Dredging & maritime construction

Focus
BSR’s rail freight transport

Report
European logistics
Dear Readers,

The cover of this year’s last BTJ heralds a special section on dredging. We surely devote a lot of attention to engineering, its importance for the maritime industry and impact on countries’ economic development, particularly in the text by René Kolman as well as the article “Aiming at greater depths” which tracks down major dredging-involved projects in the region. Furthermore, Robert Osikowicz with his text on HDD technology provides you with substantial information on trenchless engineering and its possible implementation in the marine industry. See our “European logistics” report to get a view of the current situation on the logistics market and the sector’s most significant players.

Go to Focus for information on the BSR’s railway cargo transport system and to find out what Dariusz Stefaniak of PCC Intermodal tells about their new inland terminal and the future of intermodal market in Poland. I would also like to draw your attention to the interview with Kimmo Naski about the fusion of Kotka and Hamina ports. In a way, mutual cooperation is this issue’s recurring theme and in a difficult economy it often takes the form of mergers. Integration is surely a positive thing, but the striking number of such operations raises questions about the condition of the industry. With the hope you will enjoy your reading, on behalf of the editorial board, I wish you all a peaceful Christmas time, a Happy Chanukkah and a healthy, fulfilling new year.

Lena Lorenc

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Trenchless engineering for marine industry

Crossing the shoreline using HDD technology

Horizontal Directional Drilling is a modern method of installing pipelines, which has revolutionized crossing under natural and artificial obstacles. In 2012 we will celebrate the 40th anniversary of its first application in the US. In Europe first projects were carried out successfully in the early 1980s. Since then, HDD has increasingly been used in marine constructions.

Today, with the help of large-scale drilling rigs and proper technology, crossing lengths of over 3,000 m are possible. There are installations of steel pipes and polyethylene pipes with a diameter up to 56” (DN 1400) in almost every kind of soil formation, including solid rock.

The discussed HDD crossings are for shore approaches beneath the seabed. There are three possibilities: land to land crossing (for example, under shipping channels), land to water (exits in open waters) and water to water (both the entry and exit points being in open waters). The main phases of a shore approach remain the same as a conventional HDD river crossing: pilot drilling, reaming, cleaning and calibration, installation, but there are additional challenges related to the marine environment.

Technology

A project is preceded by geological investigations made in the form of core drilling or geoelectric surveys. The geotechnical conditions have a large influence on the cost of construction. One of the most critical elements in managing successful HDD operations is selecting the right type and size of drilling rig to fit the specific requirements of each project. The size of a drilling unit is usually described by the pullback/thrust force and torque it can develop. Also, pumping capabilities are considered as a basic parameter. Offshore projects due to their complexity usually require large or very large rigs characterized by the pulling force in a range from 1,000 to 5,000 kN. A rig, drilling tools, a guidance system, a drilling fluid system and associate equipment are selected for each crossing based on the results shown in the geotechnical report and the size of the project (length and pipeline diameter).

The HDD profile must remain within the allowable limits for entry and exit angles and radii of the curvature, also the borehole depth (cover below seabed) must be considered. Pilot hole drilling requires a precise directional guidance system used to navigate along its pre-designed profile. In most cases magnetic or gyro systems are generally used. During the drilling process the contractor can use one or two drilling rigs. In classic cases the borehole is drilled from the entry to exit point by a single rig (single shot). As an alternative the contractor can choose the intersect (meeting in the middle) method. This is utilized when the length, the soil conditions, or a combination of the two, do not allow the use of a single drilling rig to complete the bore. In an intersect HDD installation, two directional drilling rigs are placed at opposite ends and start drilling towards each other guided by a precision underground magnetic tracking device. This method allows extending the length of the hole by at least 50% compared to conventional solutions. This option has become more and more popular during the last decade.

After the pilot drilling, the borehole is reamed to its appropriate size. Based on the final desired diameter and soil conditions, this process may include one or more stages. The reaming operation can be carried out using two options: as pull reaming (from the exit to entry point) or as push reaming (from the entry to exit point).
Once the borehole has been enlarged to the required diameter and reached the adequate level of quality, the product pipe, which has been preassembled in one or more sections, is pulled behind the drill string, attached tool and swivel into the underwater tunnel. Installation is complete when the pipeline appears at the entry point. The pipe is often ballasted during installation to reduce friction in the hole. Pullback is the preferred option. In rare cases the pipeline can be inserted into the hole from the rig side using a special thrust device. This kind of installation requires an extremely stable and clean hole. It is usually applied in rock conditions.

At this point drilling fluid is also worth mentioning. It is water-based bentonite and/or polymer suspension which circulates from the surface to the drill string, drilling tool and then back to the surface through annular space. The main function of the fluid is to carry drilling cuttings out of the borehole and to provide stability to the drilled tunnel. HDD contractors usually apply solids control equipment to minimize drilling fluid consumption and provide economic handling of the drilling wastes.

