

POLIS

CITIES AND REGIONS FOR TRANSPORT INNOVATION

ANNUAL
CONFERENCE
2023

LEUVEN, BELGIUM • 29-30 NOVEMBER 2023



leuven

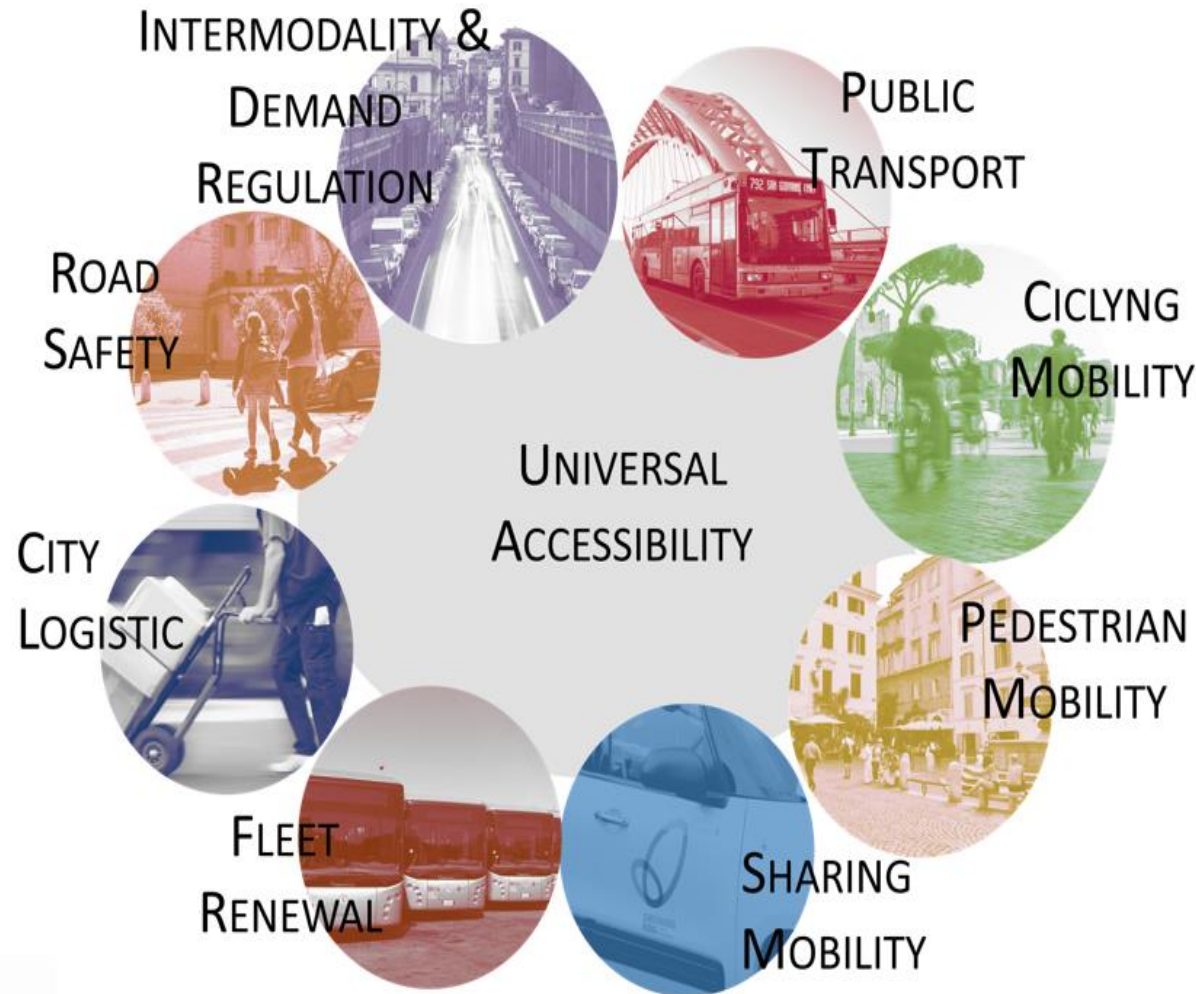
SESSION 3C. REGULATING, IMPROVING PUBLIC FLEETS?

ACCESS MANAGEMENT POLICIES AND ITS CONTROL IN ROME



Ing. Fabio Nussio
Head International Co-operation & Sustainability
Mobility Agency of the City of Rome

From everything starts: Rome SUMP approved in 2022



From the old “**traffic approach**” towards “**Plan for people**”:

- **Multimodality & reduction of private car ownership**
- **Public transport capacity increase**
- **Safety levels increase** for PT and road traffic
- **Active mobility**, soft & sharing mobility increase (car pooling, car, **bike**, van sharing, mobility manager activities)
- **Less congestion and atmospheric & acoustic pollution** - energy consumption reduction – **CO2**
- Pathway to **Climate Neutrality** according to Rome participation in **EU Mission '100 climate neutral cities by 2030'**

Car predominance in Rome: 1) Challenges

- **Motorization rate:** 620/1000 inhab, **1,9 ML vehicles** (parked at least 90% time) + **0,4 ML PTW** with **1,4 ML driving licenses**;
- **Modal Share:** PT: 21%, Car: 52%, Motorbike:10%, Walking: 14%, Cycling+Sharing: 3%
- **Road safety:** + 120 fatalities per year.
- **Air Pollution:** non-compliance with EU Directive on ambient air quality for NO2 & PM10. Obligations to limit mobility of most polluting vehicles

2) Strategies

Implement the approved **SUMP** with focus on:

1. Strong improvement of Public Transport
2. Increase demand management policies with ITS support;
3. From car to multimodality: MaaS approach
4. Cycling path extension and active mobility projects
5. On-street parking automatic control





Improvement of Public Transport in the next 3 years

About 3 billion euros financing obtained and works running for:

- **4 NEW TRAMWAY LINES**

- Tramway TVA Termini-Vaticano-Aurelio and new Tram Depot (*financed by RRF*)
- Tramway viale Palmiro Togliatti (*financed by RRF*)
- Tramway via Tiburtina (piazzale del Verano - Stazione Tiburtina)
- Tramway Termini-Giardinetti
- **ROLLING STOCK:** Purchase of 121 new tram and 38 new metro convoys

- **METRO C COMPLETION:** opening of Amba Aradam and Colosseo Station within 2024



