

SHORT VERSION

Location Study THE NOBELBANAN PROJECT



OSLO-STHLM 2.55
THE NOBELBANAN PROJECT

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About the Nobelbanan Project

Nobelbanan is a proposed new railway connection between Örebro and Kristinehamn. The existing railway system between Värmland and Örebro does not meet the demand for travel along the corridor. There is currently no direct and efficient rail connection between Karlstad and Örebro. Train journeys are often time-consuming and require a transfer, making rail travel less competitive than travel by car or bus.

The inadequate railway connections affect both regional development and people's opportunities to travel sustainably. Long journey times limit opportunities for commuting, business travel, education and leisure travel. They can also make it more difficult for employers to recruit and retain the skilled staff they need, and they limit interaction between cities and labour markets in Värmland and the Mälaren region.

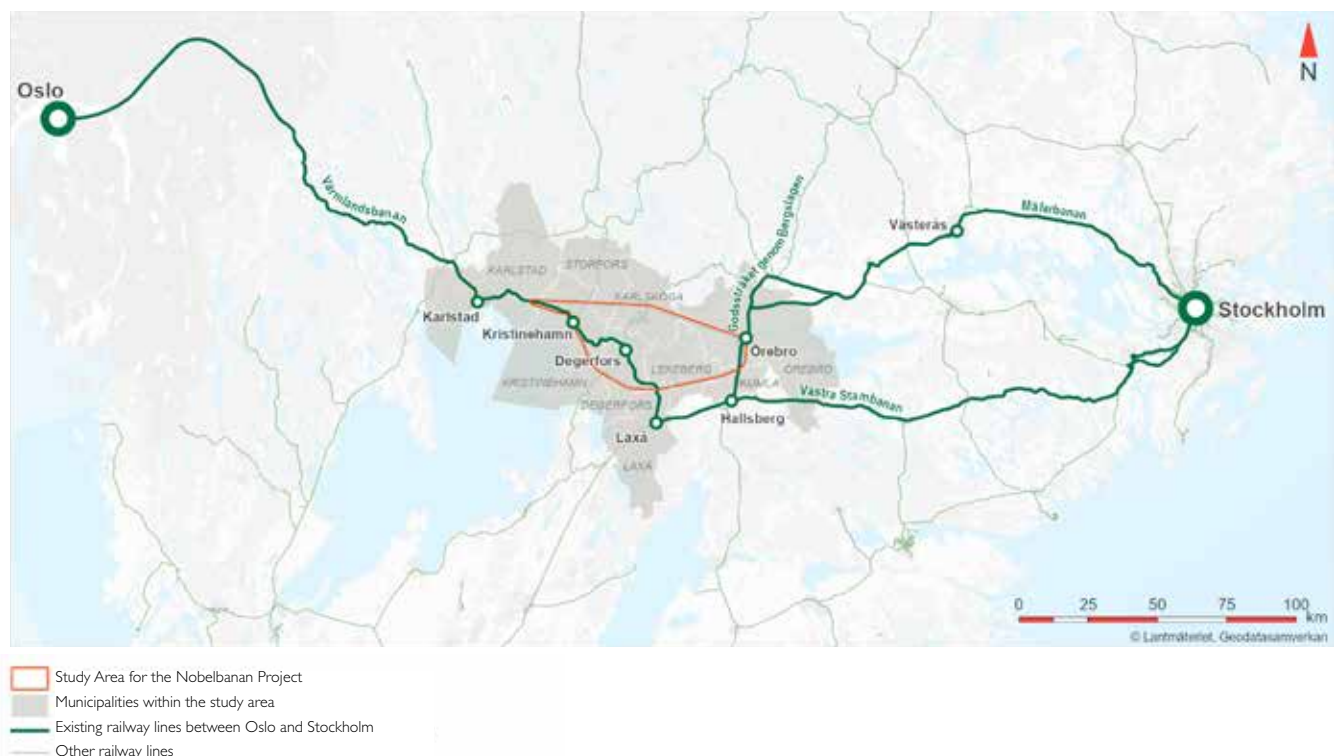
Work on Nobelbanan has begun with a location study, the first step in the statutory planning process for railway projects. In most cases, the Swedish Transport Administration is responsible for preparing location studies for projects within the national railway network. In this case, the study is financed and carried out by Oslo–Stockholm 2.55 AB in cooperation with the Swedish Transport Administration's Central Region. Oslo–Stockholm 2.55 AB is owned by Region Värmland, Region Örebro County, Region

