



# 2E. Enabling shared mobility

02:30 PM - 04:00 PM



**Governance & Integration**

# POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION

ANNUAL  
CONFERENCE  
**2024**

27-28 NOVEMBER 2024

KARLSRUHE (DE)



Baden-Württemberg  
Ministry of Transport



Karlsruhe



# REALISING OVER 1000 HUBS AND BICYCLE PARKING SPOTS IN EINDHOVEN

---

how do you choose, prioritise  
and how do you design them?





# HI!



Bas Kramer



Kim Raijmakers



**WELCOME TO  
EINDHOVEN**

**GOED**  
EINDHOVEN

**DAT**  
EINDHOVEN

**JE ER**  
EINDHOVEN

**WEER**  
EINDHOVEN

**BENT**  
EINDHOVEN





# WELCOME TO EINDHOVEN

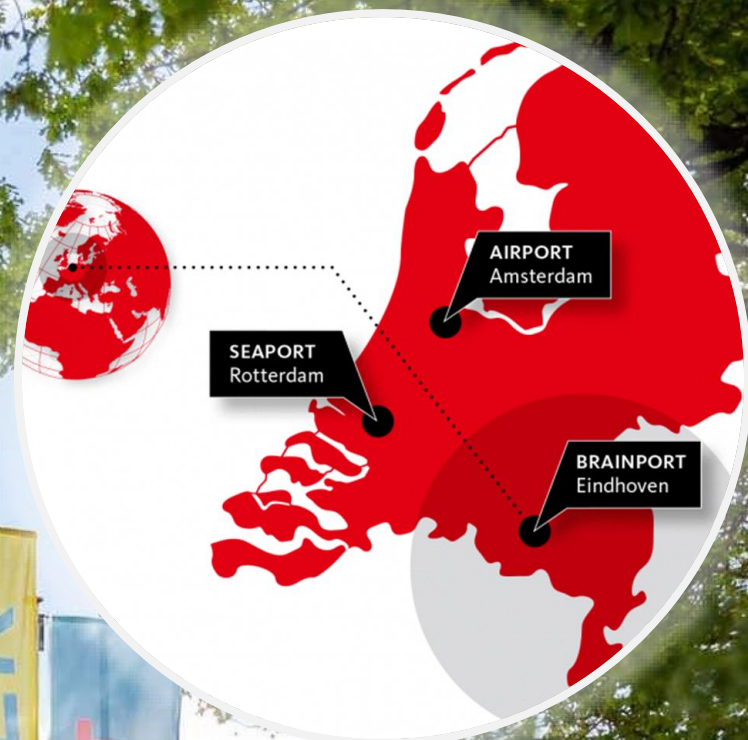
GOED  
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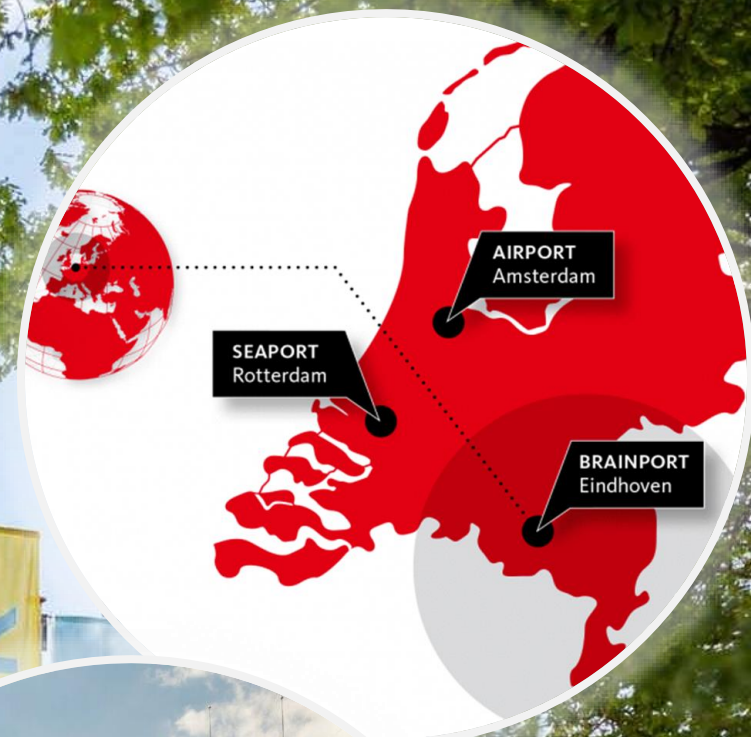
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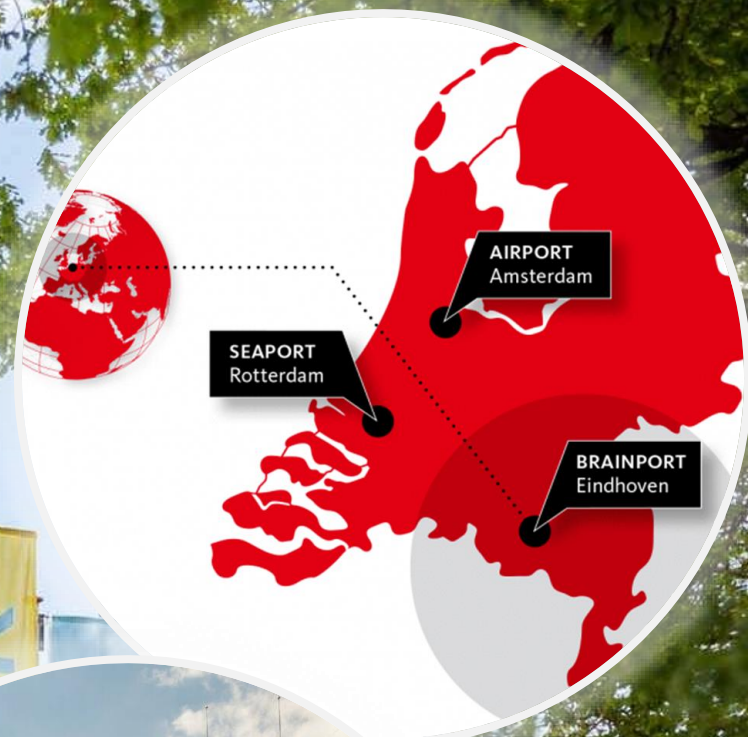


# WELCOME TO EINDHOVEN





# WELCOME TO EINDHOVEN



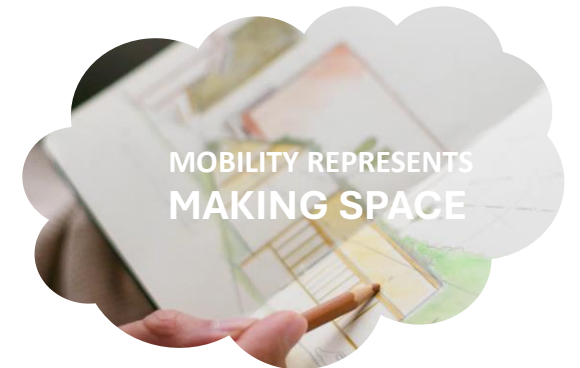


# WELCOME TO EINDHOVEN





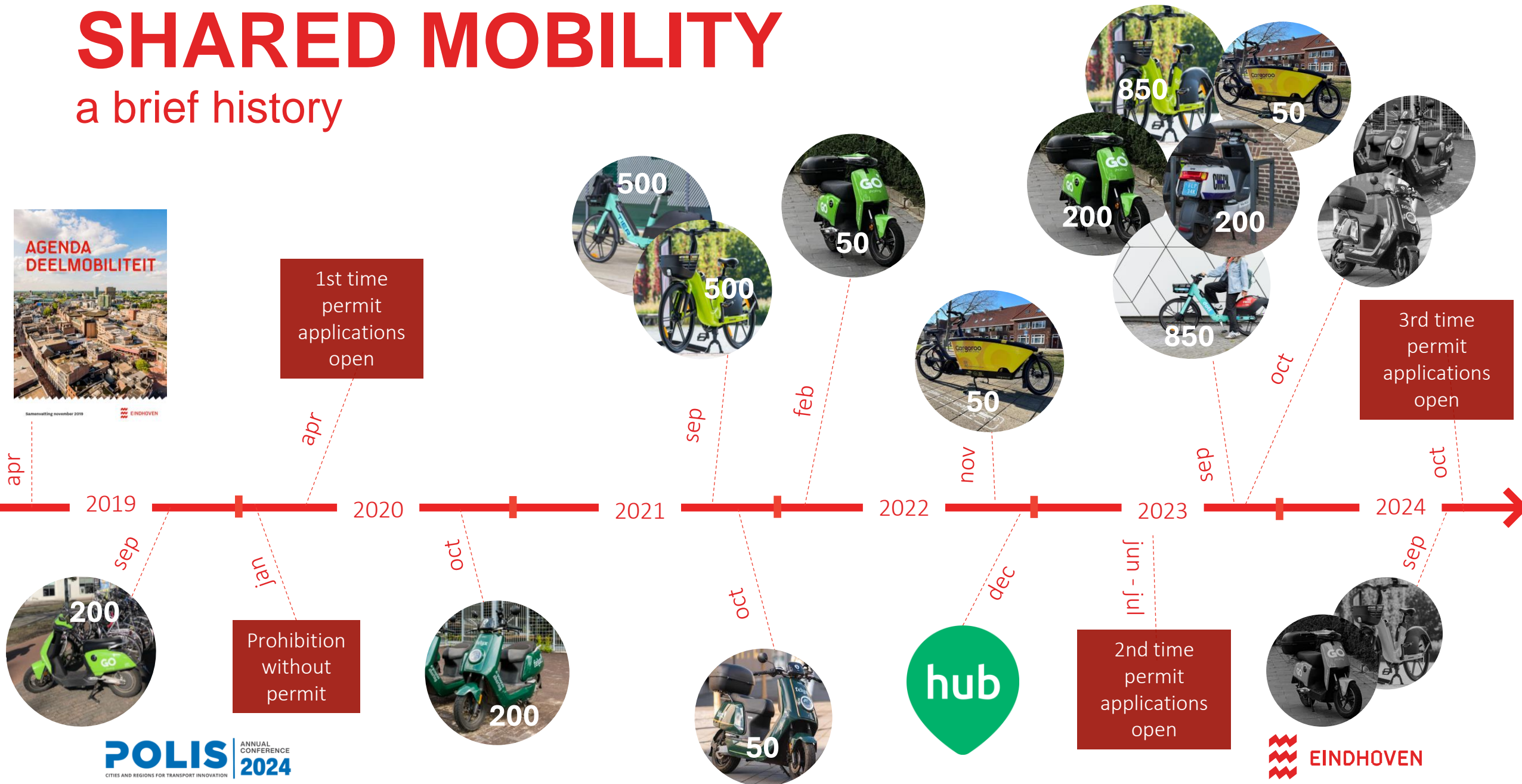
# MASTERPLAN MOBILITY 2050





# SHARED MOBILITY

## a brief history



# WHY MOBILITY HUBS?



preventing blocking the  
sidewalks and guidinglines

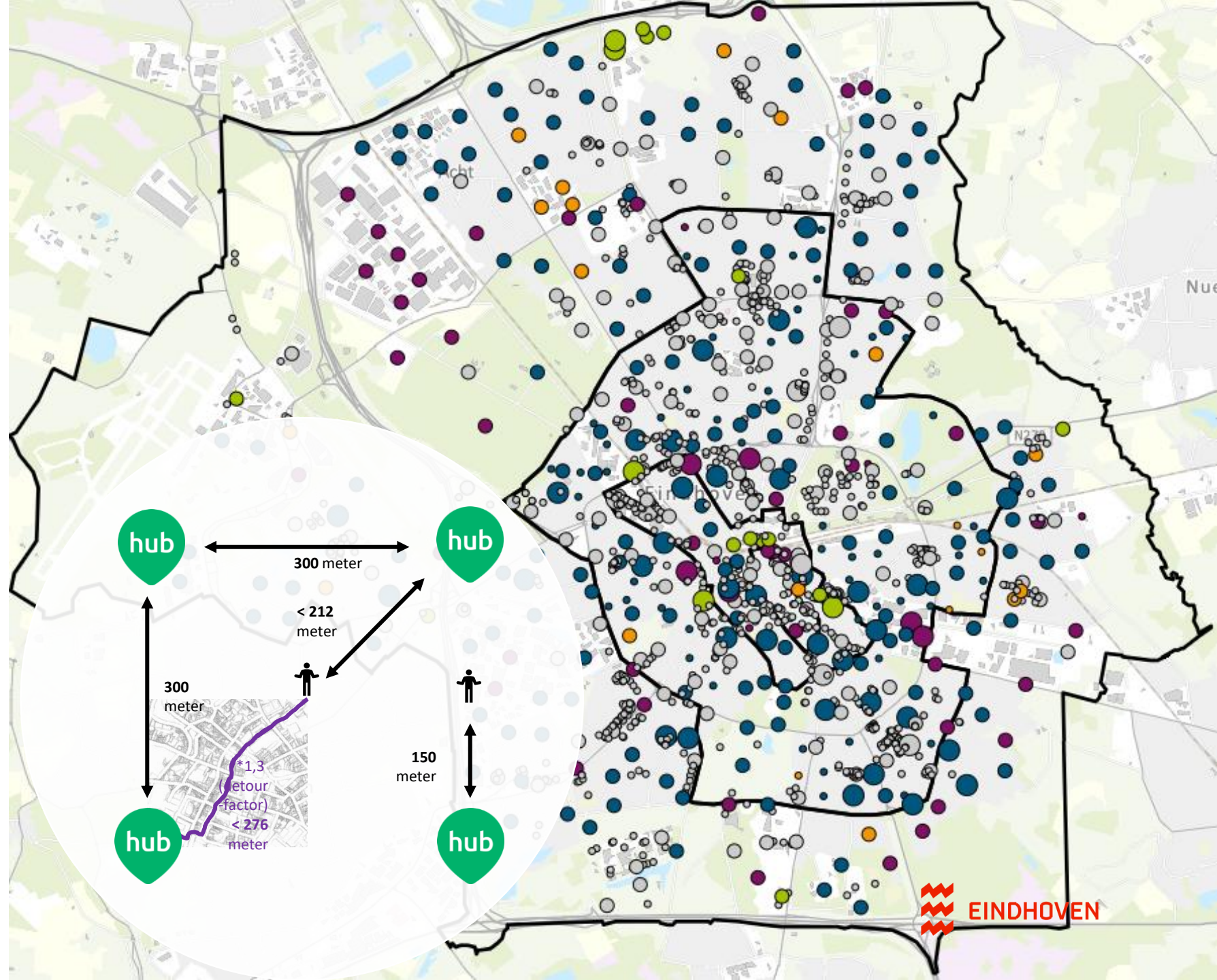


visible and easily accessible shared  
mobility in recognisable locations in every  
neighbourhood



