



Request for Information – An Upgrade of Inlandsbanan

Securing critical infrastructure and growth for industry and society

Inlandsbanan AB

Inlandsbanan AB invites to a Request for Information (RFI) for the upgrade of Inlandsbanan

To maximise the use and potential of the Inlandsbanan railway and strengthen the redundancy in and resilience of the Swedish transport system, Inlandsbanan AB is investigating alternative financing, organisation and implementation models (PPP) for the upgrade of Inlandsbanan section Mora-Gällivare. Currently, Inlandsbanan is an underutilised piece of infrastructure, yet its importance and role have both significantly increased in line with the green industrial transition in northern Sweden and the deteriorating geopolitical security situation in Europe. The line fulfils an important function for Sweden's total defence whilst being central to the climate-smart and efficient transportation of goods and passengers.

Despite its infrastructure having been well maintained based on existing prerequisites, Inlandsbanan has long suffered from a maintenance backlog due to insufficient financial appropriations. For some time, we have been working on the project *Upgrade of Inlandsbanan* with the aim of meeting the current and future transport needs. We see great potential in upgrading Inlandsbanan, not only to improve transport options, but also to support the green transition and increase resilience. By involving private actors and stakeholders in this process, we can together create a railway that meets the needs of the market.

Through this RFI, Inlandsbanan AB wishes to supplement existing documentation, deepen our knowledge, and bring together expertise and new perspectives from the private sector on how an upgrade can best be achieved. As such, we welcome responses from the private market, together with proposals for implementing solutions and financing models, which will move us closer to achieving an upgrade of Inlandsbanan.

The deadline for responses to this RFI is **19 January 2025**

The RFI process will proceed until February 2025, with Market Days to be held in Östersund on 11–12 December 2024. During these days, we look forward to both meeting market actors in person and conducting a site visit to show the project's status and potential.



Otto Nilsson, CEO Inlandsbanan AB

Content

1.	Background	4
2.	Inlandsbanan	5
2.1.	Inlandsbanan's ownership and management	6
3.	Inlandsbanan's current status and operations.....	6
3.1.	Inlandsbanan's current set up and services	6
3.2.	Current demand and use of the railway	7
3.2.1.	Freight	9
3.2.2.	Passenger.....	9
3.3.	Description of the railroad	10
4.	Project description – the upgrade of Inlandsbanan	10
4.1.	Inlandsbanan's potential and future goals.....	10
4.2.	Inlandsbanan's stakeholders and changing needs.....	11
4.2.1.	Co-owning municipalities and their residents	11
4.2.2.	Forestry industry and train operators.....	12
4.2.3.	Greater need for redundancy in the transport system to strengthen Sweden’s total defence 13	
4.3.	Technical measures for the upgrade of Inlandsbanan.....	14
5.	Implementing and organising the upgrade of Inlandsbanan	15
6.	Information this RFI requests.....	16
7.	RFI-process	17
7.1.	Market Days	17
7.2.	Overall timetable.....	17
7.3.	Administrative information	18

1. Background

As one of Sweden's five most strategically important rail routes in terms of national defence and military strategic significance, Inlandsbanan¹, which runs through Sweden's inland, has a special role for Sweden's total defence in terms of ensuring redundancy in and resilience of the transport system. As there are only two south-to-north rail routes in Sweden, relying solely on the coastal route, becomes increasingly vulnerable. As such, Inlandsbanan is crucial to achieve redundancy in the transportation system, where a stable inland route is necessary for both civilian and military purposes.

Due to the deteriorated security situation, new geopolitical landscape, and Sweden's Nato accession, the focus on securing strategically important transport routes has increased. As a member of NATO, Sweden is expected to support the alliance with host nation support. In the long run, this entails Sweden being prepared and able to facilitate the transportation of and access to vital supplies such as food, fuel, protection and surveillance, command and control, health care, traffic management of the Swedish road and rail networks, shipping lanes at sea, and reception at airports and ports.

At the same time, the green transition is underway of Swedish industry and society at large, driven by the need to reduce our impact on the climate. As such, industrial needs for efficient and environmentally friendly freight transportation are increasing in line with efforts to reduce the environmental impact. With its existing, but currently underutilised capacity, Inlandsbanan can become an important resource in meeting the increasing demand for both freight and passenger traffic.

