

Enhancing mobility with interconnected solutions.

Adrian Houriet and Keira Correll
Lausanne, 02.12.2023



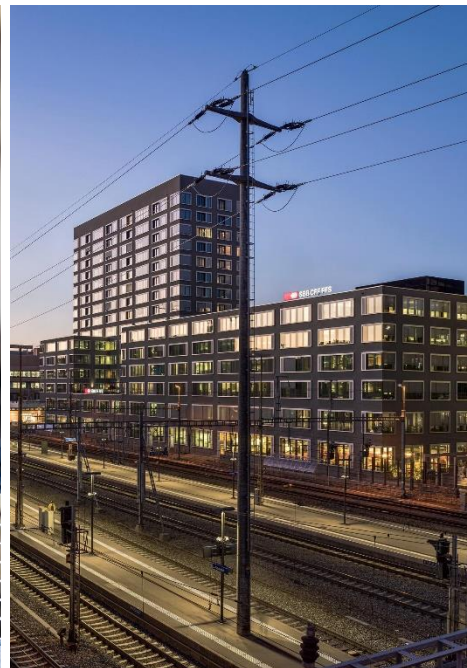
SBB – connecting Switzerland. Our 34,000 employees keep Switzerland on the move.



Passenger Services
Markets
1.34 Mio.
passengers/day



Passenger Services
Production
5800 Trains/day



Real Estate
3500 Buildings



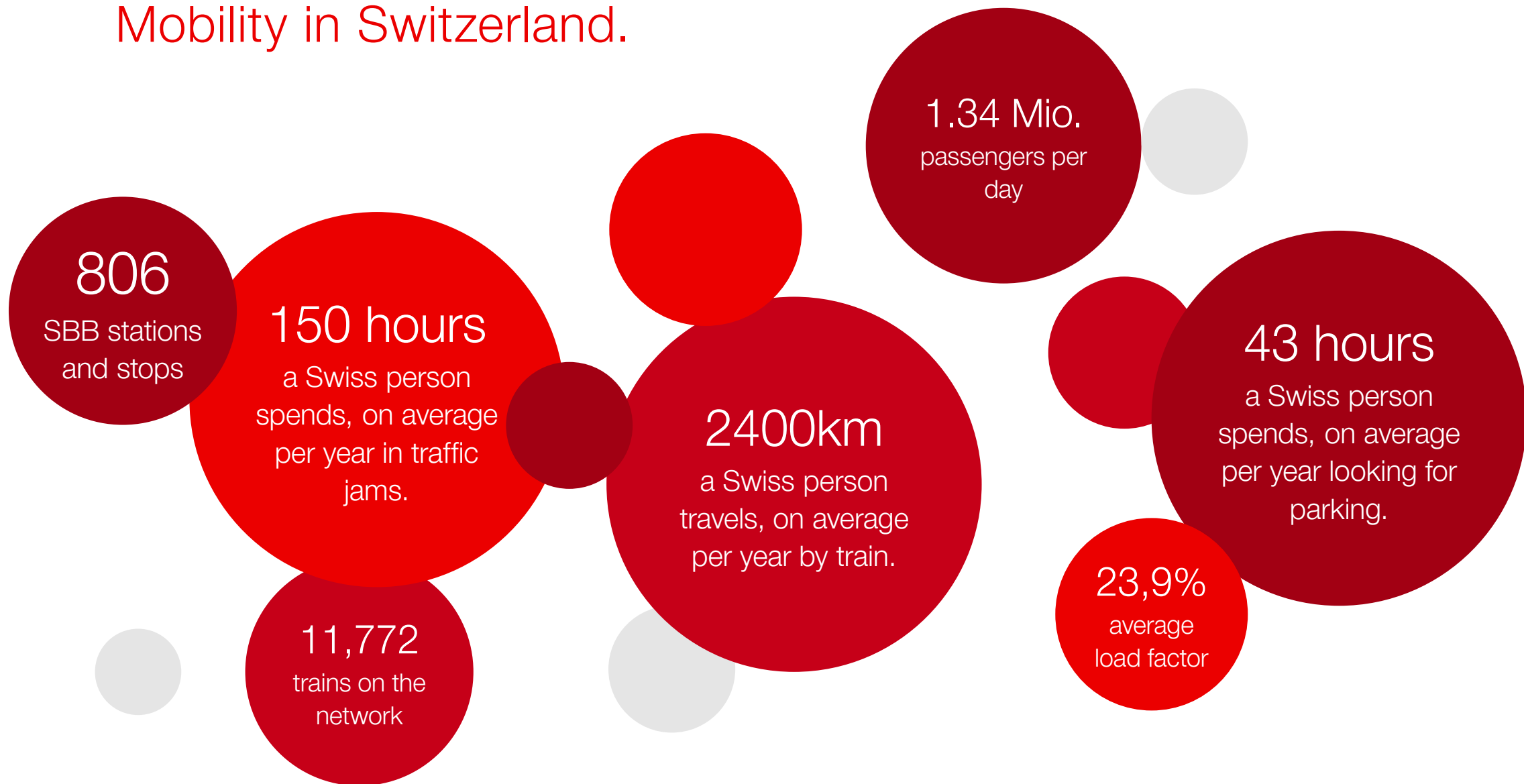
Infrastructure
3260 km of network



SBB Cargo
180,000 tonnes of
freight/day

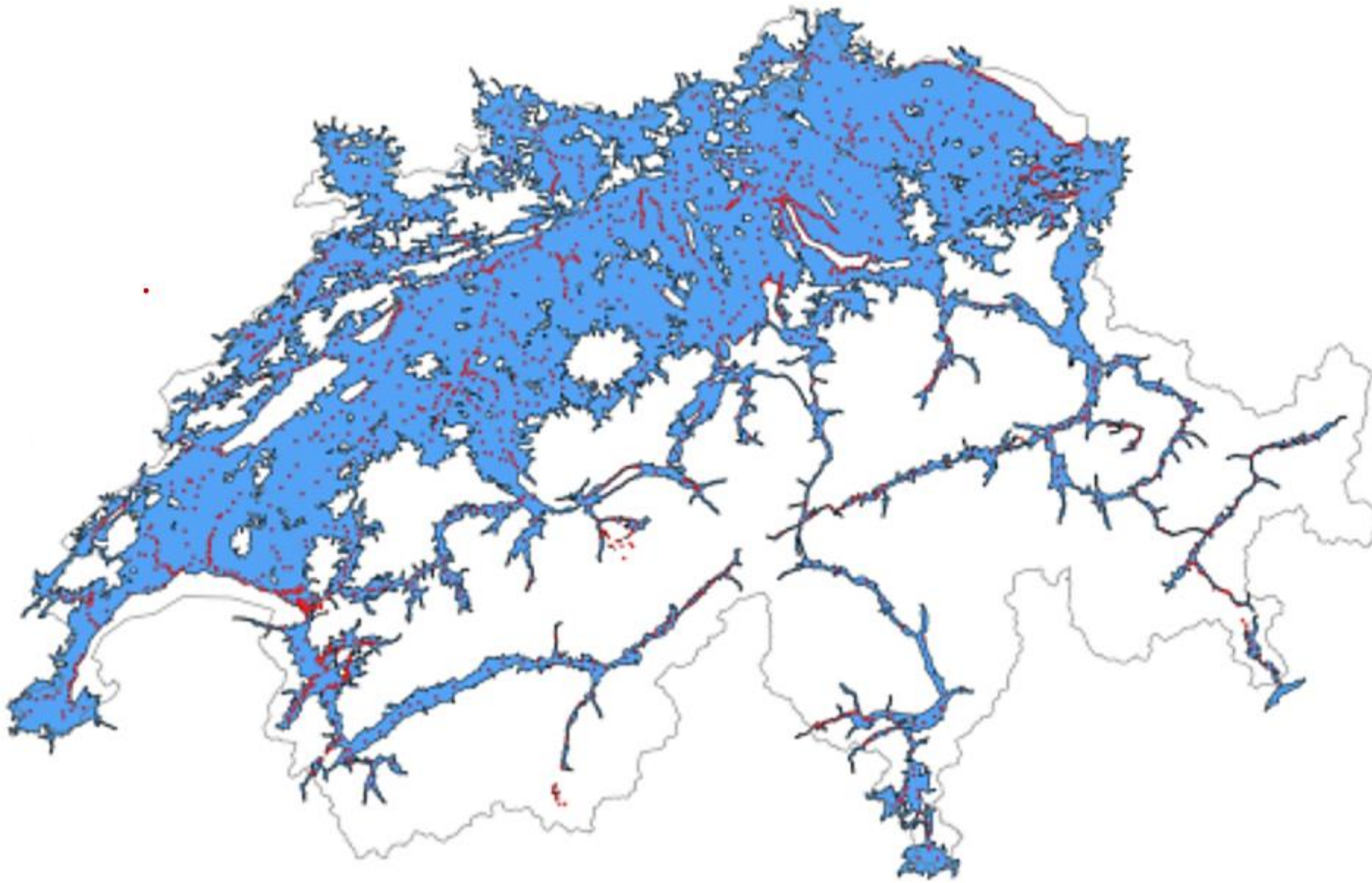


Mobility in Switzerland.



Switzerland has
the highest rail
network density in
Europe relative to
the size of the
country.



