



SBB CFF FFS

Mobitool – Shaping the Mobility Carbon Footprint Discussion in Switzerland.

Vienna, 13 October 2016
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1. What is mobitool and what objectives is SBB hoping to achieve with it?

What is mobitool?

- A platform for the mobitool factors; the de facto standard for the environmental life cycle assessment (LCA) of modes of transport in Switzerland.
- A platform for the tools of the responsible body and third-party service providers for the environmental optimisation of business mobility.



What objectives is SBB hoping to achieve with mobitool?

SBB is using mobitool to pursue the following objectives:

1. Contribute to the rationalisation of the “mobility carbon footprint discussion”
2. Facilitate (operational) mobility management for the benefit of the environment and use sustainable mobility solutions
3. Provide a Swiss LCA basis for the environmental assessment of modes of transport (de facto standard)
4. Use the LCA factors for SBB’s own mobility management, apps and customer information to rail’s environmental advantage
5. Improve SBB’s (environmental) image

Who is behind mobitool? Responsible body

The responsible bodies:

- SBB
- Swisscom
- öbu – Swiss Network for Sustainable Business

Supported by EnergieSchweiz (Swiss Federal Office of Energy) and the Federal Office for the Environment.



öbu
works for
sustainability.



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Bundesamt für Umwelt BAFU



Who is mobitool targeted at?

mobitool is targeted at:

- **Businesses** (mobility and sustainability officers, HR managers, fleet managers and logisticians)
- **Mobility specialists** (expert offices, scientists, public sector)
- **Politics and media**
- **Specialist organisations** (for mobility, LCA, etc.)
- **Private persons**

Website relaunch.



mobitool ist die Schweizer Plattform für Mobilitätsmanagementtools und aufbereitete Umweltdaten.

Neben den aufbereiteten **mobitool-Faktoren** für die Umwelt- und Energiebilanz sowie den drei Tools **mobicheck**, **Vergleichsrechner** und **mobiplan** vereint die Plattform die wichtigsten [Tools für den Mobilitätsmanagementprozess](#).

Wie belastet der tägliche Pendlerverkehr die Umweltbilanz Ihres Unternehmens? Ist die Mobilität in Ihrer Gemeinde umweltfreundlich? Sind Sie als **Fachperson** auf der Suche nach geeigneten Tools?

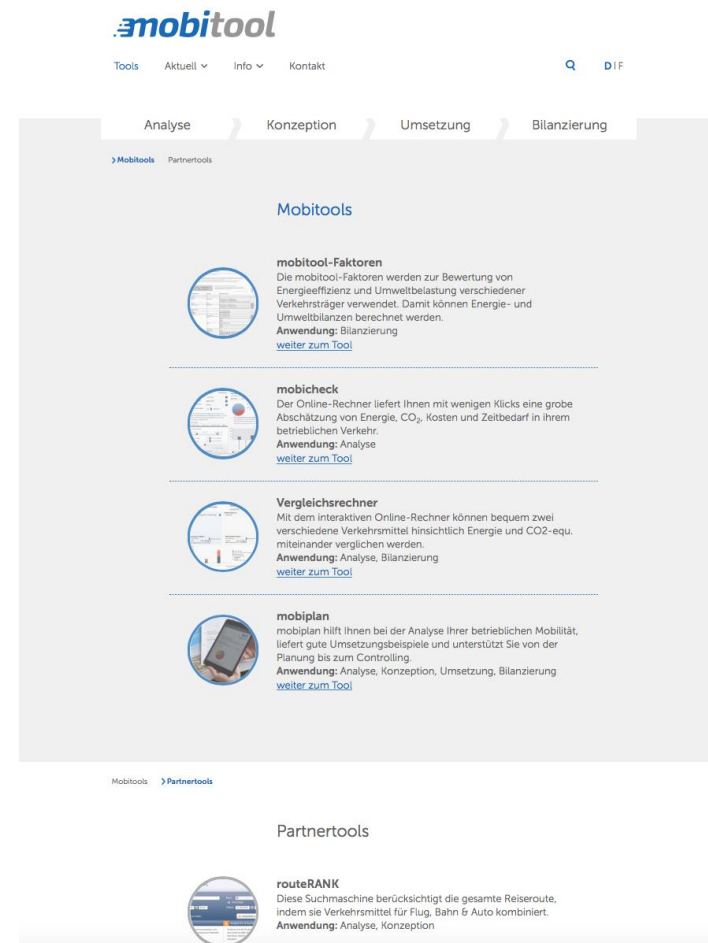
mobitool ist ein gemeinschaftliches Engagement der **Trägerschaft** aus SBB, Swisscom und öbu und wird durch EnergieSchweiz unterstützt.

