



The AlpTransit Gotthard Project



Enginyers Industrials de Catalunya

15 october 2014

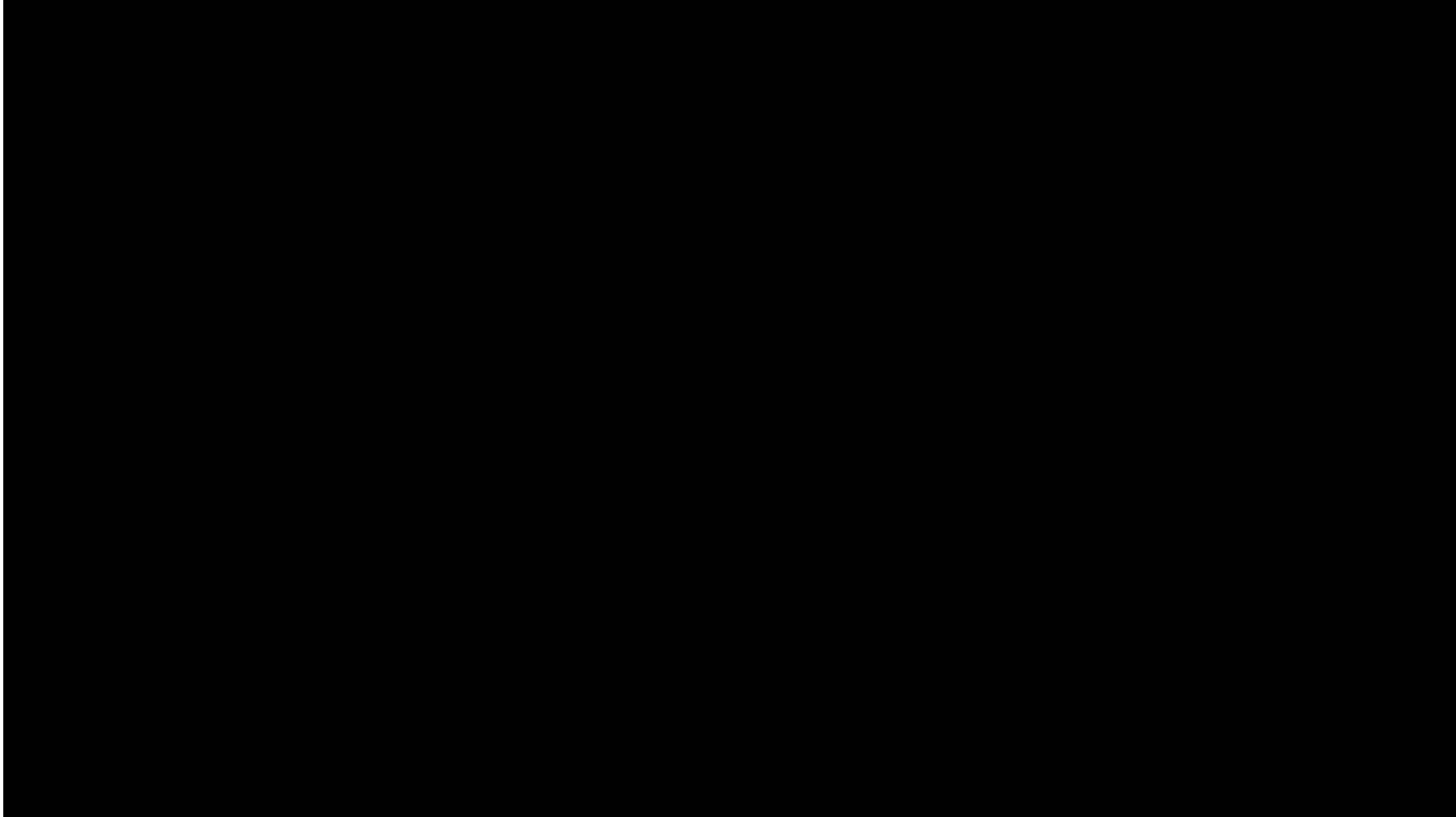
Dr. Renzo Simoni

CEO

AlpTransit Gotthard Ltd

AlpTransit Gotthard AG

Final breakthrough



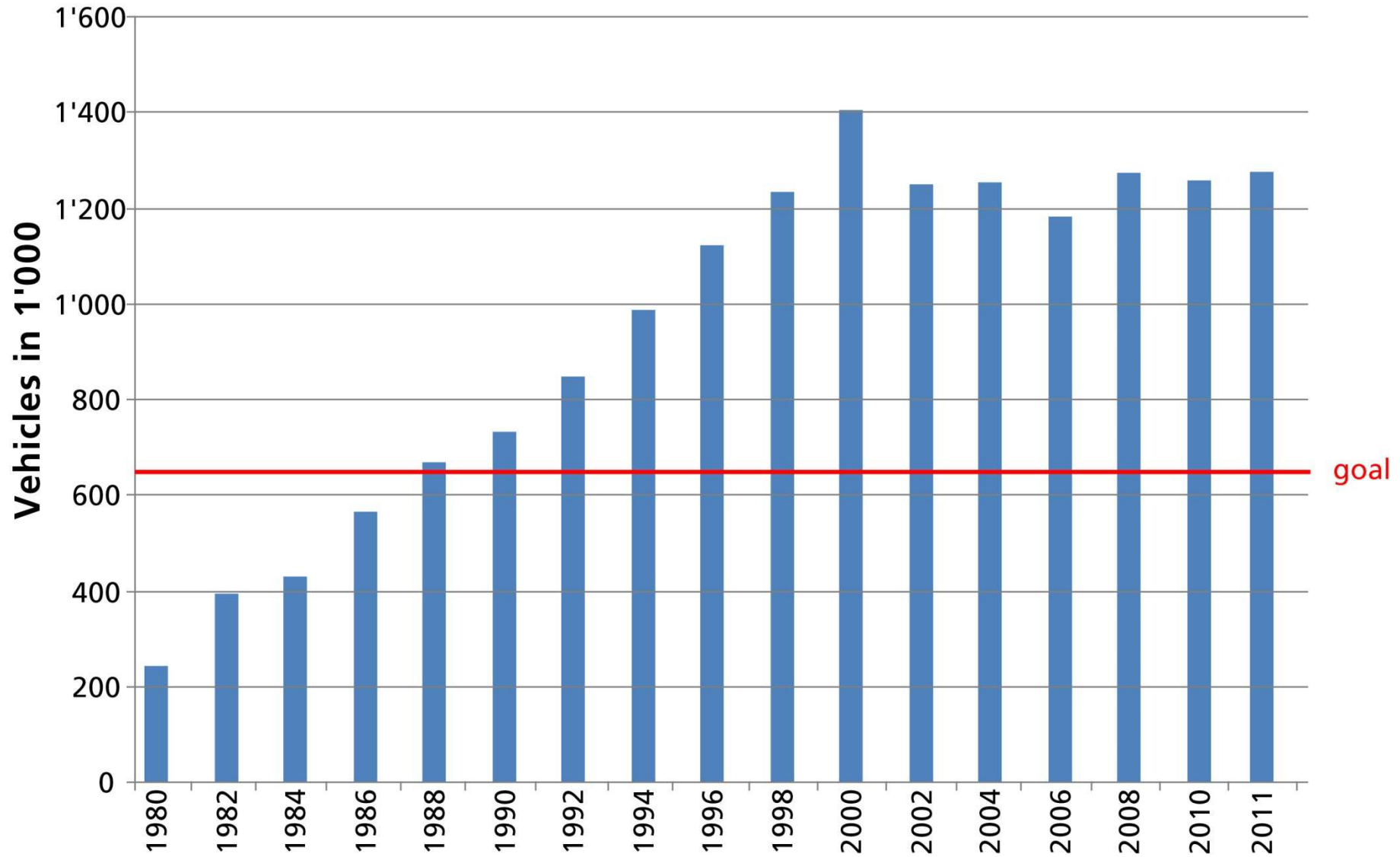
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- 1. Project overview**
- 2. Challenges**
- 3. Reminiscences from the construction period**
- 4. The project today**

