ACL

Amber Coast Logistics

Strengthening the logistics sector in the Baltic Sea Region

Experiences from the Amber Coast Logistics project

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1 INTRODUCTION

The Baltic Sea region is one of the fastest growing regions in Europe. In Central and Eastern European countries, in particular, GDP growth rates are much higher than in Western European countries. Germany is expected to achieve an average annual GDP growth rate of 1.4 % between 2011 and 2030, while the figure for Lithuania is 4 % and for Ukraine as high as 4.5 %. Consequently, trade and traffic between West and East are expected to grow rapidly.

The conditions for such an increase in traffic do not apply today, however. Among the obstacles are

- *the quality and capacity of infrastructure (road, rail, ports)*
- *international traffic management (including customs control, organisation of transport chains)*
- *logistics infrastructure (availability of top-quality logistics centres)*

To improve the situation and create favourable conditions for the anticipated growth 19 partners from Germany, Denmark, Poland, Lithuania, Latvia and Belarus, headed by Port of Hamburg Marketing, initiated the Amber Coast Logistics project (ACL).

ACL supports the development of logistics centres (LCs) by bringing players in the transport sector together in order to enhance interaction and knowledge transfer and to promote mutual understanding and awareness.

The conditions for building and operating LCs vary in the Baltic Sea countries. Whereas countries like Germany have a high-quality logistics sector and infrastructure, countries like Russia and Belarus are still in the process of developing their logistics sectors. The differences can be illustrated by reference to the Logistics Performance Index (LPI) developed by the World Bank. The LPI analyses the efficiency of customs and border management clearance, the quality of trade and transport infrastructure, the ease of arranging competitively priced shipments, the competence and quality of logistics services, the ability to track and trace consignments and, finally, the frequency with which shipments reach consignees within scheduled or expected delivery times. The aim of the LPI is to help policymakers and the private sector to build a strong case for reform by highlighting the costs of poor logistics and the consequences this has for international competition. Whereas Germany's LPI is quite high (6th place with a score of 97 % compared to the top performer) the LCI of Belarus is low (91st place with a score of 51 % compared to the top performer).[1]

The Logistics Performance Index differs significantly among Baltic Sea region countries.

However, a comparison of the development of LCs in different ACL countries highlights transferable features that can be valuable for an analysis of what makes a logistics centre successful. For that reason ACL has undertaken an analysis of the development of different LCs. In this brochure four LCs are described and analysed in detail: Køge in Denmark, Frankfurt (Oder) in Germany and Prilesie and Beltamozhservice 2 in Belarus. An assessment of the experience gathered at these sites serves as a basis for the formulation of recommendations for building, implementing and operating logistics centres. However, it is not only the physical infrastructure that is important for the quality and competitiveness of the logistics sector. Transport management – particularly the use of appropriate IT solutions – is likewise gaining in significance.

This is therefore also a key element of the ACL project. To illustrate best practice here the brochure presents two IT solutions, developed within the framework of ACL, which facilitate transport chain organisation and operation as well as logistics promotion.

[1] http://lpi.worldbank.org Global ranking 2012

CASE STUDIES:
FOUR LOGISTICS CENTRES IN EUROPE

This section provides an analysis of four different LCs, the purpose of which is to gain a better understanding of how LCs work and what needs to be considered when planning them. The analysis is based on a questionnaire filled in by selected LCs in the ACL region.

A common understanding needs to be reached of what an LC requires before a start can be made on an analysis. According to Europlatforms, a European association of LCs, a logistics centre is "…the hub of a specific area where all the activities relating to transport, logistics and goods distribution – both for national and international transit – are carried out, on a commercial basis, by various operators and are directly linked to a highway. The operators may be either owners or tenants of the buildings or facilities (warehouses, distribution centres, storage areas, offices, truck services, etc.) built there. In order to comply with free market rules, a logistics centre must be accessible to all companies involved in the activities set out above. A logistics centre must also be equipped with all the public facilities necessary to carrying out the above-mentioned operations. If possible, it should also include public services for the staff as well as users' equipment. In order to encourage intermodal transport for goods handling, a logistics centre should preferably be served by a variety of transport means (roads, rail, sea, inland waterways, air). It is vital that a logistics centre is managed as a single and neutral legal body (preferably by a public-private partnership) if synergy and commercial cooperation are to be ensured. Finally, a logistics centre must comply with European standards and quality performance in order to provide the framework for commercial and sustainable transport solutions…"[2]

The establishment of an LC produces several benefits for the region, predominantly in the fields of employment and the environment. Jobs are created directly through companies in the LC as well as indirectly through companies in the region which profit from the logistics services. The impact on employment levels depends on the structure of the LC. The more enterprises offering value-added services, the bigger the effect is on employment. LCs concentrating on transport, storage and cargo handling have a comparatively minor influence on employment. Seen from a regional perspective, this is an important consideration in the management of the LC. Positive environmental effects are generated through the transfer of traffic from road to rail or inland waterways. Moreover, road traffic can be diverted from congested inner-city roads to peripheral roads. Transport into cities can be concentrated and thus minimized. LCs must be directly connected to several transport modes and located in the vicinity of towns or cities if the positive environmental effects described are to be generated.