Improvement of Public Transport

New trains and renovation of existing metro lines

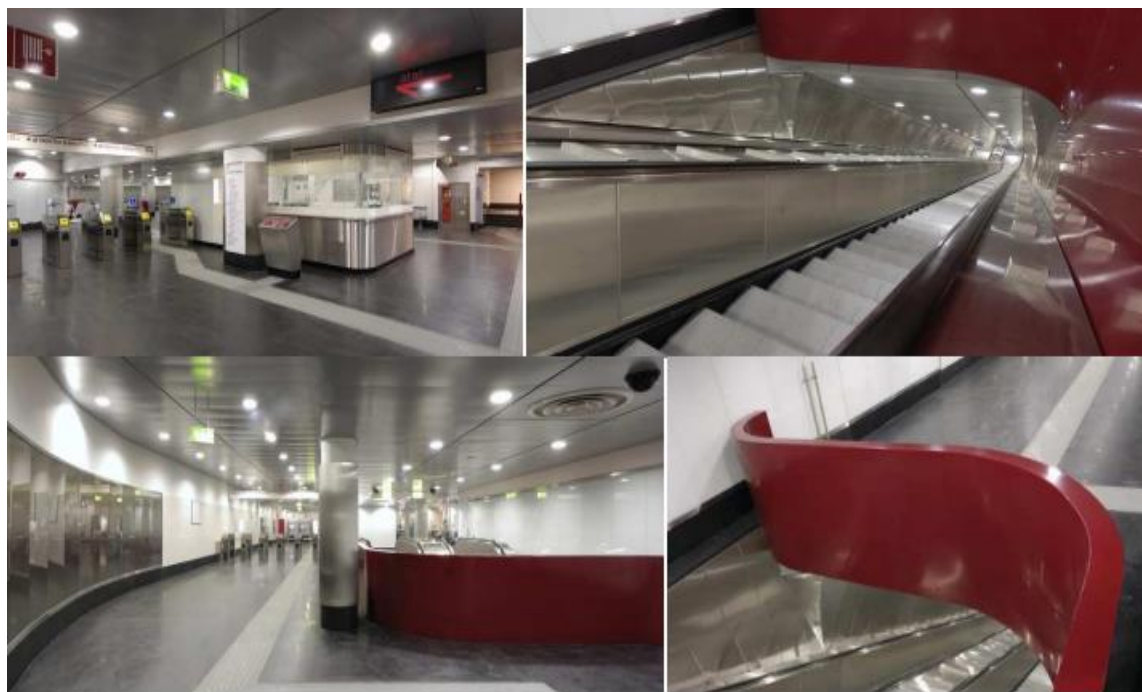
Improve the service frequency by 2025 (more trains available). **The introduction of 38 new trains** is expected for metro lines A and B.

Extraordinary maintenance of the metro line A tunnels is underway and so are the works on 25 km of tracks, dating back to the 1970s, **on the historic Anagnina-Ottaviano section**, started at the beginning of July 2022 to be completed by Christmas 2023. From January 2024, similar works will **be extended to the remaining part of the line A (Ottaviano-Battistini section)**.

Jubilee 2025 projects: MA Line Station Restyling.

The MA line is the busiest line and it is directly connected to the **Vatican area** and to the 3 major Basilicas (San Pietro, San Giovanni, Santa Maria Maggiore). The project will see the first three tourist stations **Spagna, Ottaviano and Cipro** completed by 2025.

Complete infrastructural and design redevelopment.





Improvement of Public Transport

Purchase of zero-emission buses

- Purchase of **411 electric-powered urban buses**, to be put into service by 30/06/2026 (obligatory target to 31/12/2024 is purchase of 109 buses), for 208 ML€
- Infrastructure necessary for the commissioning of e-bus: construction and/or adaptation of existing depots and provision of recharging points close to the terminals), for 84 ML€

Integration with Jubilee and EU structural funds

- **110 hybrid 18-metre** for a total expenditure of €44m (75 already working).
- **244 methane 12-metre buses** for an expenditure of € 69 million (+100 inserted into operation)

All these new buses will be put into service within 2024

Public Transport & Mobility Infrastructures

New public transport vehicles. 75 mild-hybrid buses



TRAMWAY NETWORK

An outlook to 2026



Legenda





Infrastrutture per la mobilità

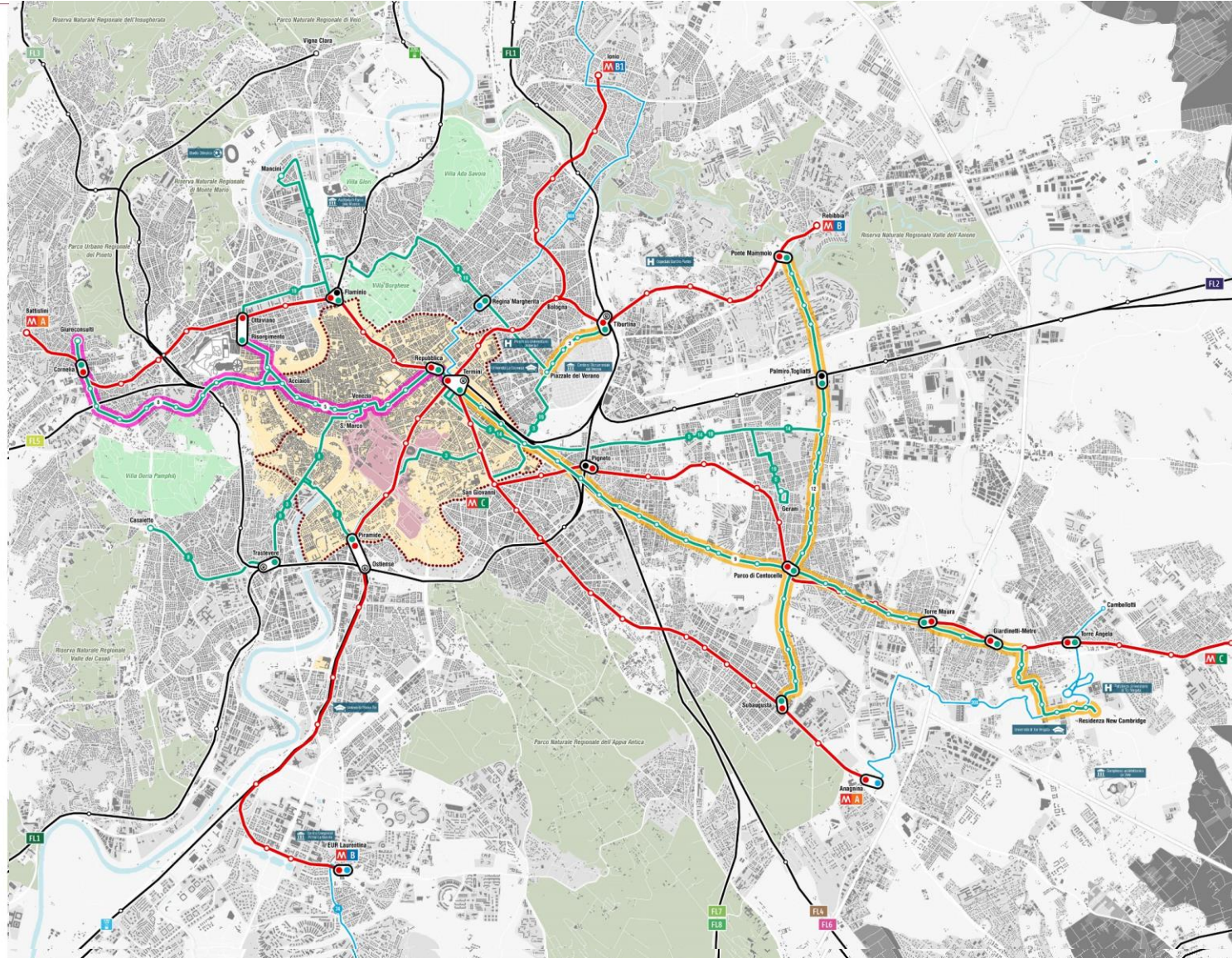
-  Rete metropolitana
-  Rete ferroviaria
-  Rete tranviaria
-  Corsie IPT
-  Stazioni nazionali
-  Modi di scambio

