

□ Systematica

31 Gennaio 2018

Visioni Urbane e Grandi Progetti di Mobilità

Roma Metropoli e Casi Studio Europei

Systematica Srl
Transport Planning and
Mobility Engineering

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DEMOGRAPHIC CHANGE IN EUROPE

Increased complexity and different trends

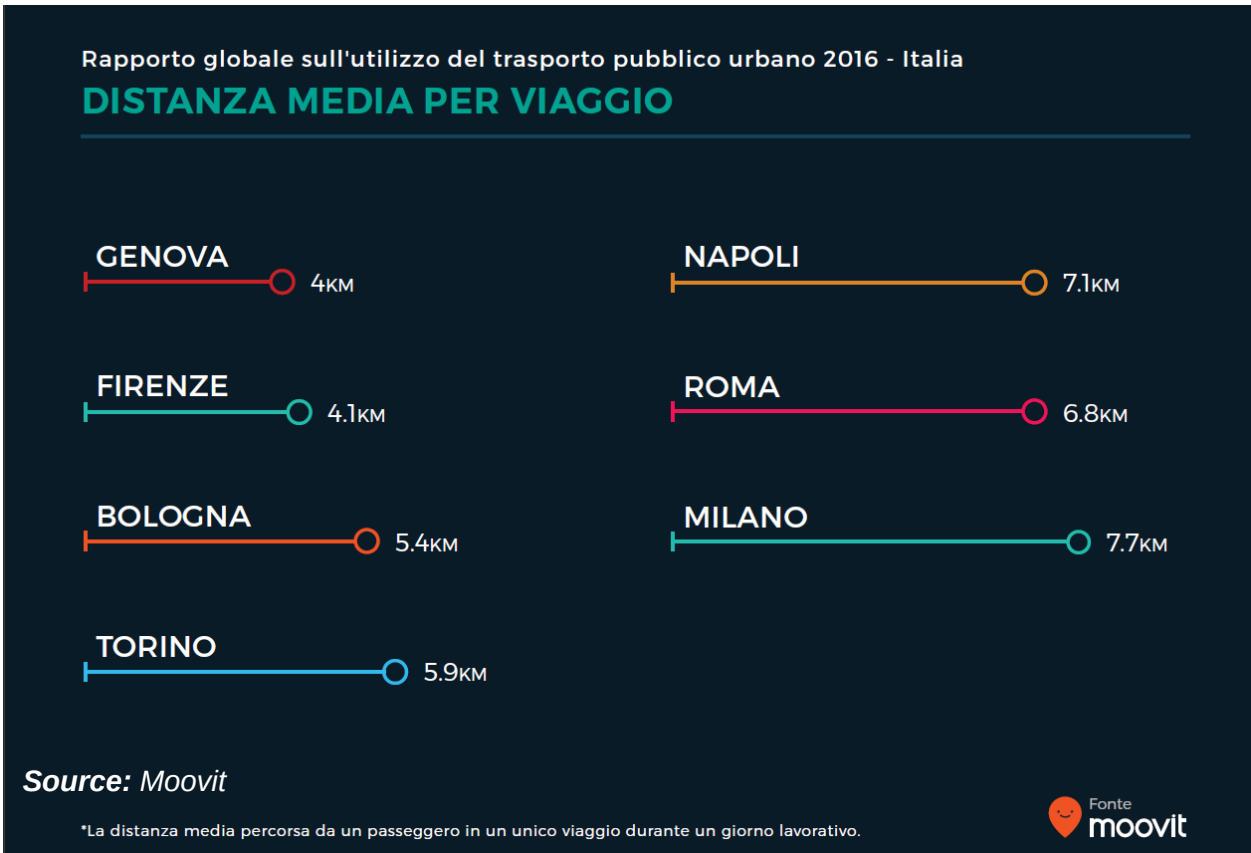


MOBILITY AND ACCESSIBILITY AS:

- 1) Individual right → **SOCIAL / POLITICAL**
- 2) Key element for location choices → **URBAN PLANNING**
- 3) Part of a quantitative discipline → **TRANSPORT PLANNING**
- 4) Measure to reduce car usage → **ENVIRONMENTAL**
- 5) Sustainable measure to shape cityscapes → **URBAN DESIGN**
- 6) Economic driver → **ECONOMIC**

INCREASED RE-ACTIVITY

New Models of Citizens-Environment Interactions



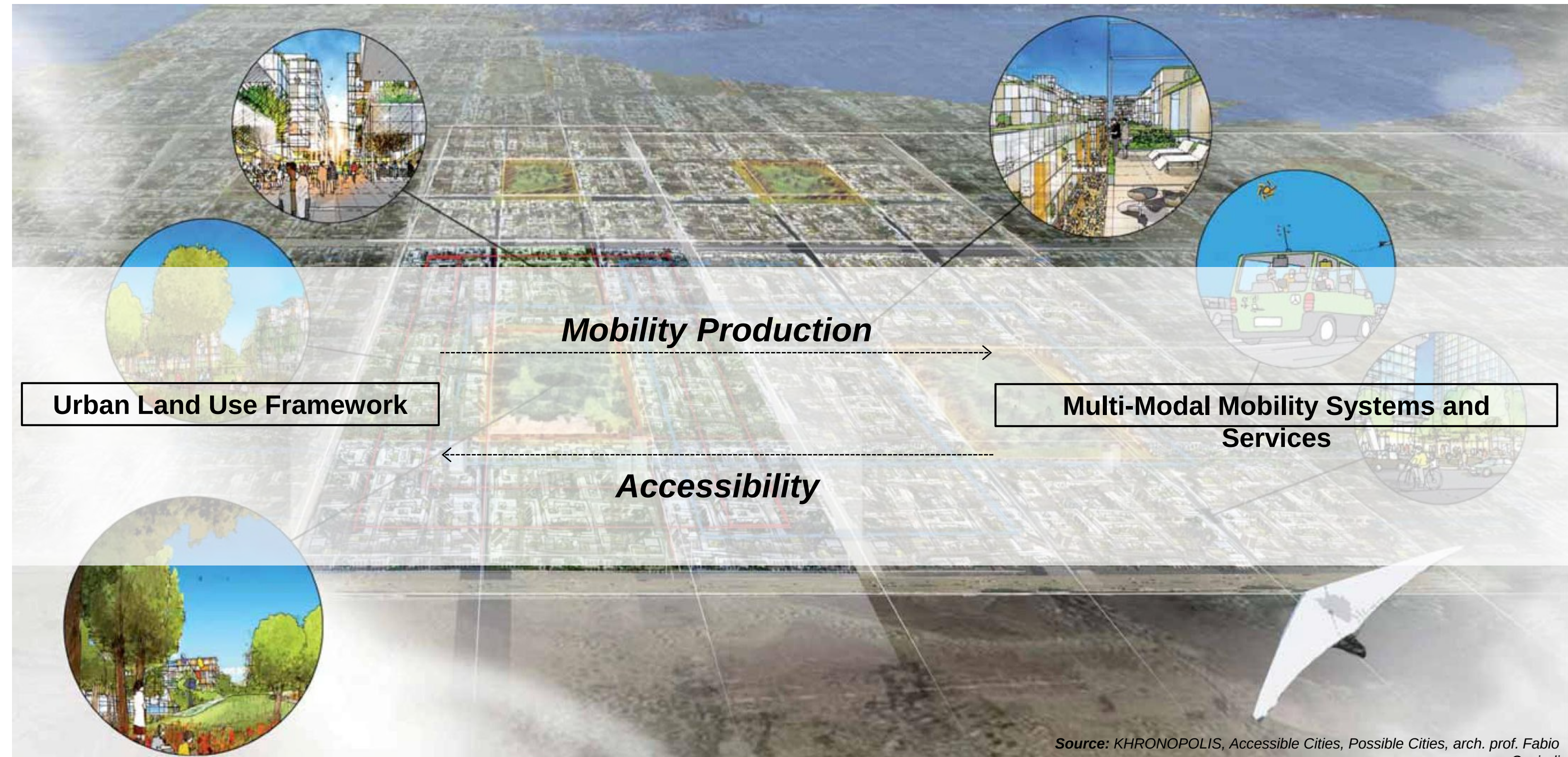
HOW TO TACKLE EMERGING URBAN MOBILITY ISSUES?

