

Railway systems and their transition  
Lecture 11

# Financial and Regulatory & Safety and Security

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EPFL, Autumn Semester 2025  
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# Financial and Regulatory landscape

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# Financing public transport as a state task

# Financing of public transport as a state task.



- Modern industrialised countries with their metropolitan regions need efficient public transport
- Two key questions
  - A) What offer should be provided by the state?
  - B) How is the offer to be funded?

The public transport service is defined by the state.  
This includes offer density and service quality.



- Public transport service availability across the country
- Service density

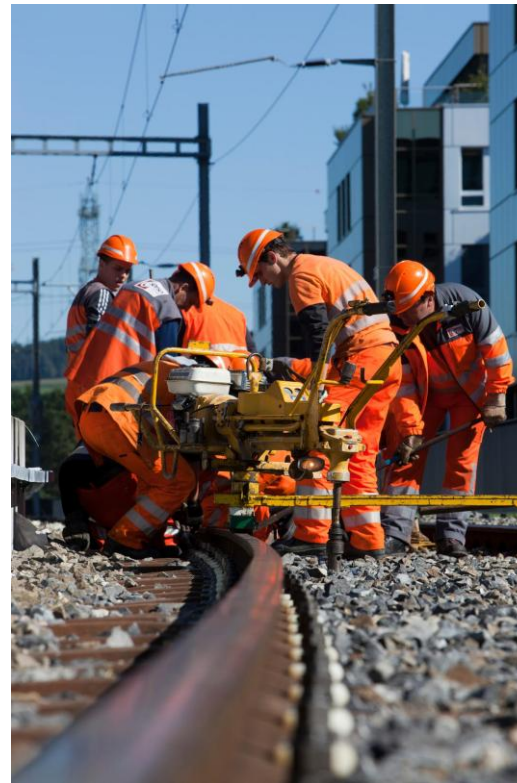
The public transport service is defined by the state.  
This includes offer density, service quality and regulatory requirements.



Safety



Service-Level



Worker safety



Environment protection

# Financing principle.



- State funding for public transport is subsidiary



# Subsidiary transport financing using the example of Switzerland

# Self-sustaining modes of transport

Without state subsidies for the transport operations.



Long-distance traffic  
(SBB / SOB / BLS)



Purely touristic lines  
("above" village access)



International freight transport

# Types of transport eligible for compensation



Regional traffic



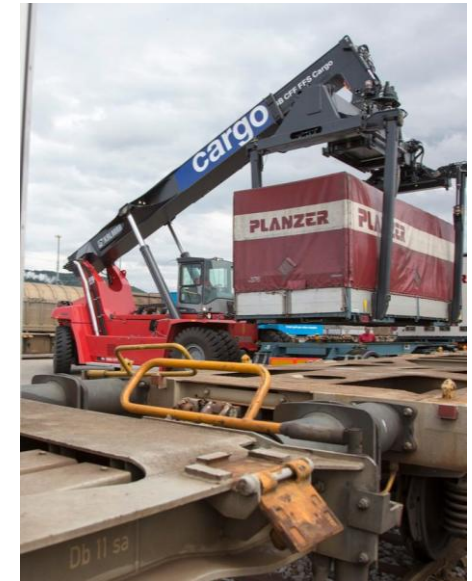
Cable cars  
(if village access)



Lake traffic  
(if village access)



Municipal / urban  
transports



Domestic railfreight  
(in parts)

