The Gotthard Base Tunnel is a railway tunnel for high-speed rail traffic. With a length of 57 km, it is the longest railway tunnel in the world.

The contract section combination of Bodio/Faido represents two out of five construction lots. This combination consists of the construction section of Bodio, which is 16.6 km long and has a maximum overburden of 1'500 m and the construction section of Faido, which is 14.6 km long beneath an overburden of up to 2'300 m. The tunnel section Faido also contains a multifunction station with a length of 1.7 km.
Construction of the new Gotthard Base Tunnel

**Location**
Bodio and Faido, Switzerland

**Project Stages**
- Design: since 1990

**Project Description**
- Bypass gallery: Length: 1.17 km, Cross-section: 51.00 m²
- 2 single-track tubes: Length: each 31.2 km, Cross-section: each approx. 75.00 m²
- Multifunction station: Gallery length: 1.7 km, Cross-section: 12 – 330 m²
- Soft-ground section: at South portal: 800 m, Cut-and-cover section: at south portal: 380 m

**Excavation Method**
- In rock: TBM excavation; driven section in soft ground: pipe arch; multifunction station and cross-passages: drill-and-blast technology.

**Geology**
- Penninic Gneiss zone, Gotthard massif, Piora syncline and 800 m-long soft ground section close to the South portal.
- Max. overburden: 2'300 m

**Project Details**
- Extensive TBM drive beneath high overburden.
- Two-shell lining with umbrella waterproofing

**Client and Contact Person**
AlpTransit Gotthard AG (ATG)
Dr. Renzo Simoni (director)

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**Object**
- Combination of contraction sections
  - Bodio/Faido: 31.2 km
  - Overall length: 57 km
  - Gotthard Base Tunnel South: CHF 3'995 million
  - Combination of contraction sections
    - Bodio/Faido: CHF 2'430 million

**Our Service**
- Contractor surveying including heading guidance, control, geotechnical measurements and also seismic prediction measurements

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