Maintenance at the Rhaetian Railway

Intelligent Maintenance Conference
Dr. Renato Fasciati, CEO RhB
Maintenance is crucial for railway operations…

SBB: We are a bit late.

RhB: Ok, we are waiting.
The Rhaetian Railway

Graubünden State Railway

- Switzerland's largest metre-gauge railway
- Integrated railway
- CHF 370 million operating income
- Active in passenger transport, car transport and freight transport
- Host of the Bernina Express and Glacier Express panoramic trains

«The RhB moves Graubünden and fascinates people from all over the world»
Current route network: 384 km
Agenda

Expectations for smart maintenance

Practical implementation at the RhB

Summary and conclusion
Agenda

Expectations for smart maintenance

Practical implementation at the RhB

Summary and conclusion
Maintenance faces different expectations and needs

Stakeholders / customers

Finance

 Organisation / Processes
Stakeholder / customers

Our customers expect **100% reliability** and **availability**

**example:**
Excellence Class at Glacier Express
Efficient maintenance enables affordable offers.

example:
Daily historical trains Davos-Filisur
Maintenance must be **flexible** to adapt to new circumstances.

**example:**
Half-hourly service on the main lines beginning in 2023
Agenda

Expectations for smart maintenance

Summary and conclusion

Practical implementation at the RhB
Tunnel construction during ongoing operations 1/7
Enlarge the tunnel profile
Tunnel construction during ongoing operations 2/7
Protective tunnel during construction
Tunnel construction during ongoing operations 3/7
Enlargement of the tunnel cross-section
Tunnel construction during ongoing operations 4/7
Installation of prefabricated elements
Tunnel construction during ongoing operations 5/7
Installation of overhead contact line and track
Tunnel construction during ongoing operations 6/7
Restoration of tunnel portals
Tunnel construction during ongoing operations 7/7
Restoration of tunnel portals
New measuring carriage
Wheelset diagnostic measuring points

Measurement of the parameters:
• Wheel roundness
• Wheel profile
• Bearing temperatures (detection of hot and cold runners)
Digitisation of processes
And if there are still more ideas missing...
And if there are still more ideas missing...

InnoTren –
Inspiring rail car for meetings
Agenda

Expectations for smart maintenance

Practical implementation at the RhB

Summary and conclusion
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- Intelligent maintenance in **field of tension** between stakeholders / finance / organisation.
- **Customer** and **operations focus** is very important for the RhB.
- Intelligent maintenance ensures **safety, efficiency, flexibility** and **daily operations**.
Thank you very much for your attention.