C-ROADS
Antwerp-Helmond

ITS Challenges for the city of Antwerp

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Our city

- Home to **539.419** people from **172** different backgrounds
- Harbor traffic of **11** to **12 million** TEU of which 1/3 by truck
- Junction of **3** TEN-T corridors
- Ring sees **103,775** car per day and **26.159** trucks
- Saturated for **14.2** hours per day

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Our shift

- Working on a city with more active and durable forms of mobility
- In 2022 the bike surpassed cars for commutes to work
- **46%** more cyclist from 2015 - 2022

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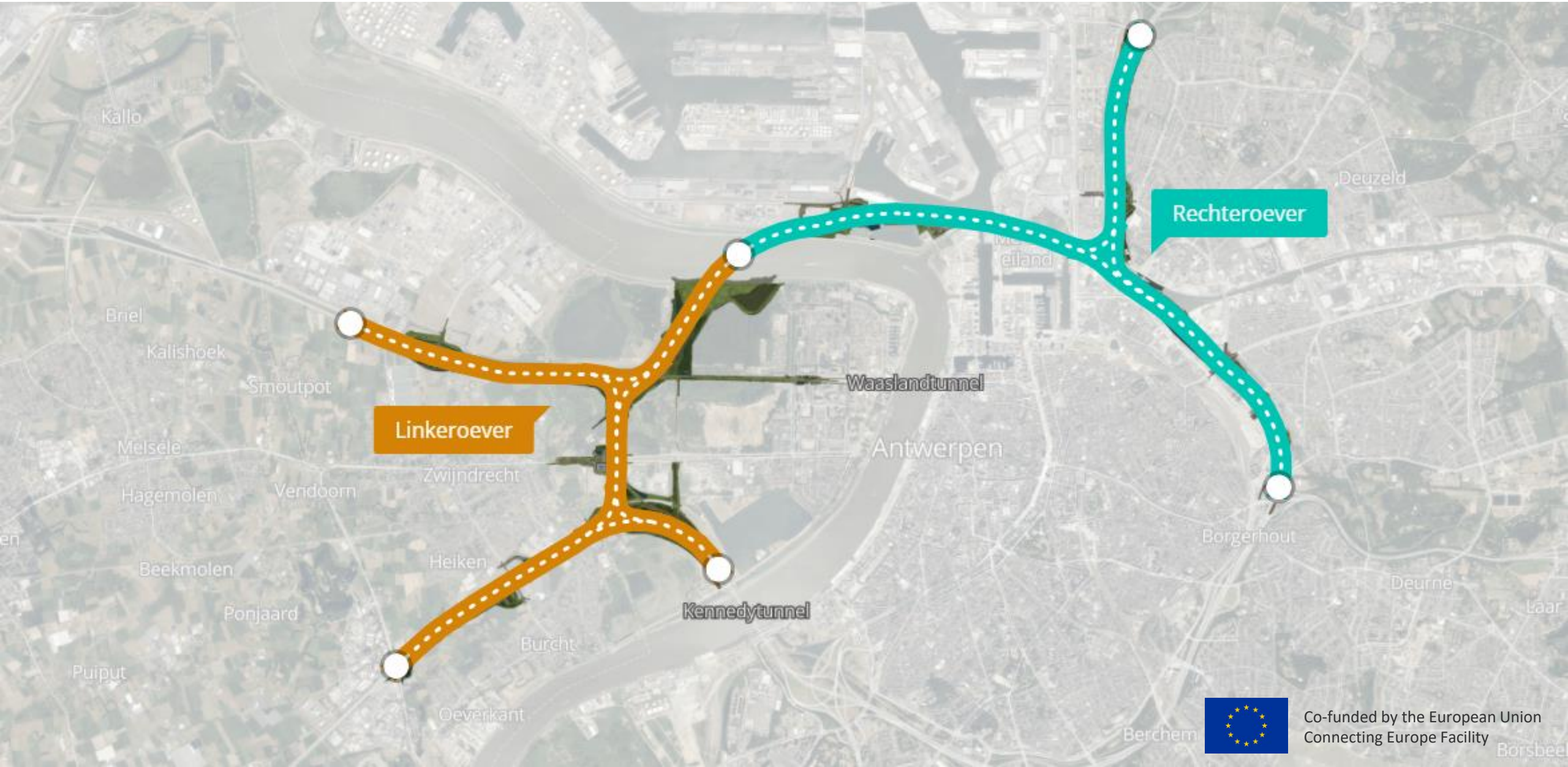
Our challenge