Il Sistema storico-monumentale e naturalistico

-  Patrimonio dell'UNESCO
-  Centro Archeologico Monumentale (CAM)
-  Mura Aureliane (II sec. d.C.)
-  Parchi Isotipi e Riserve Naturali
-  Ville Storiche

Punti di interesse

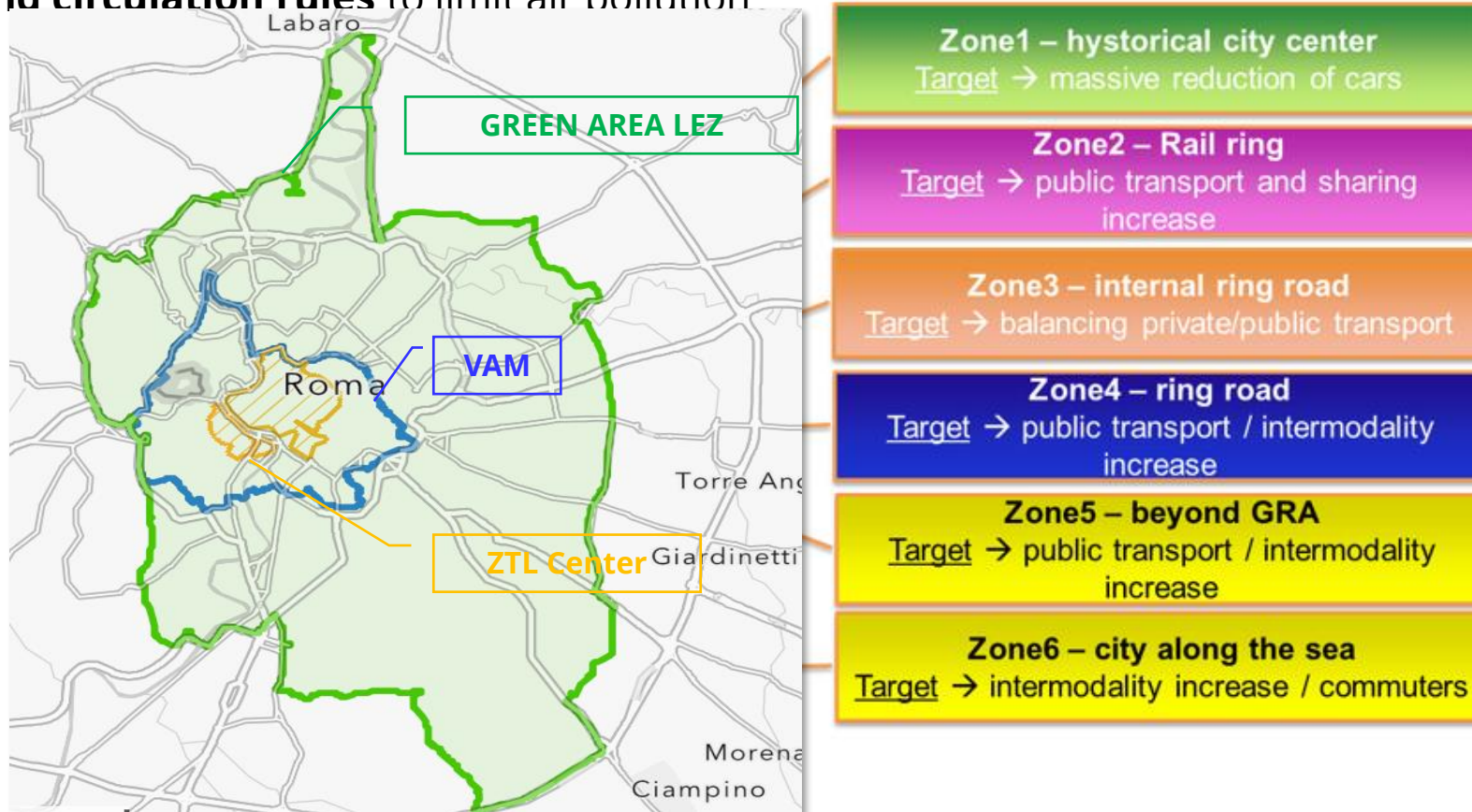
-  Poli ospedalieri
-  Poli universitari
-  Emergenze storico-architettoniche
-  Impianti e attrezzature sportive



Increased Demand Management Policies

City zoning: 6 areas with increasing constraints to private mobility, supported by ITS measures.

From **November 2023** new regulations (with gradual bans over the years) with **new access and circulation rules** to limit air pollution

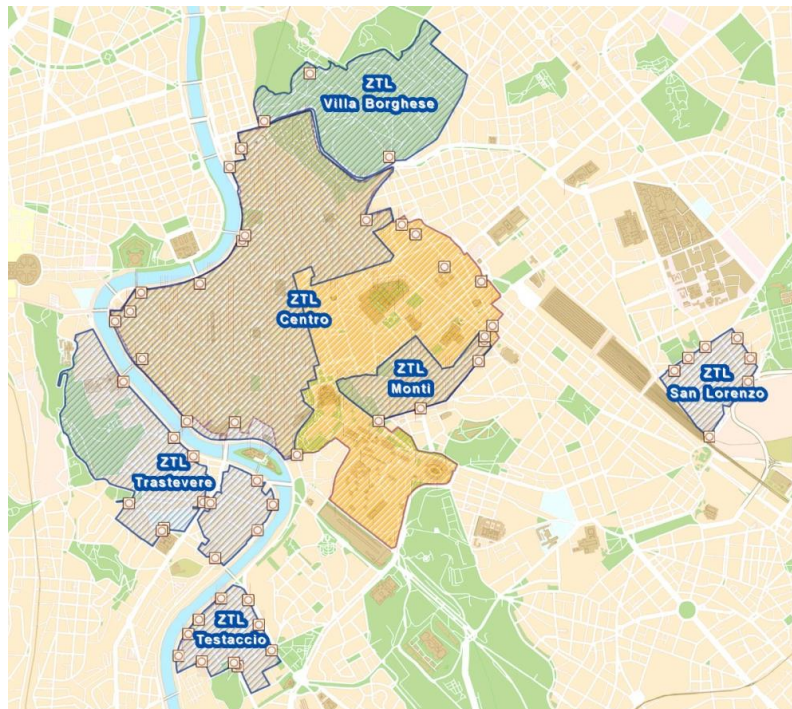


Demand Management Policies

Zone 1: City Centre LTZs already fully controlled by electronic access control systems

Time-based, Permits given to selected categories decided by Municipal Council, subject to different annual fees.

ANPR based controls carried out remotely by Urban Police. Electronic Systems implemented, centralized and maintained by RSM.