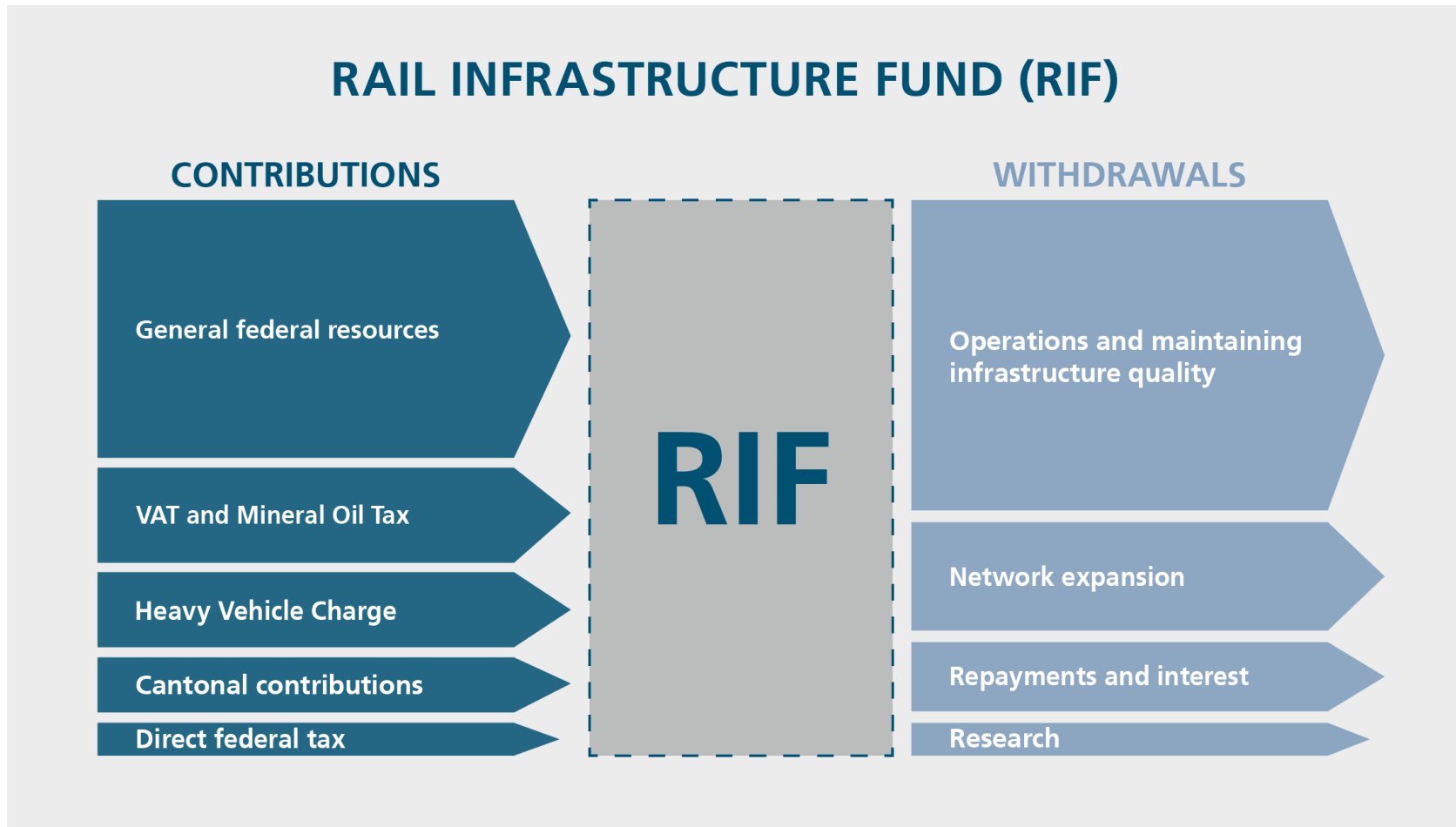
# Special case: Financing of infrastructure



- Rail reform led to the separation of the two sides
  - transport and
  - infrastructure