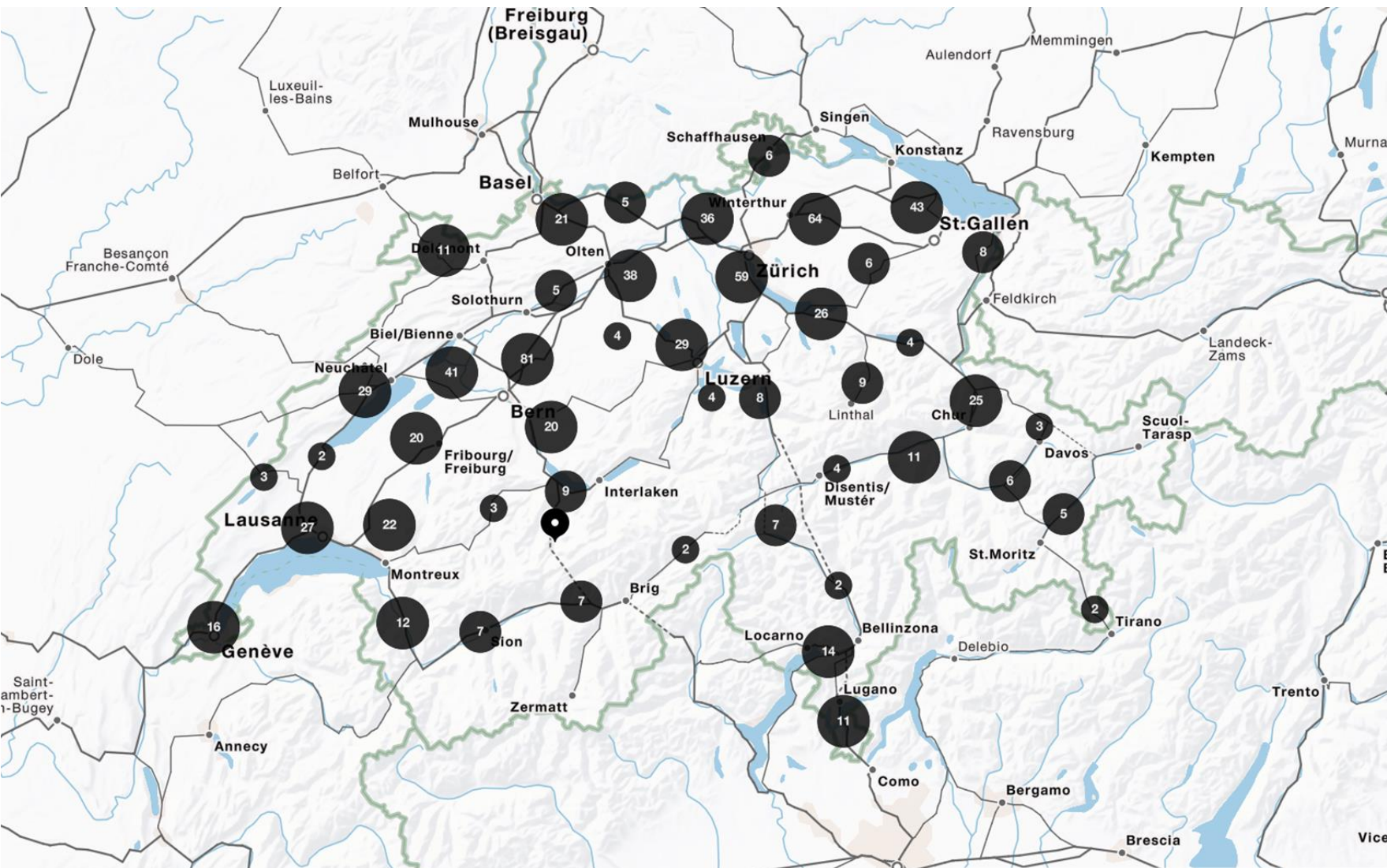


99% of the Swiss population lives within 15 minutes from the nearest train station.



And yet: the share
of public transport
is only 18%.

P+Rail: Bridging Car and Train Travel.



30 000
Parking spaces.



600
P+R locations at train stations.

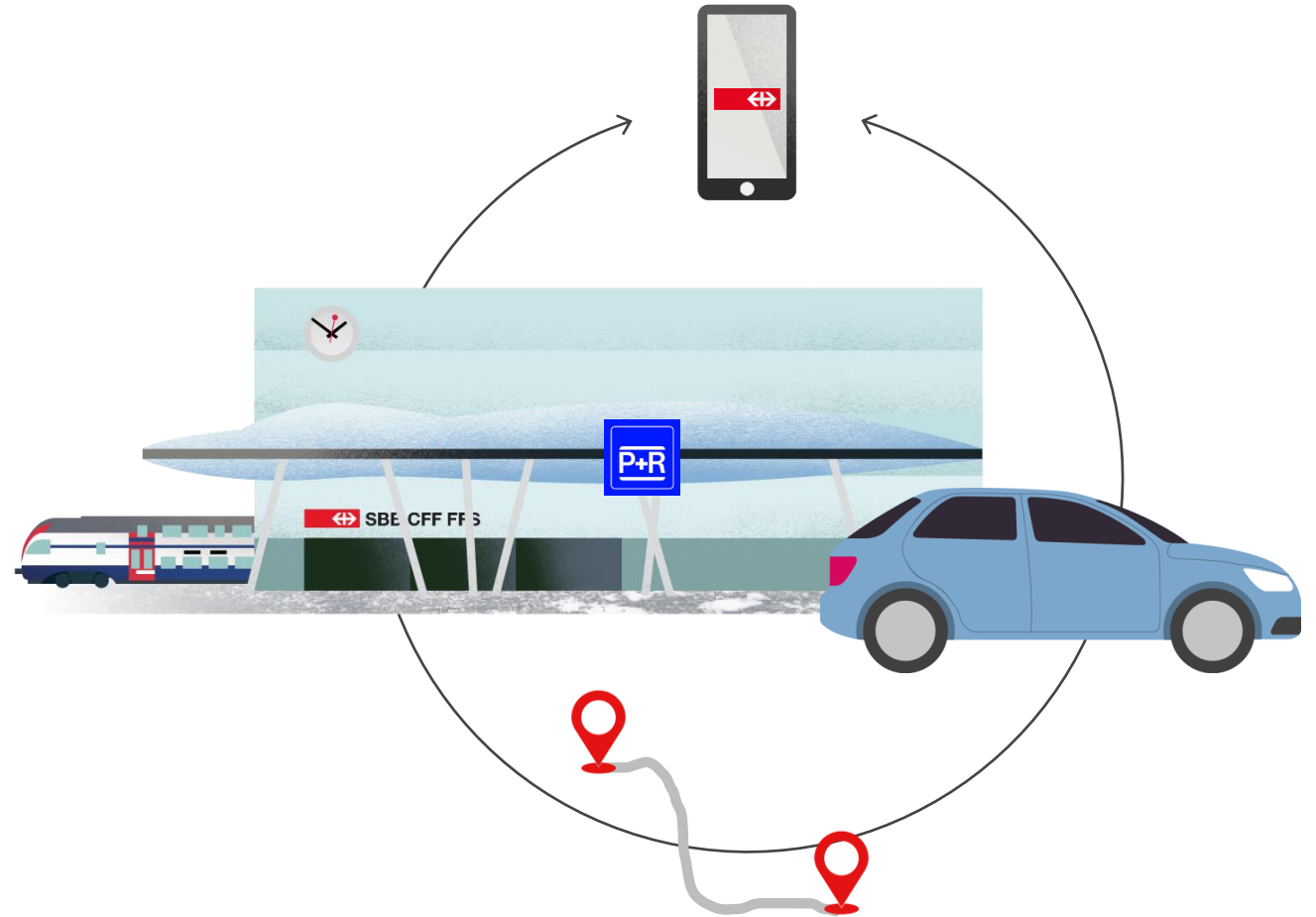


50
locations that allow for parking space reservation.

