Shared Micromobility in Antwerp

Shared & Digital Mobility Hubs
September 23, 2024

More on-street options

2010
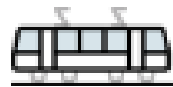
own bike

own moped or motorbike

own car

shared car (back to one)
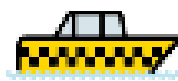
taxi

bus

tram

train

ferry

2023

own bike

own e-bike

own speed pedelec

shared bike (one to one)

shared bike (one to one)

shared bike (free floating)

own foldable bike

own cargo bike

electric shared cargo bike

own bike with cargo trailer

shared scooter (free floating)

own electric scooter

shared moped

own moped or motorbike

shared car (back to one)

shared car (individual)
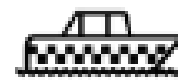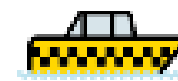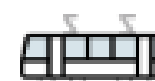
shared car (free floating)

own car

shared car (online platform)

taxi

waterbus

ferry

tram

train

bus

bike bus

Shared Mobility – Steady growth
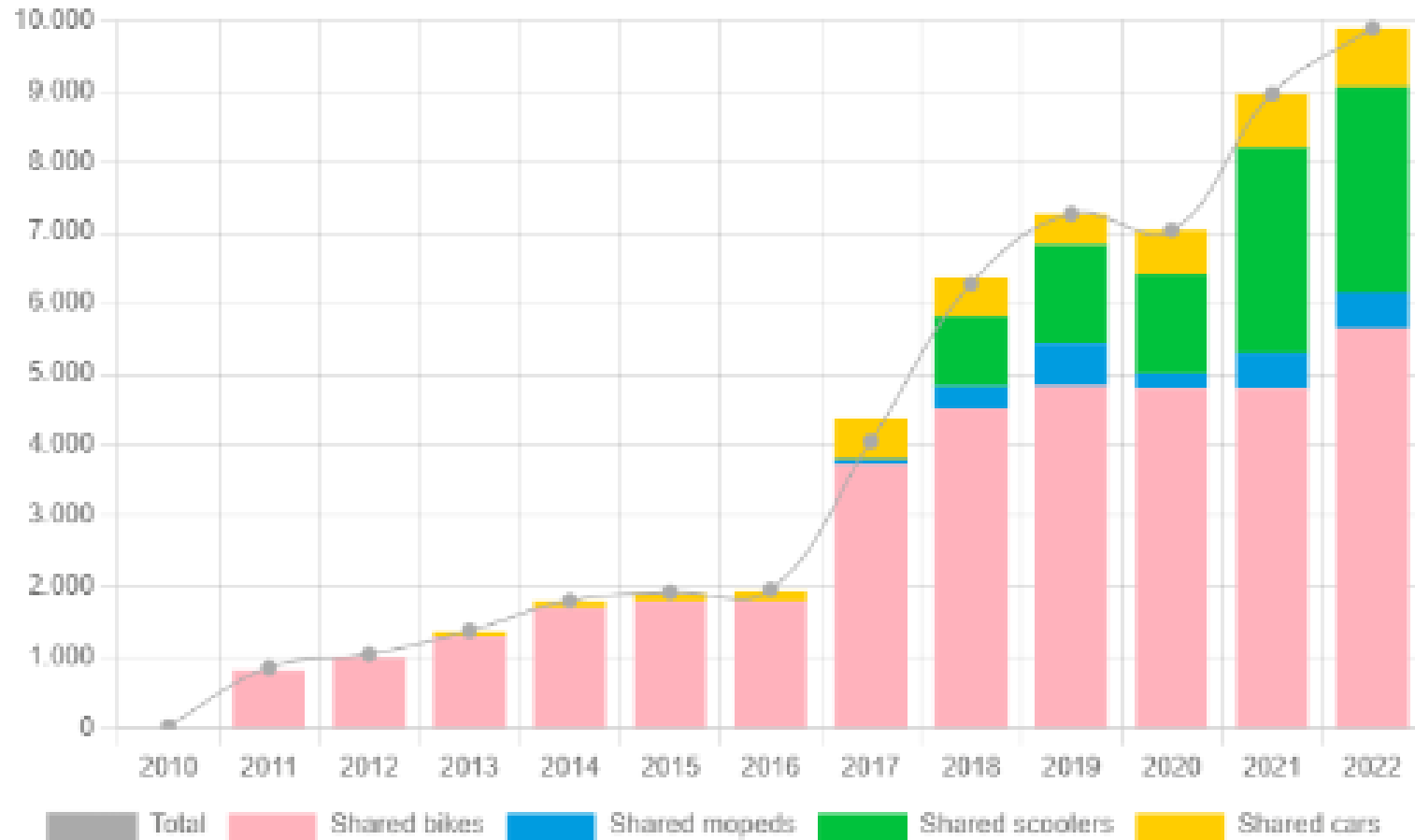
Velo

City Concession

	bikes	rides	ride/bike
2011	818	901.865	6
2012	1000	2.062.359	6
2013	1300	2.548.767	5
2014	1700	3.069.934	6
2015	1800	3.523.850	5
2016	1800	3.373.101	5
2017	3650	5.434.903	4
2018	3800	6.550.303	5
2019	4200	6.817.290	4
2020	4200	4.266.248	3
2021	4200	4.482.100	3
2022	4200	6.028.472	4
2023	4300	6.556.821	4

High usage since the beginning

- Limited by the number of vehicles in the early years
- Waiting lists
- Less trips during Covid
- Almost at the same level as before Covid

