



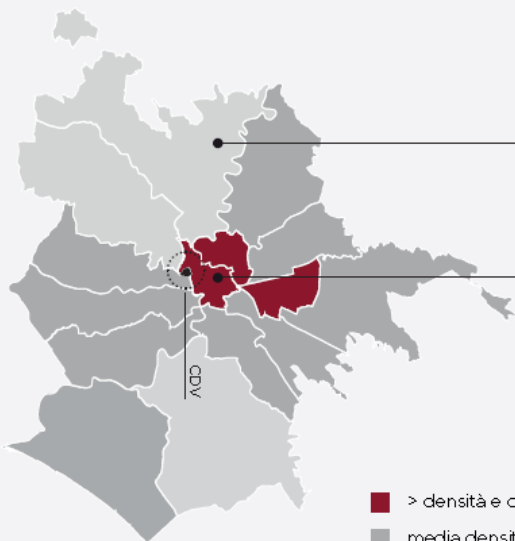
Sustainability and Green Policies in Rome

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Senior Advisor - Risorse per Roma

New Green Possibilities
Bangkok Design Week 2021
POLICY TALK - 19 July 2021



1.285 km² superficie del Comune 2,9 M popolazione del Comune



- > densità e consumo di suolo
- media densità e consumo di suolo
- < densità e consumo di suolo

14% Consumo di suolo
Municipio XV

75% Consumo di suolo
Municipio I

Il territorio di Roma Capitale è suddiviso in 15 Municipi. Il 66% della popolazione romana risiede nel capoluogo. Dal 2014 al 2016 la popolazione è rimasta sostanzialmente immutata.

Ufficio Statistico di Roma Capitale su dati Anagrafe, 2017 - dati relativi al 2016

15 km²

CENTRO STORICO

Il centro storico di Roma, ricompreso in un territorio di 32 km² e delimitato dal perimetro delle mura Aureliane, e le proprietà extraterritoriali della Santa Sede nella città e la Basilica di San Paolo fuori le Mura, fanno parte dal 1980 della lista dei Patrimoni dell'umanità dell'Unesco.

Ufficio Statistico di Roma Capitale su dati Anagrafe, 2017 - dati relativi al 2016

>25.000

SINGOLI ELEMENTI MONUMENTALI

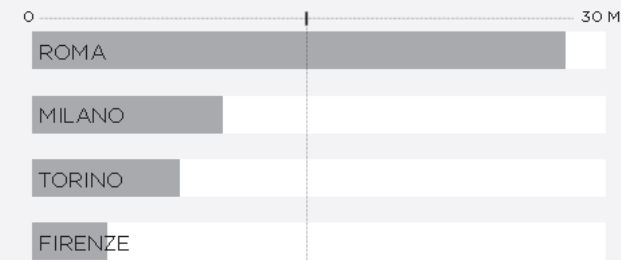
Nell'area romana sono stati riconosciuti oltre 25.000 punti di interesse storico, artistico ed archeologico, un primato indiscusso.

M. Cutrufo, 2010

VISITATORI MUSEI, MONUMENTI, AREE ARCHEOLOGICHE 2012-2015 (+19%) Ufficio Statistico di Roma Capitale su dati Anagrafe, 2017 - dati relativi al 2016



VERDE URBANO DI INTERESSE STORICO, ARTISTICO, CULTURALE (m²) Istat, 2014



DEMOGRAFIA E TERRITORIO

PATRIMONIO CULTURALE

City profile - some figures



64 % capitale naturale sul territorio comunale



315.193 alberi
di cui 130.395 su strada



19 aree protette
il 32% del territorio comunale



1.300 specie vegetali spontanee
il 20% della flora presente in Italia

827 km² superficie capitale naturale

VERDE / CITTÀ

40 km² ...
verde pubblico urbano

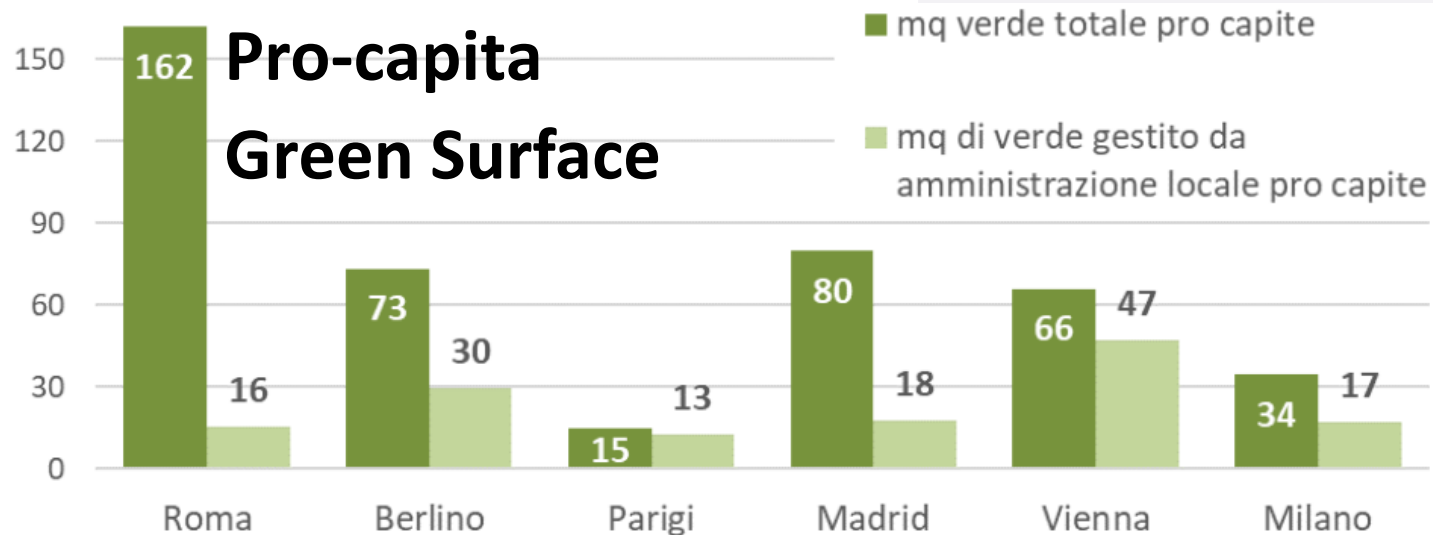
827 km² ...
capitale naturale

1.285 km²
sup. Comune



Ufficio Statistico di Roma Capitale su dati Anagrafe, 2017 - dati relativi al 2016

