



UNIONE EUROPEA
Fondi Strutturali e di Investimento Europei

“How could eternity be made sustainable?”

The PON Metro digital transformation projects of Roma Capitale: a smart city perspective for the Eternal City

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Roma



About Roma Capitale: Facts & Figures

As **one of the most beautiful and frequently visited cities of the world**, the city of Rome claims an **extraordinary cultural and artistic heritage**, thanks to which a **massive flow of tourists** is recorded every year.

By being the **largest local public administration in Italy**, Roma Capitale is an **extremely complex reality**. The administration is responsible for a wide range of various services (e.g. waste collection, local tax compliance, public housing, etc.).



~ 3 Million

Residents



1,285 km²

Surface area



20

Departments



15

Municipalities



over 60.000

Employees

Roma Capitale has **constant and frequent interactions** with a broad variety of stakeholders, such as citizens, tourists and enterprises.

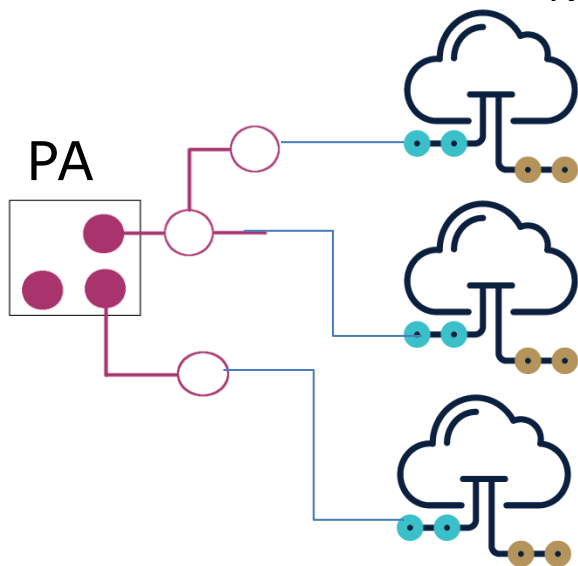
The initial context

Where we started: re-digitalize in a user-centric approach

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Common digital transformation plan for the online services of Roma Capitale



Digital Agenda (2017-2021)



..using digital technologies as an integrated part of governments' modernisation strategies can unlock further economic and social benefits for society as a whole.

(EU Action Plan 2016-2020)

Case 1: Forma Romae

Vertical projects as internal data sources: unifying knowledge

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unifying the digital knowledge base of Rome's archaeological and monumental heritage

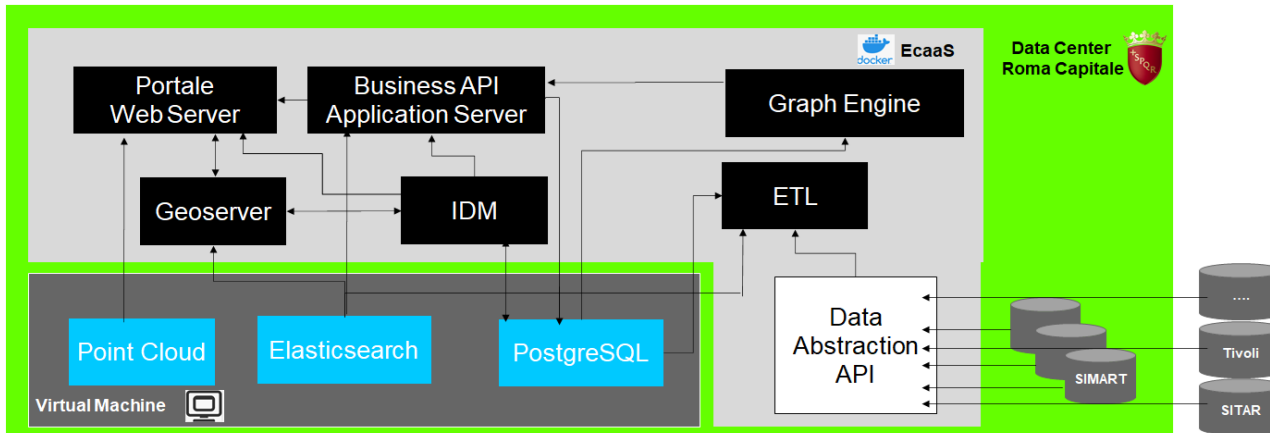


Forma Romae (PON Metro project)