# Railway Infrastructure Fund.

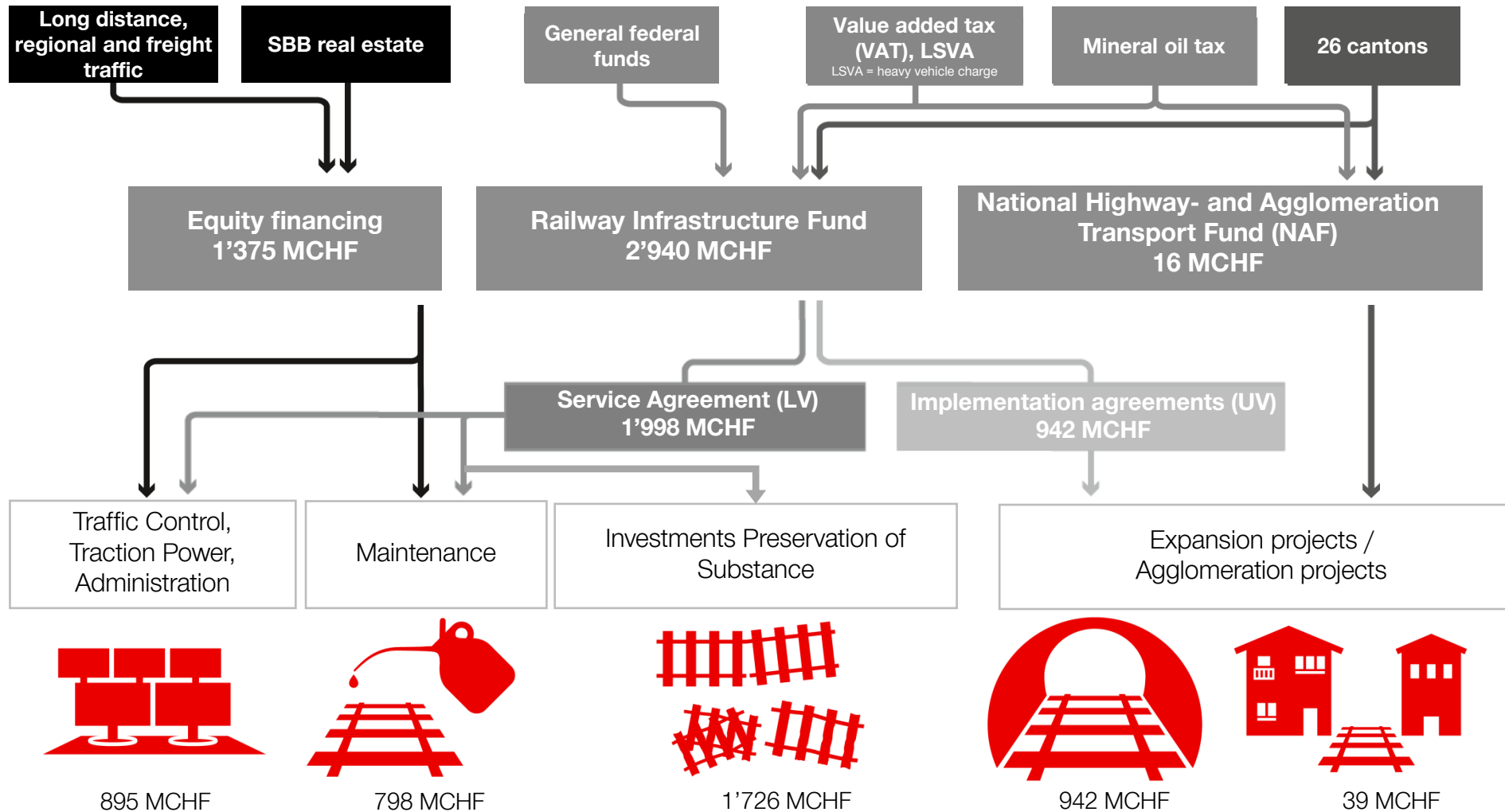
The Swiss funding for all railway infrastructure operators.



Source: FOT Federal Office of Transport

- The Rail Infrastructure fund is a Swiss model to provide stability in financing transport infrastructure over a long timespan.
- Each rail infrastructure provider in Switzerland gets its funding through this.