# NETWORK OF HUBS

- I. Basic grid based on **walking distances** (300m)
- II. Relocation of theorised hubs based on GIS modeling to **points of interest** and otherwise **spatial hierarchy**:
  - i. Existing bicycle parking
  - ii. Car parking places (mobility for mobility)
  - iii. Large pavements
  - iv. Customised location





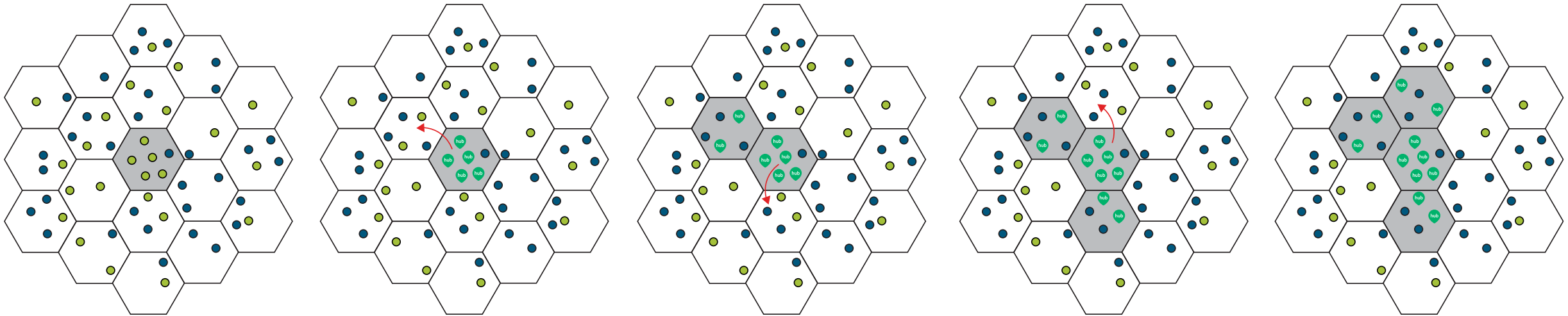
# PRIORITISATION AND STRATEGY

## PRIO locations

nuisance, POI's,  
public transport stops,  
suggestions of residents

**'work with work'**  
redevelopment of roads

**wildcards**



- Type 2 and 3 hubs with PRIO
- Type 2 and 3 hubs without PRIO
- hub Realised type 2 and 3 hubs



# PARTICIPATION

## Participatie mobiliteit hubs

Zoom in en klik op de hub waarop je wilt reageren.

Scroll naar beneden voor de vragen. Op meer onderdelen reageren? Verzend je opmerking, klik op een volgend onderdeel en verzend opnieuw.

Na het verzenden van je reactie, kun je op deze [link](#) klikken om de kaart te verversen en je reactie terug te zien.

LET OP: de opmerkingen maken we openbaar in de kaart. Vul dus geen persoonlijke gegevens in.

Reageer op hub:

De hub op de kaart:\*

+

—

🏠

📍

📏



Esri Nederland, Beeldmateriaal.nl

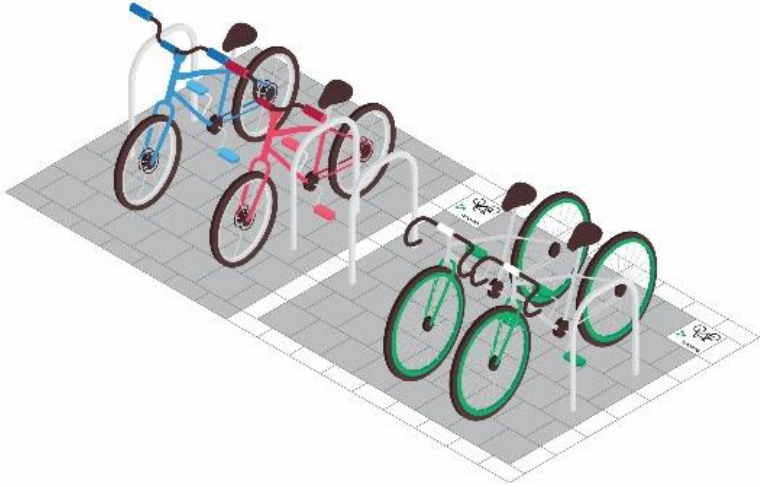
Powered by Esri

ⓘ

 Nog geen geometrie vastgelegd.



# SPATIAL DESIGN PRINCIPLES



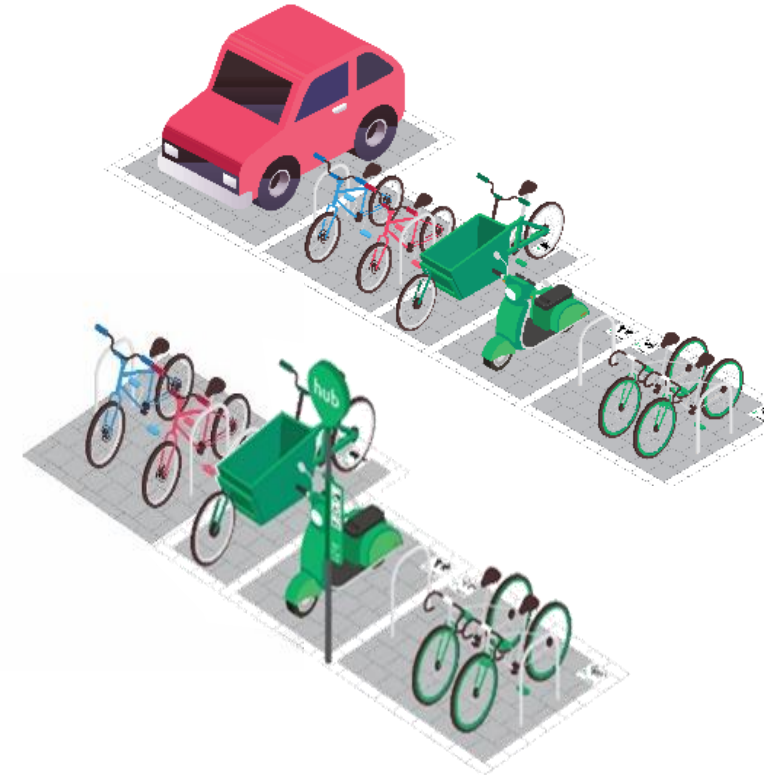
Type 1: bicycle parking  
with shared bikes

~1000 locations



Type 2: shared two-wheeler hub

~ 450 locations

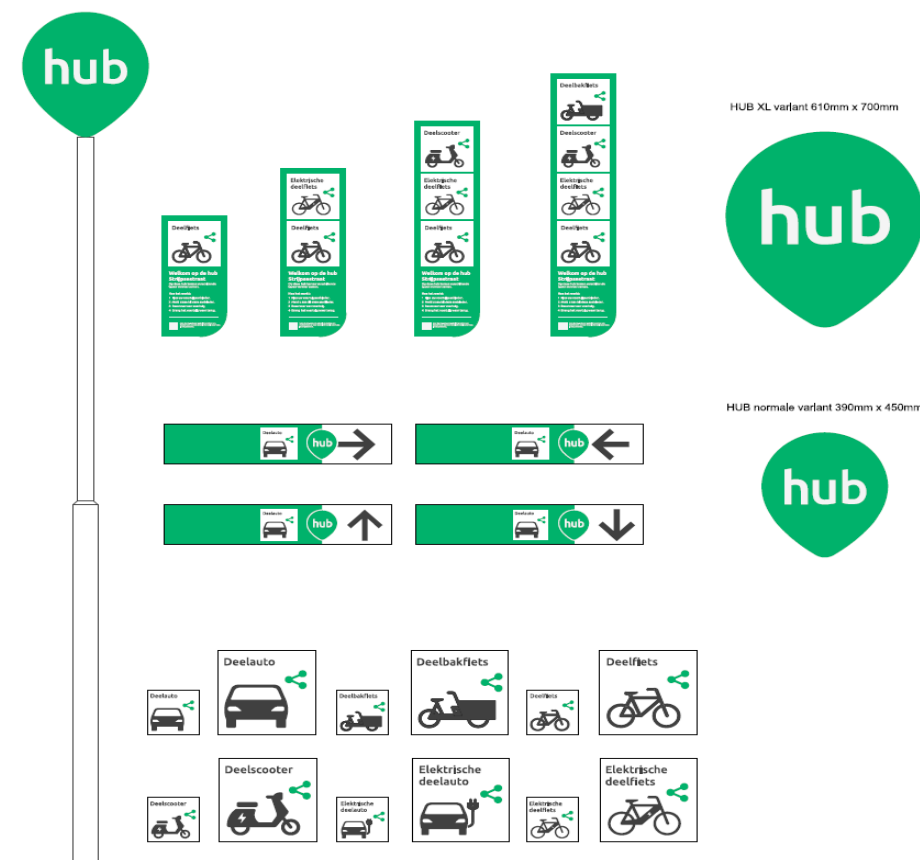
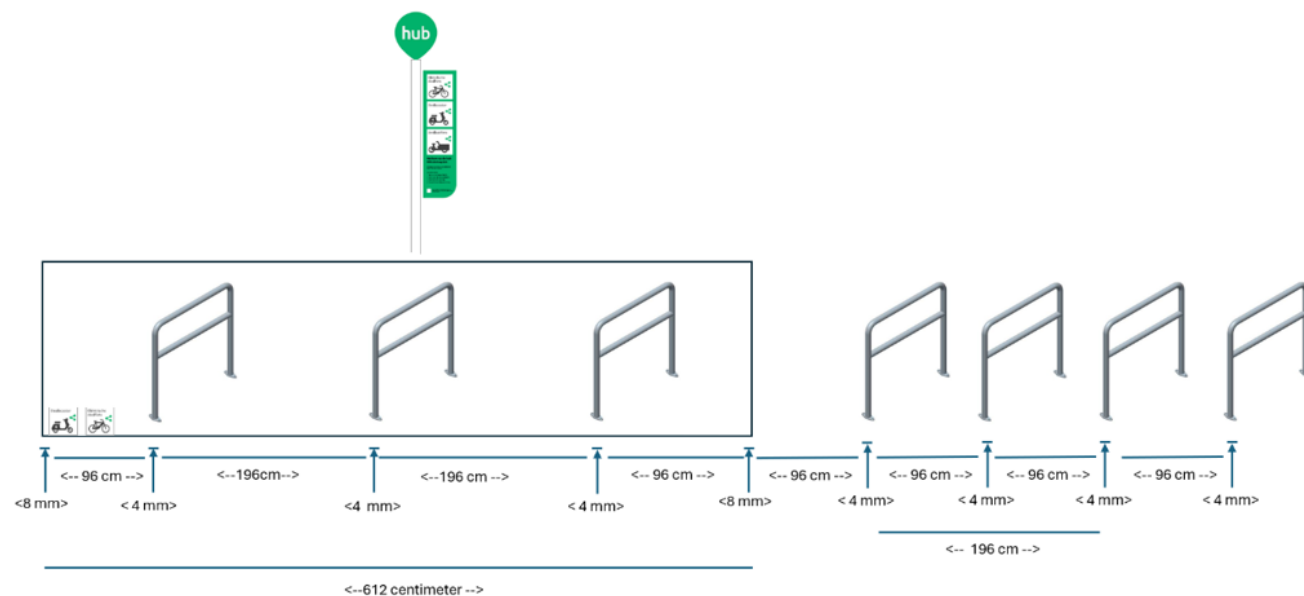


Type 3: neighbourhood hub  
with shared car and/or cargo bike

~ 50-100 locations



# SPATIAL DESIGN PRINCIPLES INTO DEFINITIVE HUBS





# WHERE ARE WE NOW?

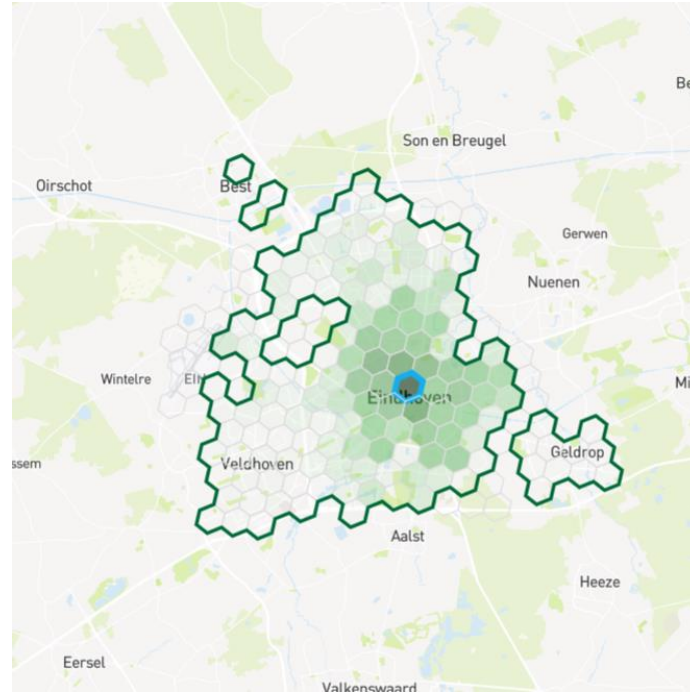




# REFLECTION & (FUTURE) CHALLENGES



prevent having a network  
without vehicles



how does the region  
benefit?



back-to-many, free-  
floating or hybrid?  
*waterbed effect*



**THANKS!**  
**QUESTIONS?**



Deelscooter



Elektrische  
deelfiets





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Karlsruhe





# Stationary, free floating and electric carsharing: Lessons learned from the last 10 years of carsharing promotion in Stuttgart

27 November 2024

Michael Hagel, City of Stuttgart

Nicolas Leyva, City of Stuttgart



# All sharing types are important in Stuttgart

## Station based carsharing

Stadtmobil, Flinkster, Ford, deer



## Free floating carsharing

SHARE NOW,  
Miles

SHARE IT!  
LIKE IT!