Smart Mobility, MaaS and Intelligent Infrastructures



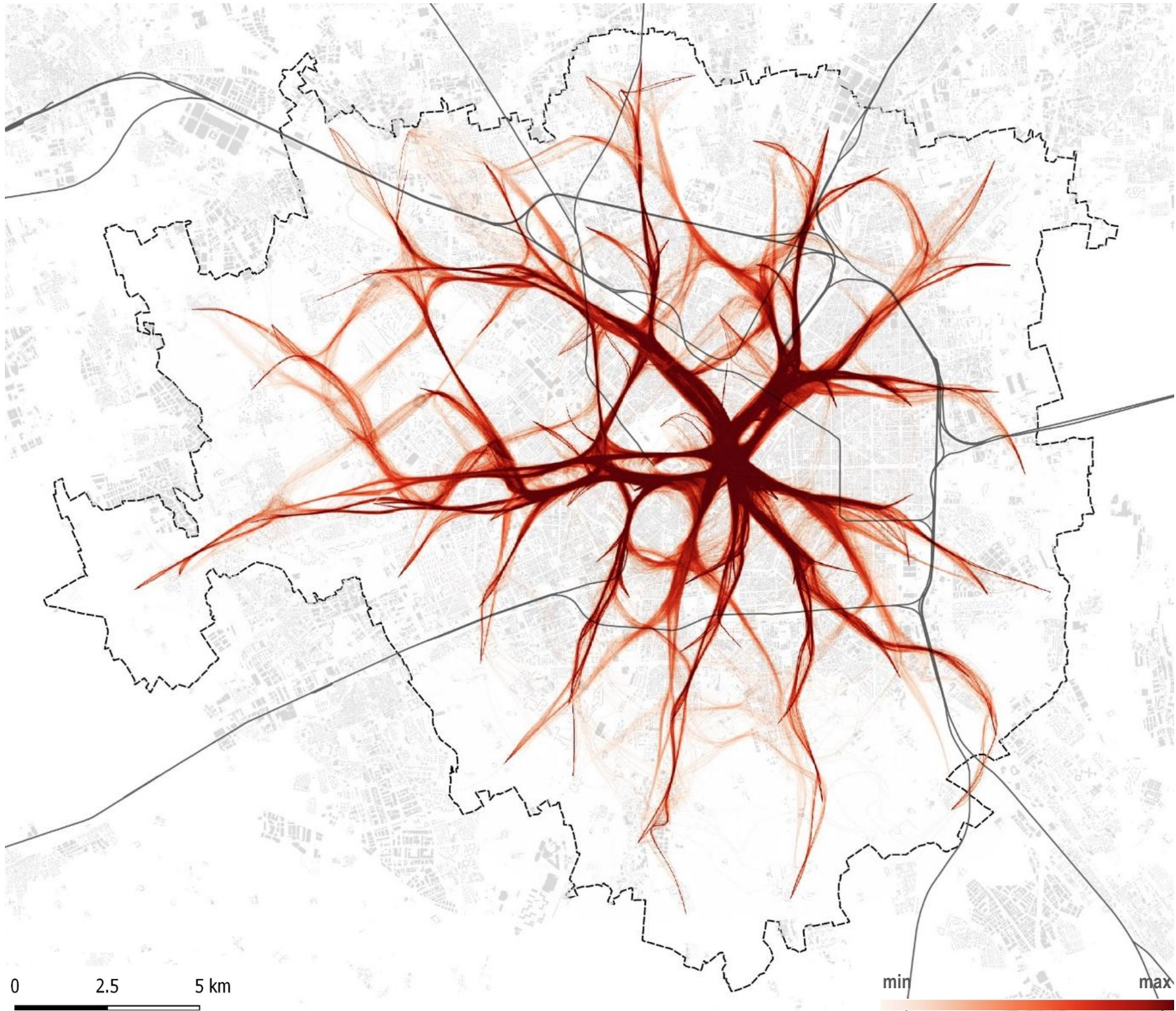
INTEGRATED TRANSPORT – URBAN PLANNING

Two strictly interrelated dimensions



INVESTMENT ON MASS RAPID TRANSIT SYSTEM

The case of Milan



Source: Systematica Srl

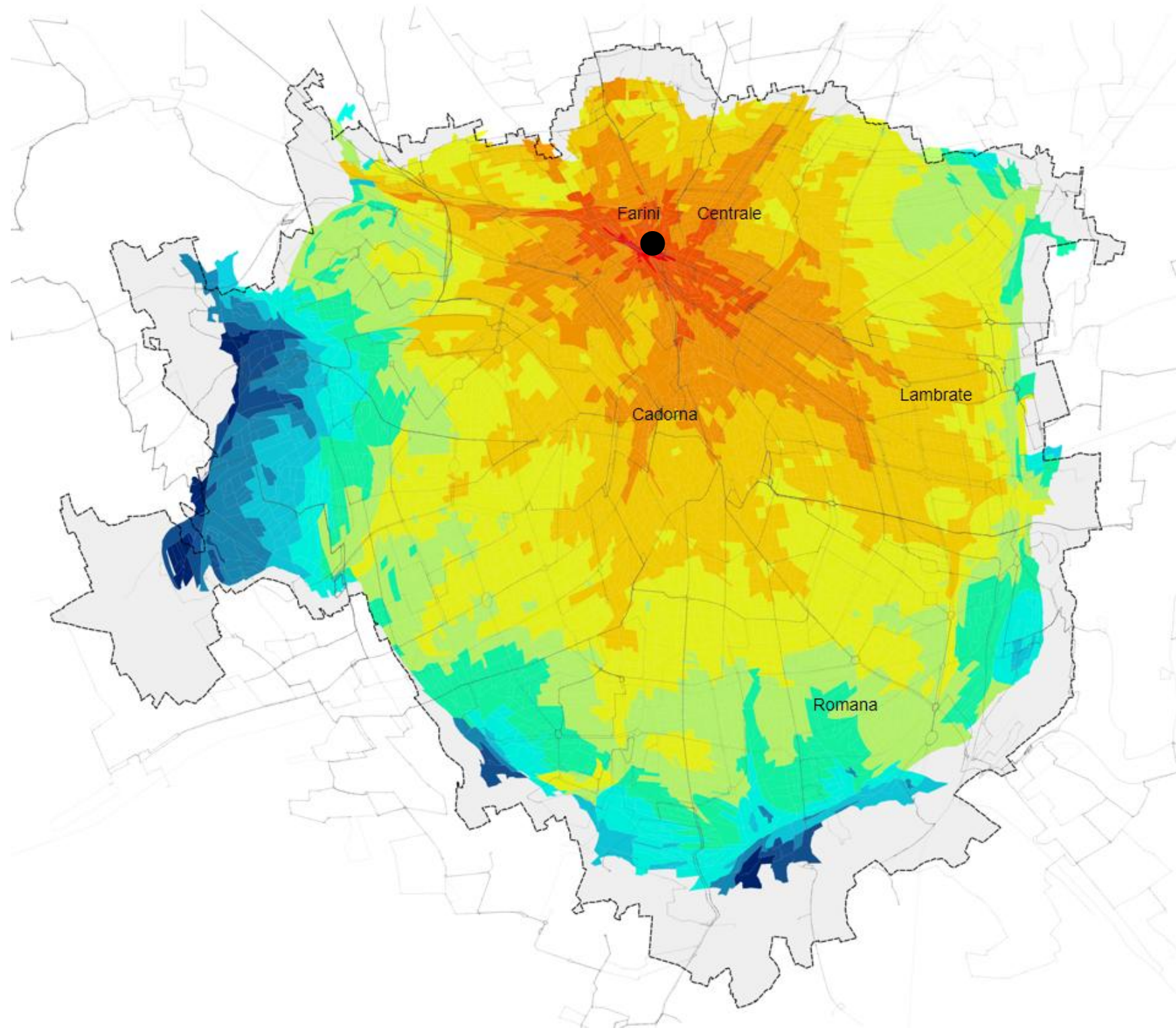
Systematica

PUBLIC TRANSPORT (SUPPLY)	+ 10.3% (2003 – 2013)
PUBLIC TRANSPORT (PATRONAGE)	+ 27.0% (2003 – 2013)
PRIVATE TRAFFIC (MILANO)	-19.7%
(2003 – 2013)	
PRIVATE TRAFFIC (AREA C)	- 27.5%
(2004 – 2013)	
CAR OWNERSHIP	- 17.1% (2003 – 2013)
30 KM/H AREA	+ 137.9% (2011 –
2015)	
CYCLING NETWORK	+ 56.3% (2011 – 2015)

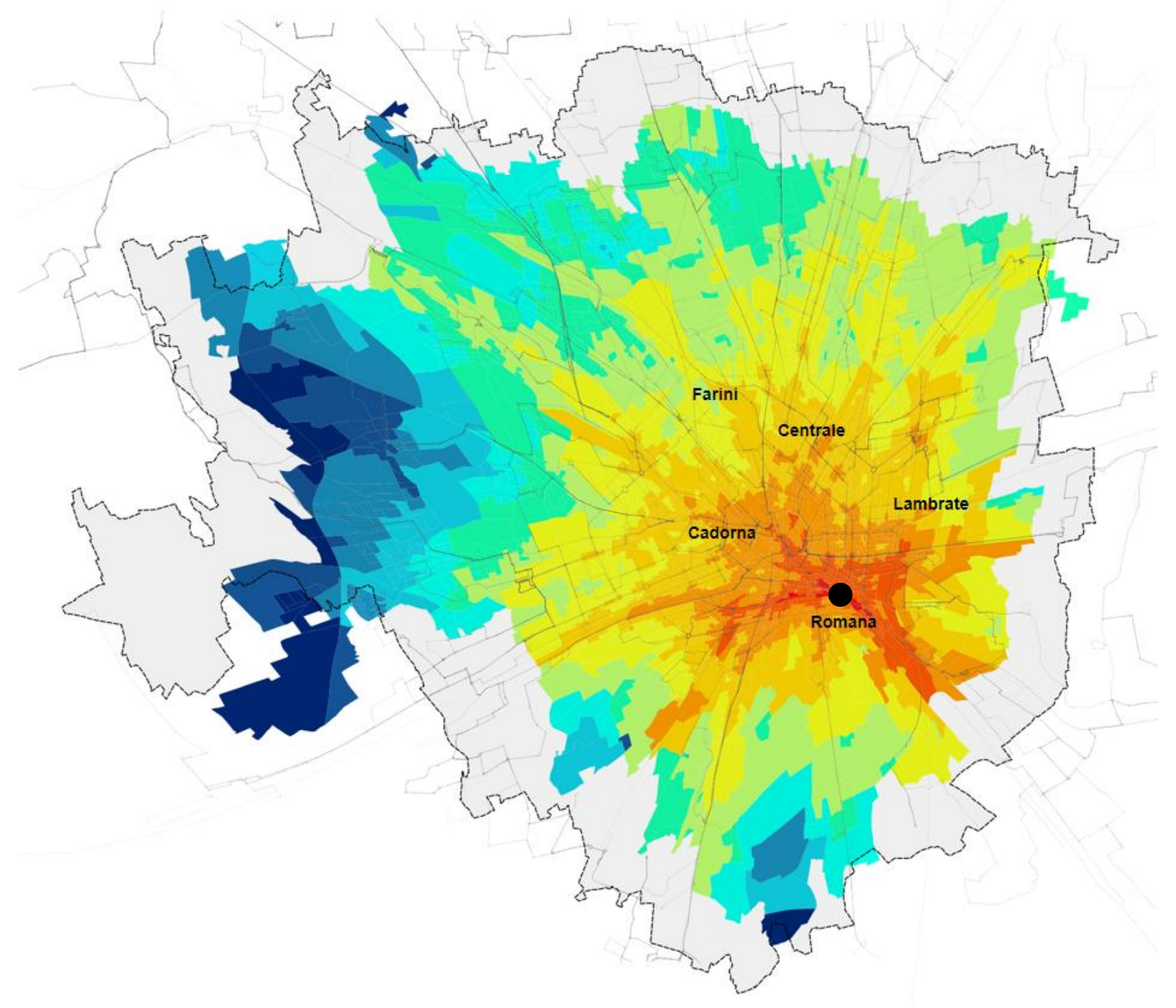
Source: SUMP Milano

INVESTMENT ON MASS RAPID TRANSIT SYSTEM

The case of Milan



Source: Systematica Srl



Source: Systematica Srl

INTEGRATED TRANSPORT – URBAN PLANNING

Key benefits of TODs & Real Estate Value of Accessibility

Integration between transport and **mixed land use developments**

Requalification of industrial area and urban brownfields

Allocation of well balanced **public oriented functions and services**

Promotion of **urban density** properly located around hubs

Environmental sustainability (noise, vibration and pollution)

Well connected and **permeable built environment** to avoid urban physical
segregation

Proper private and public **parking provision** to encourage public transport

Safeguard of **architectural heritage**

Urban transport hubs as **city landmarks** and **catalysts for economic vitality**

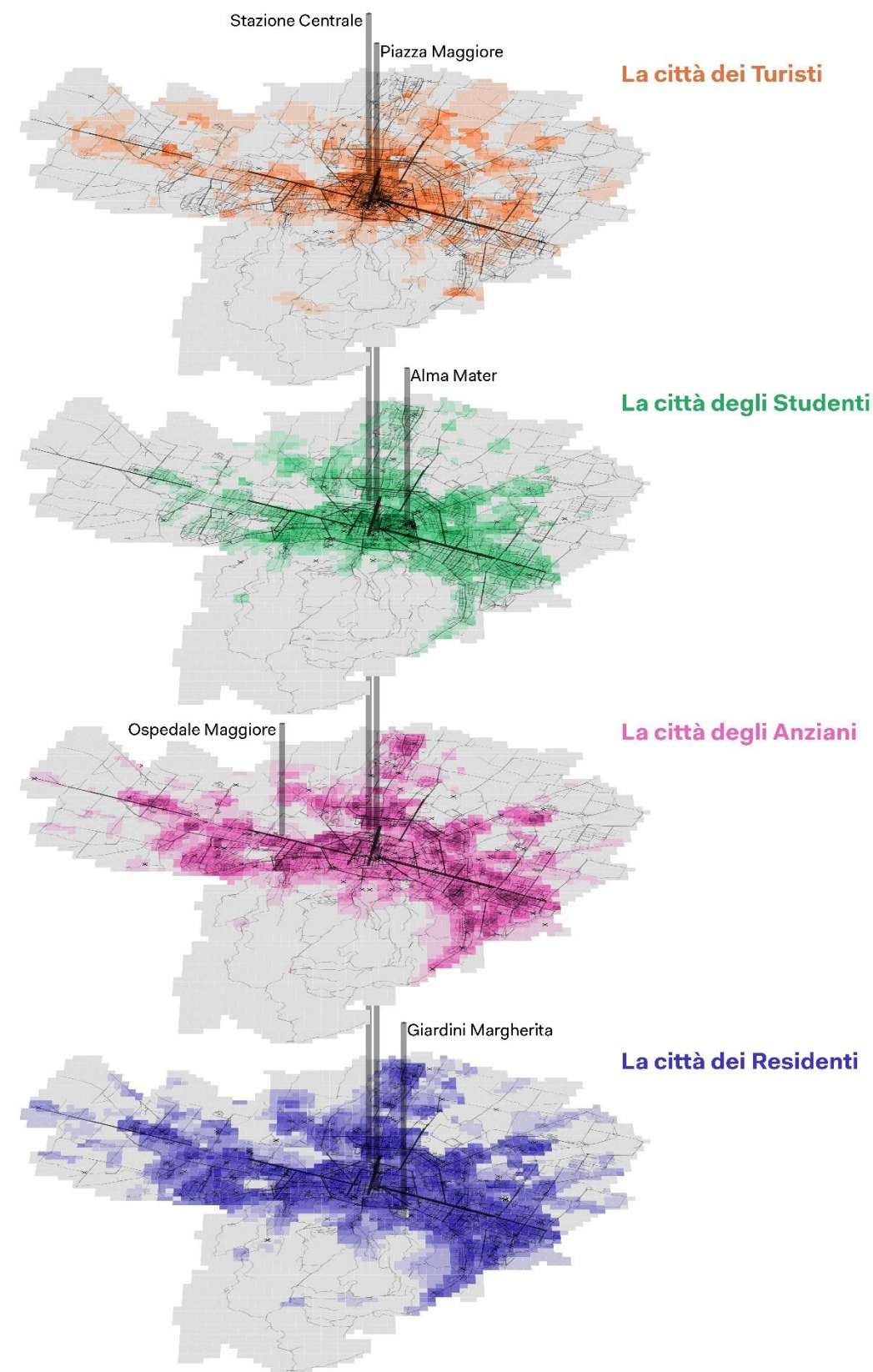
□ **Systematica**

City	Type of Urban Function	Δ Accessibility (% real estate increase)	Type of Infrastructure
Manchester	Residential	+10.0	Light Rail System
Helsinki	Residential	+11.0	Subway
Rouen	Residential	+10.0	Light Rail System
Strasburgo	Residential	+7.0	Light Rail System
Friburgo	Office	+22.5	Light Rail System
Helsinki	Office	+12.5	Subway
Strasburgo	Office	+12.5	Light Rail System
Torino	Office	+25%	Subway