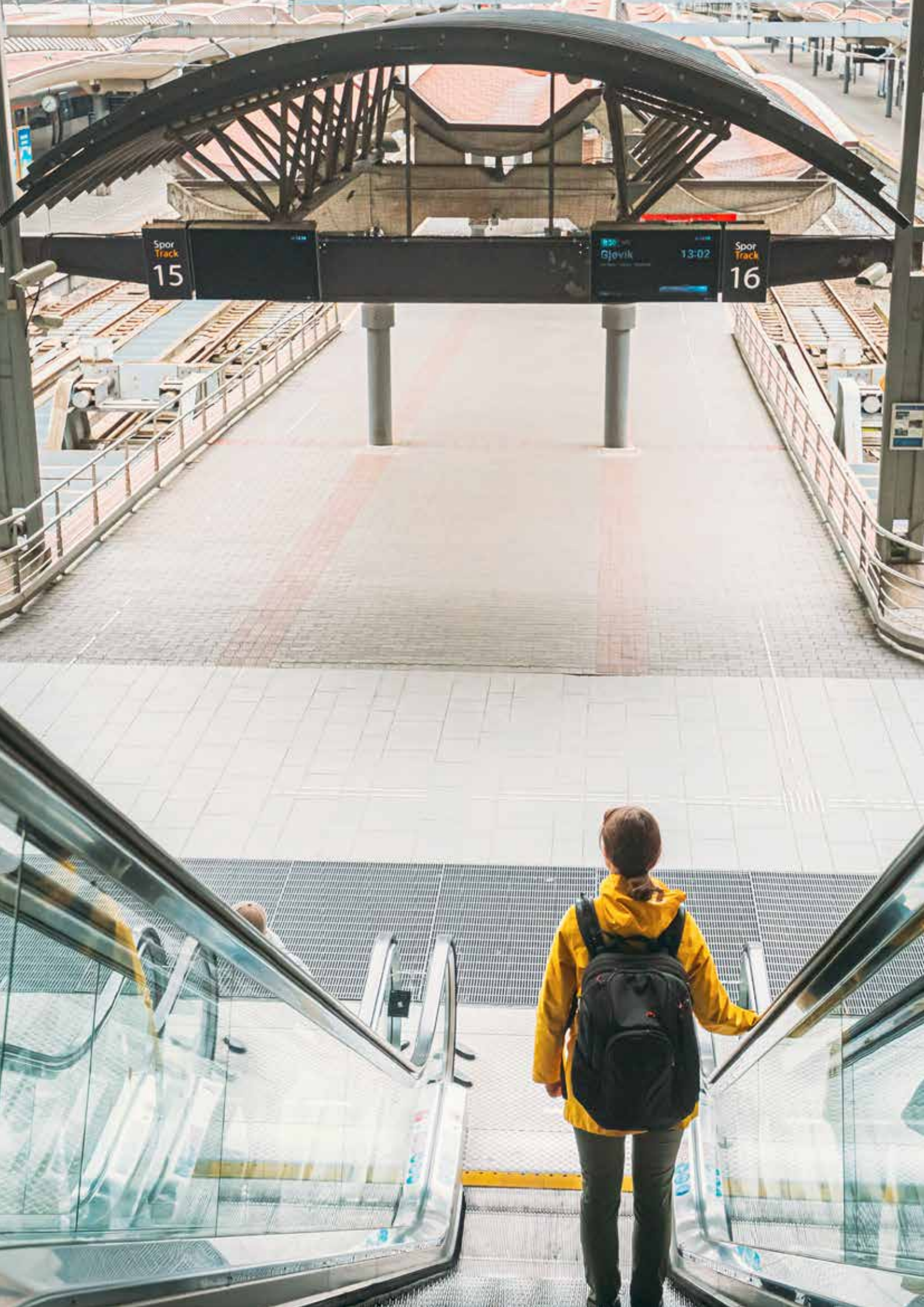
Västmanland, Region Stockholm, and the municipalities of Karlstad, Örebro and Västerås.

The location study was completed in September 2026. The study analyses and ranks possible corridors for the new railway and recommends one corridor for continued planning. The study has been carried out in accordance with the requirements of the Railway Construction Act (SFS 1995:1649) and the Swedish Transport Administration's methodology. It does not determine the exact alignment of the railway, but identifies the corridor considered most suitable for further development in the next stage.

This document is a shortened version summarising the conclusions of the location study. For complete information, please refer to the location study and its appendices, which are available at nobelbanan.se.

Map overview





Spor
Track
15

Gjøvik
13:02

Spor
Track
16

Project Objectives and Benefits

The overall purpose and project objectives describe what the project is intended to achieve and have formed the basis for developing the alternatives presented in the location study.

Purpose	Project Objectives
Strengthen regional and interregional accessibility along the Karlstad–Örebro–Västerås corridor, thereby contributing to the development of an integrated functional region spanning Värmland and the Mälaren region, with positive social and economic development and a competitive business sector.	Improve journey times between Karlstad and Örebro Improve accessibility by public transport Contribute to the economically sustainable operation of passenger rail services Ensure that station locations are attractive from a door-to-door travel perspective
Contribute to the development of a resilient railway system with sufficient capacity.	Contribute to a high-capacity and flexible railway system Contribute to a resilient and reliable railway system
Contribute to a socially and environmentally sustainable transport system.	Contribute to reducing car travel Contribute to improved access to the labour market
In the longer term, Nobelbanan is intended to form part of an efficient railway connection between Oslo and Stockholm.	Contribute to competitive rail journey times between Oslo and Stockholm Contribute to accommodating the expected increase in traffic when the entire Oslo–Stockholm route is operational to traffic

Benefits of the Nobelbanan Project

The objectives reflect the benefits that Nobelbanan is expected to deliver. A key benefit is shorter journey times, making it easier to commute to work or education, travel for business, and access services, cultural activities and leisure opportunities in more locations. When more places can be reached within a reasonable travel time, the connections between the cities and regions linked by the railway are strengthened.

Improved accessibility therefore supports regional development. For employers, a larger labour market can facilitate recruitment and help secure access to the skills they need. For businesses, improved connections can also strengthen relationships with customers, suppliers and business partners. In the longer term, this may contribute to increased employment, greater diversity across sectors and reduced vulnerability to individual industries.

Nobelbanan will also contribute to a more resilient railway system with greater capacity. This is important for providing short

journey times, high reliability and a level of service that can be developed over time. If rail becomes a more attractive alternative, more journeys may shift from road to rail, contributing to a more sustainable transport system. Nobelbanan is also an important part of the ambition to create a more efficient railway connection between Oslo and Stockholm.