PAESAGGIO E PATRIMONIO NATURALE

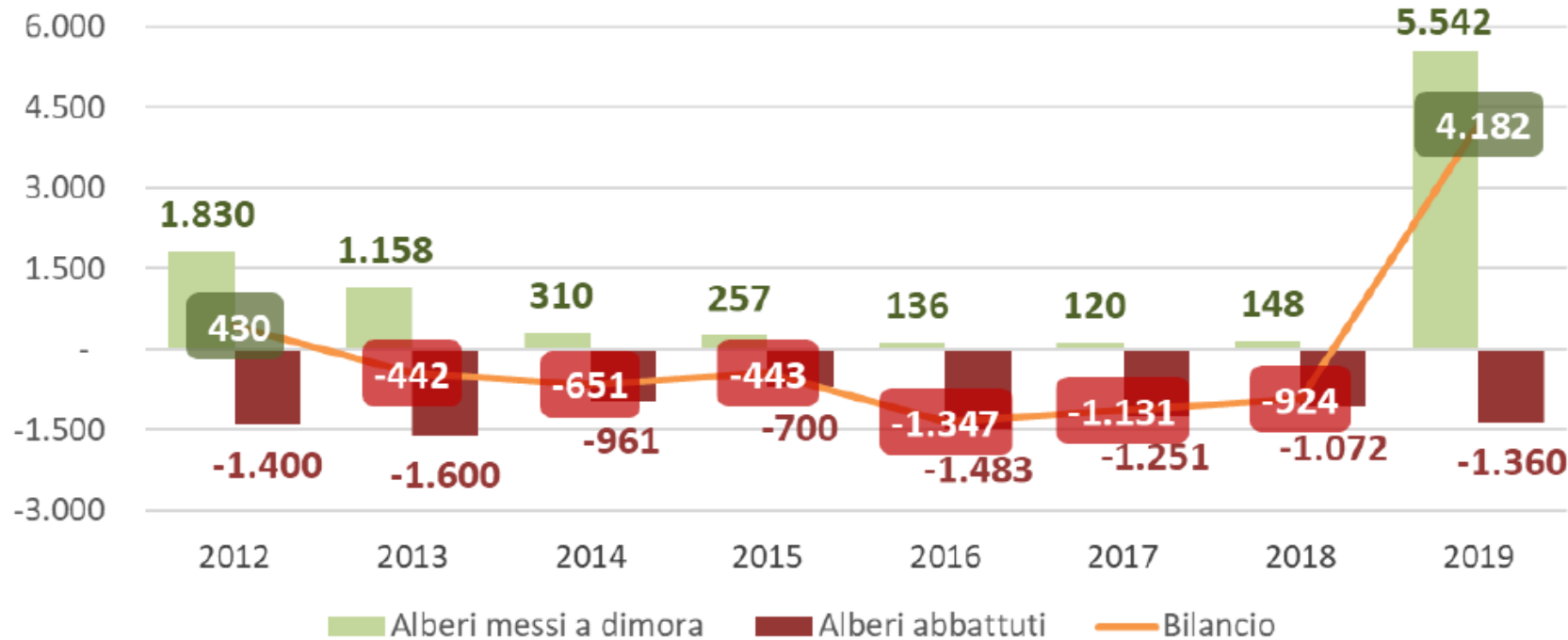


City profile - some figures

ROMA



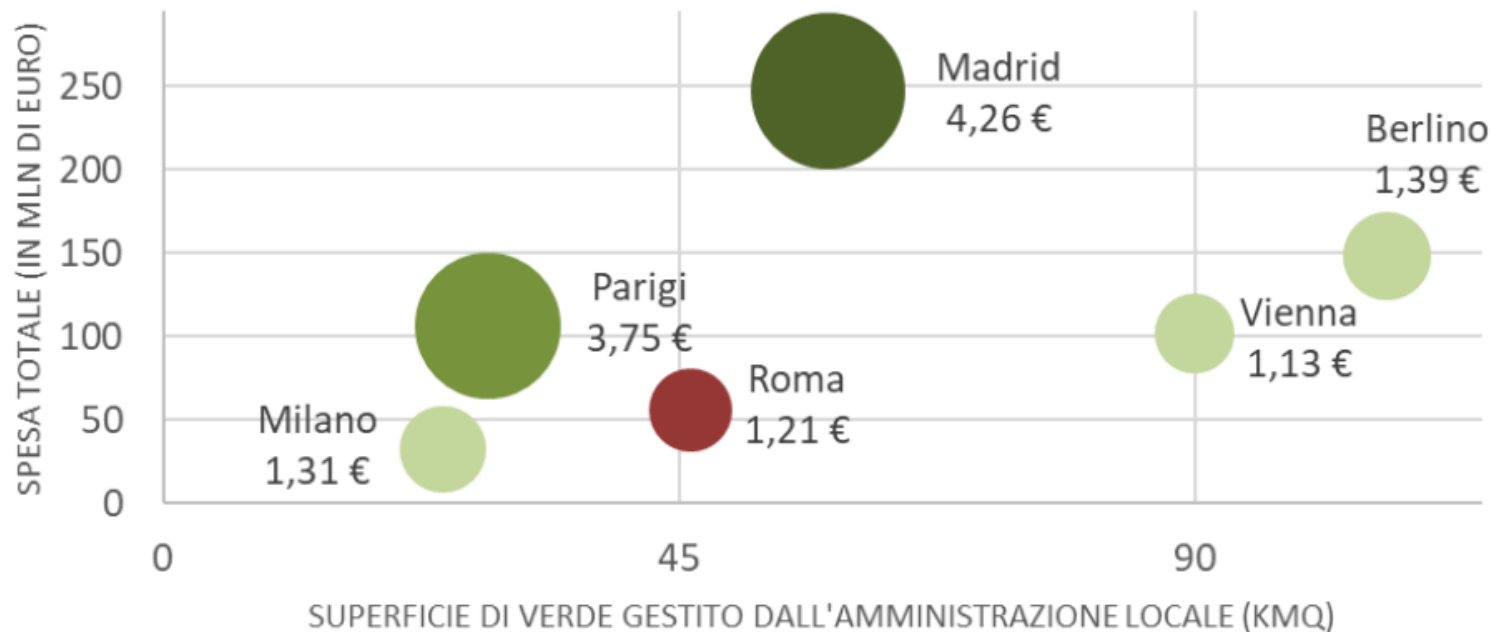
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PER ROMA spa



