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Development Strategies For Norrköping Airport

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Content

Background

Sweden is Scandinavia’s largest air cargo market with 350-400 000 tons of cargo per year[1]. This amount of cargo is based on CASS-statistics, interviews with forwarders and freight data from Swedavia´s airports that handles air cargo[2]. Why Sweden is such a large market for air cargo is due to Sweden´s strong export economy were electronics, spare parts and other high-value goods are the main products. Today about 50 percent of Sweden´s BNP is connected to export, which is almost twice that of the average of the global market. Sweden is centrally placed in the Nordic region and has the capacity and competence within the areas of infrastructure, transport and cargo handling.

About 60-90 percent of the air cargo, depending on airport, is trucked to and from main hubs in Europe where the cargo is consolidated and loaded onto airplanes. This creates possibilities to develop the air cargo business, with regards to both the road feeder service (RFS) and direct flights, at Swedish airports and strengthen the competitiveness of air cargo and mail. Right now a limited number of airlines and flights limit the possibility of flying cargo directly from Sweden without going through a major hub in Europe.

In Sweden only a few airports can handle heavy cargoplanes: Stockholm, Gothenburg and Malmoe who has ongoing operations and Luleå who has the capability but is not operational today. There are several cargooperators at the major airports that handle cargo in Sweden: Emirates, Korean Air, Cathay Pacific, Turkish Airlines, UPS, DHL, TNT and FedEx.

For Norrköping Airport there are only a few operators that handle cargo in the region via Cargo Center, which is the terminal handler: Green Carrier, Geodis Wilson and Agility. There used to be more large operators but both DHL and Kuehne&Nagel have left Norrköping for consolidation elsewhere.

Regional characteristics

The region of Östergötland is located in southeastern Sweden. It borders with the regions of Kalmar, Jönköping, Örebro, Västergötland and Södermanland. Östergötland has a population of approximately 430 000 and the largest cities are Linköping and the neighboring city of Norrköping. Together they form one of Sweden's largest metropolitan areas which is Sweden's fourth largest labor market with some 34.000 companies active mainly in both cities. The Linköping-Norrköping area is the region's core, and often referred to as The Fourth Metropolitan Region of Sweden or the East Sweden Region. The region has a large variation in companies and industrial structure, from knowledge intensive industry and skilled training and research to High-technological aerospace industry. The region is also positioned in a very strategic logistics location in Scandinavia. In addition the region has Linköping University, with some 25 000 students and campuses in both cities. The University has well developed research in transport optimization and logistics management and is actively contributing to creating the correct conditions for the success of this region. The cities of Linköping and Norrköping are complementary. Within the region there are all the necessary components and have world-class expertise in aerospace, printed electronics, software, biomedical engineering and telecommunications. This together with academic research and knowledge with regards to Supply Chain Management and the natural components for a transport node such as port, airport, roads, railway and warehouse and terminal capacity makes East Sweden

[1] www.swedavia.se
[2] Interview with Ylva Arvidsson, Cargo Director at Swedavia

one of Sweden´s logistics centers. When choosing a region to serve as a logistic center, there are several factors to be taken into account:

1. Location in relation to the rest of the country (region).
2. Proximity to a port, airport, railway network and land-transport capabilities (highway infrastructure).
3. Transport Terminal availability, Warehouse capacity. Interesting market prices on property.
4. Availability of skilled personnel.

The East Sweden Region stands for a total package of infrastructure that can further be developed into transport centers and an intermodal transportation node creating a full scale logistics center. A further interesting fact is that the East Sweden region is part of a couple of crucial transport nodes in what is denominated "The Nordic Triangle". The development of an intermodal node of this type involves creating conditions for more efficient handling of goods which would include all transport modes and in which air cargo is vital. The identification on the European map of the "Nordic Triangle" is an expression of a clear European ambition to secure access to internationally competitive transport corridors in the North and for freight. This "Nordic Triangle" is part of one of EU´s priority TEN-T projects, aimed at improving air, ocean, rail, and road transportation in the Nordic and Baltic Countries. The other areas within the "Nordic Triangle" are Western Sweden (Gothenburg), Southern Sweden (Malmoe) and the Stockholm Region. With nearly 80 percent of Sweden's population and industry within this area this means that the development of the corridor is of strategic importance and prioritized. East Sweden region is therefore a crucial factor in the overall solution since it is a cornerstone in the further development of the Swedish Nordic trade with the Baltic countries and parts of Eastern Europe. The ports (air and ocean) in East Sweden could become one of the important factors in the emerging economies across the Baltic Sea. Sweden is apparently committed to implement their part in the EU project of "TEN-T" and this means a commitment to move the Nordic Triangle forward. Consequently the development of the intermodal node in East Sweden is strongly supported by local Swedish and European regional plans.