Nobelbanan is also important for Sweden's total defence and the defence industry. Many companies are experiencing strong growth and are expected to have significant recruitment needs in the years ahead. Between 2022 and 2026 alone, the defence industry in and around Karlskoga grew by 3,500 jobs. Nobelbanan could also facilitate the movement of equipment, supplies, personnel and civilians in times of crisis or war. The re-establishment of a military regiment in Kristinehamn, together with the connection to the Inland Railway, makes the corridor even more strategically important.

The full purpose and project objectives are presented in the table above.



Nobelbanan – shorter journey times and more frequent services



Traffic and Travel

Nobelbanan is intended to be served by both long-distance and regional trains. The long-distance trains on the corridor are assumed to stop in Karlstad and Örebro, while the regional trains will also stop in Kristinehamn, Karlskoga or Degerfors (depending on the alternative), as well as Örebro South.

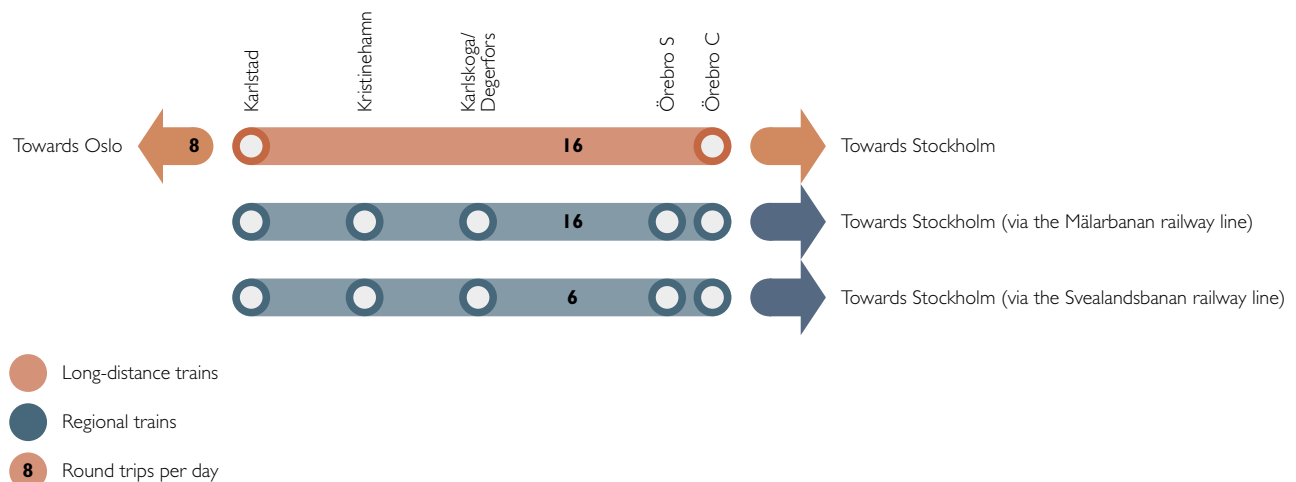


Regional trains (example image)
Used for regional travel



Long-distance trains (example image)
Used for long-distance travel

Train service scenario for Nobelbanan





The most significant change for passengers will be the substantially shorter journey times. The journey between Karlstad and Örebro is estimated to take approximately 33–39 minutes by long-distance train. Journey times will also be considerably shorter with regional trains. Today, travelling by train between Karlstad and Örebro takes approximately two hours, including one transfer.

Forecasts indicate that Nobelbanan is expected to attract a substantial number of passengers. In 2045, almost 3.5 million

journeys per year are estimated to take place on the railway. Passenger volumes vary somewhat depending on the alternative.

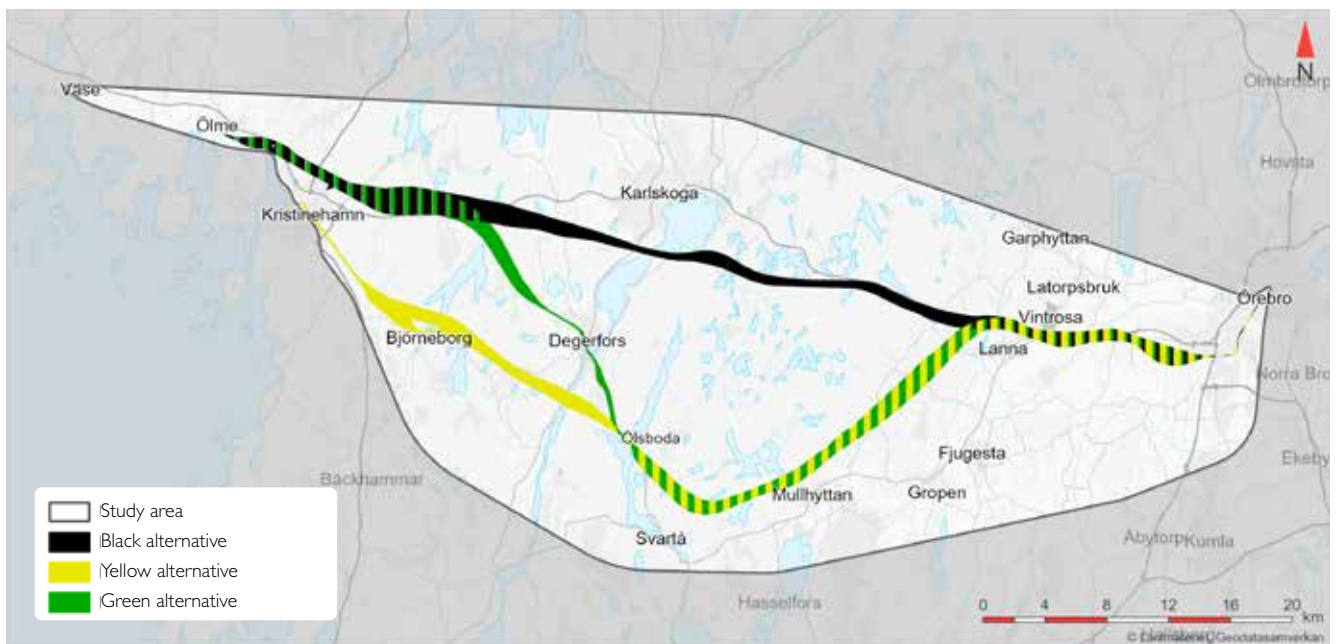
To fully benefit from Nobelbanan's shorter journey times, it must also be easy to get to and from the stations. Karlstad, Örebro and Västerås already have favourable conditions. The central railway stations are located close to the city centres, and bus services are organised around the city centres as hubs. This makes it quick and convenient to reach key destinations such as universities, hospitals and major employment areas.



