



SCALE-UP

Mobility map boosting sustainable mobility

30.11.2023

Polis Conference



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 955332

City of Turku

Turku aims to be carbon neutral by 2029 when the city turns 800 years.

Some numbers:

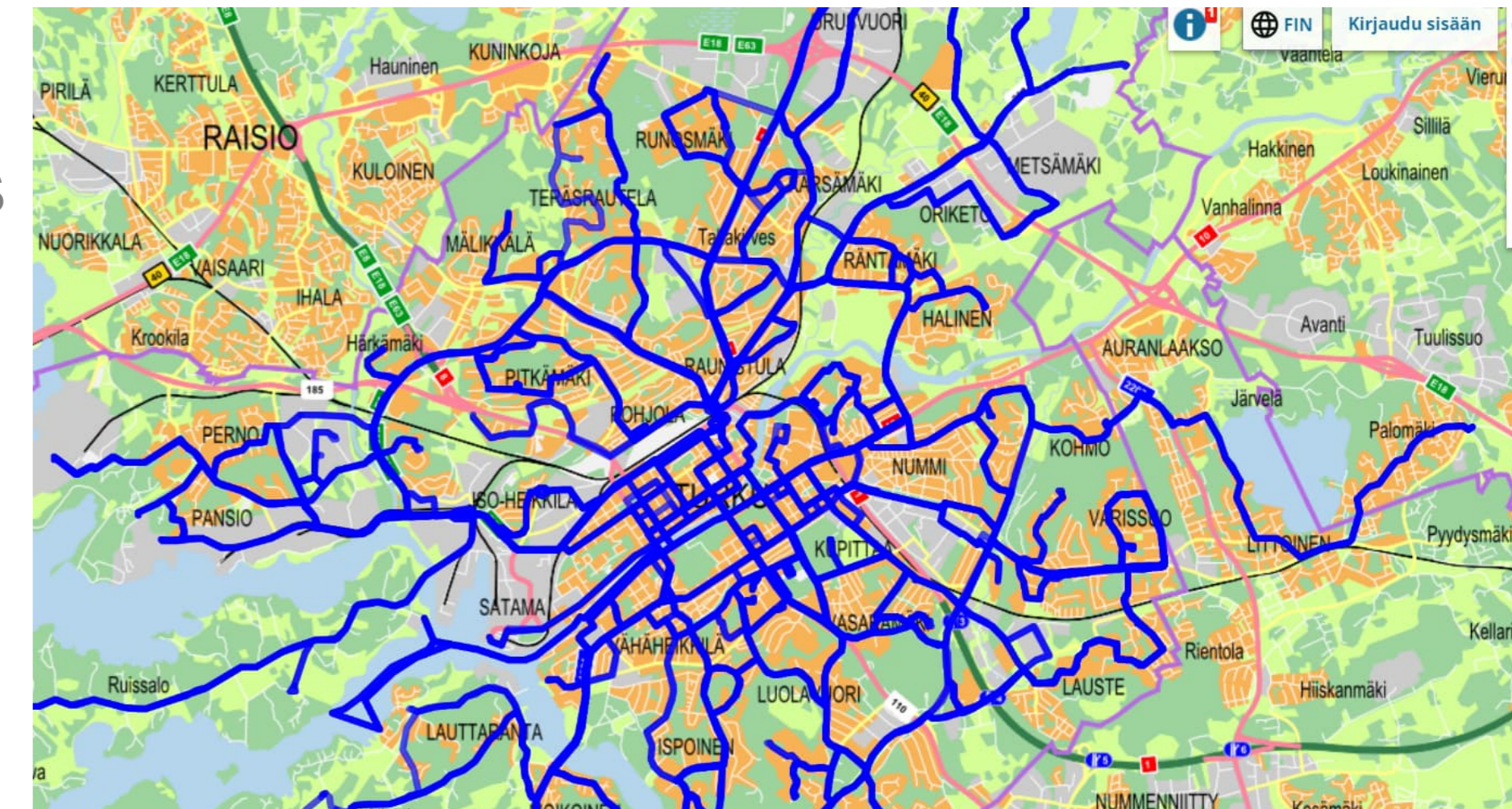
- 243,4 km²
- 200 000 inhabitants, 340 000 within Turku region.
- 40 000 students
- 5% of inhabitants speak Swedish as their mother tongue,
- multicultural city with 14% of its inhabitants speaking over 100 languages
- 40 000 islands in Turku archipelago, the largest in the world in terms of the number.



