

# INCREASING ACCESS BY MICRO-SUBSIDIES

## INSIGHTS INTO THE MOLIÈRE PROJECT

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**dott**  
Unlock your city

**molière**

**POLIS** | ANNUAL  
CONFERENCE  
**2023**  
CITIES AND REGIONS FOR TRANSPORT INNOVATION

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# DOTT, THE RESPONSIBLE MICROMOBILITY PARTNER

**Dott is the chosen partner for cities** who are seeking a local operator to build safe and responsible micromobility solutions.

- 50,000 shared e-bikes & e-scooters in 35 cities
- Backed by EU ESG-oriented impact investors
- Mission: “We free our cities with clean rides for everyone”





# ABOUT MOLIÉRE

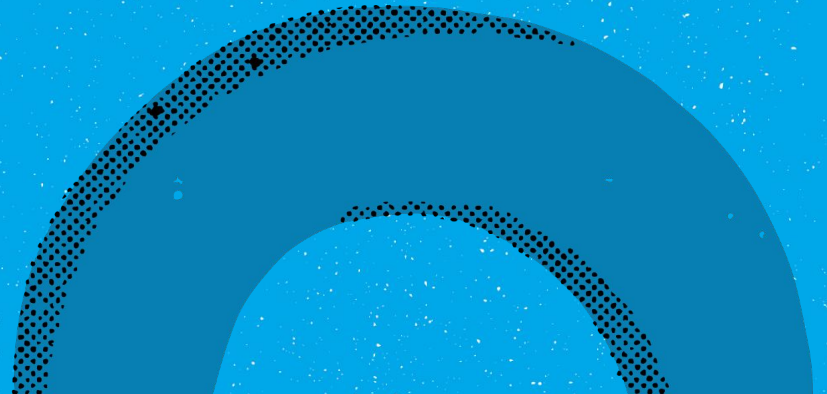
- Funded by EUSPA (EU GNSS Agency) under H2020
- Mission to build a blockchain-based open MDM, the “wikipedia of public transport and new mobility data”
- 3 overall goals:
  - Fuel MaaS with Galileo data
  - Improve road safety & sustainability
  - Nudge positive behavioural change

