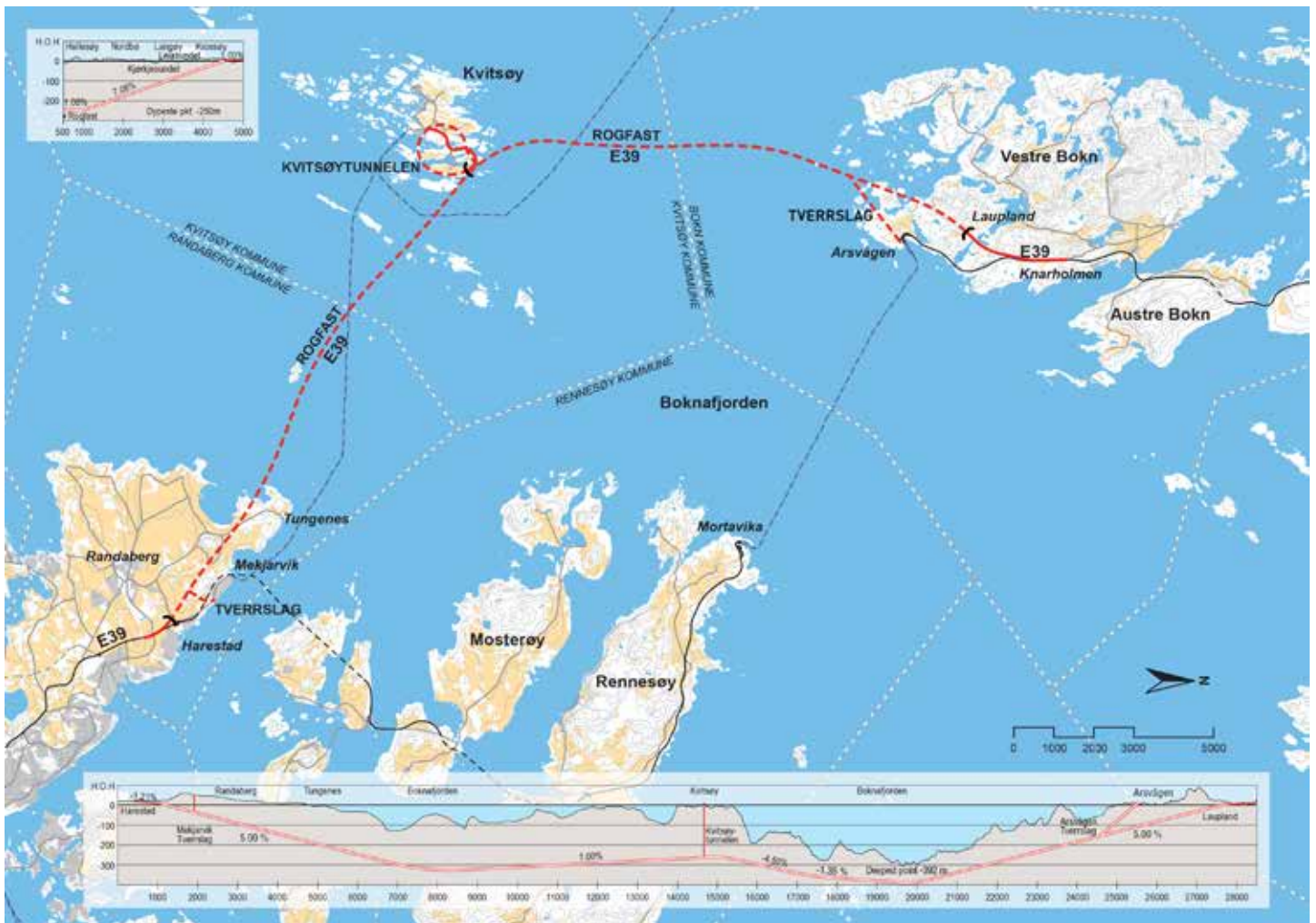


E39 Rogfast

The world's longest and deepest sub-sea road tunnel



- The world's longest sub-sea road tunnel at 26.7 km
- First project under the 'ferry-free' E39 concept
- Replacing the present day ferry over Boknafjord
- Deepest point at 390 m under sea
- Total cost 16.8 billion NOK
- Tunnel profile 2 x T10,5
- Twin tube tunnels, 4 lanes, maximum incline 5 %
- 4 km long tunnel ramp up to Kvitsoy, maximum incline 7 %
- 8.5 million cubic metres excavated rock