Monitoring trees in the city for annual balance

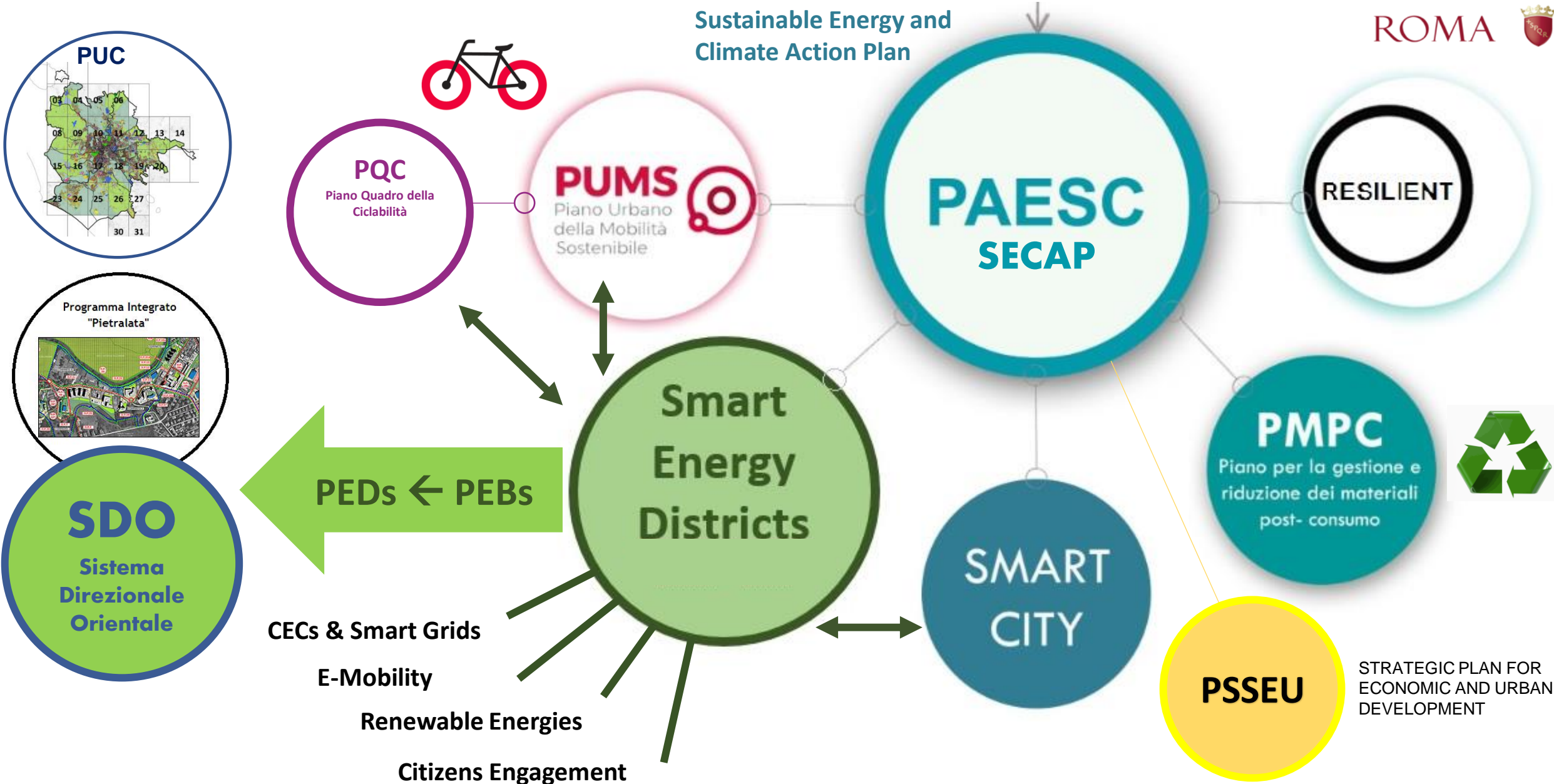


City profile - some figures



€/sqm Annual expenditure for managed green areas





Rome Urban Planning & Strategies for Sustainability

Sustainability is

Vision



Based on Suitability and Local Potentialities

Sustainability is

**Cultural Heritage
& Identity**

Tourism is a never ending Resource



Sustainability is
**Durability and
Resilience**

Preserving and Valorizing Cultural Heritage

Sustainability is
Functionality
& Reliability



Not only beauty but fully integrated utilities



**Sustainability is
Accessibility**

**Rome needs Smart E-mobility
and Light Solutions**

Sustainability is Openness

Open
Innovation
and
Open
Resources

Sustainability is Sharing Economy



Sustainability needs Green Infrastructure



Natural and Equipped Green

Sustainability is Citizen Engagement

and

Community Trust



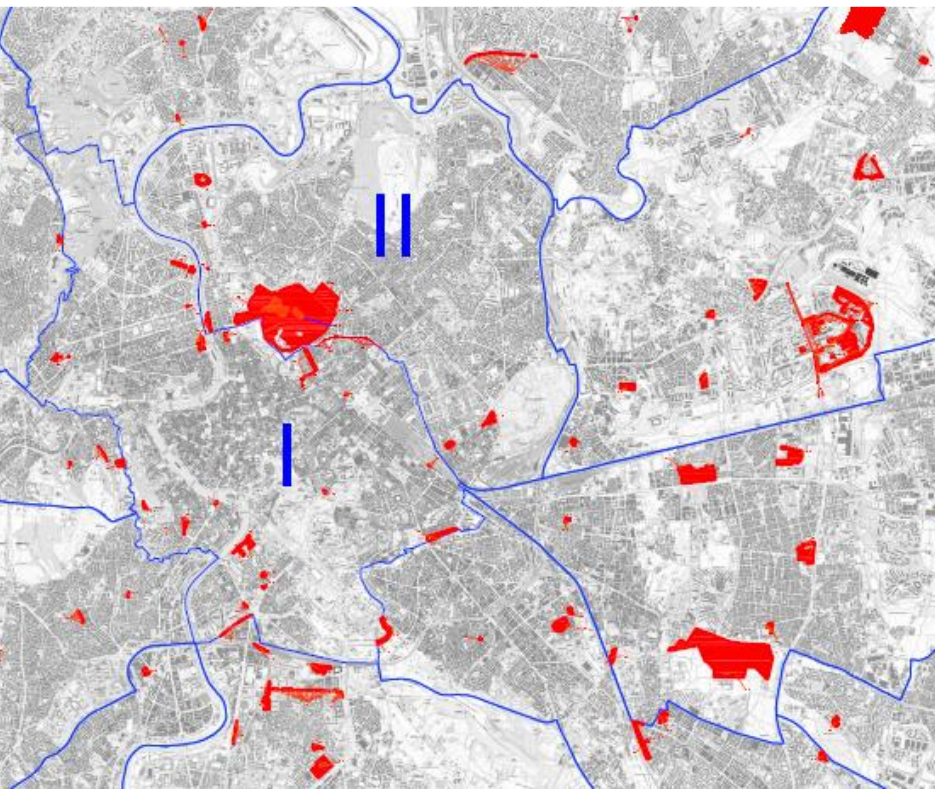
Sustainability is



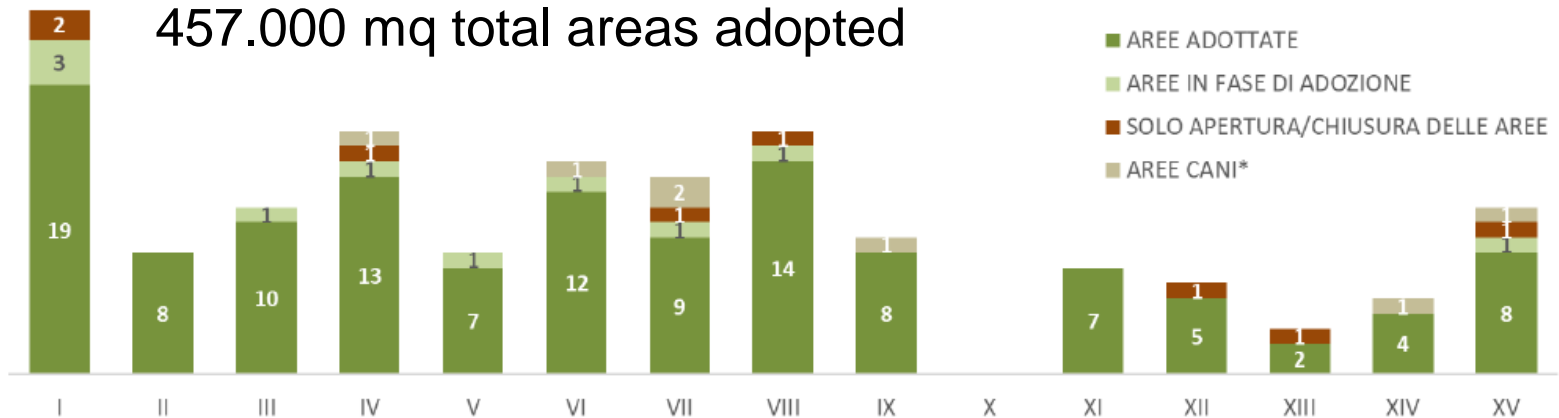
Participation



The adoption of municipal green areas is a valid solution for the care of greenery through the participation of citizens in the maintenance of the public spaces



457.000 mq total areas adopted



ROME, A CITY TO BE CULTIVED



the widest urban agriculture area
in Europe:
51,729 hectares

GREEN PUBLIC AREAS:

