DYDAS Final Conference
RESULTS ACHIEVED AND PROSPECTS IN EUROPE

HYBRID EVENT – JANUARY 26TH 2023

SUMP & MaaS in Rome – From policy to the new Mobility Centre: open data for all?

mobilità ROMA

Ing. Fabio Nussio
Head International Co-operation & Innovation

Managing mobility in Rome: challenges

Cultural attitude for private vehicles

Motorization rate: among the highest rate in Europe (about 800 in Rome, 415 Paris, 398 London)

Road safety: about 130 fatalities per year.

Modal Share peak hour: PT: 21%, Car: 52%, Motorbike:10%, Walking: 12%,Cycling: 3%

Historical & Cultural Heritage with not changeable roads

Status of mobility to be improved, with some lights (Integrated METREBUS Card) and more lackness (few metro lines, traffic congestion, not excellent surface PT)

Status of double Capital open 7 days per week!

Pressure due to Cultural and Pilgrims Mobility

Special Events and Vatican Jubilees: special visitors

SUMP guidelines for Rome

Overcome the present **"traffic approach"** towards **"Plan for people"** with:

- Improve integration of mobility resources
- Multimodality & **reduction of private car ownership**
- Safety levels increase for PT and road traffic
- Public transport capacity increase
- Soft & sharing mobility increase (car pooling, car, bike, van sharing, mobility manager activities)
- Less congestion and atmospheric & acoustic pollution - energy consumption reduction – CO_2

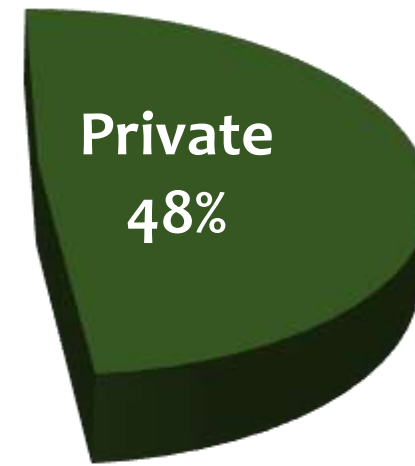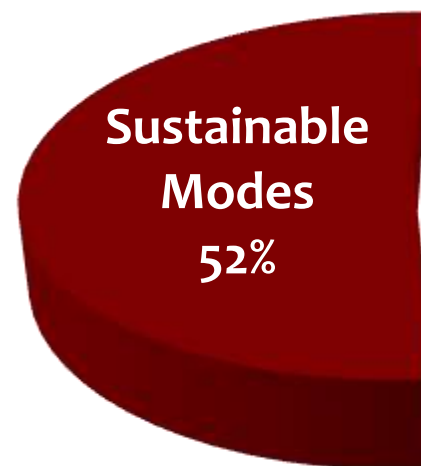# The approved SUMP for Rome: MAIN COMPONENTS *(February 22, 2022).*
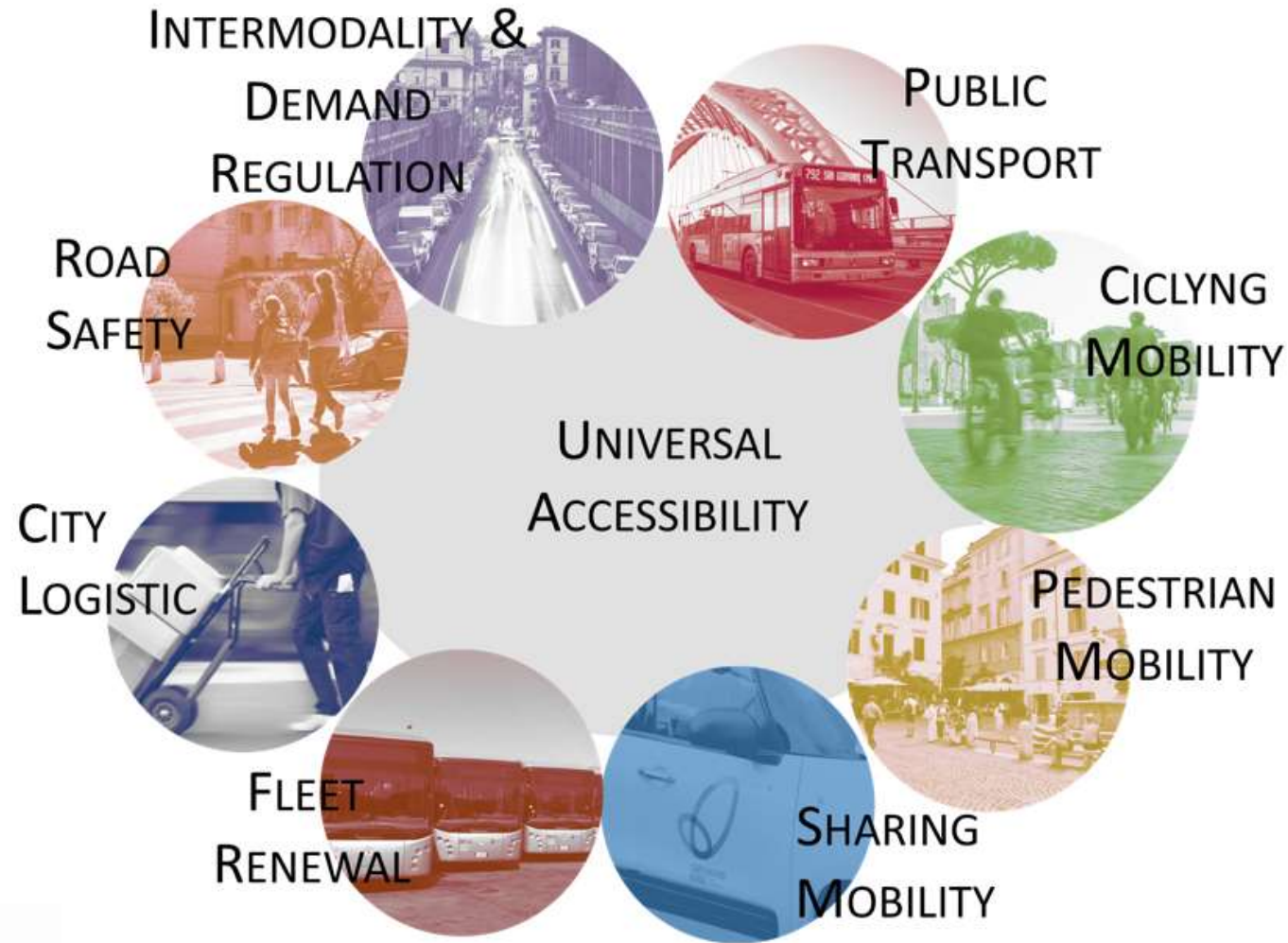
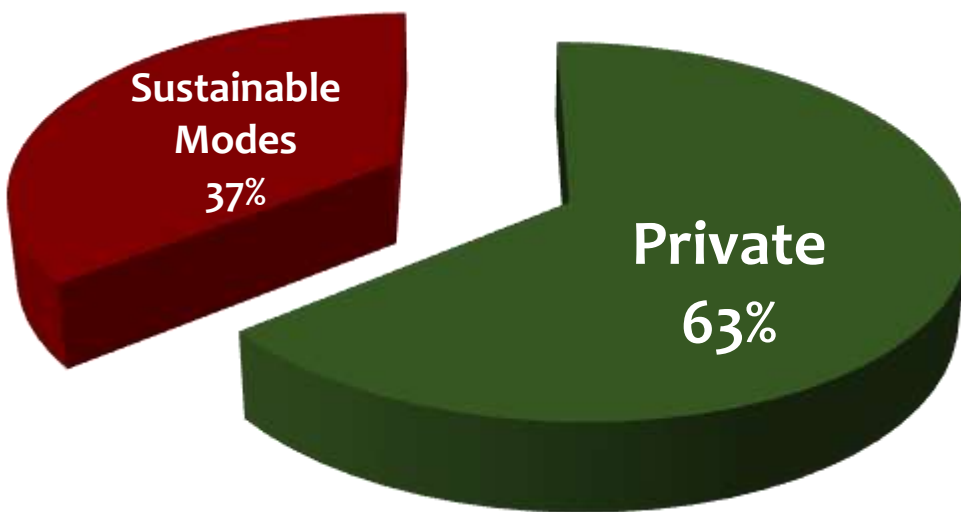# EXPECTED RESULTS