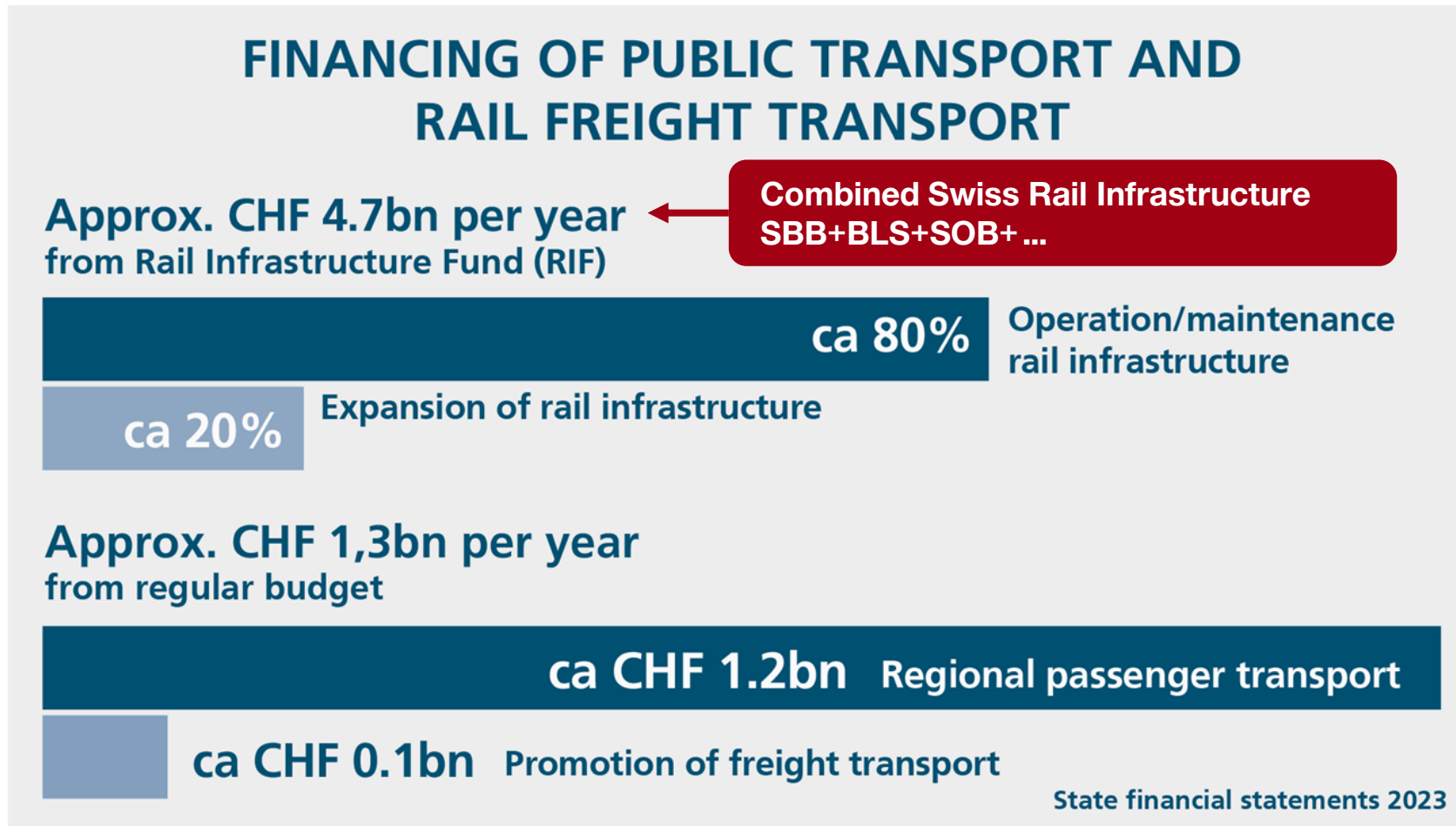
# Financing SBB Railway Infrastructure (2023)



MCHF = Millionen Franken - without system tasks - net ancillary business under administration - cantonal contributions for agglomeration projects flow directly to the projects, not via NAF

# Financing Public Transport.

The federal government, cantons and communes cover around half of transport costs.



- Apart from financing the rail infrastructure there is state funding for regional passenger transport operators and freight transport.
- This is commissioned on a regional level to rail, metro, tram, bus and even cable car or boat services.