<https://moliere-project.eu/>





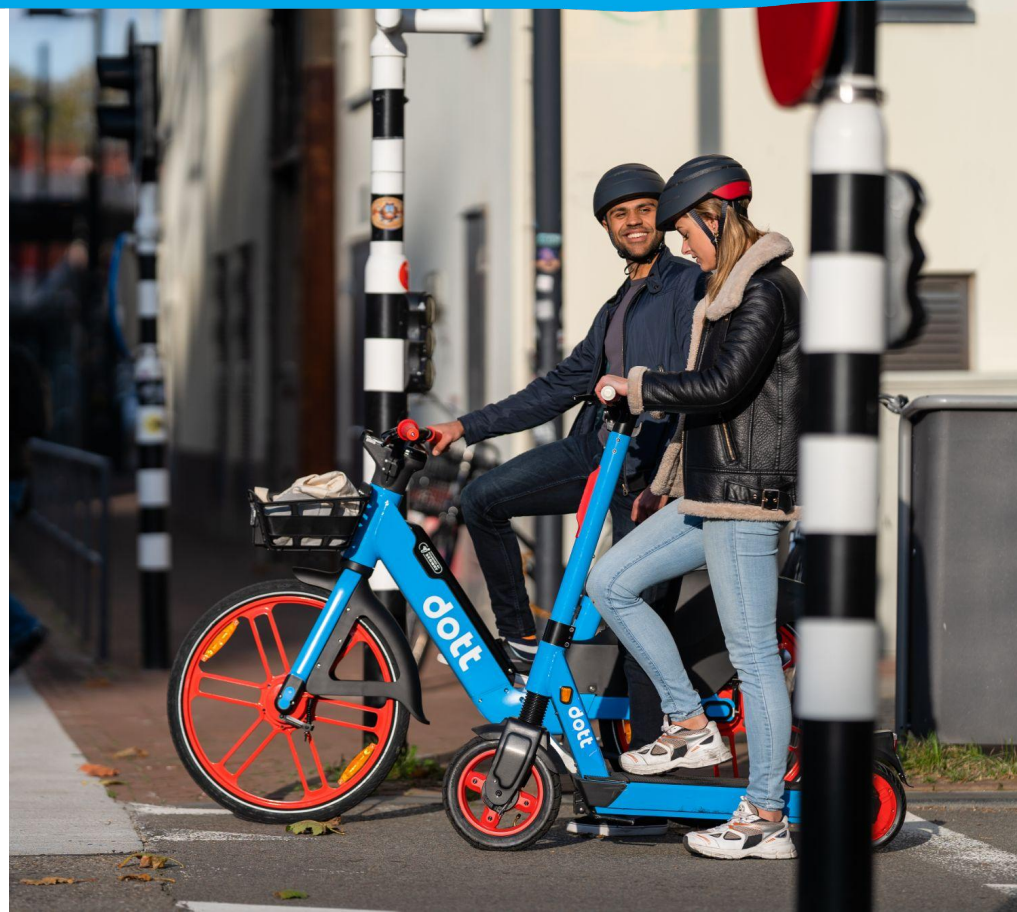
# MOLIÈRE USE CASE 1 DESCRIPTION



# USE CASE: "MICRO-INCENTIVES FOR MICRO-MOBILITY"

## Goal of the pilot in Brussels

- **Improving service accessibility and inclusivity** in socio-economically disadvantaged areas, which are also underserved by Public Transport
- Evaluate impact of micro-incentives in defined zones versus control zones

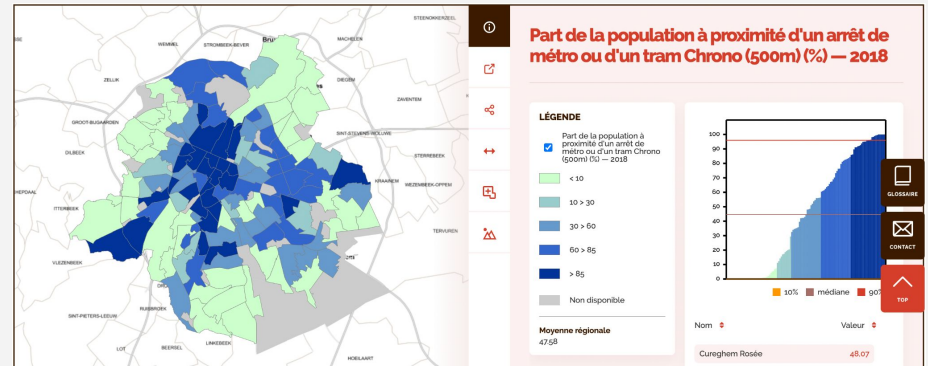
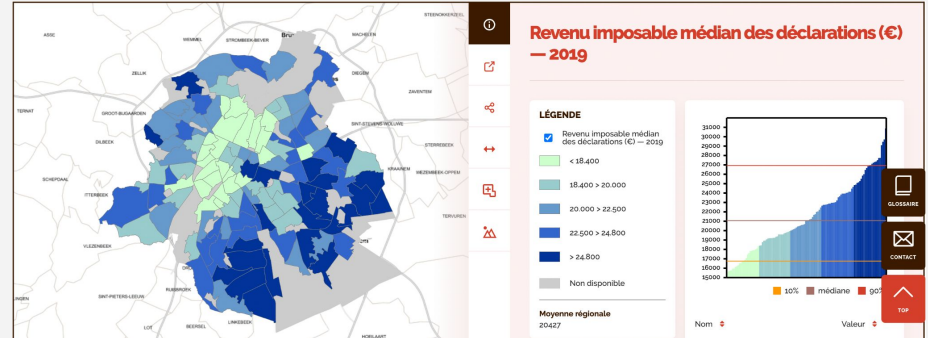




# USE CASE: "MICRO-INCENTIVES FOR MICRO-MOBILITY"

## We defined the areas by 2 parameters

- Median taxable income of residents is less than 20k per year [source](#)
- More than 70% of the residents do not have access to a tram or metro stop within 500 meters of where they live [source](#)



