The views of the Bothnian Corridor on the revision of the Regulation on the Union Guidelines for Development of the Trans-European Transport Network (TEN-T)

The cooperation of The Bothnian Corridor works to strengthen the transport infrastructure and improve the connections between Sweden and the rest of Europe. The Bothnian Corridor is an extension of the EU core network corridors to the north and connects Norway, Sweden, and Finland. The cooperation focuses on the railway corridors, but also includes important connections to the other modes of transport. The cooperation consists of the regions of Norrbotten, Västerbotten, Västernorrland, Jämtland Härjedalen, Gävleborg, Dalarna and Örebro county. Read more at https://bothniancorridor.com.

Following the revision of the Trans-European Transport Network Regulation (TEN-T), The Bothnian Corridor wishes to make the following comments on the European Commission's public consultation.

The design of the TEN-T

The Bothnian Corridor emphasises that the revised TEN-T regulation should continue to have a strong focus on "traditional" infrastructure development, while the TEN-T should also strengthen the overall functioning of the transport system and promote digitalisation and innovation. These three focus areas are equally important in achieving the goal of a sustainable, integrated, and efficient European transport system.

The Bothnian Corridor believes that minor adjustments to the current maps should be made to include important routes, urban nodes, and transport nodes. This would further strengthen the accessibility to all regions, especially regarding the challenges of regions with longer distances to larger markets, and to improve cross-border mobility in line with the European strategy for sustainable and smart mobility¹. Special focus should be placed on sections that include so-called *missing links* and bottlenecks. In the case of urban nodes, the criteria should not be limited to population, as this disadvantages the northern parts of Europe. The criteria for urban nodes should instead more clearly take into account the role of the nodes as the catchment area of the Trans-European Transport Network in a wider geographical area around the node, both in terms of passenger traffic and freight traffic. The criteria should also consider the infrastructural function of the urban nodes in a systemic perspective.

¹ Sustainable and smart mobility strategy, vision 80. All necessary measures must be taken to complete the TEN-T on time.

The Bothnian Corridor believes that the maps should be adjusted as follows:

Urban nodes that should be incorporated into the TEN-T

NUTS2 East Middle Sweden

• Örebro has about 150,000 inhabitants, which is half of the region's population. There are several important hubs and infrastructure in the Örebro region that is part of the TEN-T, such as Örebro Airport (comprehensive network), the combined terminal in Hallsberg (node in the ScanMed corridor) with connections to the port of Gothenburg and freight route through Bergslagen (ScanMed core network corridor) on which 90 percent of the iron ore of the EU is transported, from northern Sweden to the industries in the rest of Europe. Two of northern Europe's busiest roads also pass through the region, the E18 (Oslo-Stockholm) and the E20 (Gothenburg-Stockholm), both of which are a part of the core network.

NUTS2 North Middle Sweden

- Borlänge, together with Falun, has just over 110,000 inhabitants and 160,000 in the regional labour market. In Borlänge, three of the sections that are proposed to be included in the overall TEN-T are connected; Dala Line and Bergslagen Line (railway) and E16 (road). Large freight flows from the surrounding steel and freight industries are handled via Borlänge. It is an important node for the transfer of goods between road and rail with connection to the ports of Gävle and Gothenburg through Hallsberg (ScanMed terminal node), and with railway the connection to the ScanMed core corridor (freight lanes through Bergslagen) via Dala Line. Borlänge is also a significant node for labour and study commuting within and between regions, and for the railway connection of Dalarna to Stockholm Arlanda Airport (core network).
- **Gävle** has about 100,000 inhabitants, which makes up a third of the region's population. Here, three railway lines and two European roads meet The East Coast Line (core network corridor), Bergslagen Line and Northern Main Line (comprehensive network) and E4 (core network corridor) and E16. The port of Gävle (comprehensive network) is Sweden's third largest port with the largest container handling along Swedish east coast. Gävle also includes a freight yard, which is an important node in the region.