### Tab. The most noteworthy marine-related HDD projects of the last decade

<table>
<thead>
<tr>
<th>Year</th>
<th>Project</th>
<th>Location, Country</th>
<th>Type of crossing</th>
<th>Contractor</th>
<th>Client</th>
<th>Length</th>
<th>Pipeline diameter</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>Ma Wan Island</td>
<td>Hong Kong</td>
<td>Land to land, land to water</td>
<td>Lucas Australia</td>
<td>Sun Hung Kai Properties</td>
<td>2 x 1347 m 1369 m</td>
<td>24” 32”</td>
<td>Power telecommunication water</td>
</tr>
<tr>
<td>2003</td>
<td>Setubal</td>
<td>Estuario do Sado Portugal</td>
<td>2 x land to water, water to water</td>
<td>LMR Drilling Germany</td>
<td>Transgas</td>
<td>4600 m in three sections</td>
<td>32” + 6”</td>
<td>Gas</td>
</tr>
<tr>
<td>2004</td>
<td>Hangzhou pipeline</td>
<td>Hangzhou Bay China</td>
<td>Land to water</td>
<td>Lucas Australia</td>
<td>China Petroleum &amp; Chemical Corporation (Sinopec)</td>
<td>1800 m</td>
<td>28”</td>
<td>Crude oil</td>
</tr>
<tr>
<td>2003-2004</td>
<td>HubLine</td>
<td>Massachusetts Bay, Salem USA</td>
<td>2 x land to water 2 x water to water</td>
<td>Michels Directional Crossings USA</td>
<td>Duke Energy</td>
<td>5015 m in four sections</td>
<td>30”</td>
<td>Gas</td>
</tr>
<tr>
<td>2005</td>
<td>Pokohura Taranaki basin</td>
<td>Pacific Ocean New Zealand</td>
<td>Land to water</td>
<td>Lucas Australia</td>
<td>Shell Exploration</td>
<td>2 x 1850 m</td>
<td>12” + 6”</td>
<td>Gas</td>
</tr>
<tr>
<td>2005</td>
<td>Mittelplate Oilfield</td>
<td>North Sea Germany</td>
<td>Water to water</td>
<td>DrillTec Germany</td>
<td>RWE DEA</td>
<td>7500 m in 6 sections (1100-1400 m)</td>
<td>10”6”</td>
<td>Crude oil Water</td>
</tr>
<tr>
<td>2006-2007</td>
<td>Kupe Field</td>
<td>Taranaki Basin New Zealand</td>
<td>Land to water</td>
<td>DrillTec Germany</td>
<td>Origin Energy Technip</td>
<td>2 x 2300 m</td>
<td>20” 11”</td>
<td>Gas Light crude oil</td>
</tr>
<tr>
<td>2007</td>
<td>Bocca di Malamocco</td>
<td>Venice Laguna Italy</td>
<td>Land to land</td>
<td>Anese Italy</td>
<td>Conzorzio Venezia Nuova</td>
<td>1350</td>
<td>Pipe bundle</td>
<td>Power</td>
</tr>
<tr>
<td>2007-2008</td>
<td>Abu Ali Island-Berry Causeway</td>
<td>Persian Gulf Saudi Arabia</td>
<td>Land to land</td>
<td>Tatico Boring UAE</td>
<td>Saudi Aramco</td>
<td>2 x 3048 m</td>
<td>24” 30”</td>
<td>Oil Water</td>
</tr>
<tr>
<td>2008</td>
<td>Tidal energy system North Ireland</td>
<td>Strangford Lough North Isea UK</td>
<td>Land to water</td>
<td>Longbore UK</td>
<td>Marine Current Turbines</td>
<td>434 m</td>
<td>10”</td>
<td>High voltage cable duct</td>
</tr>
<tr>
<td>2008</td>
<td>West Madura and Poleng Fields</td>
<td>Java Indonesia</td>
<td>Land to water</td>
<td>Nacap Netherlands</td>
<td>Kodeco Energy</td>
<td>1978 m</td>
<td>16”</td>
<td>Gas</td>
</tr>
<tr>
<td>2008-2009</td>
<td>Le Havre Seaport</td>
<td>Havre, shipping channel France</td>
<td>Land to land</td>
<td>HDI France</td>
<td>TOTAL</td>
<td>1500 m</td>
<td>34”</td>
<td>Crude oil</td>
</tr>
<tr>
<td>2008-2009</td>
<td>Hampton Roads Harbor</td>
<td>Shipping Channel, Virginia USA</td>
<td>Land to water, water to water</td>
<td>Mears Group USA</td>
<td>Virginia Natural Gas</td>
<td>1000-2200 m</td>
<td>24”</td>
<td>Gas</td>
</tr>
<tr>
<td>2007-2010</td>
<td>Miford Haven</td>
<td>Milford Haven Strait UK</td>
<td>Land to land</td>
<td>LMR Drilling UK</td>
<td>RWE npower</td>
<td>3004 m</td>
<td>18”</td>
<td>Gas</td>
</tr>
<tr>
<td>2010</td>
<td>Jubail - Al Fahed Island</td>
<td>Abu Dhabi UAE</td>
<td>Land to land</td>
<td>Flowtex Egypt</td>
<td>Abu Dhabi Transmission &amp; Dispatch Company</td>
<td>1600 m</td>
<td>48”</td>
<td>Water</td>
</tr>
<tr>
<td>2009-2010</td>
<td>Devil Creek</td>
<td>Indian Ocean Australia</td>
<td>Land to water</td>
<td>DrillTec Germany</td>
<td>Apache</td>
<td>1850 m</td>
<td>16”</td>
<td>Gas</td>
</tr>
<tr>
<td>2010</td>
<td>Qeshm Island</td>
<td>Persian Gulf Iran</td>
<td>Land to land</td>
<td>NSCC-DrillTec UAE</td>
<td>Iranian Offshore Oil Company</td>
<td>3060 m</td>
<td>16”</td>
<td>Crude oil</td>
</tr>
<tr>
<td>2010-2011</td>
<td>Gorgon LNG</td>
<td>Barrow Island Indian Ocean Australia</td>
<td>Land to water</td>
<td>Lucas Australia</td>
<td>Chevron</td>
<td>9 crossings</td>
<td>34”</td>
<td>Gas</td>
</tr>
</tbody>
</table>
compared to standard land activity. Also for marine crossings, weather conditions, currents and tides can have a strong effect on the selection of equipment and methods of construction. If the entry or exit point is situated offshore, the drilling platform or vessel should be installed. The steel riser is usually placed between the platform deck and the seabed. The riser pipe will guide the drill pipe from the exit point up to the platform deck as well as to allow the drilling fluid to return, in order to be collected in the surface tank. If the pilot hole is drilled through soft and unstable soils, it is also possible to install a steel casing from the entry point to support the first section of the hole. Upon completion of the final reaming run, the assembled pipeline is towed offshore and attached to an anchor close to the riser pipe, then connected to the bottom hole assembly (reamer and swivel) and pulled into the prepared borehole. One of the most important considerations in marine projects is the handling of the product pipeline before and during its installation in the borehole. The pipeline could be welded offshore or onshore depending on a project’s requirements. If pipeline construction is continued away from the exit point, the product pipe is usually prepared in a section longer than the borehole measure distance. Part of the pipeline will be left on the seabed to allow it to connect to the conventional laying section. Most HDD companies have software to analyze the loads and stresses imposed on the pipeline during installation which is also important in long term service.