# USE CASE: "MICRO-INCENTIVES FOR MICRO-MOBILITY"

## Hypothesis to validate in the pilot

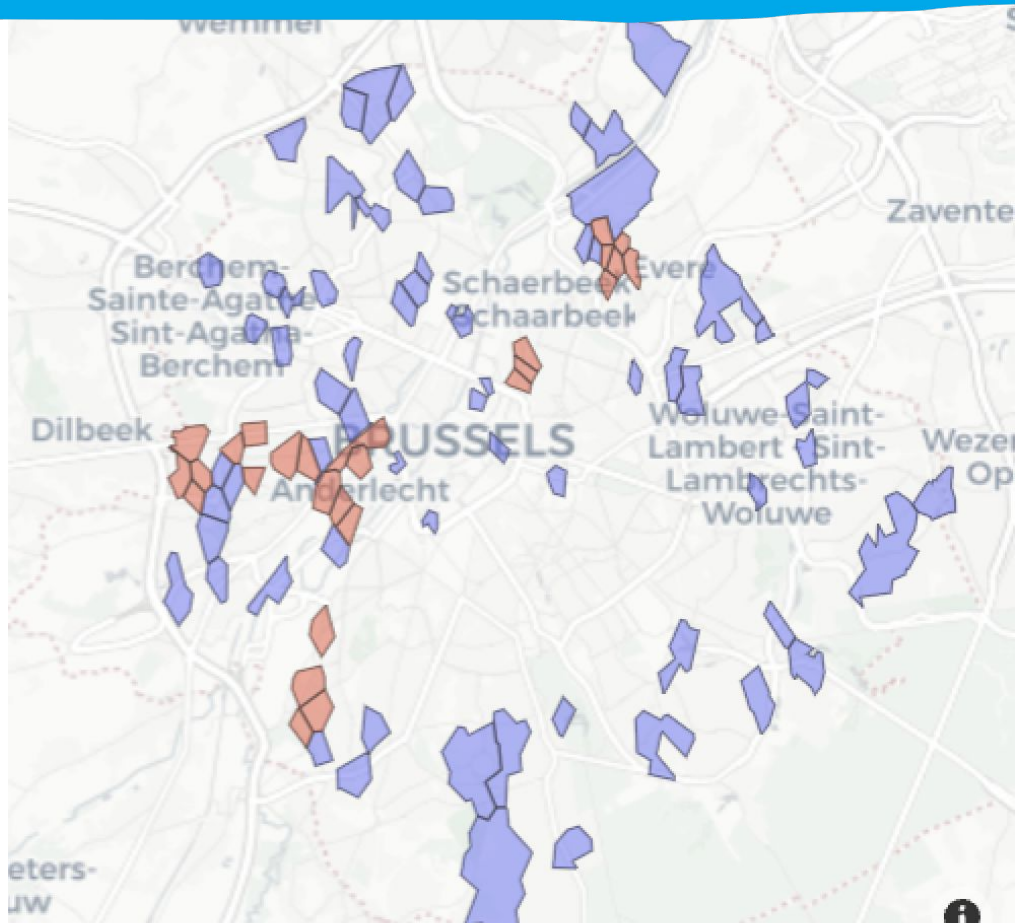
By incentivising rides in these defined zones, we can increase demand compared to control zones



Incentivised zones



Control zones

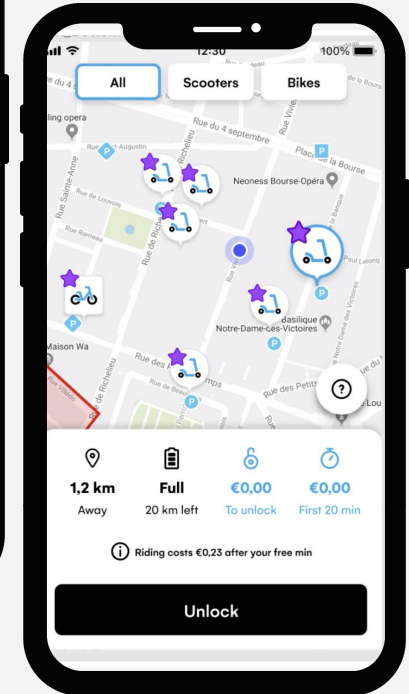
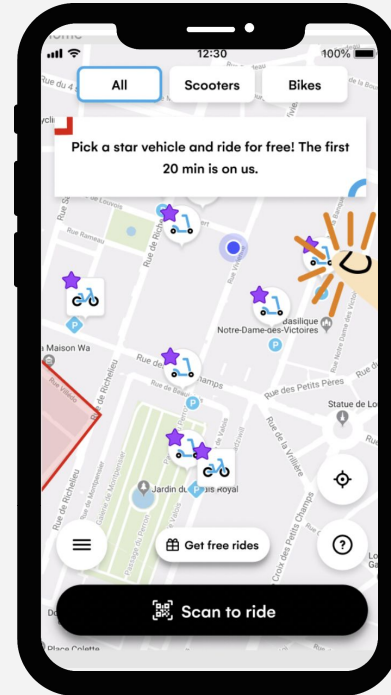