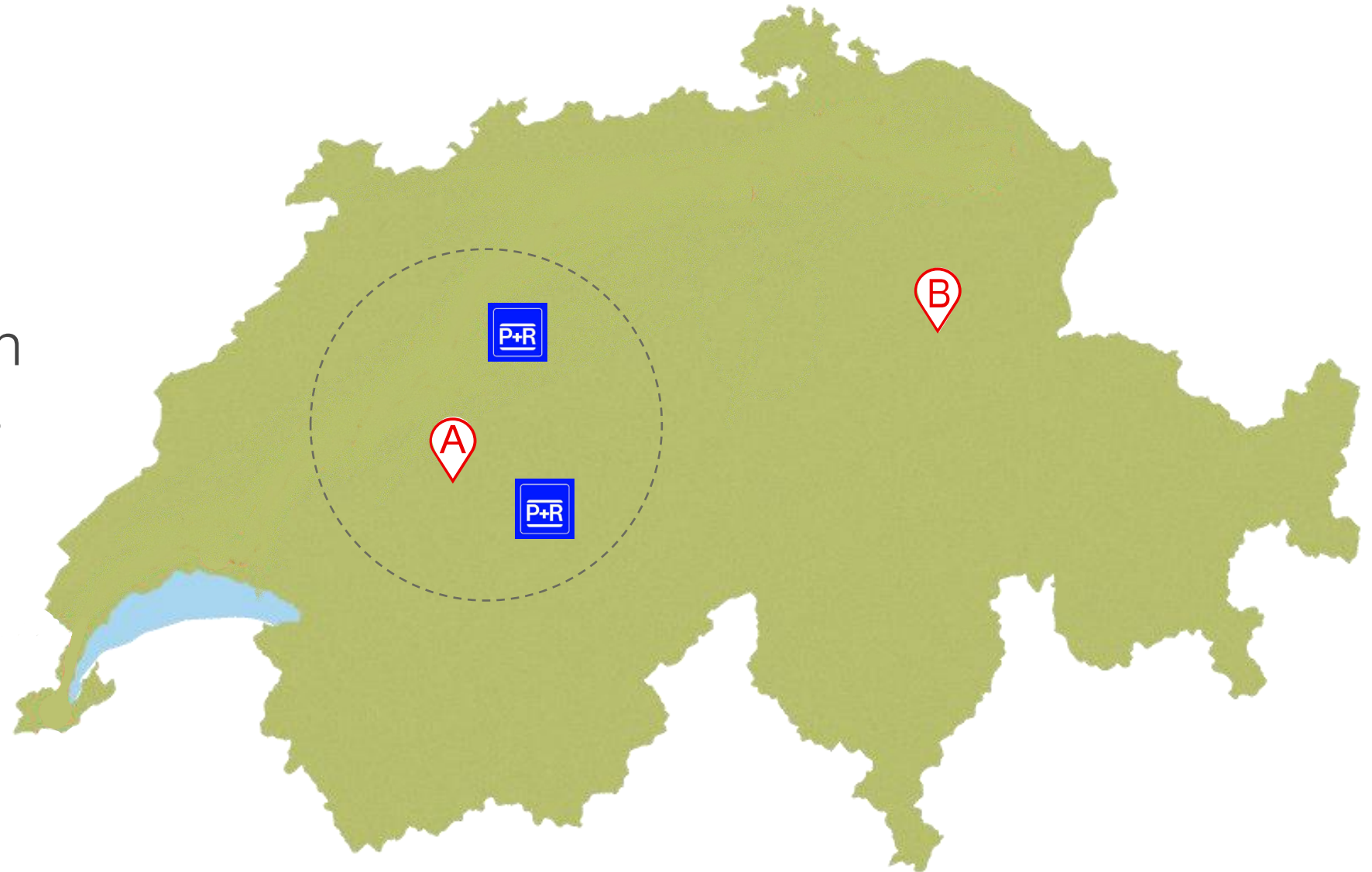
The Challenge of Interconnected Routing.




