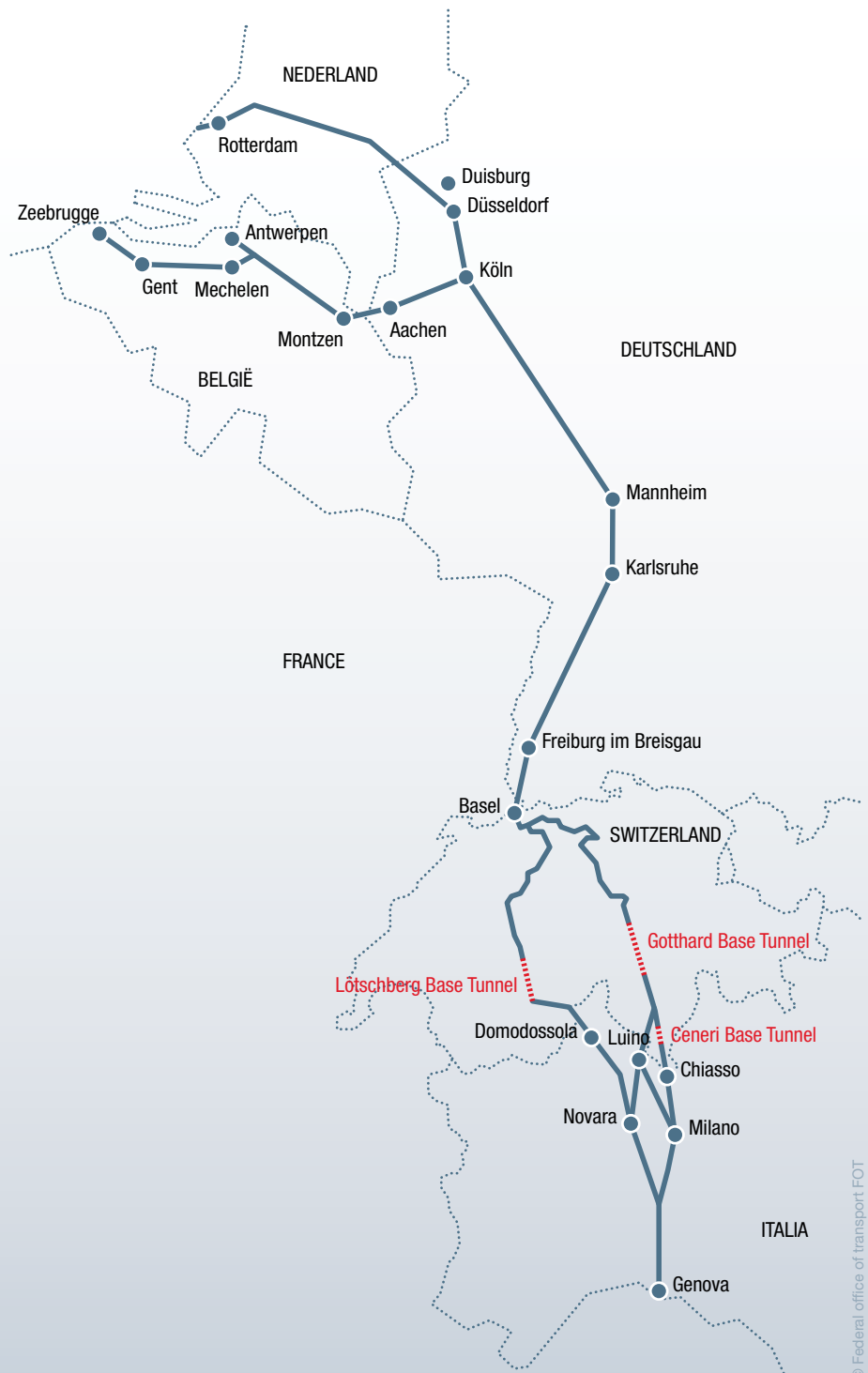


# NEW RAIL LINK THROUGH THE ALPS (NRLA) A ONCE-IN-A- CENTURY PROJECT FOR EUROPE



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## FACTS AND FIGURES NRLA

The New Rail Link through the Alps (NRLA) is the largest railway construction project ever undertaken in Swiss history. It includes the expansion of two north-south axes for the rail link. The main components of the NRLA are the Lötschberg Base Tunnel, the Gotthard Base Tunnel and the Ceneri Base Tunnel.