NUTS2 Middle Norrland

• Sundsvall, with its approximately 100,000 inhabitants, and 170,000 in the regional labor market, constitutes a strong economic growth engine, as well as an important national and international transport node for all four modes of transport. Here, the railways East Coast Line/Ådalen Line (core network) and Mid Nordic Corridor (comprehensive network) meet, as well as the roads E4 (core network) and E14 (comprehensive network). Sundsvall-Timrå Airport (comprehensive network) is one of Sweden's ten permanent emergency airports. A new combined terminal and container port for intermodal freight transport is currently being built in the port of Sundsvall (comprehensive network).

• Östersund, with almost 65,000 inhabitants, which is half of the region's population, constitutes an important traffic node in the inland of Norrland, which is intersected by cross-border road and railway lanes in an east-west direction through the Mid Nordic Corridor and the E14 (both comprehensive network). Östersund is also an important node in the north-south direction through the E45 (comprehensive network). The ongoing upgrading of the Meråker Line on the Norwegian side entails that the coast-to-coast lines between Sweden and Norway will be strengthened. The Inland Line together with the E45 (comprehensive network) is an important route in the inland of Sweden, not least for freight transport. Åre Östersund Airport (comprehensive network) is an important node for domestic air traffic, but also for international charters. The large tourism industry of the region and the airport is of great importance in this context. The runway has been equipped with CATIIIB systems for landing in severe weather conditions. The airport is also an emergency airport.

NUTS2 North Norrland

- Umeå, has just over 130,000 inhabitants and is an important economic growth engine for the entire region. The port of Umeå (comprehensive network) is currently undergoing a major expansion and the ferry connection between Umeå and Vasa is a "shortcut" that connects the extended European core network corridors Scandinavia-Mediterranean and the North Sea-Baltic Sea. Umeå, with a combined terminal that constitutes an important logistics center in the region links the roads E4 (core network north-south) E14 (comprehensive network east-west) with the Bothnia Line (core network corridor) and the link to the Main Line through upper Norrland (comprehensive network) and the upcoming Norrbotnia Line (core network corridor). Umeå Airport (comprehensive network), with its approximately 1 million passengers per year, is one of the larger airports for Swedish domestic flights, which comprises approximately 6.5 million passengers per year.
- Luleå has 78,000 inhabitants and together with the nearby municipalities 173,000 inhabitants, which constitutes an important labour market for the region and a centre for the steel production of the future. Luleå is a hub where important TEN-T infrastructure meet, as the Iron Ore Line through upper Norrland and the Haparanda line connects to Luleå as a part of the ScanMed corridor, and where the North Sea Baltic corridor starts. In Luleå, the ScanMed corridor takes two different routes, towards Narvik in Norway and towards Oulo in Finland. The port of Luleå is a core network port and has a key function in the flow of raw materials. The main roads E4 and E10 connect Luleå and the coast with the Ore fields, as well as Norway and Finland. Luleå Airport is an airport in the comprehensive network and has an important function for the accessibility of the region for the high-technological basic industry.

Sections that should be incorporated into the comprehensive network:

• Västeraspby-Långsele (Upper Ådalen Line), Örnsköldsvik-Mellansel (Mellansel track), Bastuträsk-Skelleftehamn (Skelleftå Line) and Piteå-Älvsbyn (Piteå Line), all have great significance in obtaining a functional double-track function between the Main Line through upper Norrland, the Bothnia Line and the upcoming North Botnia Line. These tracks are enabling diversion, in the event of traffic disruptions, which is important to strengthen the redundancy of the transport system.