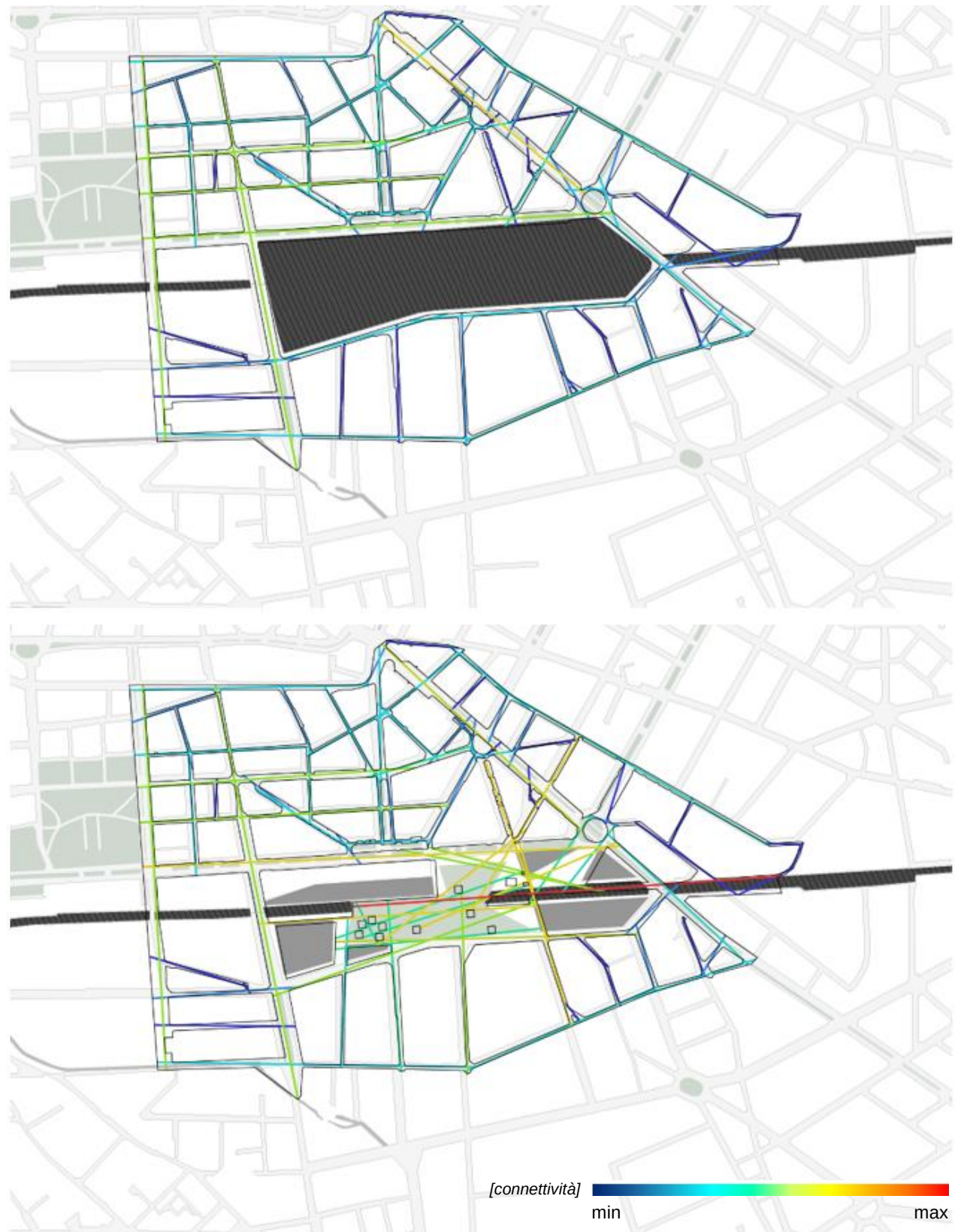
Source: Variante 200 e Metro 2, Jacobs Consultancy

INTEGRATED TRANSPORT – URBAN PLANNING

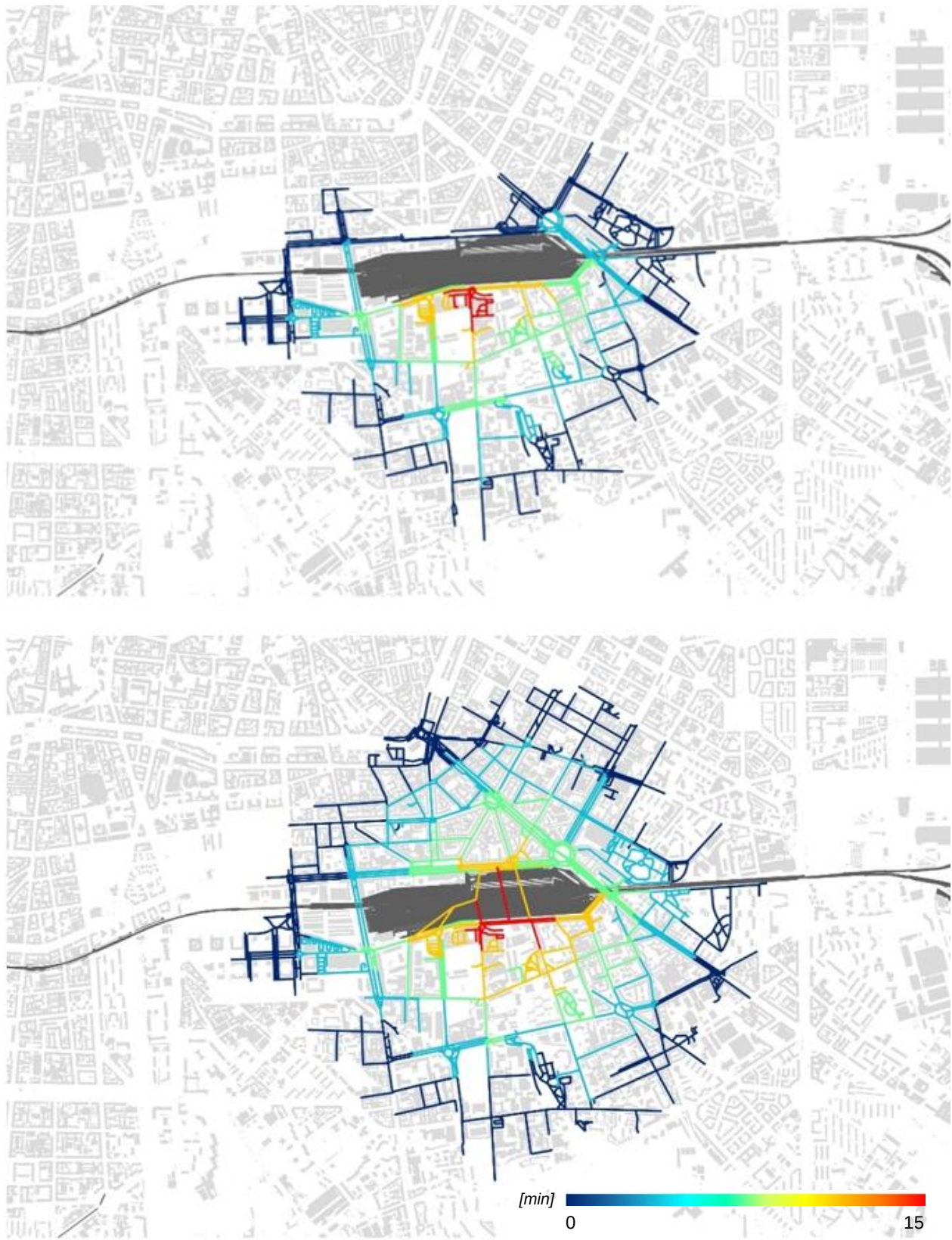
The transport infrastructures as public realms centered around people



Source: SUMP Bologna, Systematica Srl



Source: Systematica Srl



Source: Systematica Srl

An aerial photograph of Paris, France, featuring a prominent Gothic spire in the foreground on the left. The spire is dark and detailed, with a cross at the top. Below it, a blue-tinted roof with green statues is visible. The background shows a wide river (the Seine) flowing through the city, with several bridges crossing it. The city is densely packed with buildings, and the sky is filled with a layer of white, textured clouds. A semi-transparent white bar with a thin black border is positioned horizontally across the middle of the image, containing the text "Paris | Grand Paris Express".

