Combination of Contract Sections Bodio/Faido, Switzerland

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
Realisation: 1999 – 2016

**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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**Project**

- 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 Services**
- Construction supervision in engineering joint-venture

In collaboration with Pöyry Infra AG and Lombardi SA Ingegneri Consulenti