metaCCAZE
Flexibly adapted MetaInnovations, use cases, collaborative business and governance models to accelerate shared Zero Emission mobility for passengers and freight

Paraskevi (Evi) Koliou, George Yannis, Konstantinos Gkiotsalitis, Dimitrios Rizopoulos, Marilena Merakou, Elena Provatari
Department of Transportation Planning and Engineering, School of Civil Engineering,
National Technical University of Athens, Greece

metaCCAZE

National Technical University of Athens

@Research Village Associations Stand

What is metaCCAZE?

metaCCAZE contributes to **acceleration of the climate neutral and safe mobility transformation** in 10 Mission Cities by 2027 <u>towards electric, connected and automated mobility and related infrastructure</u>, through

- development of flexibly adapted, resilient and transferable technologies;
- infusion with user-centric approaches to zero emission shared mobility services for passengers and goods;
- testing, deployment and monitoring them in 10 Mission Cities across 10 different European countries; and
- streamline and adapting generated knowledge to any city to build capacity and skills to implement smart shared and zero-emission mobility systems.
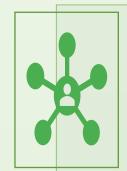
Consortium:
44 partners,
12 countries

Tampere
Amsterdam
Paris
Munich
Krakow
Miskolc
Milano
Gonzo
Athens
Limassol

Trailblazer cities
(Amsterdam, Munich, Tampere, Limassol)

Follower Cities
(Athens, Krakow, Gozo, Milan, Miskolc, Paris region)

Objectives: What do we want to achieve ?

- Involve the **cross-sectorial actors and citizens** to design use cases, business innovation and governance models

- Develop the scalable, open, resilient and replicable **technological and infrastructural solutions** (<u>combined electrification, automation and connectivity</u>)

- **Infuse metaInnovations** in the cities' shared services for passengers & freight

- **Demonstrate** the MetaDesigned UCs for passenger and freight in the 4 trailblazer LLs for a year

- Show **effective transferability** of metaInnovations to the context of different cities, user and SUMP-needs in 6 follower LLs

- **Boost** the market, cities and its stakeholders with the knowledge and skills to **adopt** and **implement** the project results

