other countries in the Baltic Sea region. Within the framework of TransBaltic are representatives of key stakeholders of rail freight transport now working in close cooperation on procedures that might help customers get access to their containers in case of severe delays. The new procedures will be developed in close cooperation with the intermodal terminal of Gothenburg.

On distances exceeding 600 km almost half of the freight transport within Norway is carried out by rail, while less than 10% of freight transport to and from other countries in the BSR and Norway is carried by rail. Freight transport by road is on the other hand increasing rapidly, 2,400 trucks are daily passing the border between Sweden and Norway via Svinesund/Kornsjø compared to only 6 freight trains.

The low market share of rail transport is puzzling as a study of transport volumes between Norway and other BSR countries indicates sufficient volumes of goods suitable for rail transport. However, performed interviews with key stakeholders show that customers and forwarders do not believe in a railway's ability to deliver acceptable quality of freight transport in international relations. There are several reasons for the market's lack of confidence. Some compared the railway to a black hole stating that "sending a

Photo: PCC Intermodal

container by rail means no possibility of getting access to the content before the train reaches its destination whatever disruptions or delays might happen on its way."

Eastern Norway County Network is now working on procedures making intermodal terminals possible to use as "emergency" terminals for freight trains in case of severe delays or other disruptions. The objective is to find a solution or procedures making it possible to unload a train even before it reaches its targeted destination. The second problem that has to be solved is how to get rid of the train once it has been unloaded, preventing it from making disruptions of other trains or loading/unloading processes.

A first step was taken when representatives of Jernhusen (owner of the modal freight terminal of Gothenburg), Baneservice (operator of the terminal), Trafikverket (national infrastructure manager responsible for most rail lines in Sweden and especially all lines into the terminal as well as lines where "emergency" use of the terminal might be relevant) and representatives from the TransBaltic project met in Gothenburg late September to discuss the issues and came to a common understanding and agreement on one possible solution.

The solution drawn up is that the train operator orders an additional back up schedule for use in the delayed situation during the normal yearly train planning process. If a major delay occurs, the train operator is then expected to cancel the normal schedule and order the train to be run according to the "extra" schedule. This solution fulfils certain necessary criteria, such as: it doesn't demand too many man-hours from the dispatcher/traffic manager in the stressful situation that they have during major delays; it is predictable to all parties; it uses minimal capacity during normal traffic; it allows the train to be handled at the terminal when capacity is available or possible to make available (by working overtime, etc.); it frees tracks and other capacity at the terminal after the train has been unloaded.

This joint effort could be a breakthrough and the next challenging step will be to discuss the proposed solution with train operators. ■

Inge Brörs, Eastern Norway County Network

The BSR transport system is changing due to huge infrastructure investments in fixed connections as the Øresund Bridge or the planned Fehmarn Belt Link which will increase the competitiveness of rail transport significantly on trade lanes linking Sweden and Denmark with German transport networks. Meanwhile the profile of transport system between Poland and Sweden remains unchanged but it is still based on traditional ro-ro ferry connections. Poland has a reasonably well developed intermodal service for hinterland container transports via the North Range ports of Hamburg, Rotterdam or Antwerp where railway networks can offer competitive conditions for suppliers compared to road hauliers or feeder fleets. However, the

Enabling intermodal connections between Poland and Scandinavia

The main objective of the study produced by ILiM is to describe the necessary steps for enabling regular intermodal connections between the main business centres of Poland, Sweden and Norway, meaning Stockholm, Gothenburg and Oslo with Wrocław, Poznań and Katowice.

transport system on the North-South axle, linking Poland with its Scandinavian neighbours is determined by the Baltic Sea separating the two and the most common way for transporting goods is by trucks crossing the sea on ro-ro ferries. It is symptomatic that containers practically are not used on this connection even though there are a few ferries adapted to carry railway stock equipped with rail tracks. The use of rail only participates for approx. 4% (tonnage wise) of the transport service between the two regions.

There are two main transport corridors important for flows of goods between those countries. The first one links the western part of Poland with Scandinavia by using the ferry connection Świnoujście-Ystad and the second links the central and eastern parts of Poland with Scandinavia by using the ferry line Gdynia-Karlskrona.