MODAL CHANGE

Reference Scenario (SR)

Sustainable Modes 37%

Private 63%

SUMP Scenario (SP)

Sustainable Modes 52%

Private 48%

Beyond the SUMP: Rome in the EU missions

Mission **"100 climate-neutral cities by 2030"** in the **third pillar of EC Horizon Europe**.

Cities as innovation "clean" centers, showing the road to other EU cities to reach the goal within 2050.

Circular approach in terms of: energy efficiency of buildings, electricity from renewable sources only, **mobility**, circular economy, **smart city**.
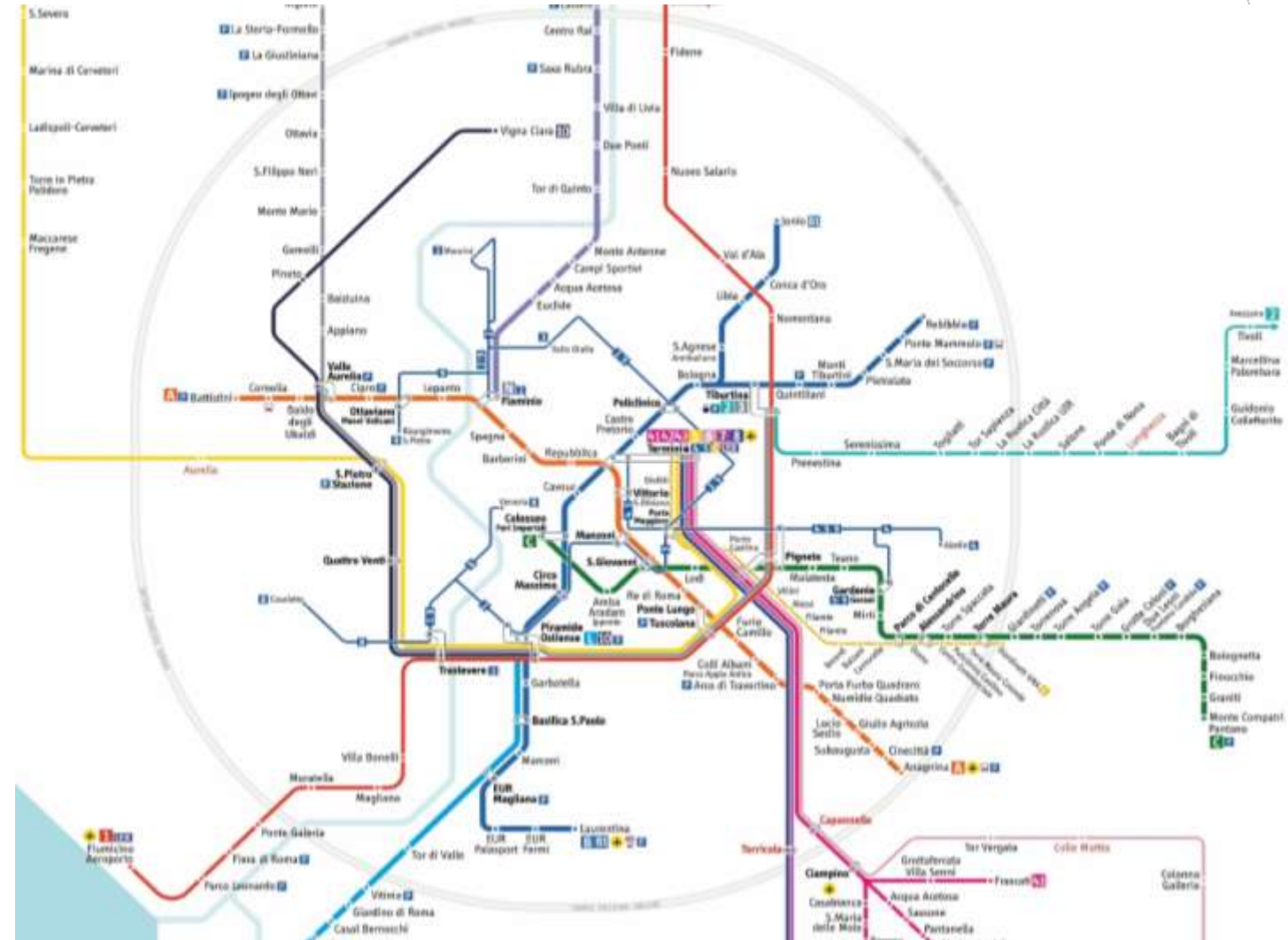
Rome was selected among the 100 cities, it is already participating in the first Mission project for mobility **"UPPER"** and this summer established a "Climate Office"
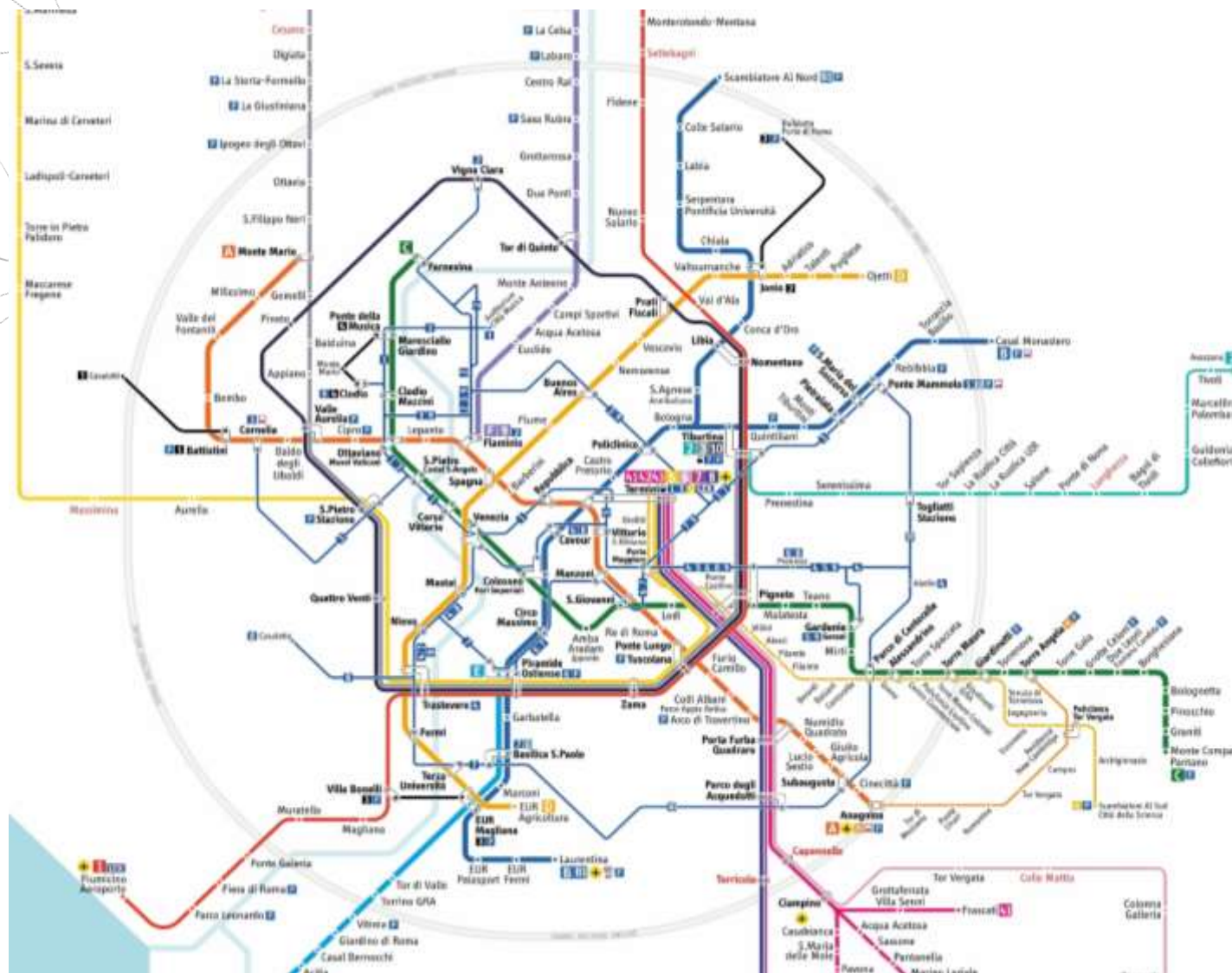

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Aarhus
Copenhagen
Sønderborg

NETHERLANDS
Amsterdam
Eindhoven & Helmond
Groningen
Rotterdam
The Hague
Utrecht

BELGIUM
Antwerp
Brussels Capital Region
La Louvière
Leuven

IRELAND
Cork
Dublin

SPAIN
Barcelona
Madrid
Seville
Valencia
Valladolid
Vitoria-Gasteiz
Zaragoza

PORTUGAL
Guimarães
Lisbon
Porto

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Bordeaux Metropole
Dijon Metropole
Dunkerque
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Wrocław

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Velenje

MALTA
Gozo

BULGARIA
Gabrovo
Sofia

ROMANIA
Bucharest
Cluj-Napoca
Suceava

GREECE
Athens
Ioannina
Kalamata
Kozani
Thessaloniki
Trikala

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PUMS — Piano Urbano della Mobilità Sostenibile

ROMA

mobilità ROMA

REFERENCE SCENARIO:
Rail PT Network

PUBLIC TRANSPORT

SUMP SCENARIO: Whole Rail PT Network

Metro & railways: + 45 km;
Cableways, other: +10 km;
Tranway branchs: + 58 km;
New stations/stops: 185