LTZ Historic Center

Mon. to Fri. 6.30 am - 6 pm
Sat. 2 pm – 6 pm
Fri. & Sat. 11 pm – 3 am

LTZ Trastevere

Mon. to Fri. 6.30–10 am
Fri. & Sat. 9,30pm–3am

LTZ Villa Borghese

Mon. to Sun. 0 –24

LTZ San Lorenzo

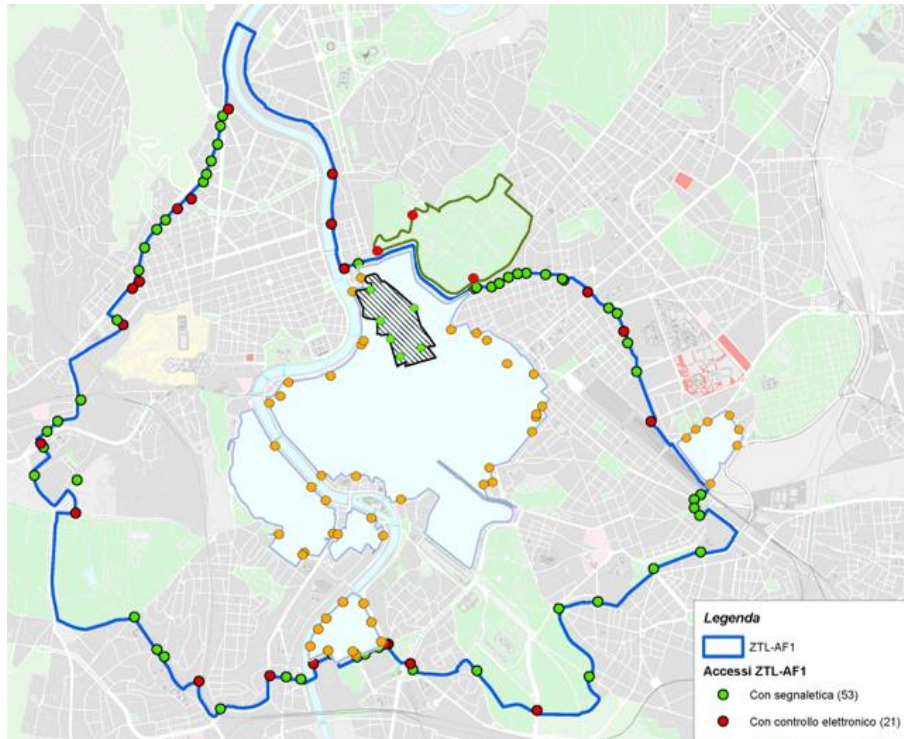
From Wed. to Sat. 9.30 pm – 3 am
(May to July & September- October)
Fri. & Sat. 9,30pm–3am
(November – April)

LTZ Testaccio

Fri. & Sat. 9,30pm–3am

Demand Management Policies

Zone 2 – Rail Ring: towards an internal control system



**LTZ VAM-Rail Ring:
63 electronic gates**

Presently operating system

Time-based, Restriction for all vehicles with total length over 7,5 meter controlled on the 21 e-gates in the red dots. Daily or other temporary permits for tourist coaches (or special freight delivery) subject to charge

New operating system

Time-based, Restriction for all vehicles with total length over 7,5 meter controlled on the whole 74 e-gates (red & green dots). Daily or other temporary permits for tourist coaches (or special freight delivery).

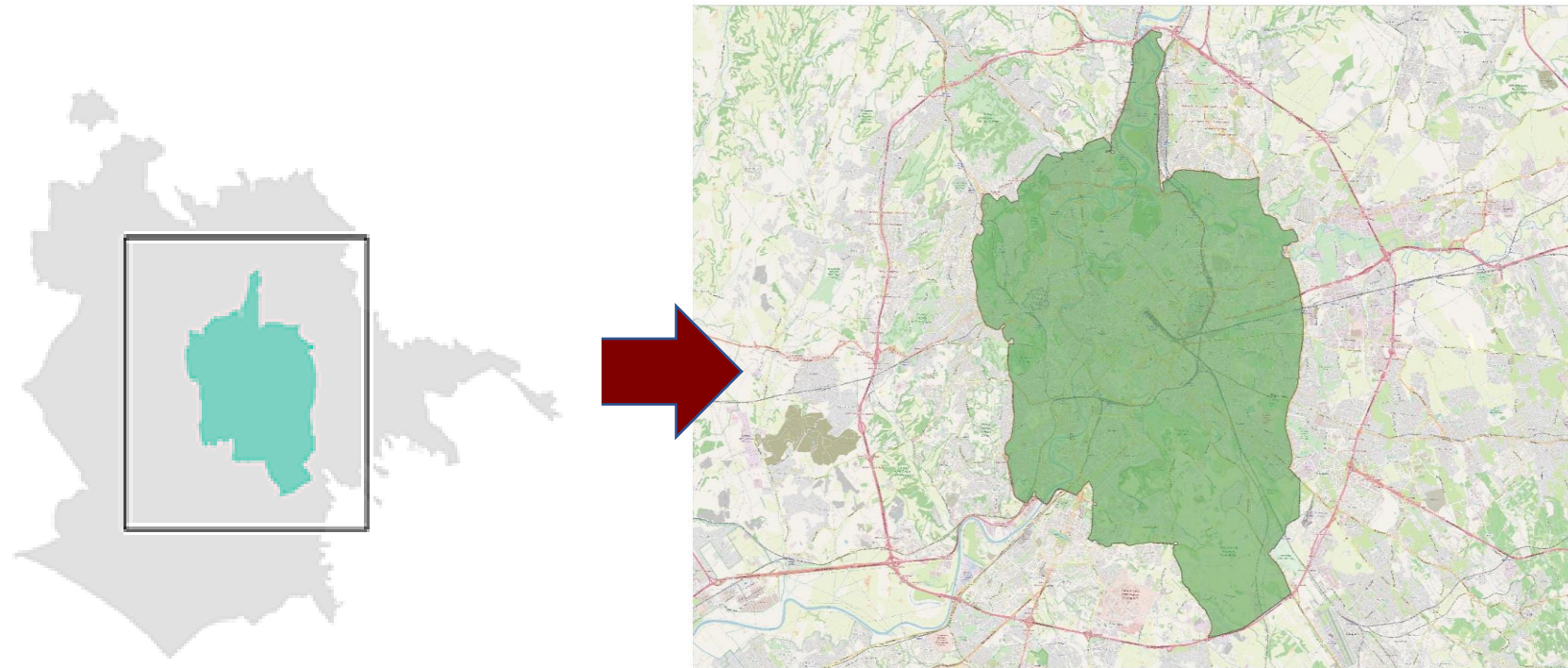
2025: ANPR based automatic check of Euro categories for all vehicles accessing the zone

