

Our Philosophy

We contribute to building future transportation network

JRRT is a public agency responsible for railway construction to develop new railway networks.

Our Works

◆ SHINKANSEN High-Speed Rail

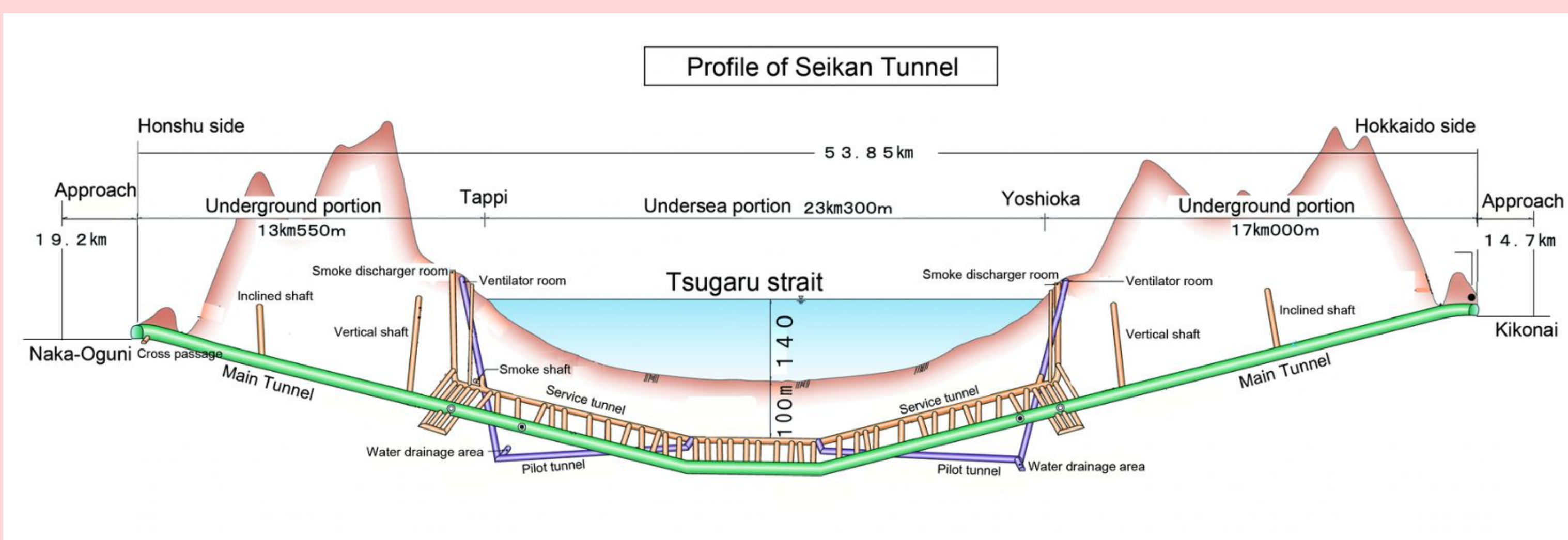
- Shinkansen lines have expanded nationwide, and the Hokkaido Shinkansen is under construction.
- Oshima Tunnel is about 32.7 km long mountain tunnel with challenging geological condition.
- Sasson Tunnel consists of TBM and mountain tunneling sections. TBM excavates soft ground in urban area.



Shinkansen High-Speed Rail Development

◆ SEIKANTUNNEL

- **Seikan Tunnel** is 53.85 km long and the world's longest undersea tunnel.
- JRRT constructed and maintains the tunnel infrastructure. After 38 years of operation, several areas have deteriorated. We took countermeasures on these areas while monitoring the measurement results.