## Bike sharing

RegioRad Stuttgart  
bikes/pedelecs/  
cargobikes



## E-moped sharing

Stella



## E-scooter sharing

Lime, Voi, Tier, Bolt





## Why is sharing so important for Stuttgart?

### Sharing is an important element of the “mobility transition“

- Sharing instead of owning: Carsharing is an environmentally-friendly and affordable alternative to owning a car
- Relieves pressure on public space / High potential of optimization of public space
- Contributes to strengthening other transport modes (public transport, cycling, walking)
- Contributes to less air pollution, less noise and to climate protection
- Growing importance in the last 10 years, both stationary and free-floating





**Before implementation of strategies for  
carsharing in the public space**





After implementation of strategies for  
carsharing in the public space





## Promotion of station based carsharing in Stuttgart

- Carsharing offers in public space should be made more visible and accessible
- Free floating was already visible – Station based was not !
- Expansion of carsharing stations in public space
- Federal carsharing law from 2017 („*Carsharinggesetz*“)
- State road law from Baden-Württemberg: “special use” of public space for carsharing purposes („*Sondernutzung*“)
- Development of a process for the provision of public parking spaces for carsharing





## Station-based carsharing in Stuttgart today

- Stadtmobil, Flinkster, Ford, deer e-Carsharing
- 560 vehicles

### Public promotion:

- Provision of public parking spaces throughout the city since 2018
- Free parking for all carsharing vehicles
- Funding program for carsharing in residential areas





## Free-floating carsharing in Stuttgart today

- launch in 2011, expansion 2013
- SHARE NOW/Free2move and MILES
- Approx. 1.300 vehicles

### Public promotion:

- Free parking for all carsharing vehicles
- Widespread public charging infrastructure (1.000 charging points)
- Unbureaucratic treatment





## Outlook

- Since 2018:  
Approx. 170 carsharing parking places in 100 stations in public space in all city districts
- 8 new stations exclusively for **e**-carsharing
- 2025: 120 new carsharing parking spaces



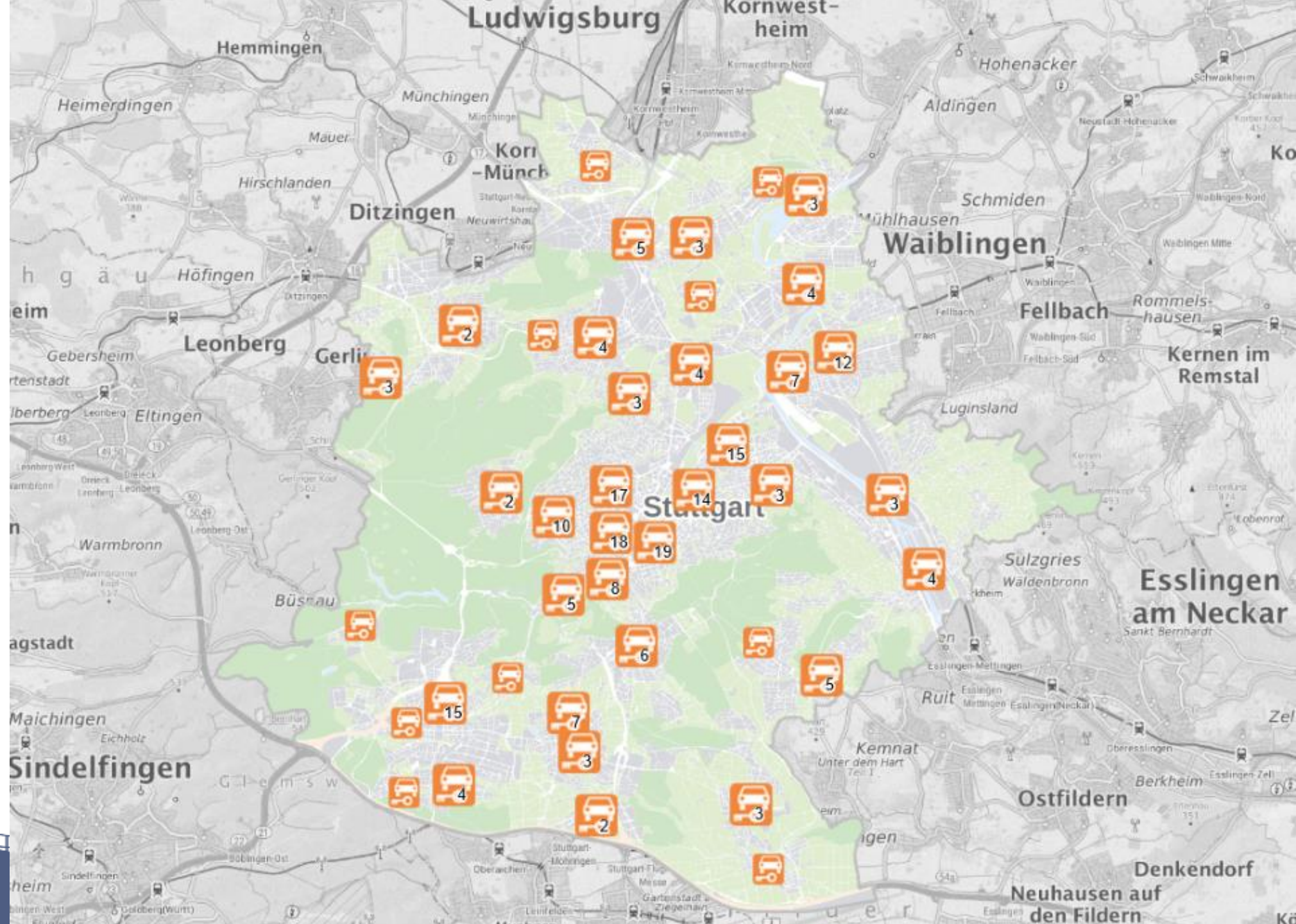














## Carsharing strategy in Stuttgart

- wide sharing offer
- Simple tender procedure
- Visibility and accessibility
- Small stations in public and private space
- Stations in inner districts and periphery
- Dense station network, short distances
- Connected to public transport and in residential areas
- Reinforcement of mobility hubs
- Permanent expansion of the network
- Electrification of stations
- no parking fees for carsharing vehicles
- Close communication and cooperation
- Marketing







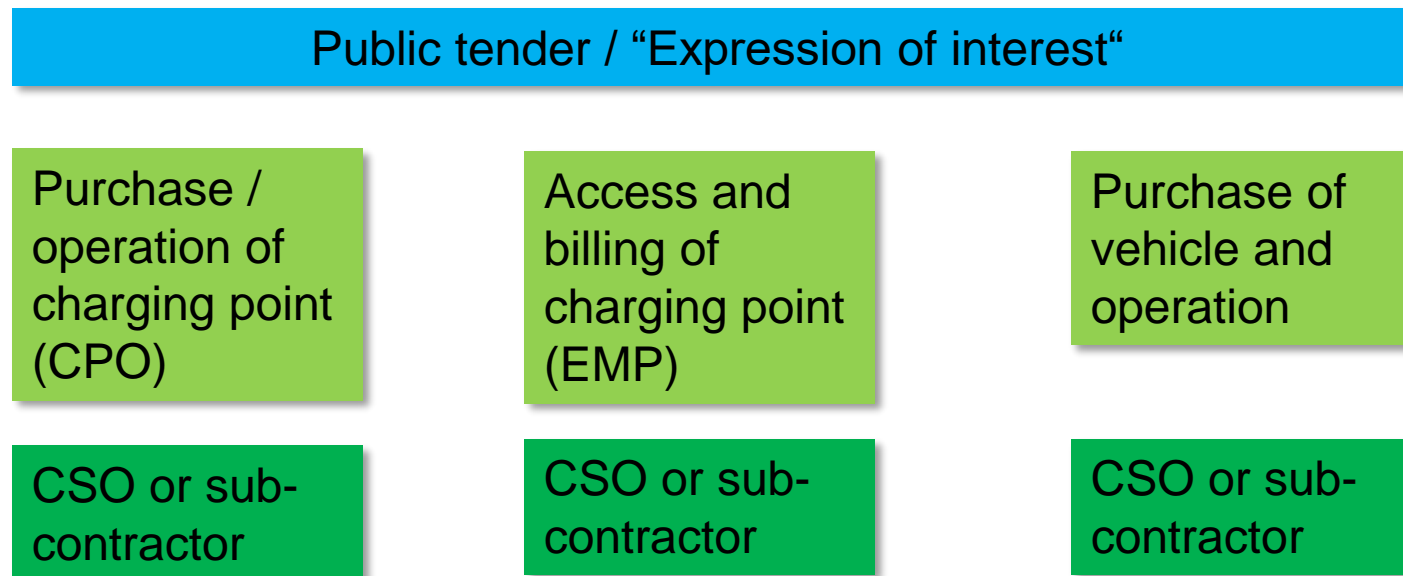
## Electrification of carsharing stations in public space: an enormous challenge

- High acquisition costs of vehicles
- High initial investment for charging infrastructure
- Uncertainty regarding operating costs
- (Still) psychological obstacles among users
- Uncertainty regarding organizational models: Who plays which role? (city administration, carsharing companies, charge point operators)
- Complex contractual models, long contract terms
- Different legal basis for different types of contracts (carsharing law, e-mobility law)





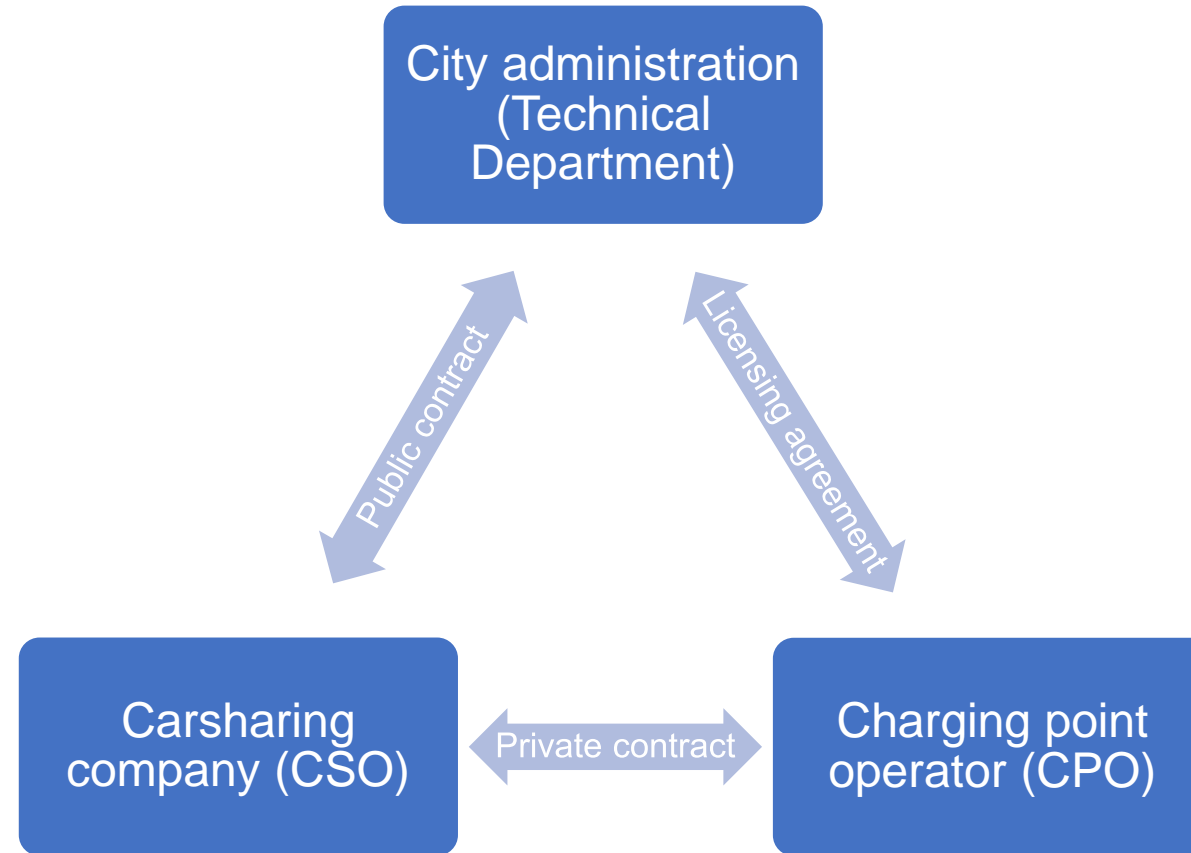
# Possible models for electric carsharing – Case A: Charging infrastructure as part of the tender



CPO = Charging point operator: Technical operator of charging infrastructure  
EMP = Electric mobility provider: mobility provider (sometimes identical to CPO)  
CSO = Carsharing Operator