Source: FOT Federal Office of Transport

# Same train type – different money flows.

The regulatory difference between «for profit» and commissioned operation.

Self-sufficient long distance traffic

**IC 1** Intercity  
**IR 13** Interregio

For profit

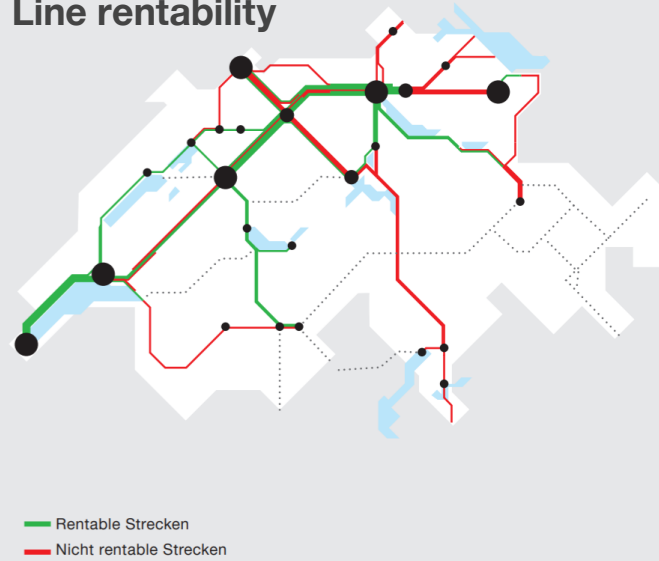


Regional traffic with compensation

**RE** Regioexpress  
**R 6524** Regional train  
**S12** S-Bahn

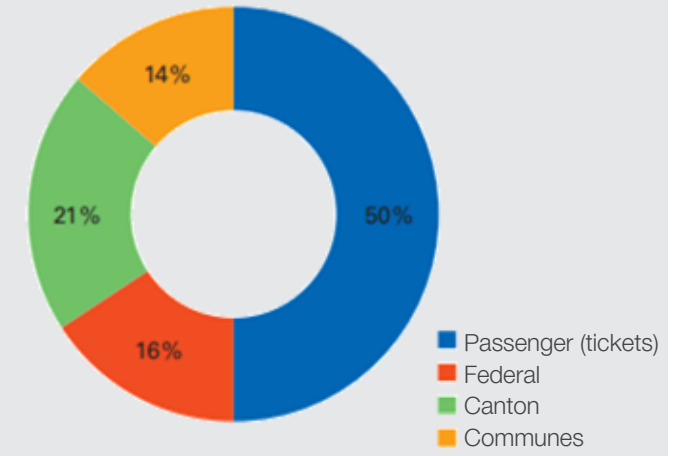
Subsidized «net zero» profit

Line rentability



Public transport cost division

Example of Aargau canton



Source: Bestellverfahren im öV, Rihs, 2014  
[https://www.ag.ch/umwelt-aargau/pdf/UAG\\_65\\_31.pdf](https://www.ag.ch/umwelt-aargau/pdf/UAG_65_31.pdf)

# Our «core service» transporting people and goods

What does public transport service have in common with a craftswomen or a hairdresser?

**Production** and **consumption** of 'rail travel' must be at the same location and at the same time.

The capacity must be available throughout the day or week exactly when it is needed.

We cannot put rail travel on a stockpile or smooth out production peaks with storage.

We receive the '**authorisation**' for our transport services in the form of a concession in accordance with the Passenger Transport Act (PTA).

This entails **basic obligations**

**Timetable duty**



**Operations duty**



**Tariff duty**



**Transport duty**



Bild: Coopzeitung



Bild: SBB Media Center

# Regulatory regime of transport financing

# User financing versus state funding.

The Swiss population is affected by the public transport funding as a user and as a taxpayer.