1. Project Overview

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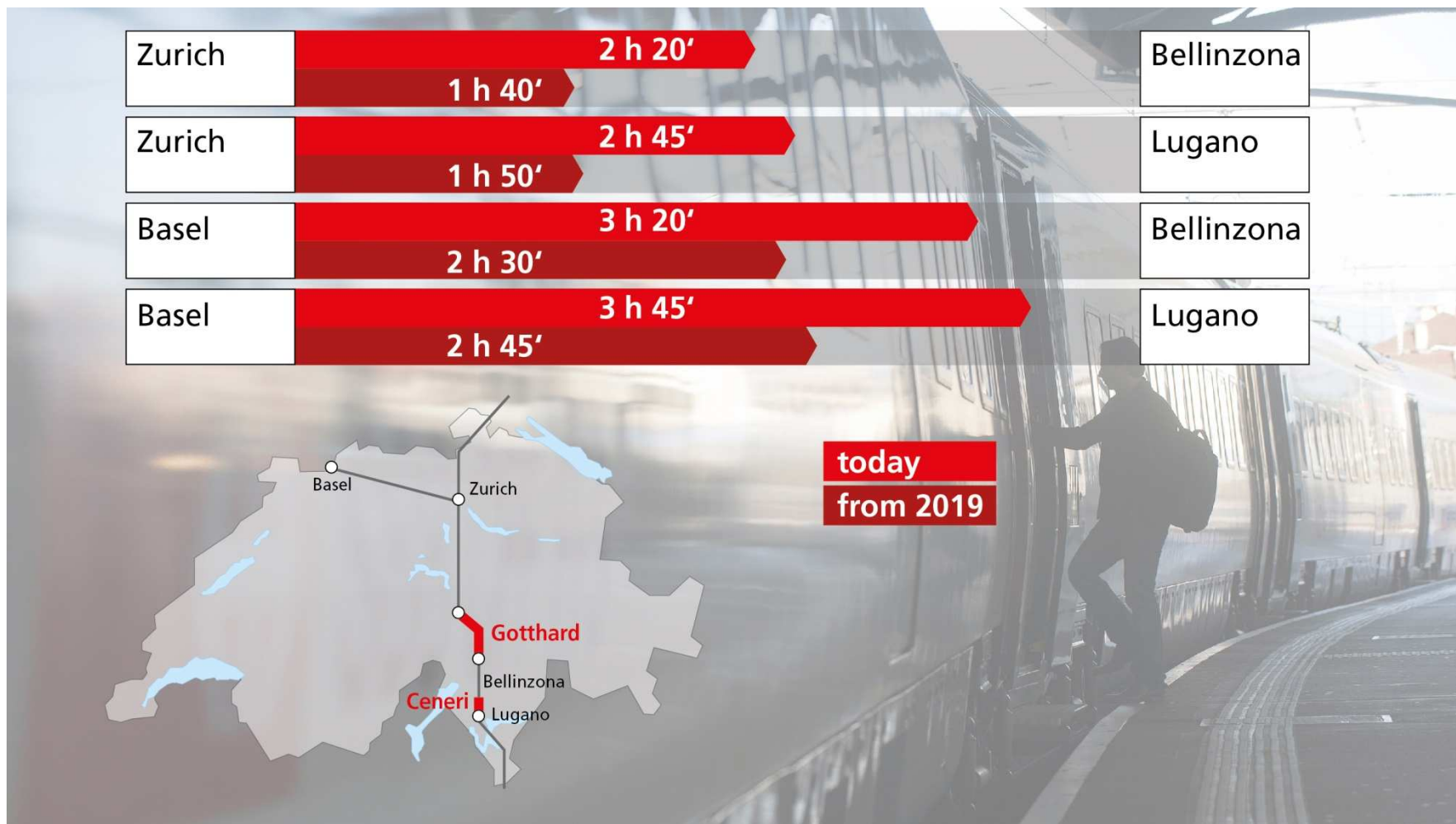
Transalpine goods traffic



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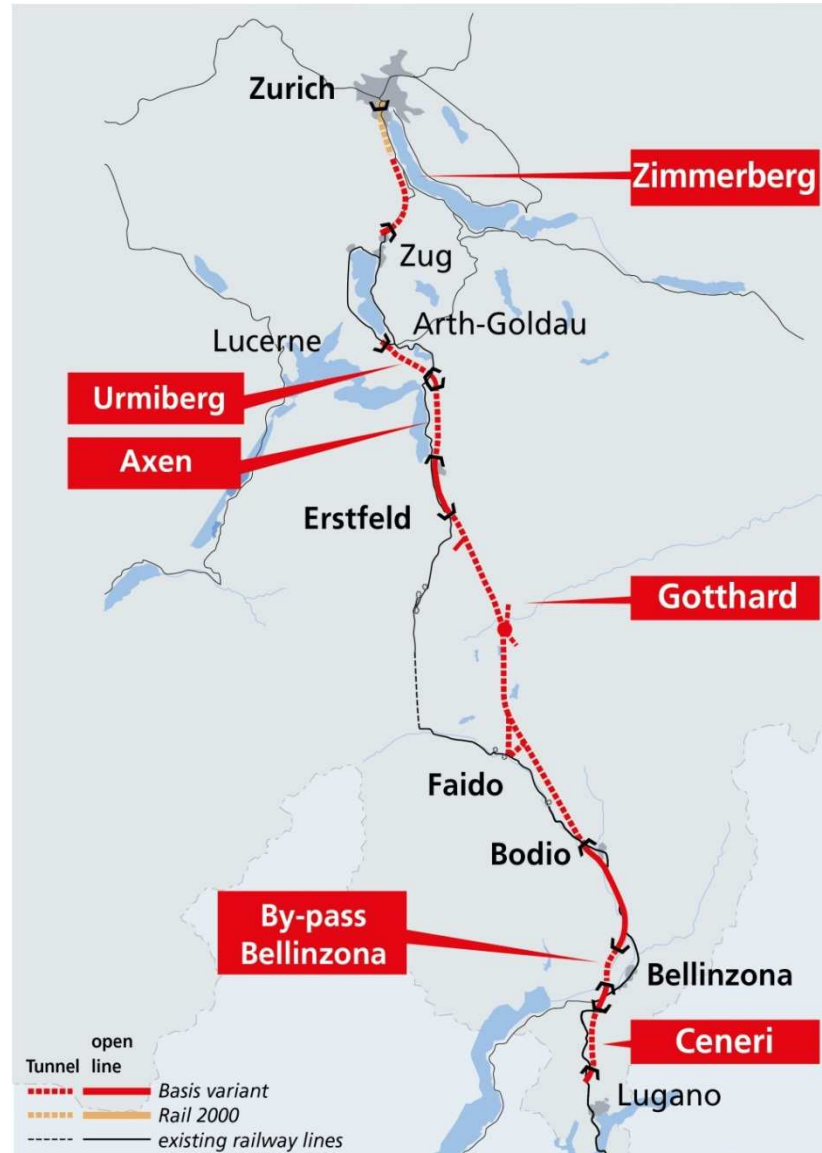
Journey times Zurich - Lugano / Basel - Lugano