Three large tunnel contracts

- Enterprise 'E02' from Kvitsøy totalling around 21 km tunnel – 2 ventilation shafts 10 m diameter, 250 m deep/ high – 2 km local road network. Contract advertisement winter 2017/18
- Enterprise 'E03' – 16 km tunnel from Harestad to half way between Tungenes and Kvitsøy – ventilation shaft Tungenes. Contract advertisement spring 2017/18
- Enterprise 'E04' 19 km tunnel from Bokn + 1.5 km local road network. Contract advertisement summer 2018

Two smaller contracts

- Enterprise 'E011' – transportation tunnel Mekjarvik 700 m
- Enterprise 'E013' – transportation/ ventilation tunnels Arsvågen 4 km
- In addition there'll be electrical contracts



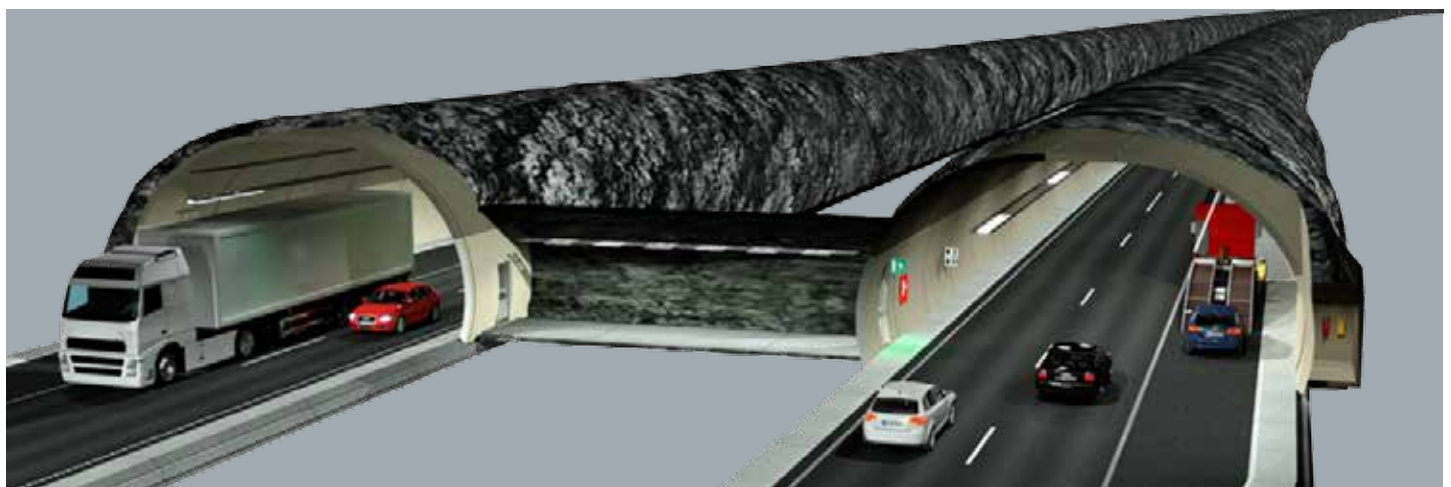
Challenges

- Long tunnel interfaces
- High water pressure and complex grouting
- Long sections with little knowledge of rock structure/species
- Weakness zones of poor rock
- Large seafillings in exposed stretches of coastline
- Take consideration to, and safeguard the environment
- Six longitudinal ventilation shafts, three for fresh air and three for polluted air

ROGFAST IS DESIGNED TO BECOME ONE OF THE WORLD'S SAFEST TUNNELS



Harestad intersection with the southern tunnel entrance.



Emergency exits between both tunnels every 250 meters.

Contact

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