Blieben Sie informiert!
Melden Sie sich hier für unseren Newsletter an:

Wettbewerb
Machen Sie mit bei unserem Nachhaltigkeits-Wettbewerb. [Jetzt mitmachen!](#)

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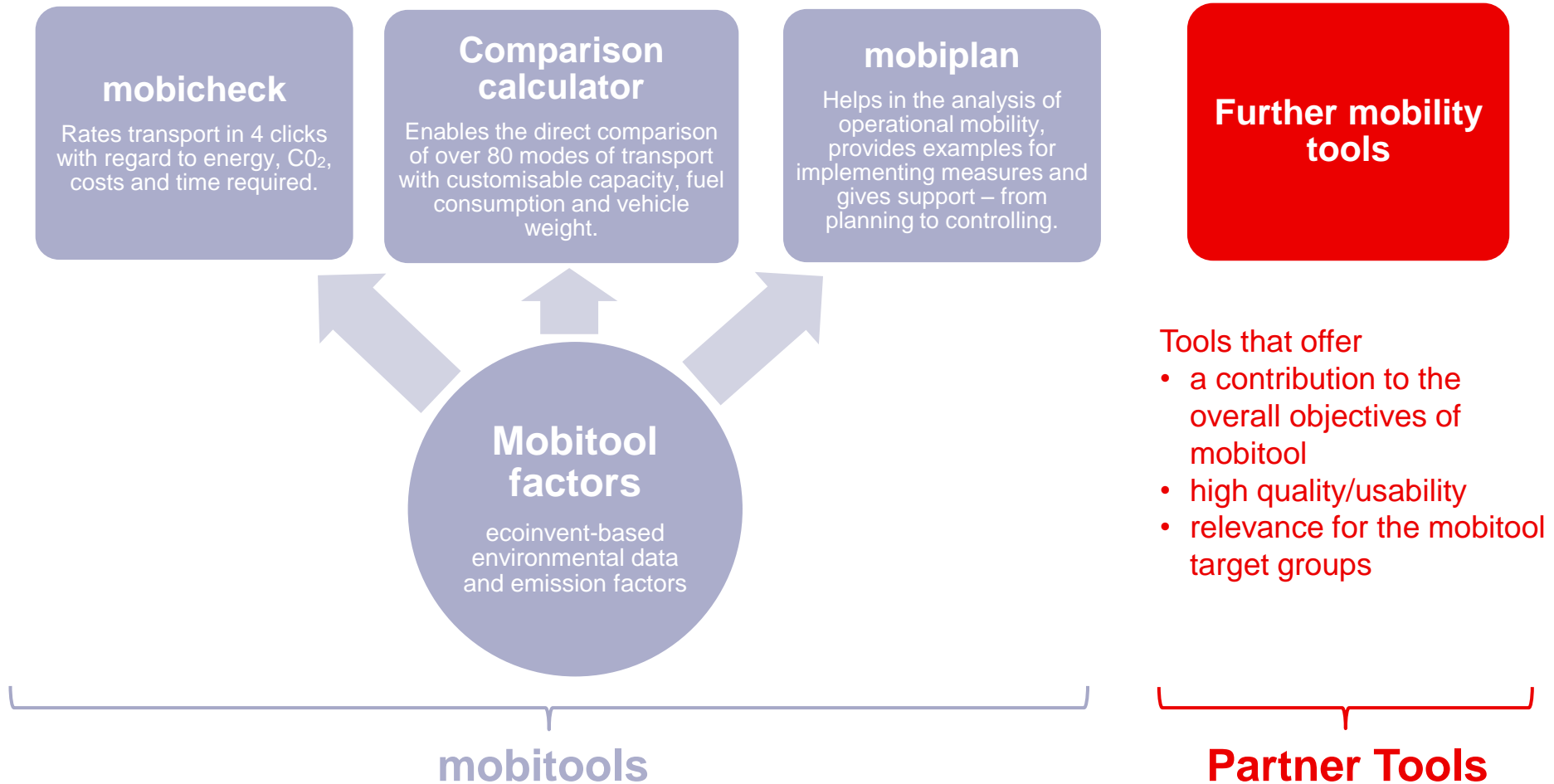
mobitool



Partnertools

routeRANK
Diese Suchmaschine berücksichtigt die gesamte Reiseroute, indem sie Verkehrsmittel für Flug, Bahn & Auto kombiniert.
Anwendung: Analyse, Konzeption

Overview of the platform content.



2. Renewal of the mobitool factors.

Particulars of factor renewal.

→ Professionalisation of LCA:

Collaboration with LCA specialists Treeze Ltd., FOEN and ecoinvent (see www.ecoinvent.org).

→ Data renewal:

Renewal of operating data and integration of new data from ecovinent 3.1.

→ Inclusion of new modes of transport:

Modes of transport or variations of transport have been expanded from 91 to 217, e.g.: hybrid and plug-in hybrid car, long-distance bus, sea tanker, new emission classes for cars and trucks.

