SBB CFF FFS

Energy Innovation in the Transportation Sector.

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Energy Saving

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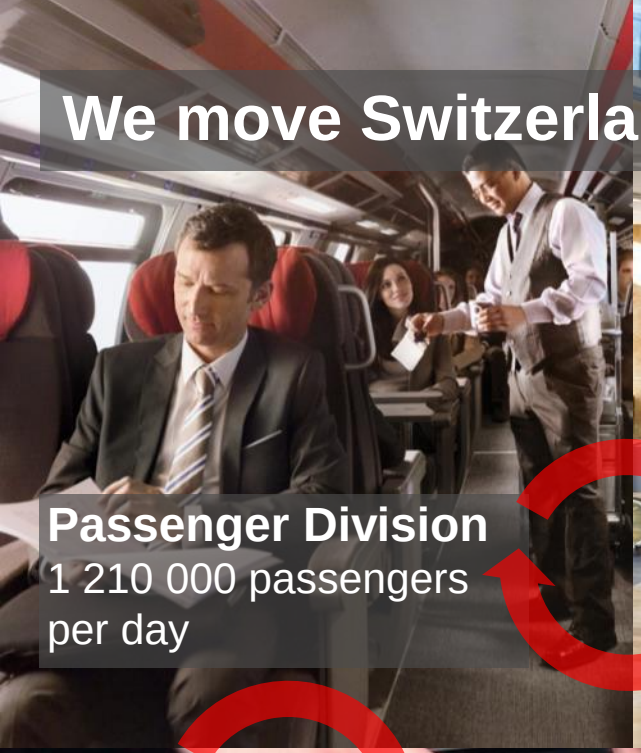
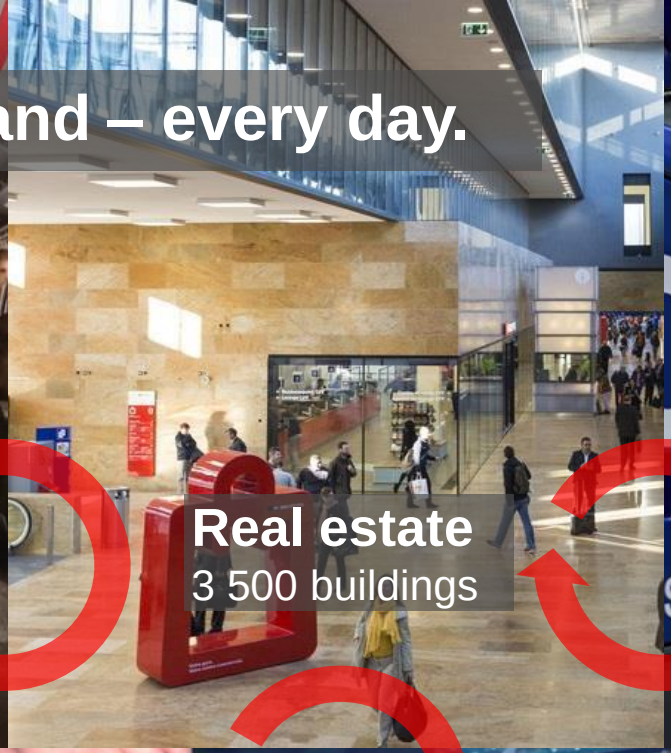
Content.

1. SBB: Backbone of sustainable mobility in Switzerland.
2. Energy strategy of SBB.
3. Energy saving at SBB.
4. Innovative example: adaptive control (ADL).
5. Potential for joint research.

We move Switzerland – every day.



