



in Switzerland

NetProbe ERTMS test and measurement solution empowers Telecom and ETCS engineers



Switzerland is one of the leading European countries in terms of ERTMS deployment.



Over 1000 trains are currently fitted with ERTMS.

This has significantly increased capacity & train speeds.

The Gotthard Tunnel

Is the world's longest and deepest railway tunnel.

KEY FACTS

- 152 km long
- 178 cross passages
- 308 km rail
- 43 railroad switches
- 153 km overhead contact wire
- 2600 km fibre cables
- 3200 km copper cable
- 7200 lamps
- 900 balises (ETCS)
- 30 base stations
- 300 repeaters



sbb.ch/gotthard



Providing Vigilance. Creating Wisdom.

2011

Start test and measurement in Switzerland.



Radios can be tested at the same time.

Compatible with radio brands such as:



NetProbe ERTMS in Action

Run tests for minutes, hours or days

- Active Drive-Test – scheduled testing on-board trains
- GPRS and GSMR networks
- 16 call types & usage scenarios
- Voice, data, group calls
- Simple & complex test calls
- Test every new radio & firmware before they can be used in the field
- Data processed – up to 1 GB/hour

Configure & pre-process data ready for reports

August 2015

Integration of ETCS L2 track Brunnen - Altdorf including RBC – RBC Handover

December 2015

Integration of ETCS track GBT south

Over 800 test runs covering almost 32000 km

Photo source: Source Alptransit Gotthard (ATG)

User satisfaction



Before installation

4 months later

Telecom Operations users	8	-----	12
Telecom Engineering users	1	-----	17
ETCS users	1	-----	28

286

incidents occurred on these two tracks.

95%

cases solved within ETCS Department without involving Telecom specialists.

(August 2015 – Feb 2016)