Co-financed by the European Union
Connecting Europe Facility
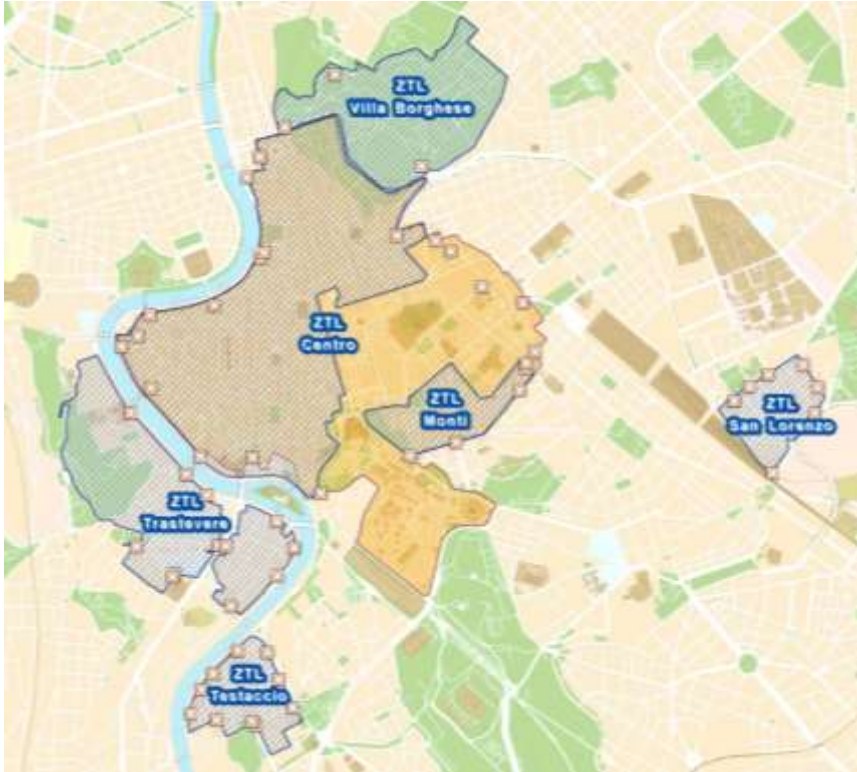
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PUBLIC TRANSPORT

SUMP: Demand Management Policies

City zoning always more in 6 areas with increasing constraints to private mobility and focusing on multimodal mobility with emphasis to soft modes, supported by ITS measures
Council Act n 371/22 redefined Zone 3 and increased constraints.

Zone1 – hystorical city center
Target → massive reduction of cars

Zone2 – Rail ring
Target → public transport and sharing increase

Zone3 – internal ring road
Target → balancing private/public transport

Zone4 – ring road
Target → public transport / intermodality increase

Zone5 – beyond GRA
Target → public transport / intermodality increase

Zone6 – city along the sea
Target → intermodality increase / commuters

DEMAND REGULATION

SUMP: Demand Management Policies

Present status of City Centre LTZs & electronic access control

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)
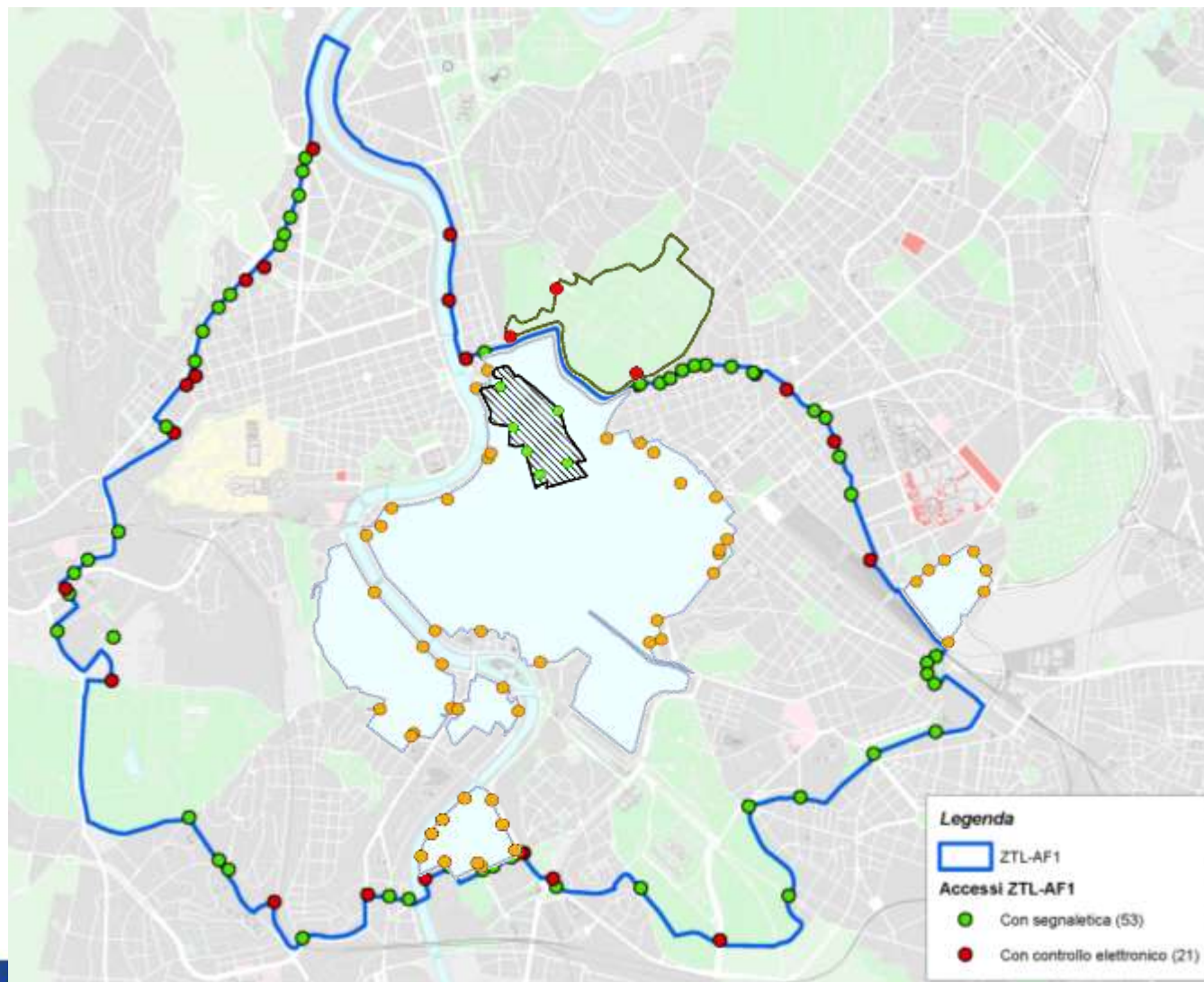Fri. & Sat. 9,30pm–3am
(November – April)