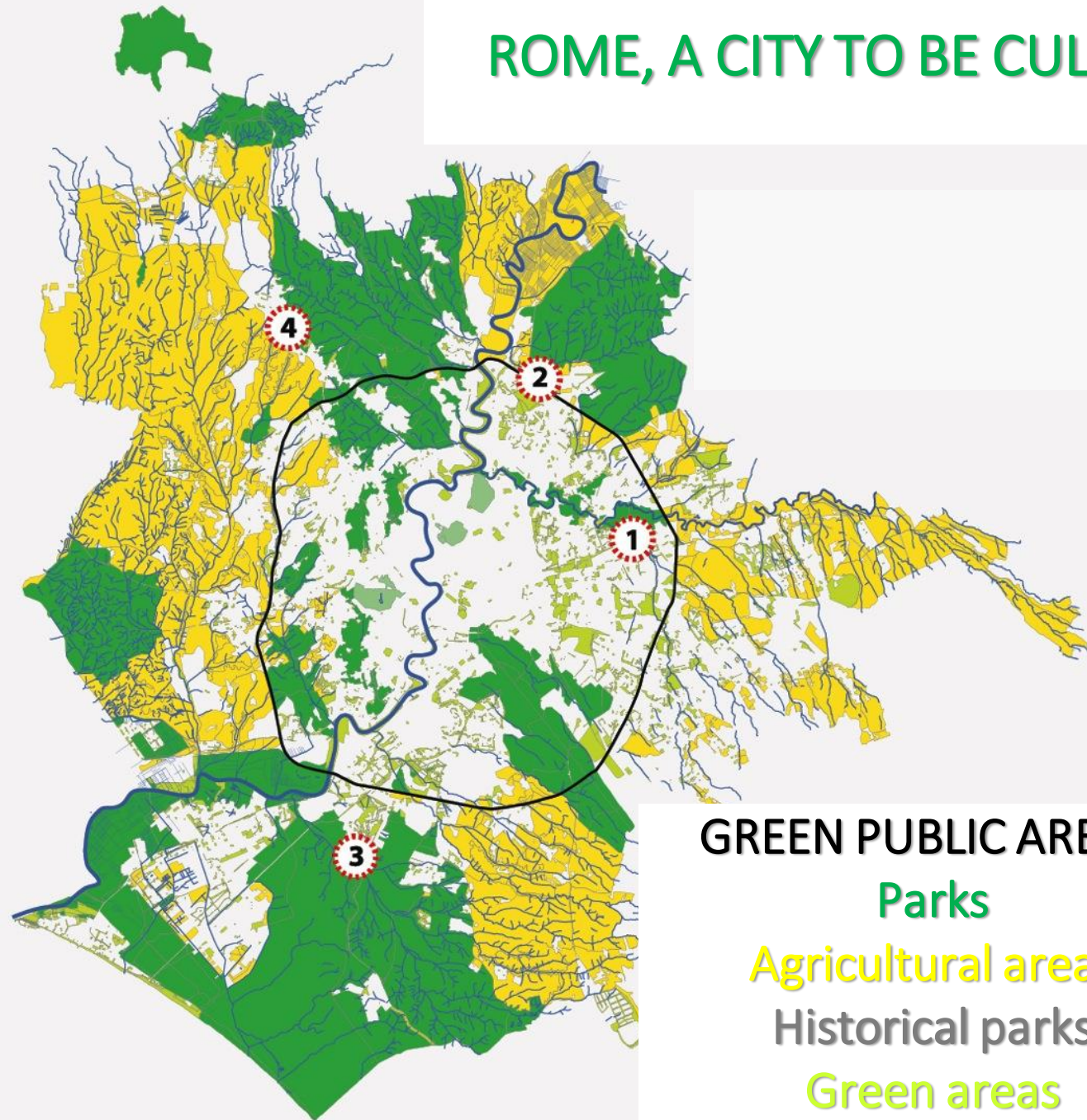
Parks

Agricultural areas

Historical parks

Green areas

areas can be adopted by
citizens and communities
for urban agriculture and
gardening practices



Sustainability is Carrying Capacity

NON-CONSTRUCTIBLE LAND

877 km²

68% of municipal area

TOTAL GREEN AREAS

509.6 km²

40% of municipal area

Parks 410 km²

Public green areas 79 km²

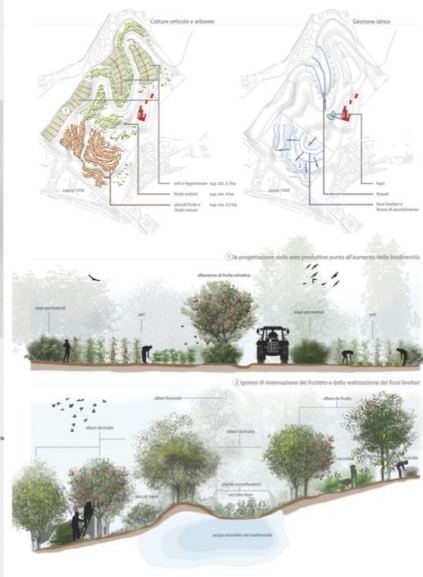
Private green areas 20.6 km²

Sustainability is Smart Farming Proximity Agriculture Community Gardens



Sustainability is Lands to young people

Terre ai Giovani
Was an an Open call for
young people, to assign
land parcels for
agriculture purposes



Urban agriculture for resilient cities



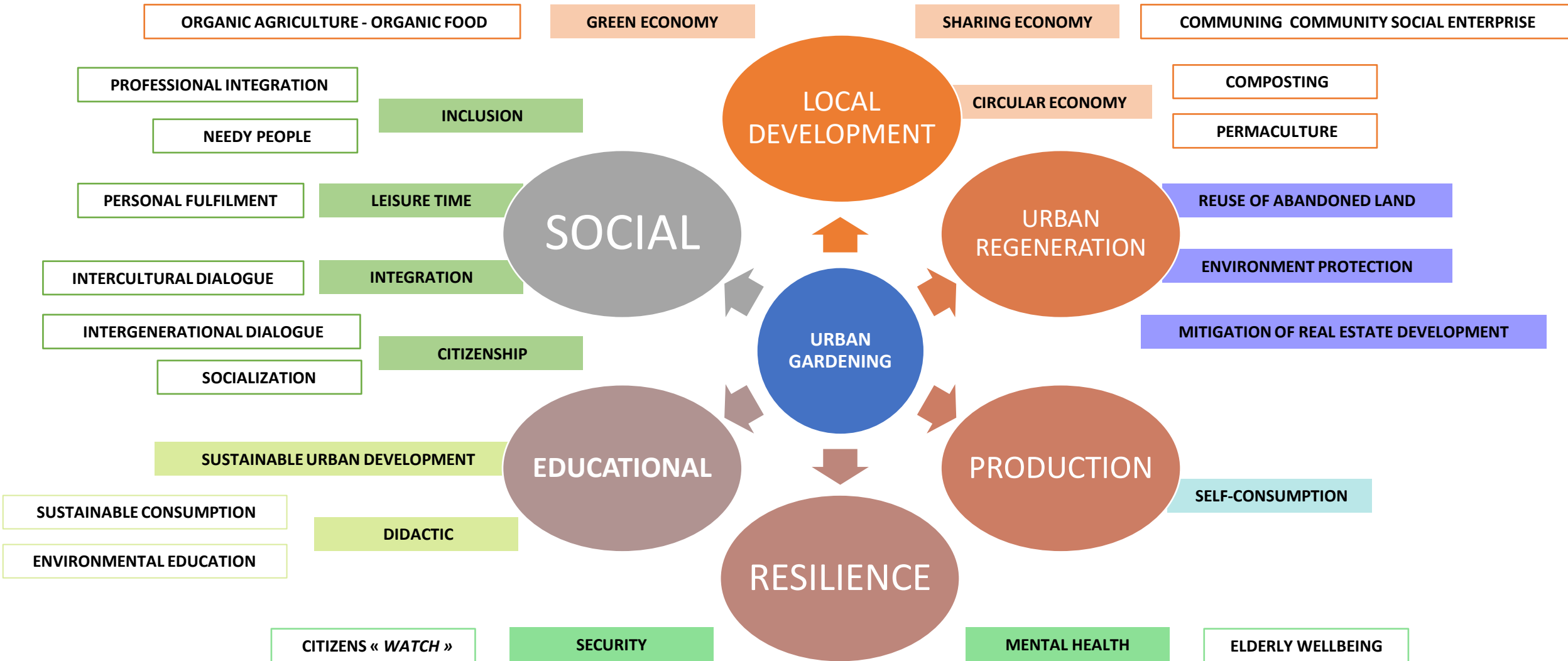
R:urban is a transfer network that builds upon the "Management model of Urban gardens in Rome" Good Practice in order to ensure sharing of experiences to enhance the capacities of local governance among several EU Cities.