In order to meet the transport needs of the future, for some time Inlandsbanan AB (IBAB) has been working on the project *Upgrade of Inlandsbanan*, which aims to investigate the prerequisites for the comprehensive upgrade of the line. The complete upgrade, which is estimated to cost SEK 11.5 billion according to 2024 price levels, includes replacing track, increasing the bearing capacity, extending the double tracks at meeting points to enable greater capacity, and installing a modern signalling system (ERTMS). Note that this RFI does not include the connection line between Arvidsjaur and Jörn, which is assumed to be upgraded in line with implementing *the Upgrade of Inlandsbanan*.

¹ In this documentation, "Inlandsbanan" refers to the Mora-Gällivare section, which is managed by IBAB.

From a socio-economic perspective, it is crucial that Sweden continues to invest in sustainable infrastructure that supports both economic growth and the green transition. Investments in Inlandsbanan can create positive effects by promoting industries' competitiveness in northern Sweden, stimulating local and regional development, and strengthening the redundancy within the transport network. For Inlandsbanan's full potential to be realised, close cooperation between the business community and the public sector is required.

2. Inlandsbanan

Originally, Inlandsbanan stretched 1,296 kilometres in total, from Kristinehamn in the south to Gällivare in the north. Inlandsbanan is the result of a visionary plan made during Sweden's industrialisation, which aimed to improve accessibility and economic development in the country's hinterland and passes through some of Sweden's most remote and scenic areas.

The work to lay Inlandsbanan extended over several decades and involved enormous technical and logistical efforts. Its planning began in the late 1800s and construction began in 1907. Construction of the railway was carried out in various stages and completed in 1937. The work was technically challenging due to the difficult geographical conditions; namely dense forest, hilly terrain, and countless waterways needing to be crossed. Its establishment, despite these challenges, makes Inlandsbanan a technical achievement and a significant infrastructure asset. At the time of its completion, Inlandsbanan provided an important transport link for both people and goods, which contributed to regional growth and development. By connecting remote communities with major cities and industrial areas, the railroad became a lifeline for the many small communities along its route. Even today, Inlandsbanan is used for transporting both passengers and goods. As of today (2024), the stretch from Gällivare in the north to Mora in the south is in operation and managed by IBAB. The route represents just over 10% of Sweden's total railway length in 2024. The Kristinehamn-Filipstad section is also in use and is managed by the Swedish Transport Administration, while the section between Mora and Persberg (Filipstad) is



completely closed. Approximately one-third of the income-generating trains in operation on Inlandsbanan between Mora and Gällivare in 2023 consisted of passenger trains, whilst two-thirds consisted of freight transportation.

2.1. Inlandsbanan's ownership and management

In the early 1990s, it was determined that Inlandsbanan required a more dedicated management and administration to ensure its continued operation and development. In 1992, the Swedish government decided to transfer responsibility for Inlandsbanan to a newly formed company, Inlandsbanan AB (IBAB). In forming IBAB, 15 municipalities joined forces and assumed the management of Inlandsbanan from SJ. IBAB still has the right of use and responsibility for the line and the company's ownership has expanded to include 19 municipalities. IBAB has a subsidiary which specialises in tourist traffic; Destination Inlandsbanan AB (DIAB), which operates passenger traffic on Inlandsbanan and aims to develop the tourism industry within the co-owning municipalities. The subsidiary offers rail excursions, sells and markets package tours, interrail passes, and tickets as well as charter trips. The group also includes the subsidiary Inlandståg AB (ITÅG), a railway company which operates passenger and goods transportation on both Inlandsbanan and the Swedish Transport Administration's infrastructure. The business also includes renting vehicles and maintenance work. In 2022, on the group level, IBAB had revenues of SEK 229 million, which consist almost exclusively of the operating appropriation from the state. Furthermore, the annual report of 2022 shows that around 80% of the state's operating appropriation went to measures connected to track maintenance.

3. Inlandsbanan's current status and operations

The following section provides an overview of Inlandsbanan's current business, services, and key stakeholders as well as a description of the railway line and its technical condition.

3.1. Inlandsbanan's current set up and services

IBAB manages the line from Mora to Gällivare on behalf of the state, which includes maintaining and developing its functionality. As such, IBAB provides maintenance and services for using the track. This includes IBAB ensuring the line is in a usable condition, managing traffic, and providing transportation capacity on its part of the Swedish railway network. At present, the operating appropriation awarded by the state makes up the majority of the IBAB's financing. The remaining revenue comes from track fees from train operators using the line. The company also

conducts its own freight and passenger transport on the line through its subsidiary, Inlandståg AB.