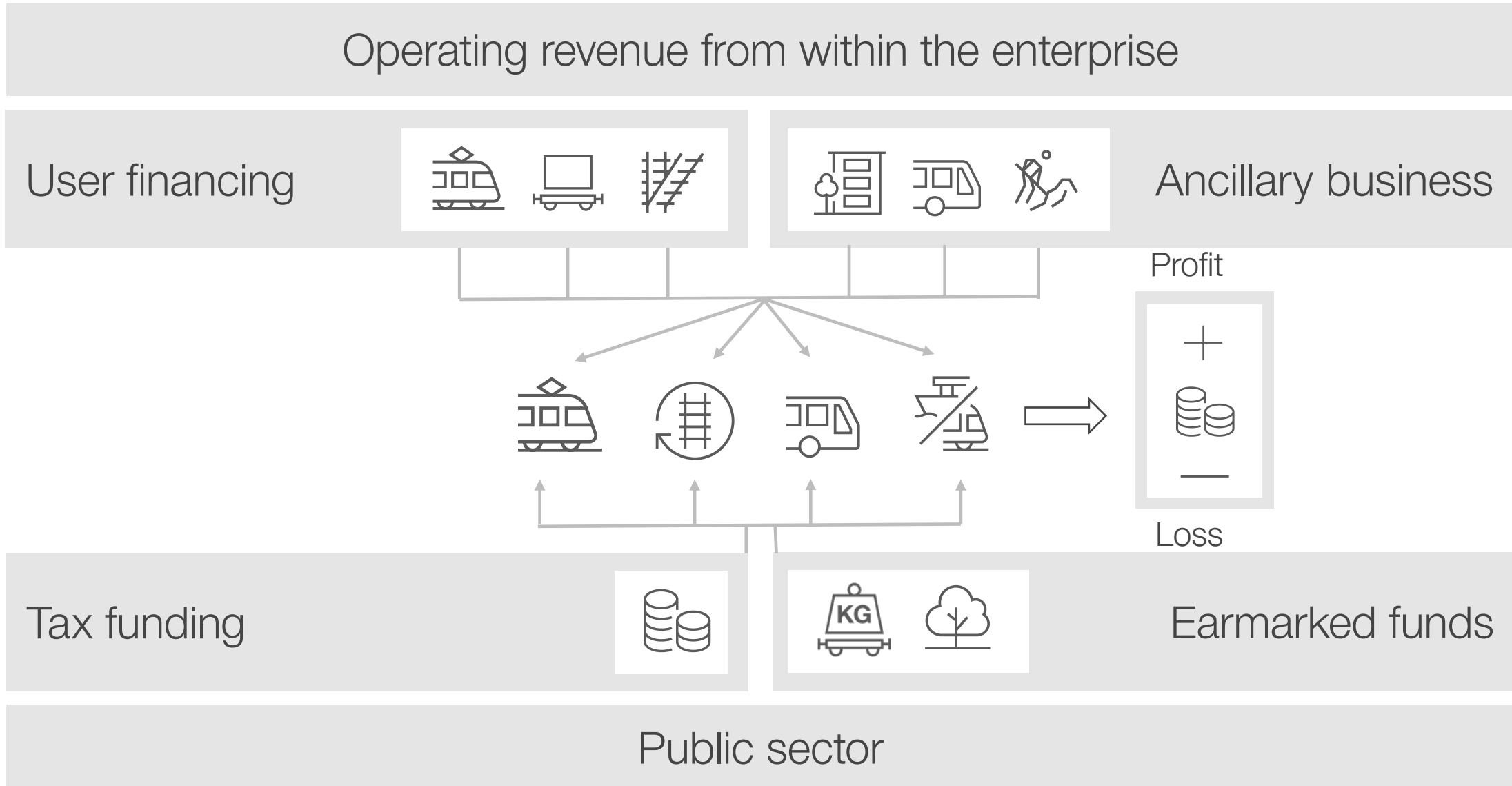
Politics defines...

... what share is to be paid by public transport users.