On 1 May 2004, the following Baltic countries joined the EU: Estonia, Latvia, Lithuania Poland and are today full worthy members of the European Union. Most surely more countries around or in the proximity of the Baltic Sea will be included. This in turn means that markets around the Baltic Sea have and will increase in economic importance. To be actively part of this area is very important for the East Sweden Region. This development has already been made visible by the outsourcing of large parts of the manufacturing industry in Sweden to the Baltic States. With this enlarged EU, the transport-geographical focus has been shifted to the northeast. Consequently the Baltic Sea has become increasingly important as a transport zone and as a result the dependence on sea transport in the Baltic has definitely increased. Therefore the importance of ports as effective transport nodes within the chain of an integrated transport system will also be important. East Sweden through the Port of Norrköping has a strategic location in the Baltic region which offers good potential to become a hub for the West-East trade.

Main air cargo airport

Today the main air cargo airport in the region is Norrköping Airport (NRK). It has limited cargo operations but is considered to be important to the region and neighboring regions. Almost all cargo is trucked to major hubs and there is a limited amount of package and freight service mainly through Cargo Center which is an Arlanda based terminal company's branch office at NRK. It is calculated that some 150-200 tons freight is handled through the terminal on a monthly basis. The commodities differ but most are high-value goods and the import/export ratio is about 60/40. Most of the goods from NRK are exported via Arlanda and most of the goods are imported via Malmoe[3].There are excellent opportunities to create a "transport node" in the area involving all the different transport modes. This would consequently increase the possibilities of expanding the air cargo business at the airport. The integration of the transport modes is essential as well as the role of the local branch offices of the freight forwarders in the Norrköping area. They all agree that the air cargo is part of an overall logistics set-up and that the terminal handling company Cargo Center is not only needed but of utmost importance when working on a joint solution[4].

Positioning of the regional airport in global aviation

Norrköping airport is a small spoke in the global hub -and spoke system that shipper, airlines and air cargo forwarders use. In order for it to become a real player in the global supply chain it would have to compete with some of the larger regional airports and their cargo operations. This means bringing integrators and more forwarders to NRK. It also means millions of euros over several years in investments concerning a new cargo terminal, a longer runway, larger holding area and better access to the airportgrounds but also the creation of new services and products. Today the main type of goods that are handled at the terminal are related to industrial products, electronics and spare parts. The region is strategically placed with regards to demographic and industrial factors and much of the cargo related transports go through the region. The region is also seen as of great importance by the government when it comes to transportrelated projects and investments.

Traffic forecast

There is potential for growth in Östergötland both concerning business -and private travellers. Potential for growth, with regards to volume, is less for businesstravelers than private travellers due to the fact that Östergötland already have a high percentage of the market. For this segment Linköping airport is much stronger than NRK much due to their KLM-feeder service to Amsterdam which is going very well and a third flight to and from Linköping is already being discussed.

It is in the private traveller segment, which is increasing the most nationally, that NRK can hope to make the most increases in. Their charter operations are going well and they are slowly building a name for them self in the business. An increase in airlines would be beneficiary for the airport since this would generate more revenue and an increase in tourism to the region[5]. NRK and Linköping have showed that it is possible to attract both business and private travellers away from the larger airports. In order to continue to do so the availability must coincide with the need of the travellers. Optimistically NRK could take traffic from Arlanda and low cost passengers from Skavsta by attracting these passengers with different service packages.

[3] Interview with Eva Saletti, Cargo Center Terminal Handling
[4] Interviews with Air cargo forwarders and Terminal handlers in Norrköping
[5] Source: LFV-report "Samverkan mellan flygplatserna i Östergötland", 2011-12-02

Concerning cargo it is more difficult to foresee the future. When considering potential for growth in the air cargo sector the situation is more difficult to analyse due to the fact that there are so many airports competing over small volumes and the major hubs in Europe are well established. At the moment the airport has the vital infrastructure that is necessary but lacks a comprehensive businessplan and organization for increasing air cargo volumes. On the other hand the airport has been made aware of this and is now trying to rectify their weaknesses. It is interesting to see that NRK both wants to increase volumes and is actually doing something about it in the form of studies being made into how they can improve themselves.