Tourist traffic currently consists mainly of excursions for ten weeks in the summer through DIAB arranging trips and charter trips along the Inlandsbanan. DIAB arranges and sells excursions all year round through package tours, interrail passes, and tickets.

3.2. Current demand and use of the railway

During 2023, a total of just over 1400 departures were recorded along routes controlled by IBAB. These additionally include train departures that start at Inlandsbanan's operating sites, but which immediately leave the line to continue their journeys on a connection line not managed by IBAB. Of the total departures along routes controlled by IBAB, around 35% were passenger trains whilst around 65% were freight transportations, and the stretch between Mora and Östersund was the busiest, with 35% of total departures. The second highest number of departures were on the route Storuman-Hällnäs (22%), followed by Hoting-Forsmo (19%), Storuman-Gällivare (12%), and lastly Storuman-Östersund (11%). 41% of the traffic on Inlandsbanan travels a short distance on Inlandsbanan, whereby the majority of these trains travel on the connection lines that connect to Inlandsbanan

June to August stand out as the busiest period, with the number of departures exceeding the annual average and account for around 45% of the total departures for the year. This increase is explained by a marked increase in passenger traffic during the summer months. Freight traffic shows a relatively stable volume during the year, with an average of 77 trains per month.

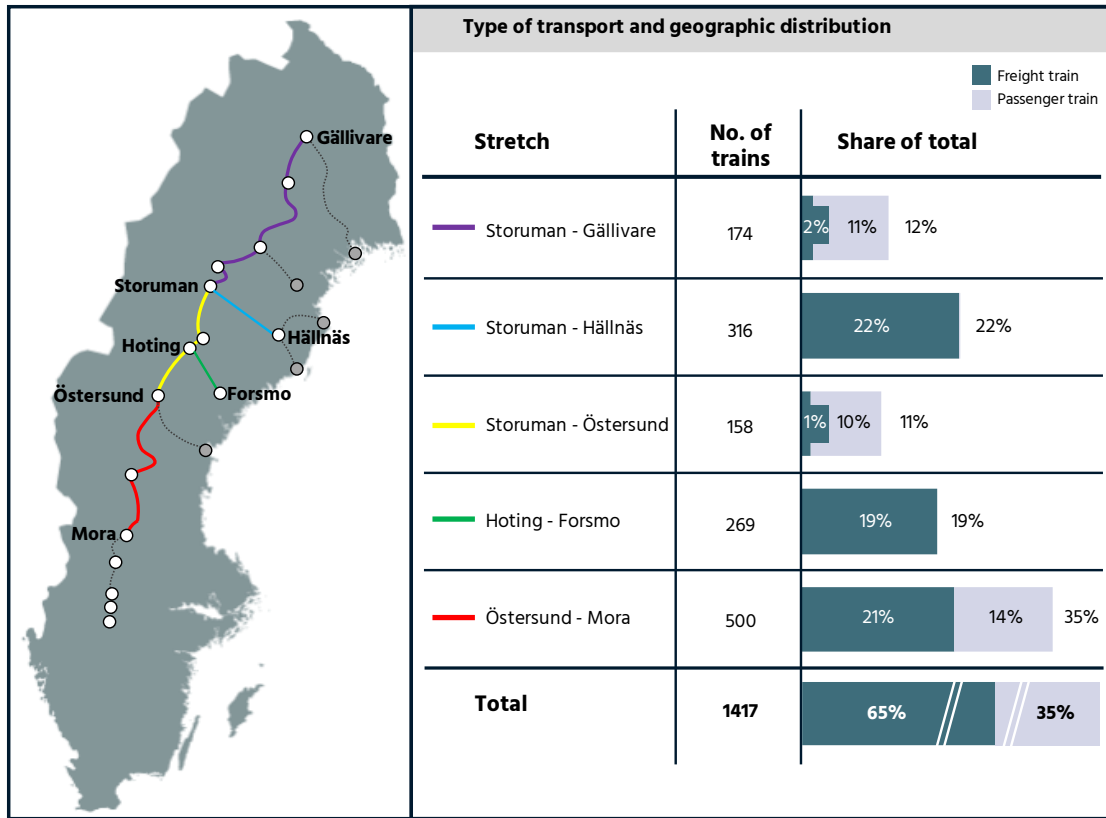


Figure 1: The distribution of traffic volume during 2023 measured in number of trains.