Since **2007** Successful operation of the Lötschberg Base Tunnel

**11 December 2016** Commissioning of the Gotthard Base Tunnel

The world's longest railway tunnel will be commissioned on schedule on 11 December 2016. Up to 250 freight trains a day will then travel on the Gotthard axis instead of 180 previously. Transalpine rail transport will become more cost-effective, flexible and rapid.

**2020** Opening of the Ceneri Base Tunnel

**2020** Four-metre corridor on the Gotthard axis

The expansion of the Gotthard axis to create a larger tunnel profile is a key part of the Swiss policy of transferring freight from road to rail. It will enable semi-trailers with a four-metre corner height to also be loaded onto railway wagons for transport on the Gotthard axis on a continuous basis. This further fosters the transfer of transalpine freight transport from road to rail.

## FACTS AND FIGURES ABOUT THE GOTTHARD BASE TUNNEL

- ➔ Opening celebrations – After a **17-year** construction period, the Gotthard Base Tunnel (GBT) will be officially inaugurated on 1 June 2016.
- ➔ World record – **57.1km** in length, it is the world's longest railway tunnel. With a maximum rock overburden of 2,300 metres, the GBT is also the world's deepest railway tunnel.
- ➔ Route – The tunnel connects Erstfeld, in the canton of Uri, and Bodio, in the canton of Ticino, and has no significant gradients or tight bends. The journey time is around **20 minutes**.
- ➔ Speeds – Passenger trains will travel through the tunnel at speeds of up to **200km/h** and freight trains at **100km/h**. Top speeds of up to 250km/h are possible for passenger trains and 160km/h for freight trains.
- ➔ Time gain – Once the NRLA is finally completed in 2020, the time gain between Zurich and Lugano will be around **45 minutes**.
- ➔ Efficiency – Instead of 180 freight trains a day – as in the old Gotthard tunnel – **250 freight trains** will now be able to run in addition to **65 passenger trains**. The flat rail link can accommodate longer, heavier trains, requires fewer locomotives and reduces journey times.
- ➔ Workforce – Up to **2,400 workers from 15 different countries** were employed at peak times, working around the clock in three shifts.
- ➔ Excavated rock – **152km** of tunnel was cut from the rock – with 28.2 million tonnes of excavated material in total – for the two single-track main tunnels as well as the safety, ventilation and transverse tunnels.
- ➔ Cost – The effective construction cost of the GBT comes in at around **CHF 12.2 billion**. The overall cost of the NRLA amounts to approximately CHF 23 billion.
- ➔ Commissioning – Commercial commissioning by the SBB is scheduled to take place on **11 December 2016** when the timetable changes after some 3,000 further trial runs.

### **The world's longest railway tunnel**

The Gotthard Base Tunnel is the world's longest railway tunnel at 57.1km. The Seikan Tunnel in Japan covering 53.9km – 23km of which run under the sea – drops into second place. The Euro-tunnel beneath the English Channel between France and the UK (1994) is the world's third longest railway tunnel at 50.5km in length, 38km of which are beneath the sea.

The longest road tunnel is the Lærdal Tunnel in Norway which covers 24.5km. Germany's longest railway tunnel was built in 1991 and lies on the high-speed line between Hannover and Würzburg. The Landrücken Tunnel is 10.8km. Germany's longest motorway tunnel is the Rennsteig Tunnel (2003) in Thüringen covering 7.9km. The Simplon Tunnel (19.8km), connecting Switzerland and Italy, was the longest tunnel in the world until 1982. The Vaglia Tunnel (18.7km), currently Italy's longest, is on the high-speed rail link between Bologna and Florence. The Westerschelde Tunnel (6.6km) and the railway tunnel at Soumagne (6.5km) are the record holders in the Netherlands and Belgium respectively.

The Brenner Base Tunnel will one day become the world's longest underground railway tunnel stretching 64km. Work began in March 2015 with completion scheduled for 2026.