Demand Management Policies

Zone 3: Green Belt LEZ to be controlled by electronic access control systems

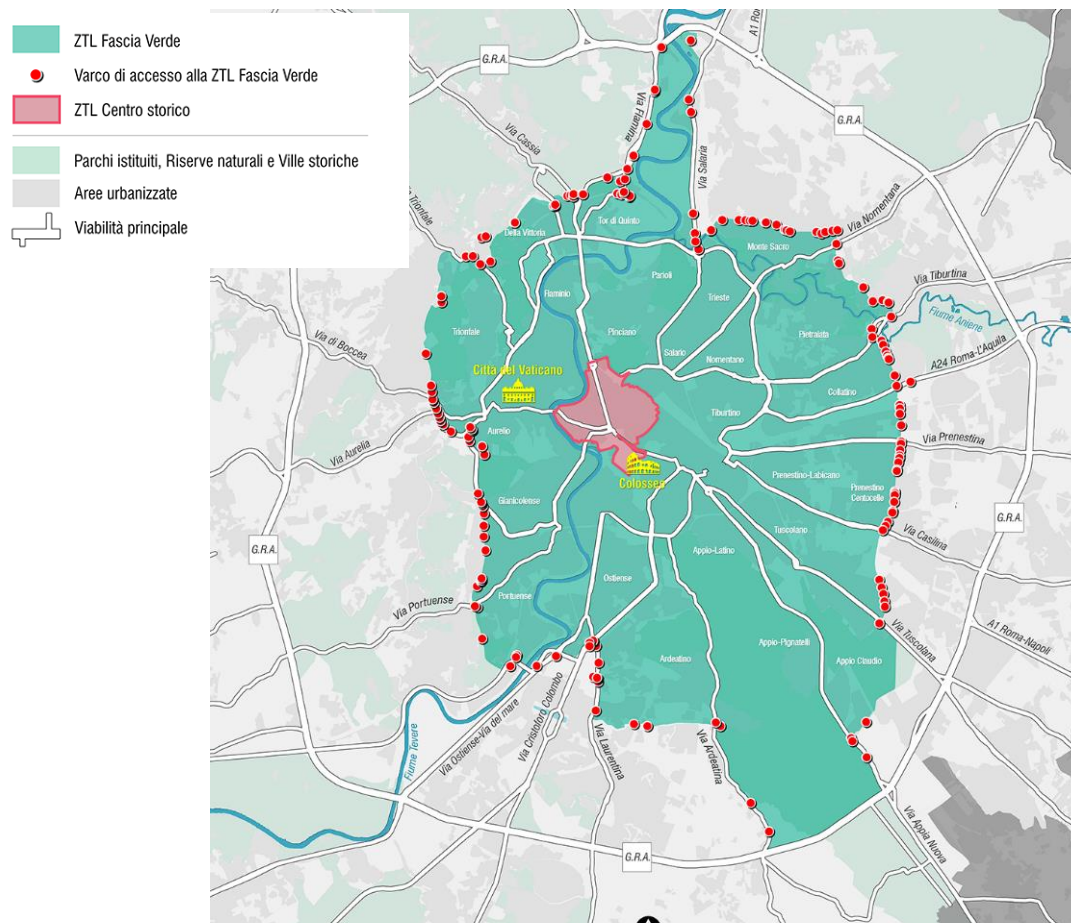
A Council Act approved the LEZ in 2022. REACT-EU is funding the first batch of the e-gates project (8 ML€), while the completion is financed by Jubilee funds. **2023: Limitations for vehicles up to Euro 3 Diesel and Euro 2 petrol with increasing constraints in 2024/25**

ANPR based controls on accessing vehicle to be carried out remotely by Urban Police. Electronic Systems implemented, centralized and maintained by RSM.



Demand Management Policies

Zone 3: Green Belt LEZ – extension and limits



Surface: 156,16 kmq – 45 % of the area inside G.R.A.

Perimeter; 72 km

Accesses: **154**, e-gates I phase 80 controlled paths

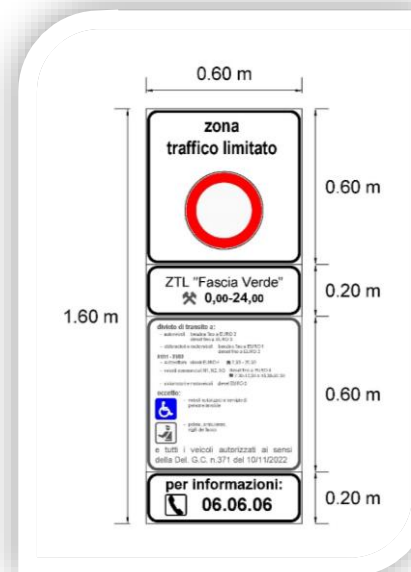
Electronic Gates

- System Data Center and first 80 electronic gates (51 access roads);
- Authorization to operate 1st quarter 2024
- Completion within November 2024

Road Signs

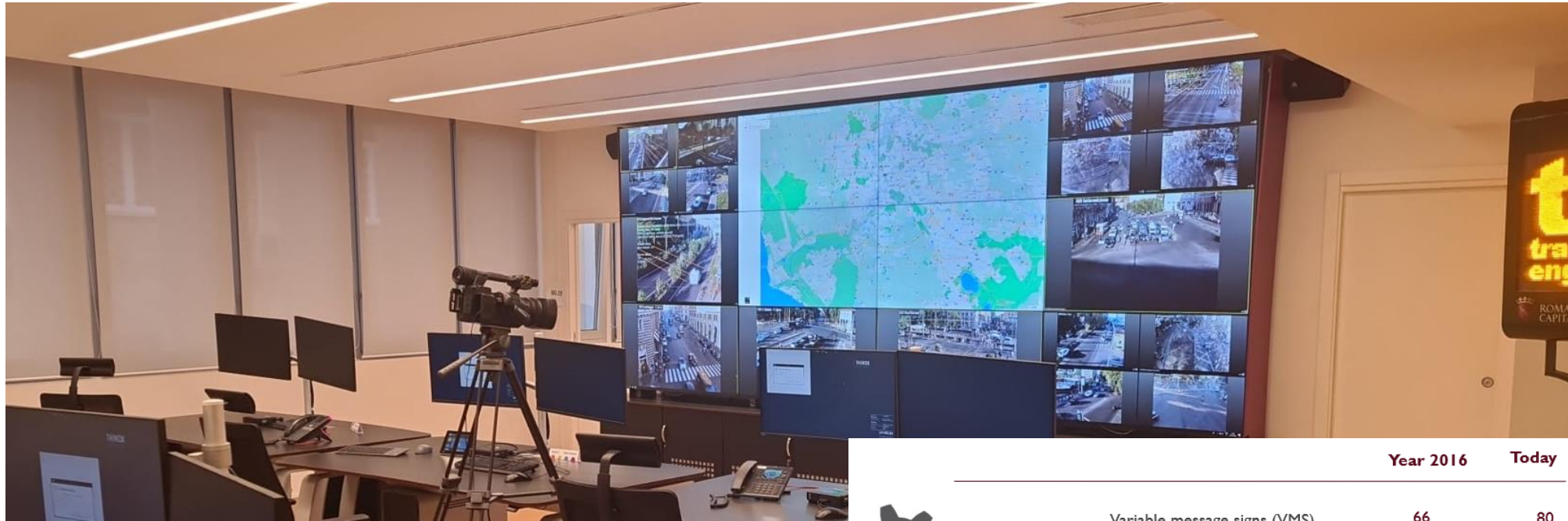
- Gateway signs 268
- Signposts 298
- Poles + plinths 1.122

Installation completed in 2023






The Mobility Centre

Roma Servizi per la Mobilità
Via Silvio D'amico, 40



The Center puts together a series of subsystems, each dedicated to the performance of specific functions of monitoring and / or regulation of traffic flows.