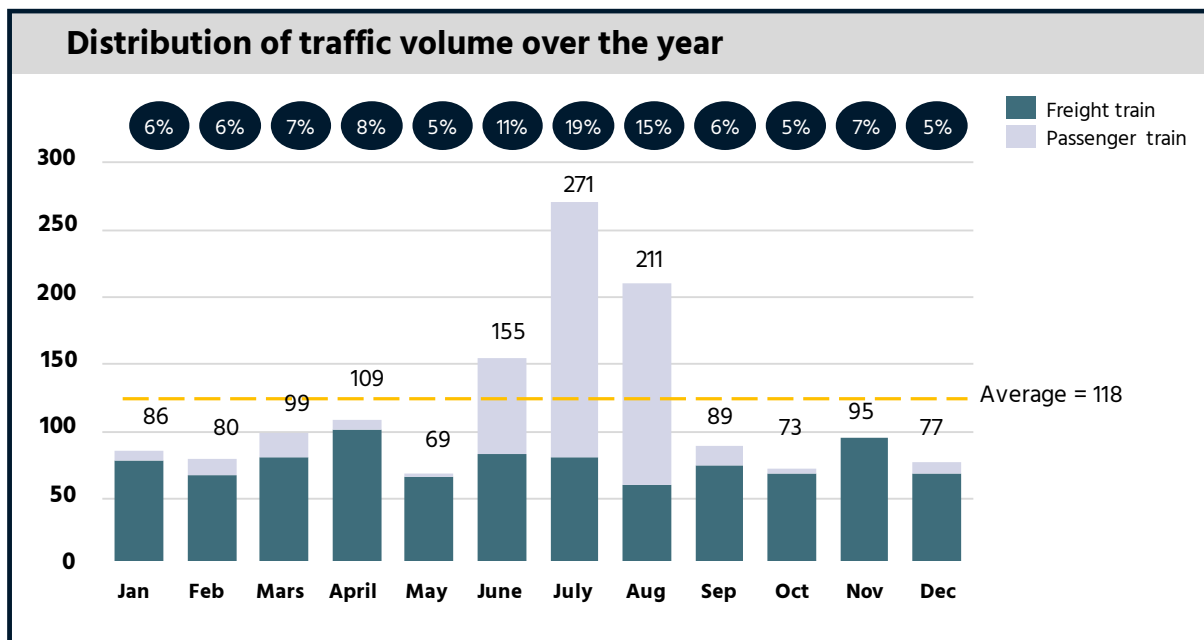


Figure 2: Number of freight and passenger trains during 2023

3.2.1. Freight

Freight transportation on Inlandsbanan is primarily on specific sections and dominated by transportation by the forestry industry. Three routes account for the majority of freight trains, and the forestry industry has a significant role in each of these. In total, the forestry industry accounted for at least 60–65% of freight trains in 2023.

3.2.2. Passenger

Passenger traffic, unlike freight traffic, is exclusively along the Inlandsbanan line, which IBAB manages. Three major traffic flows characterise the passenger traffic along the Inlandsbanan line, which differ from the freight transportation flows (see Figure 3).

All main trafficked routes are operated by Inlandståg and consist of trains running during the summer months of June-August. Note that the statistics do not differentiate between different trains on various sections, which means that the same train may pass several sections on a single journey. For example, a journey from Mora in the south to Gällivare in the north is counted as three separate trains in the statistics.