The Świnoujście-Ystad connection offers co-modal solutions since some of the ferries may carry both trucks and rail wagons. There are several regular railway connections from Malmö to Poznań (6 departures weekly), Wrocław (3 departures) and Vienna (4 departures). Conventional wagons are mainly used on these stretches, however, container wagons may be attached.

The Gdynia-Karlskrona corridor doesn't offer international rail connections. There is neither rail infrastructure in the ferry port of Karlskrona nor ferries carrying railway stock from Karlskrona to Gdynia. There are, however, a few regular container trains linking ports of Gdynia and Gdańsk with the central and south parts of Poland.

A few conditions are required to be fulfilled in order to start-up intermodal traffic between the analysed regions; the first one being possible volumes. The percentage of containerised goods being transported between Poland and Scandinavia is very low. An analysis of trade between Poland, Sweden and Norway taking into account cargo's susceptibility to containerisation and to be transported on rails shows moderate volumes that might be attracted by the potential intermodal connections. This volume could, however, be doubled by the transit cargo being transported between Scandinavia and the Czech Republic, Slovakia, Hungary, Ukraine or Belarus .This volume might also be significantly increased by consolidation of flows to and from Scandinavia with a large number of containers transported between Poland and other continents. Some 700,000 TEU coming to or from Poland are reloaded annually in the ports of Gdańsk and Gdynia and another 50,000 TEU p.a. go through the ports of Świnoujscie and Szczecin. To sum it up, the available volume for intermodal transport between Poland and Scandinavia has a large potential; however, the challenge is to convince stakeholders to change their flows from road to rails which might take some time.

In parallel to those opportunities the rail track infrastructure has to be modernised. Intensity of traffic on the North-South rail routes in Poland is relatively low with a possibility to increase the number of trains but there are severe problems with the quality of the track network resulting in numerous velocity limitations. The commercial speed of trains at an average 30 km/h makes them less competitive time-wise. With the opportunity for European funding the Polish rail track infrastructure is currently undergoing modernization aiming at obtaining trains at a velocity of 120 km/h and the improvement of analyzed transport corridors planned until 2014 amounts to EUR 1.5 bln. Some recent investments by the private sector in inland container terminals in Gądki (Poznań) Kutno and Dąbrowa Górnicza as well as investments in container terminals in the Polish ports enabling a significant increase in their handling capacities might state as evidence of growing confidence in intermodal transport system developments in Poland.

Railway transports of course take longer than truck haulage. Oslo can be reached by truck from Poznań in 2 days while railway transit time takes 3-4 days. Truck transport is also much cheaper comparing to 40-foot container rail carriage. The analysis shows, however, that based on operational expenses for container block trains with 3 departures per week intermodal operators are able to offer competitive freight charges.

It looks like the market is not able to generate large enough containerized volumes to encourage operators to launch regular intermodal container transports in the form of block trains. A supportive action of the public sector is required. Such actions should aim at: performing market research identifying commodities being susceptible to containerization and transported by rail with concrete routes and trading partners; creating good offers from the intermodal operators for the market based on long-term return as well as promoting the intermodal services to the identified companies involved in trade between Poland, Sweden and Norway. ■

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Photo: Europa.eu

Subregional initiatives and future transport flows

Filling an important gap

The pieces are coming together and gained knowledge about future transport flows can be put together mapping out a Baltic Sea region multimodal transport network. Priorities for a functional pan-European network have been stated in the new TEN-T regulation proposal, while national infrastructure plans for the BSR countries have been put on the map from a macroregional perspective.

TransBaltic, in context of the above, decided to highlight the subregional green corridor initiatives striving for a sustainable development of the Baltic Sea region, project transport trends by 2030 according to the green scenario, and estimate routing and volumes of future intercontinental trade exchange flows between the region and the Far East.