## Contracts needed in model A

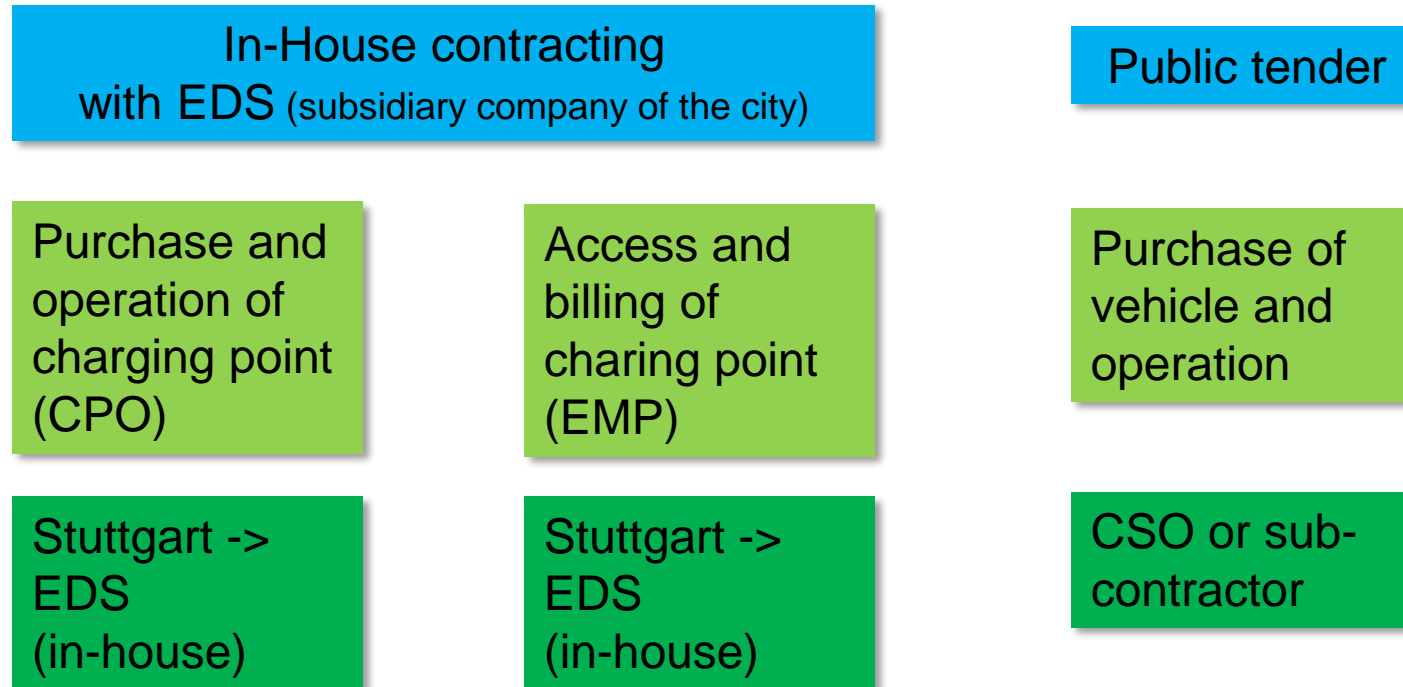






# Possible models for electric carsharing – Case B

## Charging pole as part of the city's infrastructure



*(Not carried out until now)*





# (E-)carsharing promotion in Stuttgart

## Funding program “E-carsharing in residential areas“ for private construction projects

- Funding of e-carsharing and other sustainable mobility forms in residential projects
- With up to 150.000 € per project

## Funding of station-based **electric** carsharing in public space

- Funding of charging infrastructure for carsharing as subsidy for models A or B
- Available amount: 300.000 € (in 2024/2025)

## EU-Project Interreg-STEER (in application phase)

- Objective: Integration of e-carsharing as standard in residential projects

## No parking fees for carsharing vehicles



“A parking space  
just for you.  
And for all others in your district“







STUTTGART  
STEIGT UM



# EIN PARKPLATZ NUR FÜR DICH.

Und alle anderen in Obertürkheim.

[stuttgart-steigt-um.de](http://stuttgart-steigt-um.de)





**Thank you for  
your attention!**





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**Baden-Württemberg**  
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Interreg  
North Sea

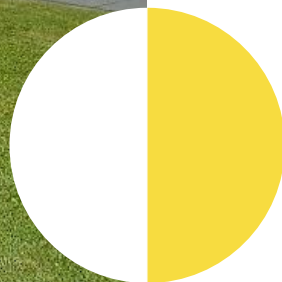


Co-funded by  
the European Union

ShareDiMobiHub

# Regulatory frameworks for shared mobility

POLIS Conference 2025





# BRAM SEEUWS

## PROJECT AND POLICY COORDINATOR

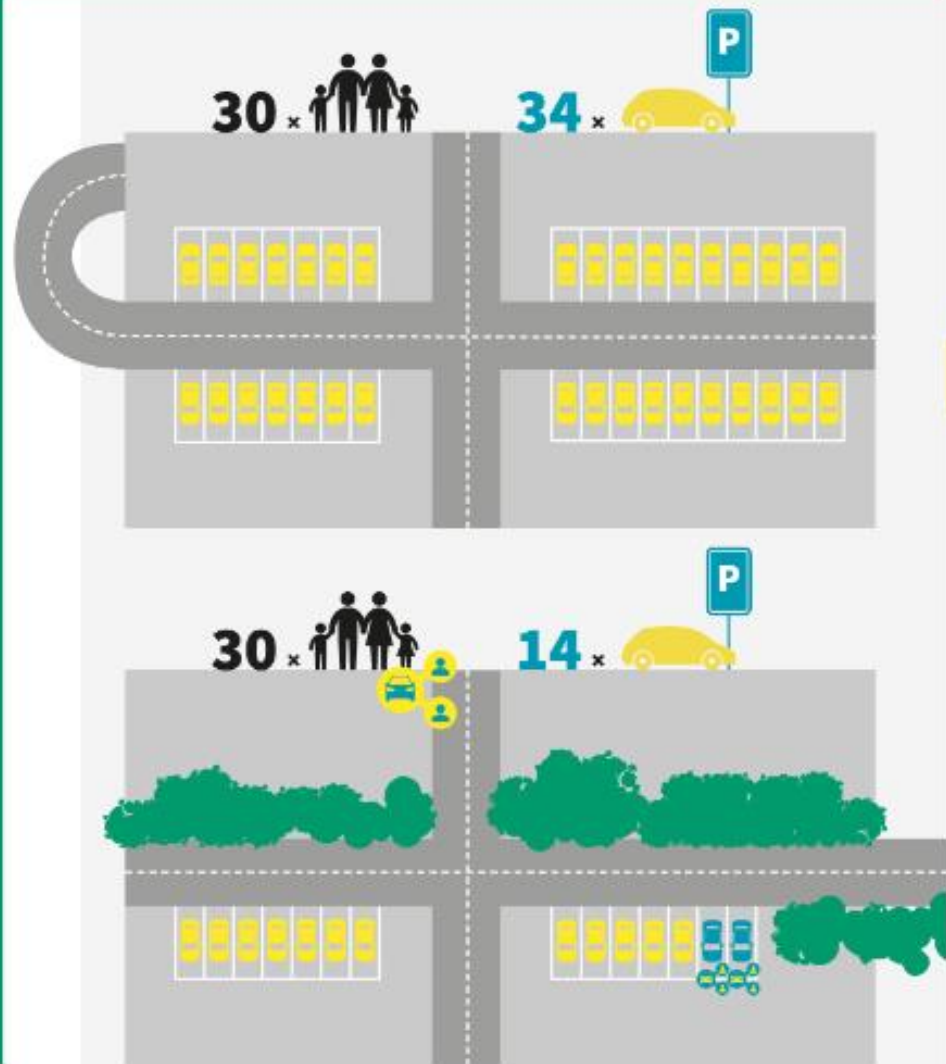
Autodelen.net



“ **My job? Making shared mobility the new normal**



## POLICY



## COMMUNITY

# February 2025



**JOUW WEGWIJZER  
IN DEELMOBILITEIT**



**VOTRE ALLIÉ POUR  
LA MOBILITÉ PARTAGÉE**



**THE SHARED  
MOBILITY NAVIGATOR**







ADVERTISEMENT

## RENAULT SCENIC E-TECH ELECTRIC

**1,95 %**  
fastrente i 3 år

REKKEVIDDEVINNEREN 2024\*

leasing fra kr

**Kr 2 995,-** pr. mnd

INKLUDERT VINTERHJUL - RASK LEVERING

\*vinner av Motor.no og NAFs sommerrekkeviddetest. leasingtilbudet gjelder lagerførte biler med utstyrenivå Techno EV87 220hk flammereid, startleie: kr. 99 880,-, etabl. gebyr: kr. 4 000,-, månedeleie kr. 2 995,- og totalpris: kr. 212 600,-, fastkampanjerente 3 år 1,95%, 3 års bindingstid, kjørelengde 30 000 km, priser gjelder levert forhandler i Oslo. frakt til lokal forhandler kan tilkomme tilbudet gjelder i en begrenset periode frem til 31.12.2024, med forbehold om kreditgodkjenning. i samarbeid med Nordea Finans mfl.



2024  
årets bil



# Car sharing is increasing

Since mid-2023, Europe's car sharing fleet has grown by 14% to 120,000 cars, writes the "European Car Sharing 2024" report. 580 lenders in 39 countries use a total of 360 different models from a total of 55 manufacturers. Germany is the largest market with 43,100 cars. Then comes France with 13,500 and the Netherlands with 7,000. Two thirds of the business takes place with a so-called Free-Floating model.





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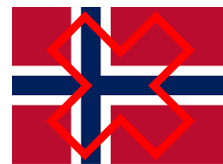
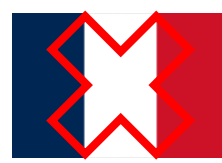
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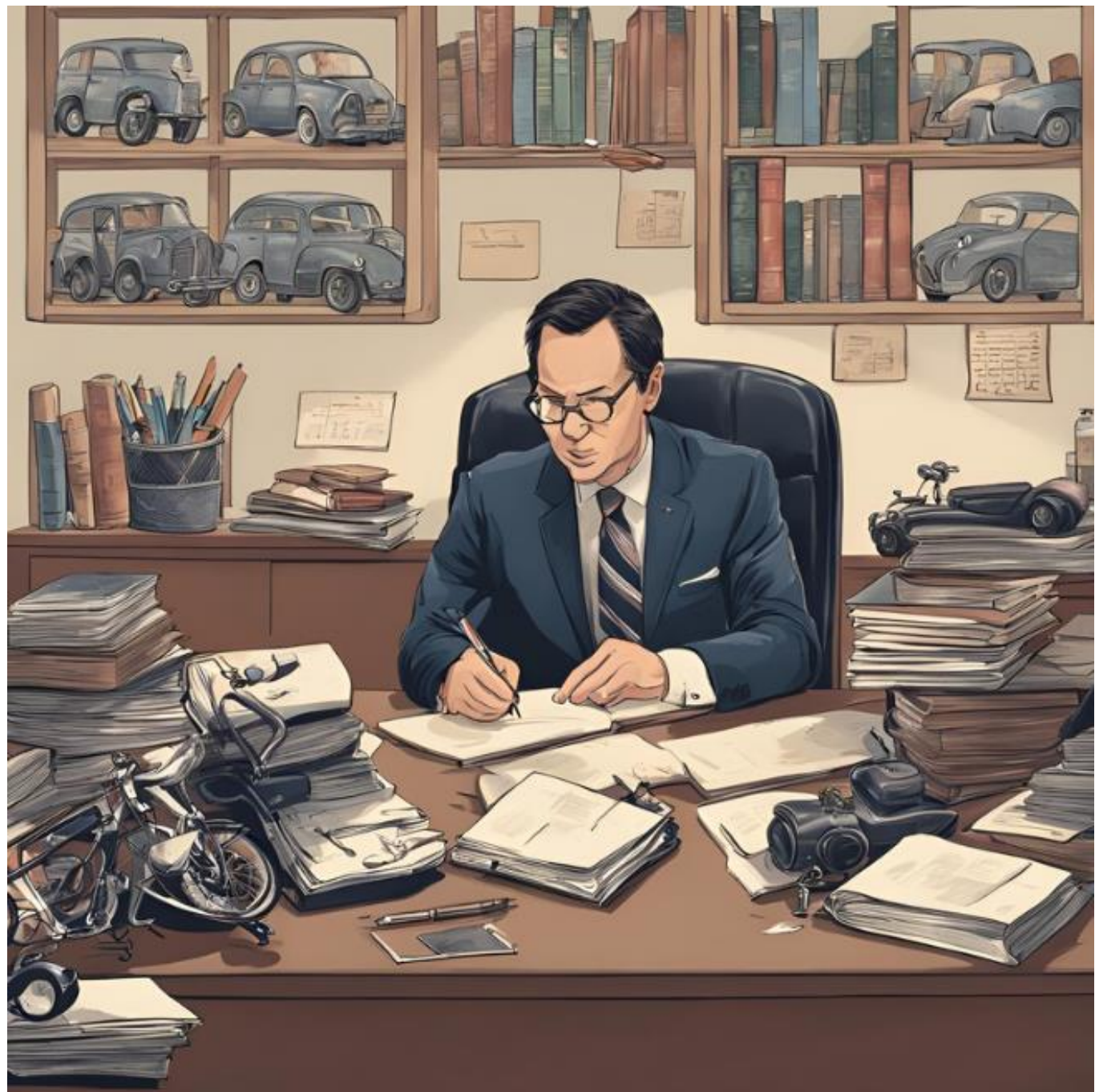


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WHAT?





WHY?

# Multiple reasons

- **Protection of public space**
- **Level playing field on different policy levels**
- **Safety of users and non-users**
- **Impact measurement and incentives**
- **(Protection) of passenger rights**
- ...



# Collaboration between policy levels

**1. Definitions** => EU or national level

**1. Conditions** => EU or national level, additional conditions on regional or local level

**1. Quality criteria** => EU or national level, additional conditions on regional or local level

**1. Incentives** => local or regional level

1. **Definitions** => What is a shared car? A user?...
1. **Conditions** => 24/7 service, price per hour or less, one time contract,...
1. **Quality criteria** => Emissions, inclusivity,...
1. **Incentives** => public space, funding, ...





HOW?

Open License	Limited License	Limited License Strong Oversight	Multi-Operator Partnership	Single-Operator Partnership	Municipal Program
Any eligible operator can receive a license if they meet the license terms	Any eligible operator can apply for a license, but limited number available (granted either first-come-first-serve or competitive process)	Any eligible operator can apply for a license, but limited number available; City works closely with operators to regulate service	Competitive process used to select operators for multi-year contracts to partner with City in developing and operating a program	Competitive process used to select one operator for multi-year contract to partner with City in developing and operating a program	City develops and operates program with internal resources and owns infrastructure; City may contract out for support services

**Increasing City Involvement, Investment, Ownership, Control and Accountability for Outcomes**

Sam Schwartz and Mark Bennett



# Open license?

## Mostly car sharing

- National car sharing laws (Germany)
- Regional car sharing labels (Ile-de-France, Flanders)
- Regional permit system (Wallonia)
- Local regulations on city level (Bremen, Bergen,...)