Number of subscriptions
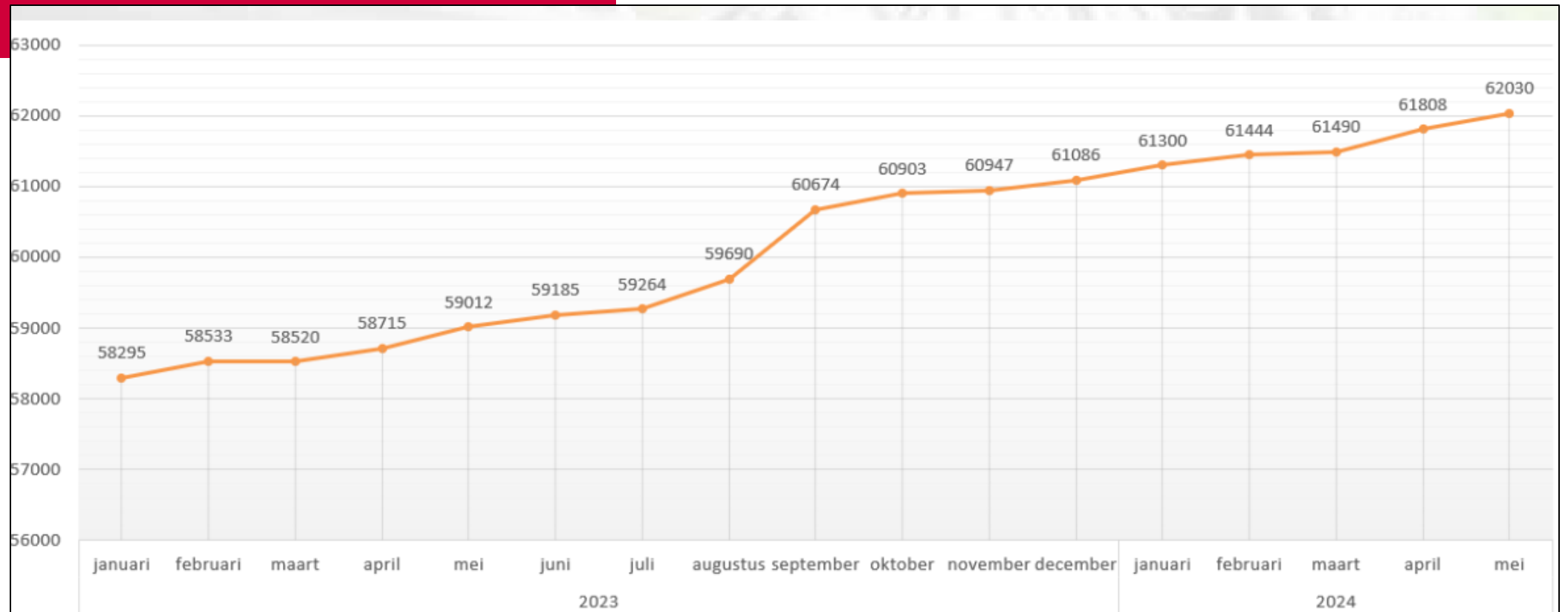
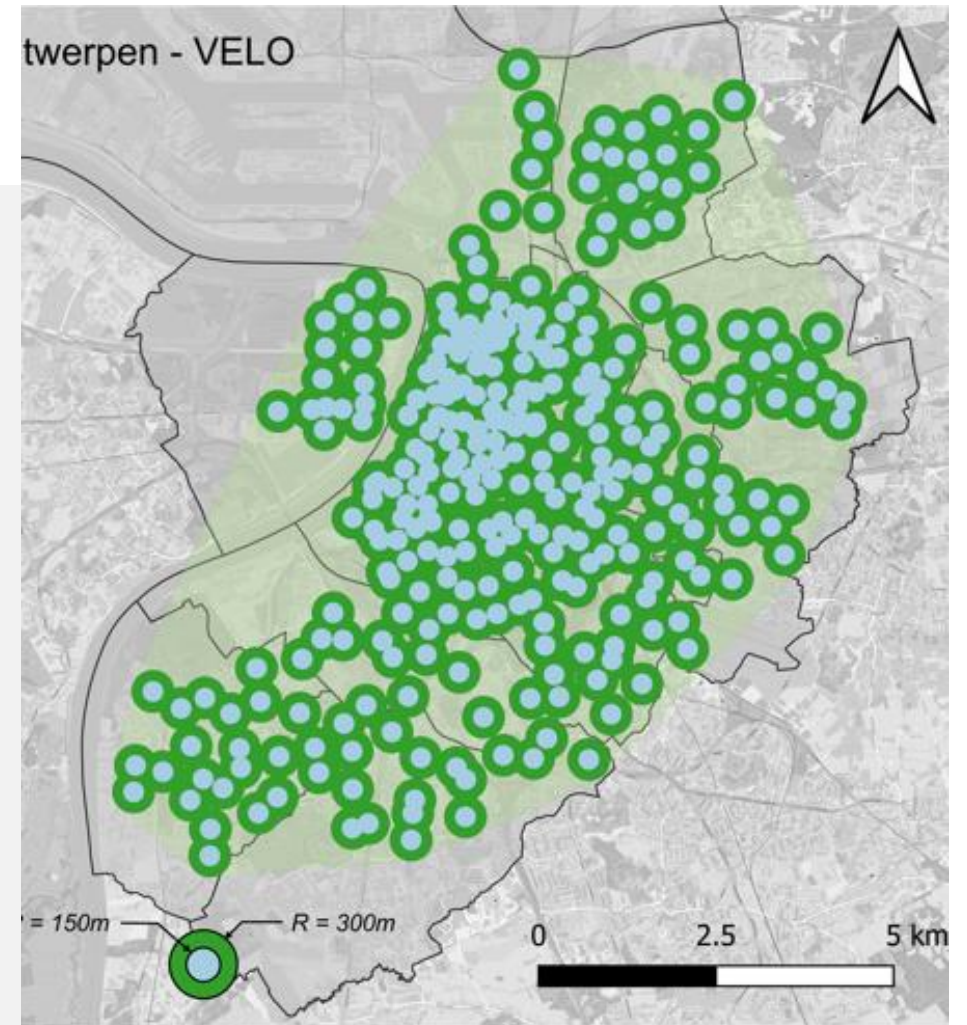Mei 2024 : hoogste aantal abonnees ooit: 62030

Stations

- Centered growth
- > 300 Stations
- A station every 289 meters

twerpen - VELO

= 150m R = 300m

0   2.5   5 km

ce [accessed 01/09/2023]:
://gbfs.smartbike.com/antwerp/1.0/gbfs.json

stations	Area (convex hull) [km2]	Area <300m [km2]	Area <150m [km2]	Mean NN
303	79.4	48.7	19.3	288.7

Main Strengths

- Reliability – always a Velo nearby
  - 'Bike insurance' – 3 out of 4 users is a bike owner
- Fast and reliable first and last mile
  - Alternative for public transport
- Cheap for the users
  - €58/year
  - Trips under 30 min free
- Low impact on public domain

© Frederik Beyens

Data requirements

- Concession dates from 2010/2011 → data requirements are very limited

- Real time number of available bikes/slots
- Usage of the stations and number of trips
- Average trip duration
- Info on users through questionnaires

Free floating systems

License system

To scooter or not to scooter?