Starting situation in 2021



- City guide map with official static information
 - Source for city's GIS-based static data with open-data APIs
 - Several other open-data sets: City in 3D, aerial images, sports and freetime, schools and daycares
- Different pilots with companies
- Turku Service map had been developed earlier, but was not in use due to accessibility deficits.
- No real time view offered.
- No data from companies shown.



The bus lines in Turku

Service map with mobility data

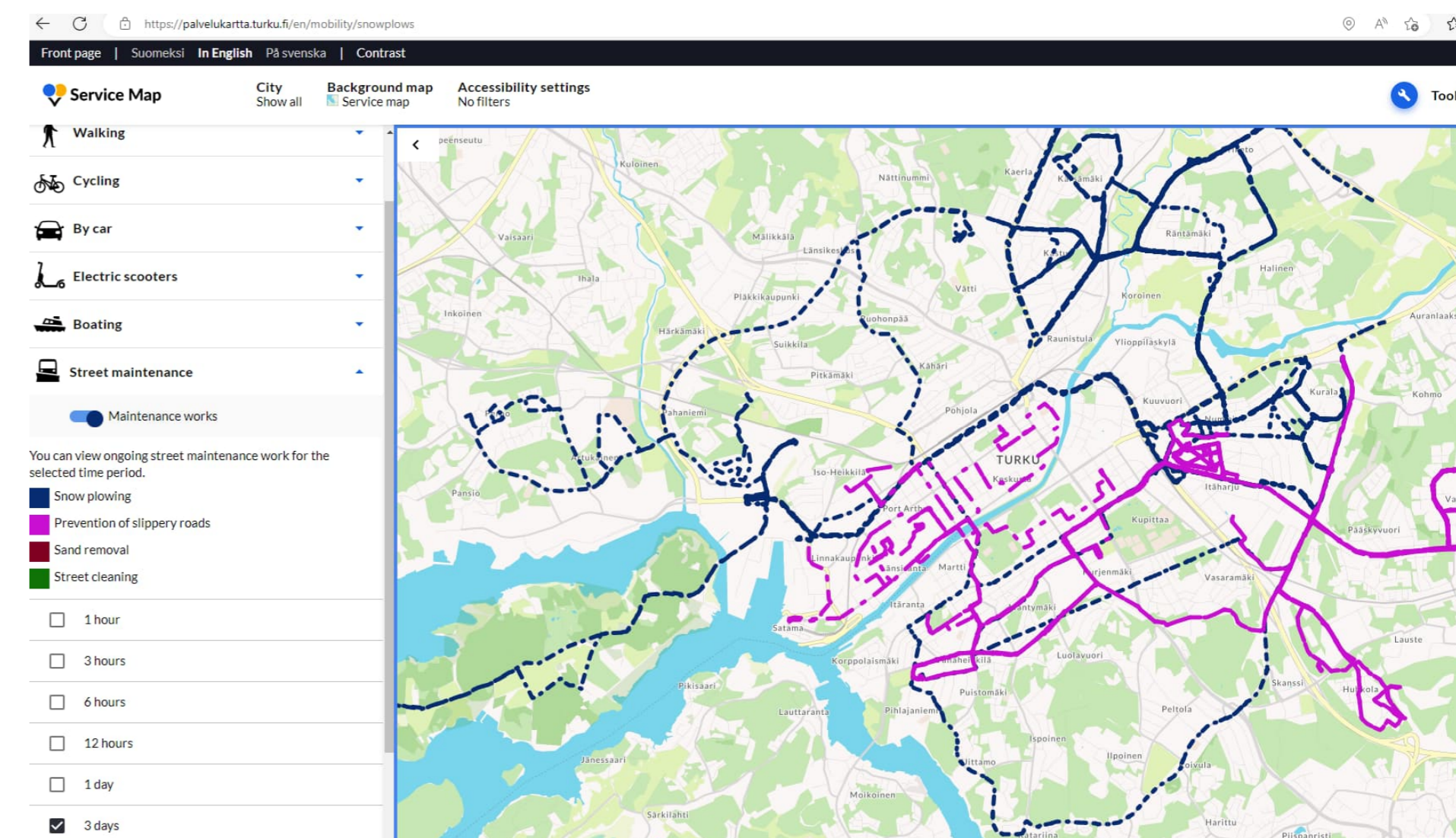