Passenger Division
1 210 000 passengers per day



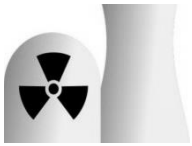
Real estate
3 500 buildings

SBB Cargo
210 000 t of freight per day

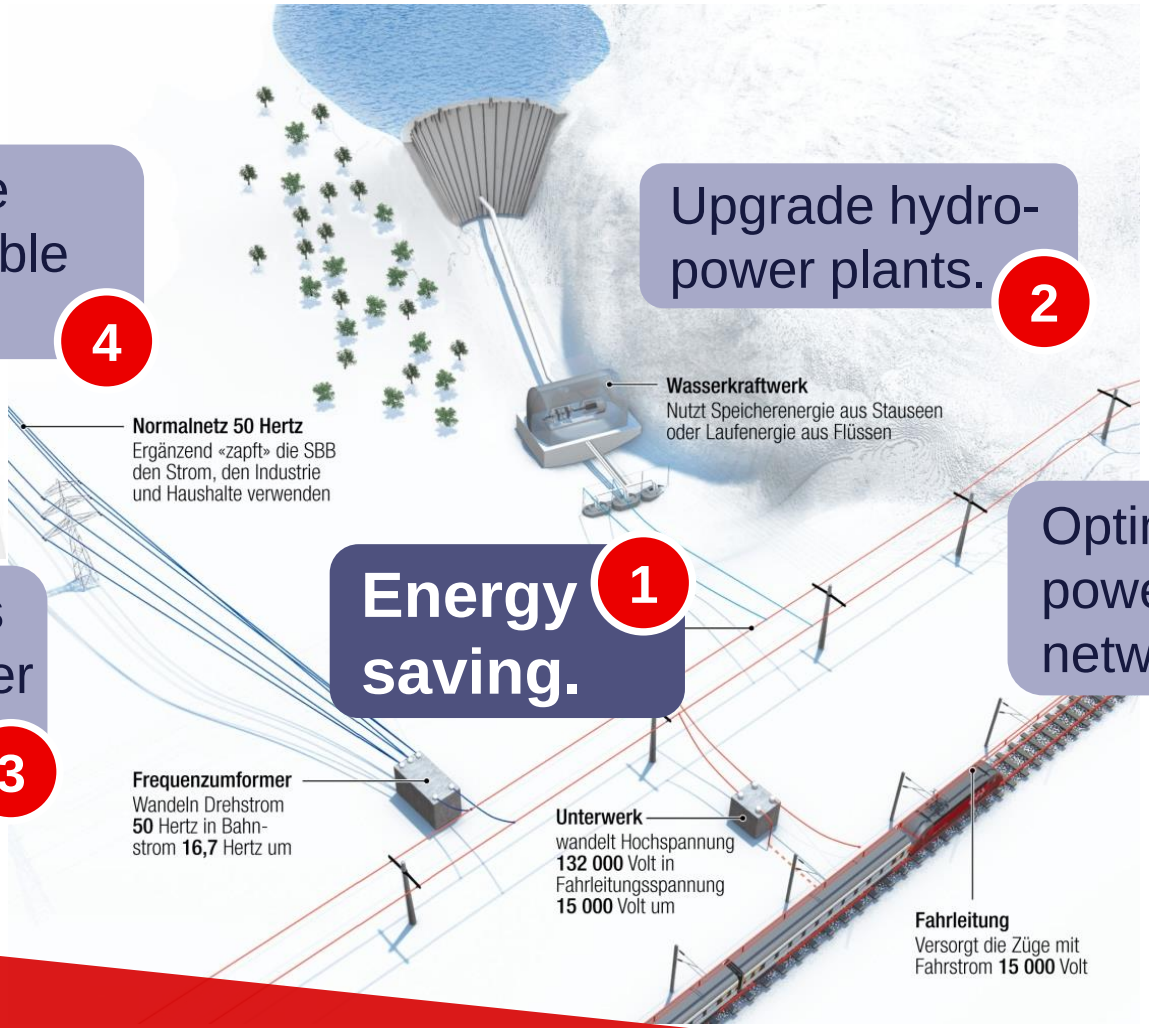
Information technology

Infrastructure
3 173 km of network

Procure renewable energy. 4



Divest holdings in nuclear power stations. 3