2018: first regulations

- Dumping without service
- Tool to control and interfer
- Limiting problems by limiting growth

Licenses and fleet size

Permits	Max # of vehicles	Max # of permits	Min and max per authorisation
Cargobikes	300 (150)	2 (1)	5 - 150
Mopeds	1200 (300)	3 (1)	40 - 500
Steps	3000 (2900)	3 (3)	500 - 1700

To scooter!

2021: 2nd revision of the regulations

- Data driven policy and evaluation
- Finding the right balance

Geofencing

No Go zones, No Park zones, Slow Speed zones en Dropzones

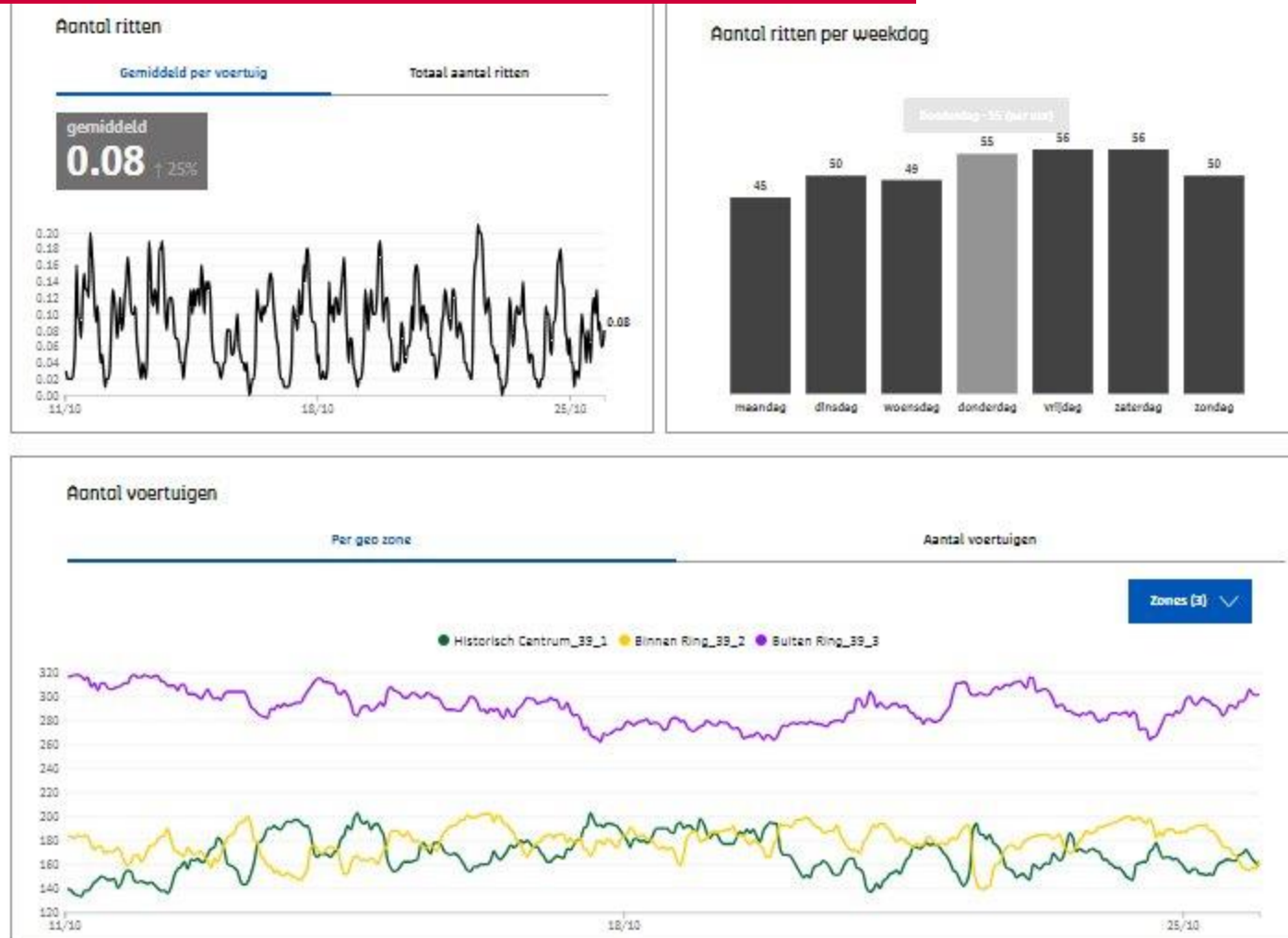This year the entire historical centre become No Park zone