For the near future NRK can increase its cargo volumes by capturing goods from another segment of the market. By inviting integrators, with their daily flights, mail and express goods can be added to the type of goods that are handled and increase revenue with little investment. For the long term there is another important factor to increase the volume and that is to expand the airports cargo catchmentarea. By having a larger catchmentarea larger volumes and different types of goods can be consolidated and handled at the terminal. A larger catchmentarea would also make it possible to increase the benefits of economies of scale and scope, thereby increasing the revenues and lowering of costs. Having freighters land at NRK must be viewed as something into the future since the runway is not long enough and volumes created in or near the region is too low at the moment.

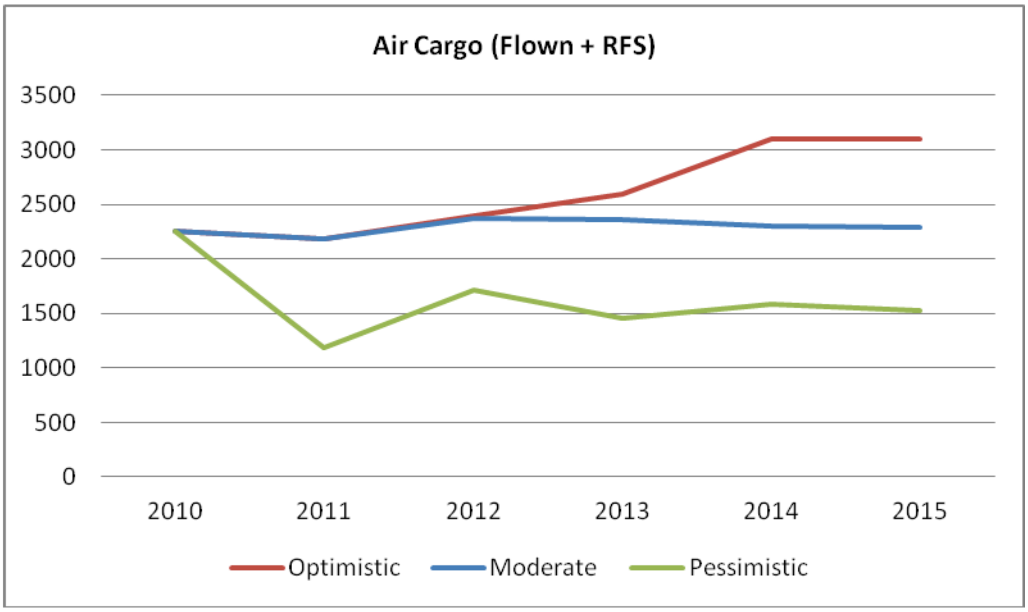

Figure 1 Prognosis for air cargo volume 2012-2015

Possibilities and capacity offered by current facilities

NRK has no plans for any changes in the airport infrastructure in the near future and the municipality, which is the owner, is funding other infrastructure projects like rail and port projects instead.

The passenger terminal has no problems with handling the flow of travellers coming and leaving NRK and no increase in the terminal capacity is needed in the near future. The runway and holding positions for the airplanes are of class 4D which means they can handle Boeing 757 and 767 and are

cleared for 250 movements per year but the runway system probably needs to be adapted to new regulations after 2013-12-31.
The airport is not cleared for 4E traffic but this is not a problem today since there is no traffic with airplanes that need this type of classification. The capacity of the runway is 10-15 movements per hour for both take-off and landing. Capacity is higher if it is just landing or take-off.

	Current Products	New Products
Current Market	Cargo Charters (handling & landings). Cargo Center and Forwarders	Belly Cargo
New Market	Express Carrier (handling/landing) Marketing Cargo Charters Create & Drive Logistics Cluster (handling, forwarders, and shippers)	Cargo Express Hub Road Feeder Handling New vertical markets (Perishable & Pharmaceutical)

figure 2 Product understanding – Strategy Opportunities

Maintenance for the present infrastructure is the same as for all other airports and the most likely step is maintenance of the runway. This should not be a problem for NRK since the time for financial write-off effect the financial result in a small manner. Lengthening of the runway is allowed for a length of up to 400 meters. It is unclear if this would give any new possibilities and the cost would most likely be around 150-200 MSEK. One problem with a lengthening of the runway is that NRK would have to seek a new environmental permit. There are previous studies of other airports were new permits gave rise to increased cost with regards to noise and water issues[6].