# USE CASE: "MICRO-INCENTIVES FOR MICRO-MOBILITY"

## Methodology

- Incentivise the usage of e-scooters and e-bikes in defined zones by a 30% / 70% discount, visualised by ☆ symbol
- We are analysing two KPIs:
  1. **Ride uplift:** in incentive areas compared to (1) historical data and to (2) control zones, thus extracting seasonal and climatic influencing factors
  2. **Cost efficiency:** Incentive budget / ride, with different incentive levels

Pilot was executed between April 24th until July 15th.







# RESULTS & CONCLUSIONS

# WE WERE ABLE TO VALIDATE OUR HYPOTHESIS

**With 17.283 incentivized rides we have generated 442 additional rides (2.56% ride uplift, 7.75% of maximum ride uplift potential)**

Compared to the expected demand based on:

1. The typical rider volume
2. Normalised against the expected demand in our control zones.



# AT A REASONABLE AVERAGE COST / RIDE OF €1.77

With big variations between e-scooters and e-bikes.







# WITH RIDES CONNECTING ACROSS THE WHOLE CAPITAL REGION

**9.8% of discounted rides are longer than 5km, compared to 6.6% general rides**

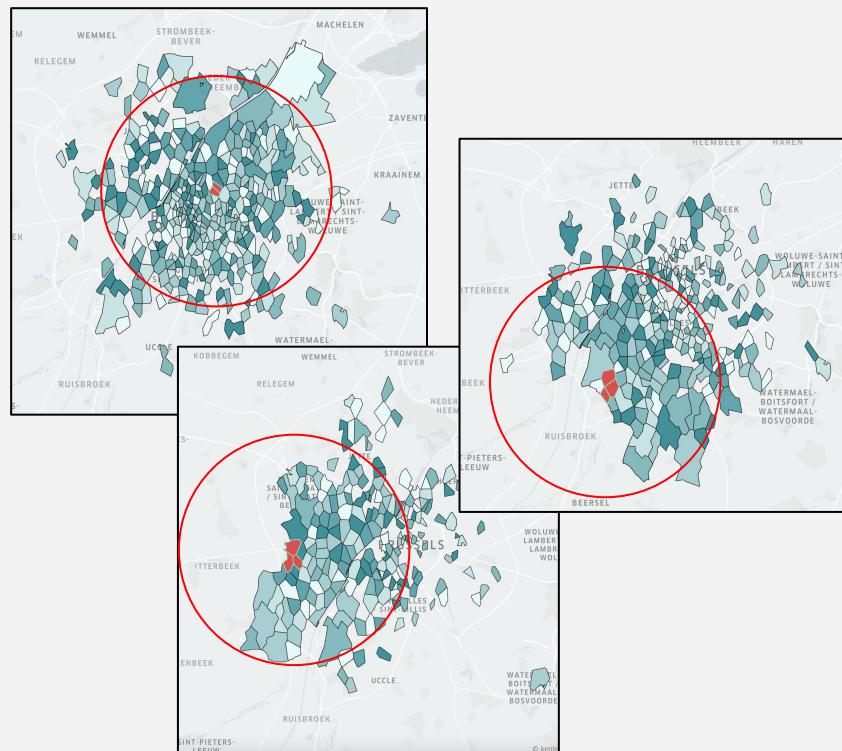
 **Red** = Incentive zones (start-rides)

 **Dark green** = high # of end\_rides

 **Light green** = low # of end\_rides

**Rest** = no end\_rides

 5km radius



# LEARNINGS & CONCLUSIONS

## **Setting objectives and measuring success of micro-incentives is possible with the right kind of data.**

- The pilot has validated a positive impact of a micro-incentive program for a defined policy objective based on geospatial criteria, even under constrained conditions.
- Micro-incentive use cases based on geo-spatial criteria can be implemented without major complications.
- Measuring the impact of micro-incentives based on appropriate KPIs and sharing the data via a defined data sharing format can help Authorities to make effective decisions.