Paris | Grand Paris Express

Le Grand Paris Express

A Strategic Vision for the Metropolitan Region



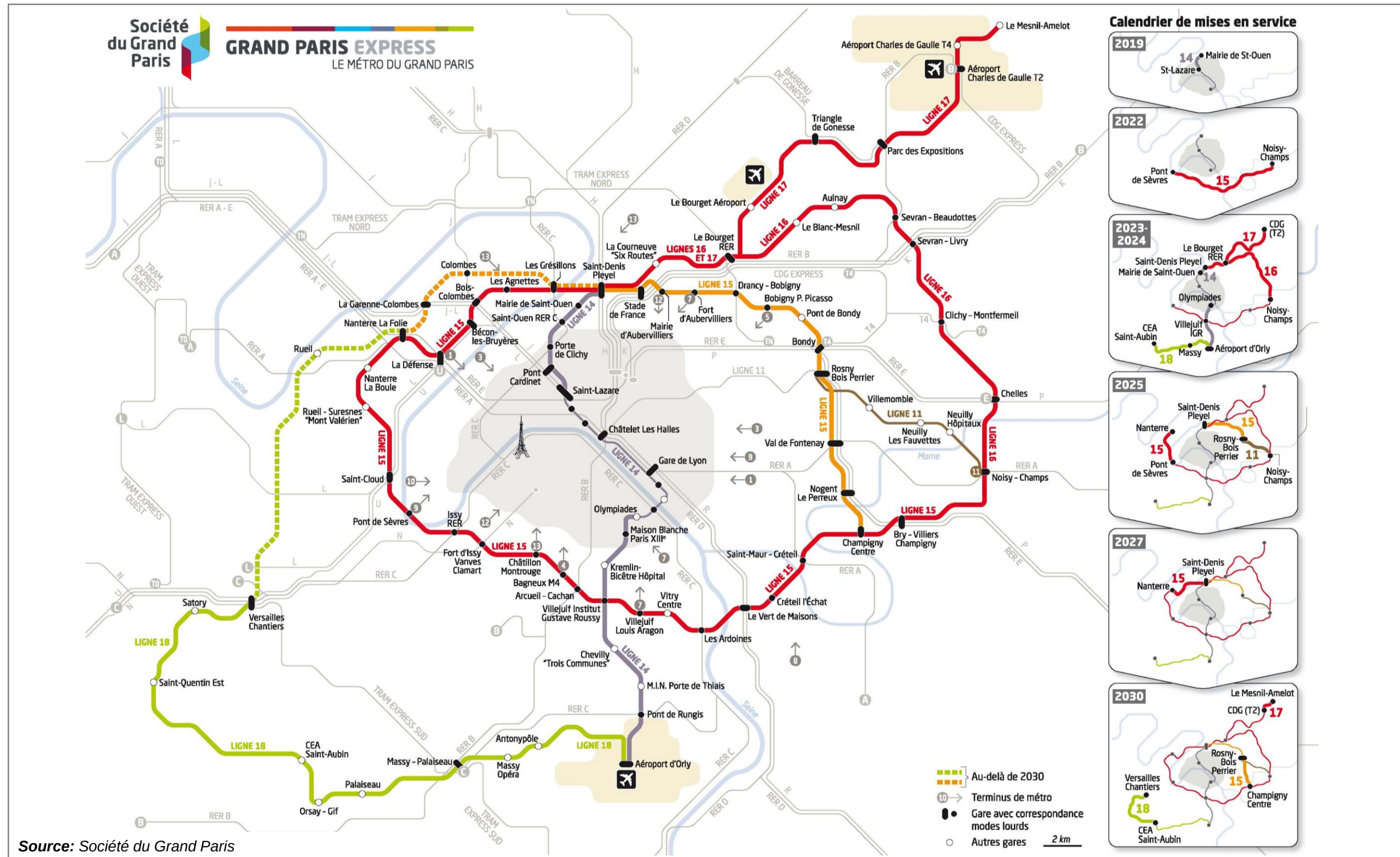
Le Grand Paris Express

A Strategic Vision for the Metropolitan Region



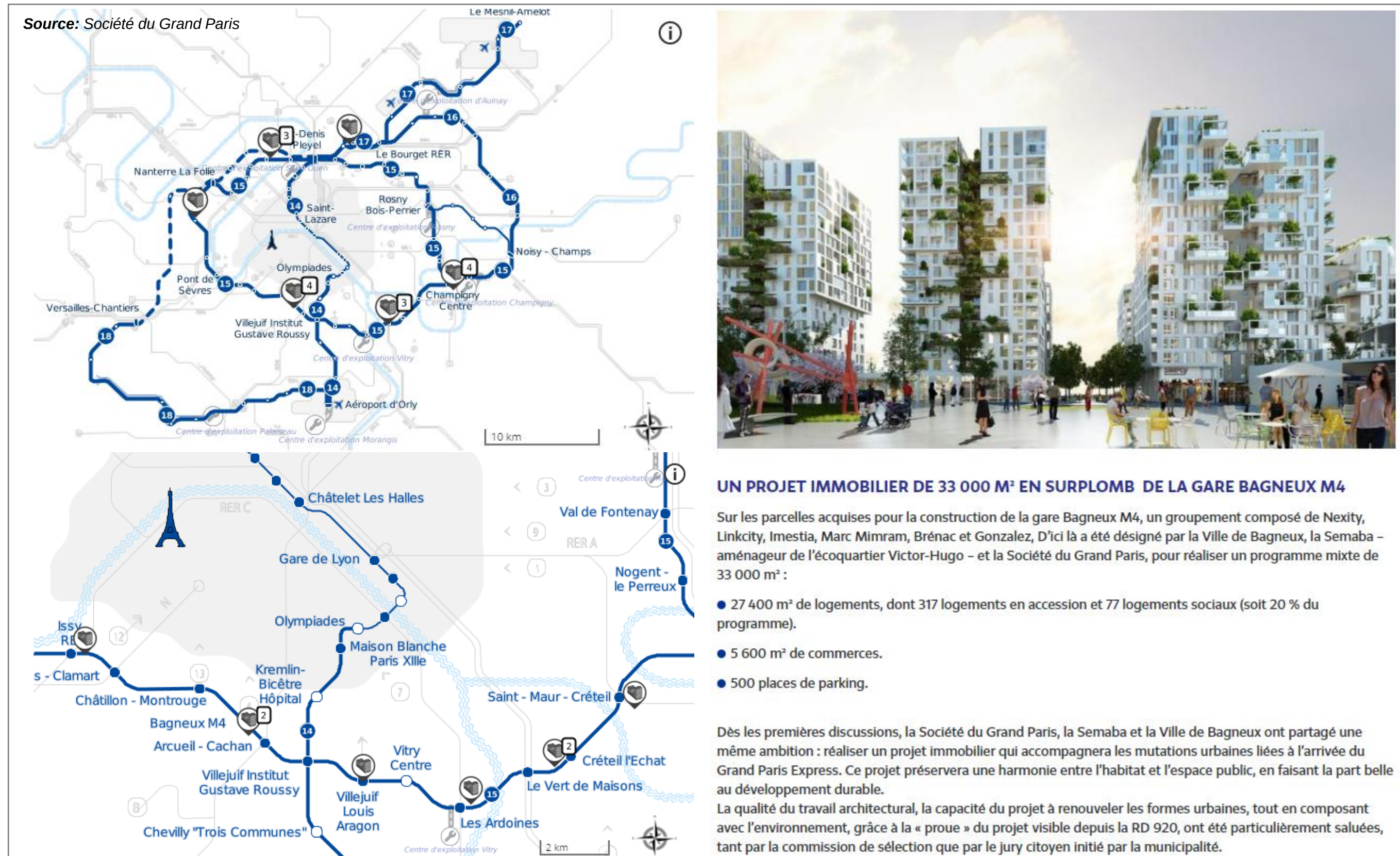
Le Grand Paris Express

A Strategic Vision for the Metropolitan Region



Le Grand Paris Express

A Strategic Vision for the Metropolitan Region

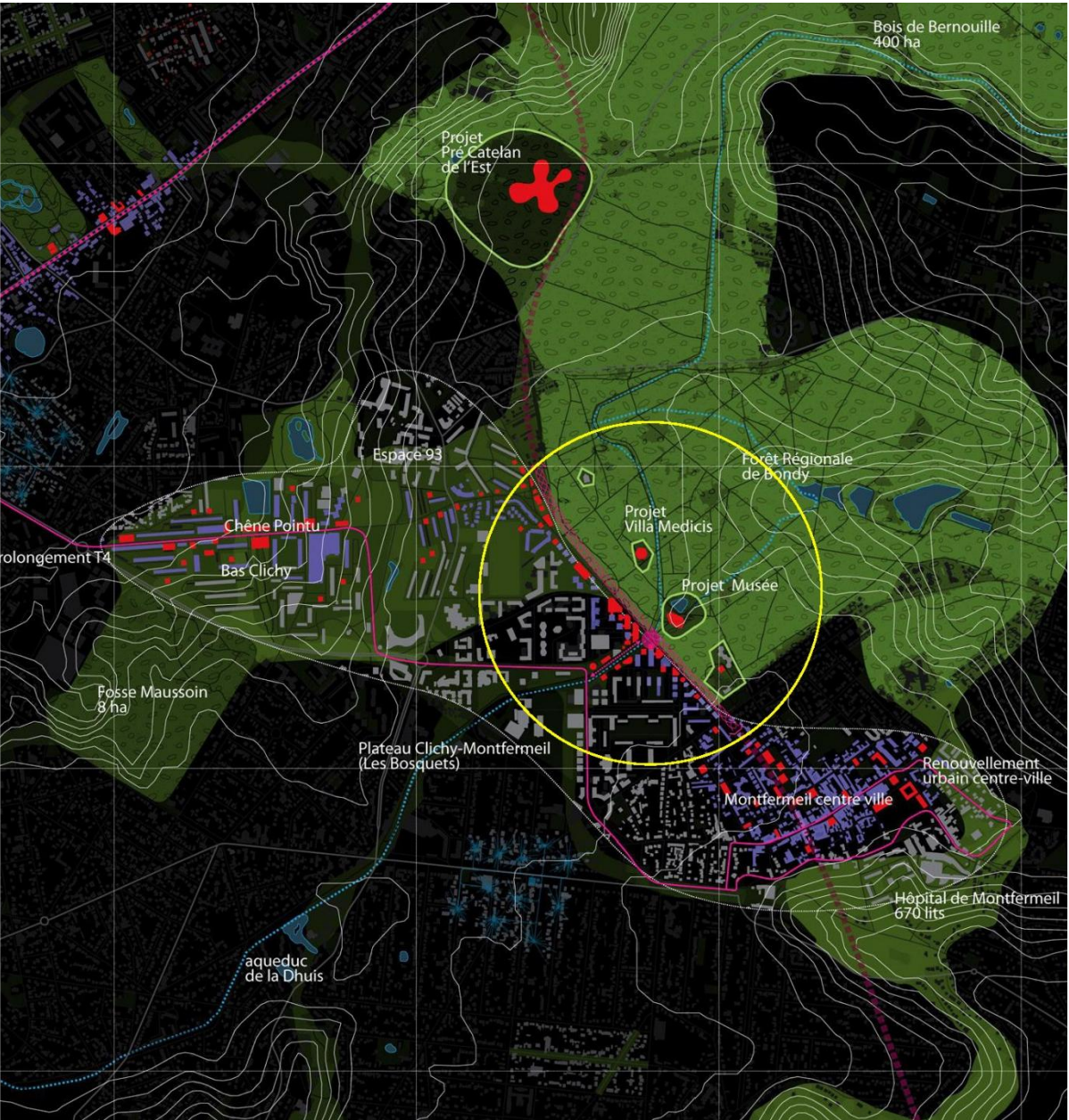


Le Grand Paris Express

Concept Application - Detailed Analysis – Clichy Sous Bois

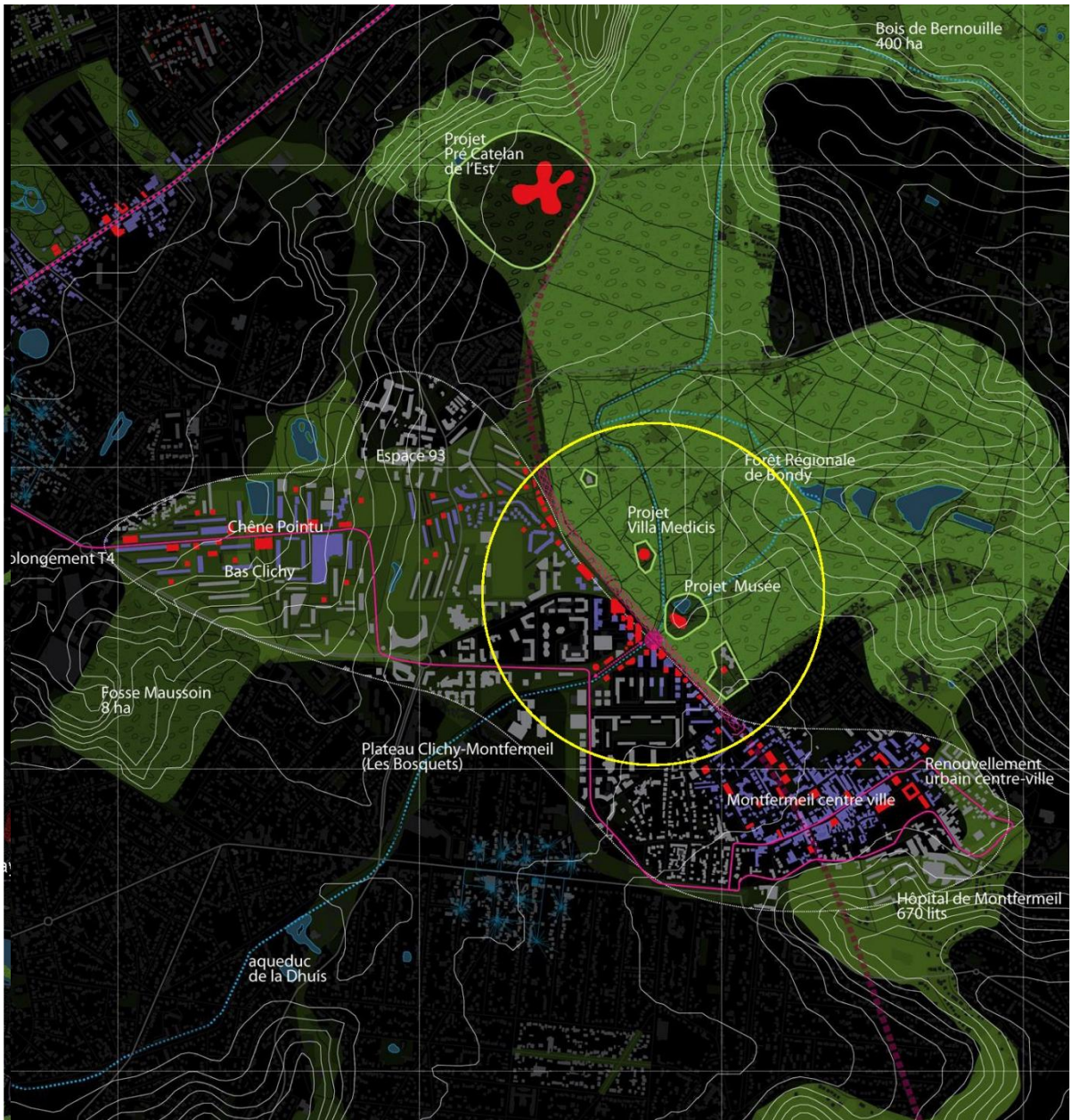


Source: LIN Architecture, Systematica Srl



Le Grand Paris Express

Concept Application - Detailed Analysis – Clichy Sous Bois



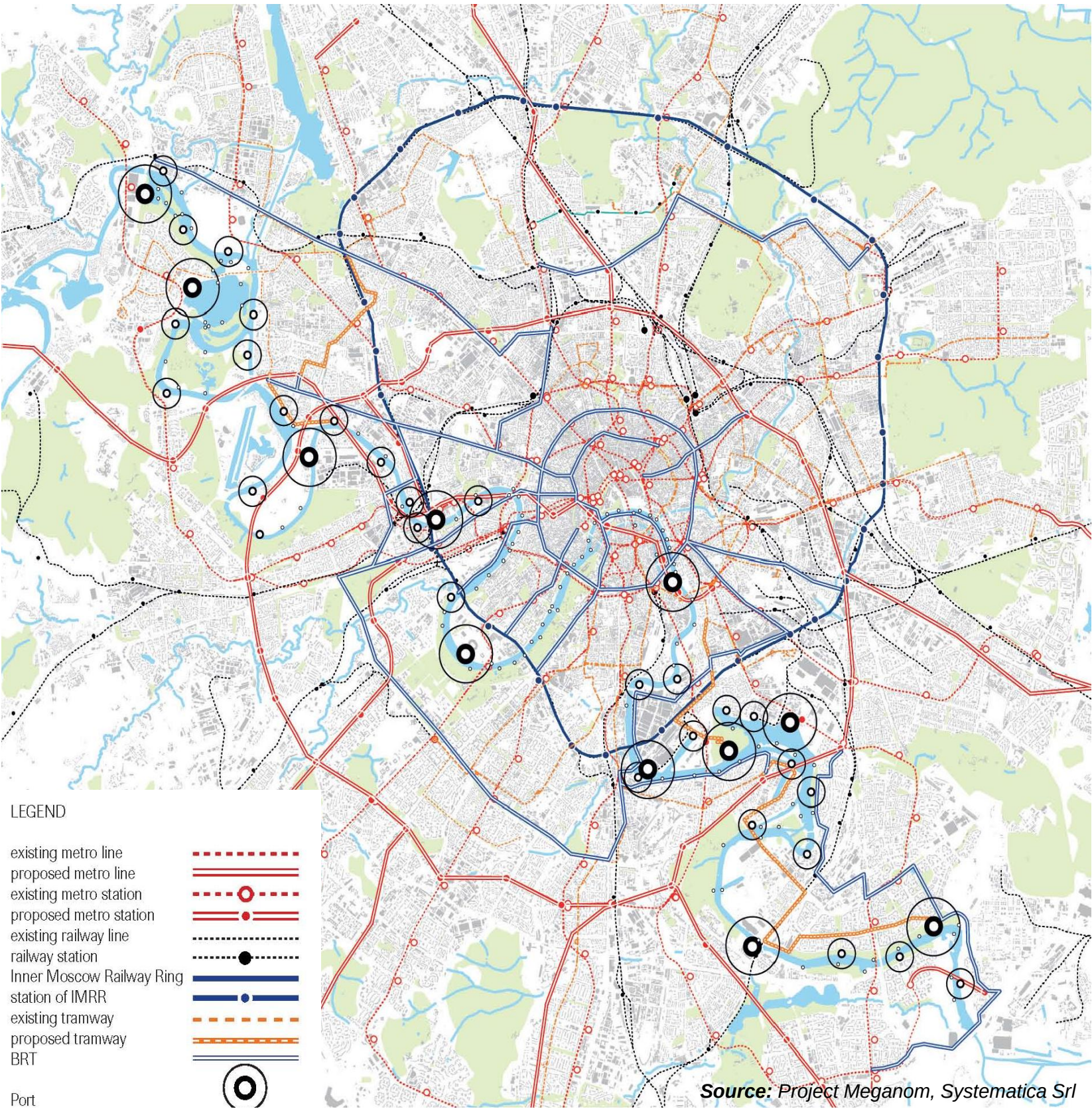
Source: LIN Architecture, Systematica Srl