The screenshot shows the website's header with the 'ROMA' logo, the 'FORMA ROMAE' title, and the 'pon metro' logo. Below the header is a navigation menu with links: Home, Il Progetto, Gli Archivi, Gamification, Archivio 3D, Sviluppatori, Accedi, and a language selector (UK). A search bar with the placeholder text 'Cosa stai cercando?' is positioned above a large historical map of Rome. To the right of the map is a sidebar titled 'Cerca beni per categoria immagini' (Search items by image category), which lists four categories: 'Materiali Mobili' (with a small icon of a building), 'Monumenti' (with a small icon of a monument), 'Sistemi Funerari' (with a small icon of a tomb), and 'Strutture Abitative' (with a small icon of a house).

Case 1: Forma Romae

Forma Romae: main features and architecture



- Search engine for CH based on AI
- 3 types of search: text, geographic and image
- Compare, select and simplify information from countless databases
- Returns a single, weighted result of the geographic location of key descriptive information
- Access allowed to all original sources contributing the search result
- Supplied with API catalog allowing the use of the engine by third parties

Case 1: Forma Romae

Forma Romae: cloud point visualization



The screenshot displays the 'Forma Romae' web application interface. The header includes the 'ROMA' logo, the 'FORMA ROMÆ' title, and the 'pon metro' logo. Navigation links include Home, Il Progetto, Gli Archivi, Gamification, Archivio 3D, Sviluppatori, and Accedi. The user is logged in as 'Sovrintendenza Capitolina BB.CC.'.

The main content area is divided into two sections:

- Map:** A 2D map showing the location of the 'Mura Aureliane' (Aurelian Walls) in Rome. Key landmarks labeled include 'Piazzale Ostiense', 'Piramide', 'Viale Belle Arti', and 'Stazione Porta S. Maria'. A red location pin is placed on the map.
- Metadata Panel:** A panel titled 'Mura Aureliane' with the following details:
 - Indietro** (Back)
 - Nuvole Punti** (Point Clouds)
 - Visualizza il dettaglio nell'Archivio di appartenenza** (View detail in the archive of origin)
 - Nuvola di punti** (Point Cloud)
 - Descrizione** (Description): Scorcio sulle Mura aureliane con parte della piramide Cestia (View of the Aurelian Walls with part of the Pyramid of Cestius)
 - Nome alternativo** (Alternative Name): Scorcio sulle Mura aureliane con parte della piramide Cestia (View of the Aurelian Walls with part of the Pyramid of Cestius)
 - Localizzazione** (Location): Informazione non disponibile (Information not available)
 - Individuazione tipologica** (Typological Identification): Nuvola di Punti (Point Cloud)
 - Stato di conservazione** (Conservation Status): ☆☆☆☆
 - Descrizione stato di conservazione** (Description of conservation status): Informazione non riconoscibile (Information not recognizable)

Case 2: VAV onsite (OSP)

Vertical projects in the internal perspective: streamlining operations

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Control the temporary public soil
usage permissions directly in realtime
on-the-road activities



OSP (Occupazione
Suolo Pubblico):
management of
public soil use (PON
Metro project)

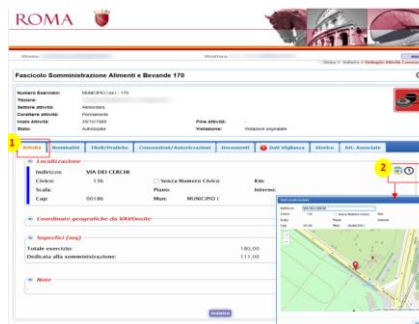


Case 2: VAV onsite (OSP)

Check, verificate, sanctionate: everything on the move

Principali tipologie di campi obbligatori previsti per la compilazione dei verbali di ispezione e dei VAV

Soggetti	Comando, Impresa e Rappresentante etc.
Dati ispezione	Data accertamento, Ora accertamento, Ubicazione attività etc.
Dati esercizio	Denominazione, Attività realmente riscontrata etc.
Sorvegliabilità	Rispetta o non rispetta quanto previsto in materia di sorvegliabilità
Videogiochi	Presenza/assenza videogiochi con vincite in denaro, senza vincite in denaro etc.
Pubblicità tende faretti	Presenza/assenza di pubblicità, base, altezza, profondità etc.
Occupazione suolo pubblico	Presenza/assenza di occupazioni di suolo pubblico
Locali attività	Esercizio dotato di un locale cucina, rifiuti speciali etc.