LTZ Testaccio
Fri. & Sat. 9,30pm–3am

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DEMAND REGULATION

Demand Regulation

Freight, Tourist Coaches & Future Pollution charge

2017

LTZ VAM-AF1:
21 electronic gates

LTZ VAM-AF1
All days
05.00 – 24.00

Restriction for all
vehicles with total
length over 7,5 meter,
except authorized
(tourist coaches)

2020

LTZ VAM-AF1:
+53 electr. gates

Legenda

☐ ZTL-AF1

Accessi ZTL-AF1

● Con segnaletica (53)

● Con controllo elettronico (21)

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Connecting Europe Facility

LEZ & Electronic gates on the Green Band

A Council Act approved the LEZ on November 10 with progressive restriction according to vehicle Euro categories (from Euro3 in 2022 to Euro5 diesel in 2024).

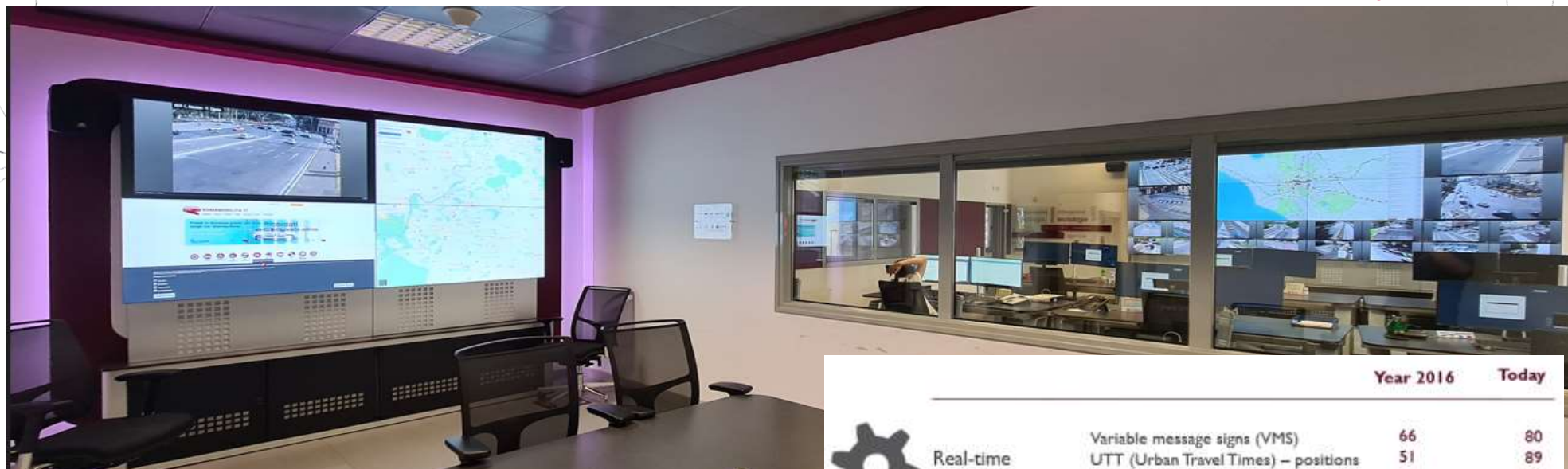**REACT-EU is funding the first batch of the e-gates project (8 ML€)**

