

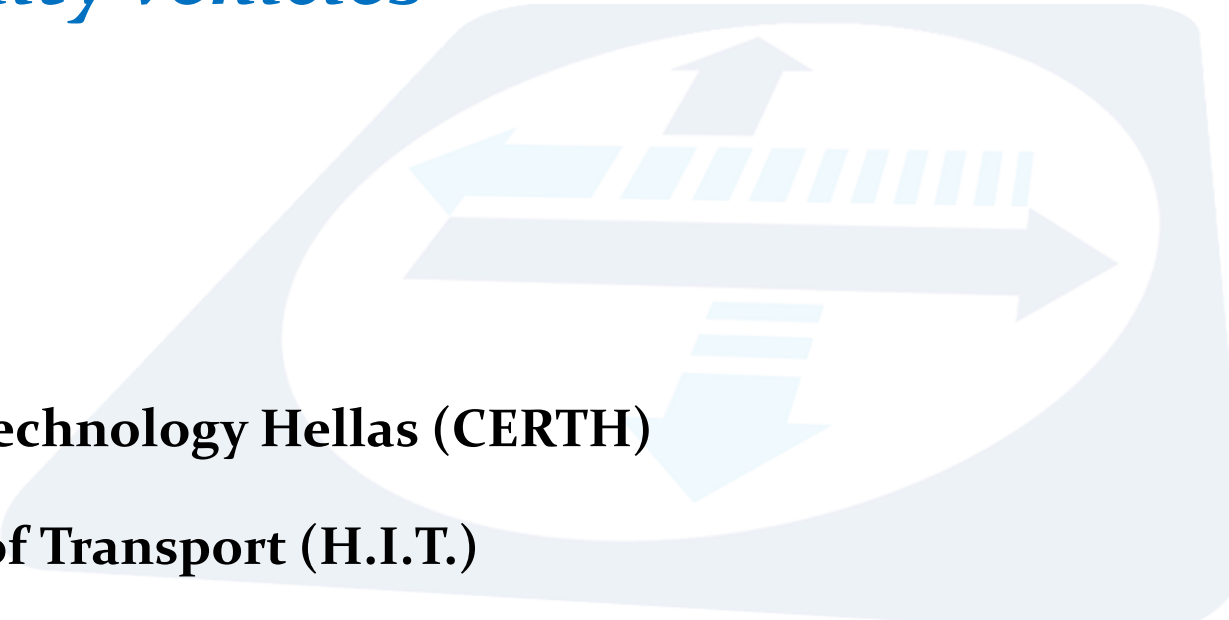
eMaaS: MaaS platform for shared, electric, micromobility vehicles

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Hellenic Institute of Transport (H.I.T.)

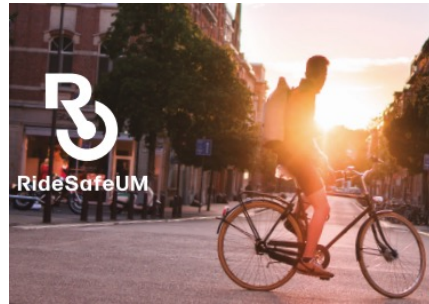




CERTH/HIT relevant projects

cleanergy

Cleanergy 4 Micromobility



iBikeShare

Micro-Mobility

erica
Electric Car Sharing

Car sharing



DIAGORAS



URBANIZED

MODULAR AND FLEXIBLE SOLUTIONS FOR URBAN-SIZED ZERO-EMISSIONS LAST-MILE DELIVERY & SERVICES VEHICLES

eMaaS **Ride 2 Rail**

IP4MaaS **MaaS**



EIP-SCC



JIIP

The Partnership for Growth

EFerry

connecting blue and green

E-Mobility



eMaaS Project

Project coordinator:

BRAINBOX S.A.