Moscow | Inner Railway Ring

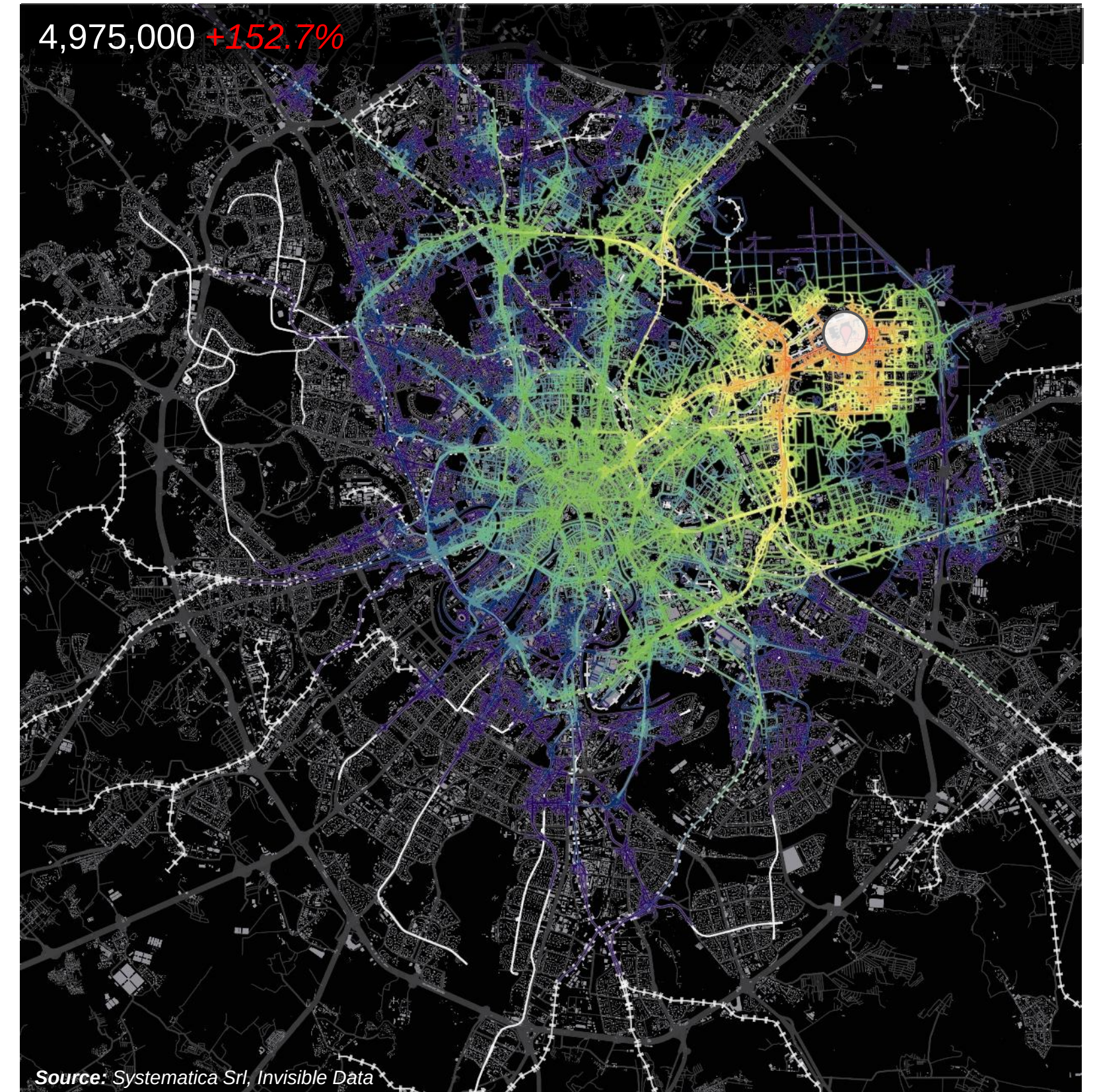
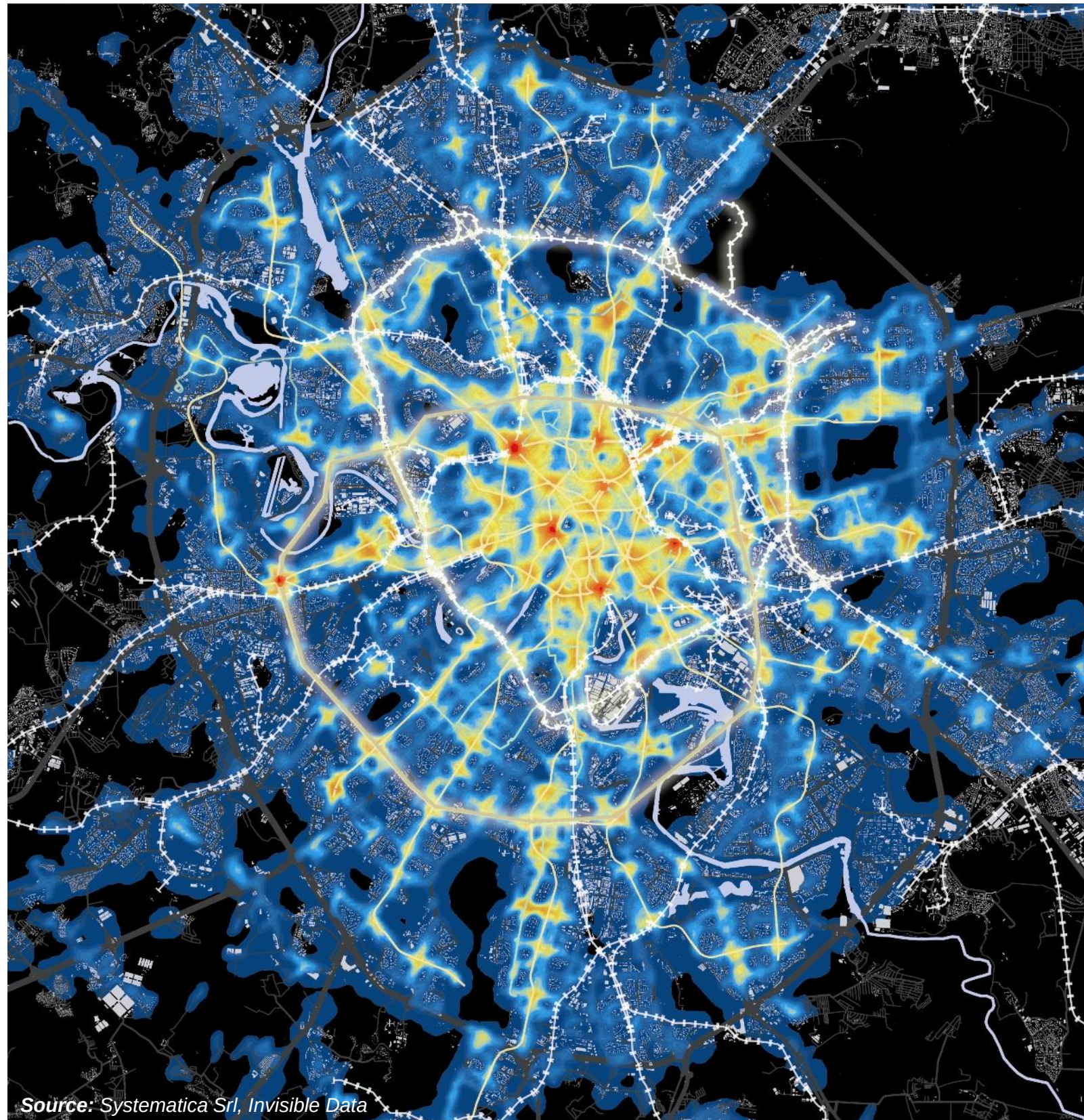
Moscow Inner Railway Ring