Application

The table shows the most interesting projects using HDD technology in the marine environment over the last decade. Readers can find all types of installations, although the projects related to the oil, gas and petrochemical industries are the most common.

With HDD, we can seamlessly combine offshore and onshore installations, including:

- Oil and gas platforms and processing plants
- LNG and oil terminals
- Marine gas pipelines
- Fibre optic network
- Power transmission network
- Water and wastewater pipelines
- Offshore wind farms
- Tidal energy systems

Considering the potential applications of HDD in the Baltic Sea area, we should mention feasible investments in the region. Among them the following natural gas pipelines are being built, planned or proposed: Nord Stream (Russia, Germany), Baltic Gas Interconnector (Germany, Denmark, Sweden), Baltic Pipe (Denmark, Poland), Balticconnector (Finland, Estonia). Work is advanced on a number of LNG terminals: Świnoujście (Poland), Klaipėda (Lithuania), Brunsbüttel (Germany), and Primorsk (Russia). Horizontal Directional Drilling is being considered for the installation of cable ducts, which will transmit energy from offshore wind farms to the proposed onshore electrical sub-stations (Germany, Denmark, Sweden). Sub-stations are necessary to connect the electricity generated by offshore wind turbines to the power grid. The Baltic States might create a common framework to reduce their dependence on Russia. In creating this system Scandinavians may participate as partners. Finland has already laid power cable across the sea to Estonia and is planning to build another such combination. Sweden plans a submarine power cable to Lithuania. At the local level marine pipeline systems should also be taken into account for the transportation of water or treated wastewater.

Robert Osikowicz
Robert Osikowicz Engineering

The largest general cargo and container port on the west coast of Finland offers excellent connections for Your cargo.
Dredging is vital to social and economic development, in particular, to the construction and maintenance of much of the infrastructure upon which our economic prosperity as well as social and environmental well-being depends.

When in January 2010 I assumed the reins as secretary general at the International Association of Dredging Companies, I had no idea how challenging the dredging industry actually could be. It’s a wide open, pioneering business, filled with so many surprises, continually re-inventing itself. If you ask me what has struck me the most as I work myself into the dredging industry, the IADC and its members, it is how little the general public knows about the importance of dredging. Tea and coffee from Malaysia and Indonesia, fruits and vegetables from South America, shoes and clothes from China, hi-tech products from Japan – we take it all for granted, not to mention petrol for our cars and gas heating in the winter. These things just appear in our homes and we hardly ever stop to think about the route they have taken to arrive on our doorsteps. We hardly think about the elaborate ports and harbours as well as complex airports that make this possible. Without dredging, none of this would exist.

What does dredging actually do?

The world’s population depends heavily on dredging solutions for global trade, coastal defence, urban development, energy supplies...
and leisure/tourism. Let’s take the first for instance: global trade has increased steadily between 2000 and 2008 regardless of business cycles in the global economy. In 2009 its volume decreased by 11.3%; for 2010 and 2011 the International Monetary Fund predicts a growth of 9% and 6.3%, respectively. Container ships are getting larger and faster, putting increased demand on the capacity and efficiency of ports. From 2000 to 2008, seaborne trade increased by 36.5%, measured in tonnes. Dredging solutions support ports in meeting this challenge by maintaining and deepening channels as well as supplying dredged material for building berths, quay walls and hinterland infrastructure. And, since ships will only get bigger, ports will have to accommodate this growth.