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Our challenge

- Create new infrastructure for our modal shift and improve safety now more active road users are on the streets
- Build safe, comfortable bike infrastructure
- Keep the city accessible for the growing number of citizens.
- Rethink the use of space for a healthier, greener and more comfortable urban environment

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Topics

Active Data Management

Behavioural change – the digital layer

Managing shared electric micromobility

Sustainable Urban Logistics Plan

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Active data management

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Active Data Management

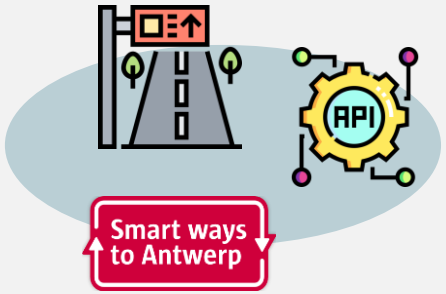
Data cell

In order to be effective in realising our ambitions we need to make data-informed decisions.

Actively gathers data and finds ways to cover blind spots

Effort from colleagues
Bicycle counting sensors
Data from permits
Floating car/bike data
Surveys
Counting efforts

Share realtime data with collegues and travellers



Routeplanner
Information signs
API's

Share open data with the public

Open data portal
Public applications

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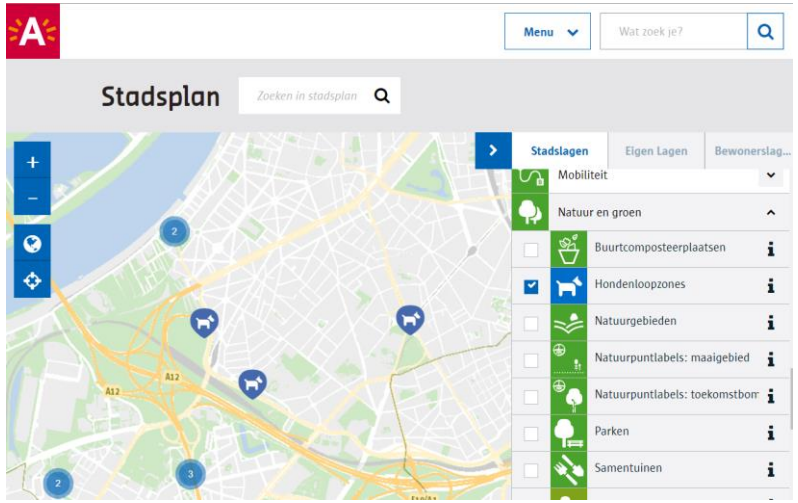
Active Data Management

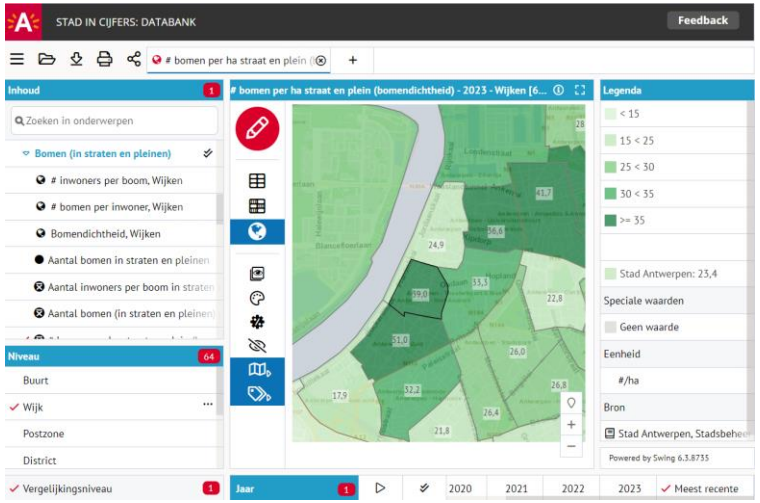
Where can I let my dog walk free?