- Completion of the **System Data Center**

- Installation of the **first 80 electronic gates**
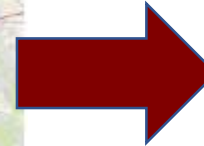
ITS Core - The Mobility Centre
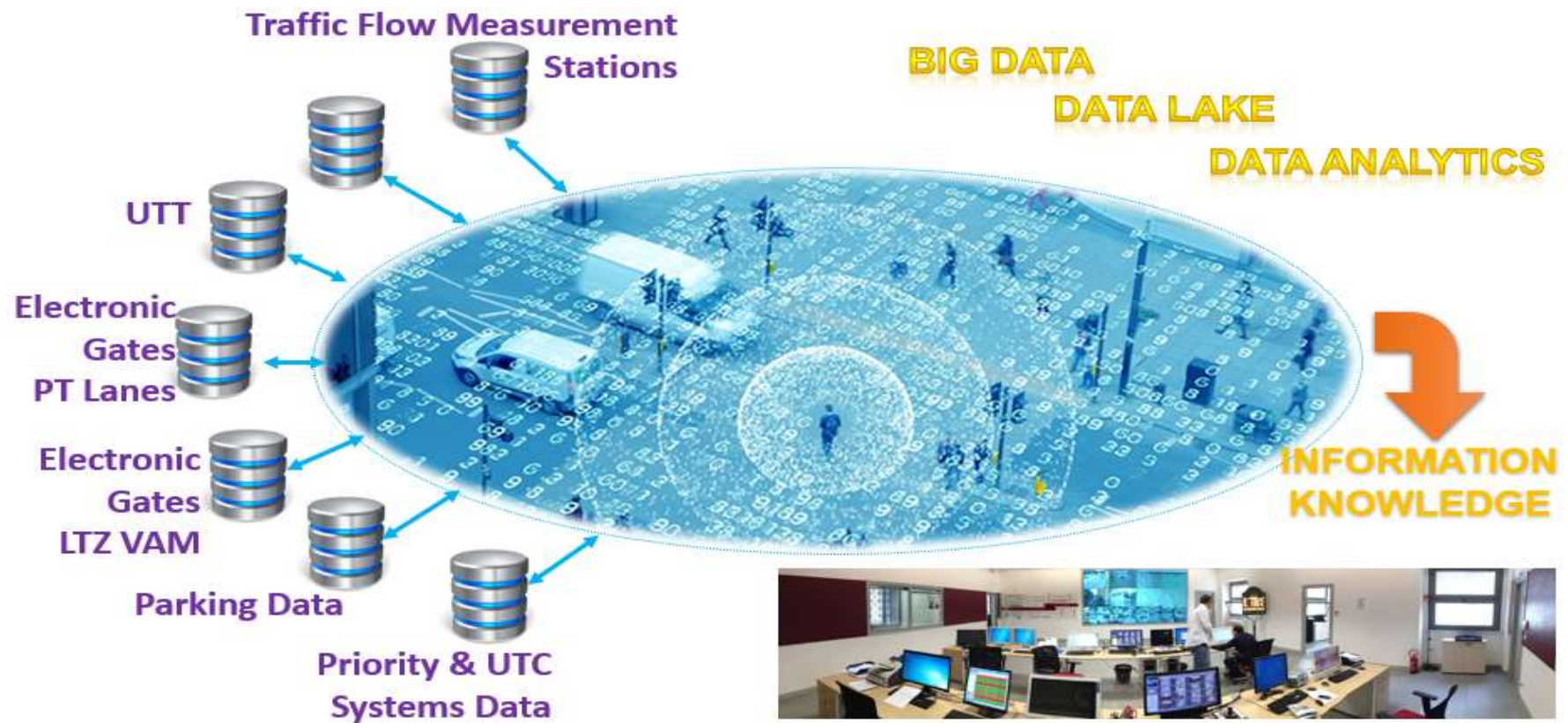
P.Le Degli Archivi, Roma

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

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PUMS
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CENTRAL SYSTEMS DEVELOPMENT & AI

Big Data – Data Lake & Data Fusion

*The new Mobility Center is part of an overall framework based on the creation of the **Data Lake** where data from over **30 types of ITS systems** managed by Roma Servizi per la Mobilità are integrated in **18 data tipology** functional areas*
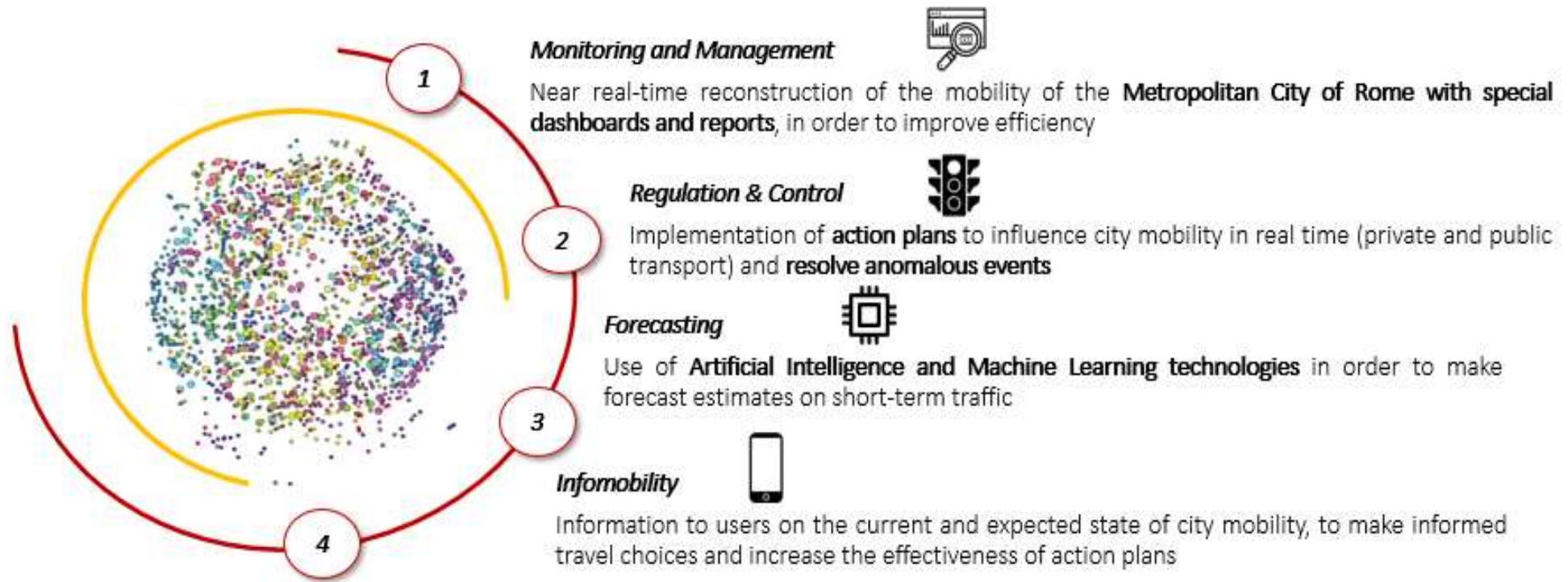
Data tipology functional areas

- PT (Open data)
- Local Police Event Reporting
- Floating Car Data
- Passengers counting
- Cartography
- UTT
- Pedestrian Mobility
- Accidents
- Permits

- LTZ and fining
- VMS
- UTC
- CCTV
- Public Sharing
- Private Sharing
- Maintenance
- Taxi
- Measurement stations

The new Command & Control Room

The new Mobility Center (CdM), currently in the final release phase, will be a tool available to the entire metropolitan area of Rome in order to unify, manage and use the information coming from all the actors involved in mobility and from different ITS systems present on the territory

Monitoring and Management

Near real-time reconstruction of the mobility of the **Metropolitan City of Rome with special dashboards and reports**, in order to improve efficiency

Regulation & Control

Implementation of **action plans** to influence city mobility in real time (private and public transport) and **resolve anomalous events**

Forecasting

Use of **Artificial Intelligence and Machine Learning technologies** in order to make forecast estimates on short-term traffic

Infomobility

Information to users on the current and expected state of city mobility, to make informed travel choices and increase the effectiveness of action plans

*Growing the availability of **open data and datasets for all citizens and developers***
See https://romamobilita.it/it/tecnologie

# Mobility as a Service (MaaS) in Rome

Rome is developing a level 4 MaaS in which **all public and private mobility solutions** operating in the territory can be included with the highest level of integration.