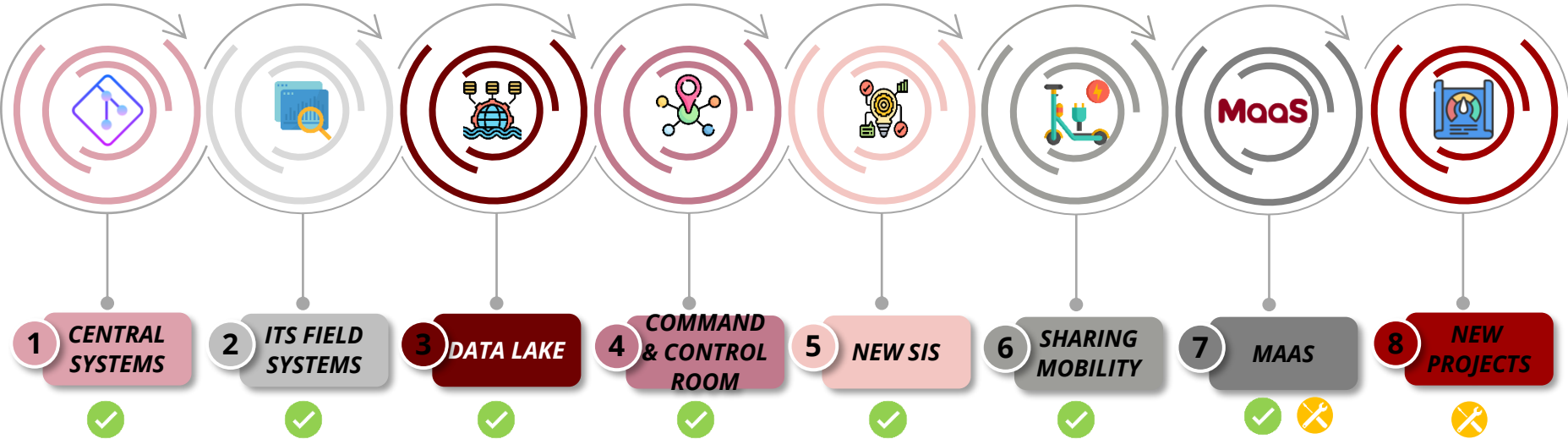
Free acces to all services, codes and open data, updated real-time when available

		Year 2016	Today
 Real-time information	Variable message signs (VMS)	66	80
	UTT (Urban Travel Times) – positions	51	89
	Electronic poles for PT	300	320
 Fining & Control Systems	e-Gates for LTZ control	47	113
	e-Gates for TP bus lanes	17	39
	Fotored	1	1
	Vistared	10	10
	Safety Tutor	2	2
 Monitoring Regulation Control	Video surveillance camera	75	93
	Measurement stations	130	64
	Traffic Lights	1376	1410

The Digitization Path of Rome's Mobility Centre

Starting in 2018, Rome Mobility Agency embarked on a path of infrastructural innovation and digitization, also in line with European best practices in the area of Smart Mobility.

This path aims to respond to the **growing demand for research and development and services for urban mobility.**



From car to multimodality: ITS support and MaaS approach



- Development of advanced **ITS (Intelligent Transportation Systems) systems, enables an integrated, sustainable and innovative management of urban mobility**
- **Implementation of tools**, such as the **Data Lake platform** and the **Mobility Centre**, to streamline Rome's transport network and provide information to users on mobility, including use of AI and Machine Learning technologies in order to make forecast estimates on short-term traffic and correlated emissions
- **Implementation of the MaaS platform**, making the city more connected and improving the quality of services offered, **bringing together the offers of mobility service providers** and providing end users with access through a **single integrated platform**

Benefit

Real-time information

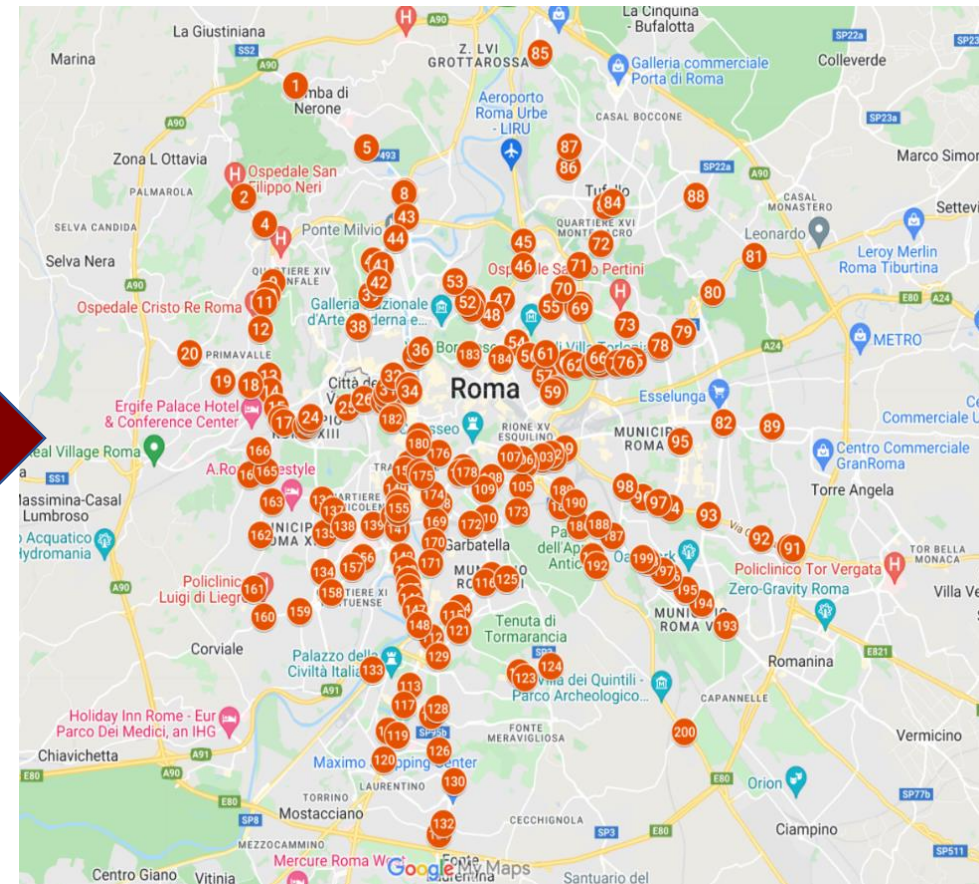
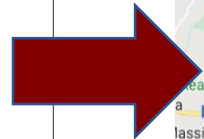
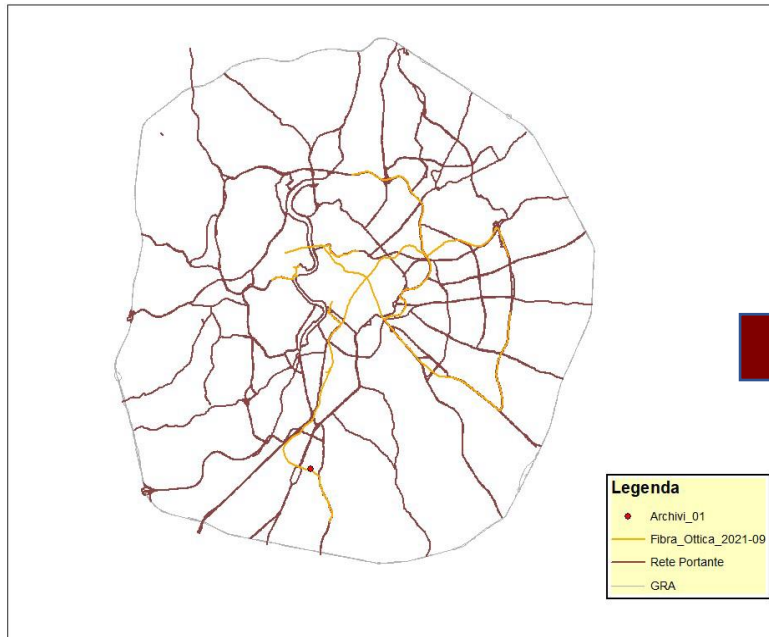
Smart Mobility