→ New user-specific configuration options:

E.g.: battery weight of electric vehicles, number of battery changes for electric vehicles

New evaluation methods.

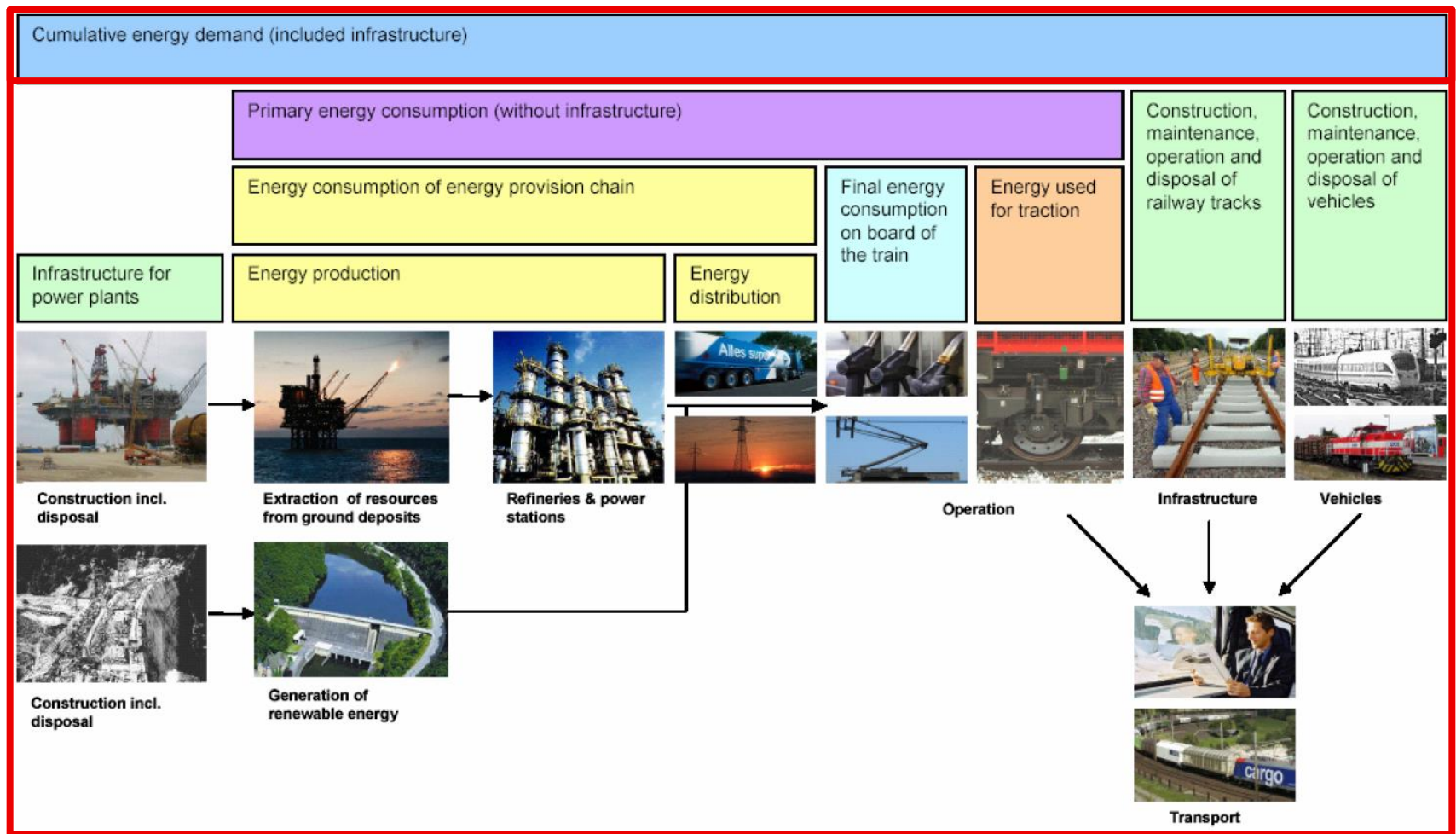
→ New/adapted environmental indicators:

- **Greenhouse gas emissions according to global warming potential 2013**, taking into account indirect heating effects caused by pollutant emissions from aircraft at cruising altitude (stratosphere)
- Total environmental impact according to the **Ecological Scarcity Method 2013 (eco-points'13)**
- **ReCiPe 2008** instead of Ecoindicator'99
- Greenhouse gas emissions and primary energy requirement according to **DIN 16258**.