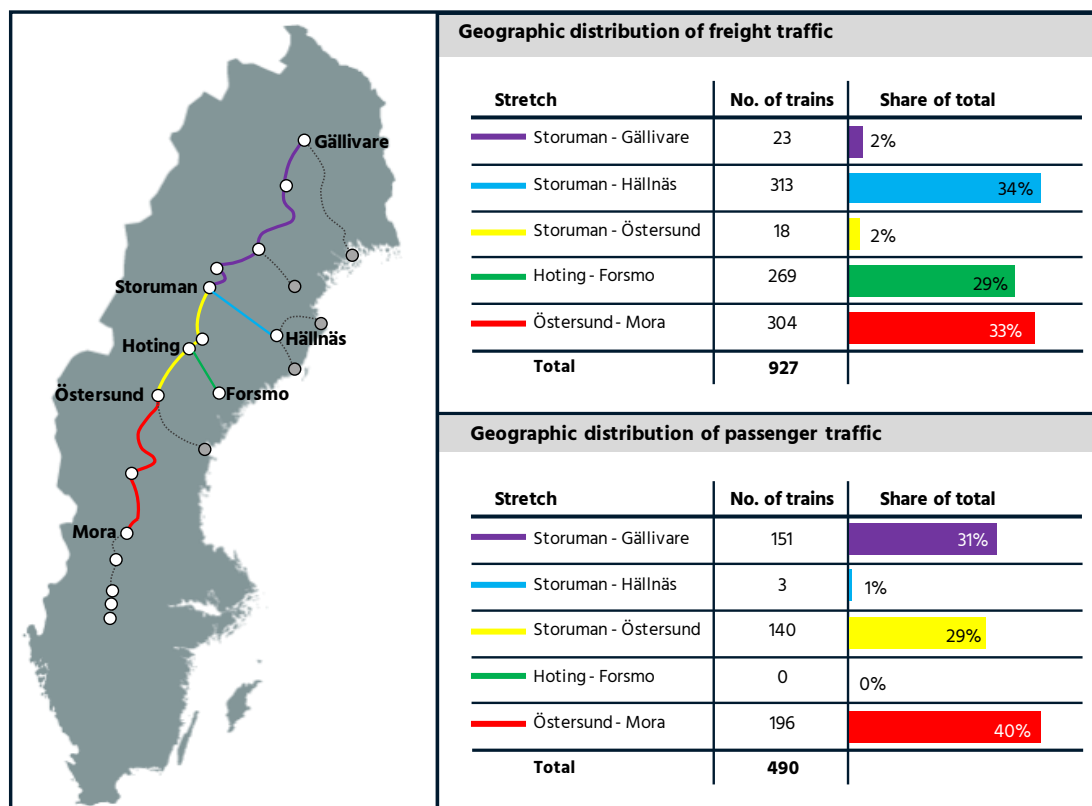


Figure 3: Geographic distribution of the number of train departures during 2023.

3.3. Description of the railroad

The current condition of Inlandsbanan affects its capacity and efficiency, which makes it less competitive compared to other rail routes. In order to handle larger volumes of freight traffic and become more competitive, an upgrade is required to increase its load-bearing capacity and speed, as well as its overall capacity. One of the main limitations is its current load-bearing capacity, whereby over 75% of the stretch - Mora to Arvidsjaur - has a maximum permitted axle load (STAX) of 22.5 tonnes. The section between Arvidsjaur and Gällivare has a bearing capacity of 20 tonnes STAX, which further reduces capacity. In comparison, Malmbanan has a significantly higher load-bearing capacity of 30 tonnes STAX, which makes it more suitable for heavy transportation². Inlandsbanan's maximum permitted speed is 80 km/h.

Taken together, these technical limitations in terms of load-bearing capacity and maximum speed mean that the line has a reduced capacity, which limits the possibilities to handle heavier and faster transportations. In addition to the limitations in terms of bearing capacity and speed, the traffic management system plays an important role in how many trains can operate on the line at the same time, which, in turn, affects capacity.

4. Project description – the upgrade of Inlandsbanan

IBAB aims for the long-term development of Inlandsbanan to promote economic growth while also generating socio-economic benefits for the residents of its owning municipalities. To achieve this, the goal of the project *Upgrade of Inlandsbanan* is to accelerate and make the implementation of a complete upgrade more effective, as well as to optimize the project's setup for all parties involved

4.1. Inlandsbanan's potential and future goals

Inlandsbanan is a strategic piece of infrastructure thanks to its geographical position in running through inland Sweden, from southern Norrland to northern Lapland. The line offers an alternative transport network that can both strengthen Sweden's resilience and preparedness from a security perspective and play a vital role in the green transition in northern Sweden by facilitating alternative passenger and freight transportation in regions with growing industries.

² Since 2022, Malmbanan has 25 tonnes of STAX, and work is being carried out to increase its bearing capacity.

The goal is for Inlandsbanan to be integrated into the national railway network and develop into a prioritised freight corridor that helps grow Sweden's hinterland through higher volumes of freight and passenger traffic on the entire line. With the deteriorating geopolitical security situation and the new industrialisation in the north, IBAB views these amended prerequisites as positive to actualising the goal of upgrading Inlandsbanan. These prerequisites include an increased need for infrastructure resilience and an ability to meet a greater demand for sustainable transport in a rapidly growing industrial sector in northern Sweden.