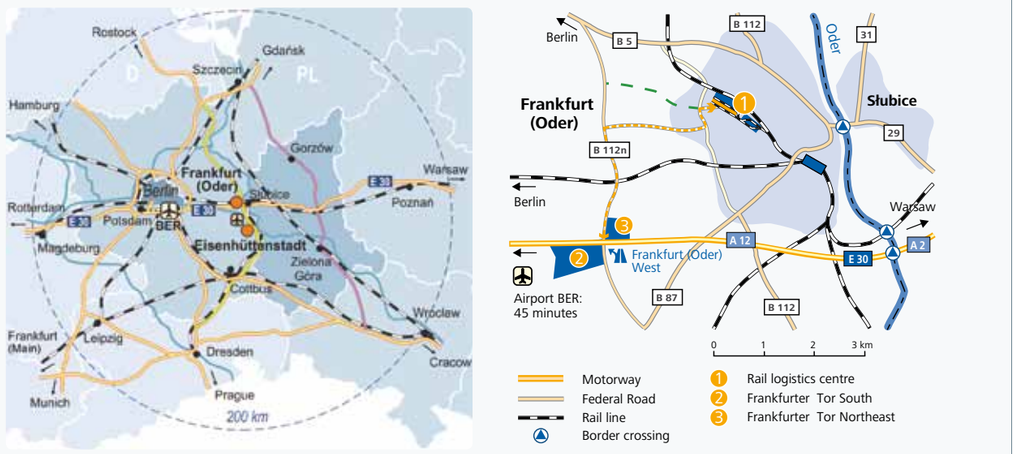
According to the study "Ranking der europäischen GVZ-Standorte-Benchmark der europäischen Erfahrungen" the ownership and operating model is a key factor for the success of a logistics centre. Europe currently has three models consisting of private, public and public-private structures. Purely private models are widespread in the UK. In such models a private investor builds an LC on a certain site. Its design might be subject to public approval. Exclusively public models (e.g. in France) are rare. The most common model is a combination of both, i.e. a public-private partnership model.[3] This combines the advantages of both public and private structures. Private structures operate better in the market (promotion), whereas public ownership of land makes development easier.

However, the success of an LC depends not only on the physical infrastructure, location and level of services. It may also be the IT infrastructure that determines the quality of the service offered at an LC.

Logistics centres with a high share of enterprises offering value-added services can take a significant effect on region´s employment level.

[2] Definition by EUROPLATFORMS EEIG (2004)
[3] See Deutsche GVZ-Gesellschaft mbH, Ranking der europäischen GVZ-Standorte-Benchmark der europäischen Erfahrungen, Berlin 2010)

Location of Frankfurt (Oder) and GVZ FFO



Source: Investor Center Ost Brandenburg GmbH, 2013

2.1 LOGISTICS CENTRE FRANKFURT (ODER), GÜTERVERKEHRSZENTRUM (GERMANY)

The logistics centre in Frankfurt (Oder) was built in 1996 as a Euro Trade and Transport Centre. Since 2012 it has been called Güterverkehrszentrum Frankfurt (Oder) (GVZ FFO). The surrounding area (within a radius of 50 kilometres) is home to approximately 1.5 million people. The main industries are metal production and handling, logistics, energy and paper as well as wood, food and agriculture.

GVZ FFO, which is located right on the German-Polish border, serves as a connecting link between East and West for both Western and Eastern European companies. Cross-border traffic has become more and more important since the enlargement of the EU in 2004. Nearly three million trucks a year now pass the German-Polish motorway border crossing point in Frankfurt (Oder). Traffic volumes are expected to grow still further in the future.

GVZ FFO combines road and rail transport. Industrial and commercial sites located at Frankfurter Tor have direct access to the A12/E30 motorway and offer road-based logistics services. Rail-based logistics services are available at the rail transport centre, which has a combined transport terminal. GVZ FFO worked together with the city of Frankfurt (Oder) to build a rail transport centre incorporating a combined transport terminal on the area of a former shunting yard. The terminal went into operation in 2005.

Frankfurter Tor consists of two industrial parks, North-East and South, both of which have free space for industrial and commercial development. Frankfurter Tor serves as a connecting link between Rotterdam and Moscow on the East-West corridor as well as between Szczecin and Prague on the North-South axis. It also has space for logistics services just a few minutes away from the combined transport terminal. The favourable location in conjunction with wide-ranging support from the regional economic development company, Investor Centre Ostbrandenburg GmbH (ICOB), has resulted in a couple of Belarusian companies opening subsidiaries at Frankfurter Tor in recent years.

As a hub for seaport hinterland traffic, the terminal offers access to Europe's main seaports, Hamburg, Bremerhaven and Rotterdam, as well as connections to Kutno (near Lodz/Warsaw), Gliwice and Brzeg Dolny (near Wroclaw). Frankfurt (Oder) is developing new sites for rail-based logistics and establishing new and modern transport facilities and services, such as a new crane and additional handling tracks at the terminal. After expansion, the capacity of the intermodal terminal will be about 130,000 TEU per year. Currently around 56,000 TEU are handled: 50 % of goods come and go by road, 50 % by rail. The average transport distances to and from the LC are about 500 km.

The Frankfurt (Oder) logistics centre, GVZ FFO, including plans for upgrading / Source: Investor Center Ost Brandenburg GmbH, 2013

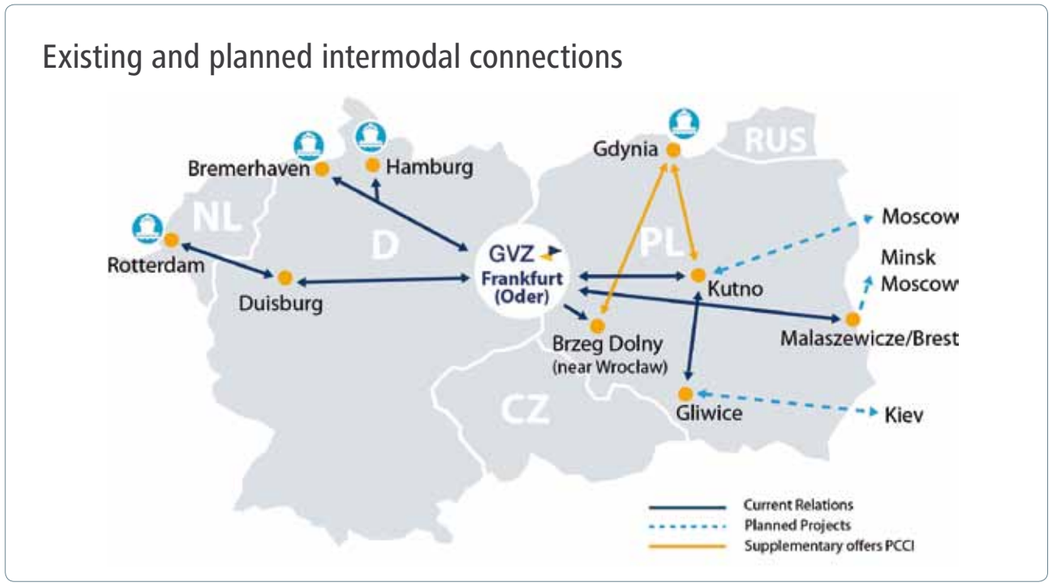
Due to its strategic position a couple of Belarusian companies have opened subsidiaries at Logistics Centre Frankfurt (Oder).