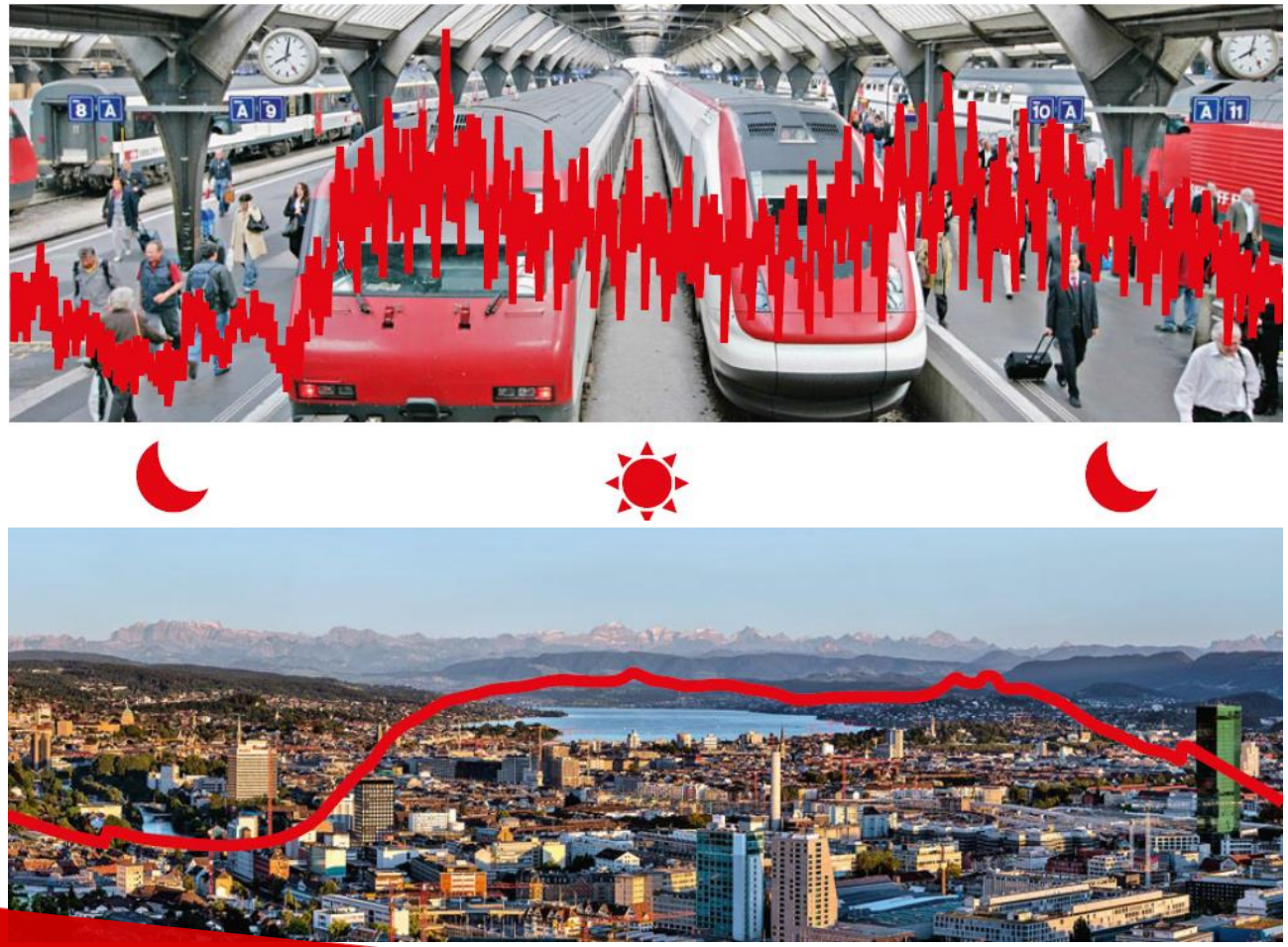


Upgrade hydro-power plants. 2

Energy saving. 1

Optimize power network. 5

Energy strategy of SBB.



High volatility of traction power demand.

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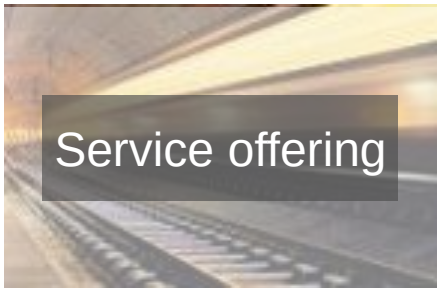
Energy efficient mobility:
Target 600 GWh/year by 2025.