Partners:

- Hellenic Institute of Transport (HIT)
- Transport Engineering Laboratory (AUTH)
- OTO Parking
- ECOSUN

Project duration

10/2021 – 10/2023



ΑΡΙΣΤΟΤΕΛΕΙΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ
ΘΕΣΣΑΛΟΝΙΚΗΣ



Ευρωπαϊκή Ένωση
Ευρωπαϊκό Ταμείο
Περιφερειακής Ανάπτυξης

ΠΕΡΙΦΕΡΕΙΑ ΚΕΝΤΡΙΚΗΣ ΜΑΚΕΔΟΝΙΑΣ

ΕΙΔΙΚΗ ΥΠΗΡΕΣΙΑ ΔΙΑΧΕΙΡΙΣΗΣ
Ε.Π. Περιφέρειας Κεντρικής Μακεδονίας



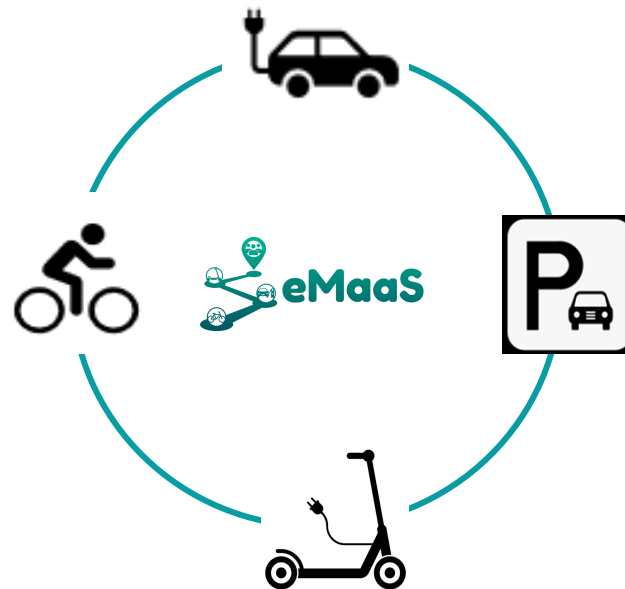
Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης

*In the framework of the Business
Program "Central Macedonia 2014-2020"*



eMaaS Project A few words

- ✓ Deployed in Thessaloniki
- ✓ The first electromobility platform Mobility as a Service (MaaS), in Greece
- ✓ **Major breakthrough: added value to cities through a "neutral" data collection / analysis platform**