# Limited license?

- **local Bike sharing permits (Gent, Rotterdam,...)**
- **Local e-scooter permits (Oslo, Brussels,...)**
- **Local Mopeds permits (Amsterdam, Rotterdam,...)**



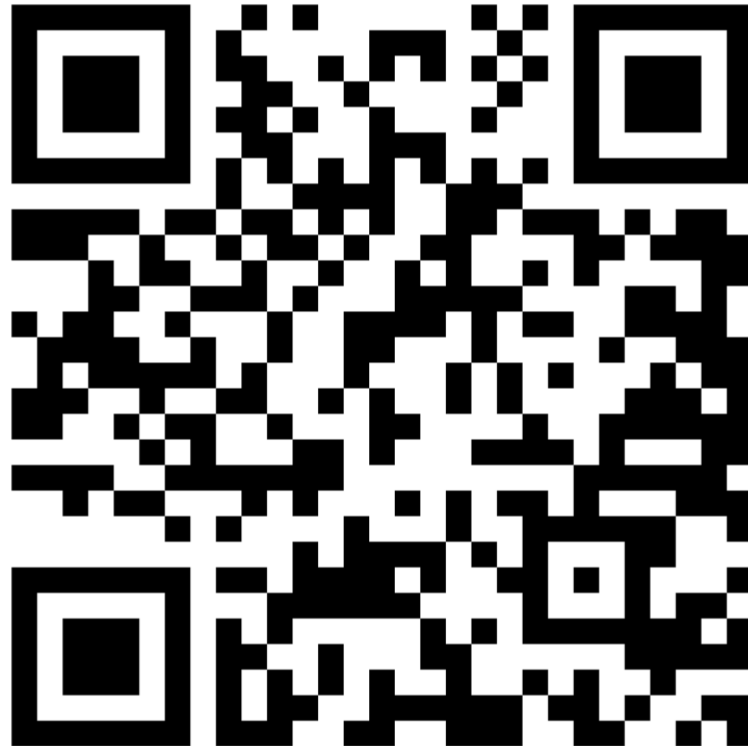


# Single operator partnerships?

- **Public city bike sharing (Antwerp, Paris,...)**
- **As part of PT concessions (Flanders)**



## Roadbook share mobility frameworks (2025)







## Interested in joining?

- **A beta version** will be released in **spring 2025**
- Join our stakeholder list if you want to get access to the free platform when it's released:



<https://de.surveymonkey.com/r/C92ZSFC>

# THANKS

## CONTACT

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Bram@autodelen.net



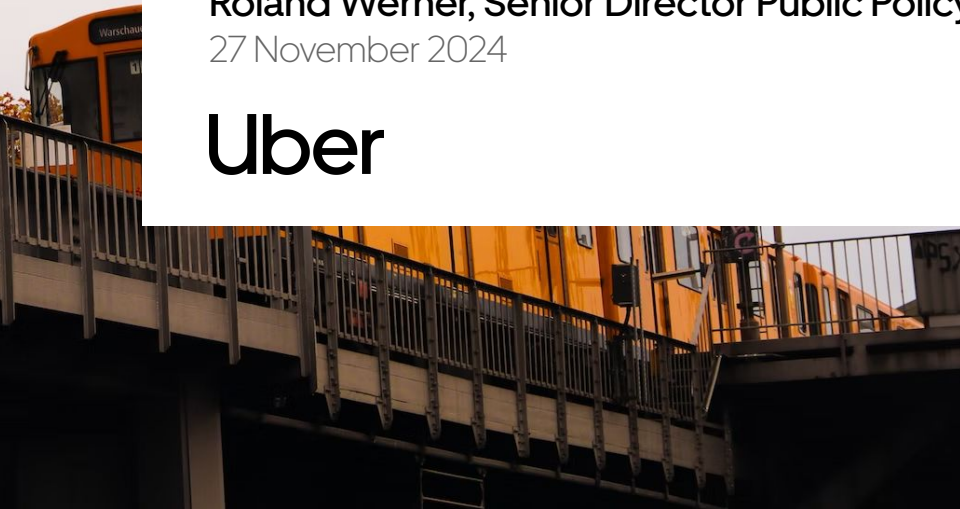
# Unleashing the power of seamless multimodality: Integrating public transport and shared mobility solutions

Roland Werner, Senior Director Public Policy

27 November 2024

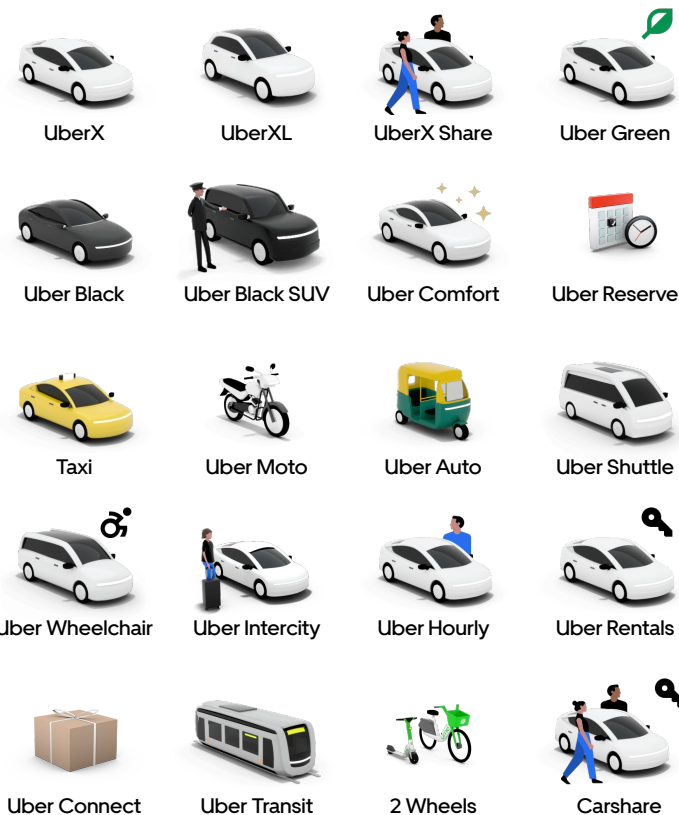
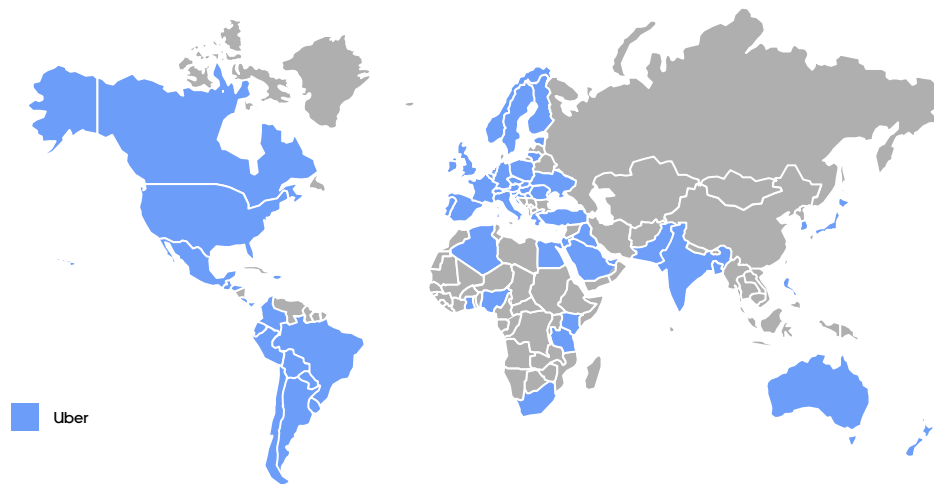
Uber

eco



# One app for all destinations

In 76 countries and 11,000+ cities/municipalities: An app for everyone in their native language with real-time translation for communication between drivers and passengers.





# Uber Rides

Uber X



Taxi Wheelchair



Uber Green



Uber Taxi



E-Tretroller / Pedelects



ÖPNV



# Sustainable Mobility Platform



**2025**

**50%** of all mobility kilometres in 7 European cities emission-free



**2030**

**100 %** emission-free trips in the USA, Canada and Europe

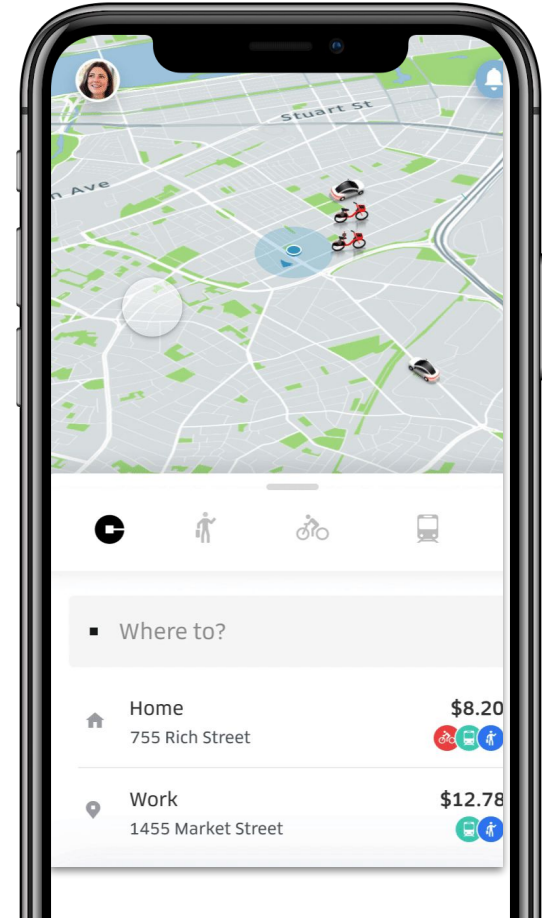
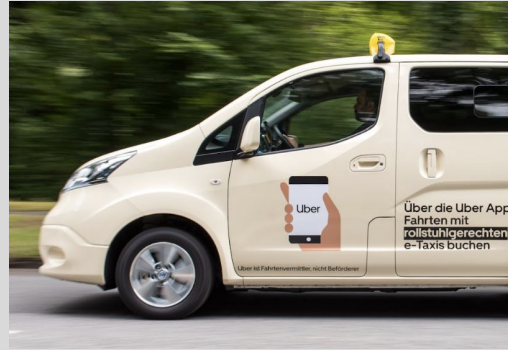


**2040**

**100%** of trips worldwide in zero-emission vehicles



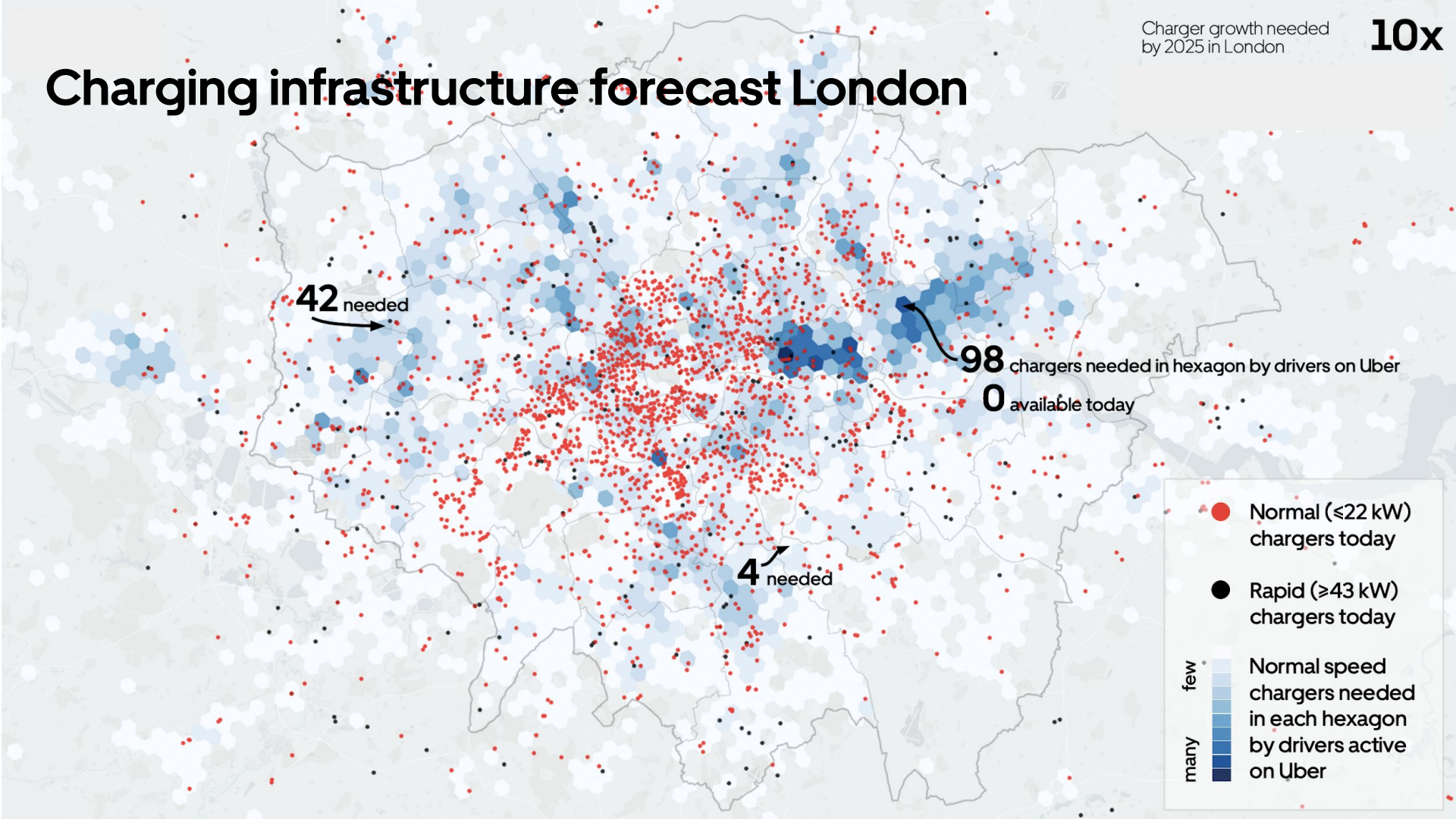
# Data as the basis for multimodal mobility