Geofencing

Dropzones
- Spatial quality and safety
- Easy to find and see
- Regulation and management

Monitoring

Multi Modal Mobility
Manager (M4)

Data requirements

- The provision of automated data is one of the exploitation requirements
- No data standard → list with minimum required data fields
  - Based on both GBFS and MDS standards
  - Incoming feeds are standardised by GIP

  1. **Availability data (real time)**
  2. **Trip data (min. once a day)**

- Data License Agreement
  - About the processing, storing, ownership and sharing of the mobility data

Donkey Republic

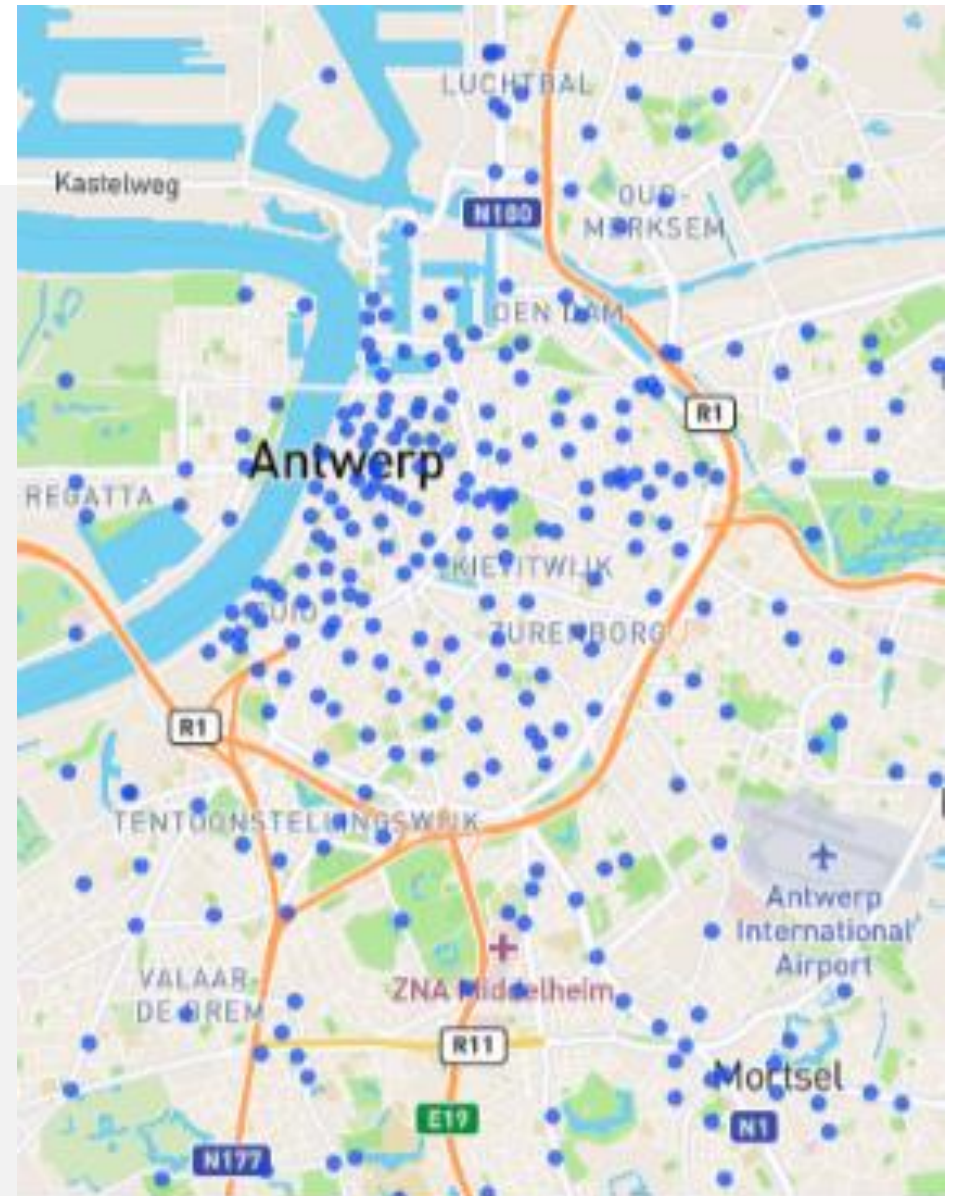Concession of Transport Region of Antwerp