Public Transport System



Moscow Inner Railway Ring

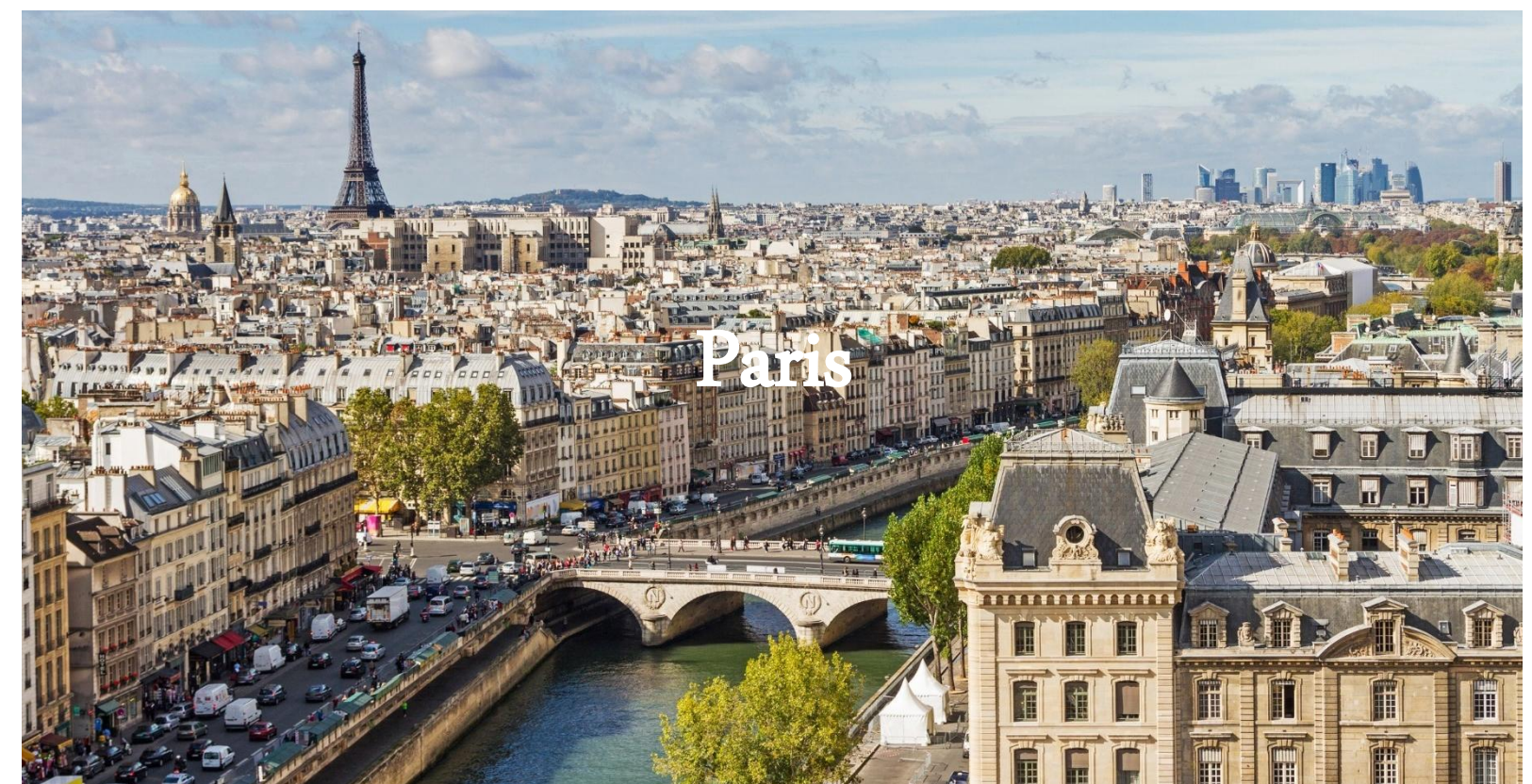
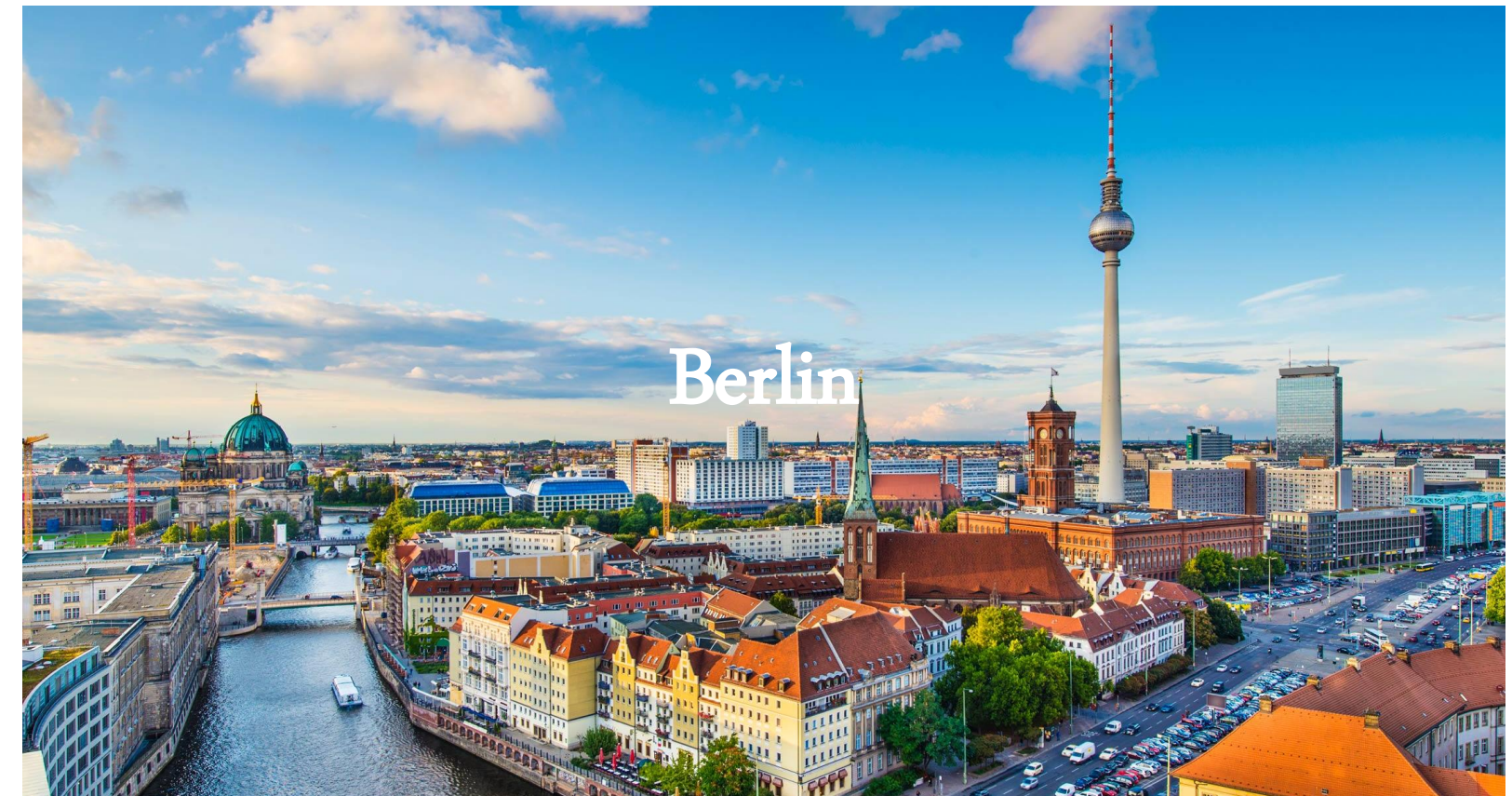
The infrastructure as driver of a polycentric urban development



Rome 2050 | A Multi-layered Seamless Mobility Network

European Capitals at Comparison

Public Transport Network and Urban Structure

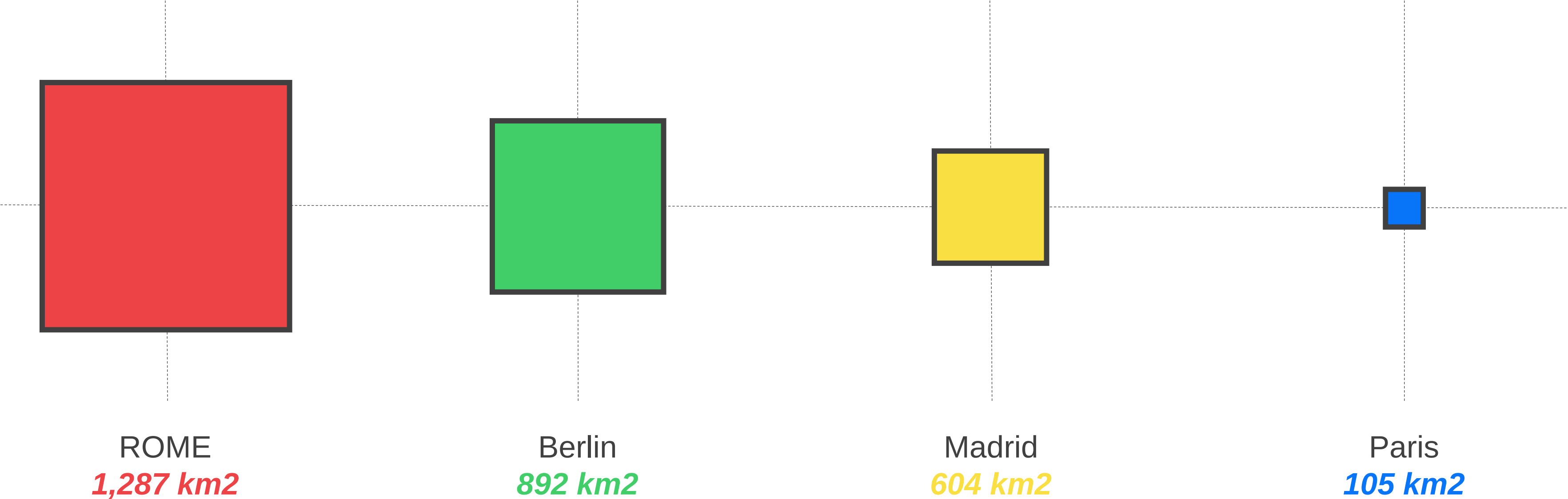


European Capitals at Comparison
Population



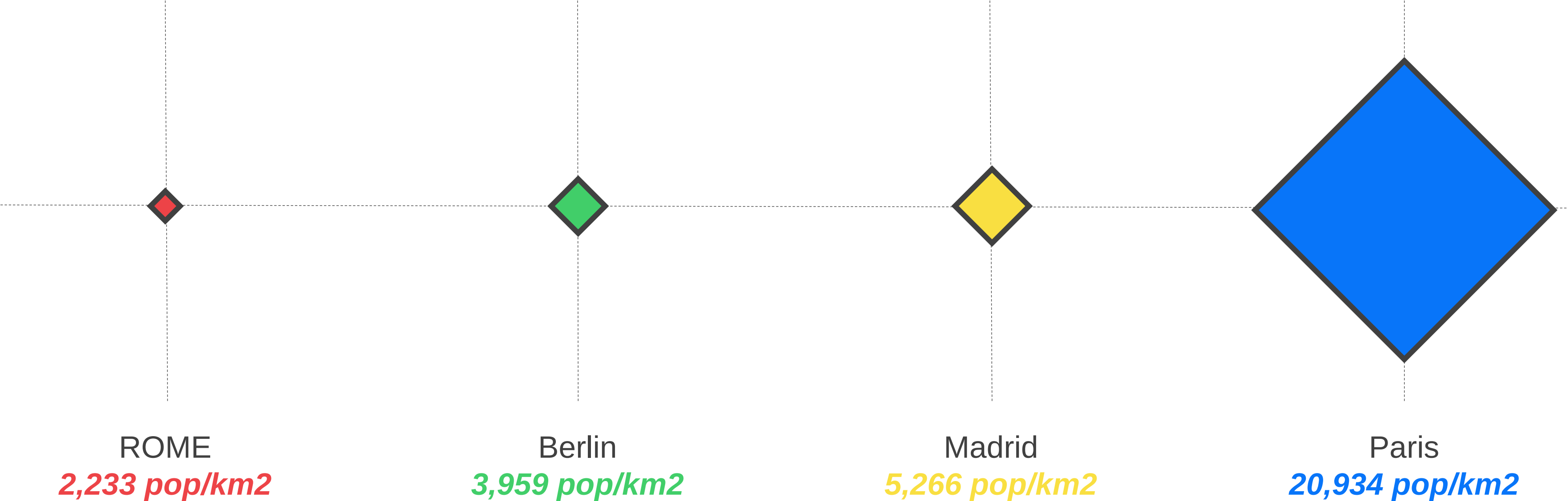
European Capitals at Comparison

Municipal Area (km²)



European Capitals at Comparison

Density (pop/km²)

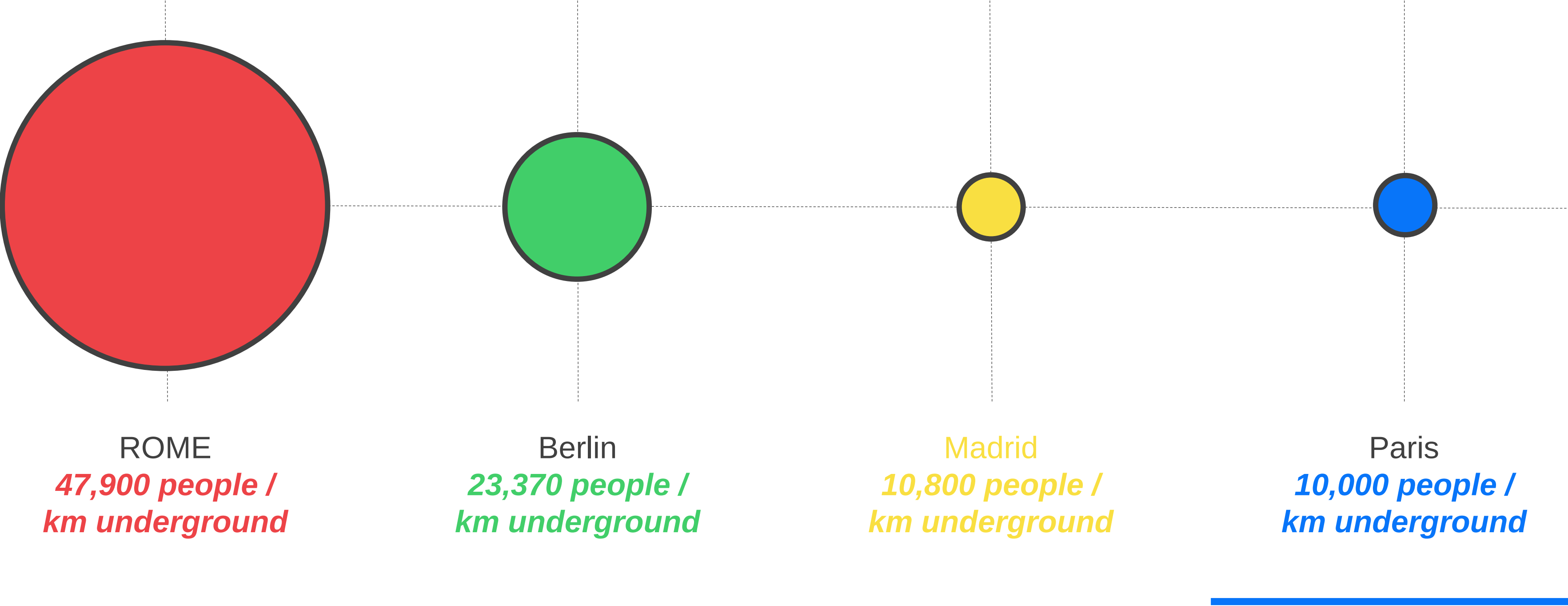


European Capitals at Comparison
Public Transport - Underground Network (MRT)