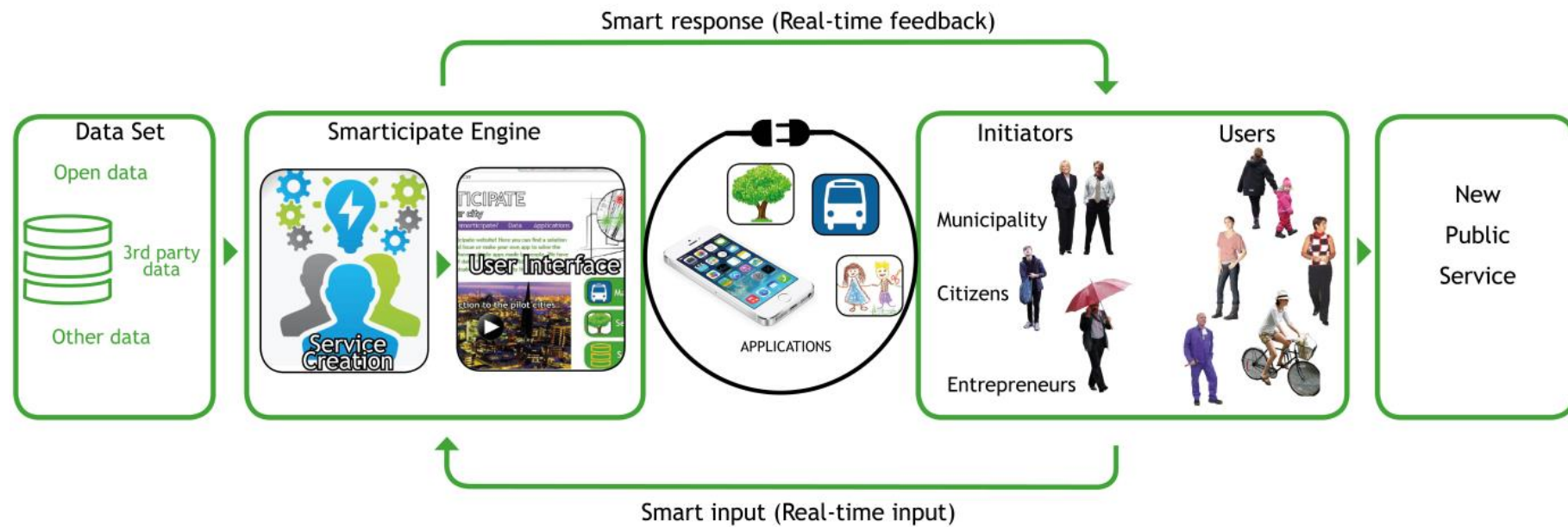
Transfer efforts will be given to 3 distinct, interlinked, thematic components/elements that the Good Practice is divided into:

- Capacity building in organizing urban gardens,
- Inspiring and training people to manage urban gardens (Gardeners)
- Urban gardens governance & regulations.



The mission of Urban Gardening





GIS based platform for citizens participation to the design process:

- identification of community gardens areas
- interaction with all actors
- Requirements analysis





Casal Brunori pilot project in District 9 - Rome

Social inclusion activities





Villa Glori pilot project in District 2 Rome

Proximity Community Garden with socio-therapeutic plots





Urban Agriculture Governance

Gardens Regulations and Grass-roots associations role



The Capitoline assembly approved the Regulations for the assignment of urban gardens and shared gardens: areas identified and destined for a vegetable garden or shared garden will be entrusted to groups and associations - loan of free use – then the associations will divide the plots into smaller lots and will allocate to citizens who request it.



Citizens will have access to the care of small plots of land with the possibility of consuming its products. The gardeners will take care of the care and maintenance and cleaning of the area and **must ensure that crops are carried out with organic techniques, without the use of products containing GMOs.**

Fostering the Urban food System Transformation through Innovative Living Labs Implementation

EU's FOOD2030 policy:

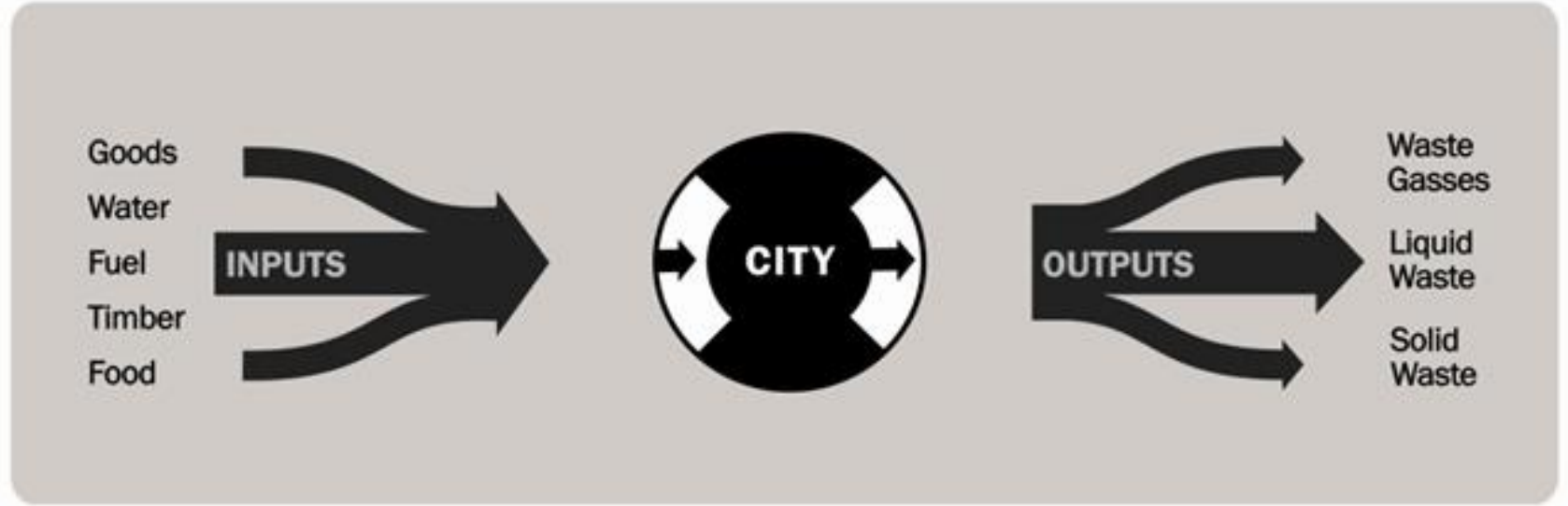
- nutrition for sustainable and healthy diets,
- climate-smart and environmentally sustainable food systems,
- circularity and resource efficient food systems and
- innovation and empowerment of communities.



