

13th UIC Sustainability Conference



Allegra, welcome!

The Rhaetian Railway & sustainable
tourism

Dieter Dubkowitsch

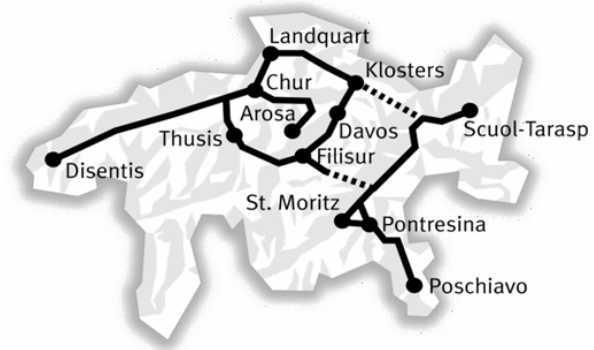


12, 13, 14 October 2016

Key figures

- Passenger traffic: 10 million passengers
- Goods railway: 553'000 tonnes
- Car transporter: 467'000 vehicles
- Employees: 1,400

- Coverage / servicing of Switzerland's largest canton by surface area (of its rail network of 384 km, just 14 km correspond to the Swiss Federal Railways, SBB)
- 103 railway stations and halts
- Economic multiplier for a peripheral region
- Meeting-place of different cultures



High altitude mountain railway

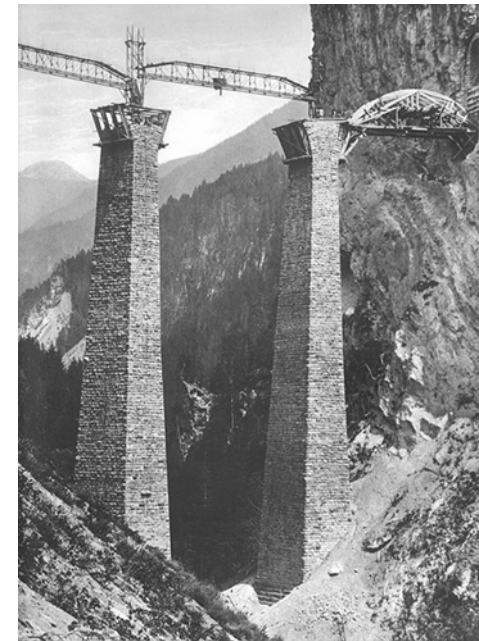


Network

- Building timeframe 1889 to 1914 (built in 25 years, 80% of it in 10 years)
- 384 kilometres single track lines
- 70‰ highest gradient
- 2,253 meters altitude (highest point)
- 30% of the lines at an altitude of over 1,500 meters

Engineering structures

- 115 tunnels (average age: 100 years)
- 612 viaducts, bridges (Ø = 95 years)
- 20% of the line comprises engineering structures