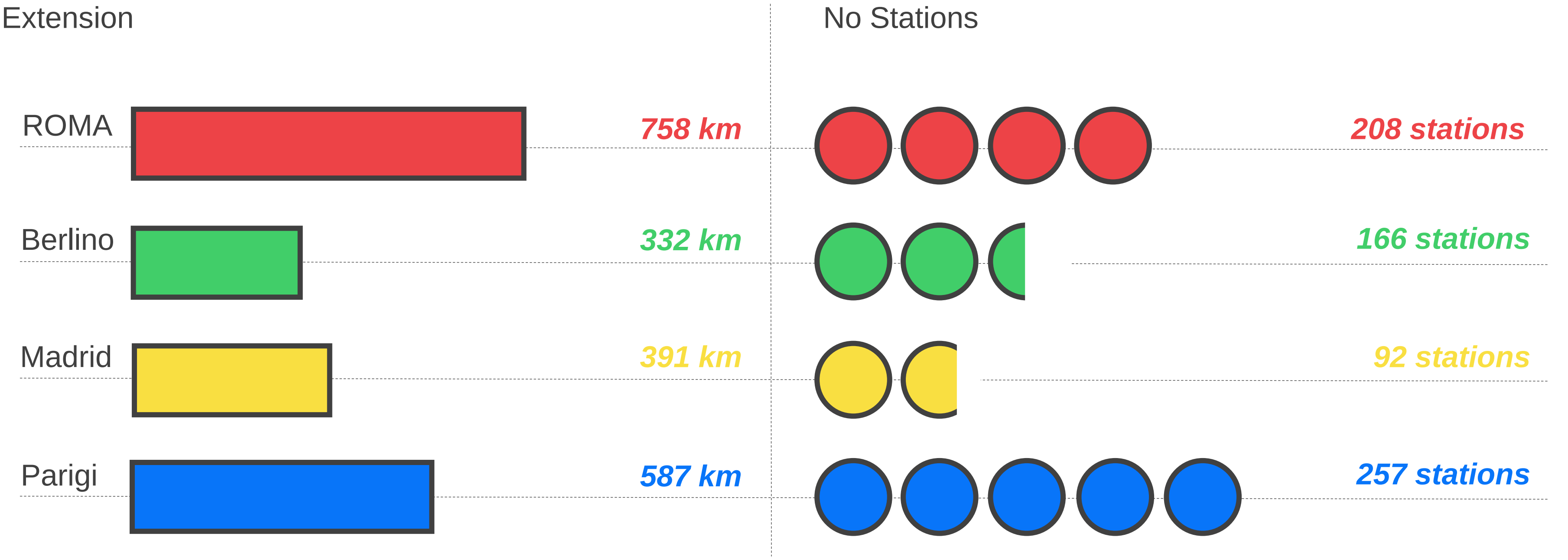


European Capitals at Comparison

Public Transport - Population / Underground Network (Km)

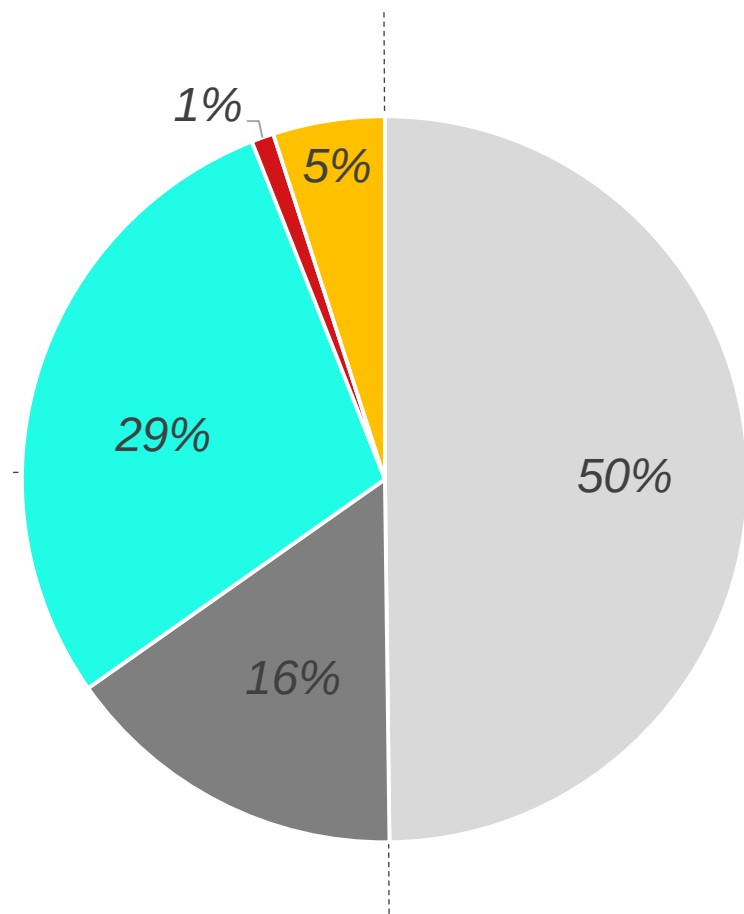


European Capitals at Comparison
Public Transport - Suburban Railway System



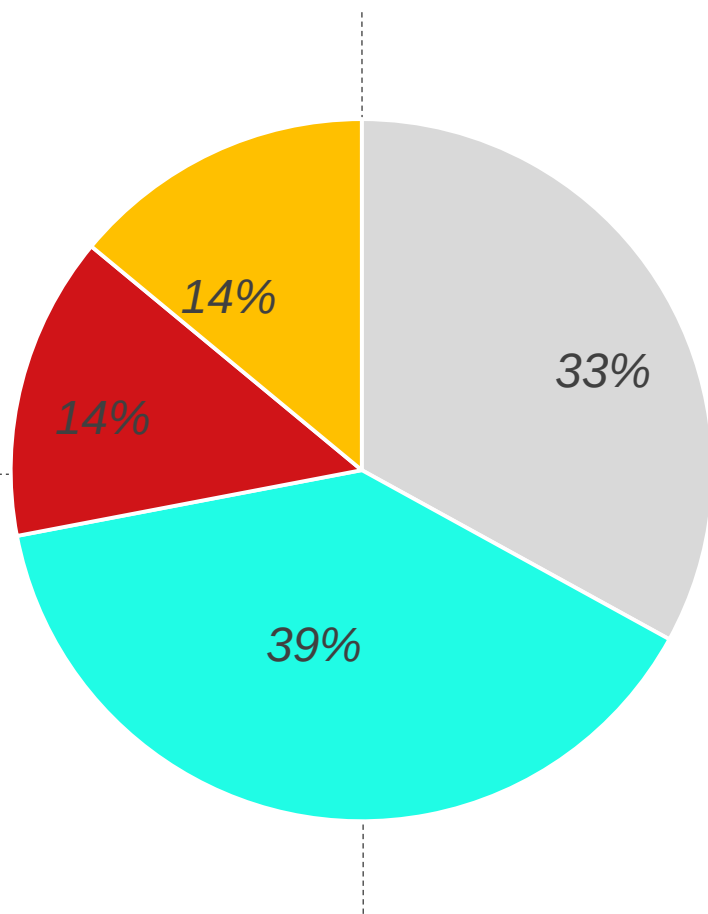
European Capitals at Comparison

Transport Modal Share



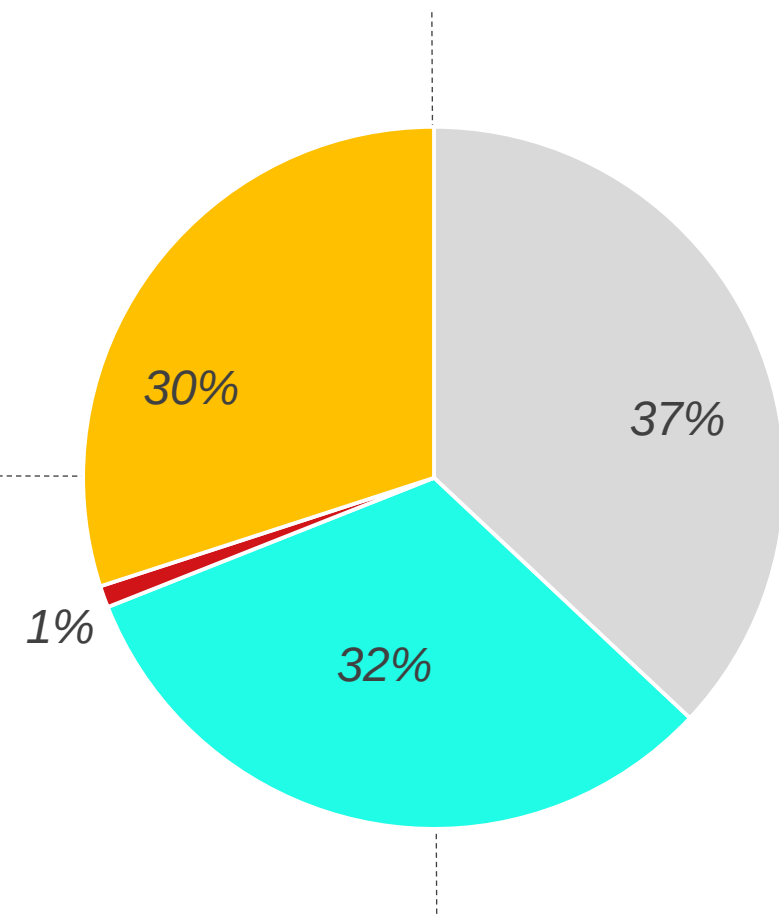
ROME

- Public Transport
- Car
- Motorbike
- Bicycle
- On Foot



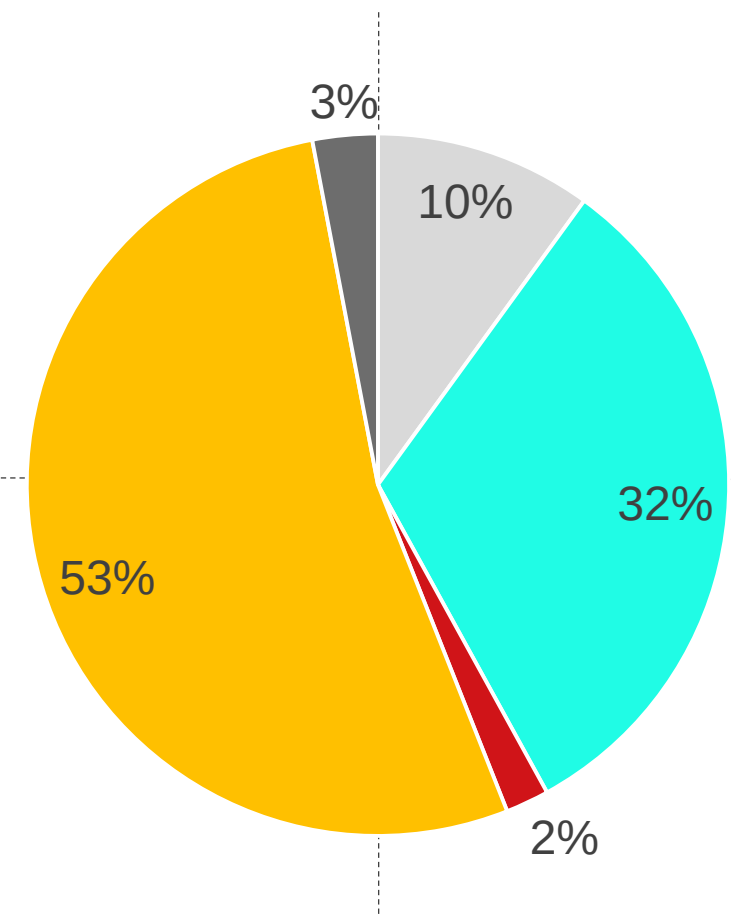
Berlin

- Public Transport
- Car
- Motorbike
- Bicycle
- On Foot



Madrid

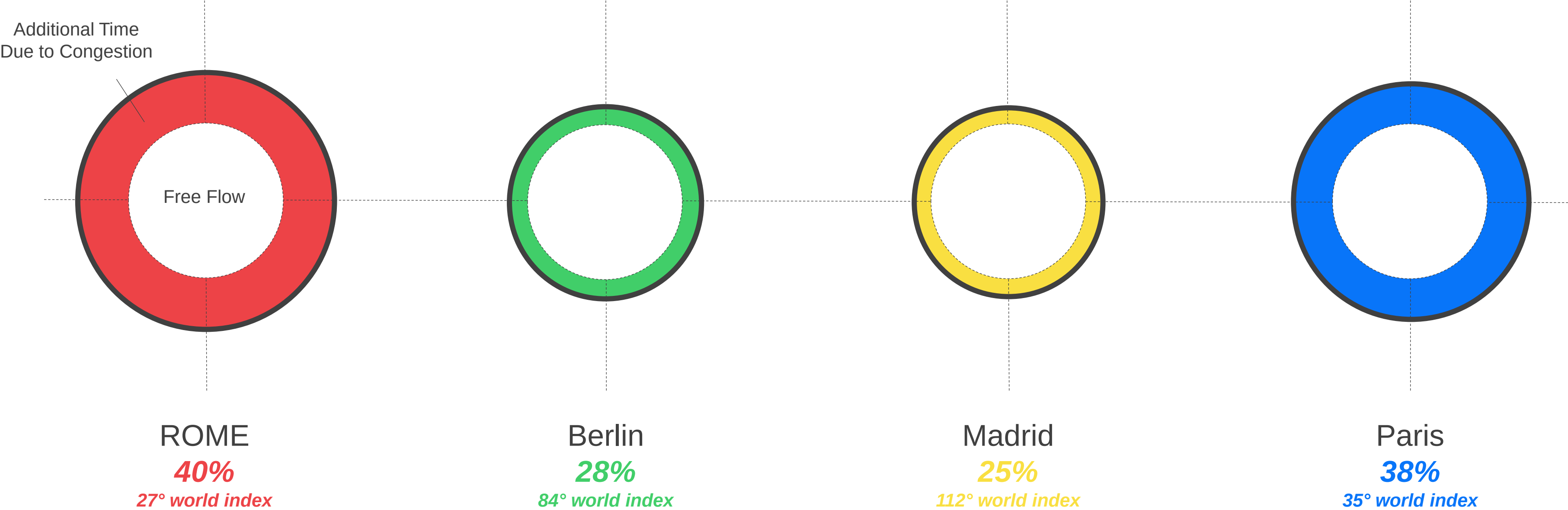
- Public Transport
- Car
- Motorbike
- Bicycle
- On Foot