Then there is the question of demography and climate change. Urban development and coastal defence. The world’s population is growing, especially in coastal areas. According to the United Nations, three billion people are living along thousands of kilometres of coastal zones. In 2008 more people were living in urban areas than rural areas, and this number will reach nearly 70% by 2050. Eight out of the ten largest cities in the world are located along a coast. People living there need space and safety. Along these coasts, people are confronted with strong fluctuations in atmospheric conditions and a predicted rise in sea levels. According to the International Panel on Climate Change data, the frequency and intensity of storms is increasing, raising the need for effective and sustainable coastal defence. The dredging industry plays a significant role in providing safety for these growing population centres by reinforcing dikes and coastal barriers; it creates opportunities for further urban expansion through land reclamation.

And, then there is the subject of energy: despite attempts to find alternative energy sources, fossil fuels still dominate. Offshore resources need dredging to prepare the seabed and dig trenches for pipelines, and then protect these pipelines by backfilling with sand, gravel and rock. The strong increased demand for liquefied natural gas (LNG), frequently being exported from remote locations, creates a demand of maritime infrastructure suitable for this purpose. On the sustainable side, more and more wind farms are being placed at sea. Just observe the coastlines of Denmark, The Netherlands, Belgium or Germany.

And last, but certainly not least, dredging supports tourism and leisure activities, an important source of national income for many countries. Although the economic recession has had a slightly negative effect on this sector – international tourism declined by 5% in 2009 – the long-term perspectives remain very positive. Sometimes dredging for recreation and tourist attractions has been a spin-off of coastal defence activities. Other times, as in beach replenishment projects from the Wadden Islands in the North Sea, via the Gulf of Mexico to the Mediterranean Sea, from the United Arab Emirates to Australia’s Gold Coast, dredging is a purposeful choice in re-establishing beaches and providing tourism in or near water. In the end, let us not forget marinas and cruise terminals, theme parks and resorts as well as all airports built in the sea (like Hong Kong, Singapore, Sydney and Tokyo), thanks to dredging companies which construct airport platforms.

The question of environment

One area where the power and importance of dredging is often overlooked, and which deserves extra emphasis, is its role in environmental remediation and sustainability. This includes cleaning up old industrial areas where contaminated soil would otherwise prohibit re-development of the land, as it happened in Dublin (Ireland), Avilés (Spain), or Lake of Tunis (Tunisia). We call it making the post-industrial world cleaner. In fact, in recent years, the IADC companies have developed a new concept called ‘building with nature’. This means understanding the integration of projects with the environment, incorporating working methods to mitigate adverse effects as an integrated part of every dredging project. The work methods related to such environmental aspects cannot be isolated from the totality of the project. Sometimes creating additional nature or habitats is not only a compensation measure, but enhances tourism and urban development. In the right hands and done properly, dredging creates a positive synergy between ecology and socio-economic development.

Bridging the communication gap

Although many of the above-mentioned activities are well known, their dependence on dredging as the underlying support system is often invisible and unrecognized. Actually, in the dredging industry we don’t feel the need to be put on the back. We know what we do and that is good enough. Problems arise when the public confuses the issue and thinks that we are the source of pollution or uncaring about the environment. As I’ve tried to explain, our role is quite the opposite. We clean up the waste that other industries produce. To counteract some of the negative reactions to dredging and to encourage others to look more closely at our industry, we are assembling more statistical information on our work and trying to communicate to a broader public. Recently, the IADC published a document called Dredging in Figures 2009, with carefully collected data on this worldwide industry. It is available at www.iadc-dredging.com free of charge. The IADC website is in fact a great source of information for anyone interested in this sector.

It sounds a bit overblown perhaps, but without dredging, our modern way of life would slowly grind to a halt. Rivers and harbours would silt up and stifle transportation of goods, gas and oil pipelines could not be laid safely, our beaches would be endangered to continuous erosion and flooding. Thanks to the technology of dredging, our lives are richer and our environment cleaner and safer.

René Kolman is secretary general of the International Association of Dredging Companies, the umbrella organization for the worldwide private dredging industry. IADC members represent the largest dredging and marine infrastructure companies in Asia, Europe and the Middle East. Before coming to IADC, René Kolman was Deputy Managing Director of the Dutch Landscaping Contractors Association. As secretary general, he takes a leading role in promoting the dredging industry’s long-standing commitment to the environment and sustainability.
European logistics

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Dry Ports

Intermodal terminals of the future

With its motto: “Towards an integrated transport system in the Baltic Sea region”, the TransBaltic project is seeking to strengthen regional initiatives aiming at integration of transport patterns and networks in the BSR, as stipulated by the EU’s strategy for the region.

The general approach provides for using joint transport development measures and jointly implemented business concepts. Building on the outcomes of transnational transport projects and pan-Baltic initiatives, TransBaltic is structuring these into one framework and upgrading them by selected pilot business actions.

Along with the work packages focusing on strategies, policies and planning issues, the project includes a group of tasks designed to test practical solutions, to demonstrate their feasibility in a specific business environment and to evaluate their potential for becoming BSR transport blueprints. Among these, Task 5.1 “Dry Port Development” is based on a concept which appears to carry an outstanding potential as an intermodal solution of the future. Implemented under the leadership of LAKES (Lahti Regional Development Company Ltd.), the task responds also to the interest voiced by two other TransBaltic partners: Hamburg Port Authority and Poland’s Warmińsko-Mazurskie Voivodeship self-government.

