



# Information to mariners

About the construction  
of the Fehmarnbelt Tunnel



Fehmarn  
Germany

Fehmarnbelt

Lolland  
Denmark

Tunnel alignment



# About the project

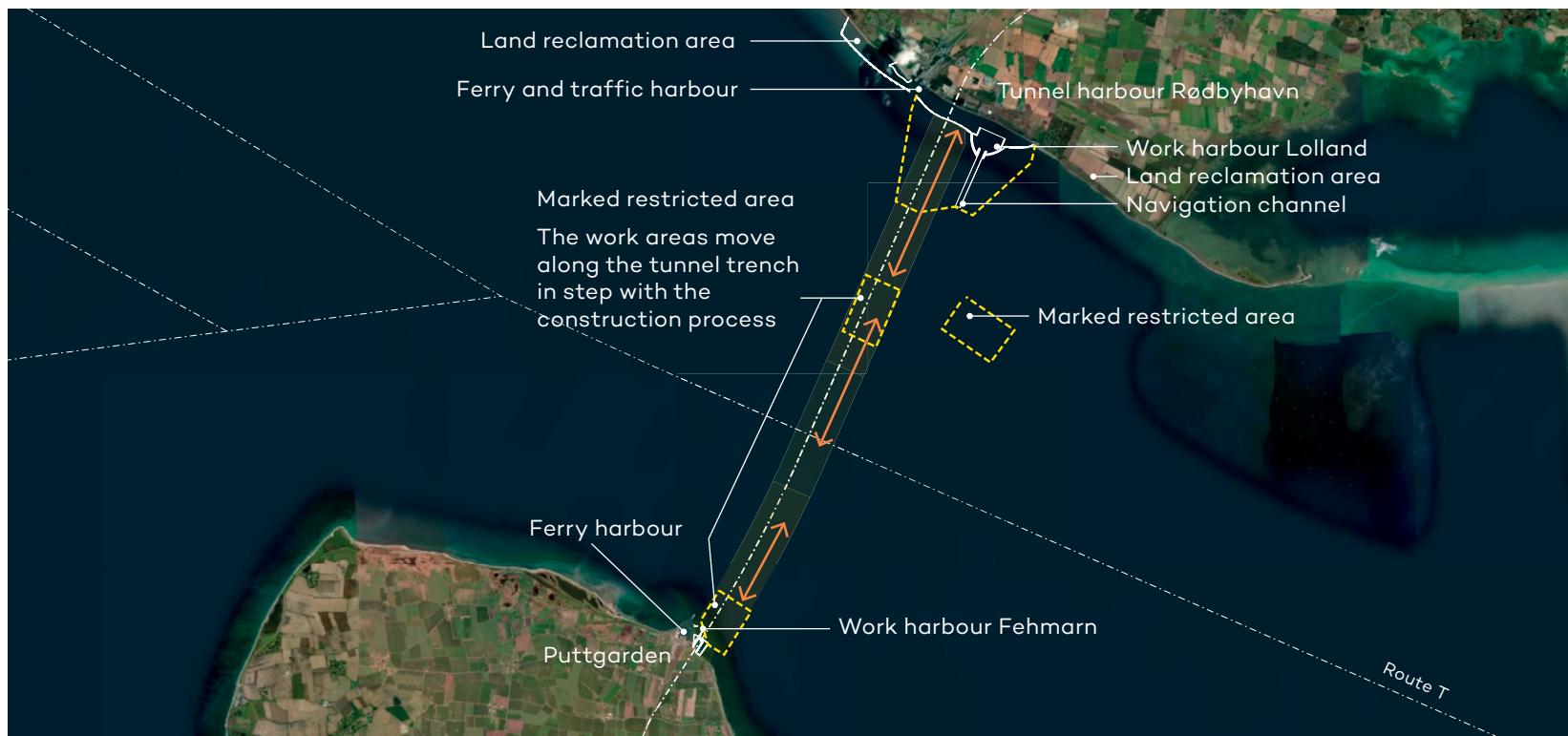
With a length of 18 km, the Fehmarnbelt Tunnel will be the longest immersed tunnel in the world. It will connect Rødbyhavn in Denmark and Puttgarden in Germany – and consequently Scandinavia to Central Europe.

Construction is taking place at sea and on land – on both the Danish and German side of the Fehmarnbelt.

The first step in building the tunnel was to excavate an 18-kilometer trench on the seabed for the massive tunnel elements. These elements of the immersed tunnel are produced in a large factory in Rødbyhavn, for which a large work harbour was built specifically.

Once the tunnel elements are ready, they will be towed from Tunnel Harbour Rødbyhavn to the position in the Fehmarnbelt where they are immersed.