- Open source code map using different data sources

[GitHub - City-of-Turku/smbbackend: Service Map backend](https://github.com/City-of-Turku/smbbackend)

[GitHub - City-of-Turku/servicemap-ui: The Service Map UI](https://github.com/City-of-Turku/servicemap-ui)

- Fulfills accessibility requirements
- Service and accessibility information of service points in the city
- Enables real time data to be visible
- Enables the use of history data for analysis



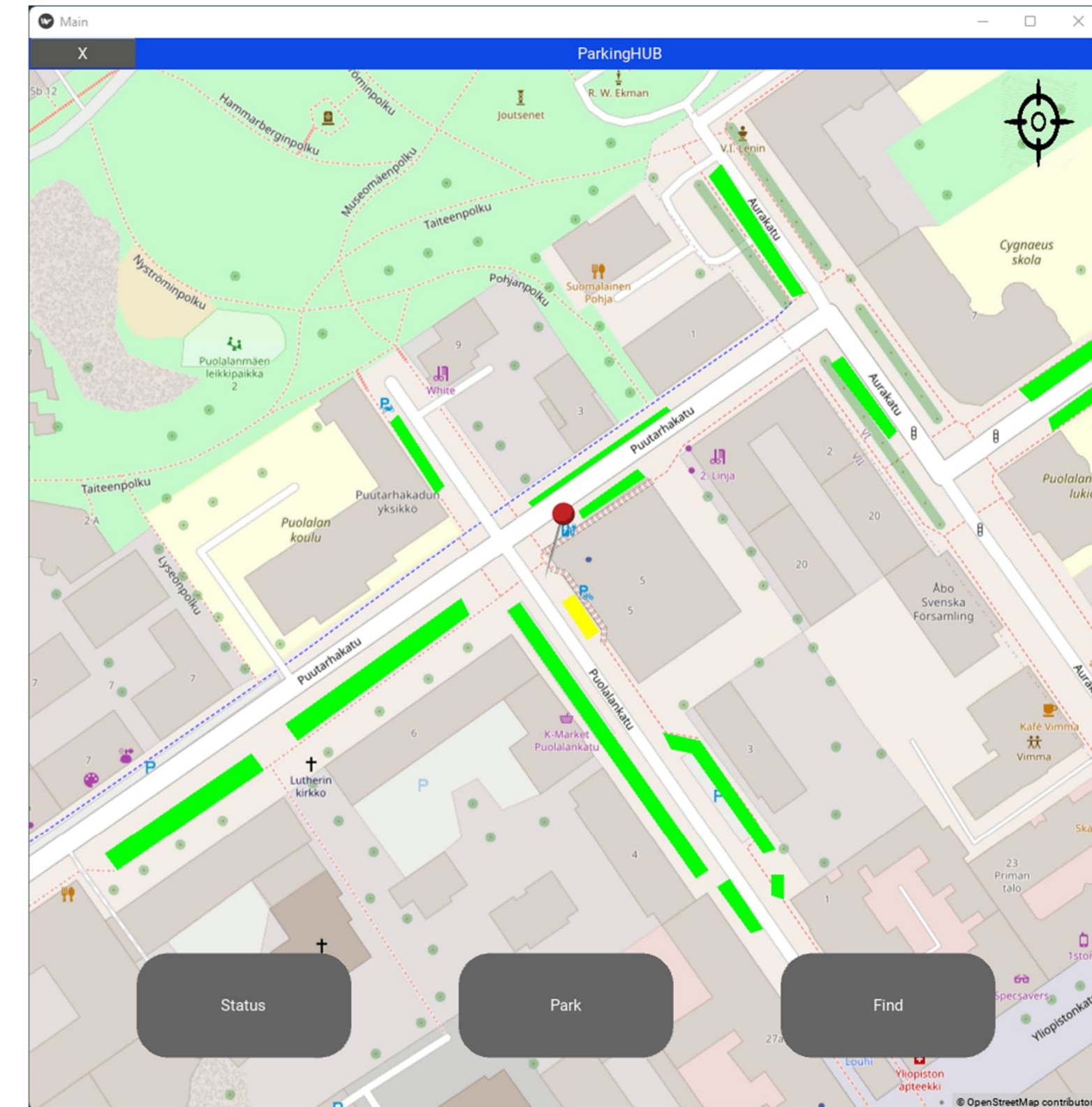
Real time street maintenance information