Charger growth needed  
by 2025 in London

10x

# Charging infrastructure forecast London





# Uber outside the city centers

Portugal

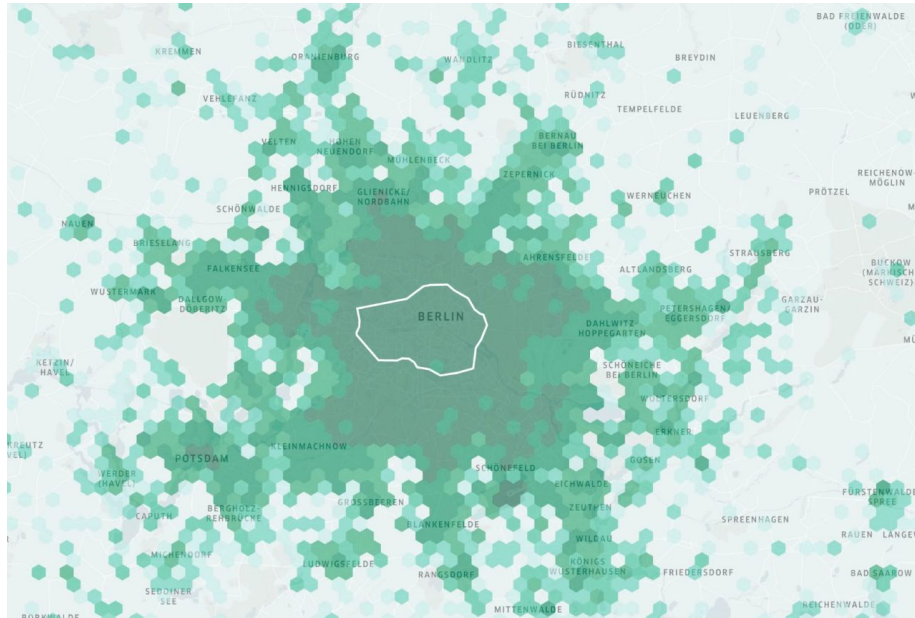


2017



2024

Berlin/Brandenburg



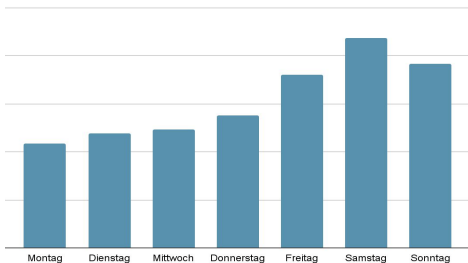
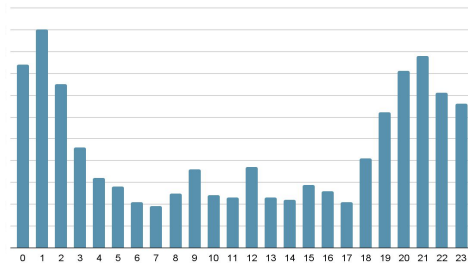
2024

# Last-mile service in Berlin

## Last mile service outside the S-Bahn ring



## Rides by time & weekdays



Number of rides  
& development of  
demand

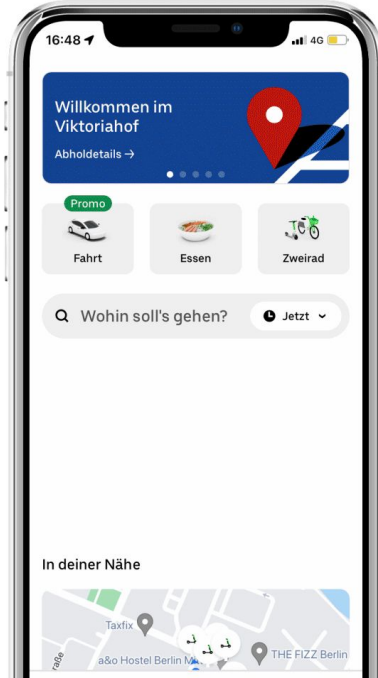


**> 50.000**

Rides per year



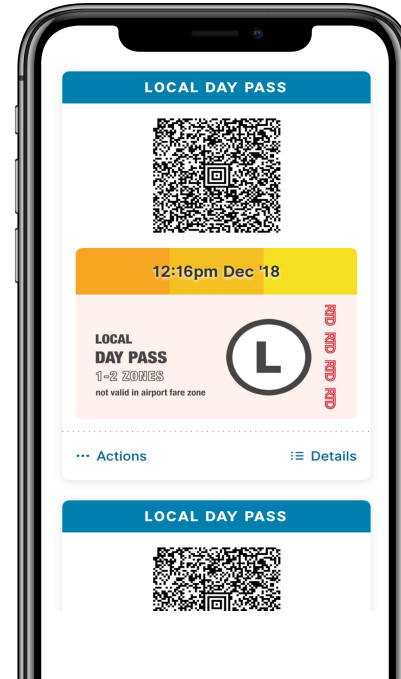
# Further public transport cooperation opportunities



## Journey planning

Berlin:

Public transportation, arrival times and costs



## Ticket purchase

Denver:

Public transportation tickets in the Uber app

# Dallas On-Demand Transit

+150%

Increase in  
ridership

+25%

modal shift  
from private car

50%

50% additional public transit  
coverage in rural areas

30%

Reduction of fixed route  
network with more service  
network overall

€8

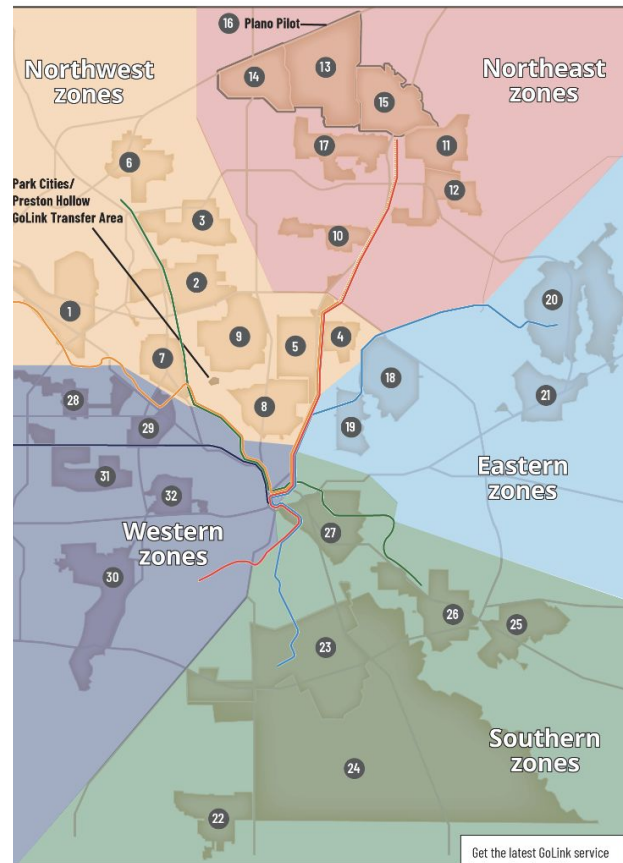
Average cost per Uber  
subsidised ride

51%

cost reduction from  
fixed route rural bus service

## GoLink Overview Map

Mapa general de GoLink



### RAIL LEGEND

— DART Blue Line  
— DART Green Line  
— DART Orange Line

— DART Red Line  
— Trinity Railway Express (TRE)

Get the latest GoLink service  
information by visiting  
[DART.org/GoLink](https://DART.org/GoLink).

Obtenga más información  
sobre las zonas GoLink  
visitando [DART.org/GoLink](https://DART.org/GoLink).

### Northwest zones

- 1 Cypress Waters
- 2 Farmers Branch
- 3 Keller Springs
- 4 North Central Dallas
- 5 North Dallas
- 6 Northwest Carrollton
- 7 Northwest Dallas
- 8 Park Cities
- 9 Preston Hollow

### Northeast zones

- 10 Central Richardson
- 11 East Plano
- 12 East Telecom
- 13 Far North Plano
- 14 Legacy West
- 15 North Central Plano/Chase Oaks
- 16 Plano Pilot
- 17 South Central Plano

### Eastern zones

- 18 Lake Highlands
- 19 Lakewood
- 20 Rowlett
- 21 Southeast Garland

### Southern zones

- 22 Glenn Heights
- 23 Inland Port
- 24 Inland Port Connect
- 25 Kleberg
- 26 Rylie
- 27 South Dallas

### Western zones

- 28 Central Irving
- 29 East Irving
- 30 Mountain Creek
- 31 South Irving
- 32 West Dallas



Don't stop till zero — Don't stop till zero

Thank you!





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# Mobility hubs Groningen: moving towards a reshaped and liveable city

Sarah Boshuizen  
Policy Advisor Mobility on Hubs, P+R's, and Bike Parking  
City of Groningen

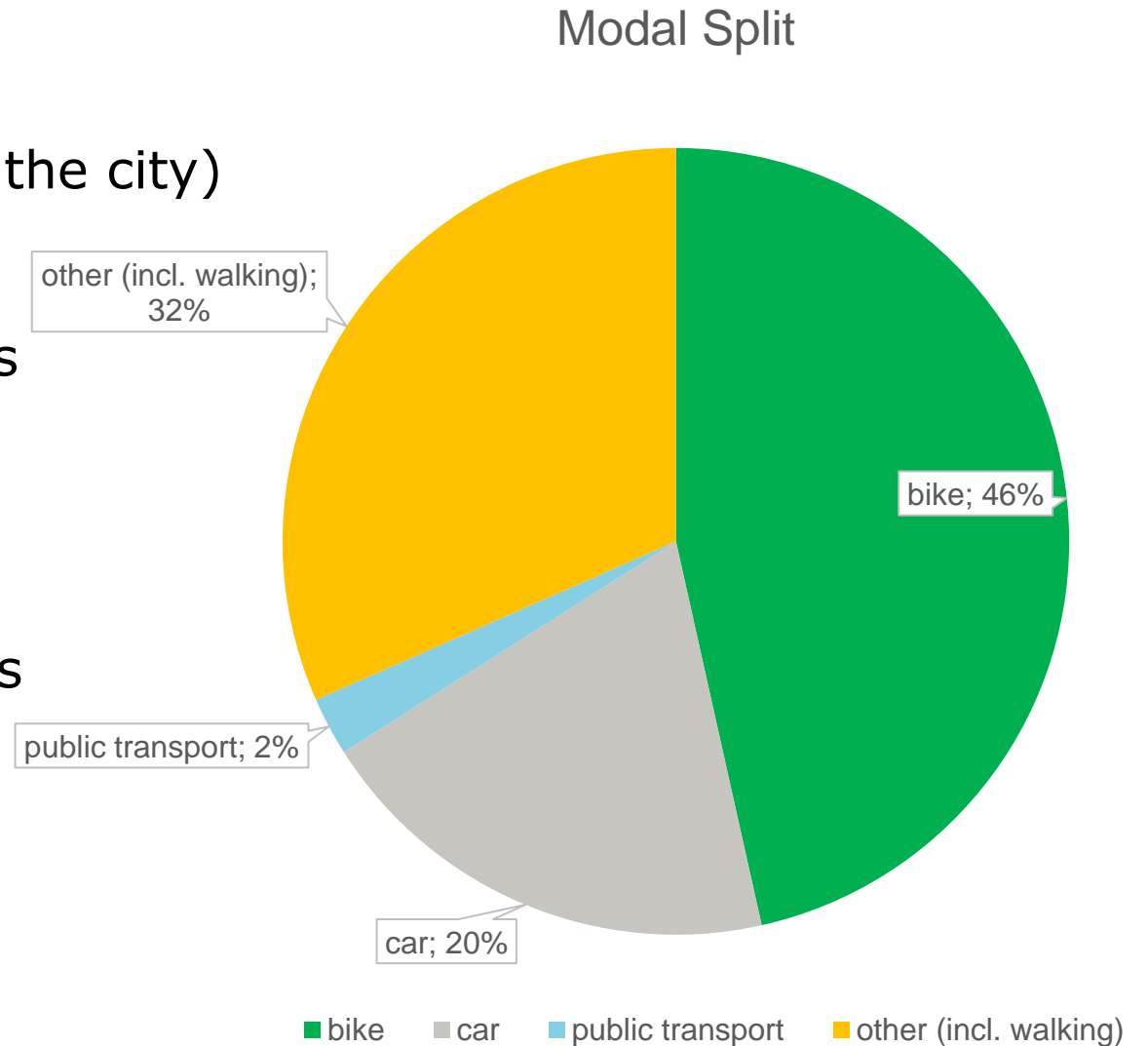
27/11/2024



# Groningen

- 244.000 inhabitants
- 180.000 people commuters (from and to the city)
- Ø 38 years
- Cycling city!
- ~~1st~~ 2nd healthiest city of the Netherlands

... fast growth! In 2050, 270.000 inhabitants





# Groningen - well on the way: Sustainable urban mobility plan (SUMP, 2021)







# Time for change

Limits have been reached:

- growing cities - growing mobility



radical changes necessary



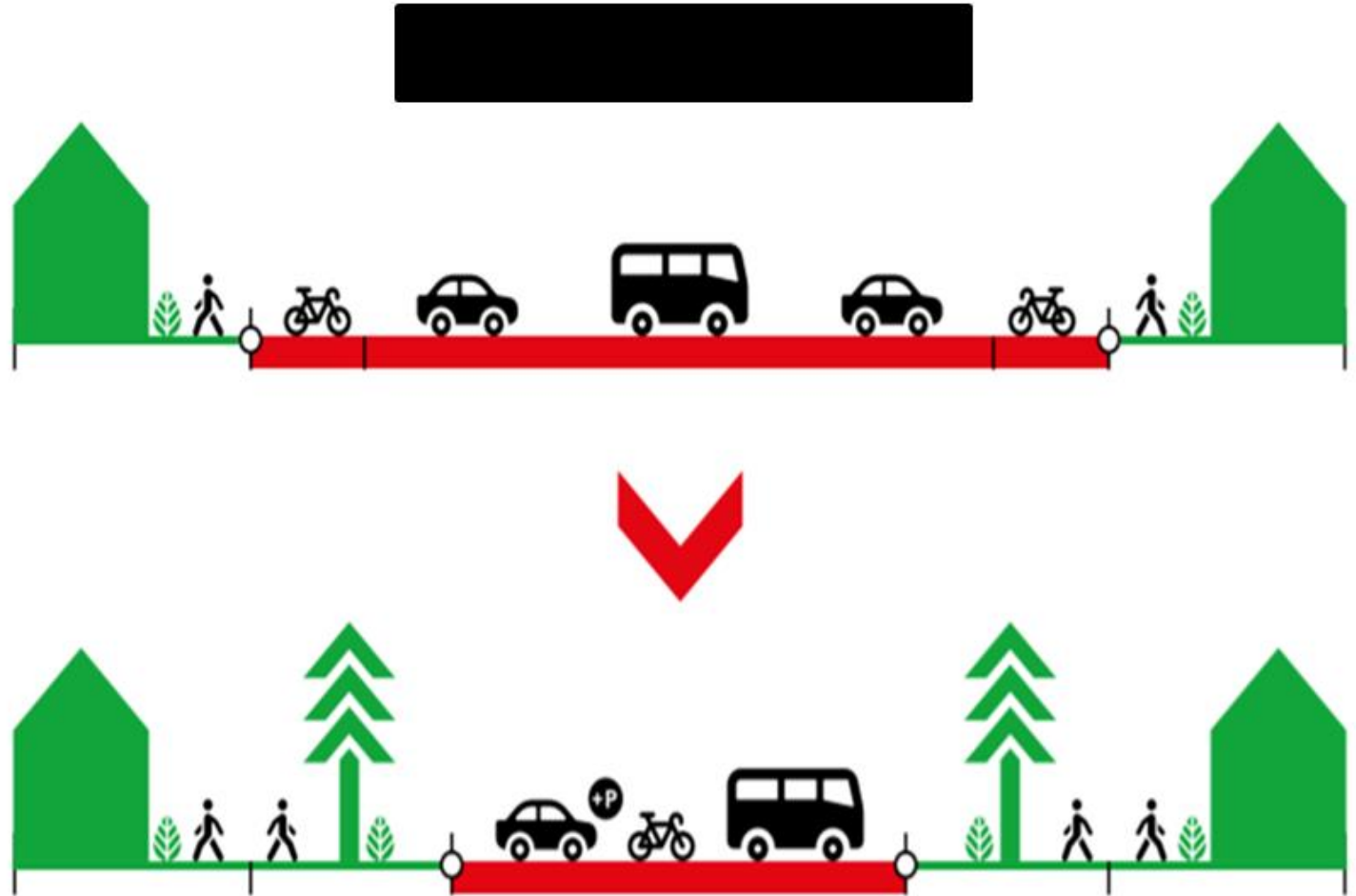
# Population Growth in Groningen

- More space in the city
- Improving quality of the urban environment
- Redesigning public space (e.g., changes to car and bike parking)



## Public spaces

- In the past:
  - space for traffic was starting point
  - remainder for the other functions
- 
- Now:
  - public space serves primarily for quality of life
  - mobility is part of that
  - priority for mobility that requires less space



**Say goodbye to car-based street design**



# Traffic Circulation Plan (1977)





# Traffic Circulation Plan (1977)



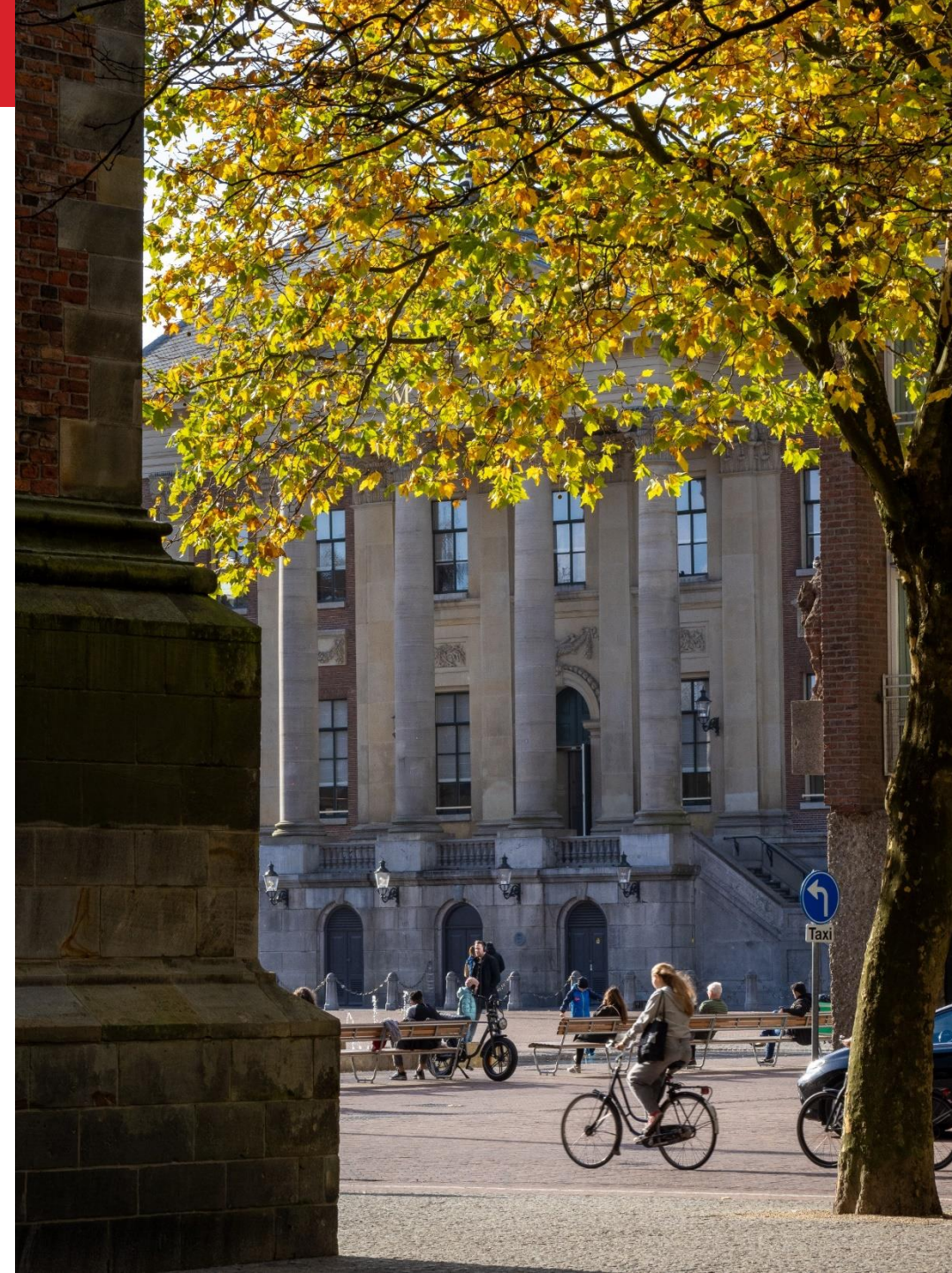


## Noorderplantsoen (1994)



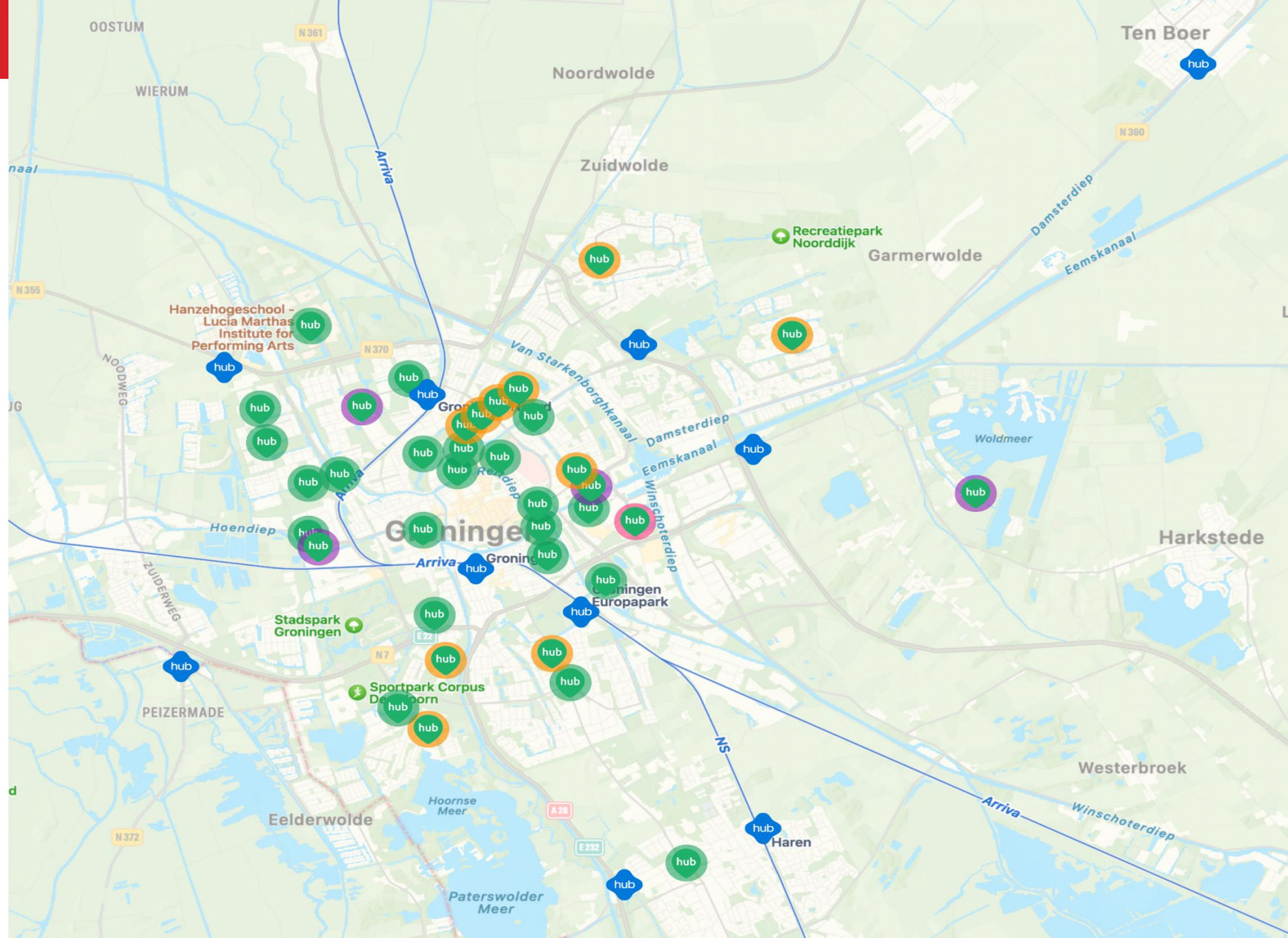
## Hubs (2024)

- Improving Public Transport Hubs
- Neighborhood Hub
- Bike Parking in the City
- **Shared Mobility Hubs**
- **Park + Rides**





# Hubs

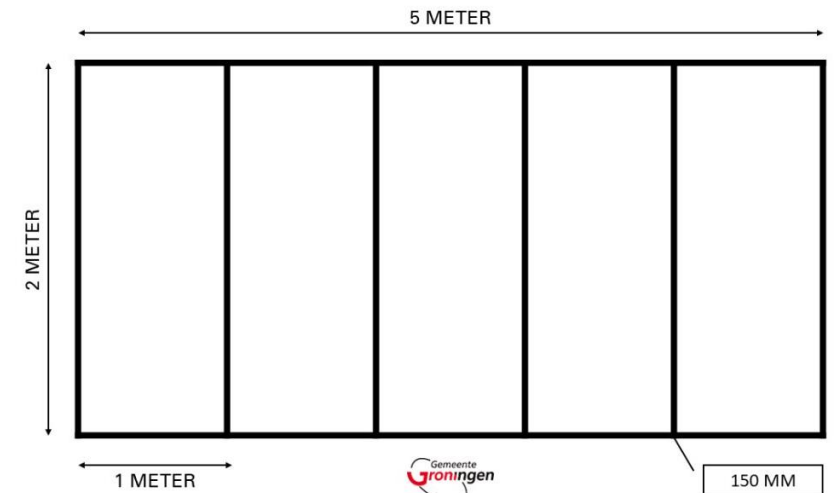








# Shared Mobility Hubs





It works!





It works!





But...





But...





But...





**Salience is essential!**

# Park + Ride

*P+R Hoogkerk*





# P+R Meerstad



# Learnings



Include inhabitants!