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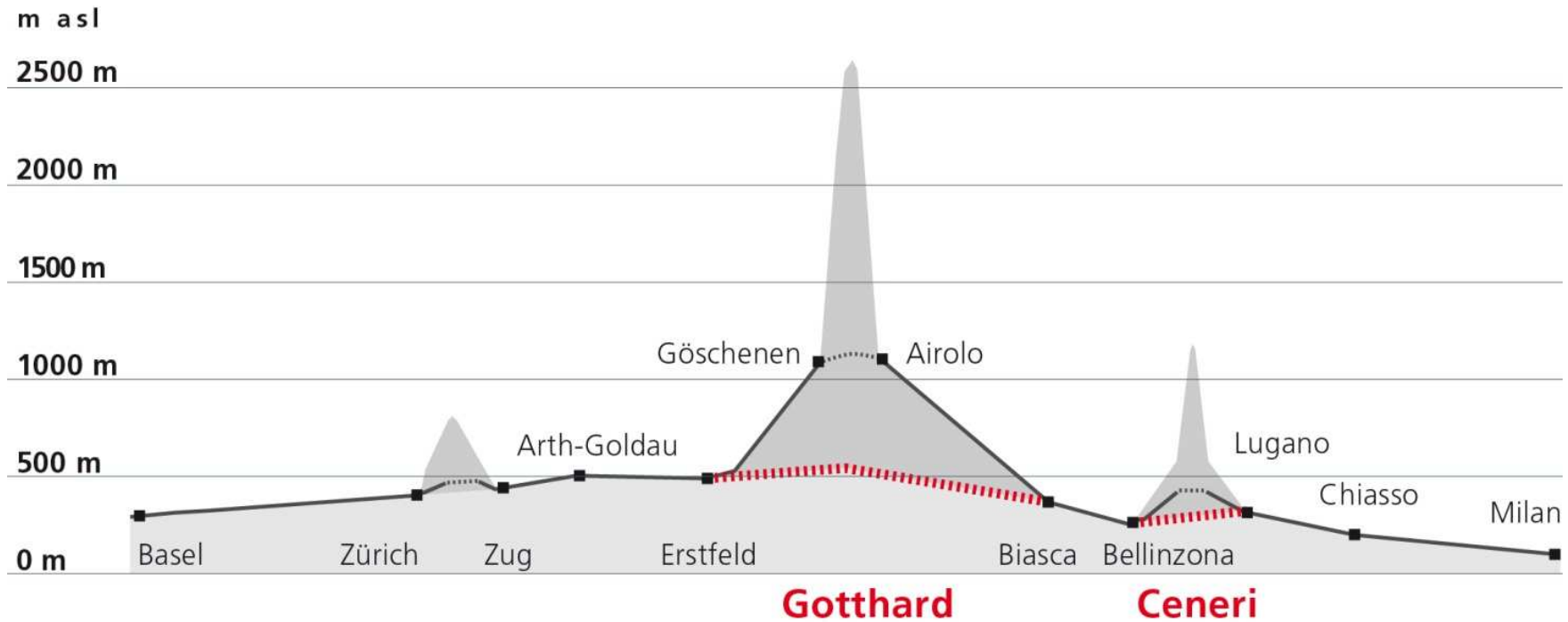
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NRLA decision 1991



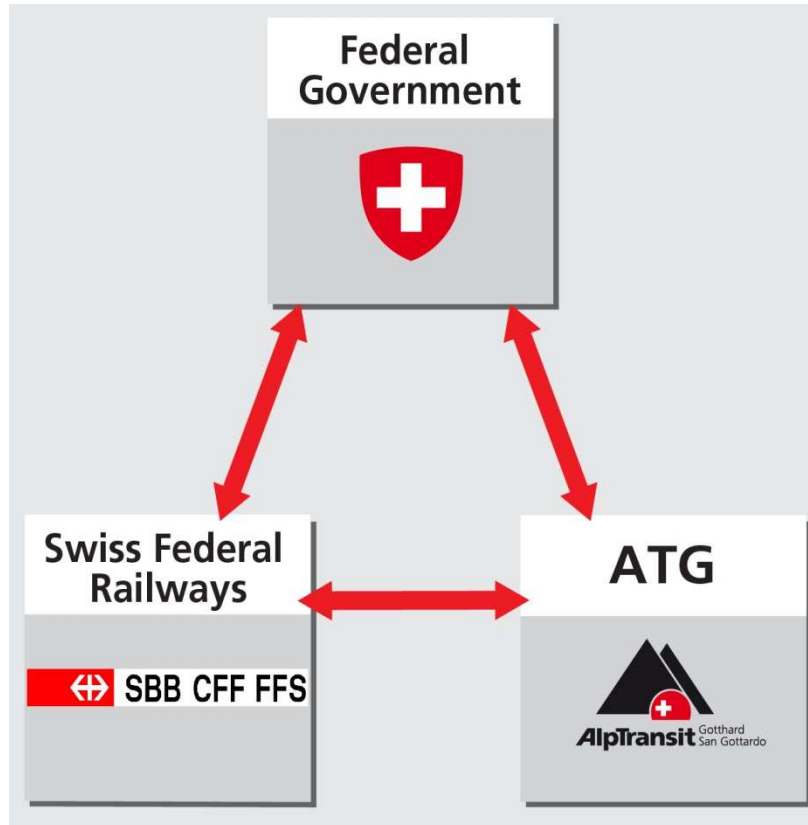
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A flat railway route through the Alps



- **Newly constructed twin-track route**
- **Mixed operation**
- **Maximum speed passenger trains: 250 km/h**
- **Maximum speed goods trains: 160 km/h**
- **50 – 80 passenger trains per day**
- **220 – 260 goods trains per day**
- **Loaded vehicles: max. height 4.2 m**
- **Max. gradient: $\leq 12.5 \text{ ‰}$**
- **Min. radius: $\geq 5,000$ metres**
- **Useful life: 100 years**
- **Max. temperature: 40° C**

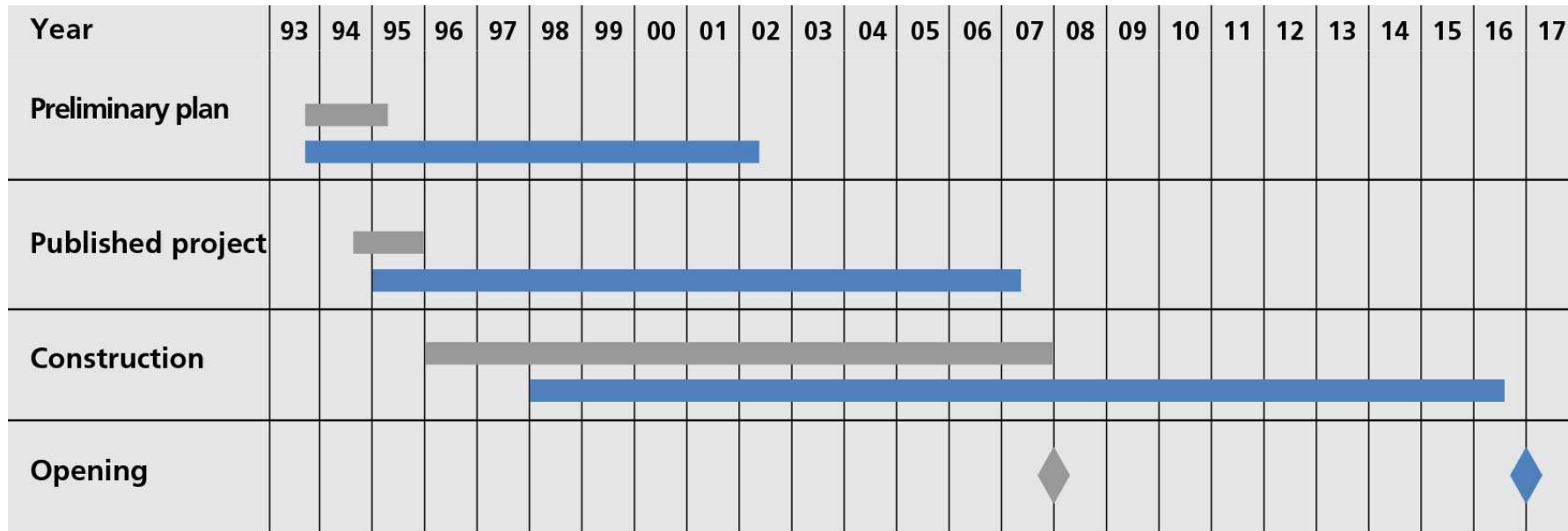
2. Challenges



- **Direct management, simple control**
- **Transparency through direct parliamentary control**
- **Clear allocation of responsibilities, best governance**
- **Efficiency thanks to lean organisation (short paths, simple decision processes)**