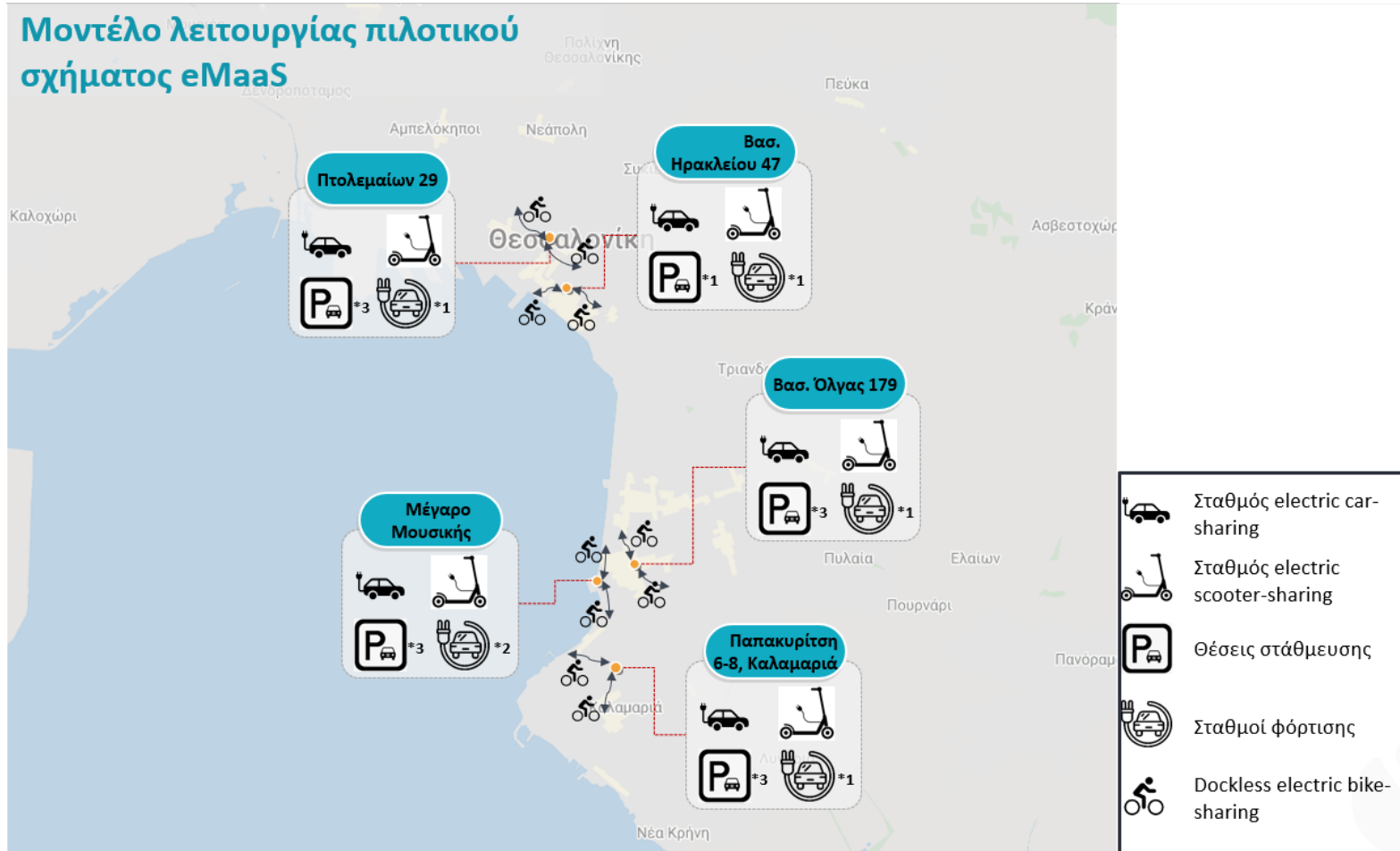
- ✓ Industry led
- ✓ Promotion of mobility services by shared electric vehicles
- ✓ Includes:
 - electric scooter-sharing
 - electric bike-sharing
 - electric car-sharing
 - parking services
 - charging





Spatial distribution

Μοντέλο λειτουργίας πιλοτικού σχήματος eMaaS



- ✓ Parking areas are the multi modal mobility hubs (5 in total) enabling:
 - ✓ Park and ride
 - ✓ Charging of private cars
 - ✓ Parking/Charging of shared vehicles
- ✓ Free floating bike sharing - Virtual bike-stations (first-last mile transportation)