The Alternatives

Three main alternatives have been studied in the location study: Black, Yellow and Green. To achieve the desired benefits of Nobelbanan, measures are also required on connecting railway lines. This includes the construction of additional tracks between Örebro and Västerås and between Kristinehamn and Karlstad.

Alternatives for Nobelbanan

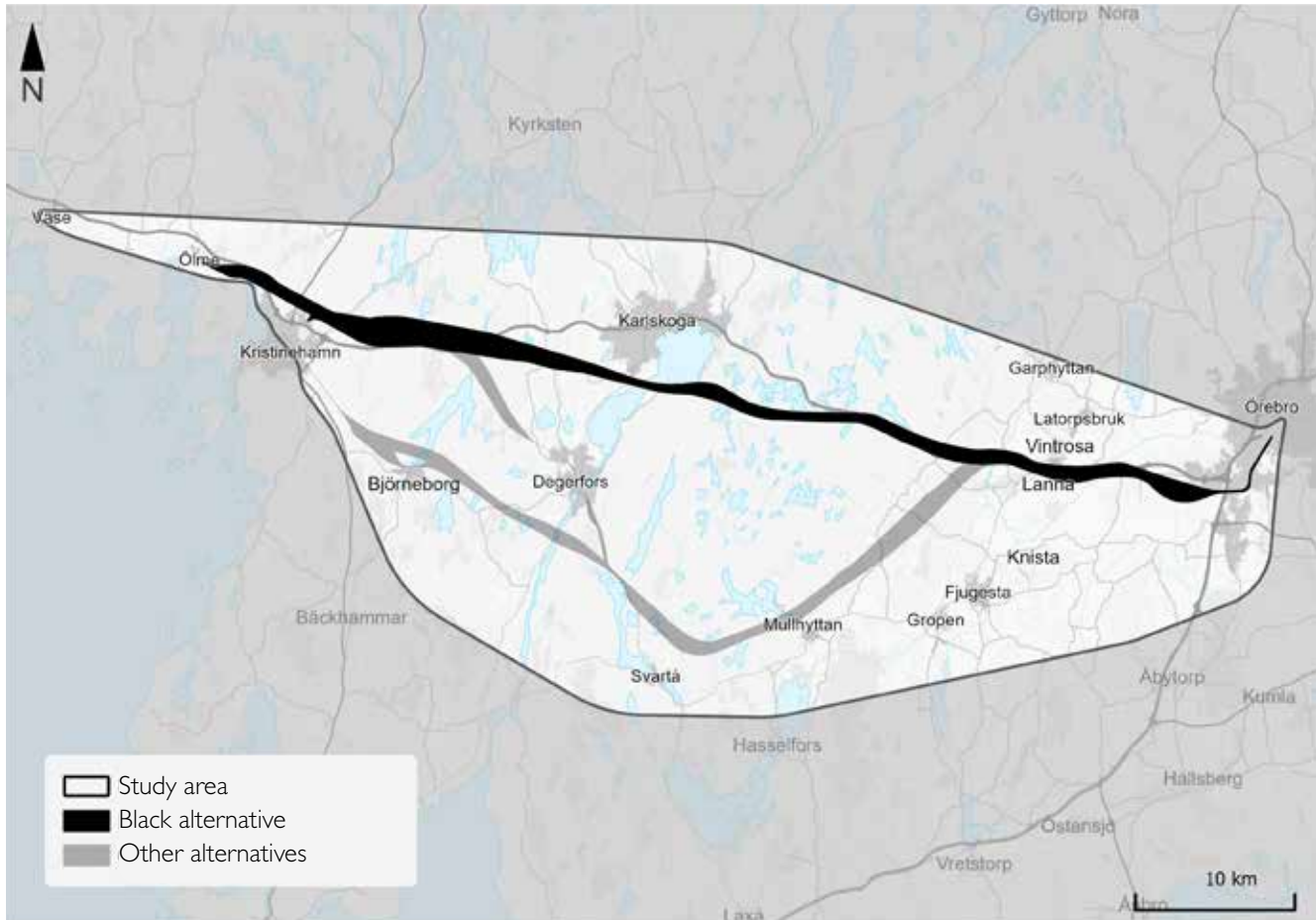


All alternatives involve a new railway connection between Kristinehamn and Örebro. However, they differ in alignment, station solutions, achievement of objectives and impacts on the surrounding environment. All Nobelbanan alternatives connect to the Värmland Line in the west and the Bergslagen Freight Railway in the east.