Modal Shift in the Transport region

- Launched August 2022

- 1.650 electric bikes

- Option for city, municipalities and companies to invest in extra bikes and hubs

- Initially ±100 dropzones

- Mainly centered around 'Slimme Schakels' (= Mobility Hubs)
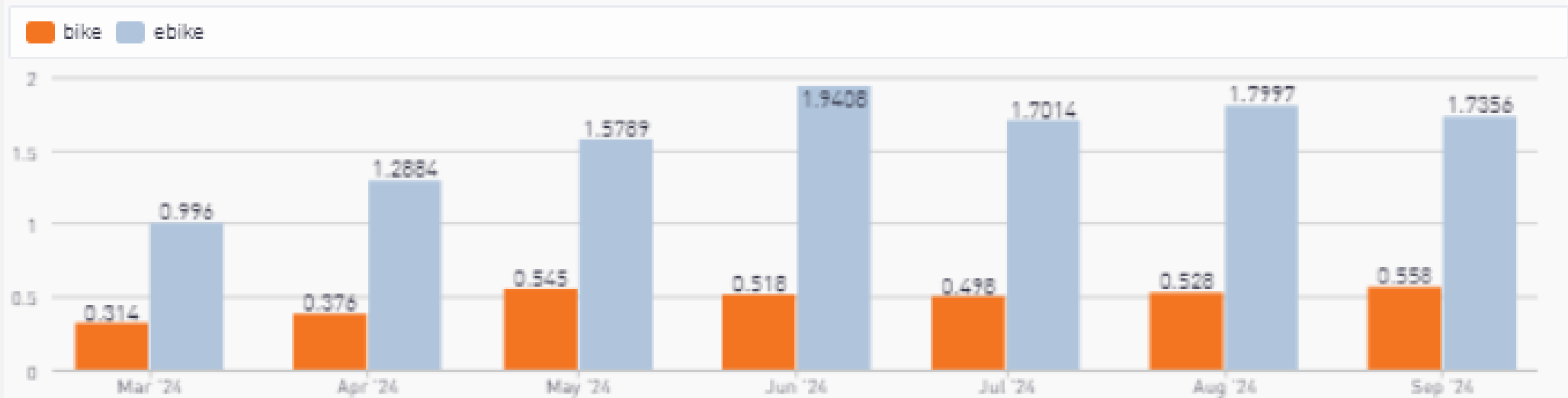
Balancing the system

- 160 extra virtual hubs → on existing bike racks
  - Improving proximity
  - Reducing trip ends outside of the hubs
  - Limiting impact on public domain
- Extra vehicles for districts without the Velo system
- Today over 2,000 bikes in the city region

Usage is growing

ⓘ 1.3 Trips per vehicle per day - Donkey Antwerp

■ bike　■ ebike

	Mar '24	Apr '24	May '24	Jun '24	Jul '24	Aug '24	Sep '24
bike	0.314	0.376	0.545	0.518	0.498	0.528	0.558
ebike	0.996	1.2884	1.5789	1.9408	1.7014	1.7997	1.7356

Data requirements

- Comprehensive City Dashboard
- Integration with M4 platform cfr. other shared mobility providers
  - Same data standard (MDS) but different structure (free floating vs hub based)
  - Trip distance underestimated → back-to-back trips are zero trips

Next steps

Next steps

1. From free floating e-scooters to hub based system in the inner city and beyond
2. Further development of the 'Slimme Schakels' (Mobility Hubs)
3. RFI on the new concession for the Velo system (2027)

Other questions?

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