The objective is to connect the seaports of Hamburg, Bremerhaven and Rotterdam with important Polish business locations. A connection between Rotterdam and Moscow via Frankfurt (Oder) has been halted due to limited demand, especially in an East-West direction. However, a re-opening of the route is planned for 2014. Further links with Brest and Minsk are also in the pipeline.

The overall size of the site is 70 ha with another 40 ha earmarked for possible expansion. GVZ FFO has a warehouse capacity of 3,000 sq. m. In addition to general transport services, the GVZ FFO customs clearing site has a hazardous goods store and a trailer rental facility. Whereas warehouses can only be rented, real estate can be rented or bought. Consequently the ownership structure of the LC is mixed. The Polish logistics company, PCC Intermodal, has been operating the intermodal terminal since 2012. Eleven companies are now based at the LC. Nine of them operate in the transport sector as forwarders or rail and road service providers. GVZ FFO is owned by the City of Frankfurt (Oder). Development of the site was contracted to ICOB. As the management institution it is responsible for overall development, the acquisition of new enterprises, marketing and the provision of logistics and intermodal transport services. Today some 120 employees work for companies in the Logistics Center.

What are the strengths and weaknesses of GVZ FFO?

First of all, GVZ FFO clearly benefits from its favourable location at the heart of Europe and from the fact that it is one of the main border crossing points for East-West road and rail traffic. Furthermore, it is positioned right on the main Pan-European Transport Corridor II, the new North Sea-Baltic TEN-T corridor, between Berlin (80 km away) and Poznan (170 km away). Trucks leaving Frankfurt (Oder) can reach the Netherlands in the West and the EU border with Belarus in the East within the maximum daily driving time (nine hours). GVZ FFO is thus a good consolidation point for East-West transport. Moreover, the intermodal terminal is an established hinterland hub for rail traffic between German and Dutch overseas ports and business centres in Poland. Frankfurt (Oder) station is currently the main rail border crossing point in direction to Belarus and Russia.



Source: Investor Center Ost Brandenburg GmbH, 2013

Another positive factor is that the terminal operator is also a transport operator and is therefore concerned to switch traffic to Frankfurt (Oder).
The main problem is the weak economy of the region around GVZ FFO. The potential for containerized transport, in particular, is limited. Consequently, local demand for transport and logistics services is only modest, which makes profitability for GVZ FFO and the terminal a challenging task. Above all, the combined transport terminal needs to attract volume from other regions. From an economic perspective this is a disadvantage compared to locations with a local demand which provides a basis for utilisation of the terminal.
On the one hand, economic stagnation in East Brandenburg poses a threat to future development. On the other hand, economic growth in Eastern Europe offers an opportunity. New restrictions on short sea traffic on the Baltic Sea Sulphur Emission Control Area (SECA) may also lead to a modal shift to rail transport via the hinterland. Finally, political instability in Eastern Europe (Ukraine, Belarus) is also a risk for the development of GVZ FFO, as it could lead to less trade between Germany and the target regions.

2.2 LOGISTICS CENTRES IN BELARUS: PRILESIE AND BELTAMOZHSERVICE 2

The two Belarusian logistics centres under analysis are Prilesie and Beltamozhservice 2. Prilesie is a privately owned logistics centre, whereas Beltamozhservice 2 is publicly owned. The Prilesie LC is located in the centre of Belarus close to Minsk. It is near to important pan-European transport corridors which cross the country.

The 97 ha area allocated for development of the Prilesie Transport Logistics site is situated in the Minsk Free Economic Zone. This enables the LC to grant its clients special legal status, providing tax benefits and relief on customs duties.
The location of the site outside the city centre allows for round-the-clock operation. Prilesie provides sufficient access for both long distance transport and city delivery. The LC enjoys easy access to the Minsk ring road as well as the national railway network.
Development of the LC began in 2007 and is still in progress. Once finalised, the Prilesie LC will provide warehousing and supporting services for international and local road/rail cargo transit as well as city and regional goods distribution logistics.

Location of the Prilesie logistics centre and its connection with the main transport corridors / Source: Prilesie, 2013

It incorporates a warehouse with a total area of 210,000 sq. m., an administration area, a sales and exhibition area, roadside services and an intermodal terminal. The development of the complex is being carried out in stages. The first stage was successfully completed in 2013. It comprises 35,000 sq. m. of warehousing premises (with office space), access roads and a utility area. The remainder of the complex is currently under development. According to official statements, the site will be completed by the end of 2014. Construction of the intermodal terminal with a railway connection is planned for a later stage of the project. At the moment the nearby railway station (serviced by Belarusian public railways) can be used to transport containers. There are also plans to provide customs clearance and truck maintenance services and to develop exhibition and sales services.
The LC is operated and managed by The Prilesie Company, a local engineering and investment company authorised by the Belarusian government to invest, design and operate the Prilesie transport logistics complex.
The management company concentrates on real estate development and is not responsible for other management tasks such as marketing. The construction of the complex is included in the development programme for the Belarusian logistics system up to 2015. Companies can rent or buy real estate from the Prilesie company. So far Prilesie is the largest logistics development project in Belarus. It may become an important logistics hub and, as such, a model for a whole network of logistics centres in the country.