As part of the location study, several other alternatives have been discarded because they do not meet the reasonableness criteria required for implementation. For more information about the alternatives that were discarded, see the full location study and the appendix *Alternative Generation and Rejection of Alternatives*.



Black alternative



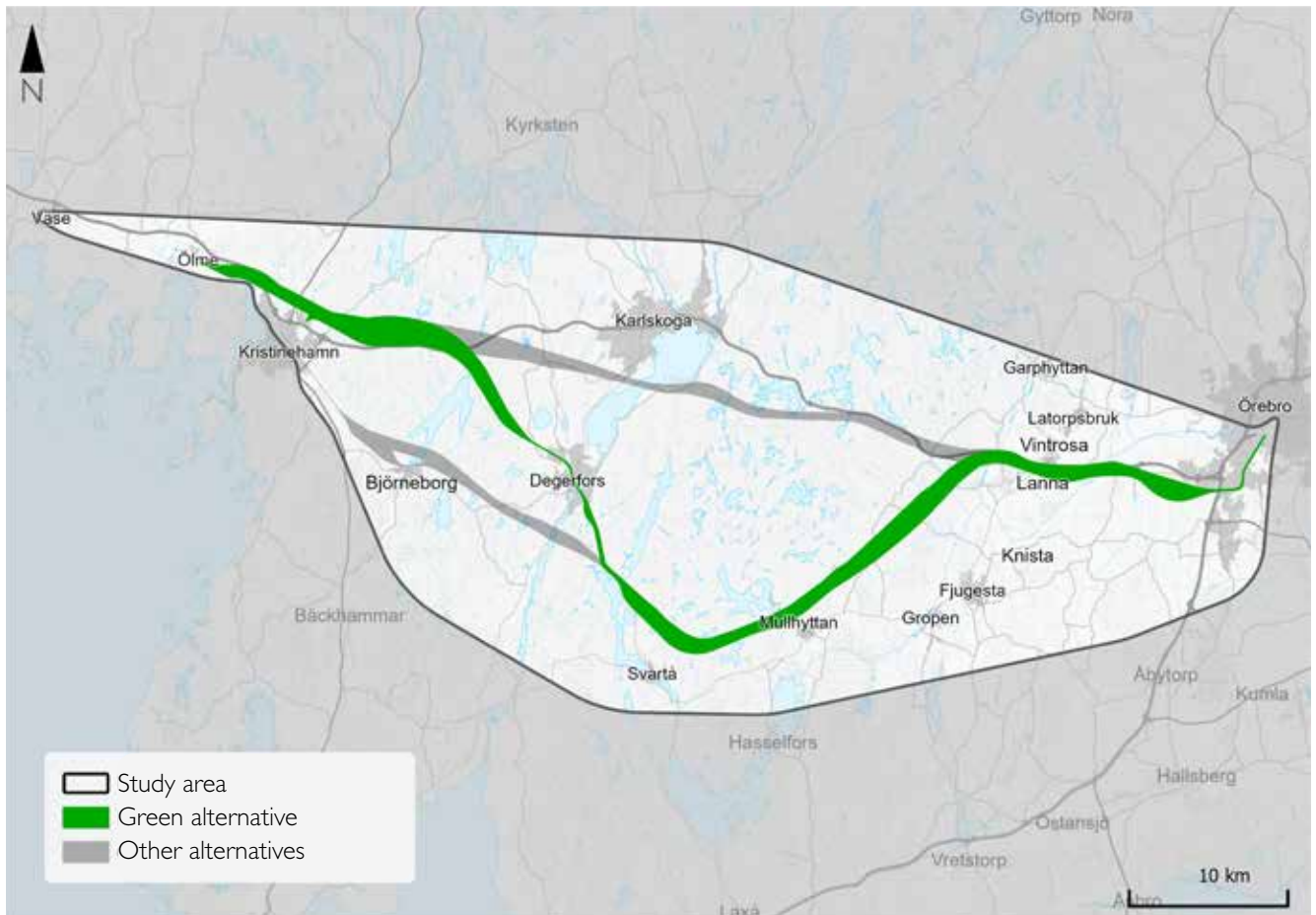
In the Black alternative, Nobelbanan begins at Ölme, where it connects to the Värmland Line. The new railway then passes north of Kristinehamn and runs approximately parallel to the E18 motorway before continuing towards southern Karlskoga. Lake Möckeln is crossed on a new bridge.

East of Lake Möckeln, the new railway reconnects with the E18 alignment near Villingsberg. In this alternative, Nobelbanan then runs between Lanna and Vintrosa before connecting to the existing railway in southern Örebro.

In the Black alternative, long-distance and regional trains are assumed to follow different routes in the Kristinehamn area. Long-distance trains use Nobelbanan north of the town, while regional trains instead continue on the Värmland Line to serve Kristinehamn station. They then continue along the Inland Railway until connecting with the new railway.

A new station for regional trains is planned in southern Karlskoga, near Storängen. The new station will connect Karlskoga to the national railway network. Its location in southern Karlskoga also means that Degerfors can be reached via a shorter connecting journey. The total route length in the Black alternative is approximately 70 kilometres long.

