



The Fehmarnbelt Tunnel

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**Connects the
Scandinavian and the
Central European
transport networks**

Releases a huge potential

Part of the Scan-Med Corridor





Fehmarnbelt tunnel with hinterland connections

Background:

- Øresund Agreement 1991
- State treaty 2008
- Danish approval
- German approval
- Final Court decision in Leipzig 2020
- Main contracts commenced January 2021
- Tunnel opens 2029

Proven technology

- The Fehmarnbelt Tunnel is an immersed tunnel with two motorway lanes and two rail tracks – just like the Øresund tunnel under Drogden
- The Fehmarnbelt tunnel will be 18 kilometres long, the longest tunnel in the world for both rail and road
- The technology is proven, the construction method is proven (has been used in two tunnels world wide since Øresund)
- Øresund has proven record as being with zero effect on the surrounding environment
- Fehmarn has been thoroughly approved by the German authorities both technically, safety wise and environmentally
- A lot of experience and specialists are hired in Femern A/S to ensure the best possible know-how and thereby safeguarding the construction work
- We hire newly educated engineers as well in order to pass on the heritage to the next generation of tunnel builders

Tunnel element immersed in Fehmarnbelt

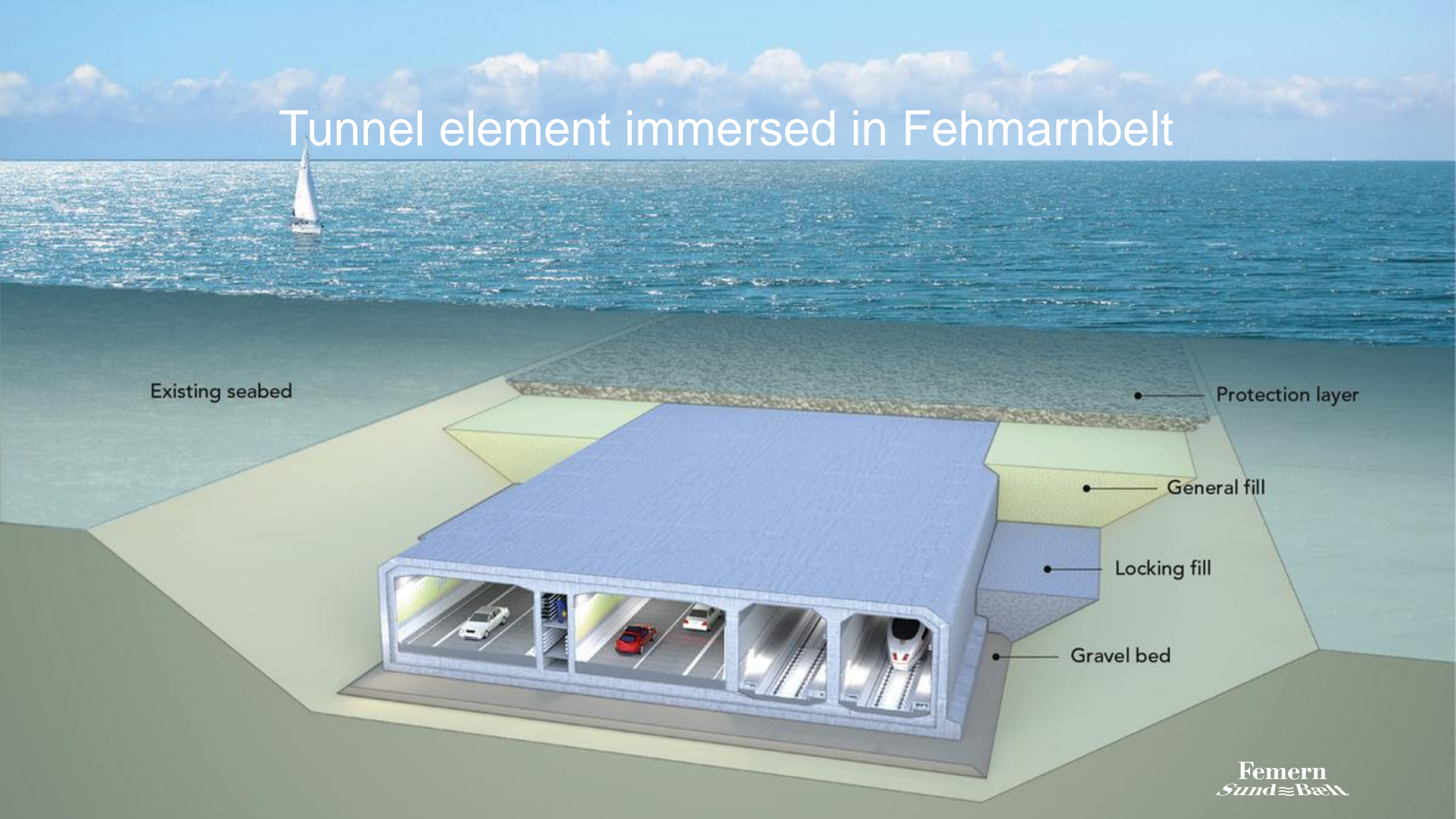
Existing seabed

Protection layer

General fill

Locking fill

Gravel bed





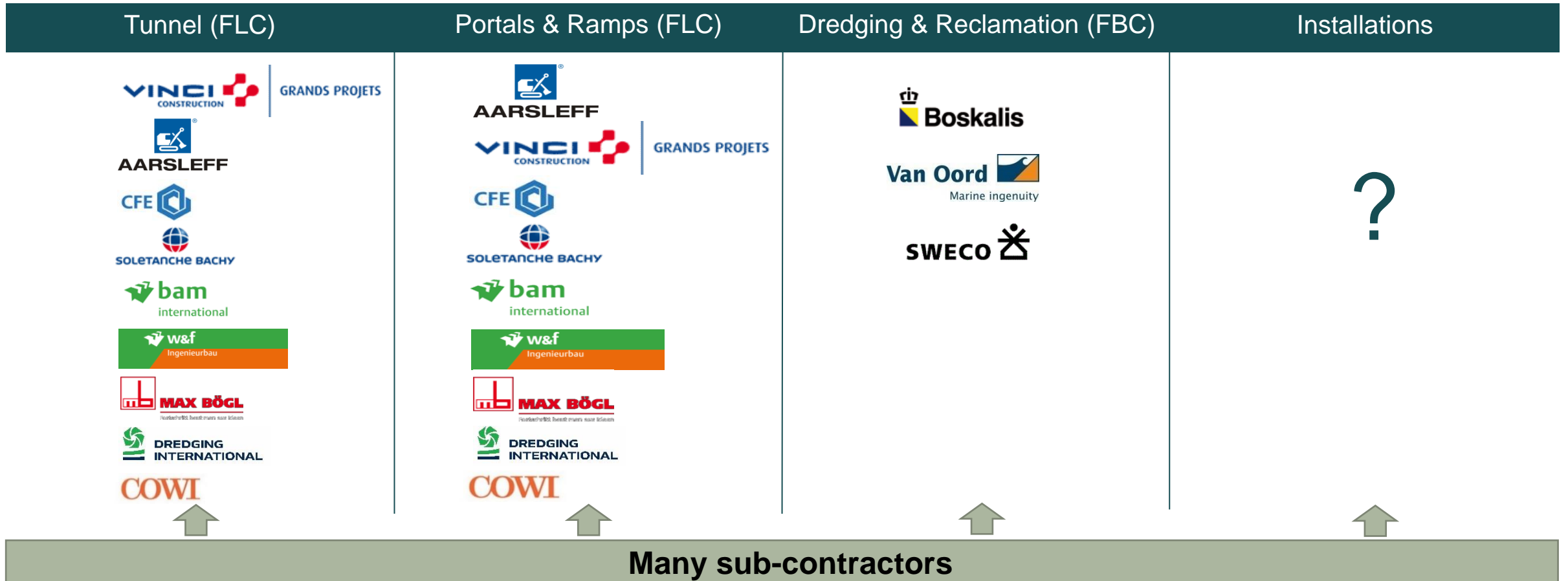




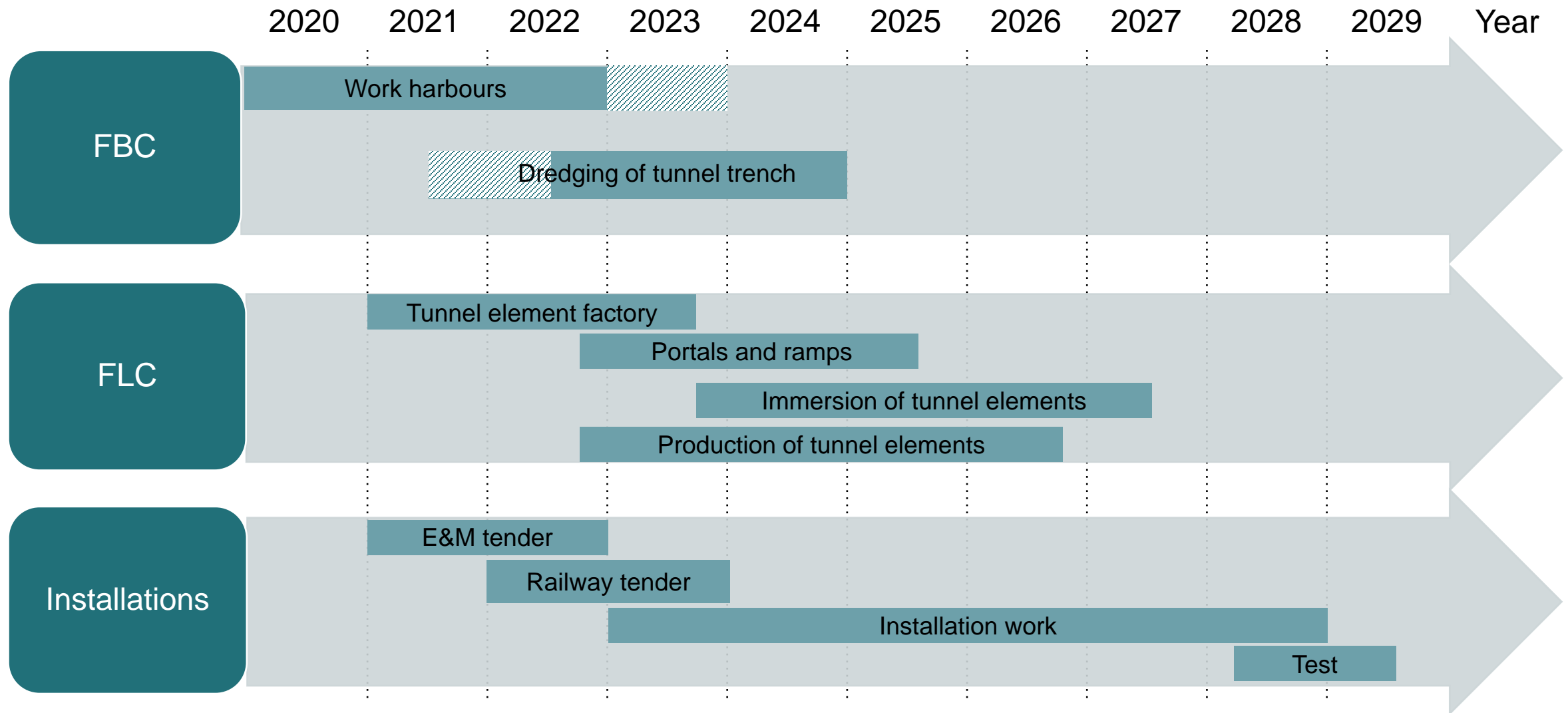


The companies building the tunnel

Femern A/S is client company with **RAMBOLL** as key technical advisor



Time schedule



The financial model

- Construction budget of EUR 7,1 billion (2015 prices), including reserves of EUR 1 billion
- In the spring of 2020, the Fehmarnbelt Fixed Link's financing model was approved by the EU Commission
- The Fehmarnbelt-tunnel and the Danish hinterland connections are financed by user tolls and EU/CEF funds – no Danish tax payer money involved
- Loans are taken out on the international financial markets through the central bank of Denmark
- Revenue from user tolls (road and rail) will be used to repay the loans. The same model has financed the Great Belt and the Øresund Fixed Link
- Femern A/S has in November 2020 updated the project's financial analysis. Repayment period of 28 years from the time of the opening in 2029. The economics of the project are sound and robust

Why?

- Fast, flexible and green transportation 24x7x365
- Substantial time savings: 7 min. by train & 10 min. by car compared to almost 1 hour today
- A “game changer” for a new, fully electrified state-of-art railway corridor
 - Copenhagen-Hamburg in 2½ hours instead of 4½ hours today
 - Rail freight will save a 160 km “detour” between Öresund and Hamburg
 - Integrated part of EU’s future Trans-European Transport Network (TEN-T)
- Ready for the future – prepared for autonomous and electrical vehicles etc.
- Contributes to the green transition in the transport sector
- The entire region gets a strong transport corridor to the European markets – enhanced cross-border cooperation and trade opportunities
- Efficient infrastructure is one of the key competitive conditions for private companies