# TURNING MICRO-INCENTIVES INTO MICRO-SUBSIDIES





# DEFINITIONS

## Micro-incentives

Individualised discounts per user or per ride, based on defined criteria, which leads to a cheaper ride fare for the user, covered by the micromobility operator.



## Micro-subsidies

Targeted payments from Public Authorities, which compensate mobility operators for loss making but yet policy-desirable services, e.g. through “micro-incentives”.

# AN INNOVATIVE GOVERNANCE FRAMEWORK



## OBJECTIVE-ORIENTED

Ex: Serving low-income areas or suburban areas



## DATA DRIVEN

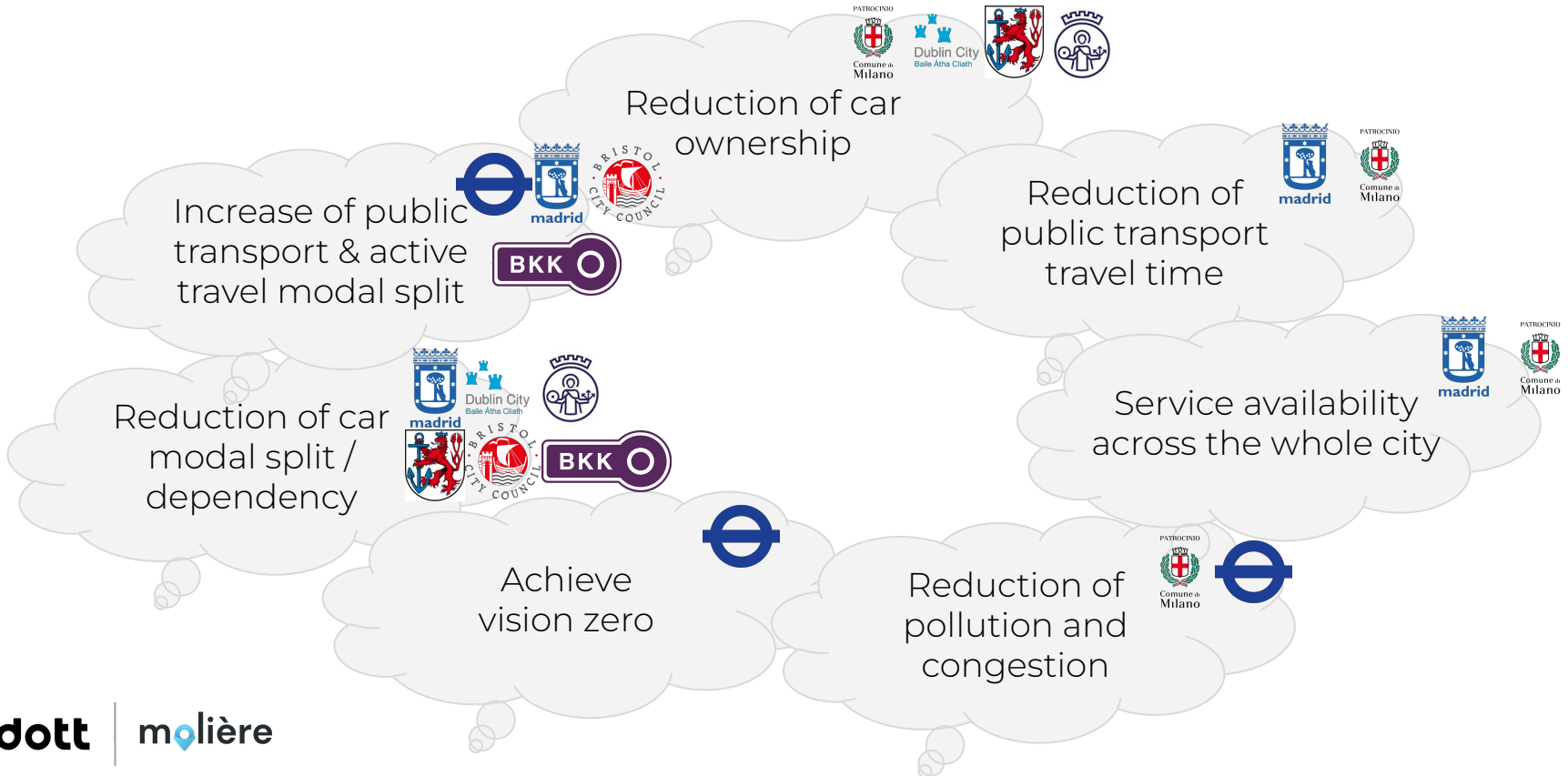
Ex: via MDS. Transparency of every Euro spent