eMaaS application services



Multimodal trip planning



Real-time information



Booking



Rental



Payment

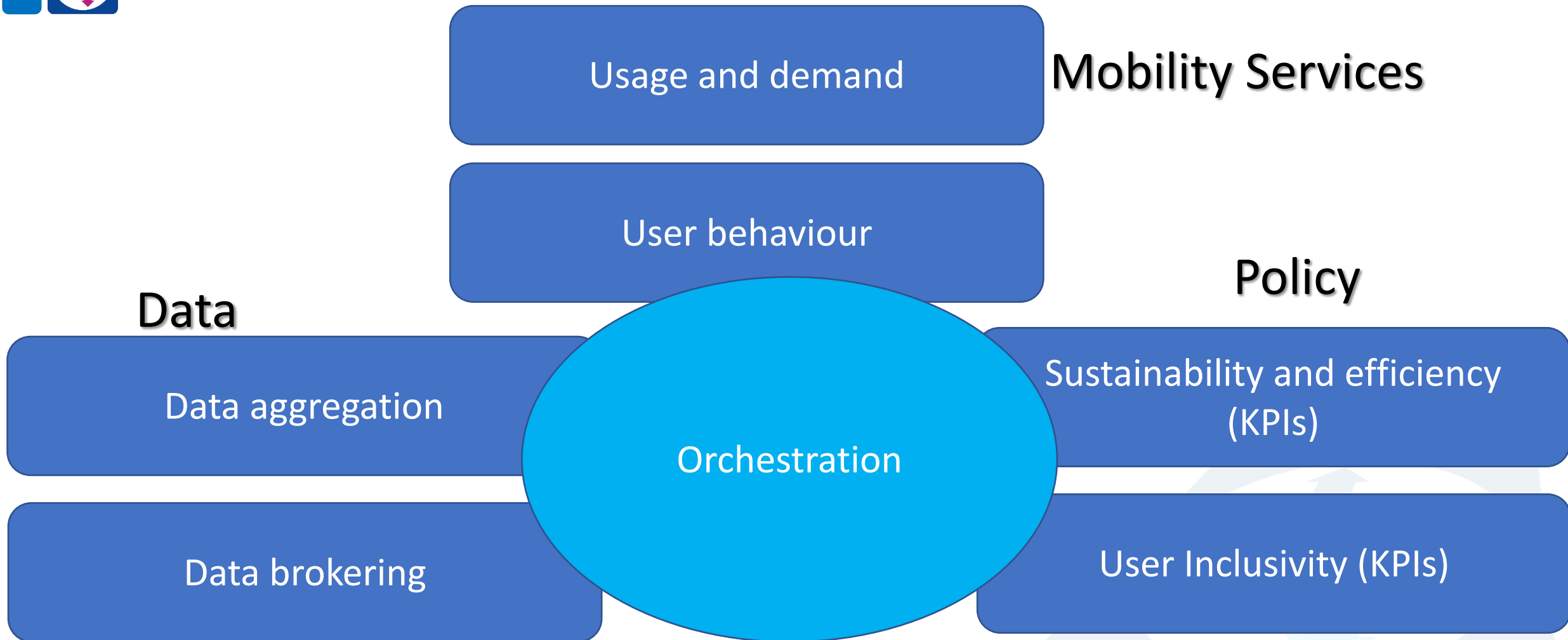
All in one app!
A single e-Wallet!

- e-car sharing
- e-bike sharing
- e-scooter sharing
- parking
- charging

	Pay as you go	Student (12€/30 days)	Subscription (20€/30 days)
e-car sharing	2€ / 15 λεπτά	1,5€ / 15 λεπτά	1,5€ / 15 λεπτά
e-bike sharing	1,2€ / 15 λεπτά	1€ / 15 λεπτά	0,8€ / 15 λεπτά
e-scooter sharing	3€ / 15 λεπτά	1,5€ / 15 λεπτά	2€ / 15 λεπτά
parking	standard pricing	30% έκπτωση	30% έκπτωση
charging	standard pricing	standard pricing	standard pricing



"Neutral" data collection / analysis platform



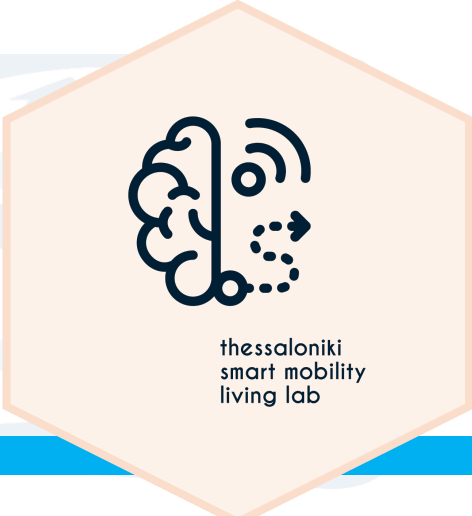


MaaS platform in the framework of Thessaloniki's Living Lab (1/2)

**Data collection
and processing**
Algorithm design
Data analytics and
Data models Data
visualization

**Develop,
Implement, Deploy,**
Test and assess mobility
solutions and services in a
real-world environment

The H.I.T. Portal is a web-based data collection, management and aggregation provisioning platform designed, developed and maintained since 2008.