Antwerpen.be/nl/stadsplan



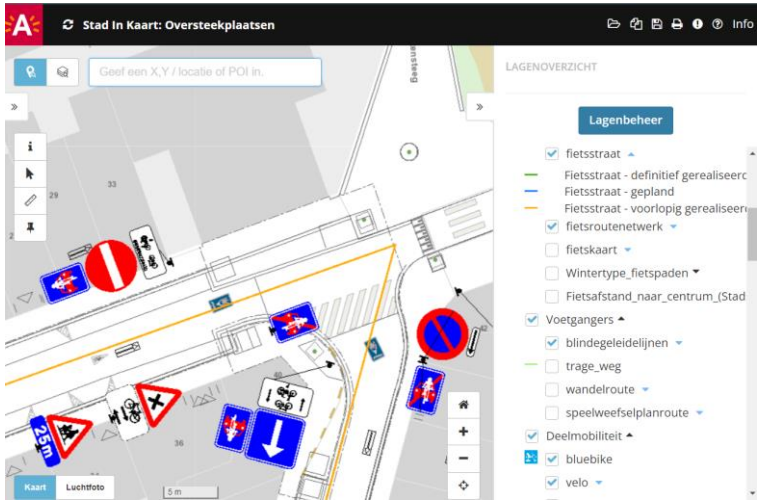
How green is my neighbourhood?

Stadincijfers.antwerpen.be/databank



How should I redesign this intersection?

Stadinkaart – Internal use



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Active Data Management

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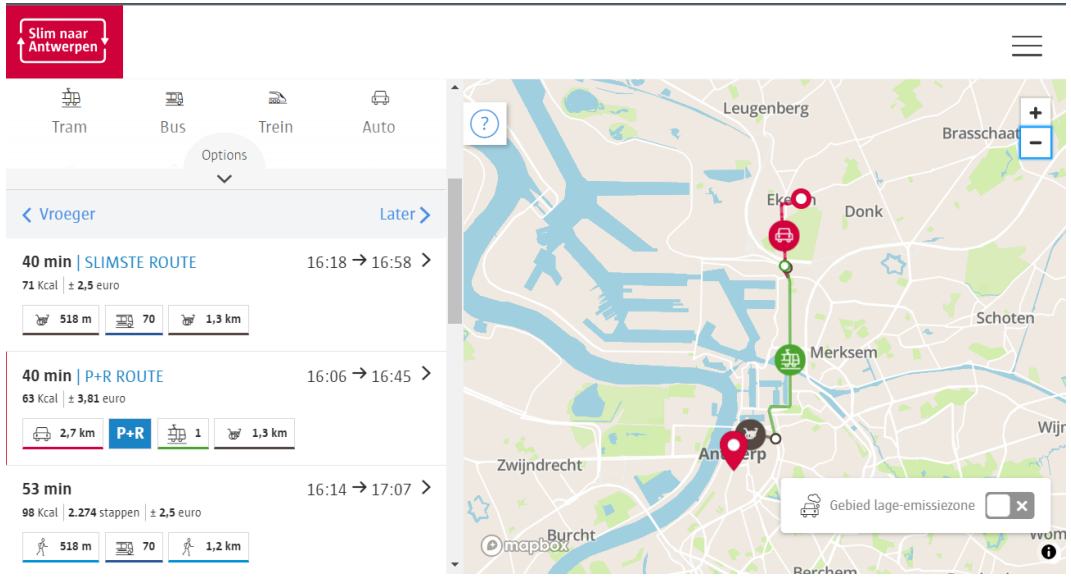
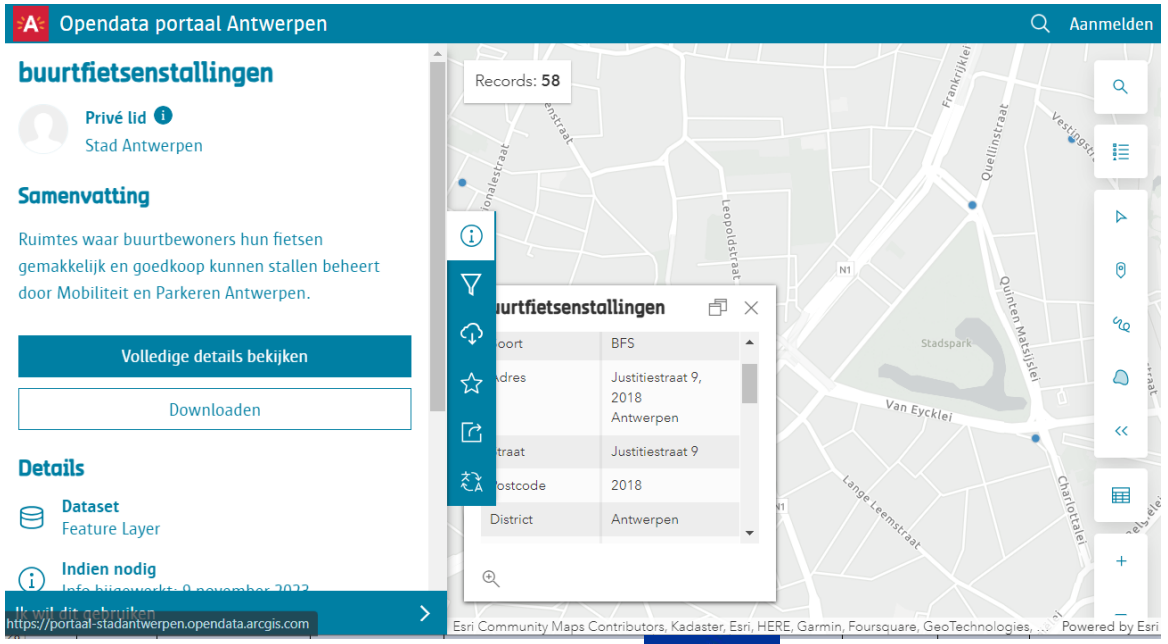
How can I travel to the city during the marathon?