3 Steps to interconnected routing.

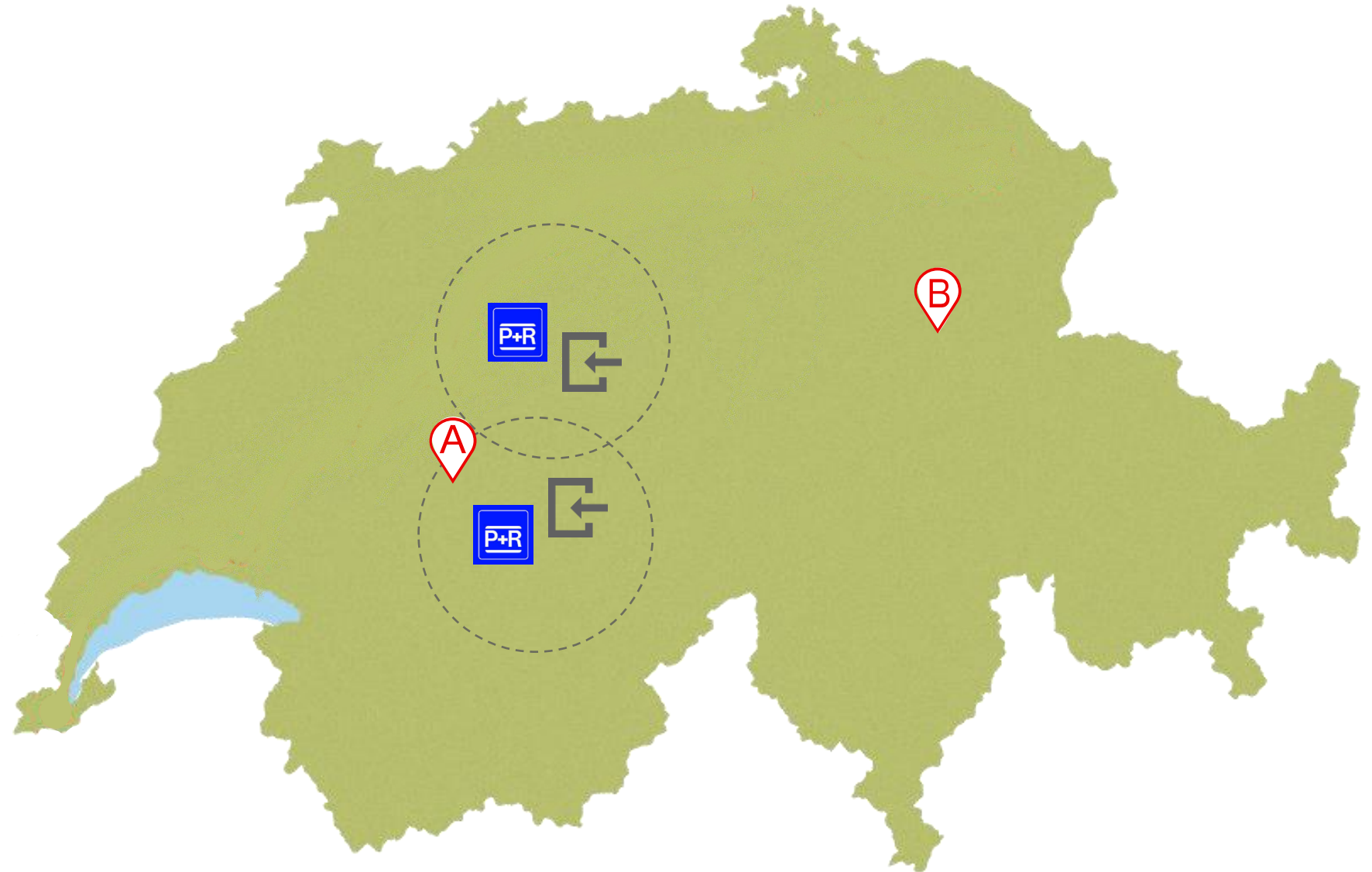


#1
Perimeter search
for P+R stations
close to the
starting point.