MaaS platform in the framework of Thessaloniki's Living Lab (2/2)



Research and Academia



Transport network operators



Industry and technology providers



Public Administration





Survey of stakeholders' opinions

Completion of questionnaires by representatives: a) local authorities, b) mobility service providers, c) public transport authority, d) academic/research bodies, e) scientific/professional associations

Most important **blocking issues** and **ambitions**

Insufficient cooperation
between stakeholders

Restriction of private car use

Culture of ownership and use
of private car

Offers of personalized
transportation solutions

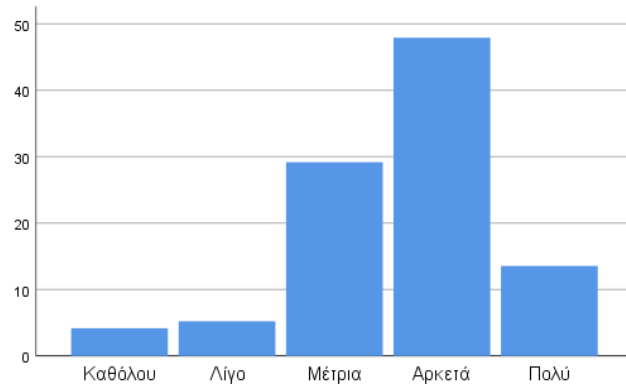
Reluctance of Public
Organisations & companies
to share data

Reduction of social inequalities in
transportation



Survey of users' needs and opinions (1/2)

Possibility of using MaaS application with shared electric vehicles



44% of those who have declared very likely of using e-MaaS, consider it quite to very likely that they will use this application (almost) **exclusively for their travels**

Importance of integrating additional mobility services in a MaaS system

	No Importance	Little Importance	Moderate Importance	Great Importance
City Buses	6.4%	13.2%	39.1%	41.4%
Metro	5.5%	6.4%	33.2%	55.0%
Taxi	7.7%	25.9%	39.1%	27.3%
Maritime urban transport	8.6%	36.4%	34.1%	20.9%
Ride hailing (i.e. Uber)	12.3%	33.2%	35.5%	19.1%
Ride sharing	20.0%	32.3%	31.8%	15.9%

User Expectations

- ✓ Eco-friendly transportation
- ✓ Independence and Autonomy travelling



Survey of users' needs and opinions(2/2)

Research finding in brief:



- Particularly important for users: protection of personal data and security in transactions
- Most willing to use the MaaS scheme are:
 - young people, especially the age group 18-24
 - those who travel mainly by public transport or taxi





- *What is the best way of co-designing MaaS subscription mobility packages to induce changes in the user's behaviours?*
 - **personalized offers based on analysis and clustering of mobility patterns** being presented to the potential user groups and create a dialogue/iterative process to fine tune them and move from data-driven offers to user-agreed offers. Always taking into account that the offers represent a group of citizens and not only the individuals participating in the co-creation process. **The Neutral platform will provide feedback for mobility patterns.**
- *What the role of public authorities in promoting these mobility models?*
 - public authorities should provide a **framework (technological and regulatory)** for these models to be feasible. Starting with the engagement (and data provision) of the transport providers and ending in **policy formulation supporting/facilitating the implementation of MaaS. The Neutral Platform will a) be technical infrastructure to support the framework and b) provide feedback for the policy effectiveness**
- *Should the strategy of subsidising public transport be re-thought and become user-focused?*
 - Subsidization can help us move from the second-best solution (not optimum solution but at least no operator losses money) to the first best solution (social optimum). In this sense MaaS can be subsidized but we need to understand how and why. probably not all modes of MaaS will be subsidized, so it can be a **tool to promote the choice of sustainable modes within the MaaS offer. The Neutral Platform will support by providing the data and the monitoring of the user's habits;** we could go for personalized subsidization solution, but always within an overall framework fulfilling the vision of the city while respecting user's personal situation (VRU, students, elderly, women...)



Thank you for your attention

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<https://imet.gr/index.php/el/>