The active participation of the Municipality in the provision of the MaaS service guarantees **close alignment with the social objectives of mobility and sustainability**.

Benefits for the citizens

The key concept behind the MaaS idea is to put users at the center of transport services, offering them solutions for tailor-made mobility that brings a number of benefits:

- **Complete overview** of all services
- Increased usability of urban spaces and perceived quality of life
- **Facilitations in terms of planning, booking and paymen**t
- **Less congestion** and **increase of the air quality**
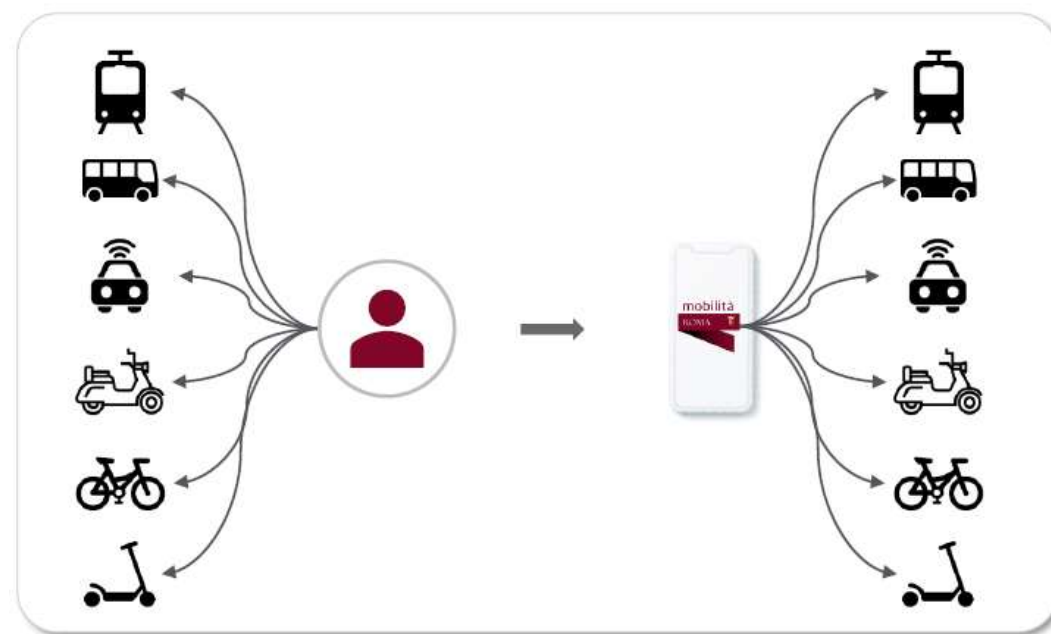
MaaS in Rome in the «MaaS for Italy» (PNRR funds)
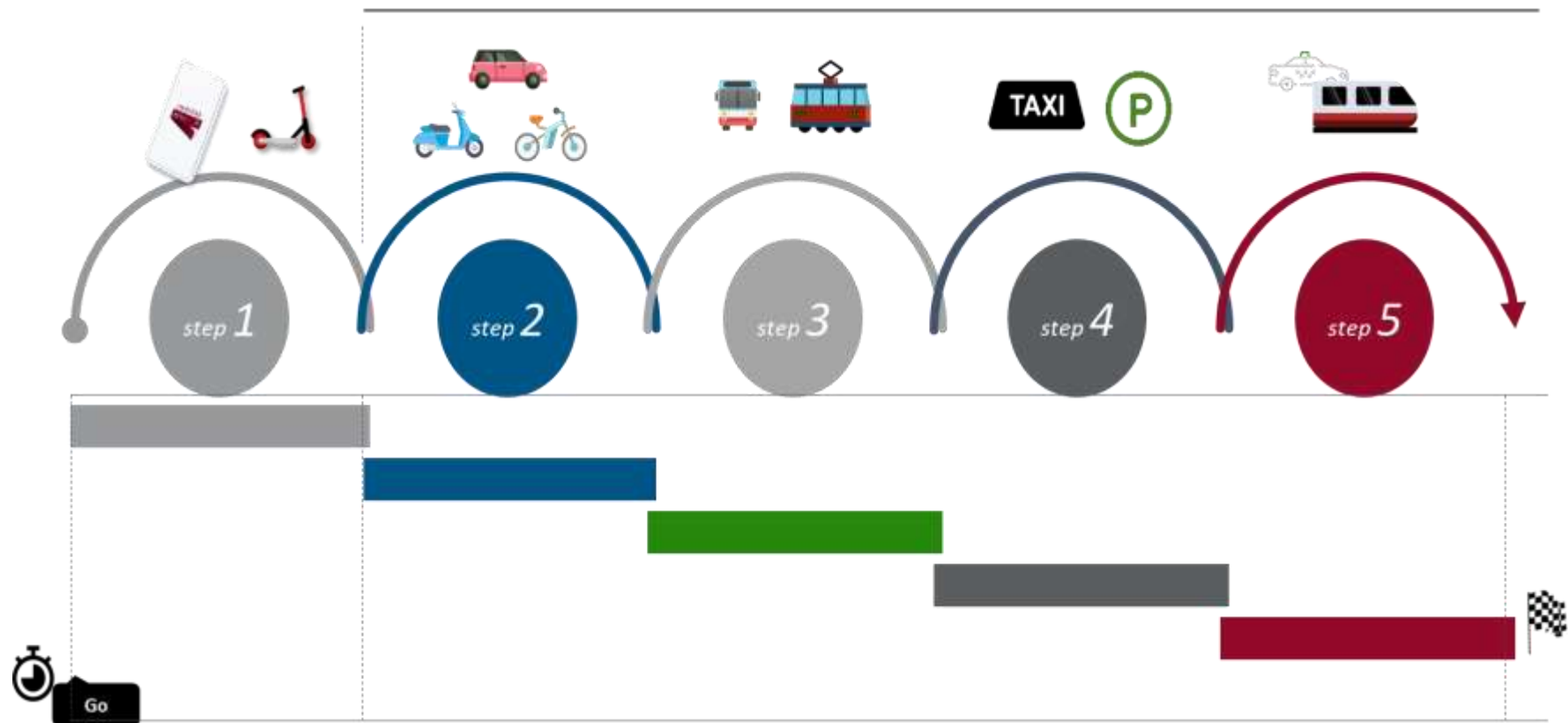
To be completed within 2024