The dry port concept is still evolving and not given its final shape yet. For the purpose of the TransBaltic Project application, it has been defined as “a part of a seaport moved some 30-200 km into the hinterland in order to satisfy customers’ demands and at the same time to ease operational constraints (e.g. traffic bottlenecks in the main port

Emergence and significance of dry ports

Environmental problems have received increasing attention during the last decade and with them also the role which logistics concepts can play in reducing those problems.

The concept

A dry port is an inland intermodal terminal directly connected to seaport(s) by rail where customers can leave/pick up their units as if directly at a seaport. “As if directly at the seaport” is a very crucial part of the definition because it implies a certain level of integration with seaports as well as availability of services that may be found at a seaport, such as storage, maintenance of containers, customs clearance, etc. Therefore, dry ports are used much more consciously than conventional inland terminals, with the aim of improving the situation resulting from increased container flows, and a focus on security and control by the use of information and communication systems. Scheduled and reliable high-capacity transportation to and from the seaport is essential and determines the dry port’s performance and its environmental role. Based on their function and their location, dry ports may be categorized as distant, midrange and close. The figure next page shows the basic idea behind the concept.

Close, distant and midrange dry ports

Implementation of a close dry port in a seaport’s immediate hinterland increases a seaport’s terminal capacity which might result in increased productivity since bigger container ships will be able to call at the seaport. This type of a close dry port may serve as a depot, empty container storage. With dry port implementation a seaport’s congestion from numerous trucks is avoided since one train can substitute some 35-40 trucks. Sydney’s Port Botany has a

Tab. Potential dry port benefits

<table>
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<tr>
<th>Seaports</th>
<th>Potential benefits from dry ports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less congestion</td>
</tr>
<tr>
<td></td>
<td>Increased capacity</td>
</tr>
<tr>
<td></td>
<td>Expanded hinterland</td>
</tr>
</tbody>
</table>

One of the concepts that, among other advantages, has a role in decreasing environmental impacts is the concept of a dry port. The first mention of dry ports as ‘ports secs’ by P. Hanappe dates back to 1986. However, the concept was neglected for many years and only recently resurfaced due to increased interest in environmental issues relating to growing containerized maritime transport. Progress alone in the maritime part of the transport chain (building bigger ships) and in seaports (acquiring bigger cranes), without improvements in seaport inland access, is not sufficient for the entire transportation chain to function. The study of dry ports emphasizes the importance of efficient seaport inland access which might be obtained by means of dry ports; the importance is not only for the seaports but for other actors in the transport system and society as well.
The dryport – a development worked upon in TransBaltic project is a good example on how both knowledge transfer and crossover of results can be achieved between other ongoing and previous projects. In this case, this has been SustAccess, a project completed in 2006, where the dryport issue was introduced as an Interreg North Sea Programme important development and the ongoing „Dryport – a Modal Shift in Practice”, both these projects with Region Västra Götaland as a lead partner. Having introduced the dry ports concept as a component of the TransBaltic project, let us now get a deeper insight into how this innovative solution is expected to work in practice, as an element of the freight transport chain.

**Benefits**

The table below summarizes potential benefits that might result from a dry port.

Although the concept itself should bring numerous benefits to the actors of the transport system, there are still many impediments to its implementation. The most common are land use, infrastructure, environmental and institutional obstacles. Therefore, a dry port must fit into the transport system where regulations are designed to optimize the use as well as development of existing infrastructure and its belonging modes of transport.

Dr Violeta Roso

Violeta Roso is a Postdoctoral Research Associate at the Logistics and Transportation Division at Chalmers University of Technology, Sweden, where she obtained her PhD degree in Technology Management and Economics and her MSc degree in Management of Logistics and Transportation. Her main research area is dry ports as a part of intermodal transport. She has been involved in teaching, including the following courses: Fundamentals of logistics, Freight transport systems and Supply chain design and management.
Finland has a new port
An interview with Kimmo Naski, Managing Director, Port of Kotka

The priority will be to convince the customers, owners and personnel of the great advantages of the merger in practice.

What are the strongest elements in the new port’s offer?

We will be a full service universal port for all kinds of cargo, from raw materials to finished products, with a wide range of added value services. We will be a strong player among the Baltic Sea ports in many cargo sectors. We hope the new elements of the offer are to come due to added competitiveness of the port. I am proud to say that we have almost unlimited expansion potential.

What will be the advantages of HaminaKotka Port?

Beside the size of the port, our great benefit is its location between Helsinki and St. Petersburg. We now have the possibility to maximize our common forces and co-ordinate different cargo groups to most reasonable harbours for each cargo inside the HaminaKotka Port Group. We can also avoid overlapping investments.

How will the new port be organized and managed?

We are still working on its organization. What we know is that the City of Kotka will appoint five and the City of Hamina – three members of the board. I will hold the position of managing director and Jan Gran, who’s now MD of Port of Hamina, will be vice managing director. Everything else is still open.

How will the revenues be distributed?

HaminaKotka Port Ltd will be a normal limited liability company with all rights and responsibilities. The City of Kotka will hold 60% and City of Hamina 40% of the shares. It is for the owners to decide if they want to issue dividends (60/40) after each financial year. I would also like to stress that the total cost is relatively low compared to the value of the merger. Naturally, it will be covered by the two ports.