Growth thanks to top international brand status

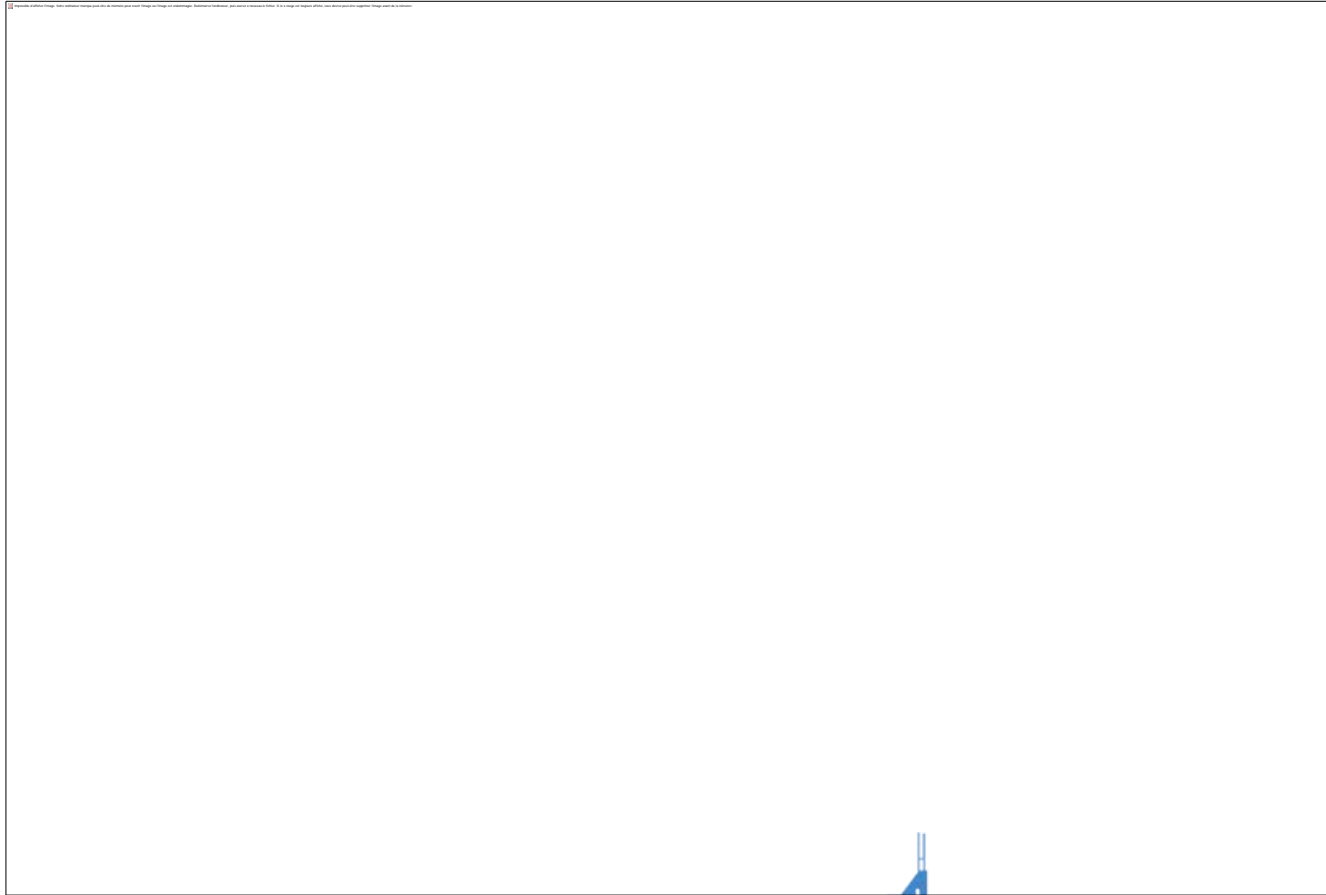


GLACIER 
EXPRESS[®]