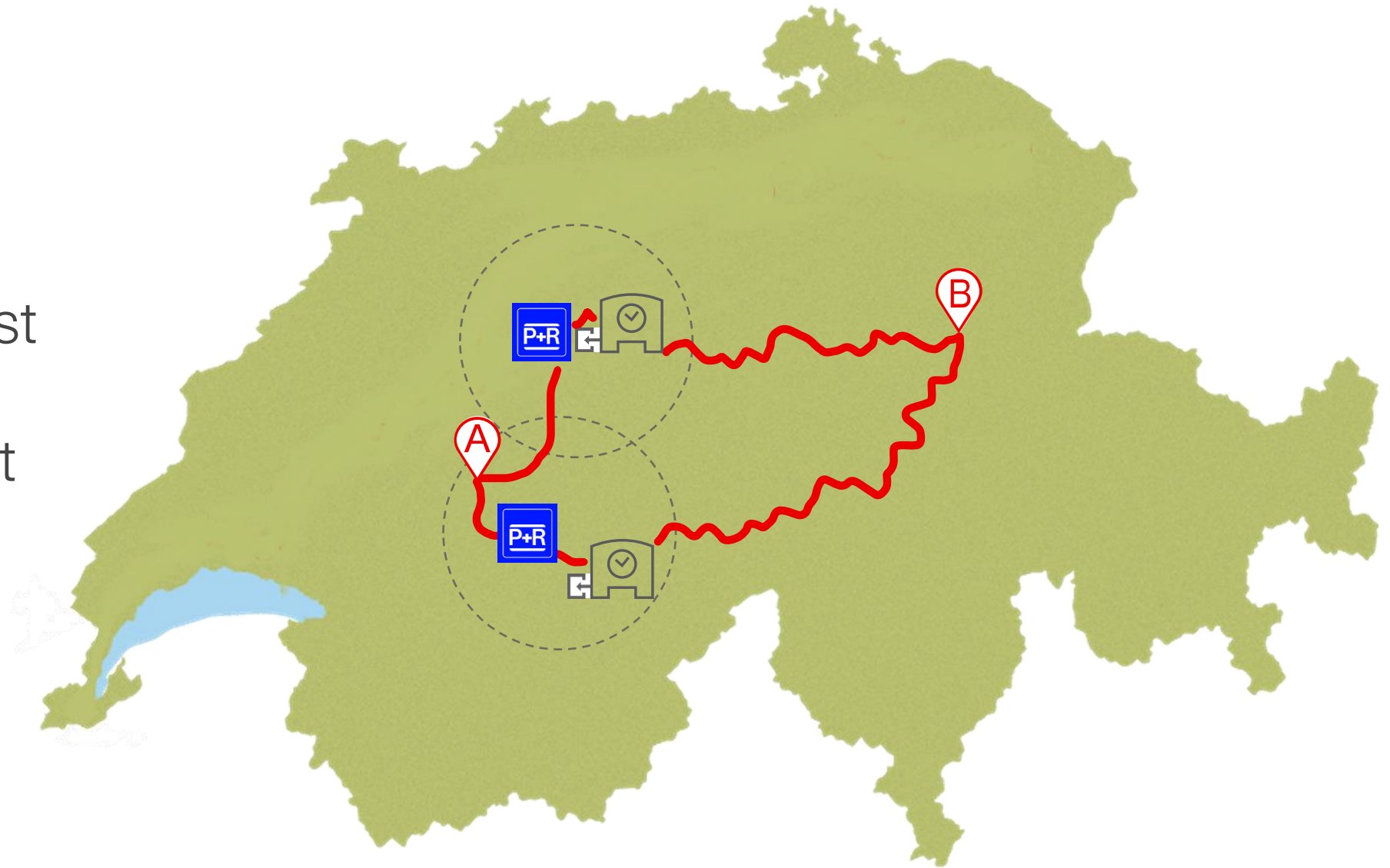


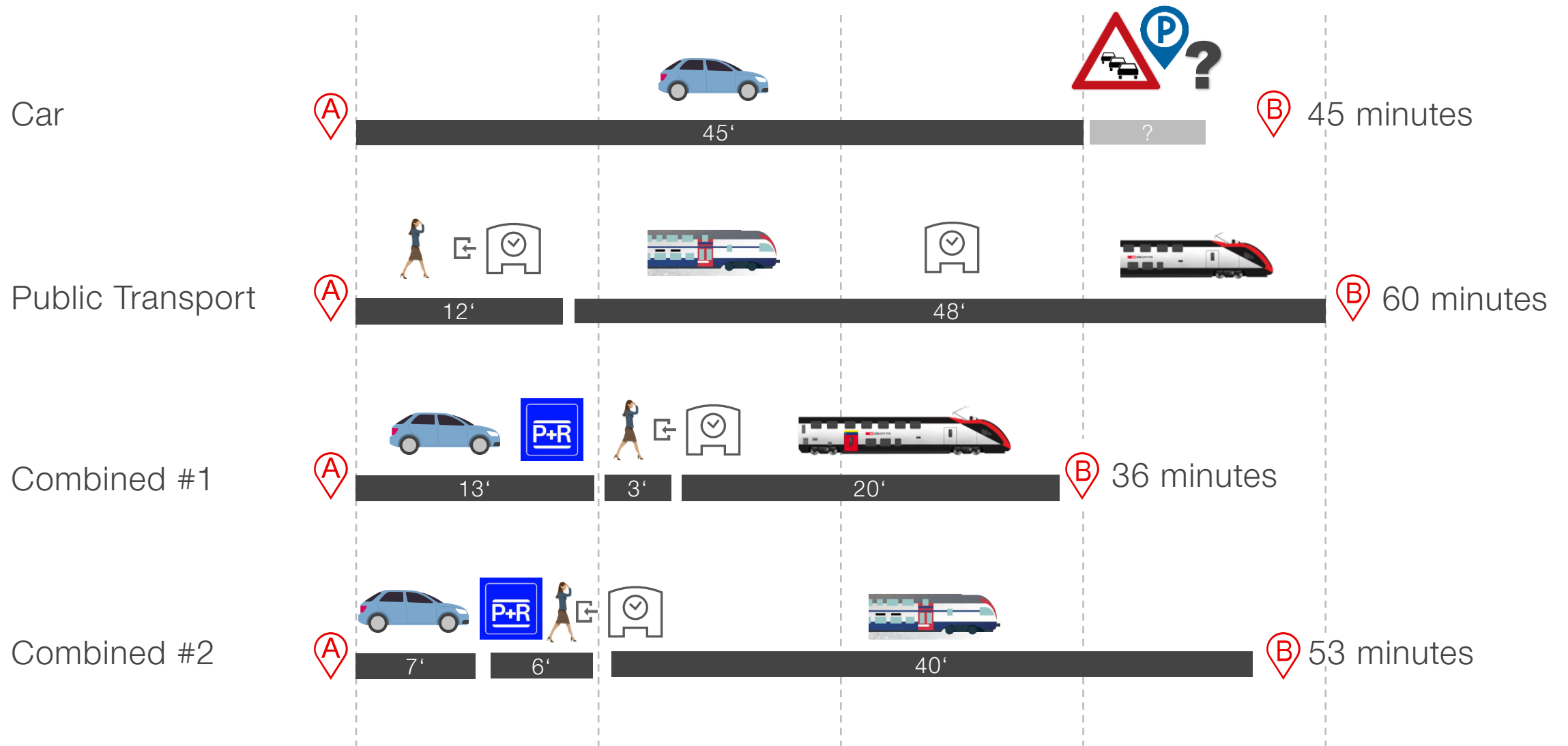
#2