The most important economic direction for both ports is Russia. What is HaminaKotka Port’s strategy towards its Eastern partner?

We have two main hinterlands: Finland and Russia. Our strength is a combination of Finnish exports and Russian imports, but we are certainly open to any other markets as well. Besides Russia, and all the former Soviet Union countries, plays a considerable role. Continental Europe, Great Britain, Sweden and the whole of Asia are utmost important destinations for us.

What are your plans in terms of investments in the new port?

In Hamina, the whole port is situated in the same location. On the other hand, in Kotka there are in total eight harbours in the port. Therefore, we gain a lot of capacity and can postpone the existing investments plans of both ports. It means that we plan to do only minor investments in the next 5-10 years and will postpone the major, hitherto planned investments for the period after that.
The number of industrial and logistic companies as well as employees is expected to grow. The competitiveness of the Kotka-Hamina area will increase. The profits of the two ports are expected to grow considerably in a well organized, one common company.

**What numbers in terms of yearly revenues and turnover will you consider a success after the fusion?**

We are expecting an average yearly increase of 5-7% in revenue and traffic turnover, which is more than double the long term economic growth of Finland.

**How will the Baltic Sea region benefit from the merger?**

Shipping lines operating the north-eastern part of the Baltic Sea will benefit through more efficiency in our port. This also goes for the industry and trade using ports in our area. Additionally, in my opinion, there is a need for a closer cooperation between the ports in the entire Baltic Sea area – cooperation aiming deeper than, for example, common marketing. We would be happy to exchange experiences with other Baltic Sea ports.

**The case of Kotka and Hamina is the first port fusion in Finland. Do you think it will be a kind of good practice for other Finnish ports and maybe a catalyst for their merger decisions?**

Well, at least it gives them one possible model for future consideration of port mergers – not only for Finnish, but also international ports. Ports located close to each other and having the same traffic profile are potential candidates. A port merger is an excellent way to add effectiveness, specialize and avoid overlapping investments. It is worthwhile to consider a merger as a solution for a better future.

**There are hundreds of ports in the Baltic. “I feel that around 50-60 would be enough,” said Markus Nyman of the Finnish K+N when we asked him about the possible Kotka-Hamina merger in the previous issue of BTJ. Would you agree?**

In my opinion, physically, there is a need for a larger amount of ports in the Baltic Sea than only 50-60. This is because of the long coast line and due to the fact that there are nine independent countries around the sea. More important is the fact that there are too many port organizations and port authorities. With specialization through mergers there is a huge potential to reduce the number of them, which would serve the BSR well.

**Martyna Bildziukiewicz**

Merging the ports of Hamina and Kotka will constitute the largest seaport in Finland. According to estimates, based on the both ports’ statistics for the January – October 2010 period, the joint turnover of the two ports will reach approx. 15.3 mln tonnes, including approx. 500,000 TEU. In terms of total turnover, HaminaKotka Port Ltd is likely to take 15th (or similar) place in the Baltic ports ranking. Simultaneously, it would become the third largest container port.

The future between Kotka and Hamina ports will soon be joint, since we will be acting as one company, HaminaKotka Port. The most important advantages of the merger will be creation of the biggest general port in Finland. The advantage of operating as one unit will come from the optimization of the joint activities and traffic patterns in the most cost-effective way. The biggest direct saving will come from postponing major investments. Over the next five years we will save approximately EUR 60 mln thanks to this operation, which is a considerable amount taking into account the size of the new company and the Cities of Kotka and Hamina. I believe this merger can be a model for other ports and we will see more of such operations happening in the future.

**Jan Gran**
Managing Director, Port of Hamina

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**Upcoming BPO events**

**BPO Seminar: LNG in the Baltic and North Sea**

**Business opportunities or the cost factor for the ports**

12th January 2011, 9:00-16:00, Gothenburg, Sweden

Venue: Quality Hotel 11 & Eriksbergshallen (located in the heart of Port of Gothenburg)

The seminar, organized in cooperation with the Port of Gothenburg is addressed towards ports, the shipping sector and other relevant businesses. Subjects to be discussed include:

- LNG – importing energy and new fuel for shipping in Northern Europe;
- LNG import terminal in Port of Świnoujście, Poland;
- LNG in the Port of Gothenburg by 2013;
- LNG from a ship owner’s perspective;
- Development of bunker regulations, the missing link between a terminal and vessel;
- LNG bunkering in ports;
- LNG distribution terminals – opportunities for the ports;
- Marine operations in LNG terminal – requirements.

To register please visit [www.bpoports.com](http://www.bpoports.com) or contact bpo.office@actiaforum.pl.
Integration and competition within modes

Integrating three well established conferences – the fifth Ro-Ro & Ferry Conference, the fifth Baltic Container Conference and the fourth RailPort, Transport Week has the chance to become the biggest international all-sector event in Poland. BTJ is the main media partner of the first edition.