**Salient rules** work best



Public **space is scarce**



Uncertainty about **future of MaaS**



New concept in society – **new habits?**



**Monitoring** and evaluation essential and **complex**



**Prioritize** mobility in **new area developments**



# Thank you!

# Questions?

# Ideas?



# MULTIPLE WAYS TO INCREASE PUBLIC TRANSPORT USAGE WITH MAAS



**Alexander Bräutigam**

Global Head of Partnerships, FREENOW



# EUROPE'S MULTI MOBILITY APP WITH TAXIS AT ITS CORE

Our mission: **safe, reliable, accessible and increasingly sustainable** mobility options for all

Digitalisation  
of transport

Modernisation  
of the Taxi sector

Integration  
of shared & electric vehicles

Collaboration  
with cities and regulators





# 70%

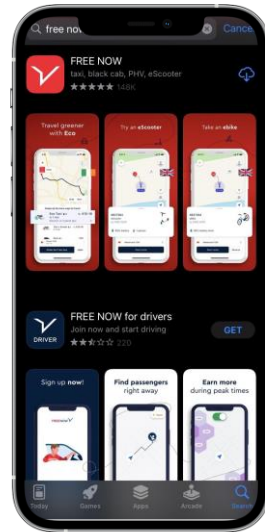
**of Europeans prefer to use one app  
that integrates all mobility options\***

*\*Kantar Institute for FREENOW: Online-Survey among 4,069 participants living in Austria, Germany, Greece, Ireland, Italy, Poland, Spain, and the United Kingdom, August 2023.*



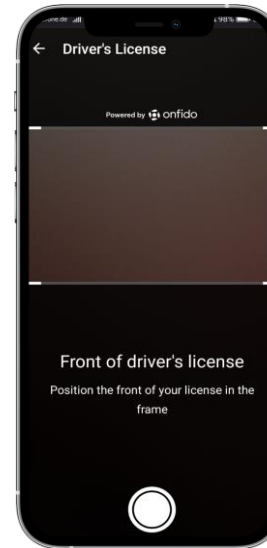
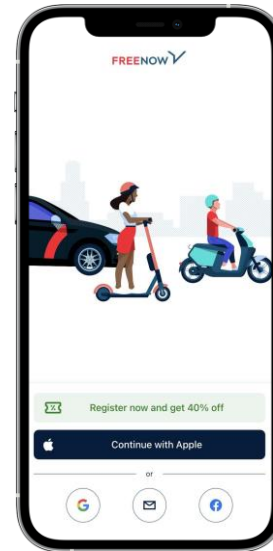
**DRIVE & RIDE  
UNLIMITED**

ONE DOWNLOAD, ONE  
REGISTRATION, ONE  
DOCUMENT UPLOAD &  
UNLIMITED ACCESS TO  
MULTIPLE VEHICLES &  
SERVICES.  
**SIMPLE.**  
**INTUITIVE.**  
**FUNCTIONAL.**

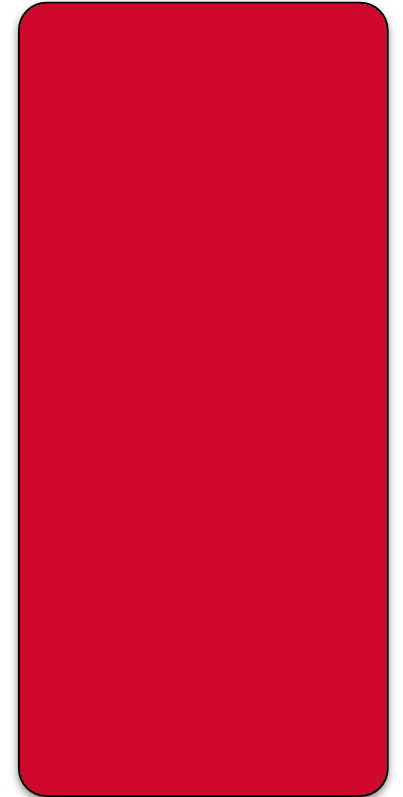


**DOWNLOAD THE  
APP **ONCE****

**REGISTER  
**ONCE****



**VALIDATE ID &  
DRIVING  
LICENCE **ONCE****



Launch  
of  
**mytaxi**



**100% Daimler**  
take-over



**Merger with**  
**Hailo**



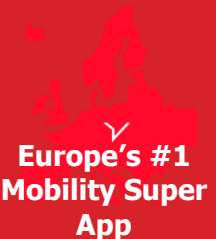
**Acquisition of**  
**Beat & Clever Taxi**



**Acquisition of**  
**Kaptan & Launch**  
Hive scooter



**Joint Venture**  
**NOW Group &**  
rebranding



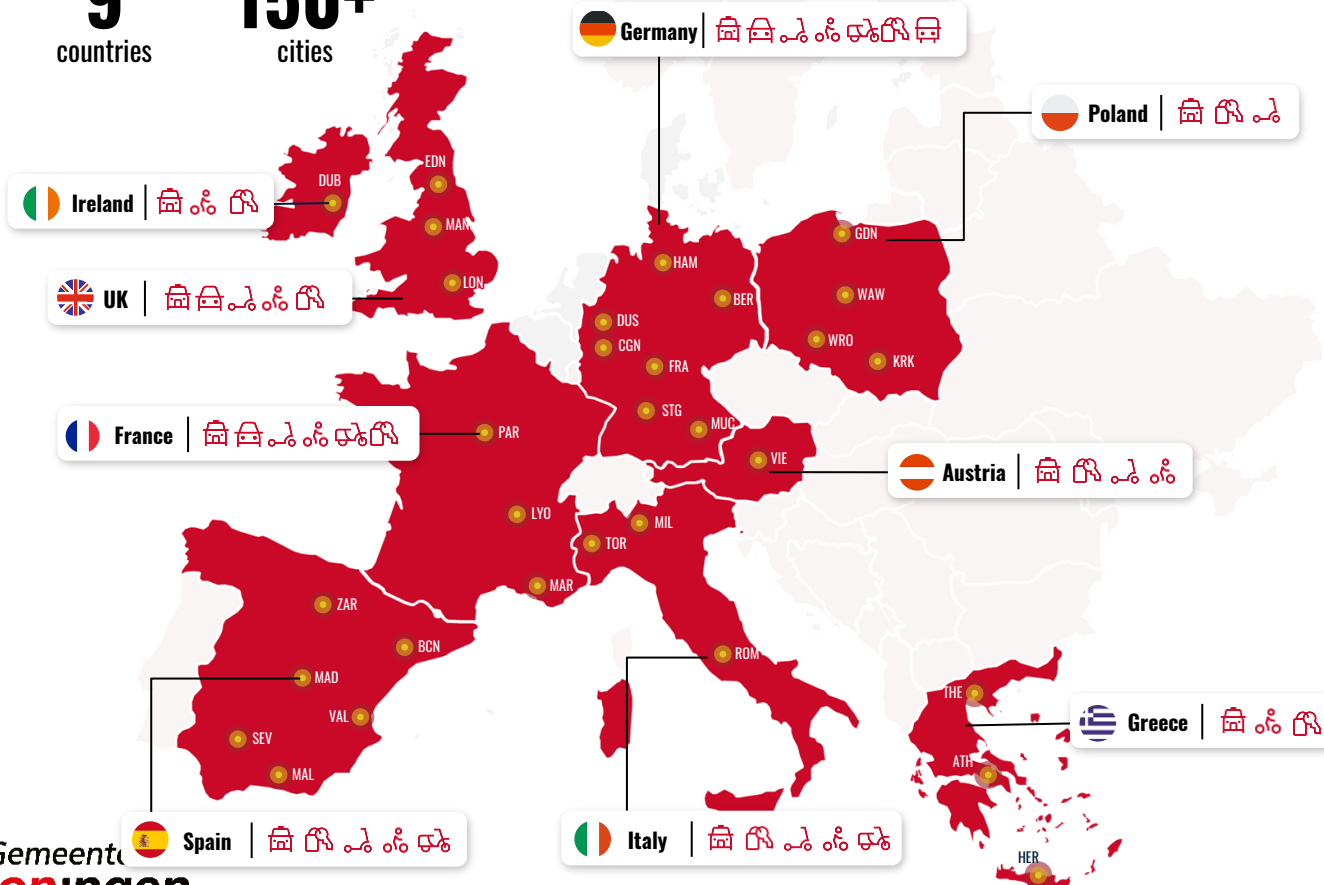




# OUR BUSINESS IN NUMBERS

9  
countries

150+  
cities



150k+  
drivers



160k+



40k+



30k+  
shared cars



13k+



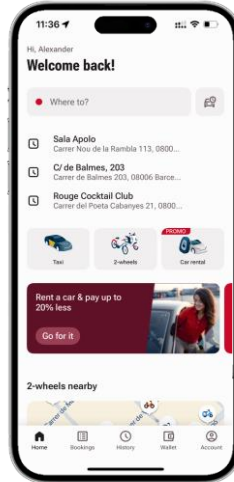
15+  
mobility  
partners



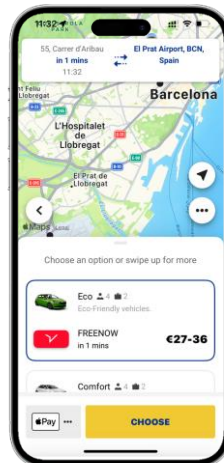
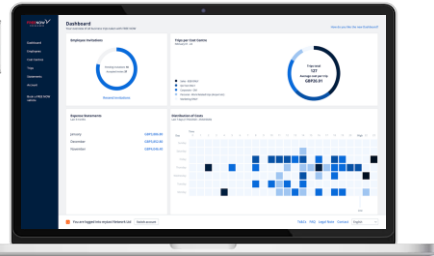
© Free2move | SHARENOW ✓ emmy MILES  
TIER dott forest Hertz  
cooltra > SIXT share ride movi Europcar  
voï. ZITY Traficar9 AVIS Budget

# FREENOW is an interconnected collaborative ecosystem

FREENOW Passenger App



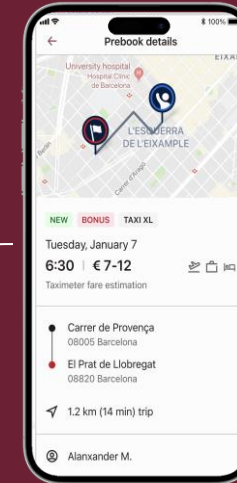
FREENOW Web Booker



3rd-Party App (ex. Ryanair)

API

FREENOW Driver App



**LICENSED DRIVERS**  
Taxi / PHV drivers  
Fleet owners

API

dott emmy MILES

ride movi

ZITY

cooltra

Europcar

Hertz

voi.

Free2move

SIXT share

AVIS

D-TICKET



## USERS

Private users  
Business travellers  
Travel managers  
3rd party users





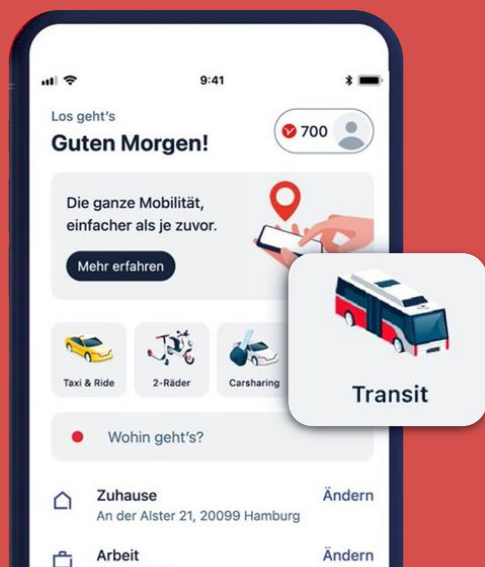
# FREENOW collaborates closely with cities and policy makers

## PUBLIC TRANSPORT IN FREENOW

FREENOW offers public transportation tickets directly in our app to give our users the easiest access to trains, buses, metros and trams.

**+156% YoY** increase in tickets sold

By giving users more options to choose from, our goal is to increase the use of public transportation.



## DATA SHARING WITH CITIES

FREENOW engages with cities by sharing data regarding traffic flow, peak usage times, and areas with high demand for transport services.

This information can inform infrastructure development, optimise transit routes, and improve traffic management.

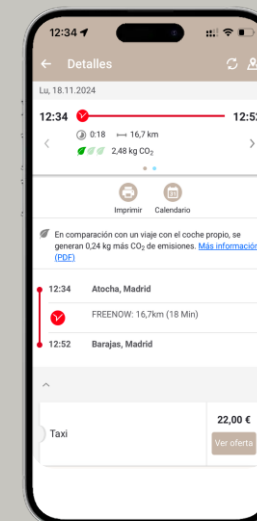
This coverage heat map shows taxi or multimodal demand in specific areas or during certain timeframes to help justify the need for improvements, such as increasing the frequency of public transport or adding more taxi lanes.



## INTEGRATING WITH PUBLIC MAAS

FREENOW offers its taxi services to public MaaS platforms to facilitate urban mobility and strengthen public transportation by improving the value proposition to the users.

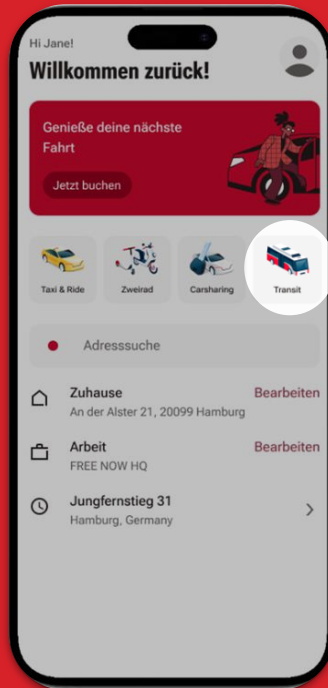
We recently launched a pilot with the Transport Consortium of Madrid to give their users access to our taxi supply in the capital.



# A best-in-class App is key to provide easy access to tickets

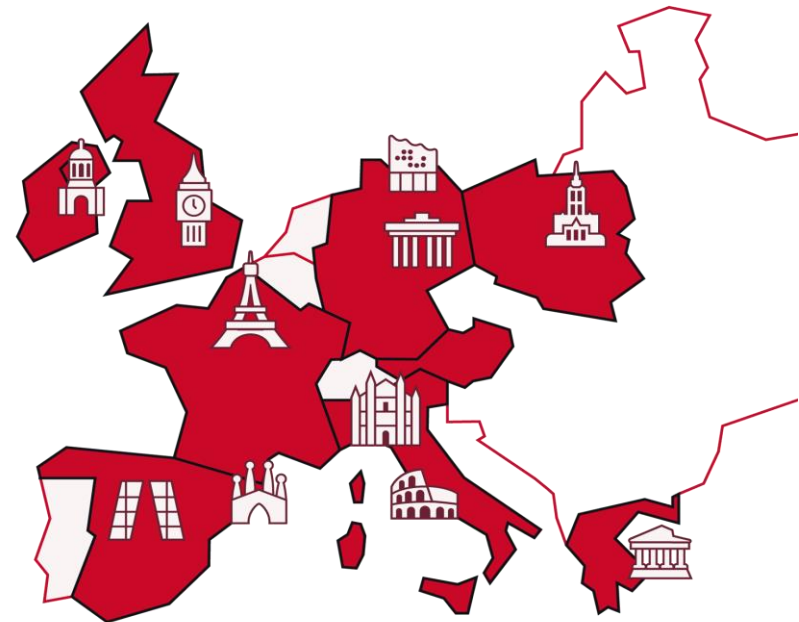
## BEST USER EXPERIENCE

FREENOW invests a lot of time and resources into optimizing the user experience (UX), so that the access to tickets is more intuitive and frictionless.



## INTERNATIONAL SCOPE

FREENOW users are always on the move and can use the app when they travel to other countries. They know where to find their mobility options when they're abroad.





# We call for **collaboration**

**What really matters is that people use Public Transport,** not who's selling the ticket. It's important to give **as many opportunities as possible** for people to use public transport instead of controlling the entry point to purchase it.





**Alexander Bräutigam**

Global Head of Partnerships @ FREENOW