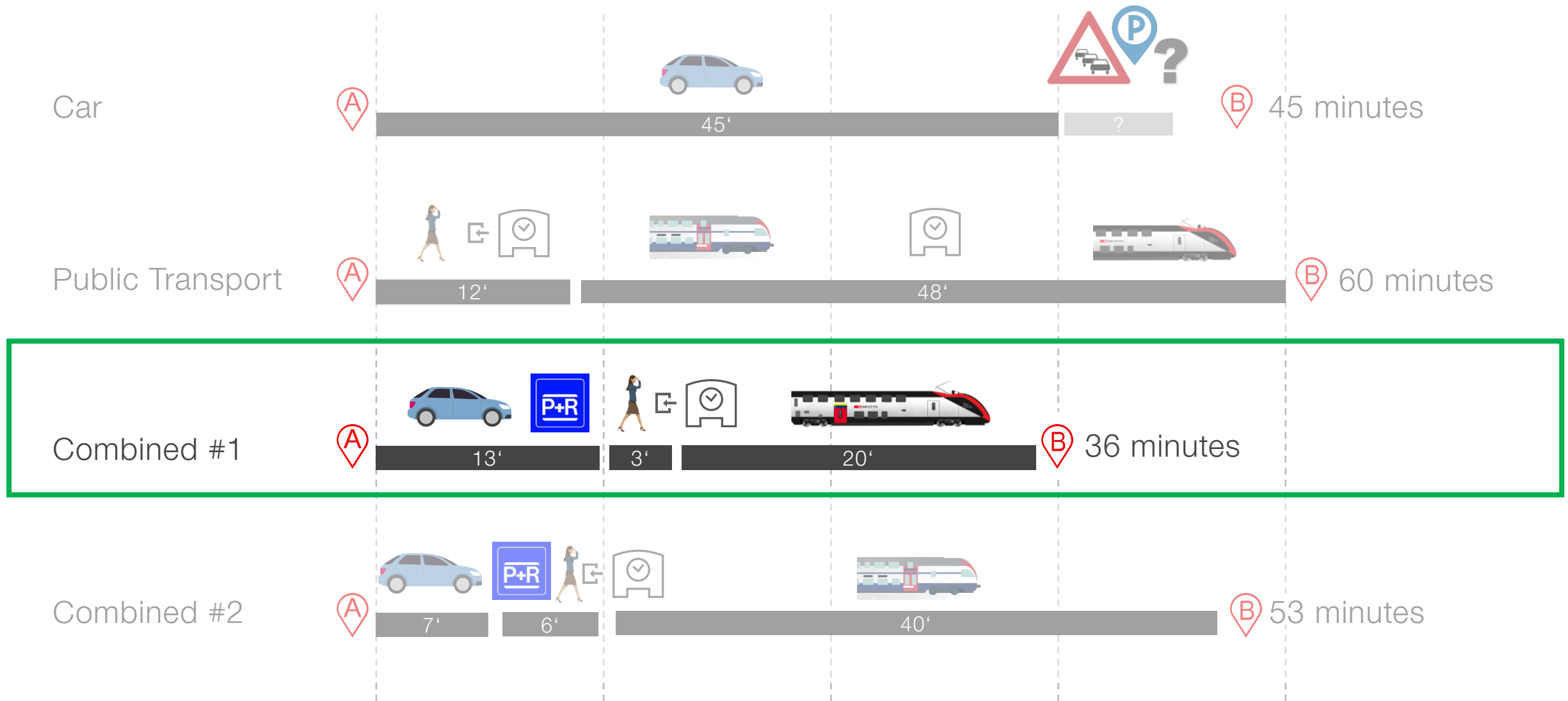
Identify the best possible station entrances  at each of the P+R locations.