→ Environmental indicators, as before:

- **Primary energy, primary energy (non-renewable), PM10, PM2.5, NMVOC and NOx.**

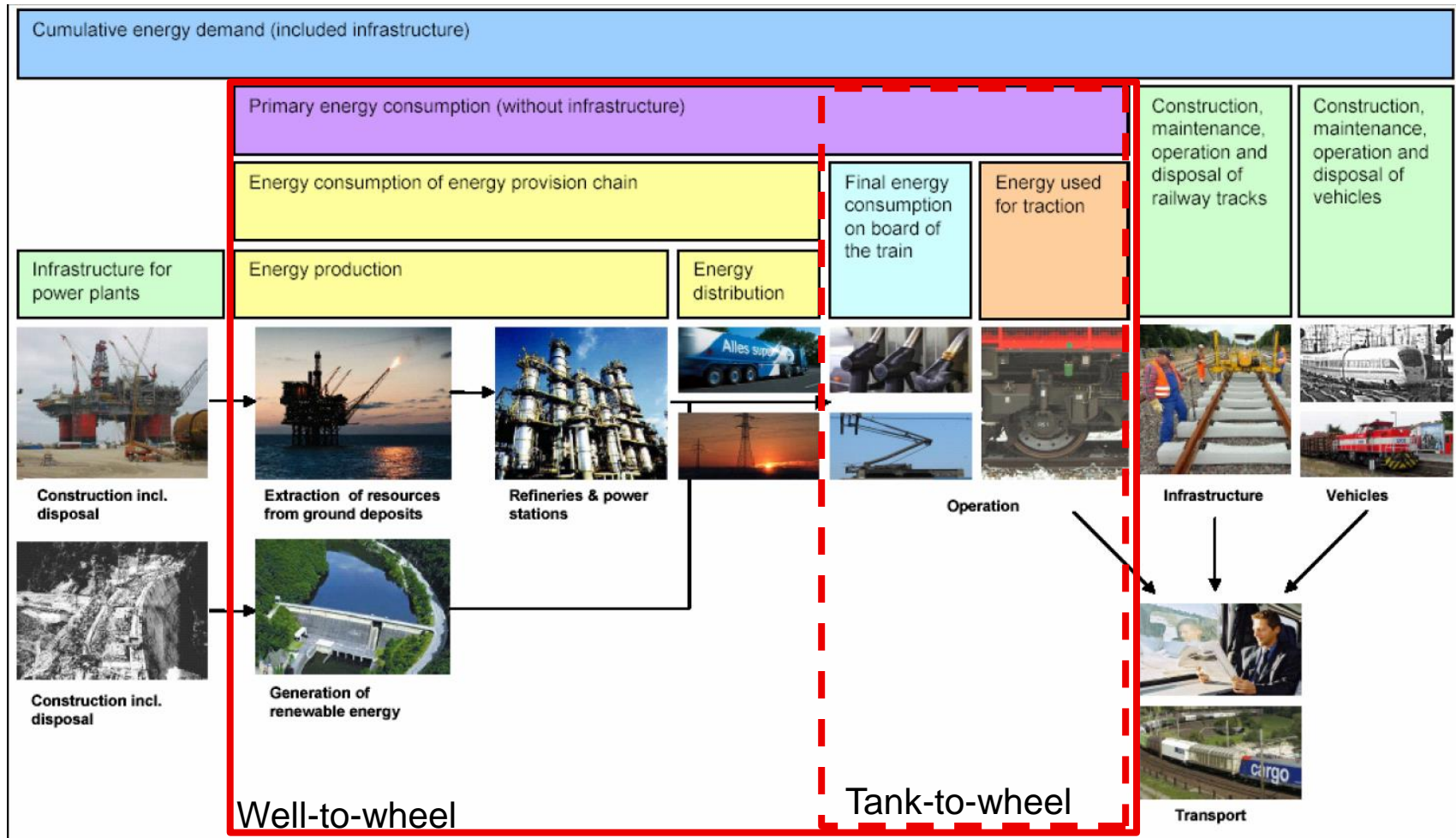
System boundaries: Life Cycle Assessment (LCA). Ecocalculator, mobitool, ecoinvent database, a.o.