On the German side, construction is also in progress, on land and at sea. The Work Harbour Puttgarden was built east of the ferry terminal and supplies the site with materials and equipment.



# Ship traffic during the construction phase

- The offshore construction activities will primarily take place inside two work areas. Work areas are established as restricted areas.
- Access to the work areas is only permitted for the vessels involved in the construction work. The size of a work area depends on its geographical location. The work areas will be shifted according to the work progress. The work areas are marked by special marker buoys. The current positions of the work areas are published via the official Nautical Information Services of the Maritime Authorities (e.g. Notice to Mariners, NAVTEX, VTS).
- All ships are advised to ensure that their charts are updated when approaching the construction area.
- For the traffic on route T there will be no restrictions. The location of the sailing routes remain unchanged. However, during the construction phase sailing routes on route T must be planned around the work areas and consider traffic of construction vessels.

## Light character:

- Fl(3)Y.10s for the northern work area
- Fl(2+1)Y.15s for the southern work area
- Fl(1)Y.10s for other restricted areas
- All lights are synchronised within each work area.
- The buoys of the work areas will be physical AIS-AtoN.
- **Height above water level: approx. 4 m**



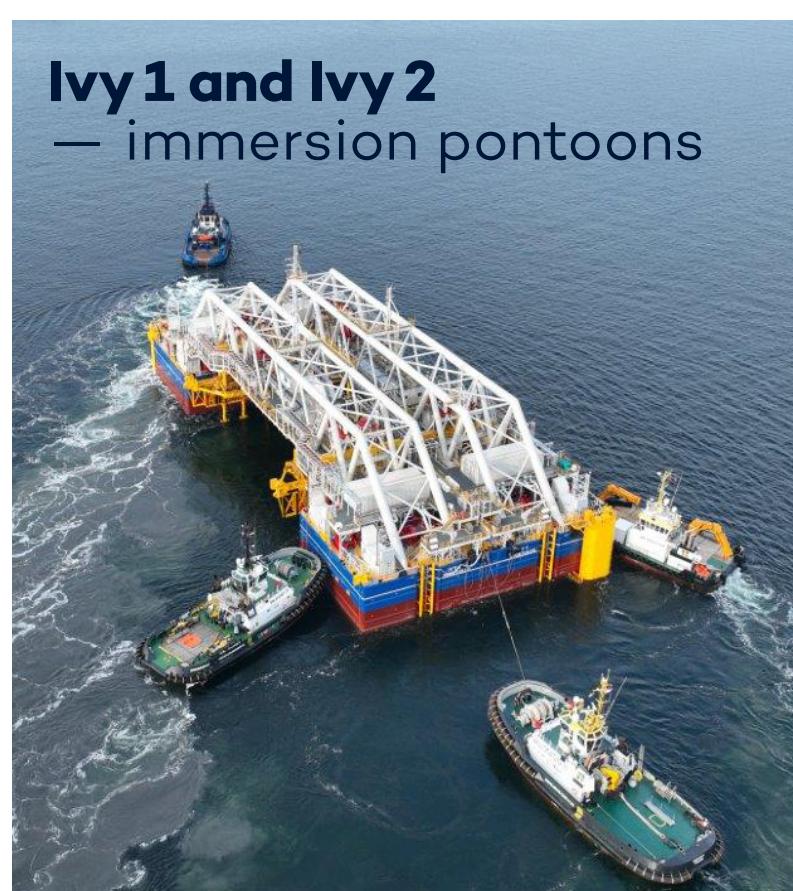
# Work vessels

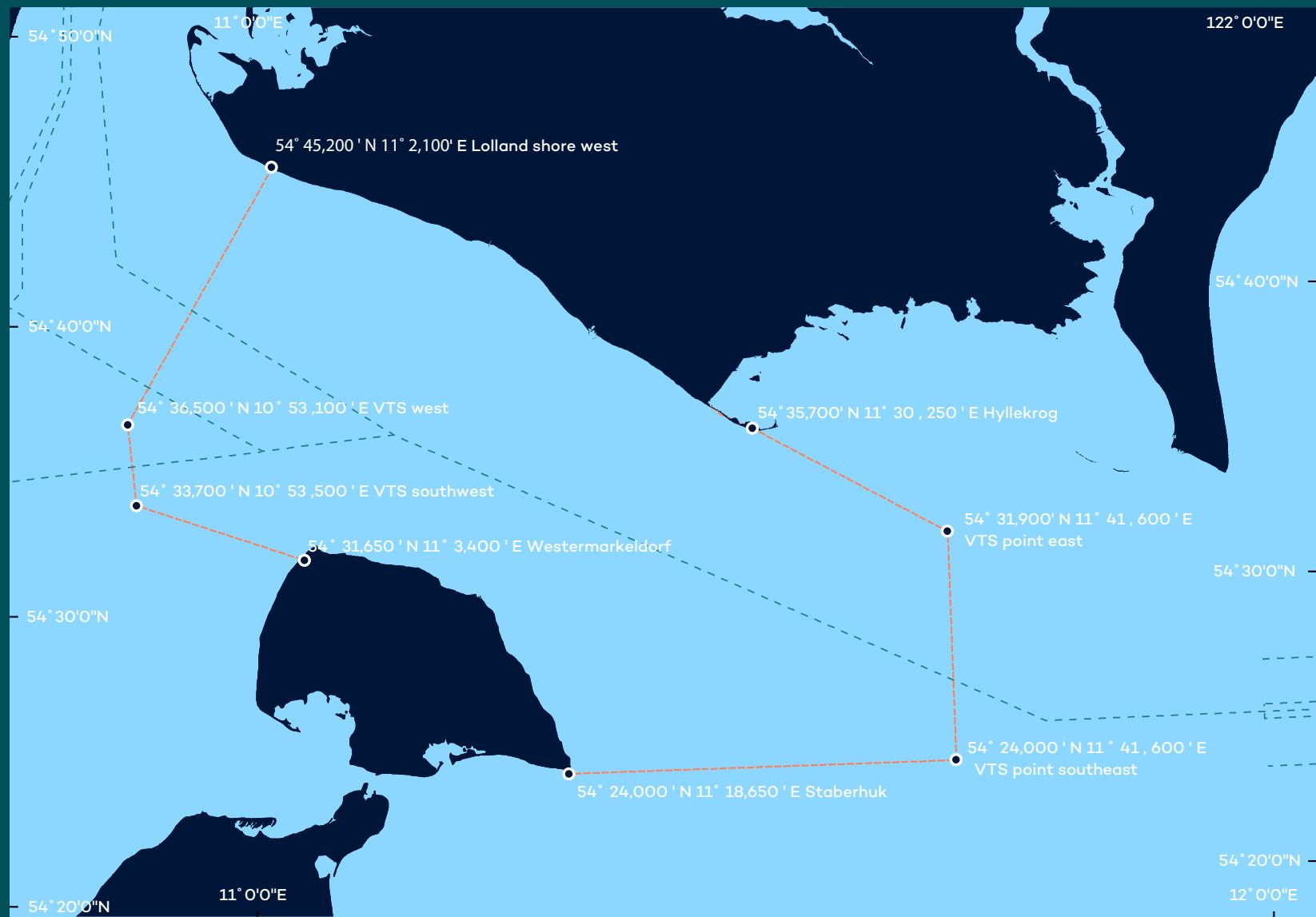
During offshore works for the construction of the Fehmarnbelt tunnel, several types of work vessels are used. During the immersion phase, a larger fleet of vessels is deployed. This includes, among others, several specialized pontoons such as Maya — a versatile multi-purpose pontoon — and the immersion pontoons Ivy 1 and Ivy 2.