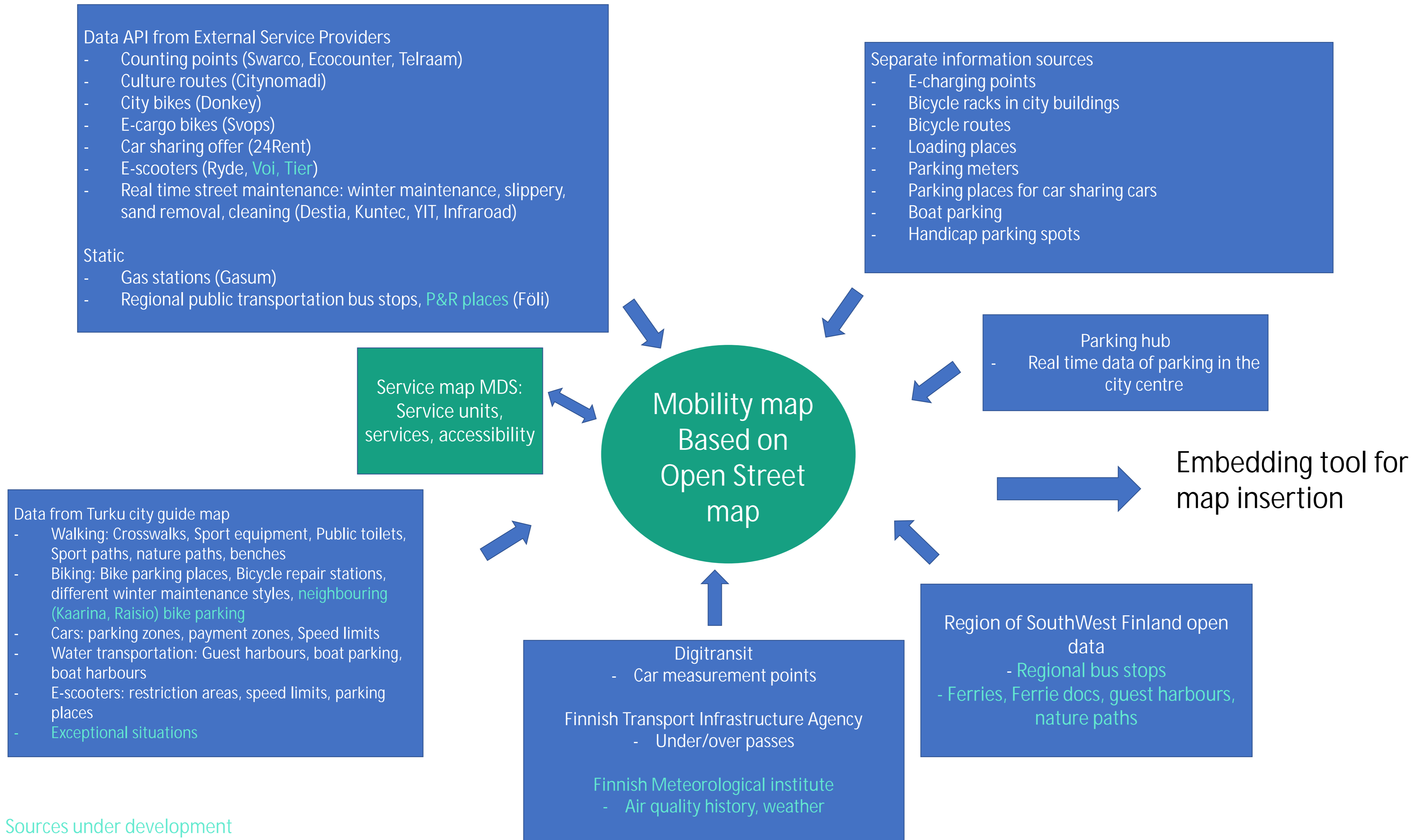
- Launched in April 2022 in Finnish, Swedish and English
- Twelve different external mobility service data sets visible
- Number of individual users grown from 1587 (June 2022) to 7409 users (February 2023)
- TEXT