*ISO 14041, 14044: Environmental Management – Life Cycle Assessment

System boundaries: DIN EN 16258*

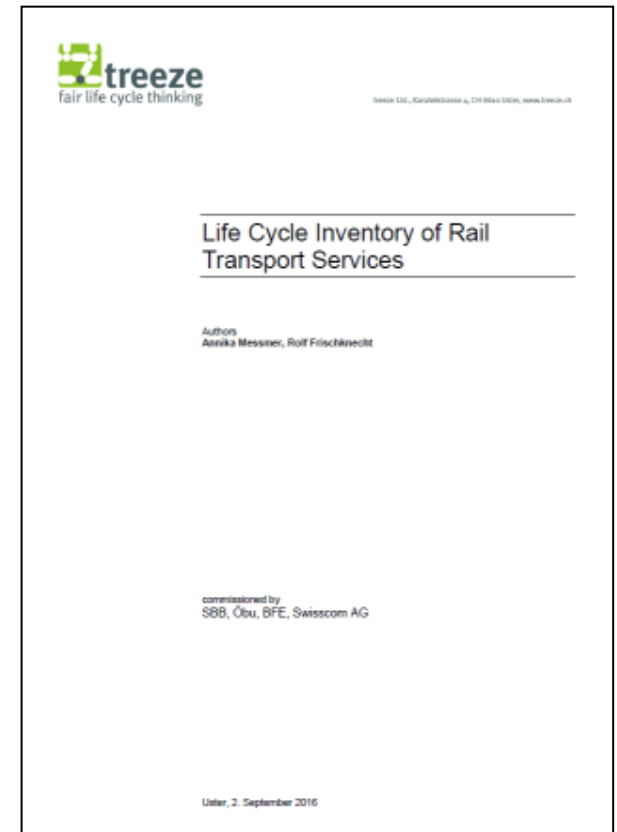
Eco-Passenger, EcoTransit, a.o.



*DIN EN 16258: Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)

Documentation.

- Public methodology report
- FAQ
- LCA report
Paul Scherer Institute (PSI)
- Life Cycle Inventory reports for
“road transport”, “rail transport”
and “water transport”
- Data are fed back to ecoinvent
(presumably version 3.5)