The event is partnered by the Port of Gdańsk Authority SA, and held under the honorary patronage of ESPO, BPO, Polish Ministry of Infrastructure, Polish International Freight Forwarders Association, the City of Gdańsk and Marshal of the Pomorskie region. The conference section will be accompanied by free trade fairs and panels conducted by Baltic Transport Journal editorial team, InvestGDA (Gdańsk Economic Development Agency), aircargo.pl Internet portal and Gdynia Maritime University, and topped with an evening Gala Dinner. The event expects to gather around 500 executives, who will try to answer what lesson we have all learned from the crisis. Discussions will touch changes in trade patterns and impact of emerging markets (China, India, Russia, Brazil) with focus CEE in its relation to the Baltic and Scandinavia, North, Black, Mediterranean and Adriatic seas – all in the eye of drawing new transport corridors on the map of Europe with TEN-T network’s and White Paper’s revision.

The organizers, Actia Conferences, have been involved in linking transport society from various countries and sectors for years with their high-level industry meetings. “It is a very good initiative. We need to get together from the whole Baltic region to focus on common issues, challenges, problems, and to share our different views”, comments Erik Andersson, Head of Public Affairs at the Ports of Stockholm, host of Ro-Ro & Ferry Conference in 2008. Aneta Wencel, Shipping Policy Division Director of Polferries goes hand in hand. “Sometimes, it’s worth to take part in such meetings even for just one heard thought or idea. I, however, have found many things worth remembering here”, she says. On the other hand, Erik Ringmaa, Chief Commercial Officer of the Port of Tallinn, marks importance of specialized panels, explaining that the main thing driving him to participate annually (besides quality of topics, speakers and organization level) is that Actia runs the only pure container conference particularly dedicated to the Baltic region. Therefore, we all hope that the planned innovative formula of thematically dedicated days interlinking with extra seminars, panels and exhibition, will provide a good platform for everyone to get useful know-how and important contacts.

More detailed info on the event, including speaking, exhibiting and sponsorship opportunities, as well as visitors pass and recommended accommodation are available on www.acticconferences.com, where you can register online.

BTJ & Transport Week special deal: everyone who registers for Transport Week 2011 until 28th February 2011 will get 20% discount on BTJ’s printed edition annual subscription. Just e-mail us at subscriptions@baltictransportjournal.com and make sure today that 6 bi-monthly BTJ editions filled with Baltic market statistics/analyses get at your desk for the price of EUR 60 only (0% VAT, postage included).
The place of Øresund Bridge

Øresund Bridge – a key element of the Scandinavian road and rail transport system – links the Scandinavian Peninsula to Denmark, providing a connection between the capital city of Copenhagen and one of Sweden’s major urban centres, Malmö.

The construction of Øresund Bridge was commenced in 1995 and completed 5 years later. The bridge is operated and maintained by Øresundsbro Konsortiet, a company owned by the governments of Denmark and Sweden in equal shares. The entire connection consists of 3,510 m long Drogden Tunnel, the artificial island of Peberholm (4,055 m in length), and the proper bridge of 7,845 m. And thus, although the bridge itself constitutes not much more than half of the entire structure’s length, the name Øresund Bridge has caught on.

The connection includes a dual motorway (four road lanes) and a twin track of rails. This is the longest bridge in Europe and the world’s longest bridge construction connecting two countries. The bridge motorway is a part of the European route E20.

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Due to its location, the bridge provides access to two of Sweden's six major rail transport corridors, i.e. Corridor 1 (Luleå-Mälardalen-Malmö/Trelleborg) and Corridor 5 along the west coast of Sweden (Norway-Gothenburg-Malmö) which goes along the European Highway E6). Corridor 1 covers the European Highway E4 (Helsingborg-Haparanda section), the main railway line leading from the north of Sweden, the East Coast line and the main line in the south of Sweden. This is one of the cargo transport corridors with the highest traffic intensity.

Corridor 5 is of high significance for Norway, as Oslo–Svinesund/Kornsjø is Norway’s most important corridor for international passenger and freight transport, an element of the Nordic Triangle (Copenhagen/Malmö-Gothenburg/Oslo-Stockholm/Helsinki) and of the TEN-T network.

continued on page 52
BTJ calendar of partnership events 2010-2011

Baltic Ports Organization in cooperation with the Port of Gothenburg are jointly organizing the seminar "LNG in the Baltic and North Sea – Business opportunities or the cost factor for the ports". Among the analyzed matters one should expect prospects for LNG fuel both from the ship-owner and the port perspective, as well as bunkering and distribution issues. The seminar is addressed towards ports, the shipping sector and other related businesses.

Now in its 14th year, EuroRail is the leading platform for rail market CEOs to meet and discuss how to overcome the challenges of today's competitive environment, and how to capitalise on the opportunities created through rail's strategic advantages in a market geared towards sustainability.

The event will examine practical, economically viable solutions, as well as applications and case studies in use for reducing carbon footprints and energy consumption management. The talks will have their follow-up at GreenPort's Annual Congress, 14-15 September 2011 in Hamburg.

The 2nd Port Centric Logistics Conference will bring together relevant supply chain partners to debate on how effective port centric logistics solutions are changing current distribution systems and generating a competitive advantage. Experts from different branches will share their knowledge and experience on trends in maritime trade flows.

BTJ 1/2011 (Jan.-Feb. edition)
Actia Conferences and Baltic Transport Journal (as the main media partner) invite you to a joint event integrating three already well-established international conferences: the 5th Ro-Ro & Ferry Conference, the 5th Baltic Container Conference and the 4th RailPort. The event will be accompanied by a 3-day open trade fair, free seminars and discussion panels, and topped with an evening gala dinner. Integration (and competition) within transport sectors in the Baltic and CEE countries will be the main theme of the market discussions.