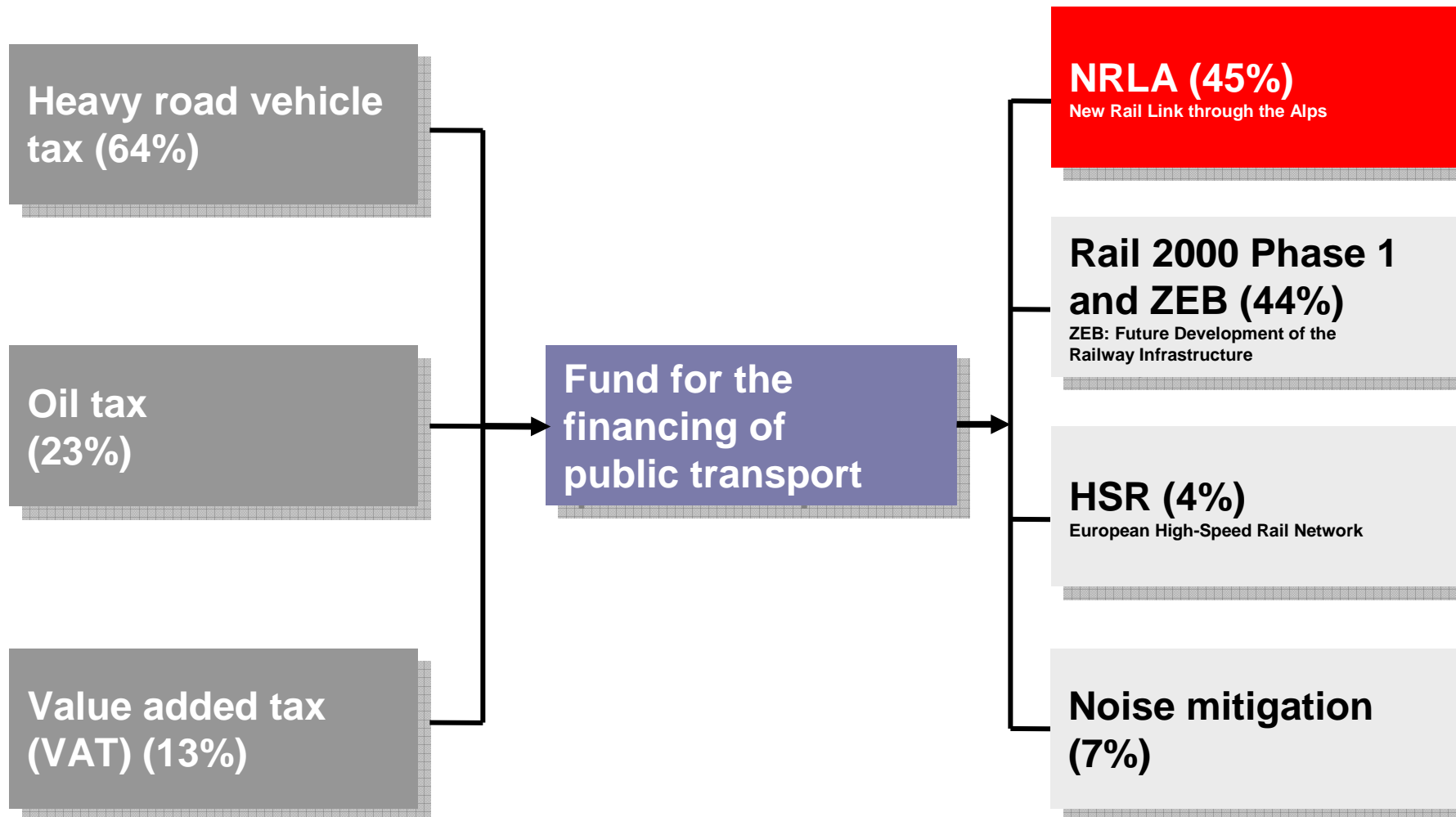
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Challenge planning and processes



Plan
 Reality

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Swiss Government Decision

Swiss Government Decision on Amendment of the NRLA Total Credit (Alp Transit Financing Decision)