slimnaarantwerpen.be/nl/home



I want my mobile app to include all neighborhood bike parkings

portaal-stadantwerpen.opendata.arcgis.com



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Active Data Management

Future challenges

- Preperation, monitoring and evaluation of policy decisions
- Using floating-car/bike-data vs fixed counting devices
- Making responsible decisions towards personal data
- Working together with many stakeholders
- Standardisation and regularisation

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Behavioural change – the digital layer

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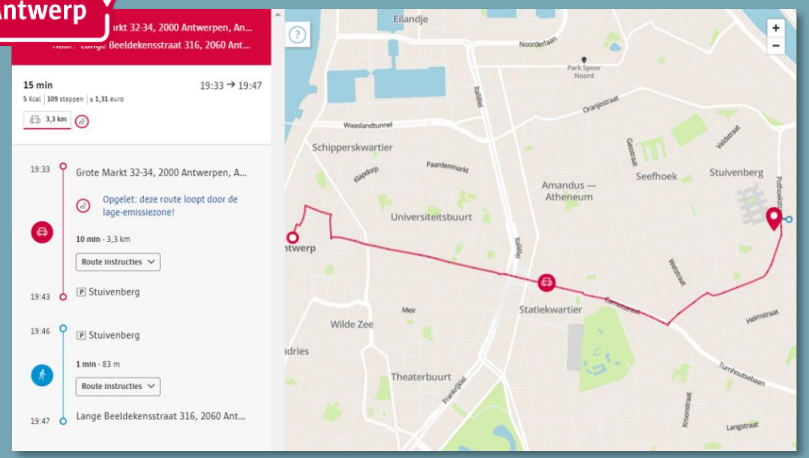
Behavioural change - the digital layer