Paris

- Public Transport
- Car
- Motorbike
- Bicycle
- On Foot

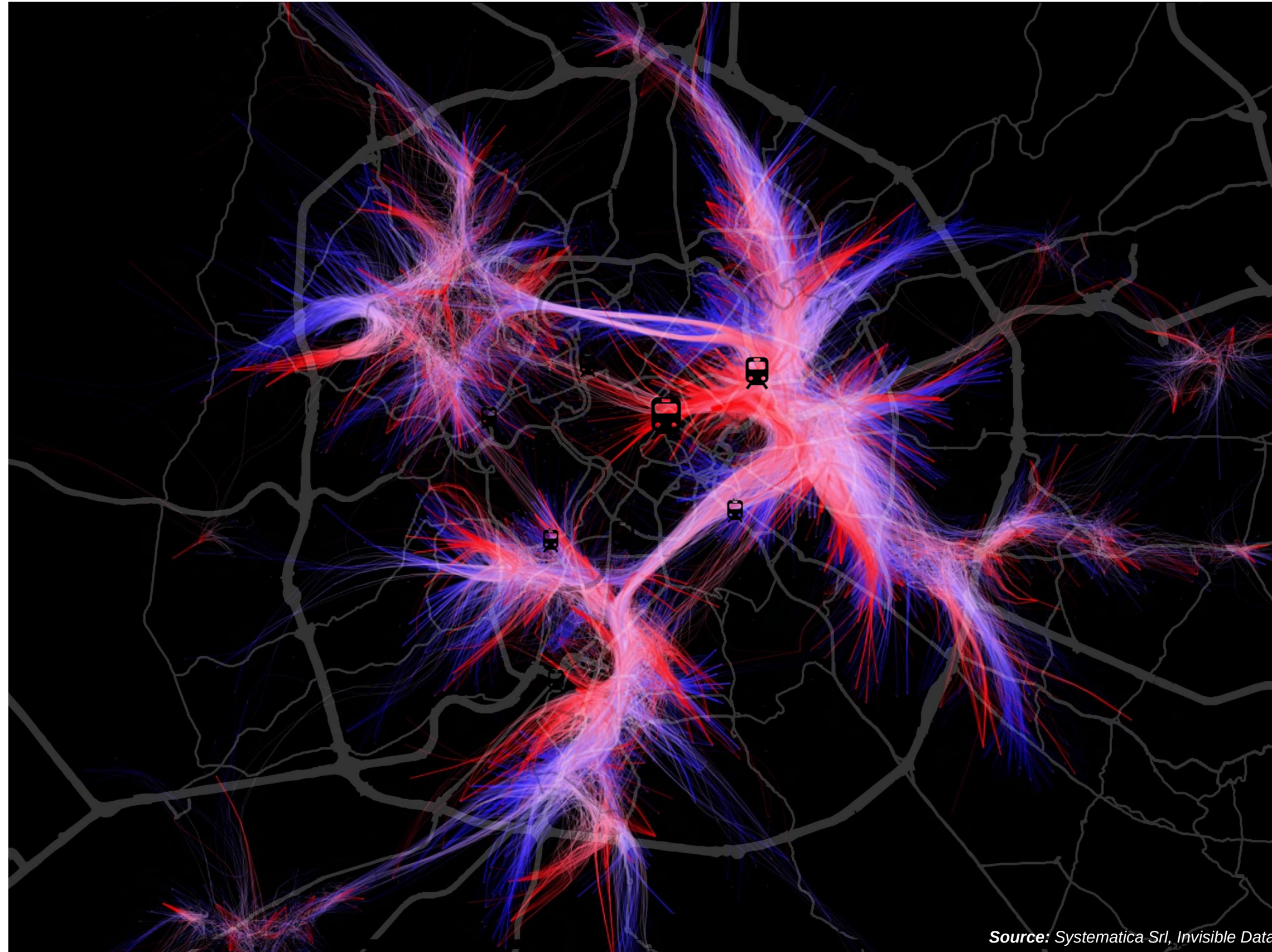
European Capitals at Comparison
Traffic Index (TomTom)



Il Traffic Index (TomTom) measures congestion levels (%) in urban areas. For example, a Congestion Level of 40% corresponds to 40% extra travel time for any trip, anywhere in the city, at any time compared to what it would be in a Free Flow situation.

Rome

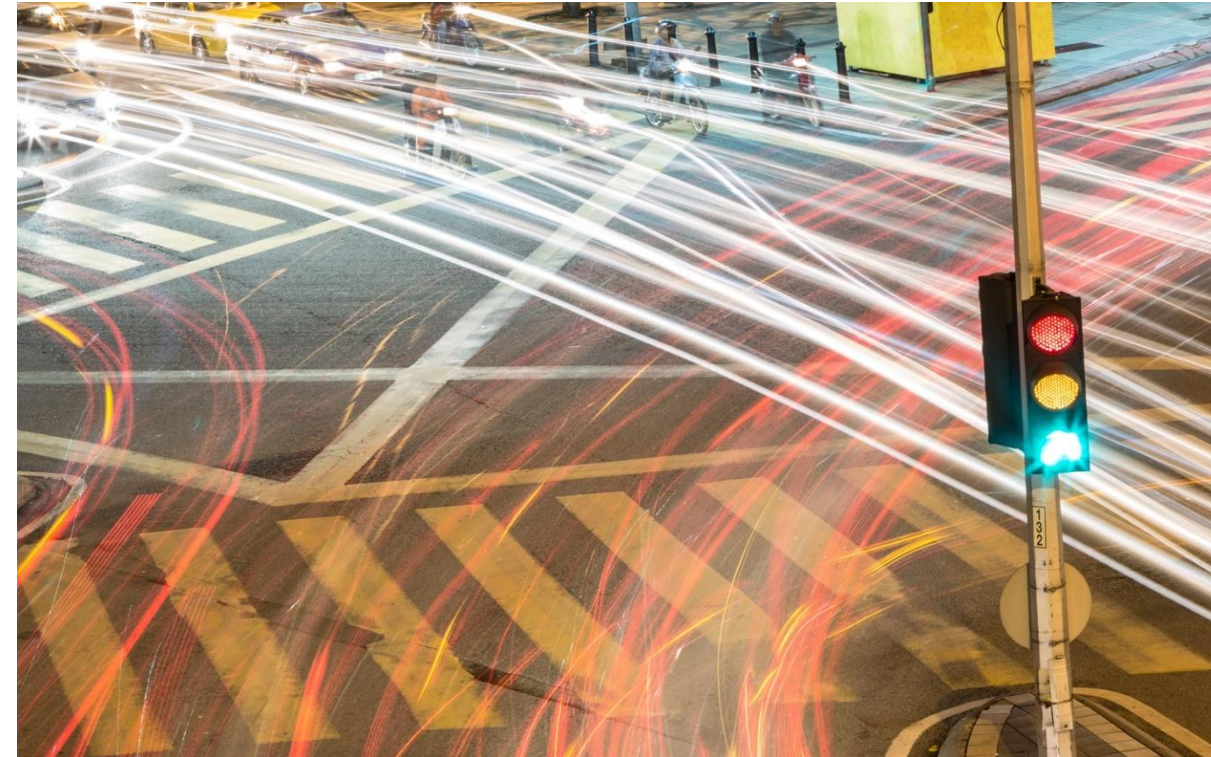
An Integrated Multi-Dimensional Urban Reading



Source: Systematica Srl, Invisible Data

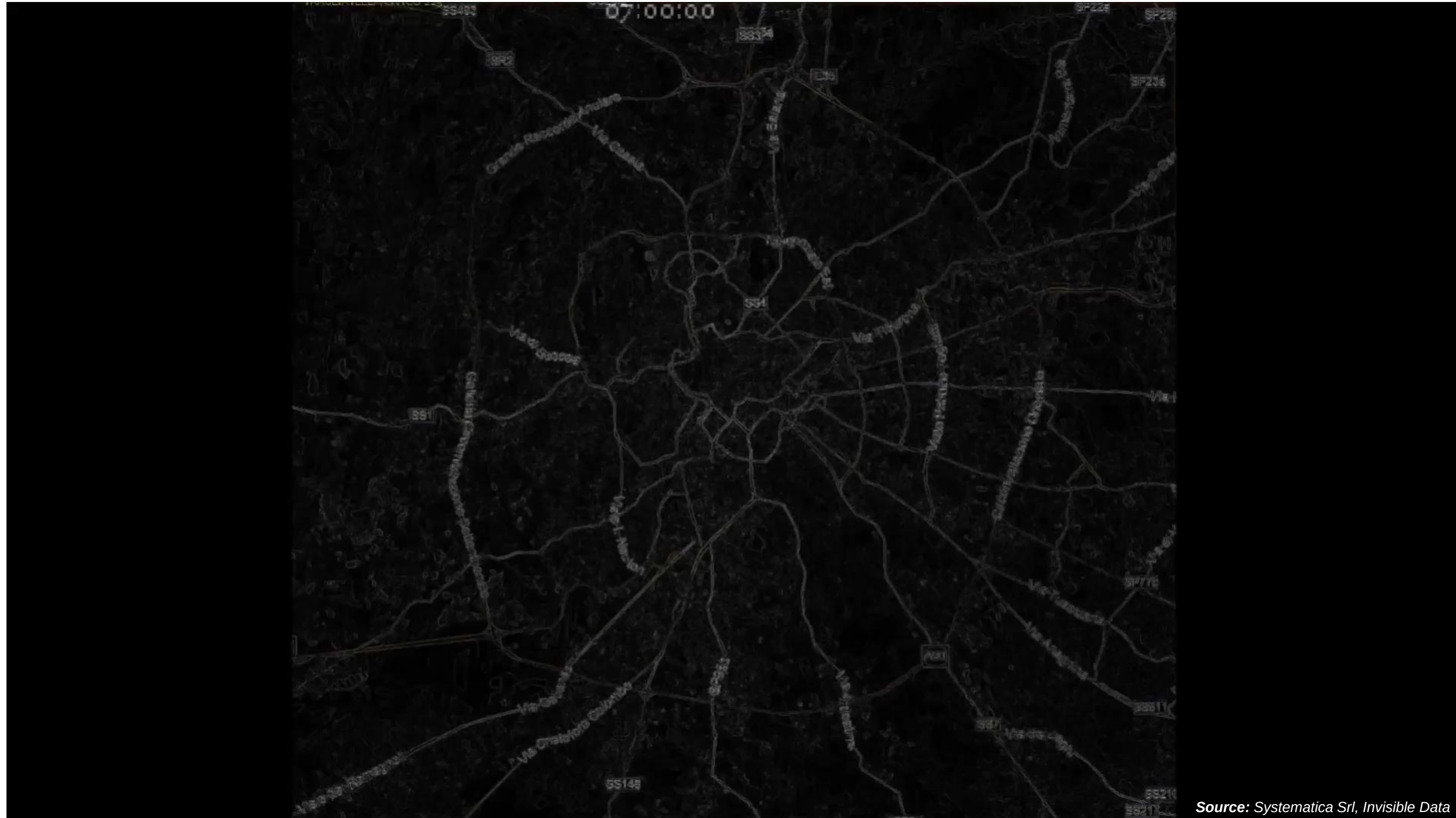
Rome

A Multi-layered Seamless Mobility Network



Rome

A Multi-layered Seamless Mobility Network





31 Gennaio 2018

Grazie per l'attenzione!

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