The Bothnian Corridor is important for the European integration

The Bothnian Corridor is already of great importance for trans-national goods flows within EU and to/from the EU. As the extended European integration continues, the importance of the corridor will increase further.

Northern Axis and the Nordic Triangle will be connected through the Bothnian Corridor and together they create an important fundamental structure for the European transport system, from raw material, e.g. ore, metal and forest, via refining to market.

The corridor is of great importance for Sweden, Norway and Finland and for the connections to/from the Baltic states and Russia.

Efficient transports are imperative for Europe

A functioning infrastructure is essential to secure the EU’s future transports of raw material. The transport corridor through Northern Sweden and Finland is a very important route for goods.

Several factors limit the efficiency of transports along the Bothnian Corridor. Steep inclines limits the speed and weight of the trains, insufficient carrying capacity and lack of capacity in general create competition disadvantages and market obstacles for the raw material supply of EU’s industrial market.

www.bothniancorridor.com
The most important mining industry in the European Union

90 percent of EU’s total supply of iron ore is extracted in Norrbotten. Sweden is the leading supplier of gold and the second largest of silver, lead and copper.

12 out of Sweden’s 15 mines are located in the region and the Swedish mining related industry annually processes iron ore and metal for a value of 50 billion Euros. An additional 50 billion Euros is produced in other parts of Europe.

In the northern counties of Finland, the mines annually produce a value of about 300 million Euros. 70 percent of the ore is exported to the rest of Europe.

The 2 billion Euro (2005) extracted in mines are processed into 50 billion/year (2006) in Sweden, and additional values in the rest of Europe. 90 percent of the EU’s total supply of iron ore is extracted in Norrbotten. Higher prices has increased the values during later years.

Northern Sweden represents 40 percent of the Swedish forestry production. The forest-based industry annual production value: 5.5 billion Euros.

More than 80 percent of Sweden’s paper and pulp export is to Europe. The forest-based industry represents 12 percent of Sweden’s total export.

Strong forest-based industry

The forest-based industry is very transport intensive and further accounts for 12 percent of Sweden’s export and 20 percent of the industrial investments.

The annual forestry increase is 20 percent larger than the takeout and the total volume of the forest raw material increases annually with roughly 20 million m³.

Northern Sweden accounts for 40 percent of the total forestry production in Sweden, about 5.5 billion Euros annually. Northern Finland accounts for 23 percent, about 5 billion Euros annually. 80 percent of the Swedish and 70 percent of the Finnish pulp and paper production is exported to the rest of Europe.

Competitiveness in the accompanying processing requires a strengthened transport infrastructure.

A total of 50 billion Euro 2005
The strong growth in the economy of northern Europe has a significant impact on the economy in the European Union

A considerable part of EU’s supply of primary goods originates from the industry in northern Europe. The growth is strong and the net export values are very important for the Swedish as well as the European economy. EU’s supply of strategic resources and goods is a vital issue and is therefore given much attention. The industry in northern Sweden and Finland are very important in many industrial areas, especially the dominating forest-based and mining/metal industries.

Sweden’s industrial production value in the northern parts has, between 2001-2006 increased by 17.3 percent, compared to a national increase by 10.9 percent. The industry accounts for 18 billion Euros worth of value. After industrial refinement, a large portion of this is exported.

The industrial production value in the north of Finland increased during the same period with 28 percent, compared to a national increase of 20 percent. The Finnish production value of 2007 was 33 billion Euros.

The north of Sweden is especially important for the extraction of Iron ore. 90 percent of the extraction within the EU originate from Norrbotten. Sweden is also important regarding the extraction of copper, zinc, silver and gold. Source: SGU, processed by ÅF Infraplan.

Northern Sweden represents a essential part of the ore and metal production in the EU. It is urgent, for both Sweden and the rest of EU, that ore and processed products from the north reaches production units and consumers in the rest of Europe.
The Bothnian Corridor - a dominating but vulnerable transport corridor

The heaviest freight flows on railway in the Nordic countries, are transported via the Bothnian Corridor. Northern Sweden currently stands for 90 percent of the EU’s extraction of iron ore. Significant parts of the European supply of copper, zinc, gold, silver and lead are also extracted in the northern counties. Northern Norway furthermore stands for great parts of the EU’s fish production.

Finland’s and Sweden’s heavy primary industries are gradually being integrated in the same corporate groups, which further strengthens the importance of the Bothnian Corridor. Further potential exist in transports to/from north-west Russia, as one of the world’s richest areas in natural resources with ore fields, minerals, forest raw materials and natural gas.

Efficient transports, a competitive advantage

Modern, efficient transports are often used as a competitive advantage over competitors and the industries located adjacent to The Bothnian Corridor is no exception. Long-distance transports often take a long time which in turn tie up capital which can be better spent elsewhere. Because of this, short lead times, high precision and flexible transports are of utmost importance to keep the attractiveness of the region.
A substantial increase of Railway transports

Very large volumes of goods from the industries located along the coast of northern Sweden are transported by train, and the volumes increase every year. A prediction of future railway transports was made by SIKA in 2000. The volumes predicted for 2020 was reached 2006, 14 years too early! The large companies in the region predicts a 50 percent traffic increase until 2020.

The Finnish Main Line links the northern suppliers of raw material with the most important markets in the south. The industrial exports has increased with 50 percent and industrial turnover with 54 percent along the Main Line since 2000. The Finnish national increase is 34 and 37 percent during the same period of time.

The amount of transported goods in Finland is predicted to increase with 40-65 percent until 2030, varying between sections. Planned mining and extraction along the Main Line will increase the annual transport demand with about 18 million tonnes. The northern parts of the Main Line are Finland’s most important transport corridor and increased transports in the north will affect the southern parts.