- **Engage** and **disseminate** project results boosted with the policy and integration recommendations, SRIA for the 2ZERO and CCAM partnerships.
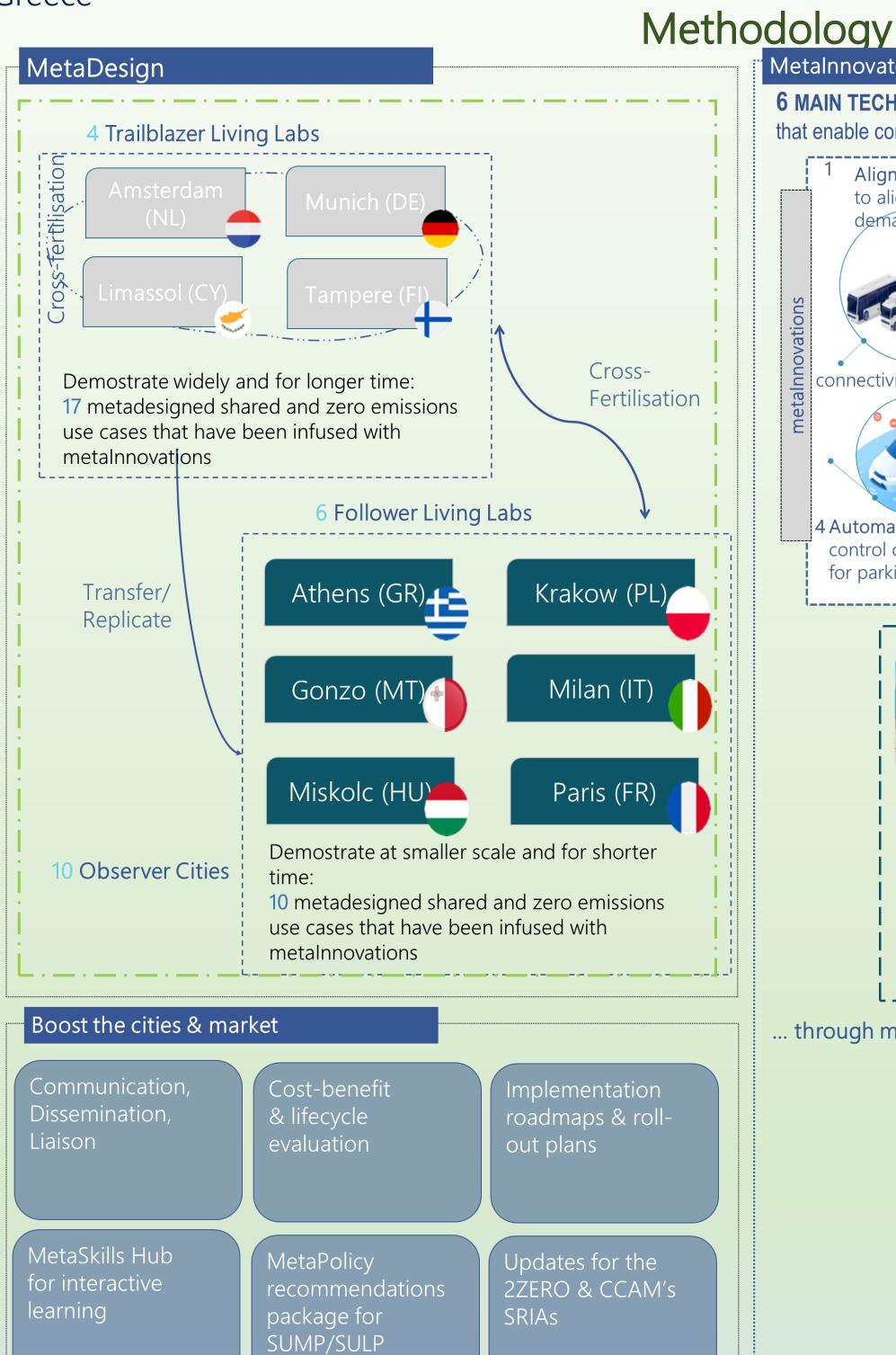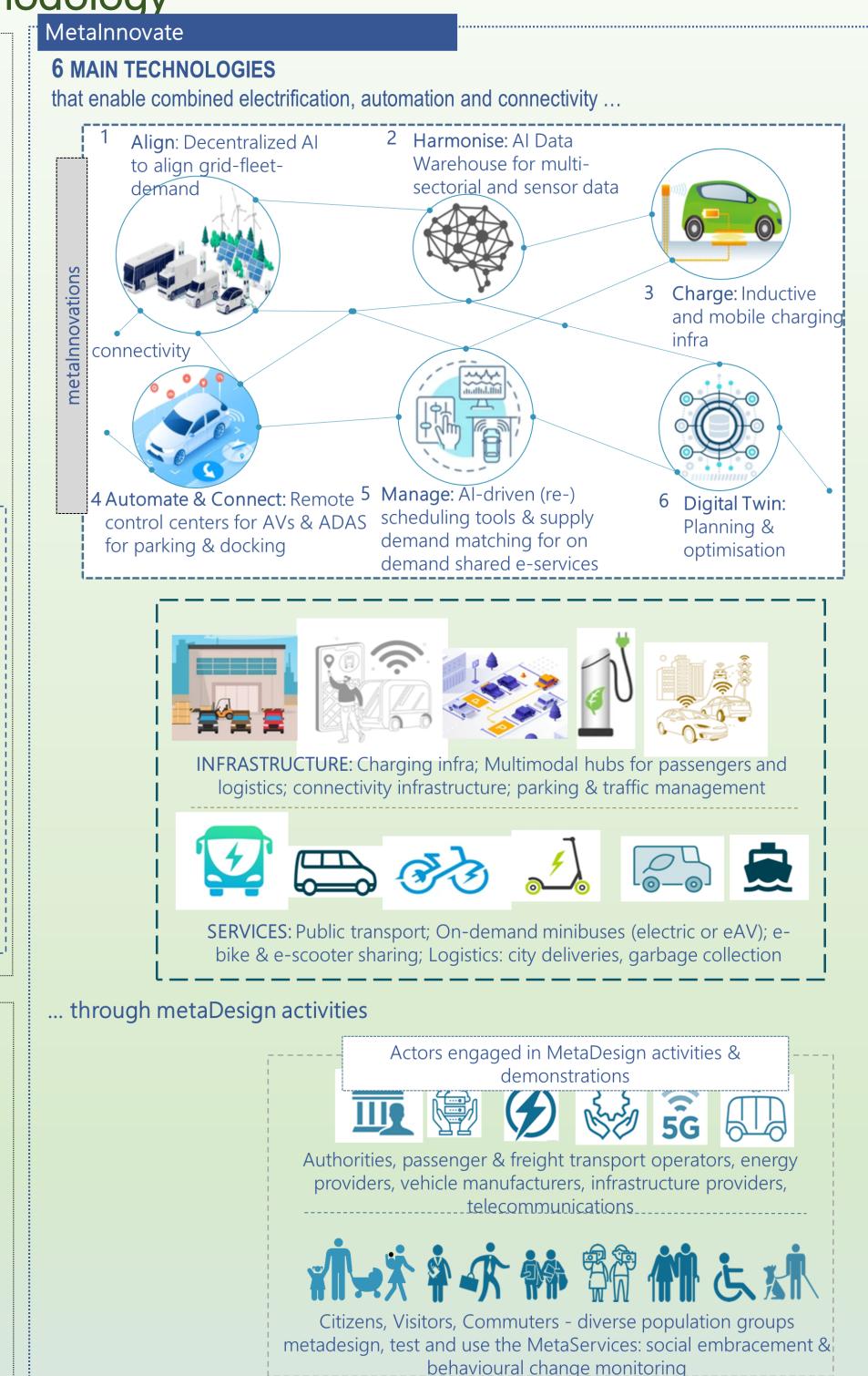
Scan me