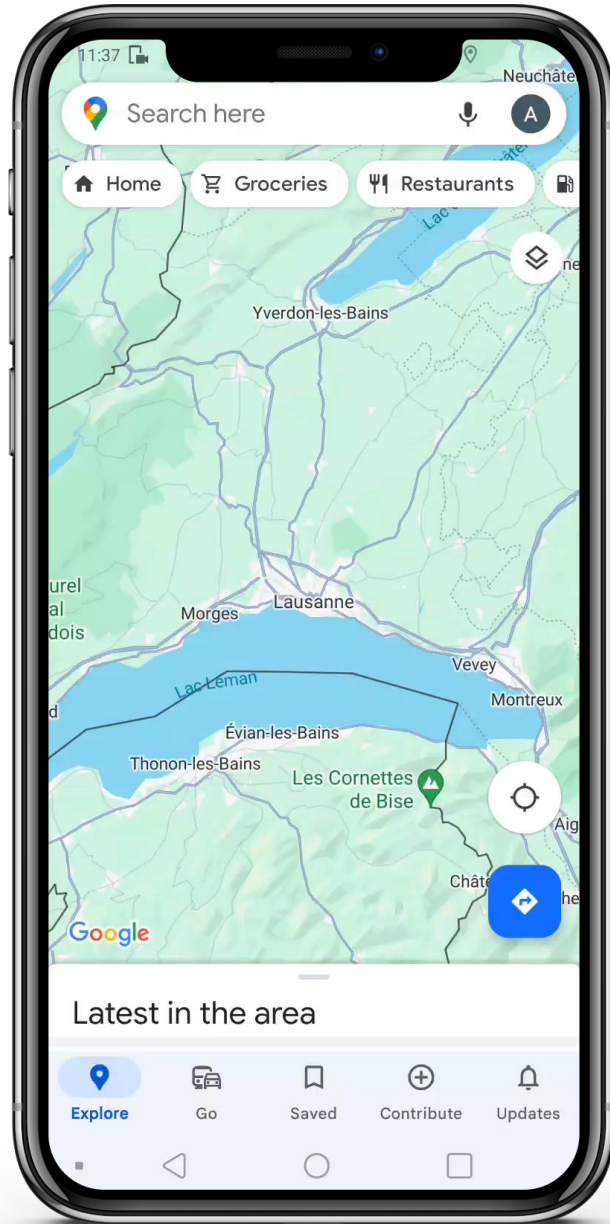


#3
Connect the first
mile trip to the
public transport
offering.









Don't be afraid
to be a copycat.

Join the movement
towards better
mobility in
Switzerland.

We are here for you. The SBB Team for the Lauzhack 2023.



Adrian Houriet
Challenge Owner

Senior Project Manager
First and Last Mile
Responsible for P+Rail



Fabio Schmieder
Challenge Owner

Digital Business
Developer



Christian Trachsel
Data and Open Data

Solution Architect
Customer information
and Open Data.



Keira Correll
Career Opportunities

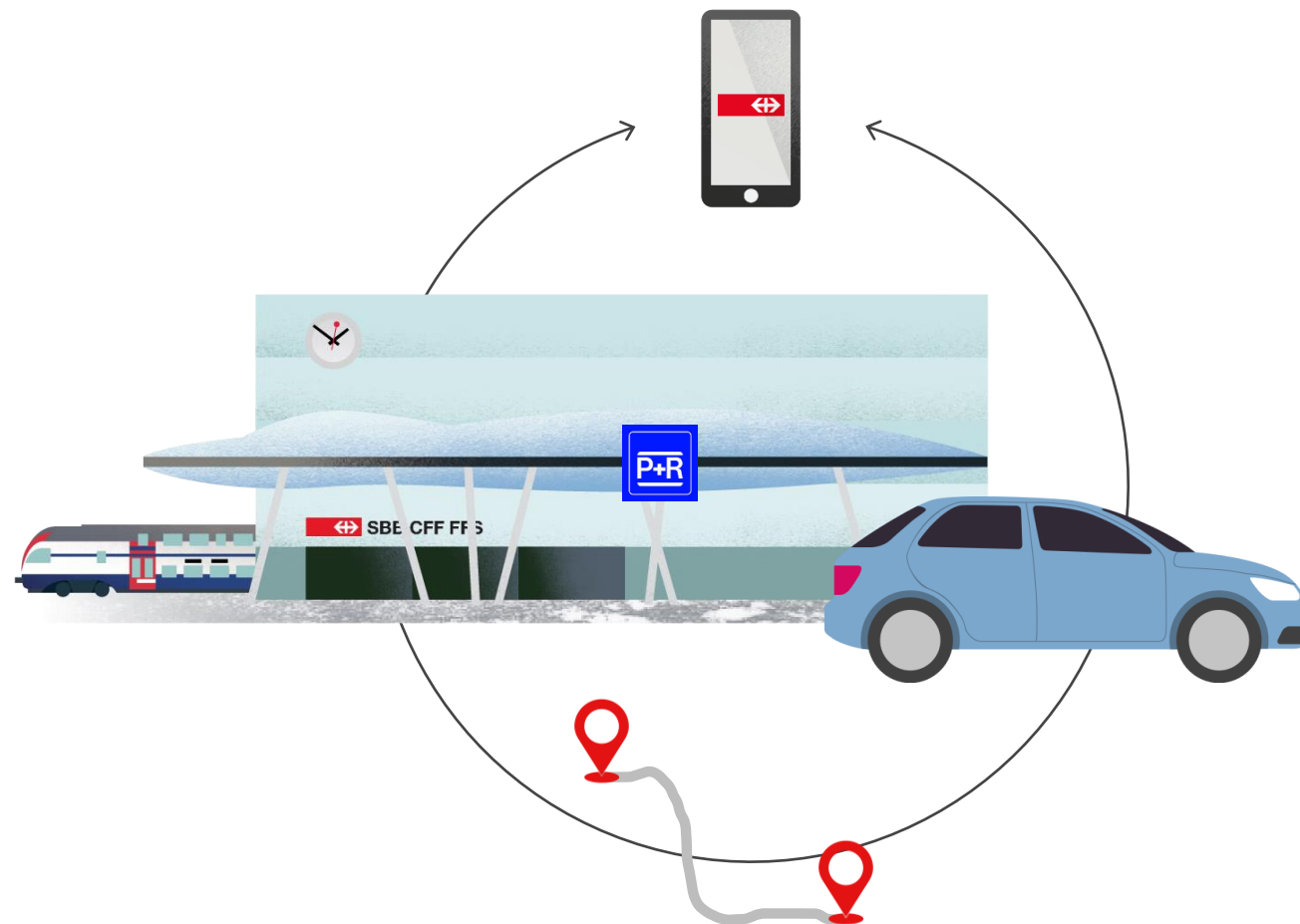
Organizational manager
Digitalization and Lead
Hackathons.