Parking hub data



- Open-Source code system and database for managing parking data
 - <https://github.com/City-of-Turku/parkkihubi>
- Real-time Digital Twin of city's parking with history database
- REST API for open data on real-time parking situation in the city
- Collects data
 - Mobile app parking payment operators
 - Smart parking meters
 - Parking permits from permit system
 - Parking wardens on-street parking checks
 - Event parking
- Used
 - By Parking wardens for parking payment and permit checks
 - By Traffic planning for data oriented planning
 - For parking payments income validation, evaluation and finance planning
- Real time situation visible at Mobility map





Sources under development

Service Map City Show all Background map Service map Accessibility settings No filters

Map data comes from the Donkey Republic interface in real time.

By car

- Measurement point
- Shared use cars
- Car e-charging points
- Gas filling stations
- Parking spaces
- Public parking spaces
- Parking for disabled
- Parking machines
- Loading places
- Parking charging zones
- Speed limit zones

The car share vehicles are rental cars. The available cars are visible on the map. Information about the cars is provided by 24Rent.

Electric scooters

Different service providers on the map ie car sharing cars, scooters, city bikes.

Service Map City Show all Background map Service map Accessibility settings No filters

Back to home page

Mobility map

Walking

- Measurement point
- Outdoor gym devices
- Public restrooms
- Culture routes
- Paavo trails
- Nature trails
- Fitness trails

- ArchitecTOUR 1
- ArchitecTOUR 2
- ArchitecTOUR 3
- Romantic Turku

The 'Romantic Turku' tour is a journey through the love stories of Turku people. Where and when is it good to kiss, and how was courting done in the different decades of the 20th century? This tour can be done with an MP3 guide, the narrator of which is a casanova from Turku, Ruben Oskar Auervaara.