- Hällnäs-Storuman is a section that has a significant function of the railway system and is a
 very important link in the east-west route, both in terms of freight transport and labour
 commuting. The section is currently operated by diesel locomotives, as it lacks electrification,
 which is negative both in terms of transport and from an environmental and climate point of
 view. An electrification of the Hällnäs-Storuman section is necessary in order to achieve the
 full effect of the North Bothnia Line, and for getting a well-functioning interconnected
 railway system.
- Gävle-Borlänge-Kil-Göteborg (Bergslagen Line) including the route west of the lake Vänern is a high-priority freight route for transport of steel and wood products down to Europe, for goods that has been generated in the northernmost parts of Sweden, Norway and Finland, but also for raw materials and goods from forest and the steel industry generated within the geography of the section. The Bergslagen Line leads the goods to the ports of Gävle and Gothenburg and therefore relieves the other routes in the north-south direction. The route is also of great importance for the redundancy of both its connections west of Vänern and with the connection to Hallsberg-Frövi.
- **Uppsala-Mora** (Dala Line) has a significant role for labour and study commuting within and between regions, but also for the tourism and an increasing freight traffic of export goods via the country's ports. Dala Line takes up freight flows from the surrounding forest industries and forms a connecting route to freight lines through Bergslagen (ScanMed core network corridor).
- Mora-Gällivare (Inland Line). The Arctic perspective has had an increasing impact within the EU. Based on several different aspects, there are reasons to ensure the functionality of the transport system, also in the northern parts of the Union. The parallel E45 road is today, according to the current methodology, included in the comprehensive network.
- Gävle-Oslo-Bergen (road E16) is a cross-border road in the east-west direction. The route connects three major populations in northern Europe: the areas around Bergen, Oslo, and Borlänge-Falun-Gävle. E16 therefore constitutes an important link for the cross-border transports with an efficient interconnection of the Norwegian and Swedish road networks. Through increasing standards and a uniform speed level, the exchange between the ports of Oslo and Gävle is strengthened.

Transport nodes that should be incorporated into the TEN-T

For an efficient cooperation between the different modes of transport, the comprehensive network, based on the real transport functionality, needs to be supplemented with transport nodes (terminals and ports) that are not currently TEN-T classified. Investments in these ports and terminals would accelerate the transfer of goods to environmentally friendly modes of transport, which is in line with the ambitious climate goals within the green deal. The Bothnian Corridor questions whether the objective of the Trans-European Transport Network is best achieved through a clear focus on freight volumes, without taking into account aspects such as sustainability, the use of fossil fuels and innovative ways of working.

To obtain the best functionality possible, it is appropriate to have a terminal and a port in every sixty to seventy kilometres. The ports that then needs to be included are the ports in or adjacent to the cities of Kalix, Piteå, Skellefteå, Örnsköldsvik and Härnösand. The road and railway terminals that need to be included correspondingly, are Kiruna, Luleå, Skellefteå, Storuman, Umeå, Örnsköldsvik, Östersund, Ånge and Sundsvall. Haparanda/Tornio is also a critical transhipment terminal for bridging the gauge difference on the railway. It is also an important border node for the interaction between Sweden and Finland, which needs to be included.

In addition to this, some key airports in the overall network should also be upgraded to the core network:

- Luleå, is with about 1.2 million passengers the largest airport outside the metropolitan regions. Luleå is also an important military airport and has the country's longest runway. With the geographical location and need for fast transport options, Luleå Airport has a special function which, together with other infrastructure, maintains accessibility to the whole the region. The airport is crucial for the continued development of the high-technological basic industry in the global market. The airport is also planning for a possible connection of the North Bothnia Line and a future station location.
- Umeå Airport, with its approximately 1 million passengers per year, is one of the larger
 airports regarding Swedish domestic flights, which has the capacity of approximately 6.5
 million passengers per year. Umeå Airport is connected to the University Hospital but is also
 a joint Flight Coordination Center (FKC), located in Umeå and staffed 24 hours a day by
 experienced nurses and qualified operating staff, with access to decision support for complex
 medical issues.
- Åre Östersund Airport, with its strategic location in the inland of northern Sweden, will play an important role in the Swedish defence capabilities. The state-owned airport is Sweden's seventh largest and handles both domestic flights and foreign tourist charters. According to the EU's categorisation of airports, the airport will be upgraded in 2021 to CATIIIB Airport, which means that planes can land regardless of the weather. The number of passengers in 2019 was 470,000.