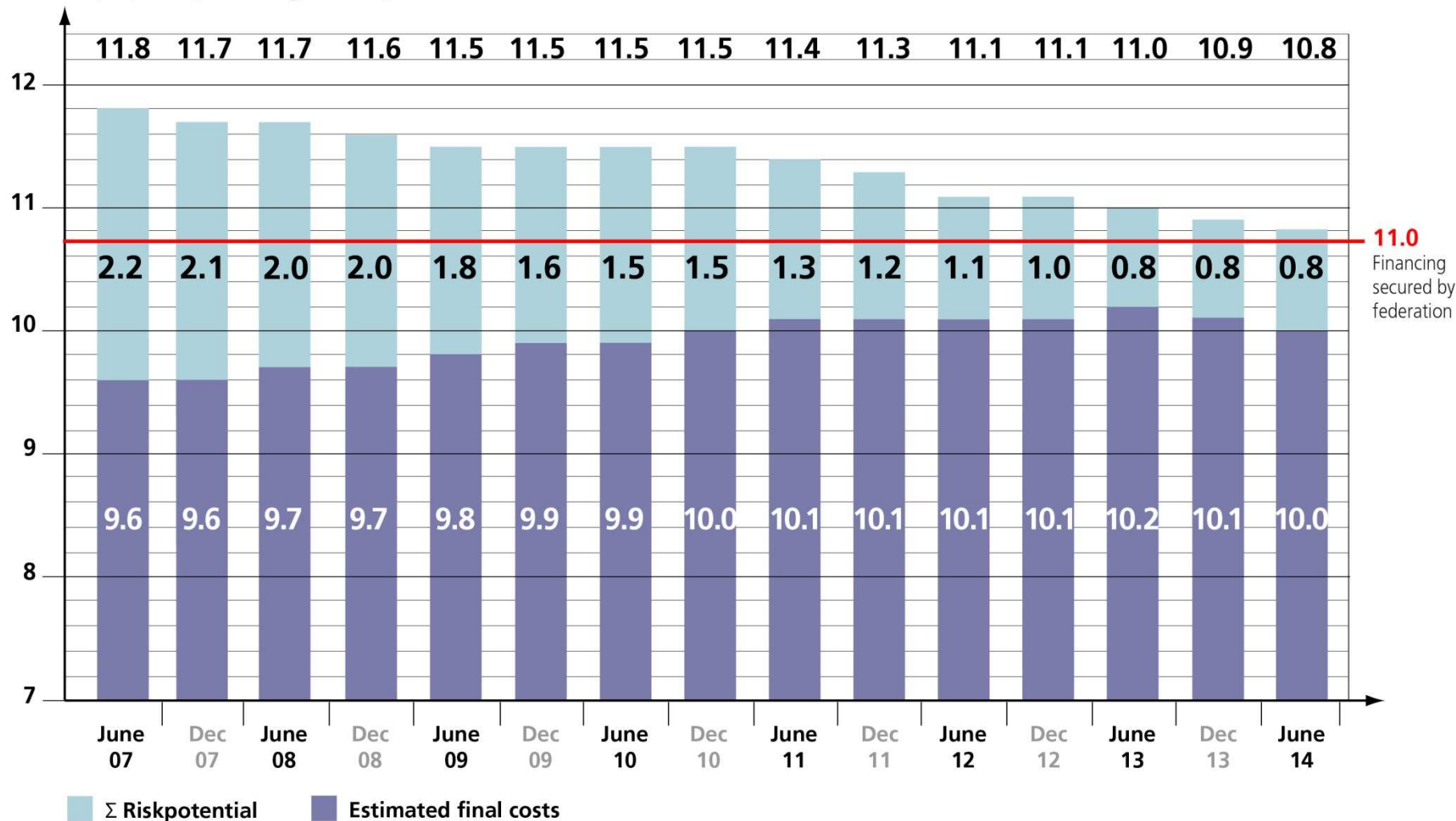
of September 16, 2008

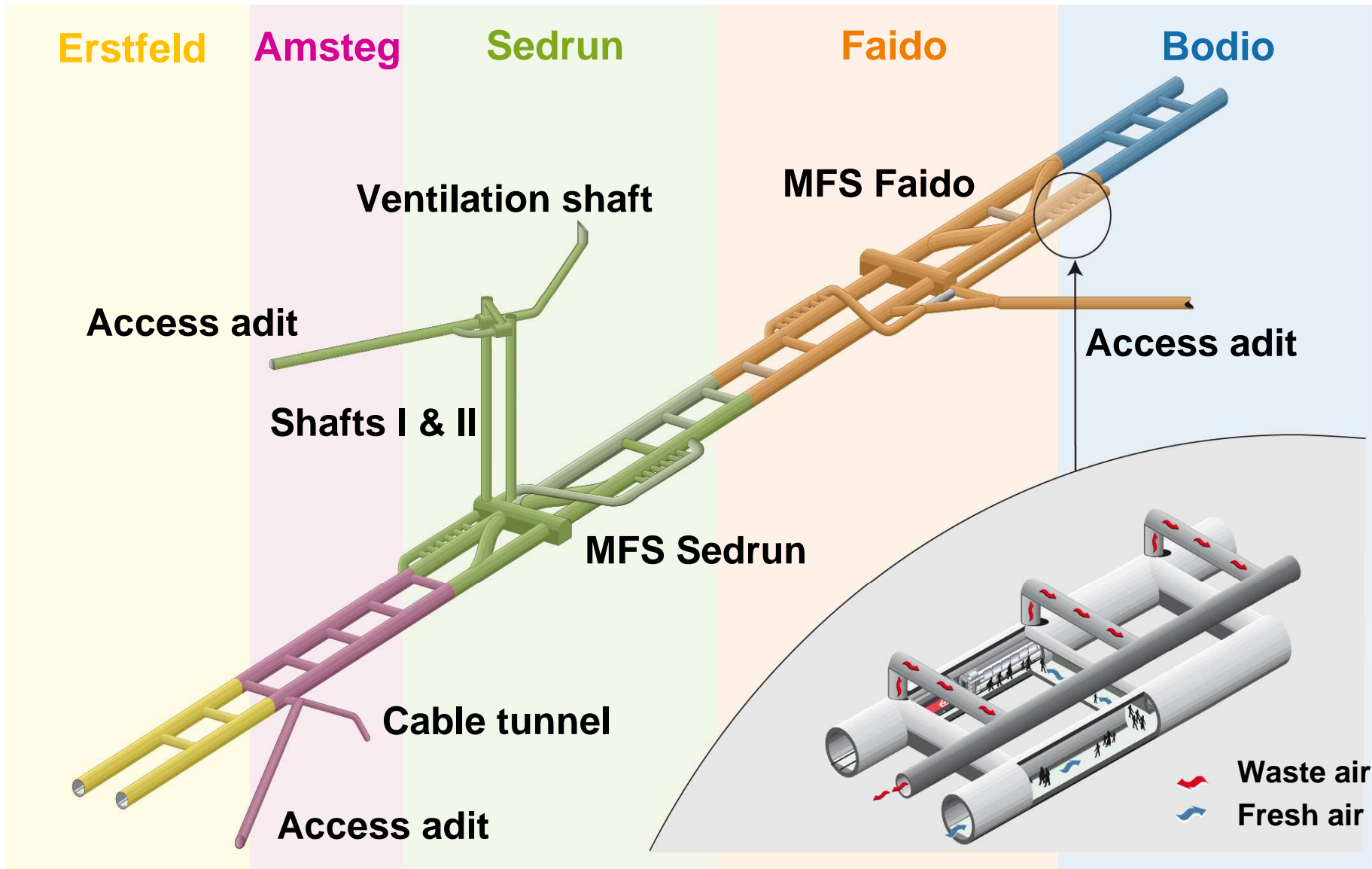
Art. 1

For the realisation of the New Rail Link through the Alps, a total credit of 19 100 billion Swiss francs including reserves (price level 1998 according to NRLA inflation index and project status 2007, without inflation, value added tax and construction interest) is approved and divided into the following committed credits:

	Investments in CHF million
a. Project management	98
b. Lötschberg route	4 211
c. Gotthard route	13 157
d. Upgrade Sion	112
e. Link to Eastern Switzerland	100
f. Upgrade St. Gallen–Arth-Goldau	101
g. Other upgrades, Lötschberg route	365
h. Other upgrades, Gotthard route	441
i. Reserves	415
Total	19 100