The open data policy of Rome mobility Agency.

https://romamobilita.it/it/tecnologie

All mobility data are published here, updated according to their availability

Static Data: representing the various limitations, constraints and data availability regarding mobility infrastructures.

PT real-time data: to provide users with information based on automatic instrumentation and are not to be considered exhaustive of the service provided, as they may be affected by the variability of operating conditions on the road and any malfunctions of the satellite control system (AVM).

Traffic Data: provided on an experimental basis, for which we decline any responsibility regarding their accuracy, completeness, timeliness and reliability.

The data can be used exclusively as a travel support. The representation of the data in an aggregated and reworked form could be misleading and not represent the real condition of the service.

The open data policy of Rome mobility Agency.

https://romamobilita.it/it/tecnologie/dataset-geografici

Available measures of mobility impacts in Rome

https://romamobilita.it/it/covid-19-impatto-sulla-mobilita

Analysis carried out by **Roma Servizi per la Mobilità** and **Mobility Department of Roma Capitale** supported by **three Rome Universities** (La Sapienza, Tor Vergata e Roma Tre) and **Sony research centre**.

Data from <u>lockdown months</u> compared to **pre-lockdown months to understand what was happening.**

Main movements (private, public and pedestrian) included with data sets on:

- **FCD - Floating Car Data:** part of the vehicular fleet with a geolocation device on board for insurance reason;

- **Mobility Centre traffic measurement stations** of Rome Mobility Agency, providing daily traffic flows on main roads;

- **Passages in the entrance gates of the metro lines;**

- **Bluetooth antennas**: signals of cell phones of pedestrians and vehicles read anonymously through Bluetooth devices.

The mobility in 2020-22: drop & recovery in PT use!

https://romamobilita.it/it/covid-19-impatto-sulla-mobilita

Passages in the entrance gates of the metro lines
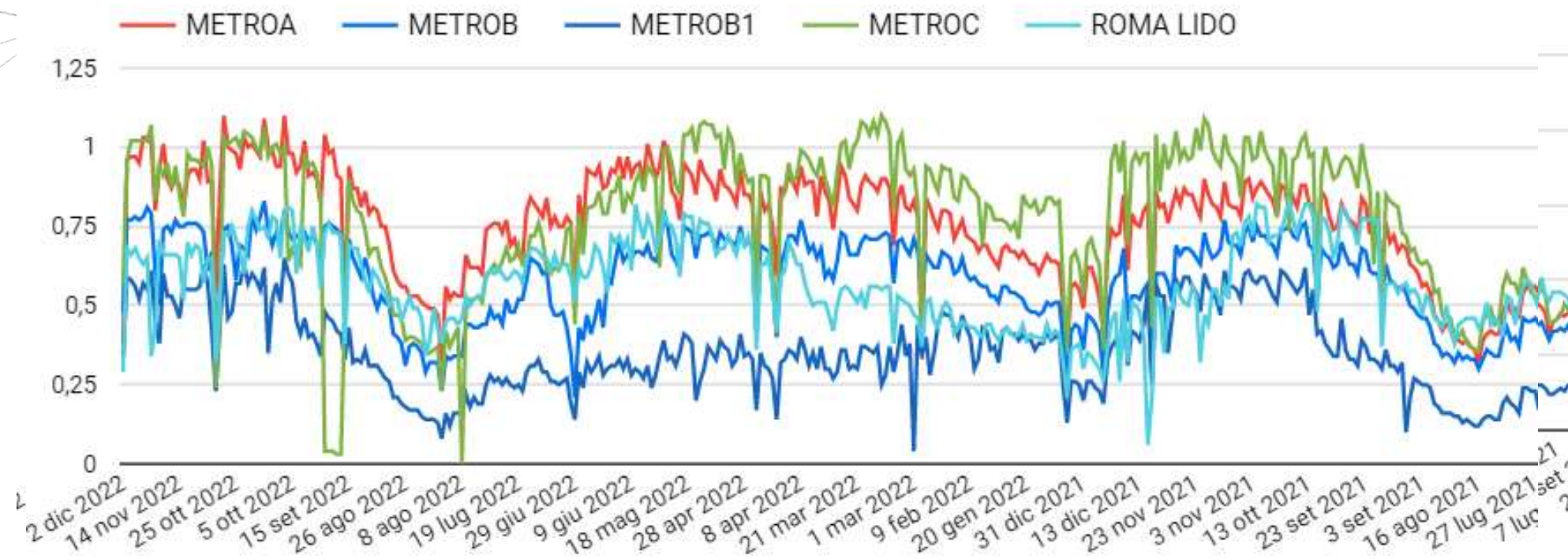
Thank you

for your attention!

For any questions:

Mobility Agency of the City of Rome
fabio.nussio@romamobilita.it

Official Website: www.dydas.eu

Linkedin: DYDAS EU https://www.linkedin.com/in/dydas-eu-2366851a0/

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