Fastest & shortest is often the main option

Smart ways to Antwerp

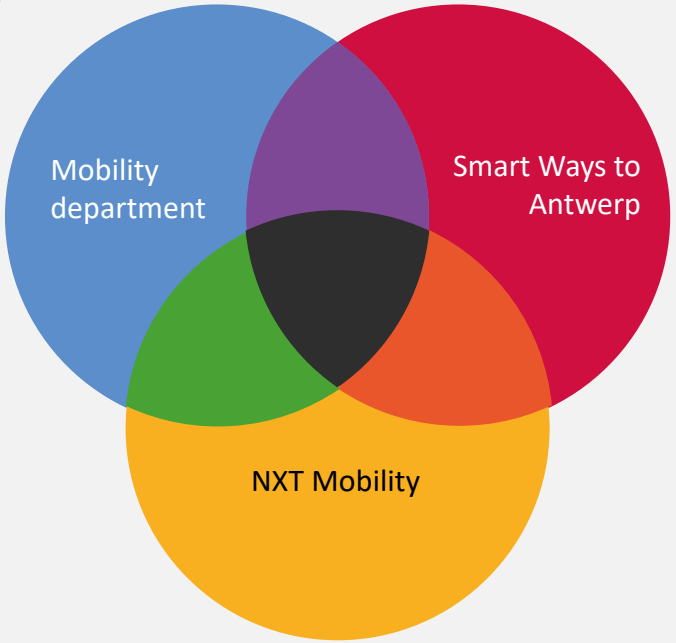


Freight route planner

Shaping urban logistics with 2 carrots and 1 stick

Multimodal route planner

5 ways we use data to nudge in our routeplanner



Incentives platform

Making incentives easy with bits&bytes

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Behavioural change – the digital layer

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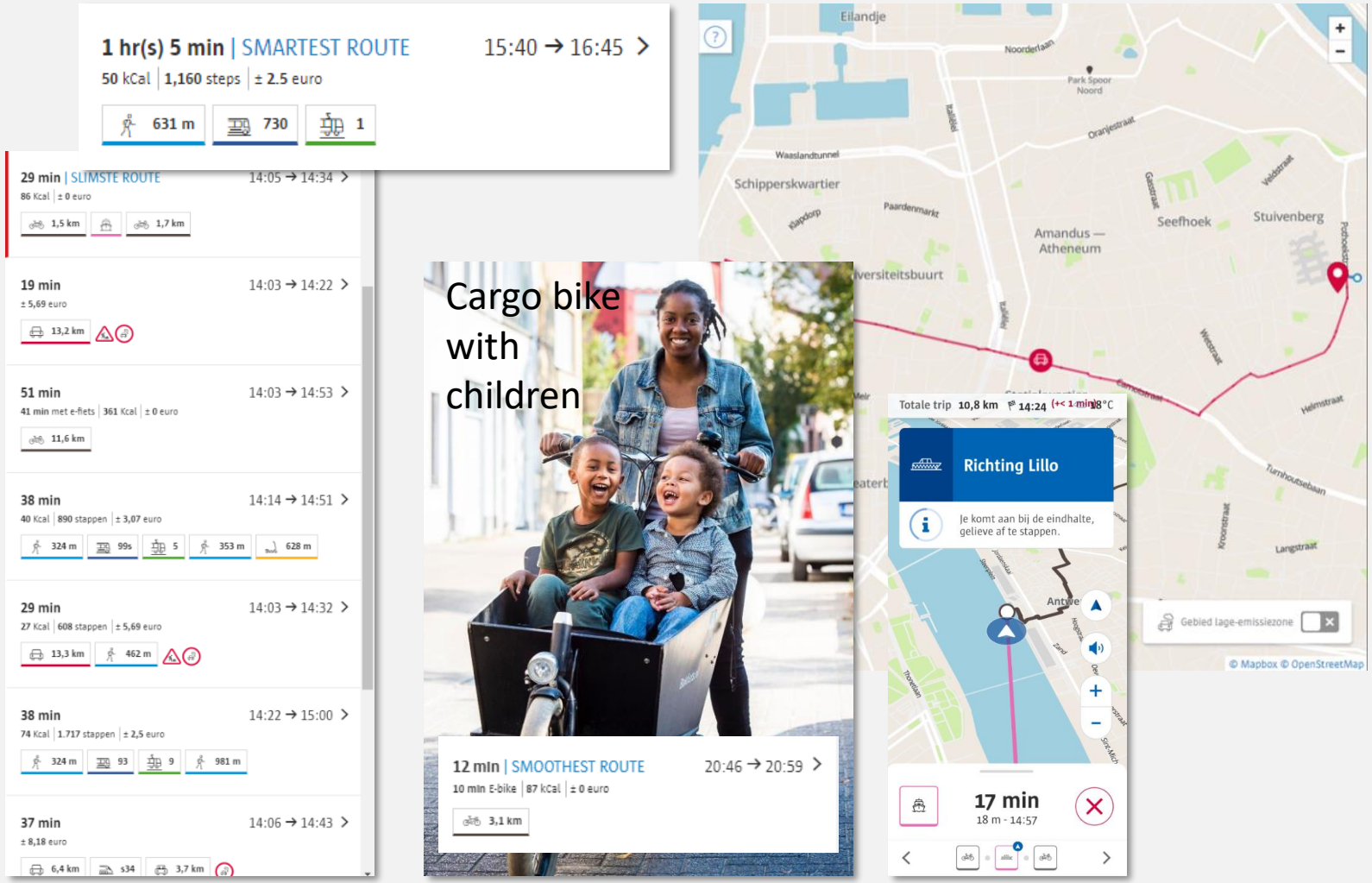
5 ways we use data to nudge in our multimodal route planner