Ivy 1 and Ivy 2 have been specifically engineered to support the Fehmarnbelt tunnel elements during their transit from Tunnel Harbour Rødbyhavn. Each pontoon will support one end of a standard tunnel element. For the special elements, which are considerably shorter, the two pontoons will be coupled together to provide joint support.

In total 89 tunnel elements are immersed into the 18 kilometres long tunnel trench, one at a time. 79 of these elements are so-called standard elements being 217 metres long. Every approximately 2 kilometres, a special element will be immersed in the tunnel trench.

The tunnel elements will be towed, in a configuration with minimum four tugs, from Tunnel Harbour Rødbyhavn to the working areas at the immersion location. Around half of the towed tunnel elements will cross route T.





# Navigation safety measures VTS Fehmarnbelt

To ensure safe and efficient vessel traffic during the tunnel construction, a special monitoring service has been established:

## **Vessel Traffic Service – VTS Fehmarnbelt.**

VTS Fehmarnbelt monitors the entire area around the Fehmarnbelt and is active throughout the construction period. The service is jointly operated by Danish and German authorities and is tasked with guiding and informing maritime traffic so that both commercial and recreational vessels can navigate safely.

**All ships entering the VTS area are requested to report to  
“Fehmarnbelt Traffic” on VHF Channel 68.**



## Assistance tug

A dedicated assistance tug will be available to assist a hampered or damaged vessel inside the VTS area at all times.

The assistance tug is free of charge, ensured and no salvage or assistance fees will be claimed. The demand of the tug by shipping should be addressed to VTS Fehmarnbelt.



## Guard vessels

Each work area will be guarded by one guard vessel at all times.

Representatives from the German and Danish authorities are onboard the guard vessels, and the guard vessels will be acting under the authority of the VTS operators.

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