ROMA's main objectives towards food system transformation are:

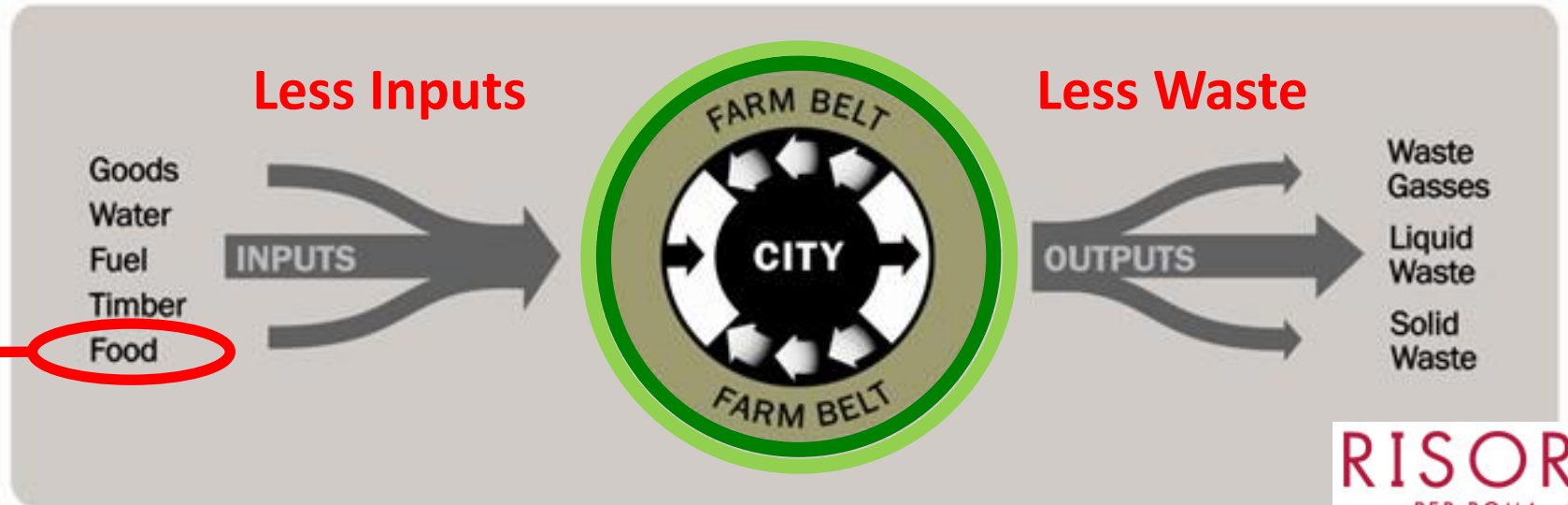
- To build a Food Policy for Metropolitan Rome: strengthening and supporting SME and NGOs of the primary Roman sector along all steps of the food system.
- To ensure healthy eating and access to quality food for all citizens, protecting natural resources and strengthening economic and social links with rural areas close to the metropolis.
- A food Policy to encourage generational turnover in agriculture, food education and local food networks.

NOW: LINEAR METABOLISM



The Food Supply Chain has an heavy ecological Footprint and needs circularity

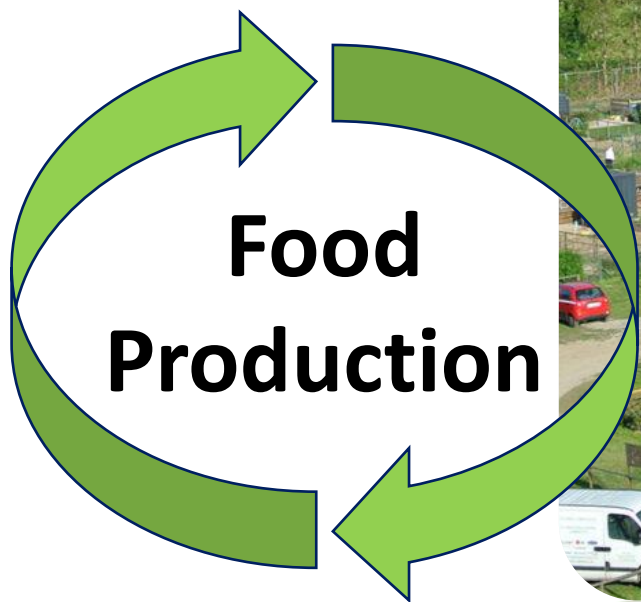
FUTURE: CIRCULAR METABOLISM



Urban Agriculture and Community Gardens are Good Practices of Circular Economy

RU:RBAN
FUSILLI

Urban Agriculture is a Good Practice of Circular Economy for two main aspects



**Short and Circular
food systems**



**Re-use of
Abandoned areas**

Urban Agriculture is a Good Practice of Circular Economy

Short and
Circular
Food
Systems

Re-use
Abandoned
Urban areas



Benefits

- ➔ Less Waste
- ➔ More Health
- ➔ Less Energy
- ➔ Less Wasted Spaces
- ➔ More Urban Regeneration
- ➔ More Social Cohesion and Participation



Digital Agenda

ROMA
SMART CITY

Smart City Plan

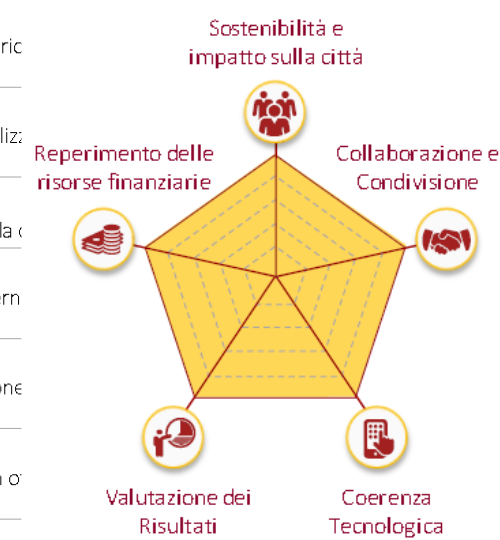
To assess the smartness of 76 services, ready to use or ongoing projects, to be integrated under 4 objectives:

- **Efficiency for Citizens**
- **Dynamic, Robust and Unique City**
- **Openness, Solidarity and Inclusion**
- **Preserving and Valorizing Natural Resources**



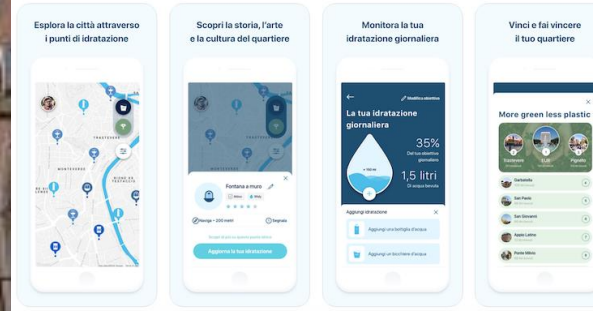
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Cod.	Progettualità	Ipotesi termine lavori	Smartness	Valore Economico
AM I	Case dell'acqua Fontanelle hi-tech dove è possibile bere gratuitamente acqua liscia e frizzante, ricaricare informazioni attraverso display digitali	Attivo	91/100	
AM II	Gestione contenitori in mobilità App per la gestione in tempo reale del parco contenitori di AMA S.p.A. tramite l'utilizzo connessi ai sistemi centrali di gestione delle frequenze di servizio connesse.	Attivo	90/100	
AM III	App Waidy App per geolocalizzare i 6.000 erogatori di acqua potabile e conoscerne la storia e la cultura	Attivo	89/100	
AM IV	Progetto Europeo Soil4Life Progetto per promuovere l'uso sostenibile del suolo ed il miglioramento della governance decisionali in materia di suolo a livello nazionale, regionale e locale.	Attivo	85/100	
AM V	Web-Gis R3 Trees Applicativo per la gestione di tutte le informazioni collegate alle piante, localizzazione e monitoraggio delle lavorazioni connesse.	In corso - 2021	83/100	
AM VI	Compostaggio Locale Installazione di 15 compostiere elettromeccaniche per il compostaggio collettivo in osterie e ristoranti.	In corso - 2021	78/100	
AM VII	Contenitori stradali intelligenti Contenitori stradali con sensore di riempimento, di ribaltamento, di temperatura, segnale GPS, accesso controllato per il riconoscimento dell'utente.	In corso - 2022	84/100	
AM VIII	Smart Comp Installazione di mini-impianti di compostaggio dotati di una tecnologia innovativa che trasforma direttamente in loco i rifiuti organici in compost.	In corso - 2024	84/100	Gestito internamente



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Sustainability is Smartness



**Free Services
Common
Goods**



App Waidy to geolocate the 6,000 drinking water fountains and learn about their history and the quality of the water supplied



