Fact sheet on the Fehmarnbelt tunnel

November 2025

The approximately 18 km immersed tunnel will connect the island of Lolland in Denmark and the island of Fehmarn in Germany. The State Treaty between Denmark and Germany, signed in 2008 and ratified in 2009, forms the basis of the German-Danish project.

Lenght	around 18 km
Inside the tunnel	Railway: 2 tracks in separate tubes, electrified
	Motorway: 4 lanes, 2 in each direction with a continuous hard shoulder in a separate tube
Type of construction	Immersed tunnel
Construction method	79 standard tunnel elements: each 217 m long, weighing 73,000 tonnes
	10 special elements, with the lower level serving as a basement for housing the tunnel's electrical installations, positioned every 2 km
	Tunnel trench completely excavated: average depth 12 m, average width 100 m, 15 million m³ of excavated material
	Elements produced at a purpose-built factory near Rødbyhavn on Lolland
	Built on a step-by-step basis: transport of the finished tunnel elements via the largescale work harbour near Rødbyhavn to the excavated tunnel trench, immersion at sea and connection with the other tunnel elements, securing with gravel and sand backfill and covering with a layer of stone
	Video: How the Fehmarnbelt tunnel is being built
European project	Important component of the EU transport network's Scandinavian-Mediterranean corridor
	Closes the gap between Scandinavian and European railway networks
	Priority project of the EU Commission
Future travel time	7 minutes by train (cruising speed 200 km/h)
	10 minutes by car (cruising speed 110 km/h)
	For comparison: ferry crossing currently 45 minutes – excluding waiting and loading times
	Hamburg-Copenhagen by train: 2 ½ hours in future (currently approx. 5 hours)
Project finance	Overall financial framework of EUR 7.4 billion (2015 prices) approved by the Danish parliament in the 2015 Construction Act

	Loans secured by Danish state guarantees
	Refinancing through motor vehicle tolls and railway charges
	Projected repayment period: 36 years
	Responsibility for financing lies solely with Denmark
	Extensive EU funding
Tunnel contractors	Fehmarn Belt Contractors (FBC) Dredging and land reclamation work
	Femern Link Contractors (FLC) Tunnel element factory, immersed tunnel, portals and ramps
	Femern SICE Cobra (FSC) Electrical and mechanical installations
	Further information: The contractors on the Fehmarnbelt tunnel
Authorisation procedure	Authorisation for the Danish section of the tunnel was granted by law. The Danish parliament passed the Act on the Construction and Operation of a Fixed Link across the Fehmarnbelt with Associated Landworks in Denmark in April 2015, which is the legal basis for construction.
	In Germany, permission for the construction of a fixed link across the Fehmarnbelt was granted on the basis of a regulatory plan approval procedure. On 3 November 2020, the Federal Administrative Court dismissed all appeals against the plan approval decision. The highest administrative court in Germany has thus given the go-ahead for the construction of the German section of the Fehmarnbelt tunnel. The planning approval decision issued in January 2019 by the relevant Plan Approval Authority in Schleswig-Holstein (APV-SH) thus became law.
Status of work in Denmark	Work began on the Lolland coast in summer 2020. Initially, this involved preparing the area around the tunnel element factory. The next step was building of the large factory for manufacturing the tunnel elements.
	While the initial focus was on the construction of the production facility on Lolland, industrial manufacturing of the tunnel elements is now at the forefront. The elements are produced segment by segment in the factory – a 217-metre-long tunnel element consists of nine segments. The bulkheads are installed in the area in front of the factory halls to make the elements buoyant. The basins in front of the factory are flooded, similar to a lock. The finished tunnel elements are transported from the factory to the work harbour via these basins. By now, the first elements have been floated and moved into the work harbour. Extensive preparations are currently underway for the immersion of the first element off the Danish coast.