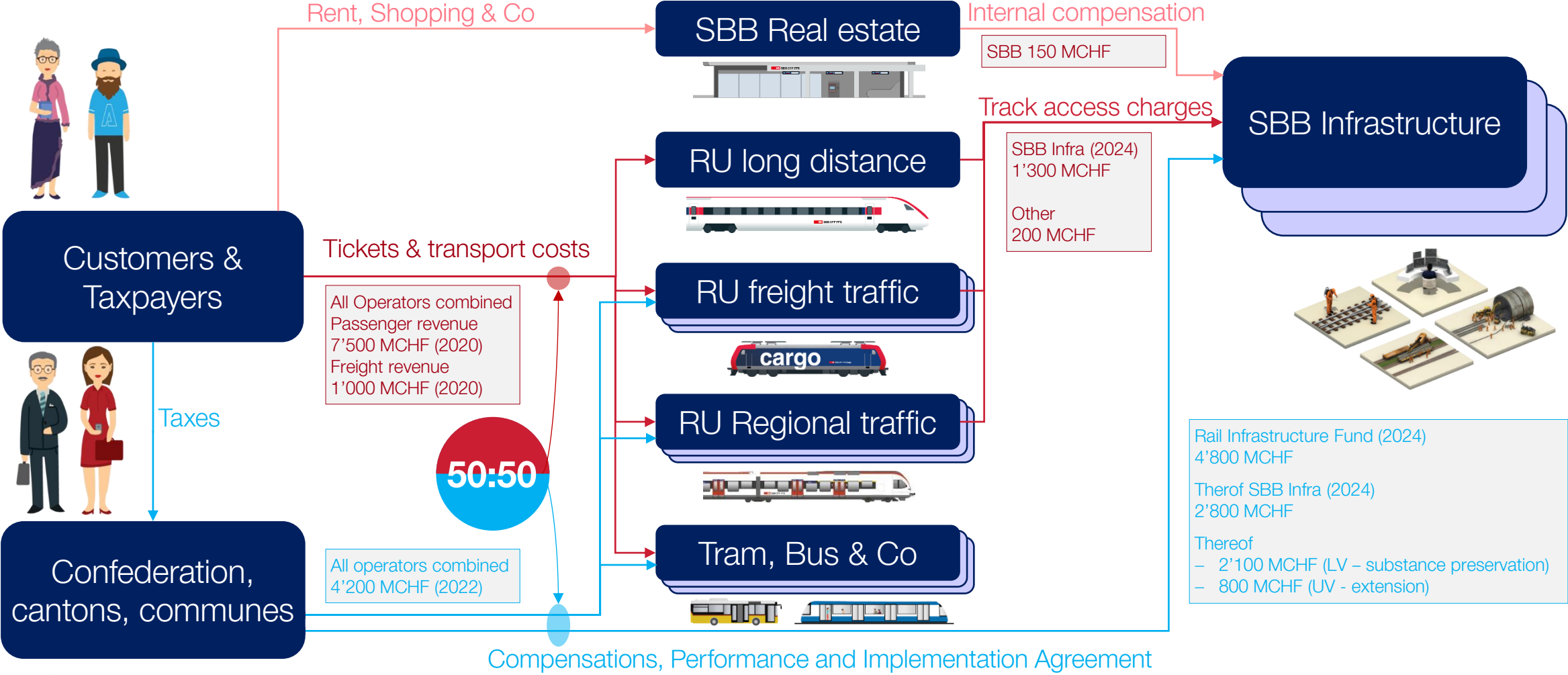
... what share must be covered the state respectively the taxpayer.

Every Swiss inhabitant is involved in the public transport regulation and funding processes **as a user and / or as a taxpayer.**