The implementation of TEN-T

The European transport policy is of particular use when it is targeted at cross-border infrastructure, the removal of barriers and bottlenecks, the promotion of innovative transport solutions and multimodal transport chains and by contributing to the phasing out of fossil fuels. The Bothnian Corridor deems that there is a lack of a clear European perspective in the preparation and implementation of the national infrastructure planning in Sweden, and that the coordination with the European transport policy objectives is weak. Especially with regards to the cross-border dimension. Projects that are socio-economically profitable and that contributes to better transport flows in a European perspective has not been prioritised in the same way as nationally initiated projects, which risks leading Sweden to not reaching the set EU goals in time. This jeopardises the implementation of the TEN-T core network within the set time frame, which is a conclusion that is also drawn in the National Audit Office's audit report "Roads and railway investments in Sweden lacking an EU perspective?" (RIR 2017: 27). Two important EU objectives for 2030, as it currently stands, will not be met in Sweden; line speed of 100 km/h and the requirement to be able to run 740-meter-long freight trains on the core network. There are only a few tracks on the core network that today meet this goal. According to the regulations, it is enough to prove that it is theoretically possible. The Bothnian Corridor therefore requests clearer requirements, feedback, and follow-ups of regulation, to ensure that the acquis is complied with in practice. The Bothnian Corridor notes that member states should develop the core network by 2030 in order to comply with the provisions of regulation, but those exceptions may be granted if measures cannot be justified. Here, The Bothnian Corridor wants to emphasise that special consideration should be given to "regions with serious and permanent, natural conditions or demographic disadvantages, such as the northernmost regions with very low population densities ", according to Sweden's Accession Treaty and Article 174 of the Lisbon Treaty, and therefore opposes that exceptions should be given with that justification, as this can severely effect areas with strong economic growth.

The Bothnian Corridor considers:

- That it is important that the core network corridors are synchronised with the EU freight corridors in order to achieve the best possible coordination of freight transport on rail.
- That the criteria for socio-economic assessments should be adapted to comprehend the whole routes, including cross-border connections to third countries, to better reflect the real flow of transport within the EU as well as between the EU and third countries.
- That there should be a clearer follow-up and reporting of Member States' commitments within TEN-T to ensure and accelerate the completion of the core network and the comprehensive network in time, according to decided timelines 2030 and 2050.
- That European coordinators should be given a stronger role and that their mandate be extended to include areas such as alternative fuels and digitalisation in order to reach the objectives. Furthermore, the coordinators should also be given a better defined role in the process of CEF applications and the final priorities for CEF funding.
- That it is important that there is an in-depth dialogue between the European, national, and regional level, in order to meet the potential of infrastructure development and needs at different levels.
- That the requirements from the core network should be extended to also include the comprehensive network in order to increase performance, durability and user benefits for all modes of transport.
- That the revision of TEN-T should also aim at developing a high-performance railway network
 within the EU as well as between the EU and third countries by introducing additional
 requirements for infrastructure, such as the general standard of 250 km/h for passenger
 trains. This is to increase the train's competitiveness relative to both air and passenger cars,
 which is particularly important in regions with long distances.

Prioritise the goals of climate neutrality

The Bothnian Corridor welcomes the EU's new growth strategy - the European Green Deal - which aims to ensure that climate aspects permeate all EU-policies in the future towards a climate-neutral Europe by 2050. The European transport sector faces major challenges in achieving the goal of reducing CO2 emissions by 90 percent by the year 2050 to be achieved. Advanced biofuels play an important role in how we can solve them. A fully developed European transport network that enables access to renewable energy sources, natural resources and sustainable products are also crucial for the functionality of the EU's internal market and the adaptation to a circular economy. A sustainable, integrated, and efficient European transport systems is therefore crucial to enable the green and digital transition.

Advanced biofuels are sustainable, as defined in Article 29 of the Renewable Energy Directive (RED II), and should be included as a low-emission fuel. All relevant EU legislation, including the taxonomy, should take into account the total environmental impact of the fuel. This is based on a life cycle assessment, covering all aspects, such as raw material extraction, production, and transport, and not just the emissions generated when the fuel is used.