## TARGETED

Ex: Only for defined use cases & on individual trip level

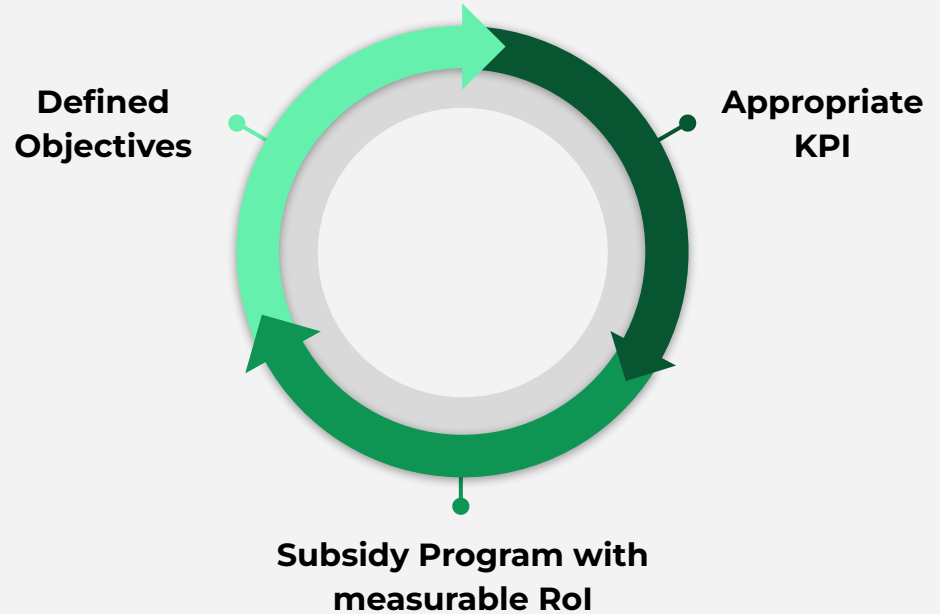
# DEFINED OBJECTIVES ARTICULATED BY CITY PARTNERS





# FROM SUMP OBJECTIVES TO MICRO-SUBSIDY PROGRAMS

**How can micromobility services help achieve SUMP objectives faster if boosted by subsidies?**



# DEFINING APPROPRIATE PERFORMANCE INDICATORS

Table 2. New Mobility performance indicators in five policy areas

Policy area	Indicator
Sustainability	1.1 Vehicle-kilometres and passenger-kilometres travelled
	1.2 Average vehicle lifespan
	1.3 Alternative mode replaced and trip generation effects
	1.4 Operational CO <sub>2</sub> emissions
Safety	2.1 Injury rate
	2.2 Crash rate
	2.3 Share of passenger-kilometres travelled on low-stress routes
Utilisation	3.1 Vehicle utilisation rate
	3.2 Trip distance (or trip duration for round-trip services)
	3.3 Total users
Accessibility	4.1 Access latency
	4.2 Number of trips starting or ending near essential services and opportunities
	4.3 Vehicles or trips available by area (spatially aggregated)
	4.4 Trip purpose
Equity	5.1 Vehicle and trip availability in targeted service areas
	5.2 Number of trips starting or ending in targeted service areas
	5.3 Vehicle and trip availability for users with physical disabilities

Reduction of pollution

Increase of PT modal split

Achieve vision zero

Reduction of car modal split / dependence

Reduction of public transport travel time

Service availability across whole city

# FROM SUMP OBJECTIVES TO MICRO-SUBSIDY PROGRAMS

How can micromobility services help achieve SUMP objectives faster if boosted by subsidies?