Enhancing mobility with interconnected solutions.

Create a sophisticated routing engine for varied mobility needs, blending personal vehicles, SBB's Park and Rail, and public transport.

Focus on an intuitive system that allows users to seamlessly combine travel modes, optimizing for minimal transfers, reduced travel time or other criteria.

Aim for a sustainable solution catering to both urban and rural users, enhancing intermodal connectivity.





Thank You!

The Challenge.

Enhancing mobility with interconnected solutions.

Switzerland's diverse landscape calls for a mobility solution that is as flexible and varied as the needs of its people. Our vision is clear: create a sustainable and interconnected transportation system that serves everyone, from city dwellers to countryside residents.

This challenge seeks an innovative travel planner integrating personal vehicle use, SBB's Park and Rail, and public transport. Your task is to create a tool enabling users to choose their ideal combination of intermodal travel options, using the personal car and public transport.

The planner should be powered by an advanced algorithm focused on **optimizing interconnected routes based on various criteria**, such as minimizing transfers or reducing travel time, rather than merely selecting the closest Park and Rail option. The aim is a user-friendly system that facilitates smart and intermodal routing.

Data.

Anmelden auf developer.sbb.ch

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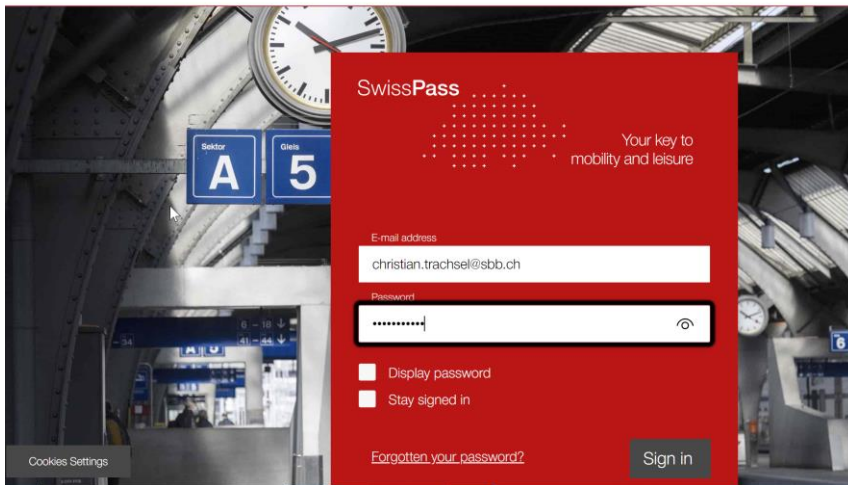
SBB CFF FFS

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Für developer muss mit dem Swisspass login gemacht werden.

All APIs

< 1 >

Sort by: A to Z

Journey-Maps	Journey-Maps (API Key)	Journey-Service
Journey and Pedestrian Routing for Public Transportation	Journey and Pedestrian Routing for Public Transportation	SBB P Journey-Planner for Public Transportation
Public 1.157.0 HTTP API	Public 1.157.0 HTTP API	Public 3.12.3 HTTP API

- 1) Suche nach Journey
- 2) Journey-Service – Fahrplansuche
- 3) Journey-Maps (Api-Key) – geographische Repräsentation der Reise

Data / API

journey - Service

- URL: <https://journey-service-int.api.sbb.ch:44>
- Client Secret MU48Q~luD6lawz3QfvkmMiKHtfXBf-ffKoKTJdt5
- clientID f132a280-1571-4137-86d7-201641098ce8
- scope api://c11fa6b1-edab-4554-a43d-8ab71b016325/.default
- token Endpoint: <https://login.microsoftonline.com/2cda5d11-f0ac-46b3-967d-af1b2e1bd01a/oauth2/v2.0/token>

journey-maps

- url: <https://journey-maps-apikey.api.sbb.ch>
- api_key: bf9e3a88ab8101ba22ba8c752bbbcfd8
- aufruf: As a request parameter: GET /path?api_key=YOUR_API_KEY or as a request header: GET /path HTTP/1.1 X-API-Key: YOUR_API_KEY

journey-map-tiles - Karte

- url: <https://journey-maps-tiles.api.sbb.ch>
- api_key: 8ff1e3c393578b6463f8a24b6baf0fd6
- aufruf: As a request parameter: GET /path?api_key=YOUR_API_KEY or as a request header: GET /path HTTP/1.1 X-API-Key: YOUR_API_KEY

Park and Rail Places: https://data.sbb.ch/explore/dataset/mobilitat/table/?q=parkrail_anzahl+%3E+0