TransBaltic has, in several previous newsletters, presented results from investigations on the future transport flows within and to/from the BSR, and outcomes of foresight debates and stakeholders discussions on the issue held in various destinations around the Baltic Sea as well as outside the European borders, for example, in India. The findings have been followed up and served as an input to design transport development scenarios that the Baltic region might be facing in the year of 2030. Through processing of facts and data, TransBaltic intends to propose recommendations on how the region could strengthen the capacity to serve the increasing transport flows by improved internal connectivity and a gateway function for intercontinental flows. TransBaltic sees this task as an important complement in the transport and infrastructure planning. While the newly launched TEN-T regulation proposal argues for a complete trans-European transport network to ensure the smooth functioning of the internal market and strengthening economic and social cohesion, the coordinated action of the national transport ministries around the Baltic Sea (Baltic Transport Outlook) delivers a plan for a strategic transport network in the macroregional context. For that reason, TransBaltic develops measures adjusted to development specificity of specific BSR territories at the crossroads of the transport and cohesion policies.

With the focus on a subregional perspective

The Baltic Transport Outlook project (BTO) responds to the need of developing a decision-support basis for public authorities responsible for transport investments. It is widely recognised that such a decision support basis for the BSR does not exist due to scattered traffic flow data and different methodologies and models applied for individual networks. The BTO, recalled as joint action of the ministries in the EU Baltic Sea Strategy document, may attempt to fill this gap by describing current and predicted transport flows between the BSR countries and regions.

The BTO "Strategic Network" covers both passenger and freight flows on all modes of transport in a single baseline scenario for the

year 2030 (report to be published in mid November). While the TransBaltic investigation is highly related to the BTO study some matters keep them apart. The TransBaltic study is set up on a complementary notion with a similar macroregional approach but it concentrates on freight transport and covers a wider geographical area, with Russia, Belarus, Ukraine, Central Asia, China and India. TransBaltic has also created a set of four scenarios for 2030 as possible outcomes of implemented transport policies; the Baseline Scenario in line with national and regional plans; the Rivalry scenario with mistrust between the EU and neighbouring countries, a Cohesion scenario with slow development within the EU and the Green Scenario as a desirable future.

The desirable future

The Green Scenario consists of a package of different assumptions in terms of infrastructure development, green corridor initiatives and environmental impact. It is designed to be more visionary than the BTO 2030 scenario and to be more optimistic, regarding the inflow of new technologies and the possibility to introduce alternative fuels into the transport system. The Green scenario assumes that the flows will be concentrated in corridors that can offer multimodality and solutions in order to provide for efficient transport with less environmental and social externalities. Ongoing green corridor initiatives in the BSR that will be able to offer those benefits have therefore been projected to attract the increasing flows and transform into a green multimodal network covering the whole region and connecting it with the outside world.

Estimation of 120 mln tn in transport flows from the Far East

Because of the increasing capacity problems in the transport networks, freight transport stakeholders constantly look for less time consuming but at the same time reliable options. The TransBaltic study includes a unique projection, which maps out the volumes of freight flows to and from the Baltic Sea region in the year 2030, with qualified assumptions on the distributions of those on different freight route alternatives.

It is thus estimated that by 2030 we will face an additional increase of 119.5 mln tonnes per year from Russia, Kazakhstan and China destined for the Baltic Sea region. While some 90 mln tonnes are assumed to represent a direct sea transport via the Le Havre-Hamburg port range and short-sea-shipping within the BSR, the additional 30 mln tonnes per year may emerge on other routes.

The Northern Sea Route, promoted by the Russian government, may, as ice-free periods get longer, by 2030 gain some 2.5 mln tones annually. The route will mainly serve Russian and northern Scandinavian trade with Asia, with services offered by the port in Murmansk but also in Kirkenes and Narvik. Another route with similar flow volumes is the North East West Corridor, a rail solution between northern Scandinavia and Asia with Port of Narvik as a transit gateway to North America. Turning clockwise, the upgraded Trans-Siberian railway is estimated to load some 7 mln tonnes per year, whereof over 1 mln tonnes will be transported to and from the EU markets. While the Trans-Siberian railway is presumed to have a balanced flow in both directions, the new railway via Kazakhstan with estimated almost 5 mln tonnes will dominantly serve flows from Asia. Some additional freight (1 mln tonnes) could be carried along the same corridor but by truck.