Green alternative

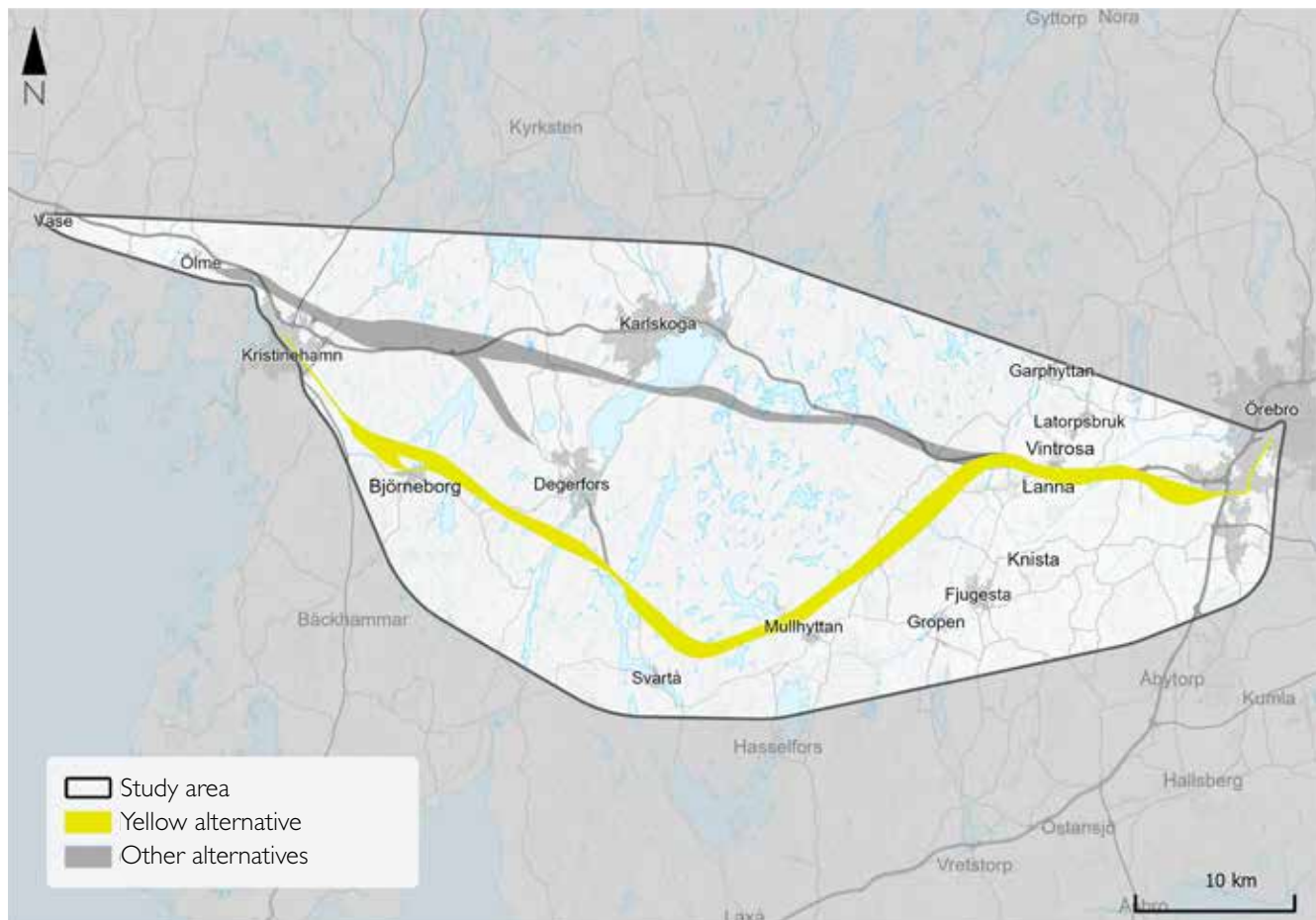


In the Green alternative, Nobelbanan, like the Black alternative, begins at Ölme, where it connects to the Värmland Line. The new railway then passes north of Kristinehamn and Lake Vismen before continuing towards Degerfors.

Through Degerfors, the Värmland Line is used and upgraded to double track through the town. The alternative then continues on a new railway that passes south of Lake Multen towards Örebro. The railway runs between Lanna and Vintrosa and then follows the E18 motorway towards Örebro.

In the Green alternative, long-distance and regional trains are expected to follow different routes in the Kristinehamn area. Long-distance trains use Nobelbanan north of the town. Regional trains use the Värmland Line, allowing them to stop at the existing stations in Kristinehamn and Degerfors. The total railway alignment in the Green alternative is approximately 80 kilometres long.

Yellow alternative



In the Yellow alternative, the Värmland Line is upgraded to double track between Kristinehamn and Björneborg. From Björneborg, a new railway is built that passes south of Degerfors before crossing the Värmland Line again at Ölsboda, north of Svartå. From there, the Yellow alternative follows the same alignment as the Green alternative.

In the Yellow alternative, long-distance and regional trains are expected to follow different routes past Degerfors. Long-distance trains use a new single-track railway south of the built-up area. Regional trains continue on the Värmland Line to serve Degerfors.

As in the other alternatives, regional trains stop at the existing station in Kristinehamn. In Degerfors, the station is relocated to a central location near Folkets Hus. The new station improves access to the town centre and provides a shorter connecting journey to Karlskoga. The total railway alignment in the Yellow alternative is approximately 80 kilometres long.