metaCCAZE project

NRSO

Methodology

MetaDesign

4 Trailblazer Living Labs

Cross-Fertilisation

Amsterdam (NL)
Munich (DE)
Limassol (CY)
Tampere (FI)

Demonstrate widely and for longer time:
17 metadesigned shared and zero emissions use cases that have been infused with metaInnovations

Cross-Fertilisation

Transfer/ Replicate

6 Follower Living Labs

Athens (GR)
Krakow (PL)
Gonzo (MT)
Milan (IT)
Miskolc (HU)
Paris (FR)

Demonstrate at smaller scale and for shorter time:
10 metadesigned shared and zero emissions use cases that have been infused with metaInnovations

10 Observer Cities

Boost the cities & market

Communication, Dissemination, Liaison

Cost-benefit & lifecycle evaluation

Implementation roadmaps & roll-out plans

MetaSkills Hub for interactive learning

MetaPolicy recommendations package for SUMP/SULP advancement

Updates for the 2ZERO & CCAM's SRIAs

MetaInnovate

6 MAIN TECHNOLOGIES
that enable combined electrification, automation and connectivity …

metaInnovations

1 Align: Decentralized AI to align grid-fleet-demand
2 Harmonise: AI Data Warehouse for multi-sectorial and sensor data
3 Charge: Inductive and mobile charging infra
4 Automate & Connect: Remote control centers for AVs & ADAS for parking & docking
5 Manage: AI-driven (re-) scheduling tools & supply demand matching for on demand shared e-services
6 Digital Twin: Planning & optimisation

connectivity

INFRASTRUCTURE: Charging infra; Multimodal hubs for passengers and logistics; connectivity infrastructure; parking & traffic management

SERVICES: Public transport; On-demand minibuses (electric or eAV); e-bike & e-scooter sharing; Logistics: city deliveries, garbage collection

… through metaDesign activities

Actors engaged in MetaDesign activities & demonstrations

Authorities, passenger & freight transport operators, energy providers, vehicle manufacturers, infrastructure providers, telecommunications …

Citizens, Visitors, Commuters - diverse population groups metadesign, test and use the MetaServices: social embracement & behavioural change monitoring

Acknowledgments