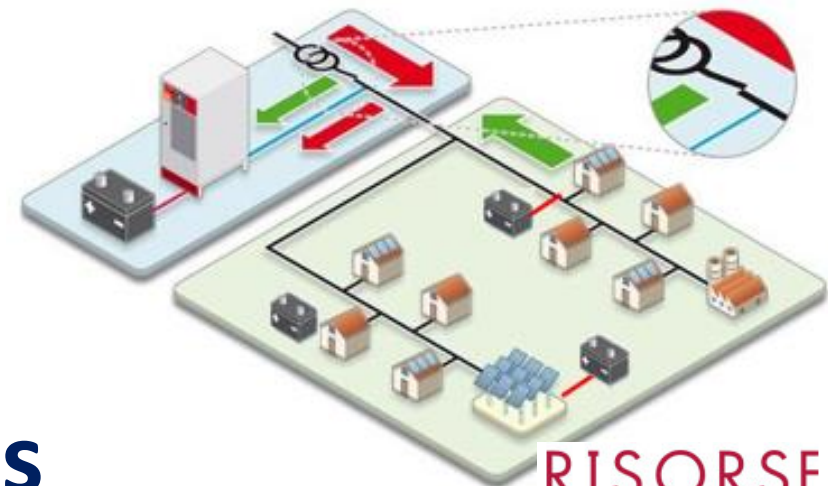
Sustainability needs Smart City Services



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**Citizens Energy
Communitas - CEC**

**Flexible Community Smart Grid
Target Scheme**



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Multi-functional Lighting Poles



Cofinanziato dalla Commissione Europea nell'ambito del Programma LIFE

Sustainability is Energy Efficiency



Smart Energy District

toward
Smart zero-Energy City Districts



Sustainability needs

Energy Transition



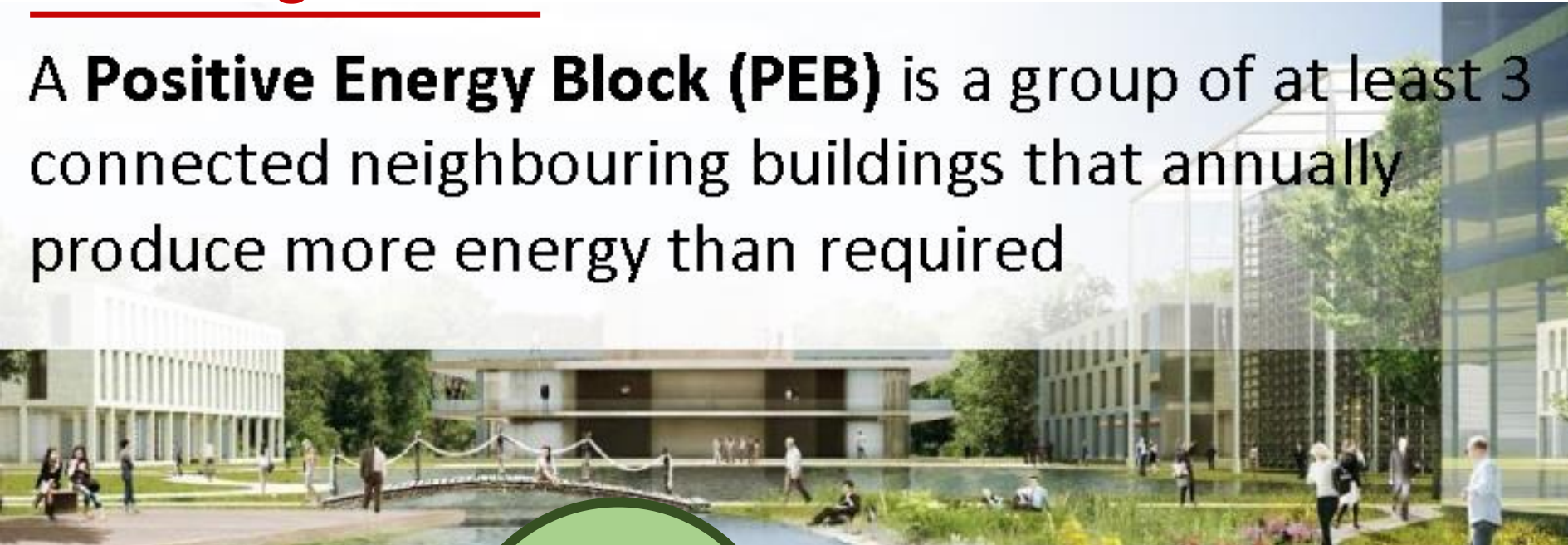
PLATOON



EIP-SCC
European Innovation Partnership
on Smart Cities and Communities

PEB Living Lab

A **Positive Energy Block (PEB)** is a group of at least 3 connected neighbouring buildings that annually produce more energy than required



Smart
Energy
District

toward

Smart zero-Energy City Districts

**Citizen Energy
Communities**

**Proximity
Services**

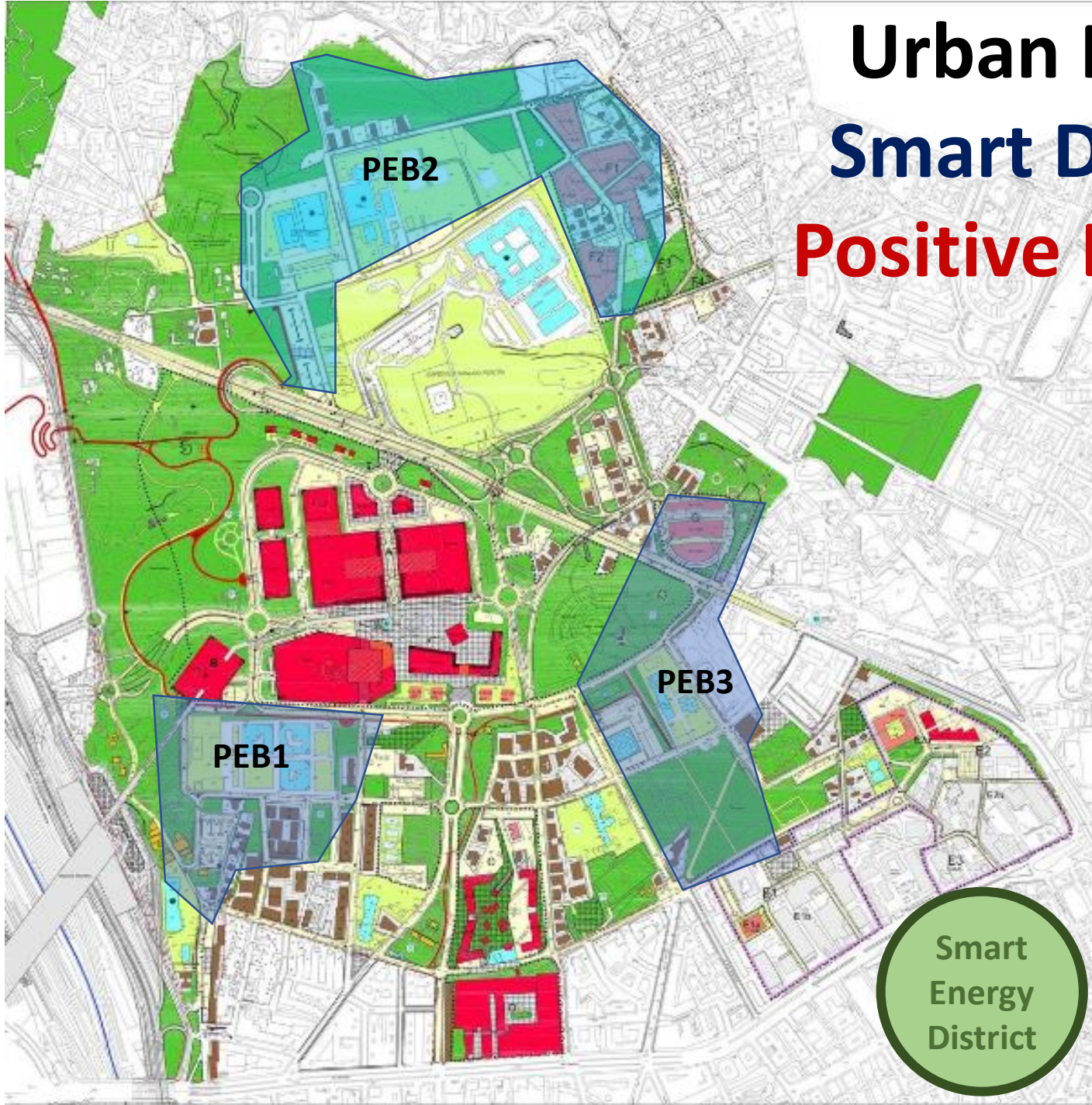
**Sharing
E-mobility**

Urban Planning for Smart Districts and Positive Energy Blocks Living Labs

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The area of Pietralata (14000 energy users) in Rome is already interested by an Urban Development & Regeneration Plan to be integrated with the **flexible PEB / PED vision: Smart City services and Energy transition Living Labs:**