Anchor energy efficiency within SBB.

Increase transparency to manage energy consumption.

Energy saving at SBB:
20% savings by 2025.

Technical optimization of Re 460: 29 GWh.

Optimization of railway switches: 13 GWh.

Optimal power flow: 10 GWh.

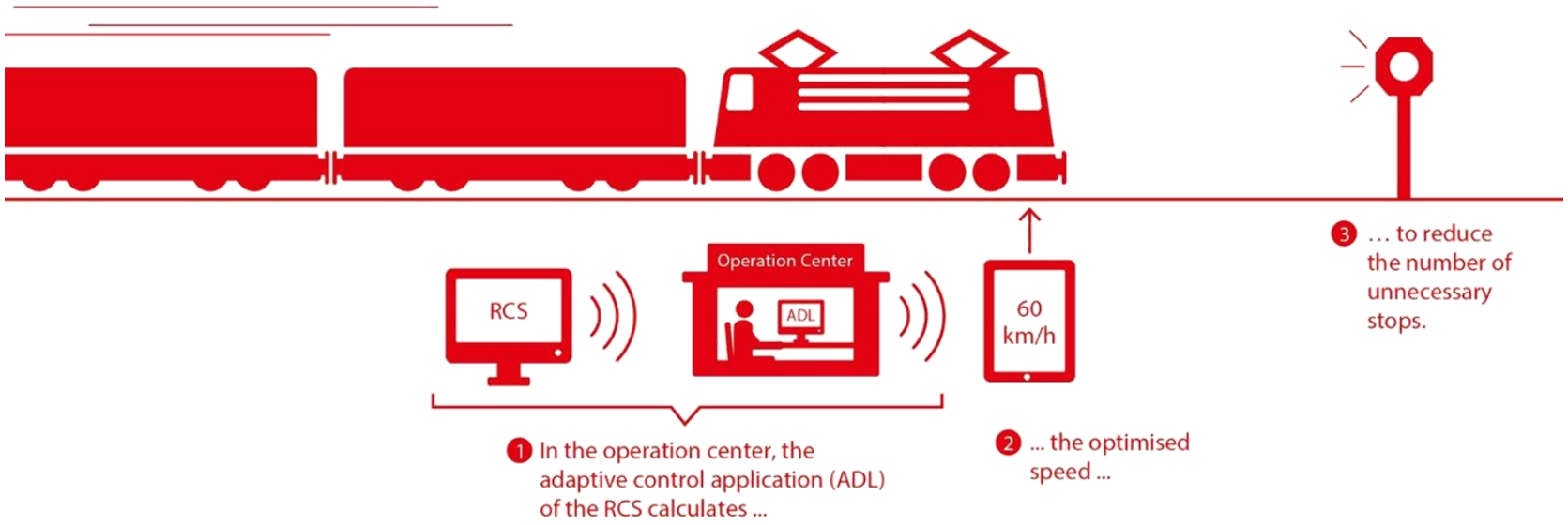
Speed reduction for freight trains in new Gotthard Base Tunnel at night: 4 GWh.

Adaptive control (ADL): 72 GWh.

Rail Control System (RCS) with ADL: the “green wave”.

“Adaptive Control” (ADL) saves energy and improves punctuality.

- The objective of the ADL module is to reduce energy consumption by preventing trains from making unplanned stops.
- ADL calculates the optimum speed and sends this to a tablet used by the engine driver. ADL greatly reduces unplanned stops at signals, saving energy and enhancing passenger comfort.



SBB is working on the mobility of the future.