1. Show all options at the same time with own sorting logic
2. Routes that match with city policy
3. Multimodal turn-by-turn navigation
4. Different types of bicycle routes
5. Provide positive nudges



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SCALE-UP

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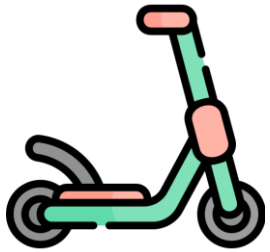

Managing shared electric micromobility

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Managing shared electric micromobility

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First Issues

1. Uncontrolled growth
2. Chaotic parking
3. No way to interfere or control

First Regulations 2018

1. A permit as means of control
2. Limit the number of permits
3. Limit the total amount of vehicles
4. Limit the number of vehicles within the city center
5. Hold companies responsible for parking issues




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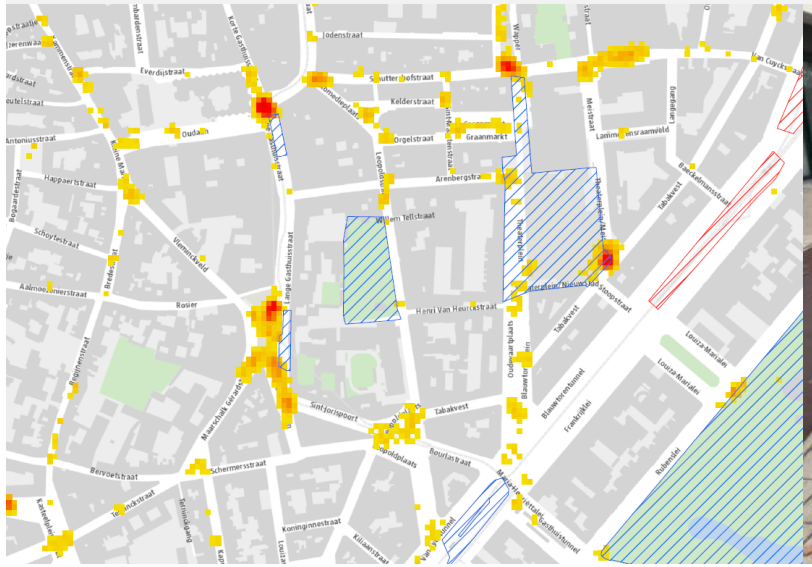
Managing shared electric micromobility

Revision 2021

1. Data driven policy and evaluation
2. Finding the right balance by focusing on specific parameters

1. Geofencing: No-go-zones, No-Park-Zones and Slow-Speed-Zones
2. Create dropzones based on parking data
3. Limit the number of vehicles within the city center
4. Monitoring the data provided by shared mobility companies