billions (bn) Euro, exchange rate 1,23

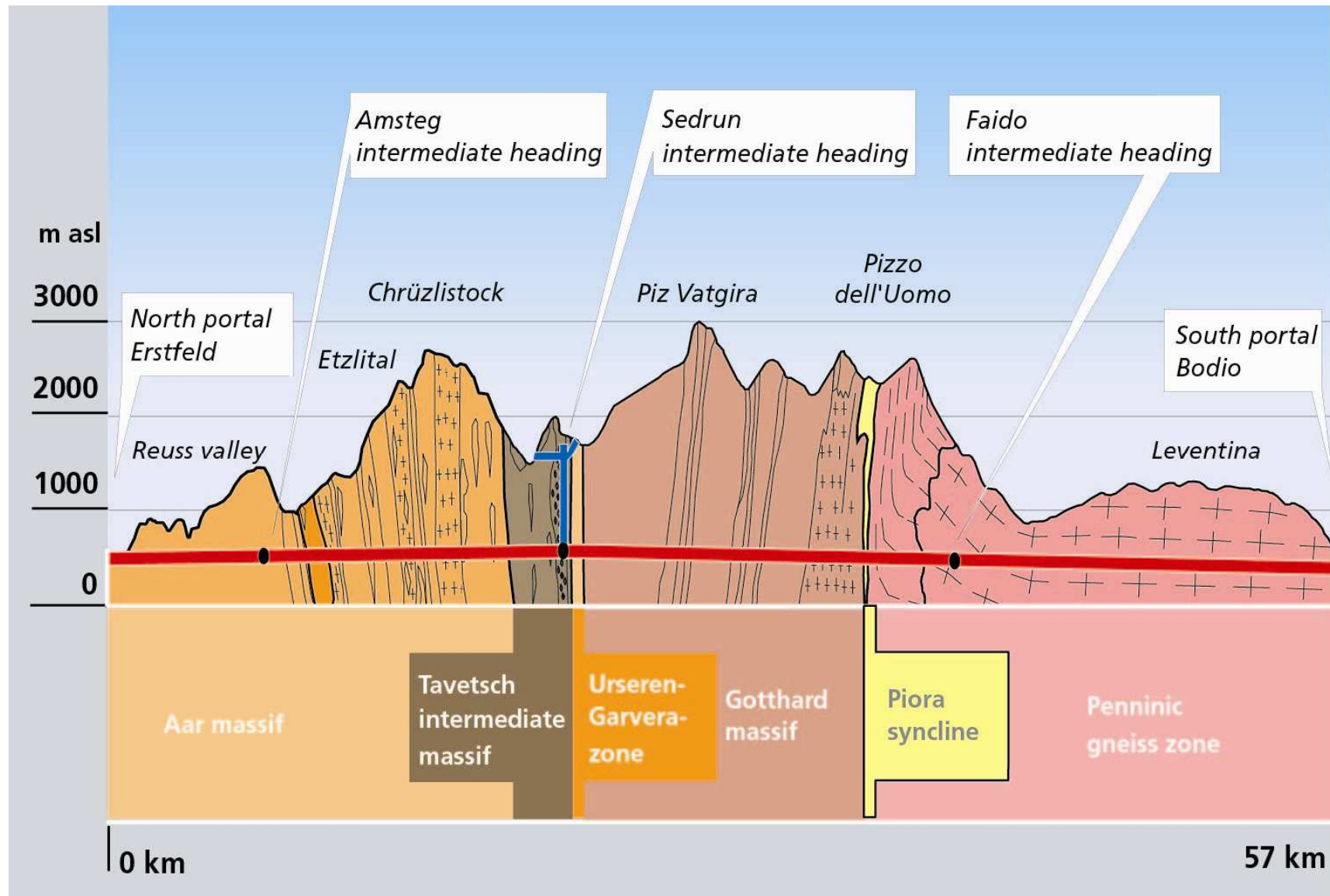




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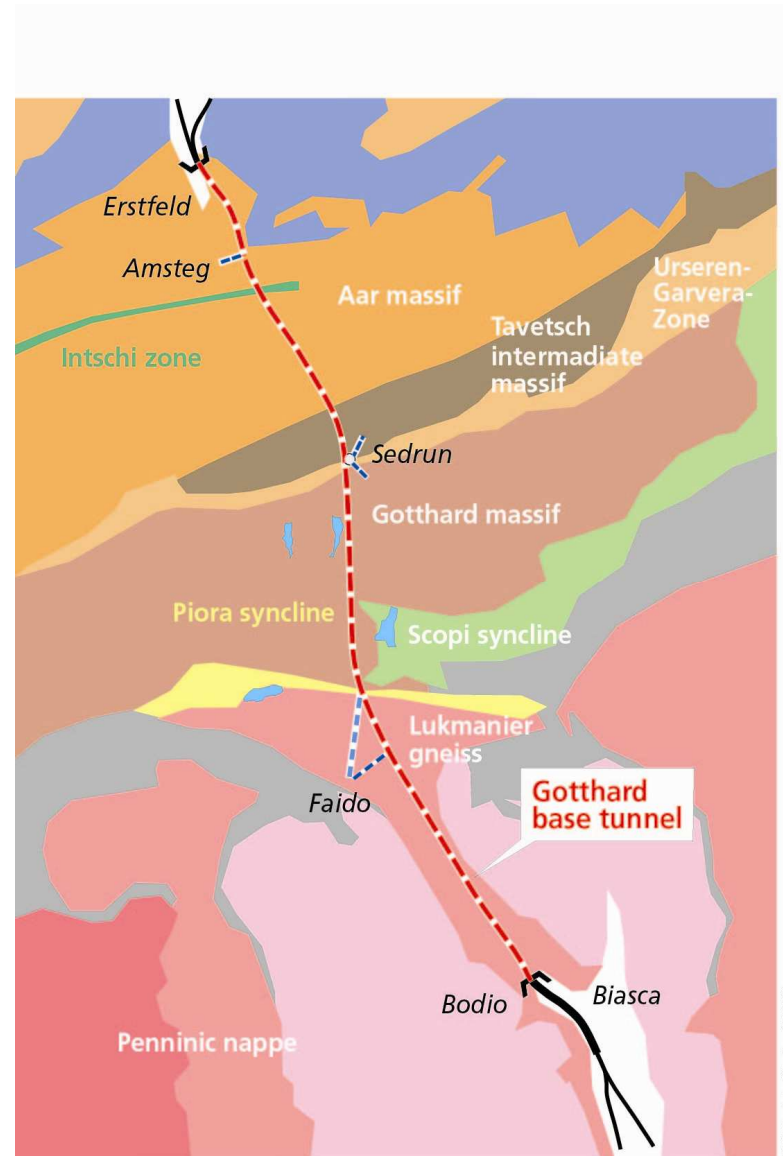
Challenge geology I



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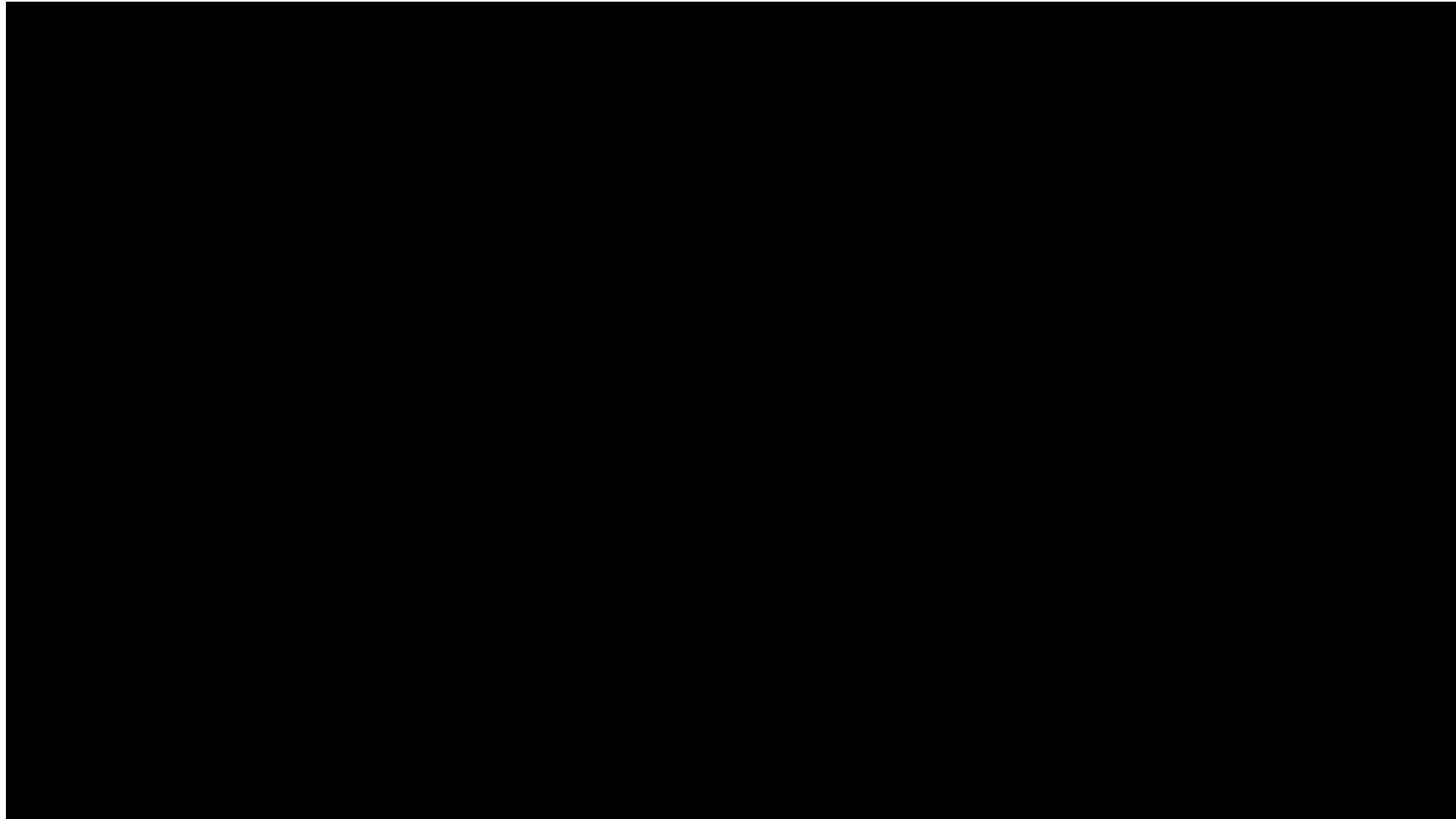
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Challenge geology II