IBAB thereby assesses that:

- (a) the need for transportation on the line may increase.
- (b) the needs of the Swedish total defence may play a greater role in the upgrade of Inlandsbanan.

4.2. Inlandsbanan's stakeholders and changing needs

4.2.1. Co-owning municipalities and their residents

New investments and jobs

New investments in the municipalities along the line are expected to create many new jobs, with up to 5,000 jobs expected from larger investments and even more through smaller initiatives and knock-on effects. In total, it is estimated that over 10,000 new jobs could be created, especially in northern Sweden where major investments have been announced. This expansive development, driven by the green transition and the subsequent new industrialisation in the north, entails a greater need for efficient transport solutions. In this respect, Inlandsbanan can play a central role as several different types of stakeholders can use the line. These include both companies with transport needs that currently use other modes of transport and companies that do not have this transport at present but will have the opportunity to develop and grow their business if better transport infrastructure is put in place.

The figure below provides an overview of the main categories of new stakeholders that will be added as having a potential transport need, which Inlandsbanan could contribute to meet in the future.

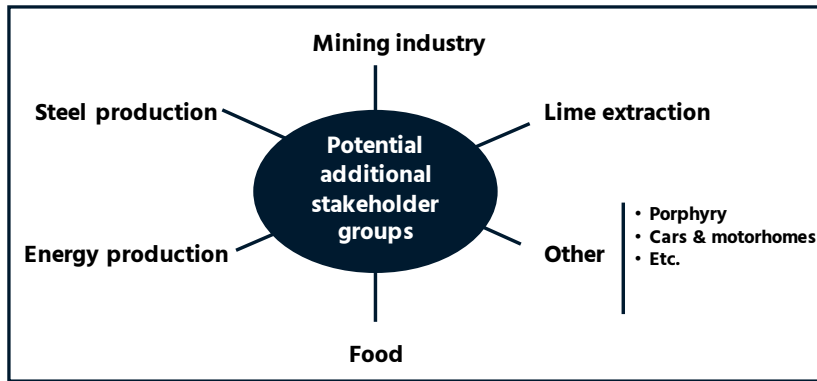


Figure 4. Main categories of interest for freight transport along Inlandsbanan.

Demographic developments

Population developments along Inlandsbanan are expected to vary, with some growth in the southern and northern parts whilst populations in the municipalities along its central part are expected to decrease. Business development managers from municipalities along the Inlandsbanan describe a marginal population increase until 2035. For example, Östersund is predicted to have a continued positive development.

4.2.2. Forestry industry and train operators

The needs of train operators are expected to increase in line with the growing demand for transport from companies operating along the Inlandsbanan. These companies play a critical role in increasing traffic on the line. At present, timber is the main goods transported on Inlandsbanan. However, the forestry industry is only expected to grow by a few per cent per year over the coming decade, and there are no strong indications that the forestry industry's share of rail transport will change significantly. On the other hand, industry bodies have expressed an interest in building new terminals for transporting timber.

A potential higher use of residues from the forestry sector, for example as biofuel, may affect future transport needs, however, the potential of this requires further investigation.