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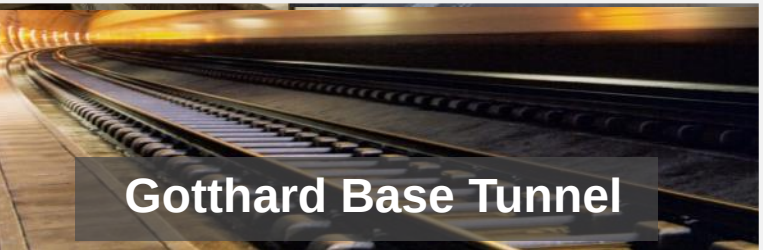

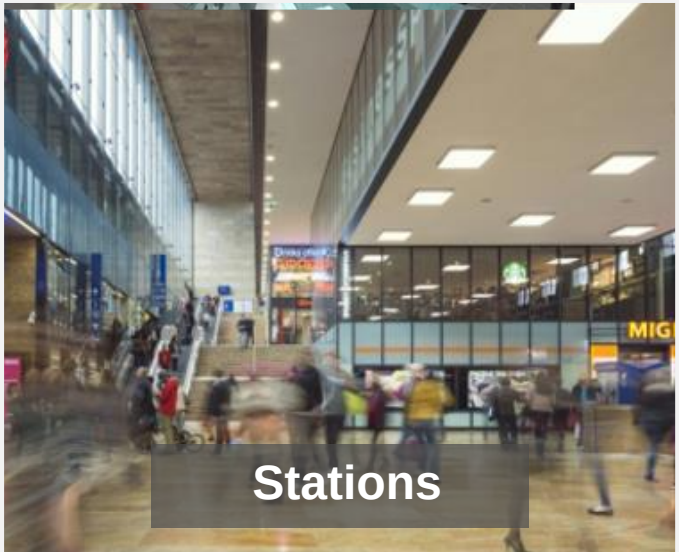

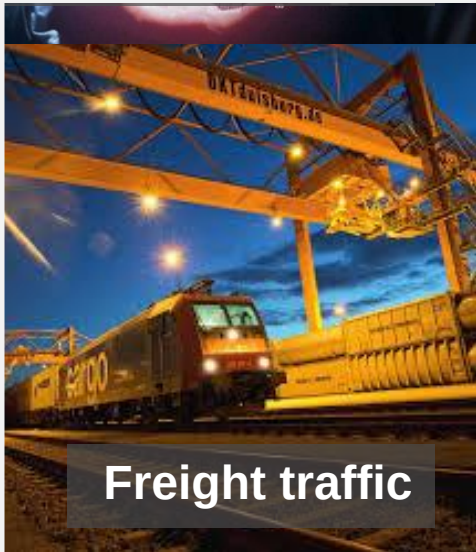

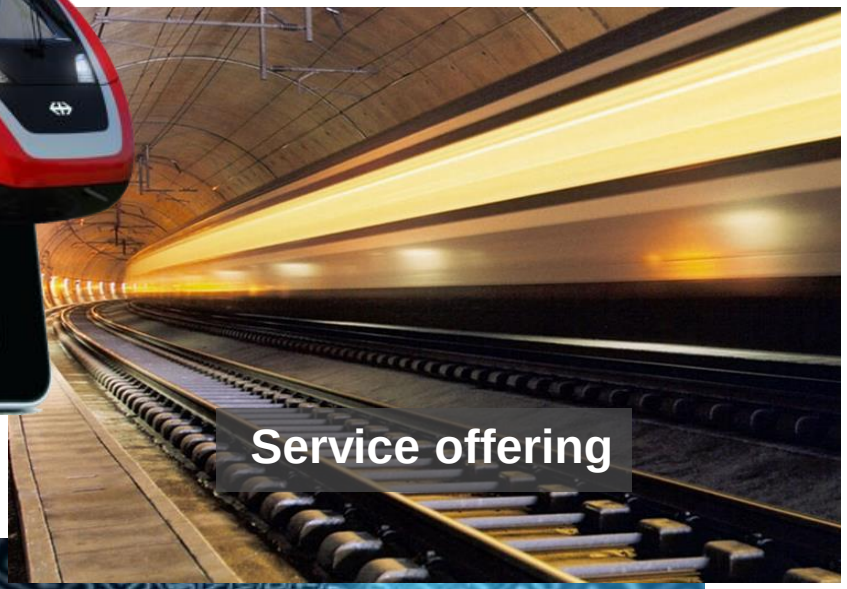

Potential for joint research.

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Thank you!

For questions or comments please contact:
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