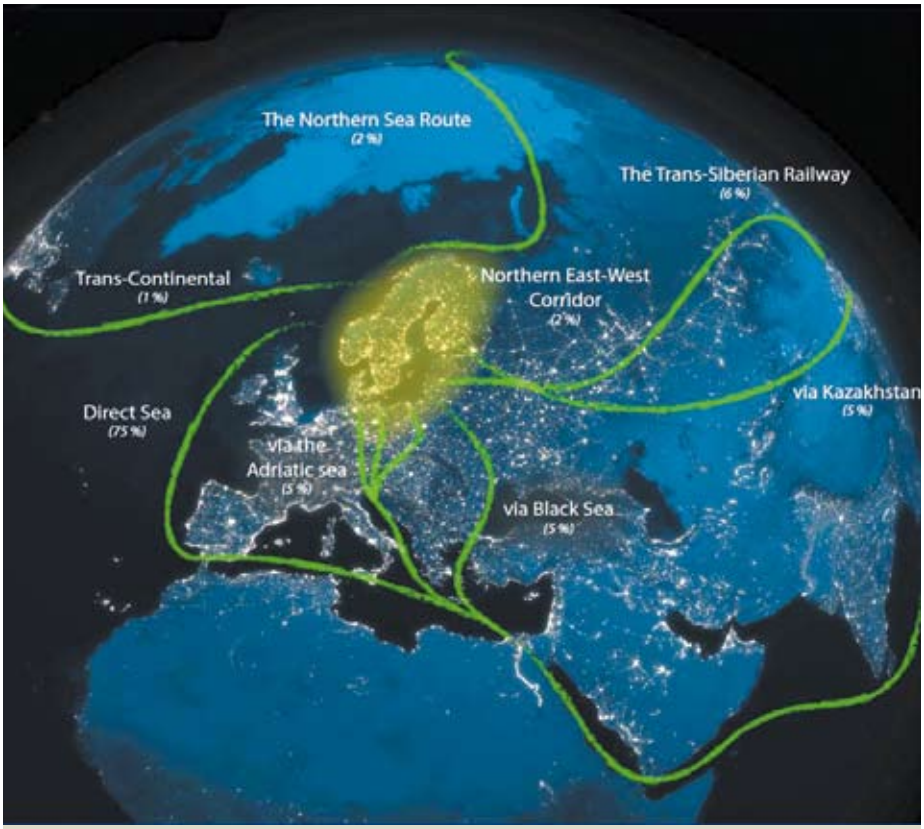
An increased interest in short sea shipping will make transport via the Black Sea (Odessa) and via the Adriatic Sea (Trieste and Venice) significant alternatives to direct long sea routes to the BSR. In the case of Odessa the freight, estimated at 6 mln tonnes, could be further carried by rail through Ukraine, Belarus and Lithuania, and then from Klaipėda by road ferry to southern Sweden and eastern Denmark. Transport arriving via the Adriatic Sea is forecast to be distributed on a combination of modes along the three land bridge north-south corridors; SoNorA/Scandria via Berlin, Central European Transport Corridor via Prague and Wrocław or Baltic-Adriatic corridor via Warsaw and Gdańsk. This alternative may, in total, gain some 6 mln tonnes.

In dialogue with neighbours

It is no surprise that Russia holds the key to the prosperity of the Baltic Sea area. Current EU transport policies and the EU Baltic Sea Strategy are not able to address investment needs of the whole region. Therefore, TransBaltic sees the need for place-based policy measures to address the development specificity of the whole BSR, including the old and new Member States, Norway and the eastern neighbours to the EU. As a step in that direction TransBaltic initiated cooperation with the Northern Dimension Partnership on Transport & Logistics to help establish a functional and sustainable transport system in the Baltic Sea region over the administrative borders. ■

Evelina Hansson-Malm

Fig. 1. TransBaltic forecasts and scenarios for BSR corridor flows



Baltic Sea region

Alternative green trade routes between the Baltic Sea region and Asia. Estimated share (%) of total freight volume between the BSR and Asia.