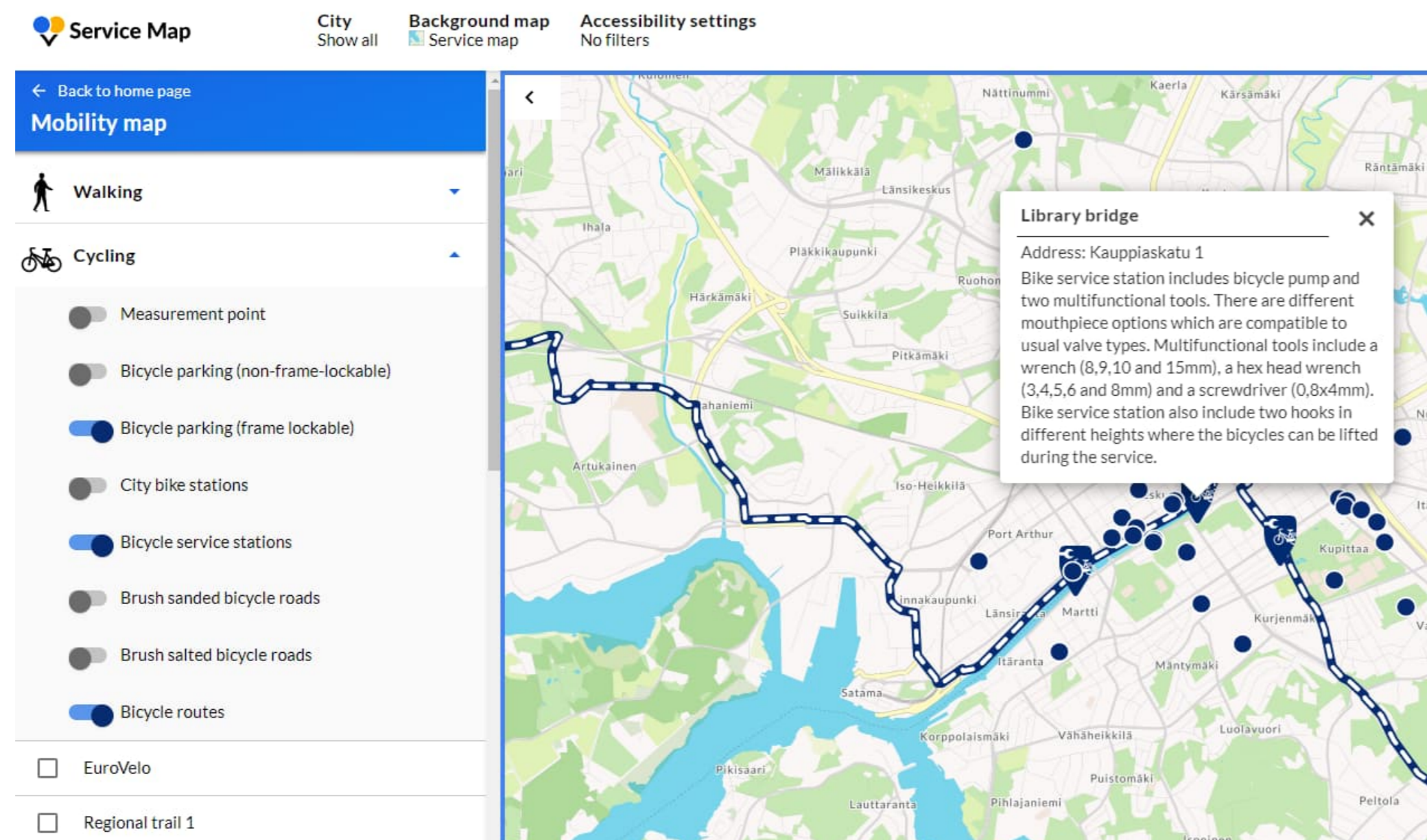
Public restrooms, chosen culture route and guest harbour

Mobility map



Coming next

- Improvements to design
- More data sources + data from neighbouring cities
- Improvements to embedding tool



Bicycle parking with frame lockable,
Bicycle service stations and chosen
bicycle route

Lessons learnt



- Open data sets and open source code are crucial.
- Data standardizations are needed to ease the work.
- Develop as you go based on feedback.
- Let the data tell the story.
- For individual service providers the data approach varies a lot.
- Win-win situations with service providers can be created with mobility map approach.
- A holistic approach on data is needed and it needs to be visible for citizens.
- Accessibility and user focus are valuable.
- Different user groups can benefit from the map – businesses, media, winter cyclists, parents etc.

SCALE-UP

User-Centric & Data Driven Solutions for Connected Urban Poles

Thank you for your attention.



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