# Sources of funding for public transport



# Financing public transport operations and railway infrastructure.



Rail Infrastructure Fund (2024)  
4'800 MCHF

Thereof SBB Infra (2024)  
2'800 MCHF

Thereof

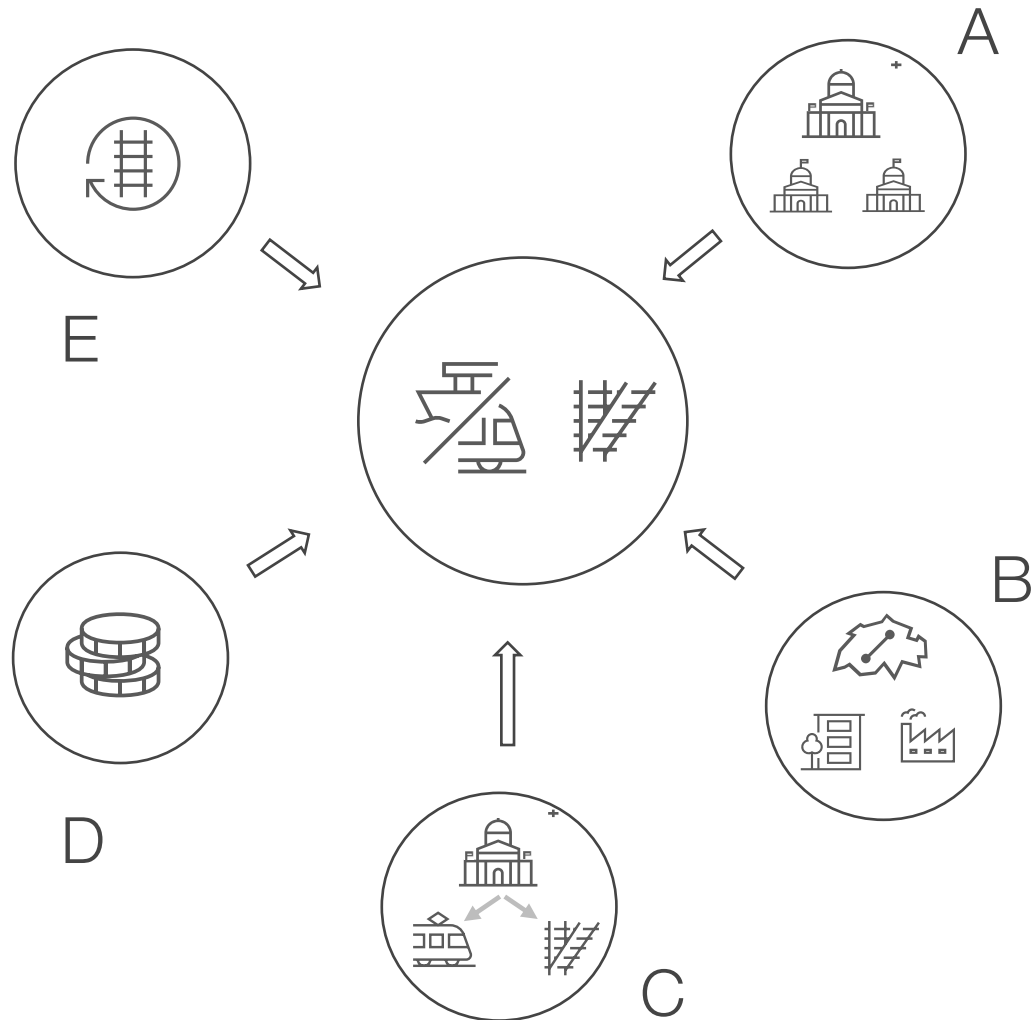
- 2'100 MCHF (LV - substance preservation)
- 800 MCHF (UV - extension)

Approximate values (0.1 billion CHF),  
Sources: Litra, BAV, SBB



# Summary of Finance & Regulation

The complexity in financing and regulating railway (and public transport)



- A) Transport financing as a joint task.
- B) The transport systems interacts heavily with spatial planning.
- C) Ownership of involved Railway Undertaking RUs and Infrastructure Managers IMs is very heterogeneous.
- D) Transport (infrastructure) is a heavy burden on public budgets.
- E) Sustainable financing is not optional.

## Further reading.



Litra Verkehrszahlen DE  
<https://litra.ch/de/oev-fakten/verkehrszahlen-2025/>  
Chiffres transport public FR  
<https://litra.ch/fr/publication/transports-en-chiffres-2025/>

You can find it on



Excerpt of the 2026 book  
«Switzerland is leading the way»  
(Chapter 11.1-11.6 Schweizer  
System des öffentlichen Verkehrs)