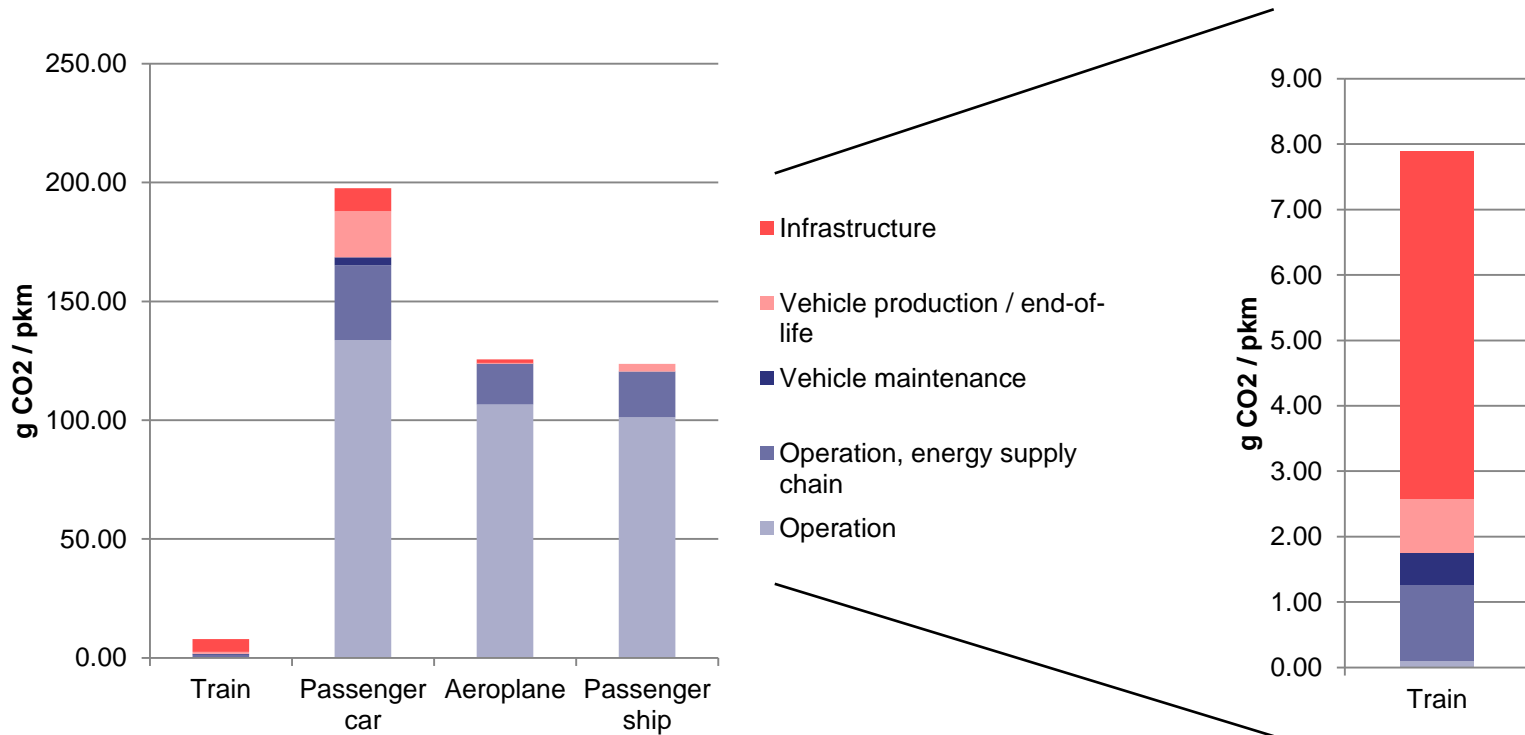


3. SBB's utilisation of the mobitool factors.

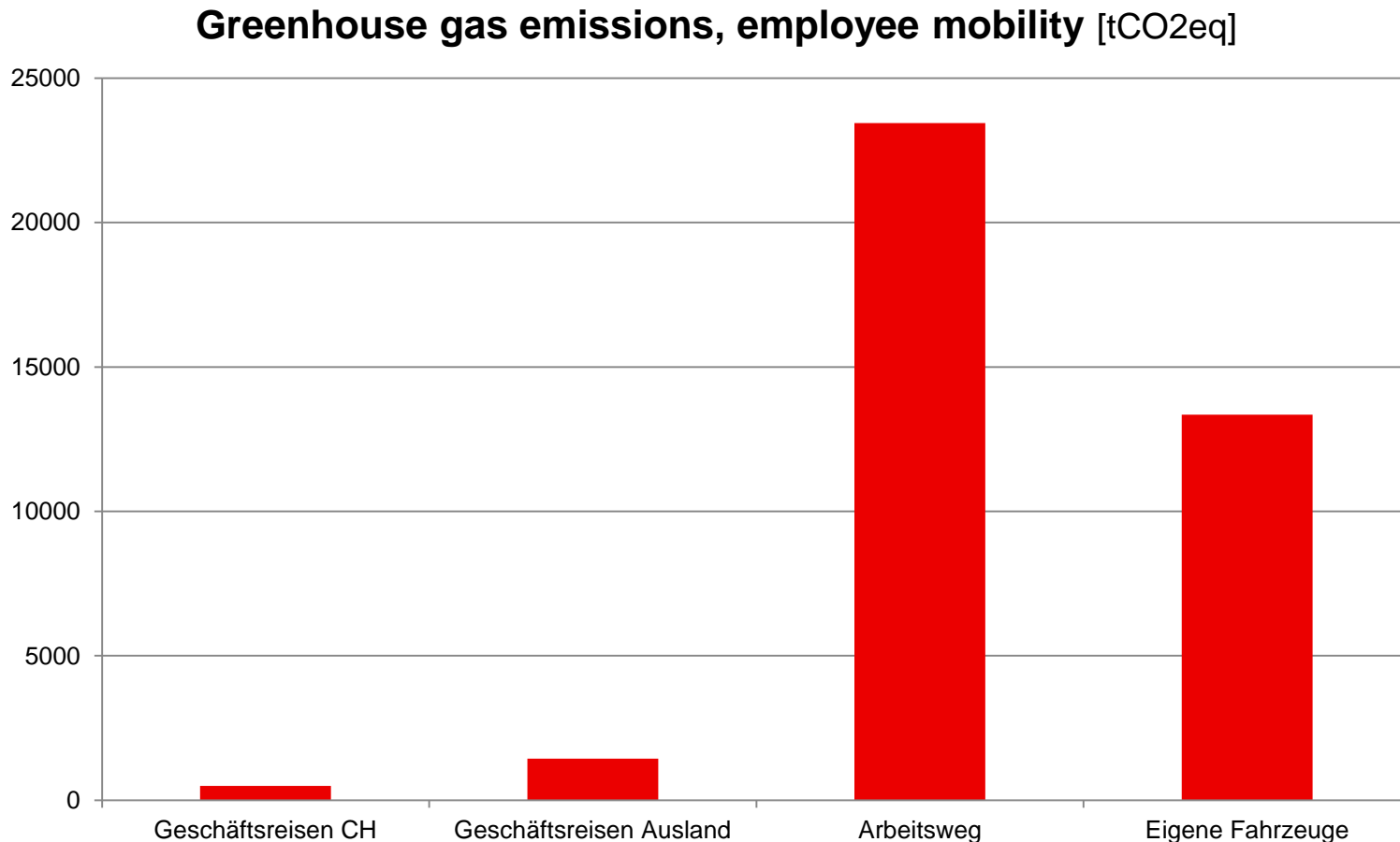
Overview of the most important areas of mobitool factor application at SBB.

- Internal benchmarks for various modes of transport
- Proof of rail's environmental advantage in sustainability communication
- Ecocalculators for SBB customers
 - Comparison calculator
 - Ecocalculator in the timetable
 - In development: Ecocalculator in apps
- LCA for business customers (cargo and passenger services)
- Greenhouse gas balance of SBB employee mobility

Life cycle (cradle-to-grave) greenhouse gas emissions of SBB passenger services compared to other modes of transport.



Using mobitool to calculate the greenhouse gas balance of employee mobility



SBB using mobitool for green products: Environmental information in the timetable & apps and consulting for business customers.