The Prilesie logistics centre / Source: Prilesie, 2013

Prilesie is the largest logistics development project in Belarus.

The Beltamozhservice 2 Logistics Centre in Minsk / Source: Beltamozhservice 2013

What are the strengths and weaknesses of Prilesie?

Prilesie's main strength is its location in the central part of Belarus. The city of Minsk ensures sufficient local demand.

However, there is a strong tendency for the LC to be used mainly as a regional distribution logistics hub (to supply the Minsk consumer market with imported goods, predominantly fast-moving consumer goods), but not as a hub for international East-West trade. This is due to the limited trade volumes in the region. It is unlikely that production companies in the region will use the LC in export chains, as Belarusian enterprises traditionally possess enormous on-site storage facilities. In this case the major strength of the LC – its proximity to international transport corridors – will not be exploited to any great extent.

The main weakness of Prilesie is its price policy and the high rents, which are the consequence of a lack of serious competition in the Belarusian logistics market. Another major weakness at the moment is the lack of any intermodal services. This will be remedied in the future, however, once the intermodal terminal is built. Opportunities from the macro-economic point of view are the potential for enlarging transit flows and an increase in purchasing power in the region.

Companies in the region also stand to benefit from the possibility of purchasing or renting warehouse facilities and influencing site development by drawing attention to their needs and bringing in their own ideas.

A further opportunity arises from the spread of production activities within the region, specifically the announced relocation of 40 production facilities to suburban areas. To a certain extent this will lead to the outsourcing of warehousing services.

Trade and transport volumes are expected to grow rapidly in the next few years. Thus the weakness resulting from a lack of competition might turn into a threat if several new logistics centres are developed in response to growing trade and transport volumes.

Other threats to Prilesie are the quality and capacity of transit infrastructure and unfavourable changes in legislation.

Problems of accessibility might occur in the future, too. The roads in the Minsk agglomeration could turn into a bottleneck if traffic increases as expected. More problems with access to Minsk city centre are anticipated due to the steadily increasing over-congestion of the Minsk ring road.[4]

As a result, the competitive advantages of the LC in distribution logistics may suffer considerably in the near future. East-West transit flows will not be affected, however.

[4] In particular Kaliadzicy and Sabany transport vectors as well as relevant parts of the ring road.

Beltamozhservice 2

Whereas Prilesie is a privately owned logistics centre, most of the LCs in Belarus are publicly owned. One example of a publicly owned LC in the Minsk agglomeration is Beltamozhservice 2, which was built in 2013 as part of the national programme to develop the country's logistics sector by 2015.

The overall size of the site is 15.5 ha. There is no room for expansion. The business area comprises warehouse capacity of around 20,000 sq. m. (offering storage of goods, including those carried under the customs procedure of customs transit) and an intermodal terminal. Storage capacity for up to 156 containers is available on an area of about 4,000 sq. m.

Also included on the site are an office building for departments providing clients with customs services, veterinary and phytosanitary services, transport and forwarding services, bank services, insurance services and information services.

Beltamozhservice 2 and the companies on the site currently employ 120 people. These companies are mainly from the storage and packaging, trade and distribution, and transport services sectors. Beltamozhservice 2 has a comprehensive range of services for transport, storage and customs. Consolidation, packing, labelling and the issuing of certificates are among the storage process services on offer. Finally, there is capacity for storage of heavy loads and oversized cargo.

The Beltamozhservice 2 Logistics Centre in Minsk / Source: Beltamozhservice 2013

2.3 LOGISTICS CENTRE KØGE, SCANDINAVIAN TRANSPORT CENTRE (DENMARK)

The Køge Logistics Centre is located in the vicinity of Copenhagen (40 km away). Some two million people live within a 50 km radius of the Danish capital. The centre is situated right on Scandinavian-Mediterranean Corridor, one of nine core network corridors in Europe.[5]

The main industries in the area are chemical and wood products, rubber and other raw materials (plastics, metal), transport and warehousing business, and hardwood flooring production.

Established in 2000 the Scandinavian Transport Centre (STC), is one of Eastern Denmark's fastest growing business areas. The combination of direct access to the E 20, E 47 and E 55 motorways, a rail terminal, integrated logistics facilities and port facilities located just three kilometres away is ideal for a dynamic transport centre which offers large transport and logistics companies a link with the port. The port of Køge has recently benefited from the introduction of a regular ferry service to Bornholm.

As regards the rail infrastructure, it is important to note that a new electrified, double-track, high-speed railway line from Copenhagen to Ringsted is under construction, which is due to be completed in 2018. This new line will connect Køge with the European railway network. There will thus be direct access from Køge to Rødby (120 km away), where the new Fehmarn Belt fixed link is planned to open in 2021, and the regions will be connected with Sweden and West Denmark.

The railway from East to West Denmark will be electrified in 2015. This will ease cargo transport between East and West Denmark (i. e. from Køge to Esbjerg). As of 2018 the current railway line from Køge to Næstved will also be electrified, which will facilitate rail transport on Zealand from Copenhagen through Køge to the southern part of Zealand. The upgrading of the railway line through Køge will enhance the strategic location of STC, thus providing even better opportunities for companies and customers using its services. At present the modal split is still road-focussed (80 %). The share of water-based transport is 19 %. As a result of the planned improvements in the rail infrastructure the share of rail traffic is expected to increase significantly. A considerable percentage of the goods transported via STC are to and from destinations in Denmark (40 %) or the EU (50 %).

[5] http://ec.europa.eu/transport/themes/infrastructure/new-core-network-key-figures_en.htm

The Scandinavian Transport Centre at Køge / Source: Scandinavian Transport Centre, 2012

The combination of direct motorway access, a rail terminal, integrated logistics facilities and port facilities nearby is ideal for a dynamic transport centre.