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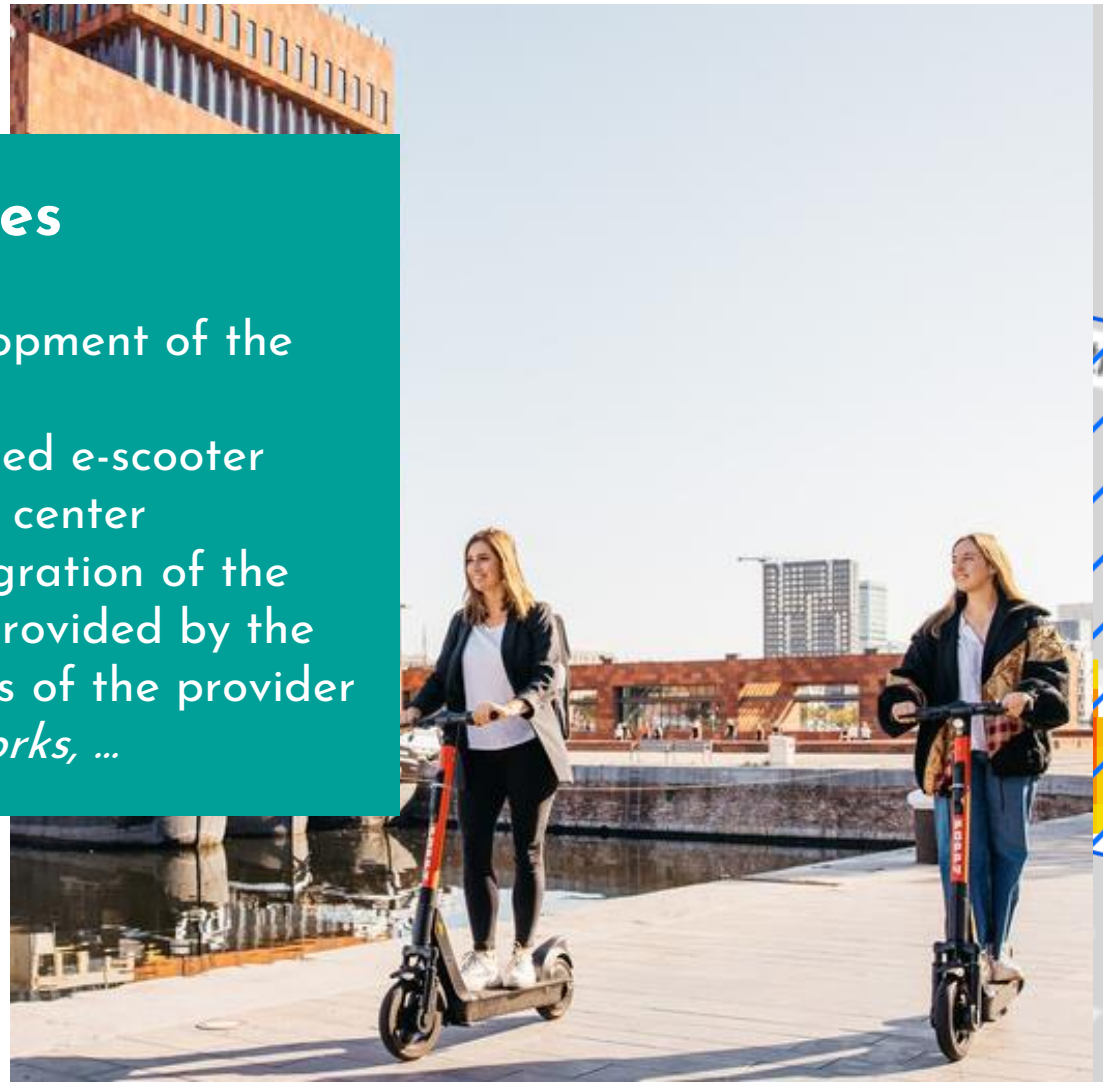
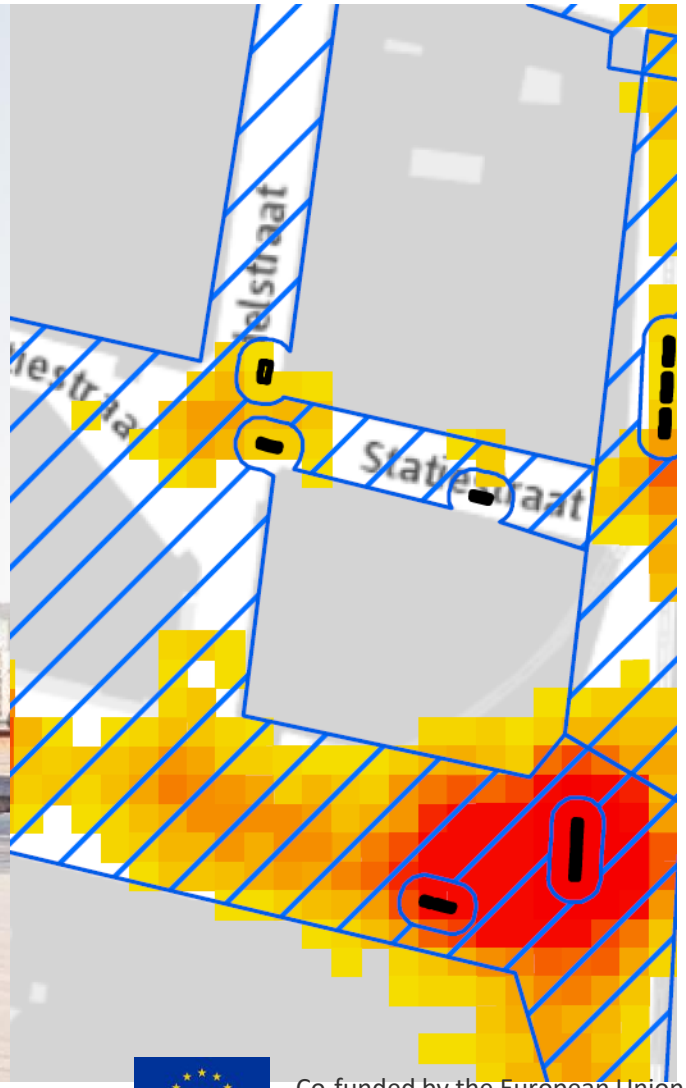
Managing shared electric micromobility