Objective:

Reduction of car modal split / dependency

Micro-subsidy program:

Free/discounted rides to/from defined transport hubs

Possible KPIs:

1. % of intermodal rides (end-of-ride survey)
2. % of MIT mode shift (end-of-ride survey)





# FROM SUMP OBJECTIVES TO MICRO-SUBSIDY PROGRAMS

How can micromobility services help achieve SUMP objectives faster if boosted by subsidies?

Objective:

Increase of PT  
& active travel  
modal split

Micro-subsidy program:

Free/discounted  
(e-) bike rides

Possible KPIs:

1. # of (e-) bike rides

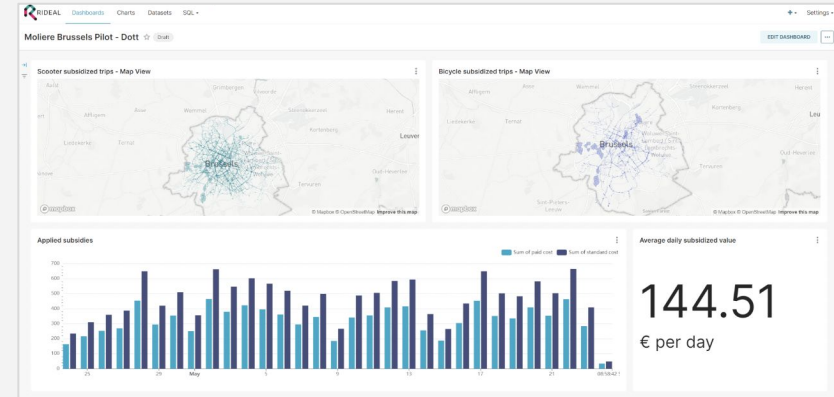
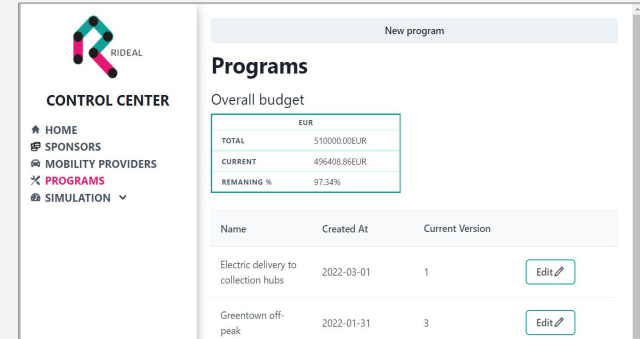


# TURNING MICRO-INCENTIVES INTO MICRO-SUBSIDIES

Using data platforms to enable public and private organizations to manage, monitor and control all their rider-incentive programs.

Centralized, transparent, in real-time, and operator-agnostic.

- Cities define subsidy programs based on defined criteria, parameters and available budgets
- Mobility operators connect their data feeds via API, ex. **MDS API**
- Cities and PTAs can easily track performance and spendings of their subsidy programs against defined budgets



# SOME USE CASES CAN READILY BE ADDRESSED BY MDS API

Accessible via  
platforms such as:



MDS is curated by the Open Mobility Foundation (OMF)  
<https://www.openmobilityfoundation.org/>

## ABOUT MDS

HOW IT WORKS • BENEFITS OF MDS • PRIVACY & DATA • CODE RELEASES • FUTURE OF MDS



MDS—"Mobility Data Specification"—is a digital tool that helps cities to better manage transportation in the public right of way. MDS standardizes communication and data-sharing between cities and private mobility providers, such as e-scooter and bike share companies. This allows cities to share and validate policy digitally, enabling vehicle management and better outcomes for residents. Plus, it provides mobility service providers with a framework they can re-use in new markets, allowing for seamless collaboration that saves time and money.