The most likely candidate for upgrade is the cargo terminal. Today it measures only 80 m^2 and lacks equipment for handling larger volumes and airplanes. Land is already available if the need for a larger terminal arises. Today the small terminal is not a problem due to rather small volumes but a large increase in volume will quickly become a strain on terminal handling operations.

Charter operations are increasing and there exist possibilities of getting at least one new airline to be stationed at NRK. Another possibility is to increase the amount of flights to Helsinki and Copenhagen from two to three a day. This will enable people to choose NRK instead of Arlanda since a flight around midday would attract businesstravelers.

The most likely scenario is that the traffic will be almost the same in the near future but some positive signals can be heard from the airlines feeding traffic to Copenhagen (Tests are being done

[6] Source: LFV-report “Samverkan mellan flygplatserna i Östergötland“, 2011-12-02

with three flights to Copenhagen). The biggest threat right now is if SAS goes bankrupt and stops flying from Copenhagen. This will seriously affect the traffic at NRK.

With regards to cargo not much can be said about the future. Some integrators and forwarders have left the city of Norrköping to consolidate elsewhere and this is not a positive sign. At the same time air cargo is growing in Sweden so there is a need for handling of cargo in the region giving NRK possibilities if they want it.

Possibilities and capacity offered by planned expansions

Today the airport is relatively small but able to handle all passenger traffic and RFS traffic without any difficulty. Land is available if a general expansion is needed but today there are no plans regarding an expansion in the near future. The passenger terminal is relatively new and can accommodate an increase in travelling but expansion is needed in the future if the numbers of passengers continue to rise according to prognosis but also if the number of gates due to more airlines is needed. The runway is relatively short which limits the type of aircraft that can land but also how heavy loads the planes can carry for landing and take-off. A longer runway is not needed in the near future and should be seen as the least important expansion for the airport today. Larger planes for passenger and cargo freighters should not be seen as realistic and RFS will be the most likely type of cargo transportation to and from the airport.

It is much more important to expand the cargo terminal so that the RFS-cargo can run smoothly and be able to sustain an increase in number and types of operations. The terminal is small and cannot handle a future increase in cargo volume especially if the cargo flown from the airport is increased due to lack of handling equipment and place for storage. Other types of expansion must be seen in the "softer" category. The airport needs to create more attractive products and service packages that can compete with other regional airports in order to increase its marketshare and revenues.

It is also a good idea to modernize the passenger terminal and make it more suitable for the type of passengers it accommodates today. What is needed for the airport is a building plan for the future where all factors are incorporated. In this way it will be able to support the businessplan and bring out any problems that have to be solved; especially environmental issues which can take a long time to correct and will block any expansions in the future.

What is often glossed over in development studies is the fact that improvements cannot be one sided. Better infrastructure, like lengthening of runways, will not solve the problems and increase revenues unless you consider infrastructure in relation to other factors[7]. One often overlooked aspect is what type of product or service the airport is selling and marketing. Are the products/services the airport is trying to sell adapted to the existing and future needs of the market? Is the marketing done properly and done towards the right segment? How do we know what infrastructure is needed in the future if we do not know what products or services will be sought after in the future? Do we have the right organization and knowledge?

[7] Banister, D., Berechman, Y " Transport investment and the promotion of economic growth", *Journal of Transport Geography, Vol. 9, Issue 3, September 2001, pp. 209–218*