The site covers about 130 ha and is one of the largest available to commercial and transport businesses in Zealand and the Copenhagen Capital Region. There are plans to extend the area to 180 ha. STC has a warehouse capacity of approximately 250,000 sq. m.

STC is divided into two zones. One is reserved for transport and logistics companies while the other large area is designed for different types of businesses. The transport centre includes shared facilities such as filling stations, a cafeteria, service and repair facilities, laundry facilities, accommodation and gated parking areas. The business area, which includes both vacant and sold land, can be used for new construction projects ranging from 5,000 sq. m. to almost unlimited sizes. With large companies such as Netto, OK, NCC, Nyscan, DBK and LMG Group located on the site, STC is a major facilitator for high-quality logistics solutions.

What was the idea behind the development of STC?

In the past, many municipalities depended on a few large companies for jobs – Køge, for example, had Junckers, Kemisk Værk, Codan Gummi and the Pectin factory as major employers. STC was intended to attract more companies with specific needs as regards location, infrastructure and logistics services. This appeared to be a viable aim in the light of other regional benefits such as employment opportunities, good housing and active commerce along with good recreational and cultural facilities. Eighteen enterprises employing about 3,000 staff are currently based in STC .

The Port of Køge / Source: Scandinavian Transport Centre, 2012

They include forwarders, road transport services distribution and packaging centres, production companies and a mix of companies from the service sector. In addition to a general cargo terminal and logistics services STC offers transport research and training services, hazardous goods storage and other services.

The LC is run by the STC management company. Owned by the city of Køge, it currently employs about 15 people. The real estate is in public ownership. However, estates and warehouses are available for purchase. The company has a wide range of responsibilities extending from support for the planning, development and implementation process to the acquisition of new enterprises, marketing and the provision of intermodal transport services.

What are the main strengths and weaknesses of the STC?

Clearly, the combination of direct access to the E20, E47 and E55 motorways and the location of the site just outside Copenhagen are the main advantages STC has over other LCs. Moreover, the integrated logistics facilities and the Port of Køge – combining three modes of transport – are located just three kilometres away, which represents an added benefit.

From a management perspective it is positive that, while publicly owned, STC is managed by a single, neutral legal body. The site also has room for expansion, which is likewise a great advantage as it allows for market-oriented growth in the future. The focus of the LC so far has been on Denmark and other European countries, so there is potential to broaden the geographical scope.

From a current perspective the concentration on road traffic is a disadvantage for STC. However, this might change once the rail infrastructure is improved (in 2018). As a result of these improvements STC will be directly connected with the European railway network, which represents a great opportunity for the LC. Given the location of the STC on the new Scandinavian Adriatic Corridor, international companies should see the added value of using the centre as a Nordic hub. So far there is no container terminal, which – if built – would further improve the range of logistics services on offer.

3 RECOMMENDATIONS FOR LOGISTICS CENTRES

When developing a logistics centre, the regional and local situation is the most important starting point for planning. The right approach at one location is not necessarily the best approach at another. However, there are some general aspects worth considering irrespective of the local environment. The analysis of the four different LCs offers some valuableadvice concerning the design and optimum location of an LC. The following recommendations should be taken into consideration.

Physical planning, development process, infrastructure

When developing a logistics centre it is important to integrate all transport and logistics-related activities. An environment in which the transport sector can develop should be envisaged.

In order to minimise the financial risk the provision of infrastructure in an area with development potential can proceed on a step-by-step basis with due attention being paid to the needs of users and investors.

Neutrality in terms of competition

Logistics centres should be open to all new companies interested in establishing a commercial presence. This applies to private and public transport as well as to companies and enterprises.

General planning

With a view to the (further) development of a logistics centre in line with market requirements attention should be paid to the availability of sufficient space for extending the centre to which no planning restrictions apply. Three out of four LC analysed in the project have free space available and are thus prepared for the future. Generally an LC should be located on a site covering a minimum 100 to 150 ha. Depending on the activities, between 400 and 500 ha might be needed.

Sufficient local demand

Although not absolutely necessary, it is nonetheless important that there should be sufficient local demand to permit minimum or basic utilization of the LC. Local demand provides an economic basis for supra-regional activities. The analysis of the Frankfurt (Oder) centre showed that the lack of local demand makes it much harder to achieve profitability there. In Prilesie, for example, a sound basis has been provided by the rapid extension of fast-moving consumer goods networks to Belarusian regions (a notable instance of which is Evroopt, the biggest supermarket chain in Belarus). Hence the focus in Belarus at the moment is on distribution not international logistics.

Organisation

The existence of a legal body capable of acting on behalf of the transport centre and of securing the common interests of the companies located in logistics centres is a factor for success. Public private partnership models appear to be the most successful organisational forms.

The envisaged cooperation between Frankfurt (Oder) and Prilesie is a good example of the benefits of working together.

A combined transport terminal is essential for success in logistics.

Common facilities

Freight handling facilities which can be used on a cost-sharing basis or are generally available in logistics centres represent a benefit for companies on the ground.

Proximity to industrial and/or core agglomeration areas

This recommendation goes hand in hand with the previous one. If there is sufficient local demand, the ideal location in most cases is close to industrial areas or agglomerations. This does not mean that a logistics centre cannot be established in rural areas. Here, however, a corresponding "centre" should be selected.

Macro-infrastructure perspective

Irrespective of the micro-location and the infrastructure, the right position with respect to international transport corridors and the proximity of major railways and highways is crucial. This is important to attract supra-regional customers as well for the transport of regional products to them and vice versa.

Cooperation

The envisaged cooperation between Frankfurt (Oder) and Prilesie is a good example of the benefits of working together. The Port of Køge / STC and the Port of Hamburg are discussing opportunities for closer national or international cooperation. Internal co-operation and collaboration with other logistics centres can generate economies of scale and help produce efficient transport chains and network solutions for optimal cargo flow and distribution.