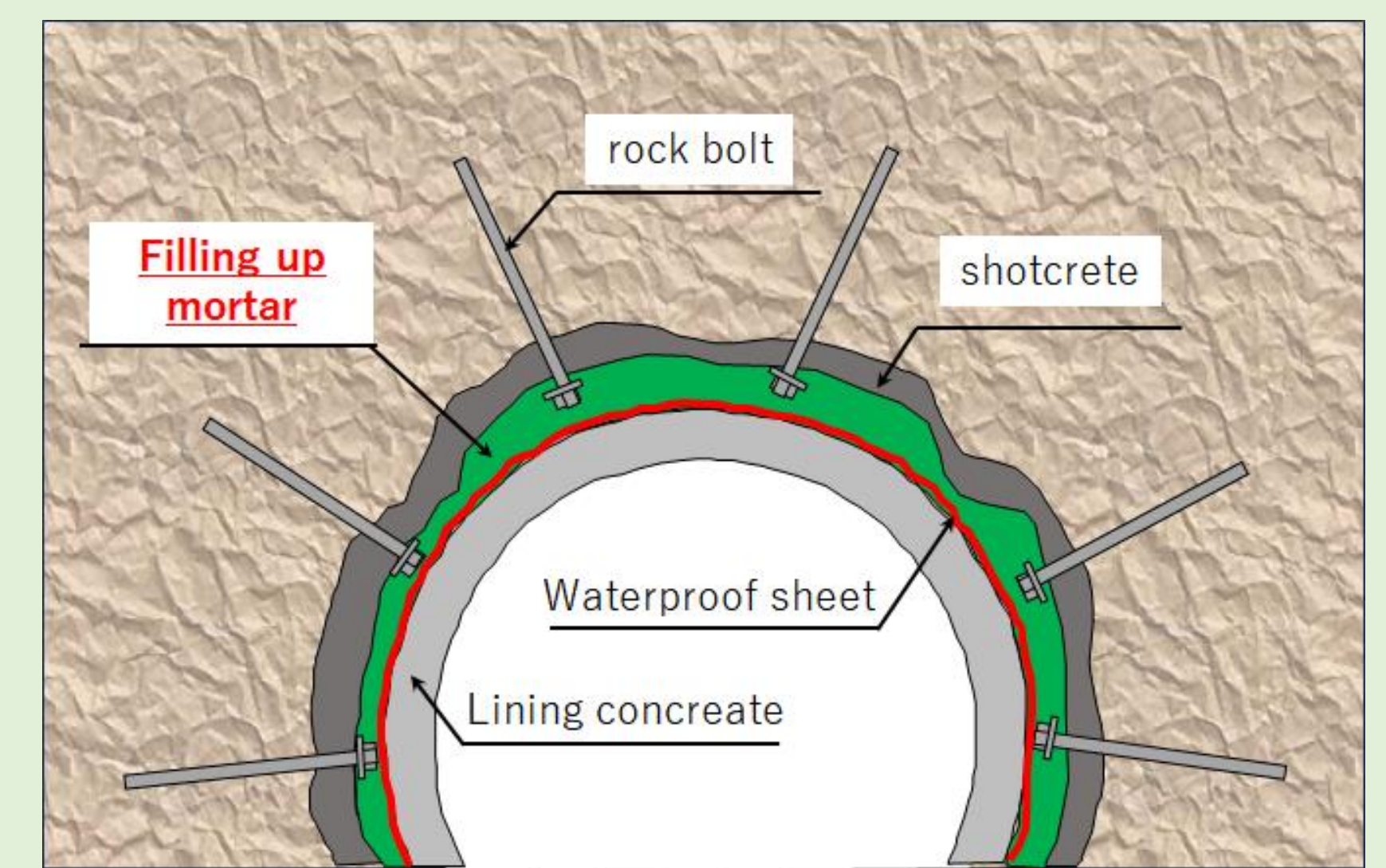
Our Tunnel Technology

◆ FILM

- **FILM** (Flat Insulated Lining Method) is one of our efforts to improve the quality of tunnel. The surface of the waterproof sheet can be finished smoothly using FILM.