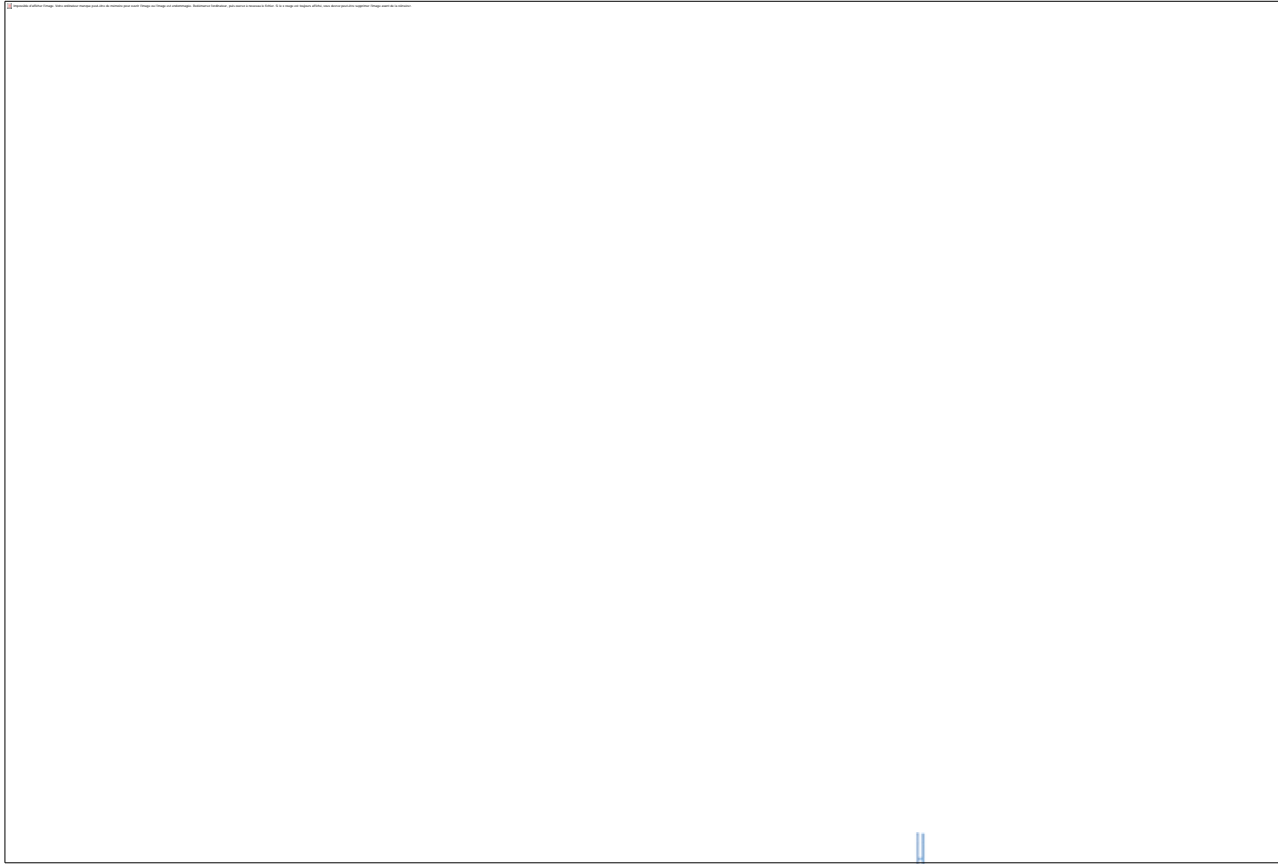
St.Moritz / Davos - Zermatt



Landwasserviaduct UNESCO World Heritage



The greatest traffic circle in the alps @ Brusio



Rhaetian Railway – a future orientated railway



A railway that connects people.

- 10 million passengers every year

A railway for 3 cultures.

- German, Italian, Romansh

A railway in a glorious landscape.

A railway as provider.

- Goods railway
- Commuter railway

A railway as an impulse to tourism.

- International attraction of the brands: RhB, Glacier Express, Bernina Express and UNESCO World Heritage



A railway with highly competent and committed staff.

A railway with deep roots in, and support from, local political and public life



Sustainable tourism for Rhaetian railway



By implementing a sustainability programme, the Rhaetian Railway wants to ensure that future generations will still have the possibility to use all our necessary resources. For this reason the RhB Management has issued a core-model statement which defines the areas of activity.

- sustainable **procurement** (energy, vehicles, fair traded products)
- environmental **responsive behaviour** (energy saving, reduce environmental pollution, disposal of waste)
- Sustainable and secure **daily operation**
- Sustainable **products** for clients (customer satisfaction)



Sustainable tourism for Rhaetian railway



Sustainable tourism for Rhaetian railway - examples



1. ENERGY

It is in the area of energy that the RhB can achieve the greatest effects, as well as increasing energy efficiency the ability to make use of renewable energy is extremely important.

- The Rhaetian Railway uses 100% power from local hydro-electric power stations
- All buildings are also supplied with hydro-electric power
- The headquarters in Chur and the workshops in Landquart are heated by distance warmth from the GEVAG – the refuse incinerators.



Sustainable tourism for Rhaetian railway - examples



1. ENERGY Saving

Rolling Stock

- Thanks to the various energy-saving measures used in their fleet the RhB is able to save around 8,000 MWh yearly, which roughly corresponds to the energy used by around 1,000 private households.
- By monitoring the carbon dioxide content in the trains' passenger areas the exact amount of fresh air required is calculated. When fewer passengers are on board the amount of air flowing in can be reduced.

Workshops and buildings

- Traditional lighting has been replaced by LED lighting
- The lighting system has motion detectors and dimmers
- Optimisation of the heating systems in Landquart, Samedan has led to a reduction in oil consumption; for instance in Samedan by 40%. Further heating systems, are also due to be optimised.



Sustainable tourism for Rhaetian railway - examples



2. CONSTRUCTION

- More than half of the 115 tunnels on the RhB are in need of renovation due to their age. The RhB has developed a new, standardised renovation procedure: the 'standard tunnel construction'.
- Thanks to the newly-developed standardised techniques the standard of safety has been raised and the life of a tunnel extended from 30 to 50 years up to 70 to 100 years duration



Sustainable tourism for Rhaetian railway - examples



3. RECYCLING

- 95% of all the RhB's waste is recycled

4. HEALTH MANAGEMENT

- The staff's health is of great importance to the Rhaetian Railway.
- Occupational Health Management provides health support, work safety and also the integration management



Thank you for your attention!