Local characteristics

Local characteristics need to be considered. Depending on the location, various niche strategies should be considered when planning a new LC. A good example is Belarus. Among the biggest exports to Russia from Belarus are foodstuffs (amounting to US$4-5 billion annually and expected to grow), most of which are currently distributed though LCs in Russia. This holds out the prospect of nearby LCs being able to benefit from these trade flows.

Multi-modal transport connections

A successful LC needs access to at least two transport modes (road and rail) and if possible three (sea or inland waterway). A combined transport terminal is essential for success in logistics.

Professional planning is a prerequisite for success

The Prilesie complex demonstrates the importance of national and international experience as well as the need for the involvement of foreign experts in setting up modern logistics centres. Here Belarus can benefit substantially from cooperation with experts and logistics centres in Poland, Lithuania, Latvia and Germany.

Level of services

Generally an LC is most competitive if a full range of logistics services can be provided for transport companies in accordance with international standards and the centre is open to freight forwarding companies and others. Prilesie cannot deliver in that respect at the moment, but there are plans to introduce a full range of services in the near future (by 2016).

Modern IT solutions

LCs should be equipped with the most advanced IT infrastructure and offer technical solutions that eliminate barriers to individual companies (see also best practices PORTlog and EDI Package).

Pricing

Careful attention should be paid to the pricing policy and rental rates. Clearly, they have to be attractive to customers and competitive in the region. This might prove a benefit for LCs in the Eastern part of Europe and pose a challenge for LCs in Western Europe.

4

MODERN IT SOLUTIONS FOR LOGISTICS – BEST PRACTICES FROM ACL

Modern IT solutions can make transport organisation and business processes more efficient. They can help to promote logistics services and bring logistics providers from remote areas closer to the core market. This section focuses on two IT solutions, both developed as part of the Amber Coast Logistics project. It will provide a basic description of their development and an illustration of the functionalities. Recommendations for interested stakeholders from the logistics sector will also be given in form of "lessons learned".

4.1 PORTLOG – THE PORT OF HAMBURG SERVICE PLATFORM FOR LOGISTICS

Who offers the services I want?" is a question frequently asked in the transport industry. Many of today's transport flows pass by logistics locations with no knowledge of the services offered there. The main reason for this is the lack of transparency in the transport and logistics sector.

Moreover, existing promotion services are in dire need of improvement. As a result, significant business potential is lost and more efficient transport flows and logistics chains do not emerge. Hence, one main aspect of the ACL project was to enhance transparency, ensure a better match between demand and supply, and to make existing services more visible to the relevant target groups. On the one hand, this was achieved by systematic dissemination activities and, on the other, by means of jointly developed, tailor-made IT tools.

PORTlog is a service platform designed for logistics companies, manufacturers and importers/exporters along the transport chain. It brings together potential customers and providers of warehousing, cargo handling, transport and other logistics services. It also helps customers in the rapid and precise location of the right service provider for the relevant field of business in the Port of Hamburg and its hinterland. An international port customer looking for a warehousing company in Hamburg for his business can call up PORTlog and select the services required in a user-friendly input mask. The company pool covered by the online service platform is not focused exclusively on the industrial sector, however. It also offers logistics consultancy providers, personnel consultancies as well as training and further education.

PORTlog has sophisticated filter functions incorporating a high level of detail for the services the customer requires. It is available in seven languages: English, German, Russian, Polish, Czech, Hungarian and Chinese. Additional language versions, including Portuguese, Spanish, Korean and Japanese, are currently being developed. The service is free of charge.

Functionalities

PORTlog uses a matching procedure to select companies from the existing pool that fit the enquiry and then lists them on screen. The customized filtering functions help PORTlog users to make their search for suitable service providers as detailed and precise as possible.

The company profiles provide an insight into the range of services offered by the relevant provider. Apart from basic information on the address, location (map) and contact data, this includes details on the types of storage facilities, storage capacities, length of railway tracks and other technical information. Once the appropriate provider has been found, the customer can then make contact. The enquiry forms are fine-tuned and adapted to fit the particular services selected by the user. As a result the services providers receive more precise enquiries, while the PORTlog users in turn receive more qualified quotes. A help function provides assistance in the form of a glossary of specialist terminology and includes step-by-step instructions, which makes the PORTlog accessible for users with little or no previous experience in the logistics sector. Suppliers interested in joining the online portal and promoting their services can submit an online application via the portal.

PORTlog helps customers in the location of the right service provider for the relevant field of business. PORTlog is available in seven languages.

Usage of PORTlog – www.portlog.de

PORTLog was launched at Transport Logistic 2013 in Munich. The web service was developed by Port of Hamburg Marketing as part of the ACL project.
PORTlog has been well received. It covers over 140 registered businesses offering their services through PORTlog and more than 30 users access the site every day. Many customers from abroad also make use of the logistics exchange platform to search for suitable service providers. They currently make up 25% of the users.

PORTlog home page with the five main categories for selection.
Source: Port of Hamburg Marketing, 2013

All the strengths at a glance

PORTlog offers advantages for users and suppliers. The most important benefits are listed besides.

FOR SERVICE PROVIDERS

- Worldwide marketing
- Synergy effects through the pooling of business activities
- Customer acquisition
- Integration of, and networking between, players in the region and along the transport chain
- Neutral in terms of the effect on competition
- Multilingual
- Standardised requests for offers

FOR USERS

- Individual search with filtering criteria in seven languages
- Qualified, impartial selection of service providers
- Detailed provider and product profiles
- Direct contact with providers usingstandard forms
- Available on mobile terminals
- Free of charge

LESSONS LEARNED

What should be taken into account when developing a logistics service platform?

1 ***Design the platform from the perspective of the service providers*** It is recommended that the development phase of a platform should involve companies which will later offer their services once the system is in operation. Success depends on the benefits that companies envisage from promoting their services on the platform: "What`s in it for me?" is the simple question.