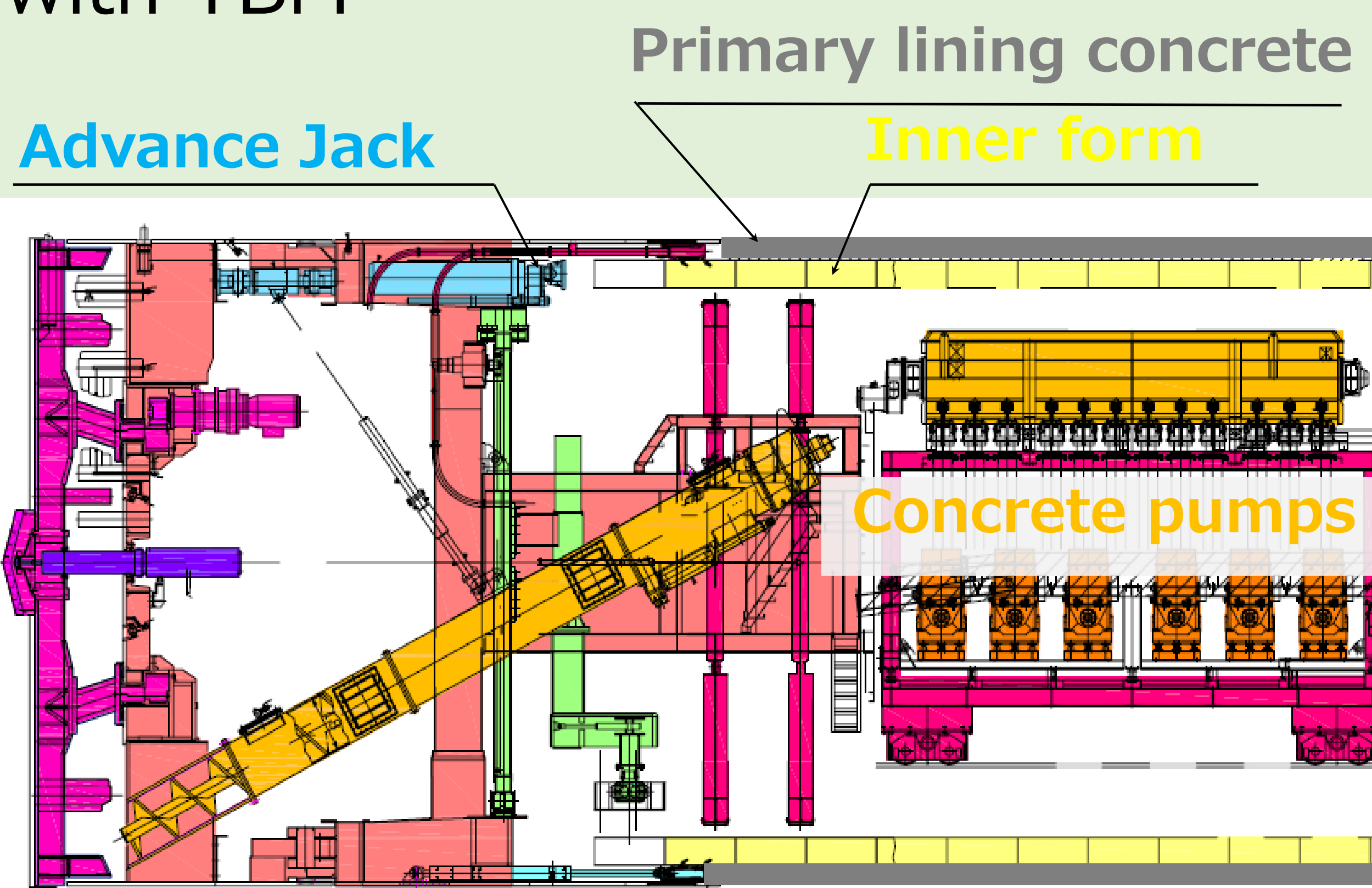
Waterproof sheet by FILM



Concept of FILM

◆ SENS

Site-cast Concrete Lining System with TBM



Features

- Excavation by TBM (Closed face machine)
- Lining by site-cast concrete
- Utilizing adhesiveness between primary lining and inner forms for counterforce of TBM

Advantages

- Economical construction without segment lining

Application and Construction example

- Suitable for non-solid ground with groundwater (TBM ensures face stability, and lining is designed considering the ground support.)
- 6 examples in Japan (including 2 tunnels under construction)