Informa's RORO is becoming an annual event, introducing a new forum for ro-ro owners and operators. The 2011 event this time only includes a conference section, but promises to bring you up to speed on all recent developments in the sector and new challenges facing the industry. The 2012 edition in Gothenburg will traditionally feature both a conference and exhibition.

Europor Istanbul International Maritime Exhibition has proven to be the complete platform for the maritime industry in Turkey and is now moving full speed ahead to bring the international maritime sector to the exhibition and a wide range of conferences and workshops for 11th time. The previous 2009 edition gathered over 200 exhibitors and almost 8,000 visitors from 48 countries, 95% of whom expressed their intention to visit the event in 2011.

For more than 30 years SITL brings together all transportation and logistics communities and presents products and services dedicated to distribution and the supply chain of tomorrow. Last year’s show brought 500 exhibitors, 27 thou. attendees to the trade fair and a cycle of 30 conferences and workshops, and the organizers are heading towards another record breaking result.

The 16th edition of the largest international transport event in Russia and its neighbouring countries is a good opportunity to establish or enhance your company’s presence on the Russian market. Each year the show gathers representatives from all major transport sectors, including freight forwarders, logistics providers, shipping lines, ports, terminals, rail and road carriers, material handling equipment, etc.

BTJ 2/2011 (March-Apr. edition)
Since 1978 Transport Logistic has established itself as the most important trade fair for logistics, mobility, IT and supply-chain management in Europe. The 13th edition, once again co-organized with Air Cargo Europe, will provide an expert overview of new markets, trends and innovations in the international transport and logistics industry via its many accompanying conferences, seminars, workshops, presentations, etc.

Notwithstanding the downturn in the European shipbuilding/shiprepair market, 2009 Nor-Shipping was the largest in the history of this event, dating back to 1967. With more than 1,100 exhibitors and 33,000 attendees, the show featured 22 national and four thematic pavilions in six halls. This redesigned thematic exhibition layout plus selection of technical conferences and workshops turned out to be a success, so 2011 will follow a similar concept.

The Terminal Operations Conference & Exhibition traditionally gathers suppliers of container terminal services, handling equipment, systems and software. Hundreds of executives from the port, terminal and shipping sectors will meet to discuss the evolution of global maritime trade and how to improve the performance of shipping, port and hinterland services to support trade growth.

Over the last 13 years, International Logistics and Material Handling Exhibition in Barcelona, has become the reference point for all logistics sectors, as an effective and profitable tool for doing business and making contacts in a professional and friendly climate that is difficult to match. The event will be supported by the Mediterranean Logistics and Transport Forum, a number of technical conferences and dedicated business meetings.
BTJ calendar of partnership events 2010-2011

Issue distributed at:

European Shortsea Congress 2011
29-30 June 2011, DE/Hamburg
www.navigateevents.com

GreenPort Congress 2011
14-15 September 2011, DE/Hamburg
www.greenport.com

Held already twice in Dublin and once in Liverpool, the 4th European Shortsea Congress will first time take place on the continent, comprising a two-day conference catering to bulk and unitized shortsea supply chains. The event is guaranteed to bring numerous networking activities.

The 6th GreenPort Congress moves to Hamburg, the European Green Capital 2011, and will feature a 2-day technical conference, gala dinner, and a study tour of the main ports in the North European range: Hamburg, Bremen, Amsterdam, Rotterdam and Antwerp. The topics will include collective solutions for clean shipping, global regulations on CO2 emissions, energy efficiency, sustainable development of land and seaward access, etc. More info at: conferences@greenport.com.

Issue distributed at:

BTJ 3/2011 (May-June edition)

Report: Ro-ro & ferry market
Focus: Transport and ecology

Baltic Development Forum Summit 2011
24-27 October 2011, PL/Gdansk
www.bdforum.org

Seatrade Europe 2011
27-29 September 2011, DE/Hamburg
www.seatrade-europe.com

Along with the Polish shipbuilding restructuring process, the private yards continue their production and new areas of their activities require modern machinery and investments. Baltexpo will target these topics during its 16th international exhibition and conference. In over 30 years, the event has always attracted thousands of professionals from the entire maritime sector: ship owners/operators, shipyards, ports, equipment manufacturers/suppliers, etc.

Baltic Ports Organization invites all executives interested in improving the competitiveness of maritime transport in the region, increasing the efficiency of ports/terminals, developing infrastructure and value added services, as well as extending both ashore and hinterland connections, to its annual conference, this year held at and co-organized by the Port of Rostock.

Seatrade Europe brings together key decision makers in the industry for a high-level conference, a major exhibition, travel agent training and an exceptional social programme. This event attracts senior purchasers, technical and hotel directors, itinerary planners and other major players from the world’s cruise and rivercruise market. A rare chance to accomplish months of business in a few days whilst your prime target group is gathered under one roof.

Issue distributed at:

BTJ 4/2011 (July-Aug. edition)

Report: Baltic maritime ranking 2011
Focus: Baltic shipyards

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Issue distributed at:


Report: Baltic containerisation
Focus: Railway transport

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Issue distributed at:


Report: Bulk transport
Focus: Road traffic

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