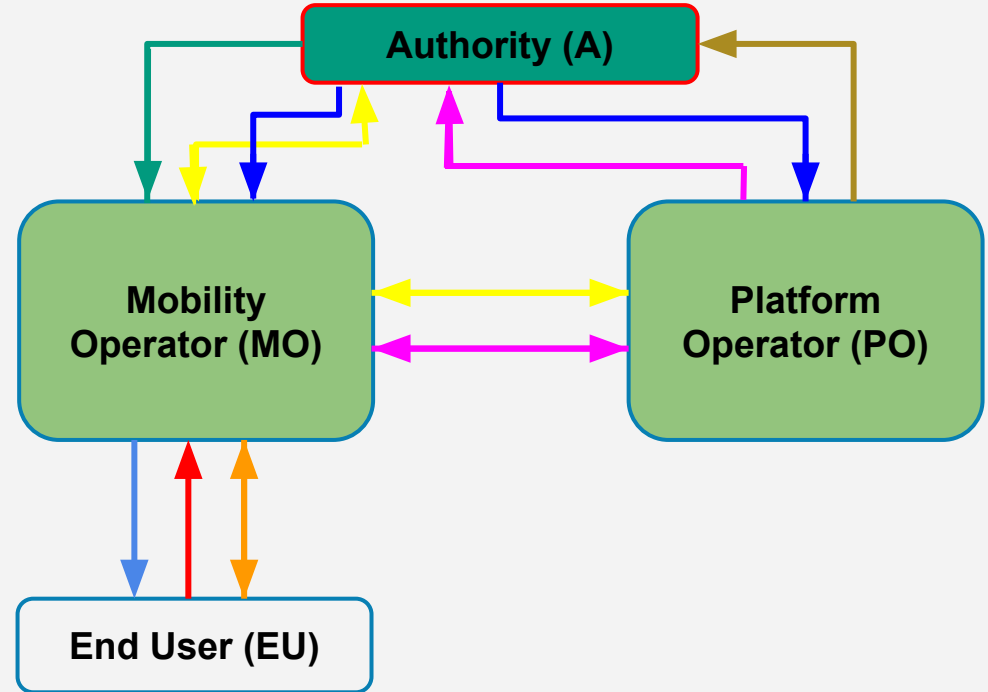
# HOW TO IMPLEMENT MICRO-SUBSIDIES

- **A** will define parameters via **PO** and make budgets available
- (Depending on the use case): **A** will mandate **MO** to forward Micro-subsidies to **EU**
- **A** will pay subsidies based on data provided by **MO** via **PO**
- **PO** will grant to **A** a limited, non-exclusive, non-transferable right to access the platform

- **EU** will pay for **MO**'s service based on its T&C
- **MO** will provide to **EU** its services including amended micro-incentive T&C
- **EU** will generate trip data
- (Depending on use case) **MO** will forward the micro-subsidy to **EU** as a ride discount/micro-incentive

- **MO** will provide its services to **EU** based on amended micro-incentives T&C
- (Depending on the use case) **MO** will forward micro-subsidies coming from **A** to **EU** as discount
- **MO** will share defined data points via **PO** to **A**
- **MO** will receive subsidies from **A** based on data provided via **PO**

- Service Agreement**
- **A**, **MO** and **PO** enter into a Service Agreement further which **PO** makes available platform and its micro-subsidy parameters
- Data Flow**
- **MO** will share defined data points via **PO** to **A**
  - **PO** will calculate subsidies and report to **A** and **MO**





# FEASIBILITY OF MICRO-SUBSIDIES DEPENDS ON TYPE OF DATA

**Validated with internal and external data experts and our consortium's legal partner Osborne Clarke**

## GEOSPATIAL / TRIP DATA

**Technical:** Generally addressable via MDS API, keeping into account general inaccuracies of satellite localisation data.

**Legal:** Generally feasible but state aid is a concern and, in some cases, extra care for PII is required.

## PERSONAL DATA

**Technical:** Due to Privacy-by-Design principles, operators often do not have the required data. Feasible to receive whitelists ("legible for subsidy" = yes/no from public databases). Requires specific identifiers to connect 2 databases (ex. phone number)

**Legal:** PII is an important point of attention, together with state aid.

## SURVEY / EMISSION DATA

**Technical:** Reporting cadence needs to be defined, not included in MDS, possibility to validate by third parties

**Legal:** Generally feasible if aggregated

# THANK YOU!

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**dott**

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