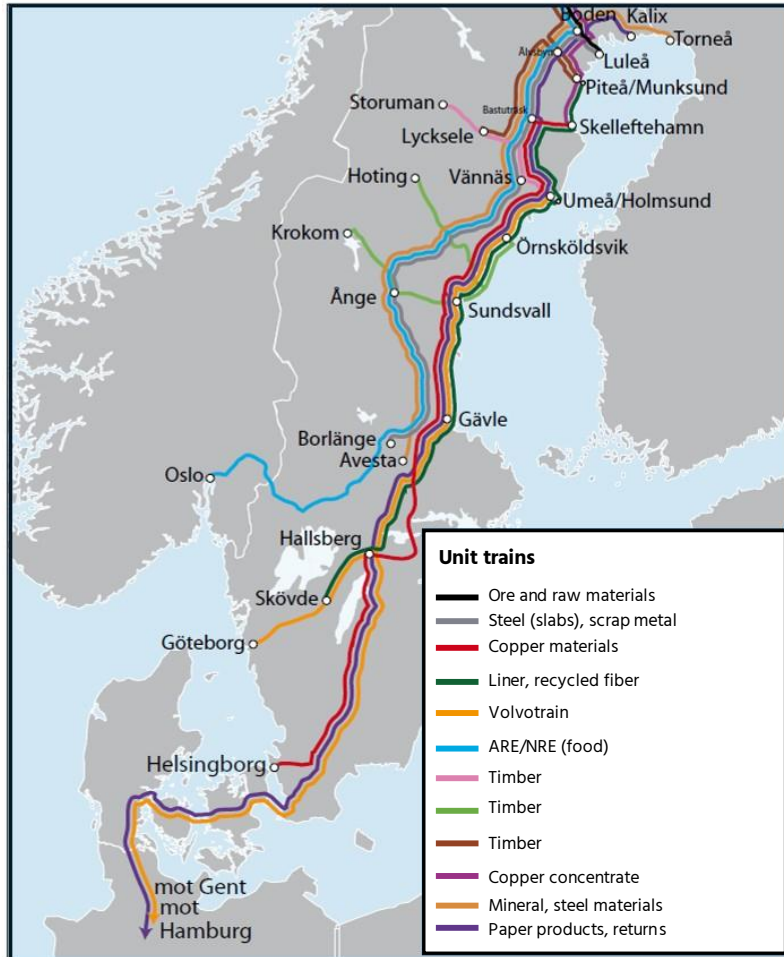


Figure 5: Major transport flows with unit trains to and from northern Sweden. Image: Swedish Transport Administration.

4.2.3. Greater need for redundancy in the transport system to strengthen Sweden’s total defence

Increasing awareness of the importance of redundancy in the railway network can lead to greater prioritisation being placed in a north-south rail line through inland Sweden. The southern part of Inlandsbanan, with its connection to the port of Kristinehamn, is of particular interest as the port strategically connects the Oslo-Stockholm route with the Inlandsbanan and provides access to the Atlantic Ocean via Trollhättan Canal. An investigation by the Swedish Transport Administration additionally proposes that IBAB's responsibility should be expanded to include the southern part between Mora and Kristinehamn and the connection rails, which would strengthen the line’s strategic importance in terms of both civilian and military transportation.

4.3. Technical measures for the upgrade of Inlandsbanan

To improve Inlandsbanan's accessibility and capacity and meet future needs, several technical measures need to be carried out. Based on previous feasibility studies, the upgrade of Inlandsbanan is forecast to cost SEK 11.5 billion (at 2024 price levels) and includes measures to achieve greater load-bearing capacity, higher average speeds through replacing track, straightening curves, and rebuilding level crossings, extending double tracks at meeting points to increase capacity, as well as installing a modern traffic management system (ERTMS).

For the industry sector, more terminals are also needed for the transshipment of goods. In northern Sweden, where the mining industry is an important sector, measures are particularly needed to increase the line's load-bearing capacity.

The technical measures proposed for the upgrade of the line can be described as follows:

Speed and traffic volume

- Measures such as replacing track to allow for a maximum speed of 100 km/h for freight traffic and 140 km/h for passenger traffic
- Extend double tracks at meeting points to 750 metres at 12 operating points along the line to increase capacity
- Triangular tracks should be built in Arvidsjaur to accommodate through-trains on the Inlandsbanan in the north and south directions
- Triangular tracks at Mora Noret should be upgraded and opened for traffic to/from Borlänge

Load-bearing capacity

- Increase the current bearing capacity to a minimum of 22.5 tonnes STAX and up to 25 tonnes STAX.

Traffic Management Systems

- Upgrade Inlandsbanan's system M (manual) to a modern signalling system in line with ERTMS.

5. Implementing and organising the upgrade of Inlandsbanan

As the need for modern and efficient transport systems increases, many countries have used alternative financing and implementation models (PPP) for their infrastructure projects. Concession-based models are common, whereby private actors assume a central role in the total undertaking, typically consisting of the design, construction, financing, operation, and maintenance. Common criticisms of alternative financing in Sweden include it being cheaper to borrow money from the government via the National Debt Office. However, the overall commitment that a concession entails creates other benefits and can lead to innovation that promotes, for example, greater sustainability. These factors, in turn, can affect the cost of the project in the long run. In addition, alternative forms of financing and project implementation can allow for more projects to commence simultaneously.

A clear example of this can be found in France, where the prominent high-speed railway (TGV) was built using concessions to finance and operate parts of the extensive rail network. Similarly, Spain has also used concession-based models to modernise its rail system. Moreover, we have also seen this type of financing and model in Sweden, for example, with the Öresund Bridge, whereby private-public partnerships have been used for both its financing and operations. These emerging developments demonstrate the importance of collaboration between the public and private sectors to meet the infrastructure needs of the future.

