



Schweizerische Eidgenossenschaft
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Federal Department of the Environment, Transport,
Energy and Communications DETEC
Federal Office of Transport FOT
Safety Division

Research + Innovation support by the Federal Office of Transport (FOT)

7th October 2024

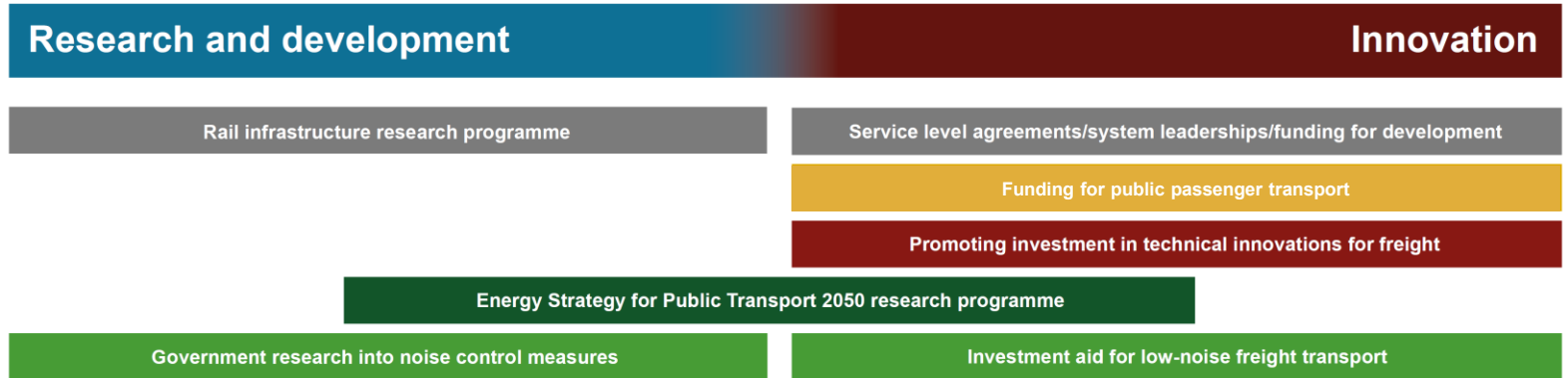


Why?

- FOT spends 6 billion CHF each year on public transport
- 10-15 million CHF in R+I to generate knowledge and develop new products, procedures and services in order to:
 - Increase efficiency of investments
 - Optimise costs and increase safety, energy efficiency and sustainability
 - Make public transport and rail freight more attractive and competitive
- R+I funded over subsidies or commissioned R+I



Overview R+I programmes





Rail infrastructure



Rail infrastructure

Goals

Preservation of value, efficient and safe operation as well as maintenance or expansion of the railway infrastructure. This, taking into account the current safety and environmental regulations.

Budget

CHF 3-5m/year

Priorities/ concerned research areas

Research priorities 2025-2028:

- Asset management
- Optimisation of capacity and quality
- Rail operations with optimal wear performance
- Multimodal mobility planning and development
- Environmental impact and rail infrastructure
- Future (safety) requirements
- Human-machine interaction



Public passenger transport



Public passenger transport

Goals

Long-term strengthening of the key role of public passenger transport in the Swiss mobility system in order to improve its attractiveness and economic efficiency.

Budget

CHF 5m/year



Priorities/ concerned research areas

Priorities 2025-2028:

- Vehicle technology and vehicle related fixed installations
- Transport production and vehicle maintenance
- Offer concept
- Ticketing
- Customer experience



Freight transport



■ Technological developments in freight transport



Goals

Efficient and sustainable development in Swiss rail freight transport - especially in single wagon freight traffic

Budget

CHF 3-5m/year

Priorities/ concerned research areas

Focus: Optimisation of last mile train formation

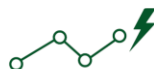
- automatic coupling
- automatic brake test
- Industry Commitment Technical Innovations CFS - VöV - FOT as „Research Programme”



Energy Strategy for PT



Energy Strategy for public transport 2050



Goals

Increase energy efficiency, opt out of nuclear energy, reduce CO₂ emissions and produce renewable energy

Budget

CHF 2.5m/year

Priorities/ concerned research areas

Research priorities 2025-2028:

- Energy optimisation and reducing CO₂ emissions
- Energy production
- Intelligent management of the energy system
- Instruments and other key factors involved in the energy transition
- Data, monitoring and reporting
- Knowledge transfer and sharing of best practices



Rail noise



Rail noise control



Goals

Reducing railway noise through emission-limiting measures on rail vehicles or infrastructure

Budget

- Research:
CHF 25m (2013-2028)
- Investment assistance:
CHF 25m (2013-2028)

Priorities/ concerned research areas

Priorities:

- Vehicle-specific features such as wheels, bogies, brake systems, electronic monitoring and control,
- Track-specific smooth rail, track damping

More information about
Investment assistance





Thank you for your attention