Integration of mobility services

Monitoring congestion on main city roadways

EU funding for the project (10 ML€)

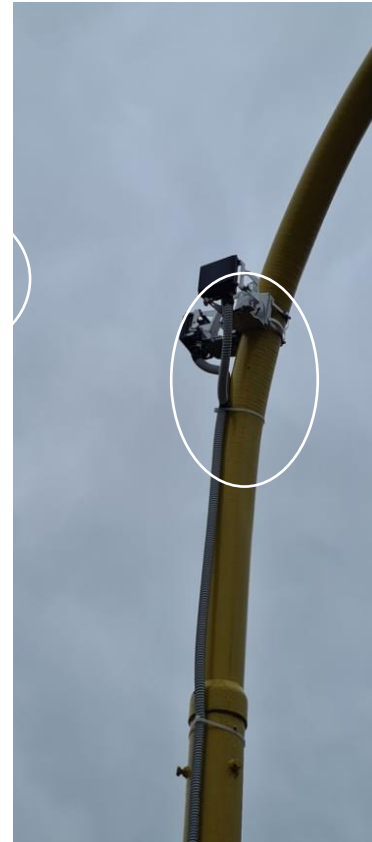
- Monitoring (flows, speeds, vehicle categories) of about 200 road intersections using the latest Radar technology.
- Environmental monitoring of 20 areas