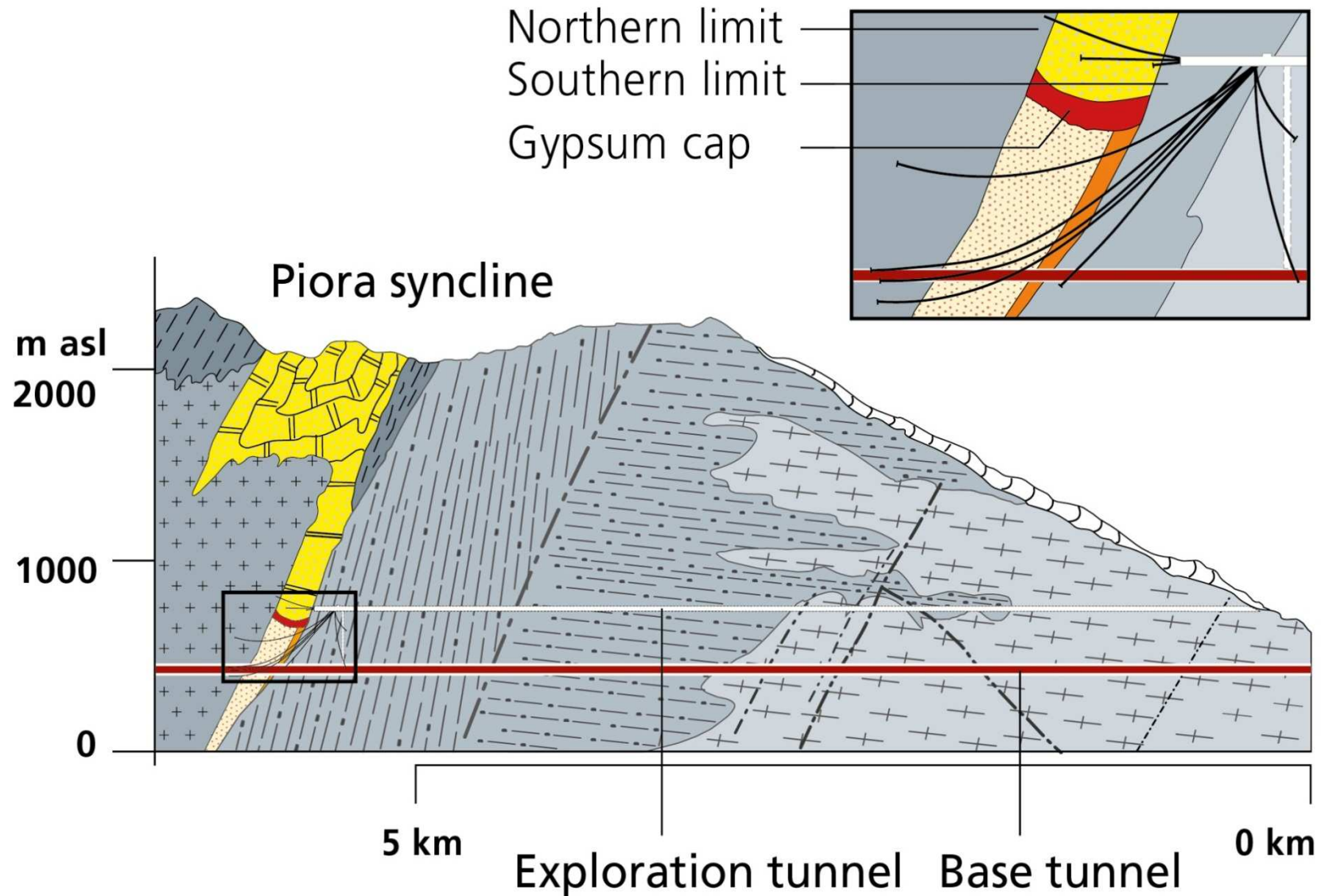
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Time-lapse - execution

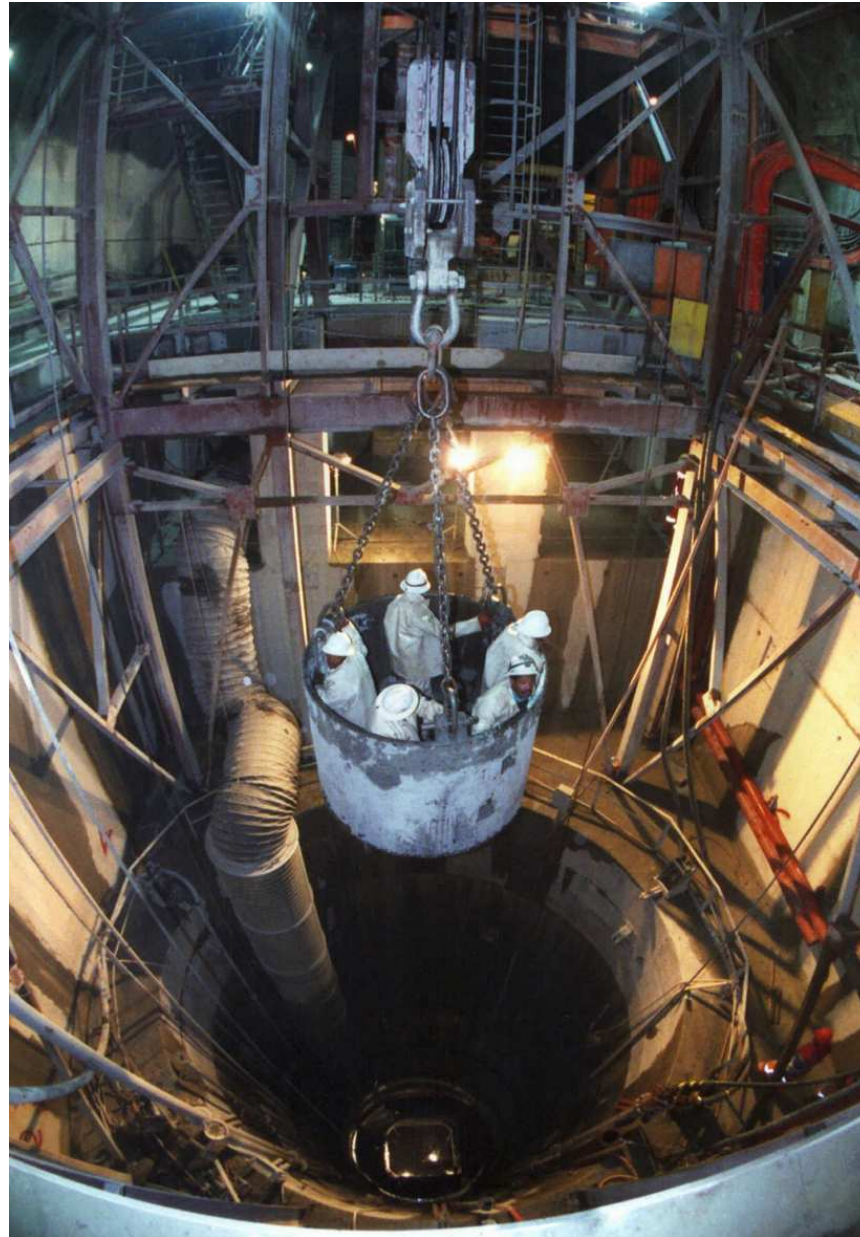


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3. Reminiscences from the construction period







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Sedrun 2003: deformable steel inserts