2 ***Do not underestimate maintenance requirements*** Before the information is uploaded and published, it is crucial to cross-check with the relevant service provider whether it is correct. This ensures a high-quality database and reduces maintenance outlay in the long run.

3 ***Provide filter functions as well as information with a high level of detail*** Provide as many filter functions as necessary and as few as possible.

4 ***Bear in mind the importance and cost of search engine optimisation*** Advertising will greatly increase awareness of the service platform. Most important of all, however, is that the platform has a high ranking in search engines. This requires search engine optimization (SEO), which has to be carried out individually for each country, as Google's search characteristics, for example, vary for each language and country. Hence sufficient budget resources should be earmarked for SEO.

5 ***Quality control*** PORTlog makes sure that only the service providers which really offer the requested service are selected.

4.2 TRANSPORT BORDER EDI SOFTWARE – DEVELOPED AND IMPLEMENTED FOR THE PORT OF ELBLAG

A reliable transport system is essential for the operation of a successful just-in-time logistics channel. The role of transport consolidation processes is especially critical in the case of long and intermodal supply chains. International transport processes are connected by means of an ever more complex exchange of information, different document standards and other operating processes, which can create delays in transportation and add uncertainty to transit time.

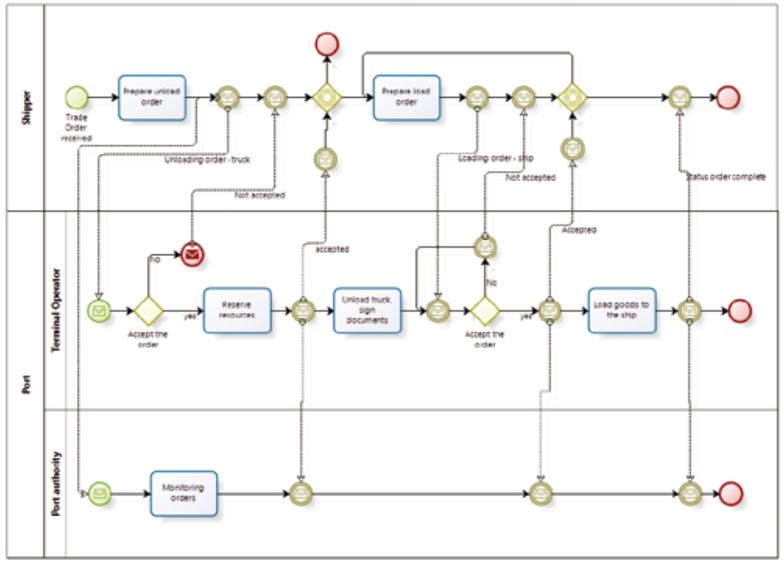
Electronic Data Interchange (EDI) is a way for businesses to reduce the costs of document and information processing and to shorten business process cycle times. Moreover, the use of EDI brings about other strategic benefits, such as higher customer satisfaction through shorter order processing time, higher transparency and an improved value-added chain. For small and medium-sized companies, in particular, an EDI software can lower entry barriers to international logistics networks.
But, despite these potential advantages, a lot of companies do not use EDI for the transfer of business data because of the relatively high costs of implementing and running the software. The aim of the ACL project was to introduce a free-of-charge prototype to demonstrate the potential and to gain practical experience in the field of EDI for international processes, using the example of cargo transports between EU and CIS countries.

The development of the EDI software – process analysis, software development, testing

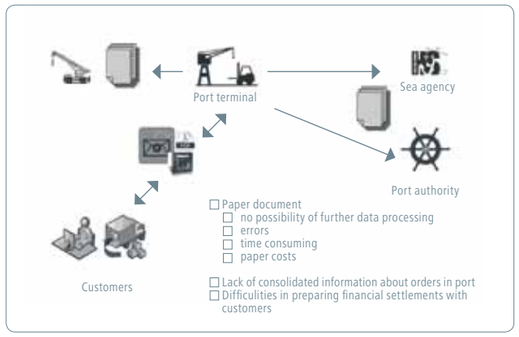
The idea was to develop a software together with and for (smaller) transport companies processing and handling cargo every day along one of the international ACL transport corridors. For this reason the ICT tool was developed and implemented by the Institute of Logistics and Warehousing in Poznan in close cooperation with the port of Elblag and a number of its business partners. The Port of Elblag is located in the North of Poland on one of the ACL corridors running from Poland (through the Port of Elblag) to Kaliningrad and further east to Belarus, Lithuania and Russia. Most of the transports consolidated by the Port of Elblag come from Polish small and medium-sized companies which export building materials, wood, furniture and food such as cereals, corn and soya.

The first step in the development was a detailed process analysis, focussing on processes involving the following business actors:

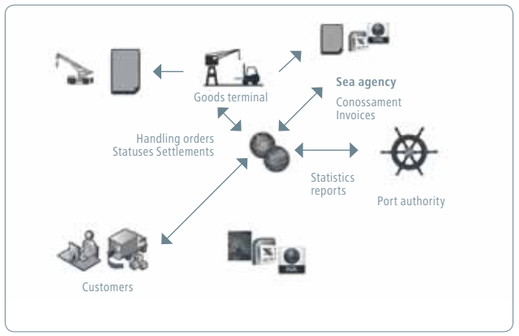
- shipper – trading company or manufacturer sending goods to receivers (mostly Polish companies);
- receiver – receiver of the goods (mostly Russian companies), who first orders then purchases goods in Polish companies;
- transport provider – company offering road transport on Polish territory for Polish shippers and on Russian territory for Russian receivers;
- terminal operator in the Port of Elblag who hires the landing pier and receives the loading and
- Port Authority of Elblag, which manages the infrastructure of the port itself, attends to safety in the port and applies for certificates permitting the sending and receiving of different types of goods. The Port Authority also gets a copy of all loading and unloading orders to control and plan the facilities and storage space;
- sea transport provider – companies providing sea transport, hired in most cases by receivers.