Effects and Impacts

An important purpose of a location study is to identify the effects and impacts of different alignments so that the alternatives can be compared. This section summarises these effects and impacts, focusing on the differences between the alternatives. For a more detailed account, please refer to the full location study and the Environmental Impact Assessment.

In many places, the corridors identified in the location study are still relatively wide. This means that there are still opportunities within each corridor to select alignments that minimise the negative impacts of the railway as far as possible while maximising its benefits.

Natural Environment

The Black alternative means that impacts on nature reserves cannot be avoided and also entails a risk of indirect impacts on Natura 2000 sites. This is the main reason why the alternative is considered to have a somewhat greater impact on the natural environment. The Yellow alternative offers the best opportunities to avoid protected areas and protected species, while the Green alternative has somewhat greater impacts.

Recreation and Outdoor Activities

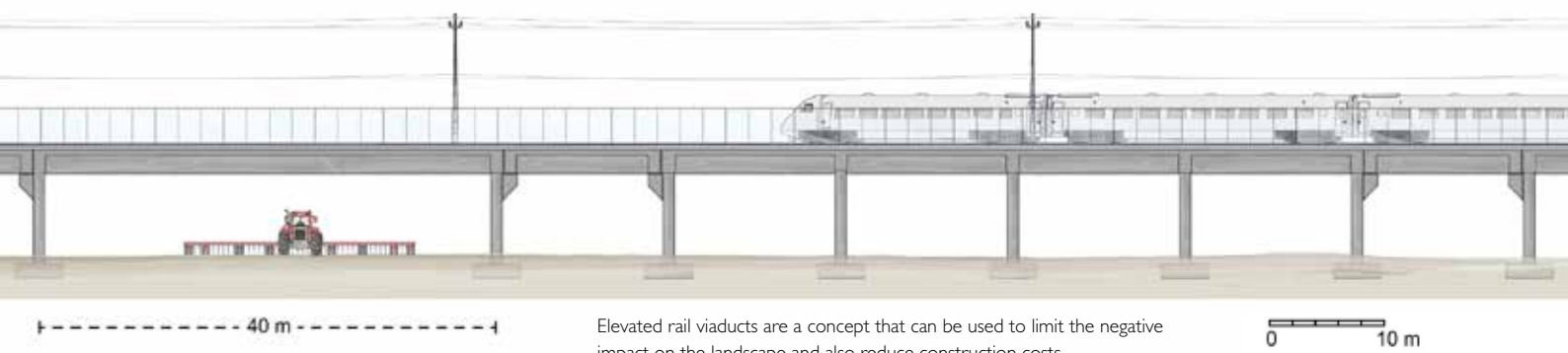
The Black alternative is considered to have somewhat greater negative impacts on recreation and outdoor activities. This is because the greatest values are found in the interconnected forest and outdoor recreation areas of the Kilsbergen, where several areas of national interest and hiking trails overlap. The Yellow alternative is considered to have the least impact because it avoids these areas and only affects the outskirts of the Södra Kilsbergen area of national interest. The Green alternative has similar impacts to the Yellow alternative but is considered somewhat less favourable because it also affects important outdoor recreation areas north of Kristinehamn.

Social Impacts

All alternatives affect residential environments through noise, barrier effects and land take. Overall, the Black alternative is considered to have the least negative impact because it avoids existing built-up areas to a greater extent. The Yellow and Green alternatives result in increased noise impacts where the railway is upgraded through Kristinehamn and Degerfors, respectively. The alternatives also pass close to several villages southeast of the Kilsbergen.

Construction Costs

The Black alternative passes through somewhat more complex terrain, while the Yellow and Green alternatives have longer alignments. Overall, construction costs are therefore not considered to be a factor that distinguishes between the alternatives.



Elevated rail viaducts are a concept that can be used to limit the negative impact on the landscape and also reduce construction costs.



Achievement of Objectives

This section describes how well the alternatives studied meet the project's overall purpose and objectives.

Purpose	Project Objectives – Summary	Black	Yellow	Green
Regional and interregional accessibility along the corridor	- Journey times - Public transport accessibility - Potential for economically sustainable operation of passenger services - Attractive station locations	Significant contribution	Partial contribution	Partial contribution
Resilient, high-capacity railway system	- High-capacity and flexible railway system - Resilient and reliable railway system	Significant contribution	Partial contribution	Partial contribution
Socially and environmentally sustainable transport system	- Reduced car travel - Improved access to the labour market	Significant contribution	Partial contribution	Partial contribution
Efficient railway connection	- Competitive journey times between Oslo and Stockholm - Enable an attractive future service plan	Significant contribution	Partial contribution	Partial contribution

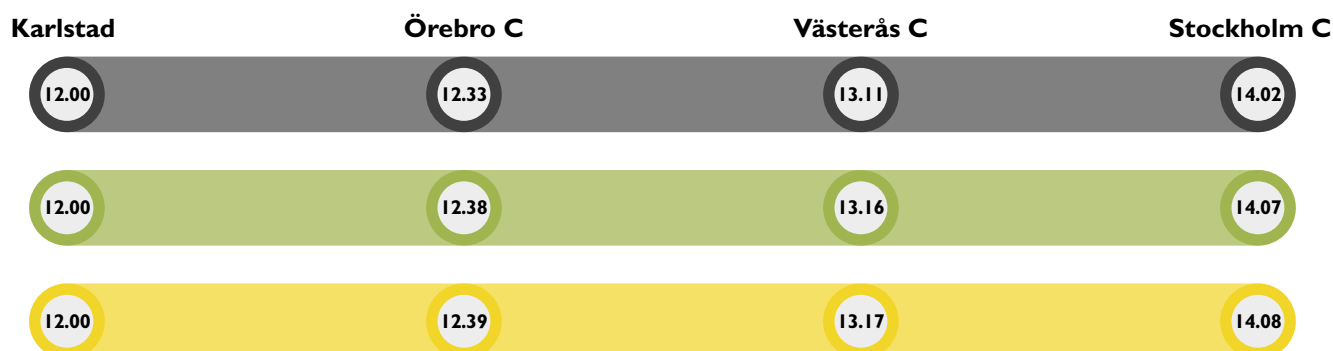
Overview of the performance of the alternatives against the project objectives.