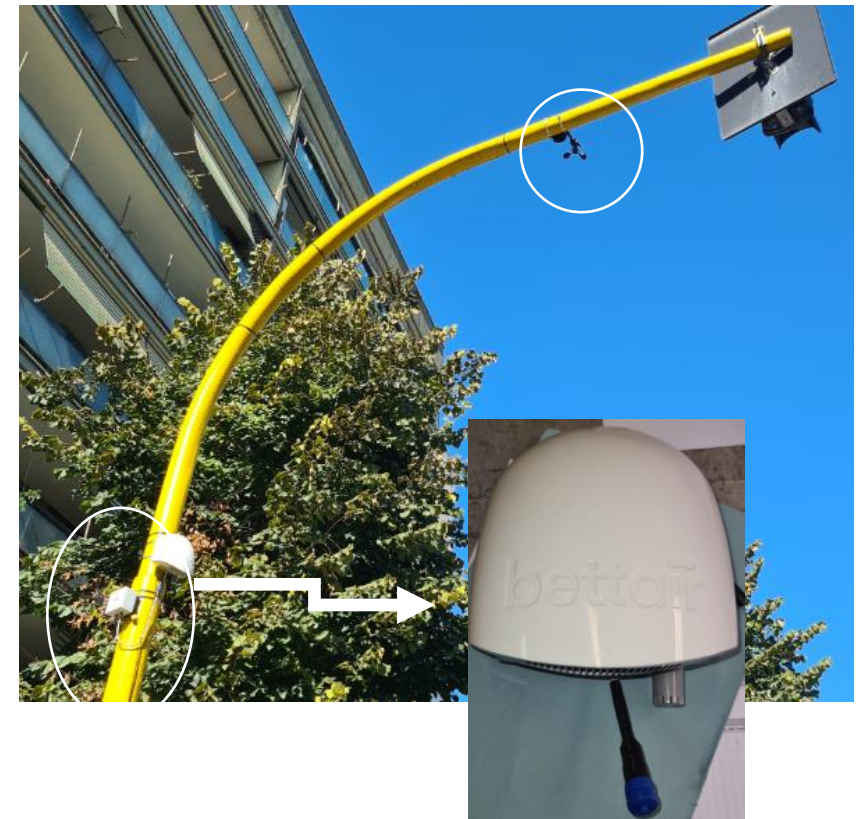


Traffic monitoring and environmental analysis systems: On field implementations

Traffic manager sensors

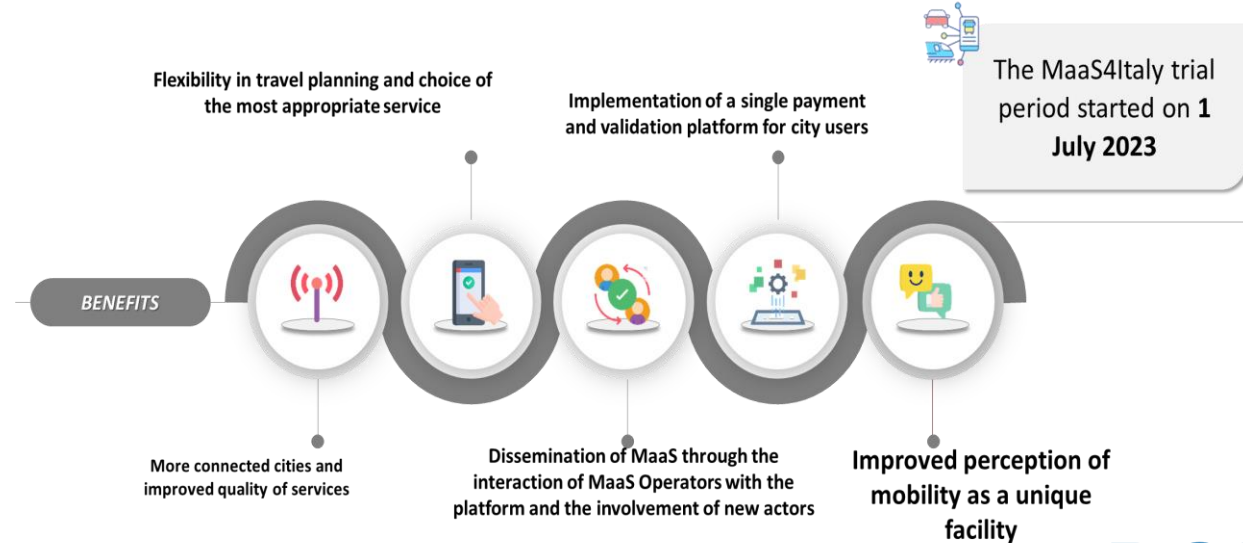


Environmental sensors

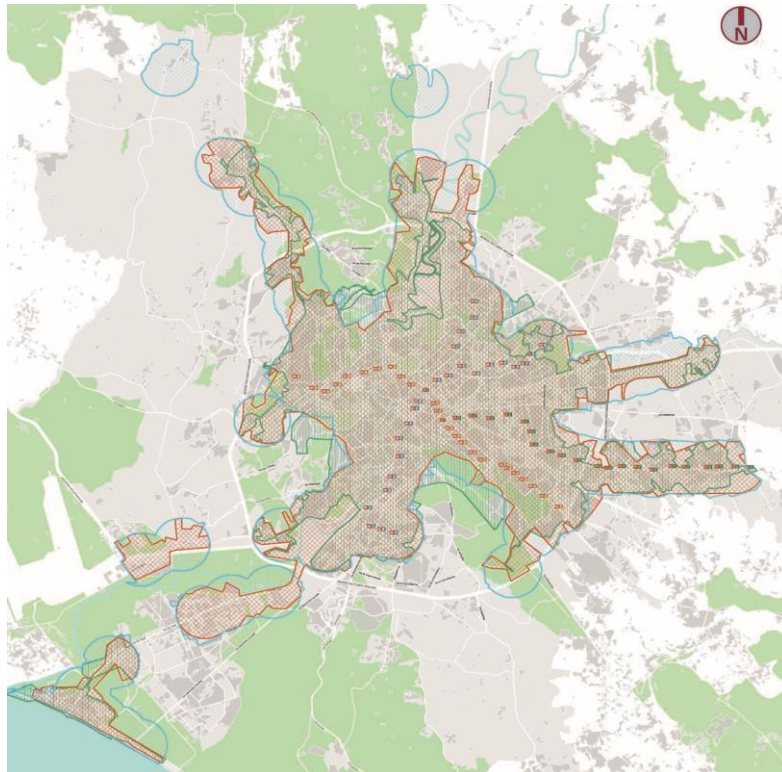


Mobility – as – a – Service (MaaS) in Rome

- MaaS (Mobility as a Service), financed by REACT-EU and PNRR funds (RRF facility), presents itself as a **single integrated platform**, open at regional and national level,
- The offers of mobility service providers are presented to users through digital interface of the **MaaS operators**.
- Sharing providers are already integrated into this service, making **last-mile mobility a reality in Rome**;



MaaS e & shared mobility – new rules and operators



Legenda

Metropolitane

Metro A	Metro B
Metro B1	Metro C

Gestori servizio monopattini Sharing

Bird	Dott	Lime
------	------	------



MICROMOBILITY SHARING

- 3 scooter operators with new rules from 1 September 2023 (also 80 rides/month included in annual PT card (Mitrebus))
- 2 e-bike operators from 1 November 2023;
- new scooter guidelines from March 2023 and planned publication of public noticeo

CARSHARING

- New guidelines approved in March 2023.
- Public notice to be published shortly.
- Currently 3 operators active: Enjoy, ShareNow, E Go





INTEGRATED AND SUSTAINABLE MOBILITY OF THE FUTURE: Tools funded by EU structural funds ready for the updated ITS Directive



Mobility Centres

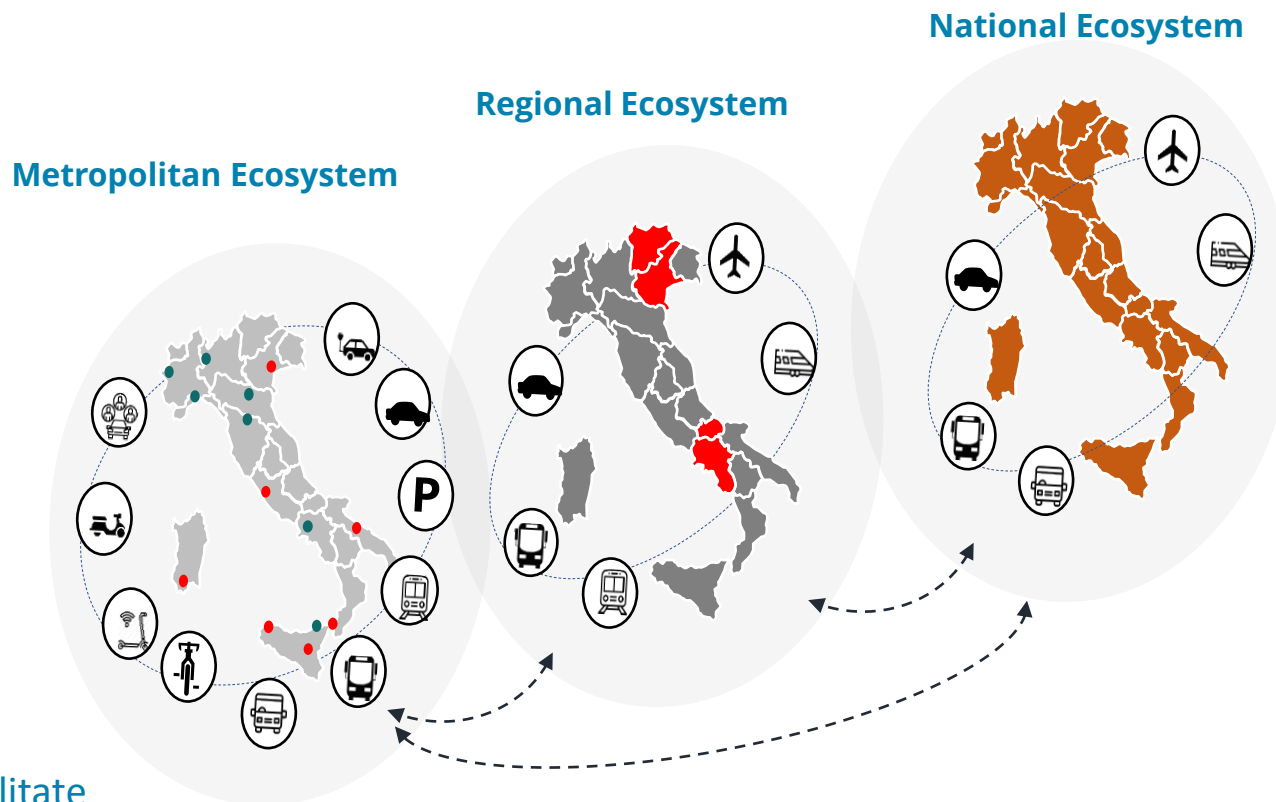
as a tool for monitoring mobility services: integrated supply, system performance, criticality management, integrated infomobility



RAP - Regional Smart Information Hubs to facilitate interoperability and information sharing



National Access Point to facilitate access, easy sharing and re-use of transport data in the deployment of interoperable EU-wide services





Thank you for your attention!

fabio.nussio@romamobilita.it

 [@POLISnetwork](https://twitter.com/POLISnetwork)

 [POLIS Network](https://www.linkedin.com/company/polis-network)

 [polis.network](https://www.instagram.com/polis.network)

 [isvideo](https://www.youtube.com/channel/UCisvideo)