- Residential buildings, smart homes → (retrofitting & NEW) PEB
- Swimming pool and sport facilities → (retrofitting) Geothermal & FV
- University facilities and ISTAT seat (NEW)
- School buildings → (retrofitting) PEB
- Hospital & MIT → out of the PEB (energy supply)
- Shops & Markets → (retrofitting) PEB
- RES + Geothermal Plant (for NEW buildings)
- Smart Grid (electrical/thermal) & Storage → B2G → V2G → starting from PEB1 and PEB2

- Electro-mobility investments
- Electrical Reverse Logistic
- IoT / ICT integration → open platforms
- CEC - Citizens Energy Community (citizens engagement)
- DSOs, Vendors & ESCOs engagement (business models)



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Positive Energy Blocks

within a **Smart Energy District**

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Italia, Laz., RM, Pietralata

PEB2

Smart
Energy
District

Smart City
Living Lab

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on Smart Cities and Communities

Positive Energy Blocks

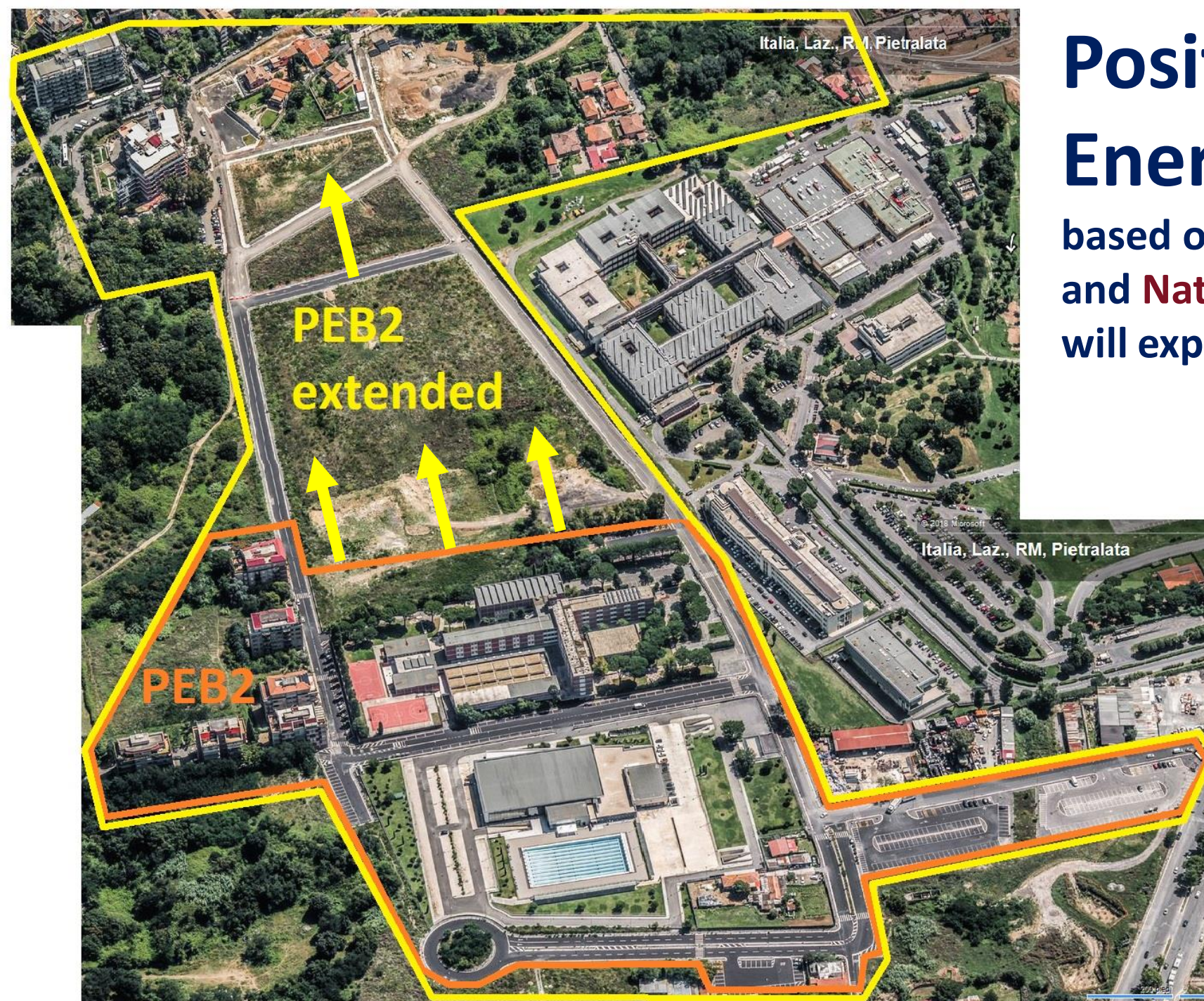
based on **CECs**, **smart grids**
and **Natural Based Solutions**
will expand within the

Smart Energy District

through Deep
Retrofitting for
Energy Efficiency
of existing
buildings and
infrastructures

Smart
Energy
District

RISORSE
PER ROMA *spa*



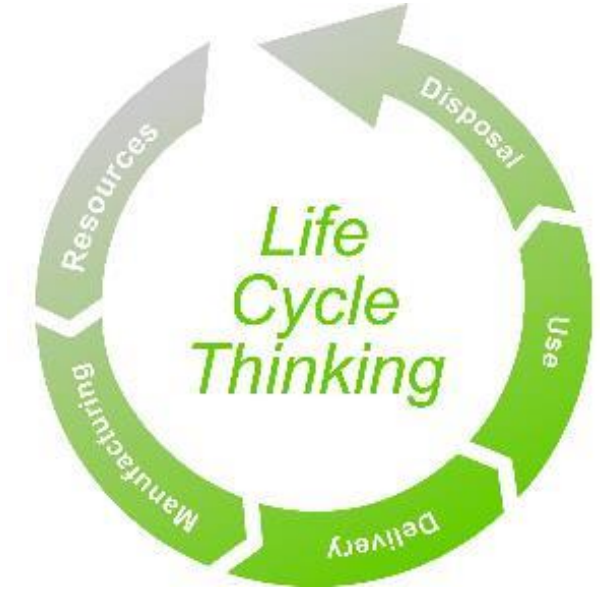
To tackle the Climate Change

introducing Circular Economy in the city transformation processes and Governance

1. National Action Plan for Green Public Procurement (GPP) - 2008



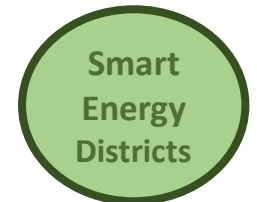
2. GPP criteria applied at local level represent a strong lever for Circular Economy



3. Concrete projects at city level focuses on Green and Energy

→ key-strategies:

Participation & Sharing



Thank You