Responsible body Mobitool



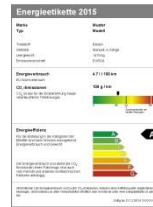
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Bundesamt für Umwelt BAFU
Bundesamt für Energie BFE

Der Verband für
nachhaltiges Wirtschaften
öbu

 **swisscom**

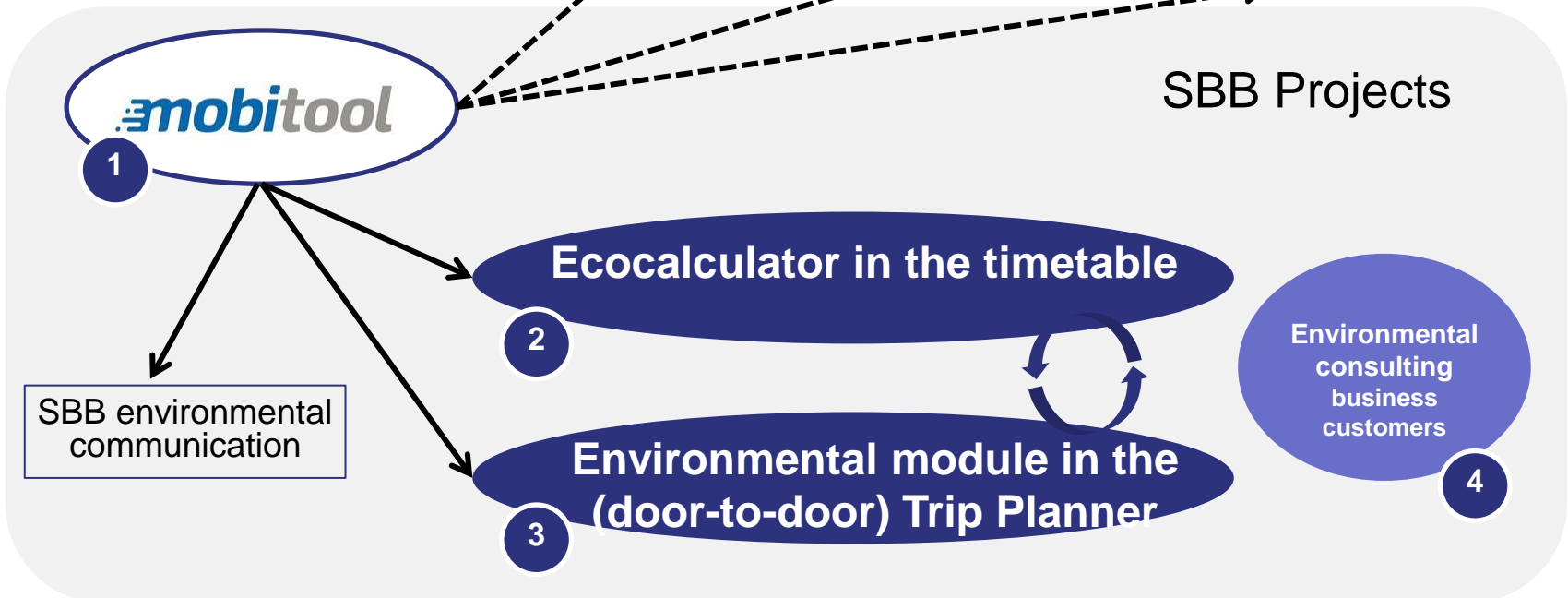
Energy labels



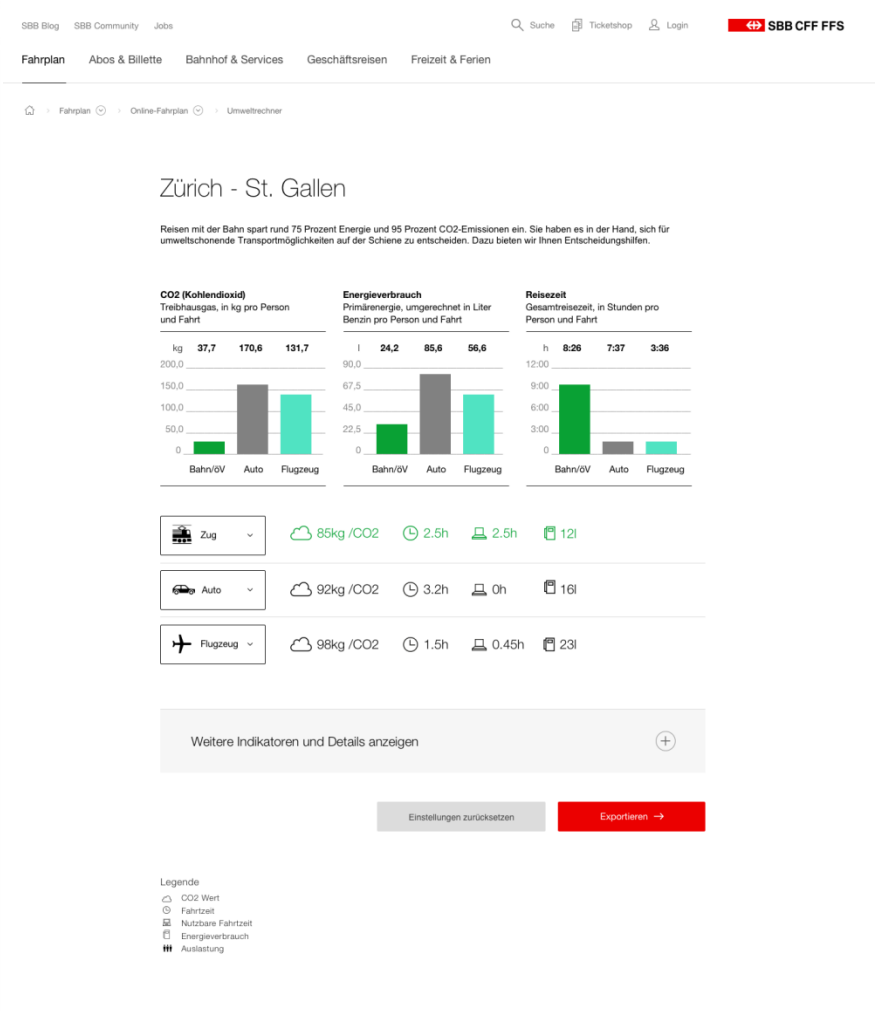
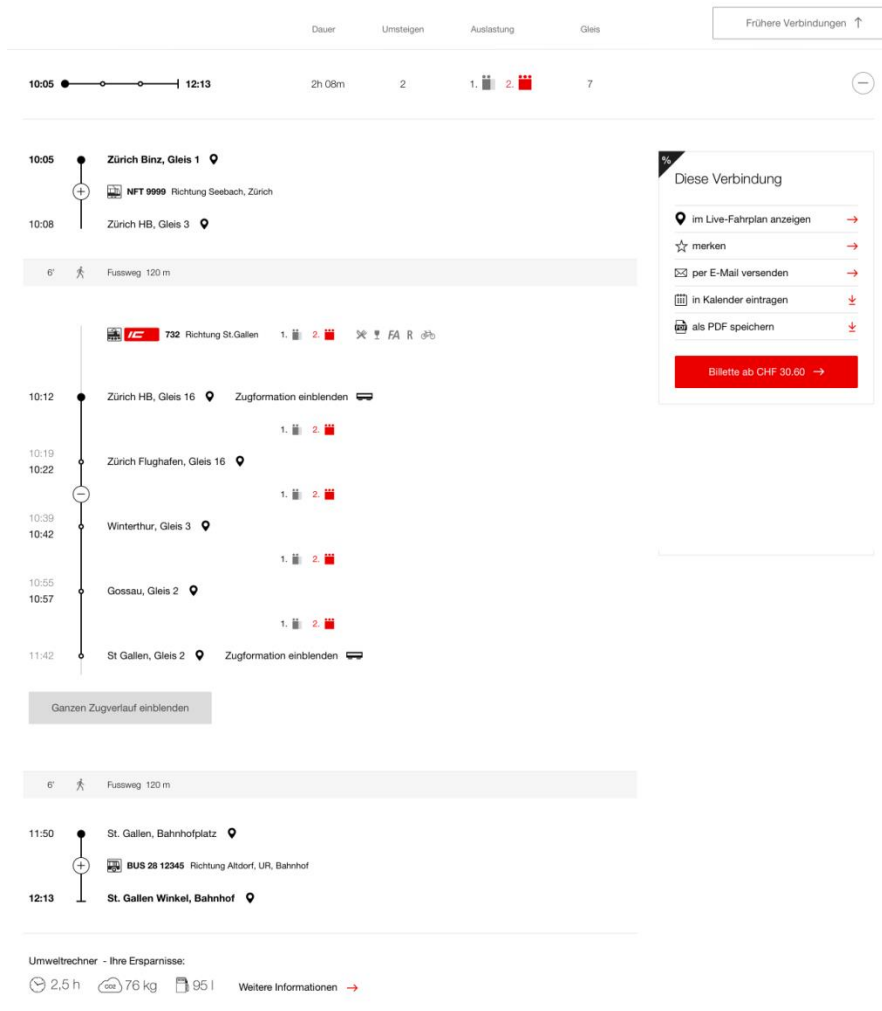
Assessment standards

sia
schweizerischer ingenieur- und architektenverein
société suisse des ingénieurs et des architectes
società svizzera degli ingegneri e degli architetti
swiss society of engineers and architects

Mobility management
Mobility studies



Ecocalculator in the timetable.



**Thank you very much
for your attention and
your questions!**

