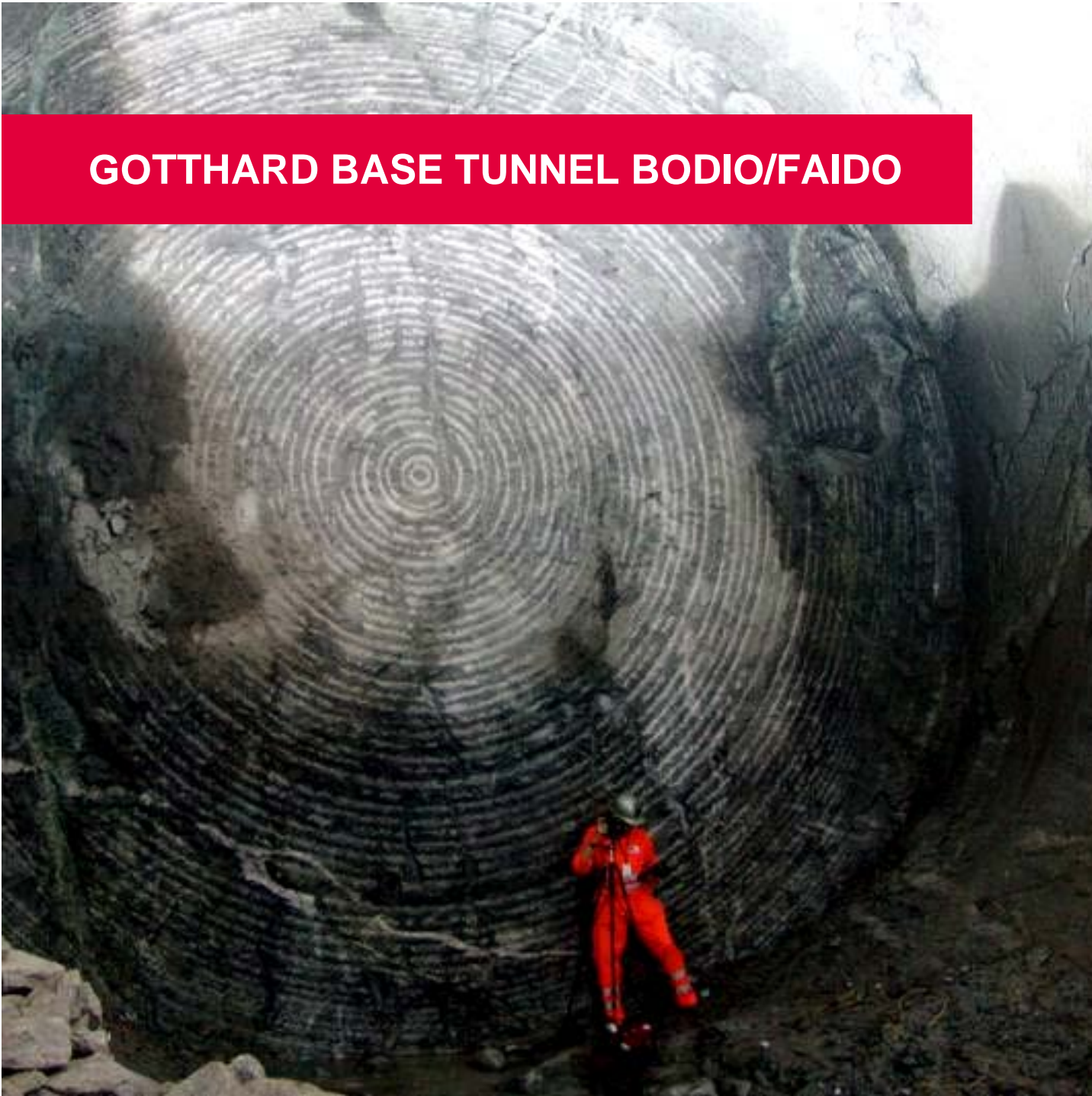


## GOTTHARD BASE TUNNEL BODIO/FAIDO



### 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  
 Realization: 1999 – 2016

### Project Description

Bypass gallery:	Length:	1.17 km
	Cross-section:	51.00 m <sup>2</sup>
2 single-track tubes:	Length:	each 31.2 km
	Cross-section:	each approx. 75.00 m <sup>2</sup>
Multifunction station:	Gallery length:	1.7 km
	Cross-section:	12 – 330 m <sup>2</sup>
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

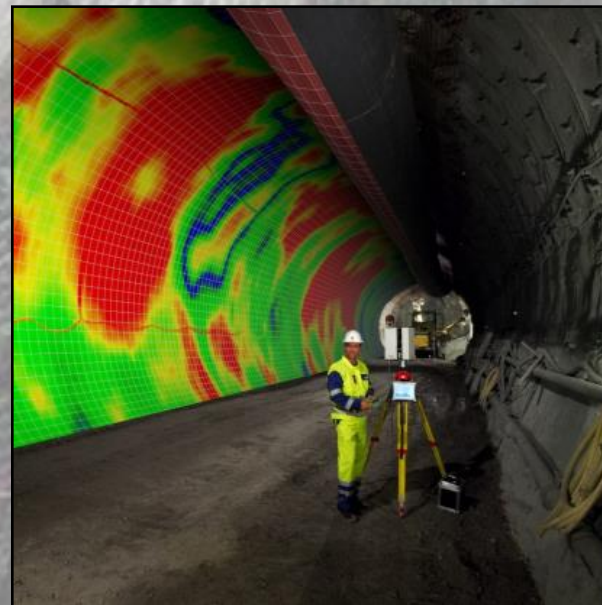
AlpTransit Gotthard AG (ATG)  
 Dr. Renzo Simoni (director)

### Object

Combination of contraction sections  
 Bodio/Faido: 31.2 km  
 Overall length: 57 km  
 Construction of two new single-track railway tunnels. Construction cost (price base 1991) 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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