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Lakefill Uri: 2003 - 2006



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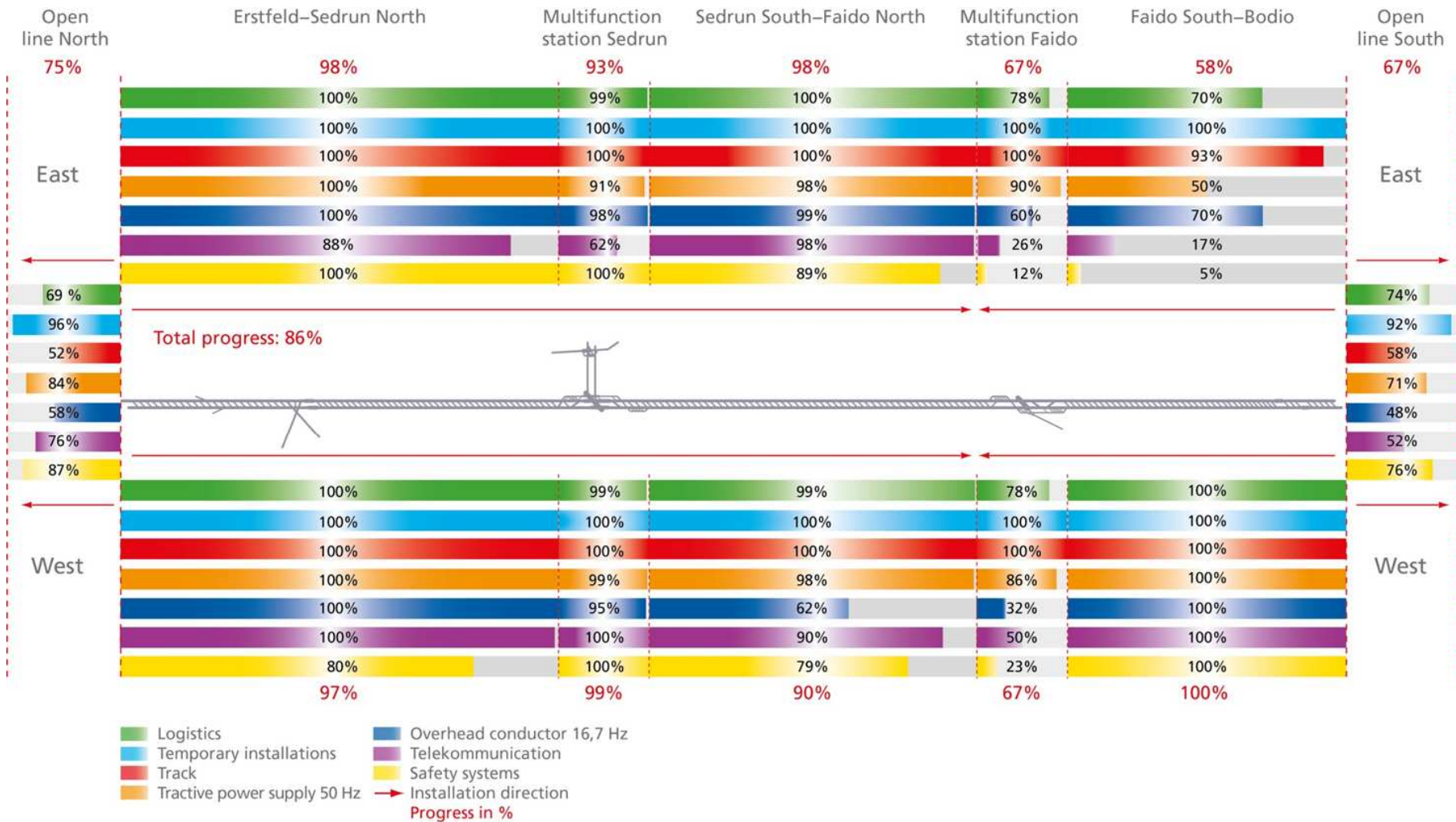
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Amsteg 2009: surface installations site



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4. The Project Today



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Bodio: laid ballastless track, catenary, GSM-R cable



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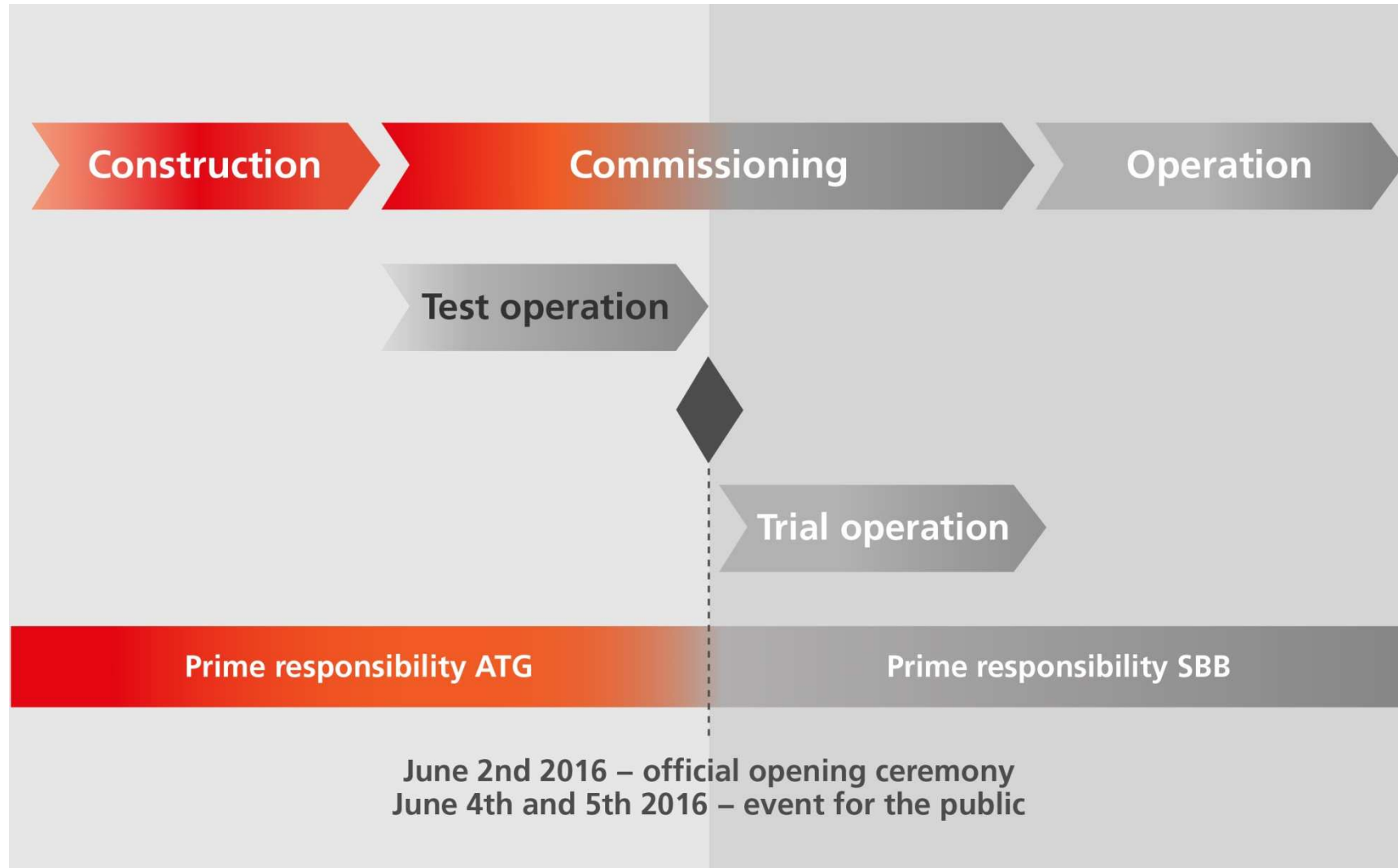
Faido-Bodio: start of pilot operation



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Commissioning



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- Commercial opening
Gotthard Base Tunnel:
December 2016
- Commercial opening
Ceneri Base Tunnel:
December 2019