Great shortage of railway capacity

A coastal railway along the Swedish coast is today non-existing north of Härnösand (close to Sundsvall). With the completion of the Bothnia Line in 2010, the railway capacity will increase south of Umeå.

There is a great shortage of track capacity, carrying capacity and speed standard along the railway systems in the north. The East Coast Line is today the busiest single track line in Sweden!

The number of trains is estimated to increase, from 30 up to 100 per 24 hours during 2000-2020. Today the number of trains that use different sections of the line has reached 45-65 per 24 hours.

There will be increased negative economic consequences north of Umeå as a result of the lack of capacity and will not ease until the completion of the North Bothnia Line and the Haparanda Line.

The Finnish Main Line is a single track line, except for the parts Seinäjoki-Pohjois-Luoko and Tampere-Helsinki. The carrying capacity of 22,5 tonnes north of Tampere.

Lack of capacity threatens economic growth

In many cases in the northern parts of Sweden and Finland, transportation via train is the only option, mainly due to economics. Lowering of standards or capacity leads to companies losing vital competitiveness. Lack of capacity threatens the economic growth.

The railway system can only handle a minor increase in traffic (5-10 percent), but the traffic has increased significantly, and is expected to increase even more. The time consuming planning period of railway projects is a serious problem. The increasing limitations can be prolonged and if future planning and capacity improvements are not sufficient to meet the demand, it will reduce the economic growth within the region.
The freight traffic today

The southbound freight traffic is twice the amount of the northbound traffic, mainly because the natural resources and nature of the industry in the northern parts of Sweden and Finland contributes heavily to the national export values. This applies to both rail and sea transports. The amount of road freight is smaller, and northbound goods are slightly larger than the southbound.

About 60 percent of the Swedish transport work on railway is carried out in the north of Sweden, especially on The Ore Line between Narvik and Luleå, and the Swedish Main Lines. The industrial north-south transports, which carry relatively high value added goods, uses The Swedish Main Lines today. The lines has steep inclines, slow speed regulation and tight corners. It is only a single track line and is therefore very vulnerable for disruptions, which in turn cause the industry great economic harm.

Railway transports

The railway based freight traffic has become an integrated part of the industry’s production process and transport logistics. It functions either as a transport between different parts within a company, or between two different companies. This accounts especially for the primary industry that originates in the northern counties.

Transports are important for the companies

Transports and logistics are both important actions for competitive advantages over competitors for the industry in the region. Transports account for a large proportion of the total production costs and logistics handle the total flow of goods, from input, value adding and shipping to customers.

High standards for lead times, precision and flexibility

Both the industry and commerce strive for shorter lead times and production cycles. Long lead times tie up large sums of invested money and directly reduce profits. In order to handle the industry’s transport needs and to reduce capital accumulation, a robust and efficient transport system in general and railway in particular is needed in the northern counties.
Large investments are needed

The Bothnia Line will be completed 2010, the first section of the Ådal Line 2011 and the Haparanda Line 2012. The Swedish National Rail Administration has identified 4 major projects remaining in the long term planning for the Bothnian Corridor. These are the North Bothnia Line, the Ådal Line section two, double track on the East Coast Line and double track on the stretch Motala-Hallsberg. Major investments are needed along the entire Bothnian Corridor as soon as 2013-2015 if the development of the business is not to be inhibited.

The opening of new mines in northern Finland requires improvement of the Finnish Main Line. Parallel with the increase in the mining industry, a strong increase in growth can be seen in Finland, especially within the metal and machinery industry. In order to meet the targets, the Finnish Main Line needs to be upgraded to a double track line and the carrying capacity improved.

Urgent investments in the range of 5 - 7 billion Euros are needed before 2020 in the Bothnian Corridor.

Sweden’s economy is being held back

Both the Swedish National Rail Administration and the transport company Green Cargo have recently, and independently of each other, concluded that the growing flow in freight traffic on railway demands more investments if the industry’s growth is not to be threatened. At a 5 percent increase in freight traffic, great problems in capacity will occur according to Green Cargo. At a 20 percent increase, the whole capacity for the entire of the Bothnian Corridor is used up.

The Swedish National Rail Administration assess that an expansion to double track needs to commence straight away in order to be completed in 2020.
The economic artery of Northern Europe

The Bothnian Corridor is a strategically important link within the transnational transport system of goods in Northern Europe. It stretches out on both the Swedish and the Finnish side of the Bothnian Gulf. It connects east-westbound and north-southbound transnational links in Sweden, Finland, Norway and Russia. The Bothnian Corridor connects the northern part of the Northern Axis with The Nordic Triangle. The corridor is also important for the east-west transport routes Finland-Sundsvall-Östersund-Trondheim and Vaasa-Umeå-Mo i Rana.

The Northern Axis connects the Trans-Siberian railway with the harbour in Narvik via Haparanda/Tornio and the Iron Ore Line.

The biggest freight volumes

The Bothnian Corridor carries the biggest freight volumes in the Nordic countries today. It connects the northern parts of Europe, rich in natural resources, with the more densely populated areas of Europe. The freight transport to and from other countries contributes to industrial growth and integration.

A well developed railway system along the coast line of the Bothnian Gulf is of great importance in order to help achieve the climate goals set for the EU. Investments made by the businesses will increase the transported volumes significantly.

Energy efficient and climate friendly

Railway transport is more energy efficient and climate friendly, and it is necessary to transfer freight transports from road to railway in order to reduce the climate effect of the transport sector. The Swedish National Rail Administration has underlined the importance of a smooth and well functioning railway system with satisfactory capacity. The increased industrial production and the transition from road to railway require more funding to railway infrastructure.

The European Union’s need for goods and resources from the northern parts of Europe motivates that the Bothnian Corridor is brought forward as a priority TEN-T project.