	The Danish work harbour has been in operation since summer 2022. Ships regularly dock there to supply the construction site with materials. Four silos have been built to the east of the harbour to store aggregates for concrete production, such as gravel, sand and cement. At peak times, no less than 70,000 tonnes of stone, cement, sand, gravel and steel are handled at the work harbour every week.
	Work on the Danish tunnel portal began in early May 2022. The concrete work for the cut-and-cover tunnel section has now been completed, and the tunnel portal is largely covered with soil. The light transition zone at the Danish tunnel entrance has also been completed. It will ensure a smooth transition in lighting conditions during the journey through the finished tunnel. In addition to the completion of the large operations building for controlling the tunnel's technical installations, various finishing works are underway in the tubes at the Danish tunnel entrance, such as the fire protection cladding. A new dyke was built over the front section of the cut-and-cover tunnel in spring 2024, forming the new coastline. The temporary retaining dyke was completely removed by June 2024. Since then, the first section of the cut-and-cover tunnel has been under water having been sealed watertight with bulkheads. The first element will be connected to this section of the Danish tunnel portal. Extensive preparations, involving both the elements and the special vessels required, are underway to ensure that the immersion process is carried out safely.
	A transformer station is also being built on Lolland, which will later supply the tunnel with green electricity from Denmark. Furthermore, bridges are being built to serve the new route of the railway and E47 motorway. Two bridges have been taken into operation for a local road in 2025 already.
	The 18 km long tunnel trench is fully excavated. Most of the excavated material is being used for land reclamation off the coast of Lolland. Around 300 hectares of nature and recreation areas will be created there.
Size of the Danish construction site	Over 500 hectares in total. The tunnel element factory, incl. production facilities and the work harbour, occupy around 220 hectares or 310 football pitches
	More than 2000 employees are currently working on the Danish tunnel construction site.
Status of work in Germany	After preparatory work in 2019/2020, particularly in the environmental area, the German construction site was made ready in 2021.
	Work off the Fehmarn coast began in October 2021. A large excavation pit has been established behind the former coastline to accommodate the tunnel portal on the German side. In autumn 2023, work began in the excavation pit to construct tunnel sections using the cut-and-cover method. This involves first casting the base slab, then the side walls and finally the top slab of these tunnel sections on land. The

	segments produced on site in this way are the first sections of the tunnel that can be entered from the island of Fehmarn. As with the Danish portal, a new dyke was built over the foremost segments. Following the installation of bulkheads in the tunnel tubes, the foremost part of the excavation pit was flooded at the end of August 2024. Work then began on dismantling the temporary retaining dyke, which was completed at the end of October 2024. The temporary dyke had previously surrounded the northernmost area of the excavation pit and enabled work to be carried out in dry conditions. The permanent dyke now forms the future coastline. In addition, a portal building is being constructed at the location where vehicles and trains will later enter the tunnel. This building will house, among other things, technical system required for the tunnel's operation. As of November 2025, more than 80 percent of the German tunnel entrance have already been completed.
	A work harbour was also built specifically for the project on the German side. It went into operation in July 2023. Since then, more than 500,000 tonnes of material had been delivered via the German work harbour. Silos for cement and other storage areas are located next to the quay.
	In the future, the motorway E 47 and the new railway line will lead to the tunnel portal. A total of three bridges will be built at the German tunnel construction site for the new alignment. Two of the three bridges are completed and in operation since July 2025.
	Some of the excavated material from the tunnel trench is being temporarily stored at the German construction site and is now being reused as construction material for the embankments along which the new E 47 motorway will run. Topsoil was previously removed from the former agricultural land and is temporarily stored during the construction period.
	A concrete mixing plant has been set up at the German tunnel construction site, which is required for the construction of the tunnel portal and the three bridges. The material for concrete production is mainly delivered via the work harbour¸ which avoids transport across the island of Fehmarn.
Size of the German construction site	Construction site on land: around 90 hectares, or 130 football pitches Work harbour: just under 10 hectares, or 14 football pitches The German tunnel construction site extends approx. 3 kilometres inland.
	The work harbour at Puttgarden is about a fifth of the size of its Danish counterpart.
	Around 200 employees currently work at the German tunnel construction site.