Future challenges

- Finishing the development of the data platform M4
- Rolling out hub based e-scooter parking for the city center
- The automatic integration of the geographic zones provided by the city into the systems of the provider
  e.g. events, road works, …





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Sustainable Urban Logistics Plan

07-12-2023 ITS Challenges for the city of Antwerp

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Urban logistics

There is a clear need for more sustainable forms of urban logistics

- Trucks in an urban context are still a big danger
- Loading and unloading causes congestion and unwanted driving behaviour
- Logistics vehicles have an impact on liveability

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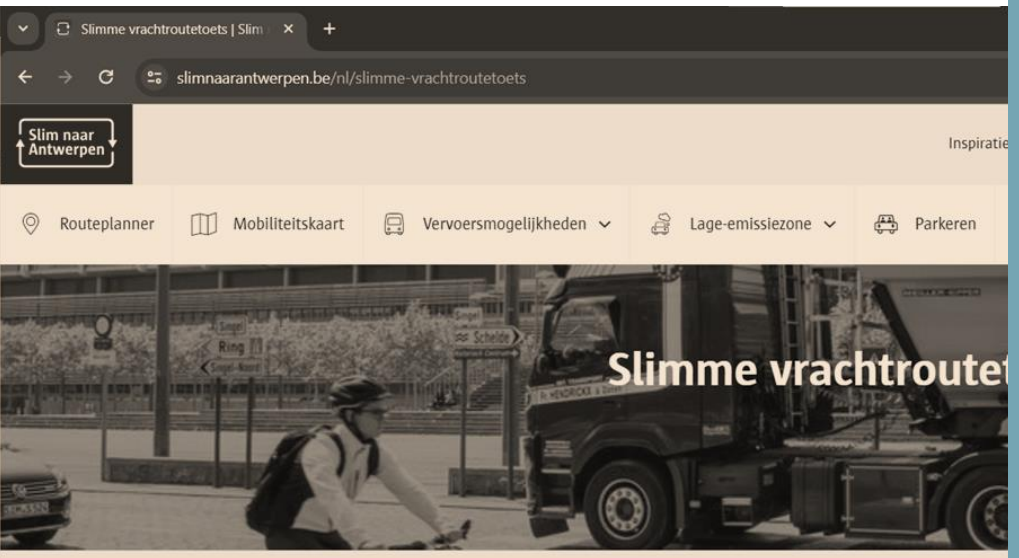
Urban logistics

Sustainable Urban Logistics Plan

- Initiative that includes stakeholders
- Data analysis per area as starting point
  - Shift in time
  - Shift in vehicles
  - Space for urban logistics
  - Smart routing
  - B2C innovations
  - Tailered approaches
- Finalized in 2024



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Urban logistics

Learnings

- Data is a blind spot. It is scattered among all the different companies from different industries like e-commerce and construction.
- Involving smaller businesses in the process; complying is could require relatively lager effort for them.

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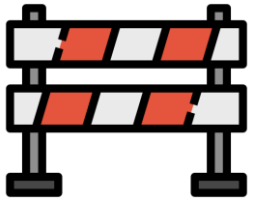
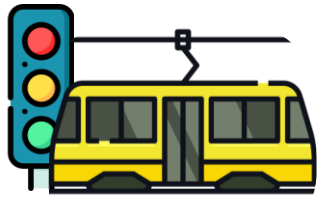
Other initiatives



Road works and temporary closures



Prioritization for public transport

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Thank you for your attention

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