The Black alternative is considered to have the highest overall achievement of the project objectives. The alternative provides the shortest journey times, the greatest benefits in terms of reduced travel times, the largest increase in public transport use, and the best conditions for a resilient and flexible railway system. It also results in the greatest reductions in car travel and CO₂ emissions during the operational phase. The Black alternative is also considered to perform best in terms of station locations, as the station location in southern Karlskoga has a comparatively large potential passenger base and significant development potential.

The Yellow and Green alternatives are also considered to contribute to the project objectives, but to a somewhat lesser extent. Although the reduction in journey times, particularly for regional trains, is smaller than in the Black alternative, both

alternatives provide shorter journey times, improved accessibility and positive effects on public transport use. They also result in reductions in car travel and CO₂ emissions during the operational phase, but not to the same extent as the Black alternative. At the same time, the alternatives are considered to provide somewhat less favourable conditions for resilience and flexibility, as some services would need to use existing single-track railway lines on parts of the route.

The difference between the alternatives is particularly clear when it comes to station locations. The Black alternative performs best in terms of the project objectives due to the station location in southern Karlskoga. The Yellow alternative makes a positive contribution through a centrally located station in Degerfors, while the Green alternative is considered to make a weaker contribution.



Possible timetable for a long-distance train departing from Karlstad at 12:00 in the three alternatives.



Consultation and Acceptance

Consultation has been carried out with the general public, municipalities, regions, government agencies, organisations and other stakeholders. The purpose has been to gather knowledge and views that can improve the basis for decision-making in the location study.

Responses received during the consultations also form the basis for assessing the acceptance of the alternatives, that is, the extent to which they are supported or accepted by the stakeholders concerned. In total, approximately 600 consultation responses were submitted. For more information, please refer to the Consultation Report.

The consultation responses form the basis for assessing the level of acceptance of each of the alternatives. Overall, the Black alternative is considered to have the highest level of acceptance among the general public as well as the municipalities, regions and other stakeholders

concerned. Karlskoga and Örebro municipalities favour the Black alternative. Lekeberg Municipality currently sees no benefits from Nobelbanan but has the highest level of acceptance for the Black alternative. Degerfors Municipality prefers the Yellow alternative.

Kristinehamn Municipality is positive about Nobelbanan as a whole but sees different advantages and disadvantages of the alternatives and wishes to have these clarified before taking a final position. Region Örebro County, Region Värmland and Region Västmanland highlight the importance of short journey times, which supports the Black alternative.



Overall Assessment

The overall assessment brings together the results of the study. The alternatives are ranked as follows:

- 1. Black alternative
- 2. Yellow alternative
- 3. Green alternative

	Black alternative	Yellow alternative	Green alternative
Environment, health and social values			
Construction cost			
Achievement of objectives			
Acceptance			

Assessment of the Black, Yellow and Green alternatives.

The Black alternative is ranked highest. It clearly performs best against the project objectives, with shorter journey times, a larger potential passenger base and better conditions for a resilient and flexible railway system. The alternative also has a higher level of acceptance among several of the municipalities and regions concerned and has less impact on residential environments. At the same time, the Black alternative has greater negative impacts, particularly on the natural environment, recreation and outdoor activities. Overall, the positive effects are considered to outweigh the impacts.

The Yellow alternative is ranked second. Overall, the alternative has less negative impact on the environment, health and social values than the Black alternative, but also has a lower achievement of the project objectives and a lower level of acceptance.

The Green alternative is ranked third. In many respects, the alternative has similar impacts and achievement of objectives to the Yellow alternative. However, its lower level of acceptance means that it is considered less favourable and is ranked third.

Next Steps

The location study for Nobelbanan has now been completed, and the corridors studied have been ranked, with the Black alternative ranked first. An Environmental Impact Assessment (EIA) has also been prepared as part of the location study. The EIA will now be submitted to the County Administrative Boards for approval.

The study has also identified a need to develop a more detailed understanding of certain sections of the route in order to improve cost estimates and reduce uncertainties regarding costs and implementation. These further studies are planned to be carried out in 2026 and 2027.

A comprehensive impact assessment (SEB), including a socio-economic cost-benefit analysis, will also be prepared and presented in 2027. Together with the location study and the EIA, this will provide a comprehensive basis for future decisions concerning the continued planning and implementation of Nobelbanan.

Nobelbanan may be subject to a government permissibility assessment. This means that the Government will decide whether Nobelbanan may be built within the Black corridor. Once the EIA has been approved by the County Administrative Boards, the necessary documentation will be available to proceed with such an assessment.

At present, there is no decision on funding for the continued planning and implementation of Nobelbanan. If funding is secured, planning can continue with the preparation of a railway plan. The railway plan will define the railway's alignment within the selected corridor and the technical design of the infrastructure. An Environmental Impact Assessment for the railway plan will also be prepared, and further consultations will be carried out.

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shortened version of:
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