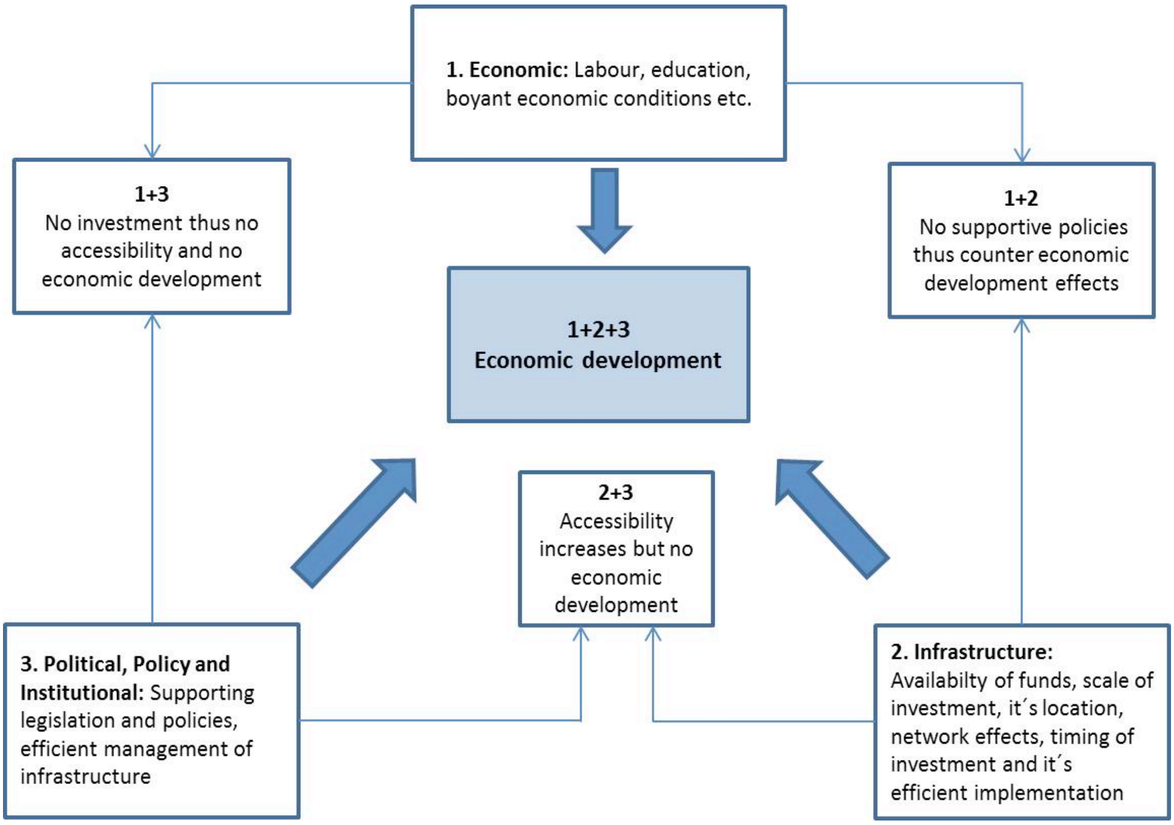

Figure 3 Model for Transport investment and economic development. Adapted from the original in Banister, D., Berechman, Y " Transport investment and the promotion of economic growth", ***Journal of Transport Geography, Vol. 9, Issue 3, September 2001, pp. 209–218***

Conclusions and Outlooks

Airport Strengths
1. Fully well established operational Airport
2. Efficient, flexible and cost effective
3. Lean organization = fast decisions
4. Own Handling
5. Geographically excellent position
6. Owned by the community = synergy with Roads/Motorway, Harbor, Railroad

Airport Weaknesses
1. Limited number of Cargo flights…
2. Awareness by logistics industry of NRK cargo
3. NRK 's participation in regional development is unclear
4. Limited cargo and logistics industry knowledge
5. Air cargo equipment and facilities is limited
6. No clear Business Platform for air cargo

Airport Key Challenges:
1. Cargo Industry knowledge and Professionalism (lack of facts and figures) on business possibilities in the area…
2. Lack of critical mass, equipment and runway length…
3. Strong competition from ARN…
4. Surrounding airports (ORB & VST) are already operating express flights and cargo charters…
5. Branding and marketing of NRK Airport with a strategic platform long-term to compete /attract future growth…
6. Political Agenda…

Airport Key Opportunities:
1. Globalization growth – expected at 5.9%...
2. Geographical position
3. ARN limitations on CO2 capacity and will reach it's limit…
4. Increase in traffic = Return of Investment Integrator operations (DHL, TNT, UPS, etc) Cargo Charter flights and specialized cargo (Live animals, relief cargo, aircraft parts, etc.)
5. Available warehouse capacity in m2
6. Green region organic growth…

It might be recommended to pay attention to the following opportunities:

7. Capitalize on a clear strategic platform linked to the Region
8. Attract regional routes
9. Cargo – Express/ Scheduled Cargo Routes/ Charters
10. Leisure charters – e.g. incoming tourism
11. Charter Tour Operators

What might be successful?
1. Express & Package Business…
2. Perishable Cargo Business…

3. Live Animal Charters
4. Charters Business as well as Relief
5. Focus on special (e.g.Military) Services
6. Scheduled Flights (Belly Cargo) to hubs already connected (pending capacity)…