The Bothnian Corridor considers:

- That binding concrete interim targets should be introduced with annual follow-ups in order to achieve the goal of a 90 percent emission reduction from the transport sector by 2050.
- Advanced biofuels are sustainable and should be considered a low-emission fuel. All relevant EU legislation, including taxonomy, should take into account the total fuel environmental impact.
- That binding requirements are required to ensure the availability of infrastructure for alternative fuels for both the core network, the comprehensive network and for all modes of transport throughout the EU, in particular taking into account the challenges that exist in sparsely populated regions with long distances to the larger markets.
- That it is important that the synergies between TEN-T and TEN-E are strengthened. Electrification of the transport sector, with a focus on rail, shipping, and aviation and the first and last mile for heavy freight transport, and the use of climate-neutral fuels, such as green hydrogen and advanced biofuels, are crucial to achieving a green transition.
- That climate-related aspects should be taken into account to a greater extent in the socioeconomic assessments.
- That the TEN-T should clearly prioritise efficient and sustainable multimodal freight transport solutions and a more comprehensive transition to sustainable freight transport, such as rail and shipping. This also means an improved railway infrastructure for freight trains.

Improved digital dimension of TEN-T

The Bothnian Corridor emphasises that the digitalisation is an important factor in achieving the sustainability goals for the green deal. Digitalisation is crucial to pave the way for new transport and mobility solutions as it takes into account the changing user needs and behaviours. TEN-T should act as an enabler for innovative, sustainable, inclusive, and efficient transport and mobility solutions and the designated projects must be able to be used as test beds for new technology development. To develop a smart and digitalised transport network, the 5G corridors must be adjusted in accordance with the core network corridors.

TEN-T should promote the digitalisation of the Trans-European transport network within and between all modes of transport, such as the European Rail Traffic Management System (ERTMS) to ensure readiness for future development. At the same time, it is important that the municipalities and regions do not get to bear the increased costs that may arise when digitalisation solutions are to be introduced. EU's member states have, for example, chosen different approaches to introducing ERTMS, which affects the users in different ways. In Sweden, users are allowed to bear the vehicle costs initially based on where the infrastructure managers have prepared for the test tracks, while the Netherlands has chosen a more innovative solution that means that the users' costs fall out only when the entire system is more developed. It is appropriate that the EU reviews opportunities for harmonisation so that the technological development does not distort competition and inhibits the transition to a more sustainable transport system, where the transfer to rail is one important part.

The Bothnian Corridor considers:

- That TEN-T should act as an enabler for innovative, sustainable, inclusive, and efficient transport and mobility solutions and that the designated projects must be able to be used as test beds for new technological development.
- That the 5G corridors should be adjusted in accordance with the core network corridors to develop a smart and digitalised transport network.
- That the European Commission should review opportunities for harmonisation with emphasis on the issue of ERTMS so that technological development does not distort the competition and hampers change to a more sustainable transport system, where the transfer to the railway is an important part.

Improved resilience within the Trans-European Transport Network

The need for investment in the Trans-European Transport Network is high, while the national

infrastructure investments are limited, with an additional challenge due to the economic consequences of the Covid-19 crisis. At the same time, transports are fundamental to the European internal market, which has been clearly shown during the current public health crisis, where closed borders have created greatly delayed delivery times. With the interrupted air traffic, accessibility to the northern and central parts of Sweden are affected particularly hard.

With large distances along with the lack of redundancy and a railway and road network that is not as developed or as well maintained as in southern Sweden or in large parts of Europe, the reliability of the system is low. Major investments for the future fossil-free steel production takes place in northern Sweden now, and the infrastructure needs to meet new transport flows in order to enable the rapid transformation. The Bothnian Corridor considers that funds from the EU Recovery Facility (RRF) should be channelled towards both improving the quality of the existing infrastructure, but also to be used to finance infrastructure projects with strong climate benefits and great European added value.

The Bothnian Corridor considers:

- That a functioning air traffic is crucial for the accessibility and the supply of skills and competitiveness throughout Europe, not least in long-distance areas.
- That the EU Recovery Facility (RRF) should be channelled towards both improved and developed infrastructure.