The argument for investigating alternative financing and implementation models is further strengthened by the recent Infrastructure bill introduced by the government in October 2024 (*"The road to a reliable transport infrastructure – for the whole of Sweden to work"*). The bill states that the government *"intends to test alternative forms of financing, provided they can lead to faster and more cost-effective implementation, or that more projects can be implemented within a certain time frame than would otherwise have been the case"*. In addition, the government believes that *"increased elements of so-called public-private collaboration, private co-financing, and co-financing from the EU and NATO are important complements"*.

At present, no funds have been allocated in the Swedish Transport Administration's national plan for the upgrade of Inlandsbanan, whilst the current and future forecasted traffic volumes are insufficient to bear the costs of such an upgrade.

As such, to facilitate the upgrade of Inlandsbanan, this RFI, therefore, considers a concession arrangement suitable, which would use the project delivery model DBFOM (Design, Build,

Finance, Operate, Maintain). This would entail an external actor being responsible for the entire project, from design and construction to financing and maintenance. As the revenues are unlikely to be sufficient to bear the costs, the financing aspect in the concession arrangement is based on the fact that government funding can be provided.

6. Information this RFI requests

As part of the preparatory work of the project to design the upgrade of Inlandsbanan, IBAB now welcomes the private market's views and insights on how the project can be organised and implemented using the DBFOM method (Design, Build, Finance, Operate, Maintain). This RFI is for an *Upgrade of Inlandsbanan Mora-Gällivare* and aims to deepen our knowledge and understanding of how the total renovation can be carried out from a technical, strategic, organisational, and financing perspective.

The information IBAB requests is, for example:

- possible designs of the upgrade,
- possible implementation models,
- possible organisational structure of the implementation model,
- proposals for business model(s) and the consequences of different options,
- risk distribution and the consequences of different options,
- financing arrangements and the consequences of different options,
- a description of overall risks (e.g. technical risks, legal risks, and operational risks) that may arise in connection with the total renovation, and
- transport needs and demands in the event of the line being upgraded.

In addition to project-specific information, IBAB would like respondents to this RFI to additionally include:

- General company description
- Relevant knowledge of the areas covered (e.g. financing, construction, contracting, operation, maintenance), and
- Relevant experience and project management from similar projects and project designs.

7. RFI-process

7.1. Market Days

Following the publication of this RFI, Market Days will be held **on 11–12 December 2024 in Östersund** from lunch to lunch with presentations, a site visit, and a joint dinner. Attendees will, in turn, be given the opportunity to pose questions and learn more about the project.

Expressions of interest to attend the Market Days are to be emailed to rfi@inlandsbanan.se, after which more information and the programme of events will be sent to respondents. **Expressions of interest to attend the Market Days must be sent to rfi@inlandsbanan.se no later than 21 November 2024.**

The number of places is limited, and Inlandsbanan AB reserves the right to limit the number of participants per organisation to enable as many interested organisations as possible to attend.

Questions related to the RFI are to be submitted to rfi@inlandsbanan.se no later than 12 January 2025.

After the *Market Days*, interested companies will be given the opportunity to present and discuss their proposals and be part of the ongoing work in realising the *Upgrade of Inlandsbanan*. More information will be provided during the Market Days on 11–12 December.

7.2. Overall timetable

Action	Date
Publication of the RFI	11 November 2024
Deadline for registration for the Market Days	21 November 2024
Market Days	11-12 December 2024
Deadline for questions	12 January 2025
Deadline for responses	19 January 2025
Company presentations	Weeks 6 (3-7 Feb) and 8 (17-21 Feb) 2025 in Stockholm

7.3. Administrative information

Written responses to this RFI are to be submitted via rfi@inlandsbanan.se **no later than 19 January 2025**. The responses must be written in Swedish or English and submitted in digital format, preferably in Word, PowerPoint, or PDF.

Responses received can be used:

- to demonstrate interest in the *Upgrade of Inlandsbanan*
- to demonstrate alternative financing and implementation models, and
- to formulate documentation for a possible procurement.

Responses received, or parts of responses received, can be used in public contexts in connection with the work on the *Upgrade of Inlandsbanan*.

IBAB is a municipally owned company and subject to the Swedish principle of public access to official documents. This means that confidentiality cannot be guaranteed but will be considered on a case-by-case basis. It is possible to request confidentiality of information submitted about particular business or operational conditions if the disclosure of this information is considered to be damaging to the respondent.