Main processes analysed and supported by the EDI tool developed by ACL / Source: Institute of Logistics and Warehousing Poznan, 2013



Situation of information & data flow in the Port of Elblag before implementation of the EDI software / Source: Institute of Logistics and Warehousing Poznan, 2013



Information & data flow in the Port of Elblag after implementation of the EDI software / Source: Institute of Logistics and Warehousing Poznan, 2013

The process analysis made it possible to identify the bottlenecks in the data and information flow between the actors and to define the requirements for an EDI software. Most of the processes are based on paper documents. There is no possibility of further data processing. Most of the processes are time-consuming and reveal a relatively high error rate. There is a lack of consolidated information about orders in the port resulting in difficulties in preparing financial settlements with customers. The next step was to undertake market research for existing EDI software solutions. This resulted in ACL developing a tailored solution for an EDI tool based on the T-Scale platform, an existing solution for the consolidation and optimization of road transport. The solution works online and includes mobile applications which can be accessed anywhere by computers, desktops, laptops, mobile phones, tablets or board computers. The system implements international standards for the identification of logistics units, consignments, locations and transport means as well as standards for electronic messaging. The supported standard is GS1, one of the widest used and most common standards in the world. The application of GS1 standards makes the T-Scale-based EDI software compatible with many other solutions on the market. The EDI software considered the specific needs of SMEs working in an intermodal and international supply chain. The EDI software then underwent a series of tests in the laboratory as well as under real-life conditions, the latter in the Port of Elblag. The handling and user-friendliness were evaluated with all the players involved. The results enabled the EDI software to be better accommodated to the user's needs .

Functionalities

The EDI software developed by ACL offers a complete electronic information flow between all the players involved in an intermodal transport chain. Amongst other things it supports the following steps in the process of cargo transport and consolidation:

- *handling orders and statuses;*
- *transport enquiries, orders and confirmations of order;*
- *transport statuses, bookings and booking confirmations;*
- *national waybills.*

The following technical features are provided in these processes:

- *consolidation of transport enquiries;*
- *generation of reports to Excel formats;*
- *import and export of documents from Excel files;*
- *import and export of documents to and from standardized XML messages.*

All the strengths at a glance

- *elimination of paper-based document flows in trans-shipments, loading, unloading and transport orders;*
- *online access to information from any place;*
- *generation of the necessary documents based on data already in the system;*
- *generation of reports for settlements, statistics and forecasting;*
- *preparation of special documents e.g. bills of lading;*
- *elimination of errors related to data quality and retyping of the same information at different stages of the transport chain;*
- *no charge for usage.*

Usage of the ACL EDI software

The EDI software has been finalised and is currently being used by the Port of Elblag and most of its cooperating partners in a test phase.
In addition, the EDI software is being used as a demonstration tool by the Institute of Logistics and Warehousing, the Port of Hamburg, the Latvian Logistics Association and the School of Business and Management of Technology. These partners have been trained in accordance with the "train the trainer" principle, thus enabling them to present the tool to interested partners in their regions. An English and Polish instruction manual has been developed to facilitate use of the software.

LESSONS LEARNED
What must be taken into account when developing EDI for the logistics sector?

1 *Design the EDI software from the perspective of the business users*
When designing the EDI software, it is important to involve users who will later be willing to implement the solution in their daily business (e.g. terminal operators). Acceptance on the part of the user increases if the software is tailor-made to meet his needs and thoseof his customers. User involvement should take place at an early stage of the development.

2 *Analyse the processes and information flows before developing the EDI software*
IT skills are not enough. Good knowledge of logistics is essential to build a tailor-made EDI software, port terminals or LCs which customers can work with. To ensure this happens, all processes, transactions and information flows between the business actors must be analysed in detail before software development starts.

3 *Let users evaluate the software during the test phase*
A test phase should be used for critical monitoring. However, feedback from users is only valuable if the software is used in daily operation.

4 *Show users the benefits of the EDI software and provide incentives in the starting phase*
Smaller companies with a low level of IT usage are often sceptical about the implementation of IT systems like EDI. They need to understand the real benefits involved. Again: "What`s in it for me?" is the crucial question that needs to be answered. Incentives can also help to facilitate the start.

5 *Ensure compatibility with other EDI solutions*
If users in the process chain already work with other EDI documents, compatibility should be ensured. An EDI software should therefore always use global standards.

6 *Provide an open architecture to ensure easy solution adjustment*
It is also recommended that the EDI software should have an open and scalable architecture to make it readily adaptable to changing or new business needs and processes. This makes software more easily transferable to other locations and business cases.

5 OUTLOOK

The ACL project has helped to strengthen the logistics sector in the Baltic Sea region and to eliminate red tape in cross-border transport. The focus in ACL was on raising awareness both by providing information about weaknesses and offering best-practice solutions for different aspects of transport and logistics in the Baltic Sea to interested parties from business and politics.

The support of the political sector is essential for many changes that are required. A start has already been made on bringing politicians from Baltic Sea countries together and convincing them of the need to support the requisite changes in rules and regulations. To this end a networking event was held with representatives from all the Baltic Sea countries at United Nations Headquarters in New York.

With a view to developing the logistics sector the ACL project has succeeded in establishing contacts between people and institutions responsible for the development and management of logistics centres. This has resulted in the initiation of closer cooperation between LCs. Further models of in-depth cooperation models are under discussion for the future.

ACL has also contributed to improving the knowledge international stakeholders from the transport and logistics sector have of the different national logistics markets. This is helpful in the organisation of transport chains and offers an opportunity for logistics centres to become an active part of them.

The ACL partners will continue their cooperation after the project has ended. They will critically monitor the development of the Baltic Sea transport and logistics sector and continue to promote transport and logistics in the Baltic Sea.

We invite you to join our network and become a part of the Baltic Sea Region logistics partnership.

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Amber Coast Logistics

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