CASE 2: VAV onsite (OSP)

VAV Onsite: main benefits



Digitizing the on-the-road control activity of Polizia Locale



Real time access to backoffice information (GET: Territorial Economics Management Platform)



Continuous learning by convenient, portable online training tools

The on-going context

The challenge: towards an integrated Smart City perspective

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An unified view for a unique City



Smart City Plan
(3/2021, Rel. 0)



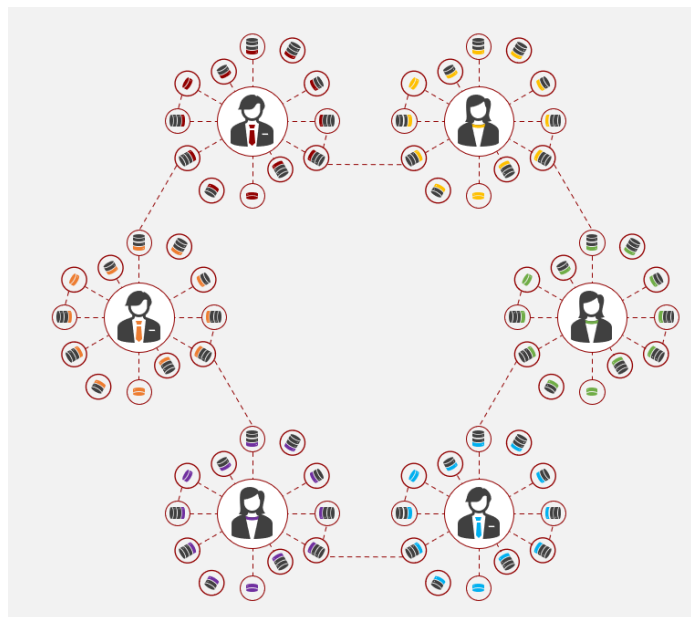
The on-going context

The challenge: towards an integrated Smart City perspective

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Breaking the organizational silos'



Smart City Plan
(3/2021, Rel. 0)



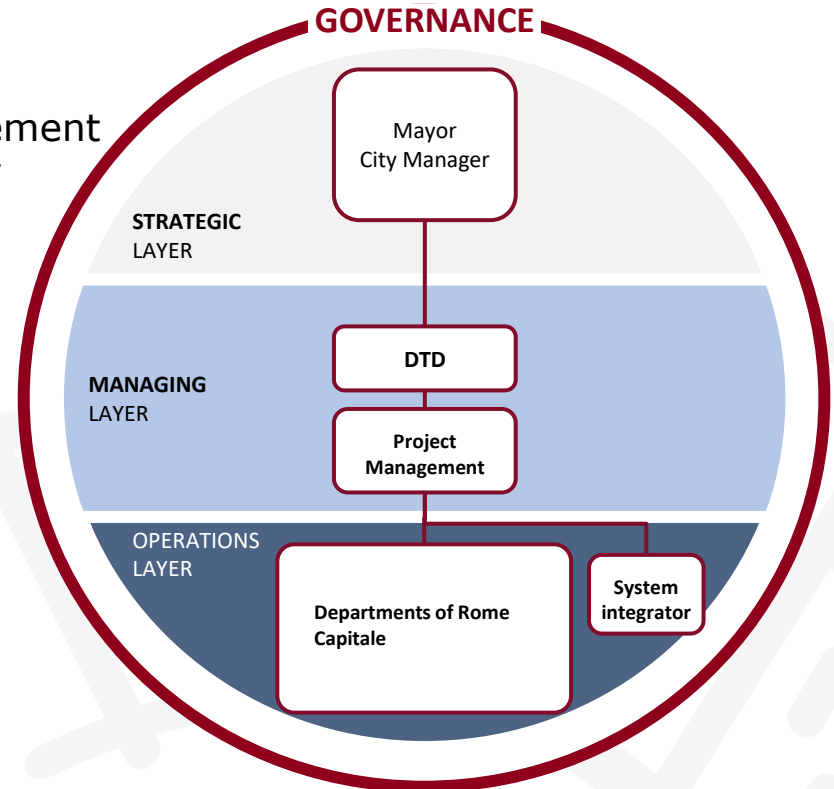
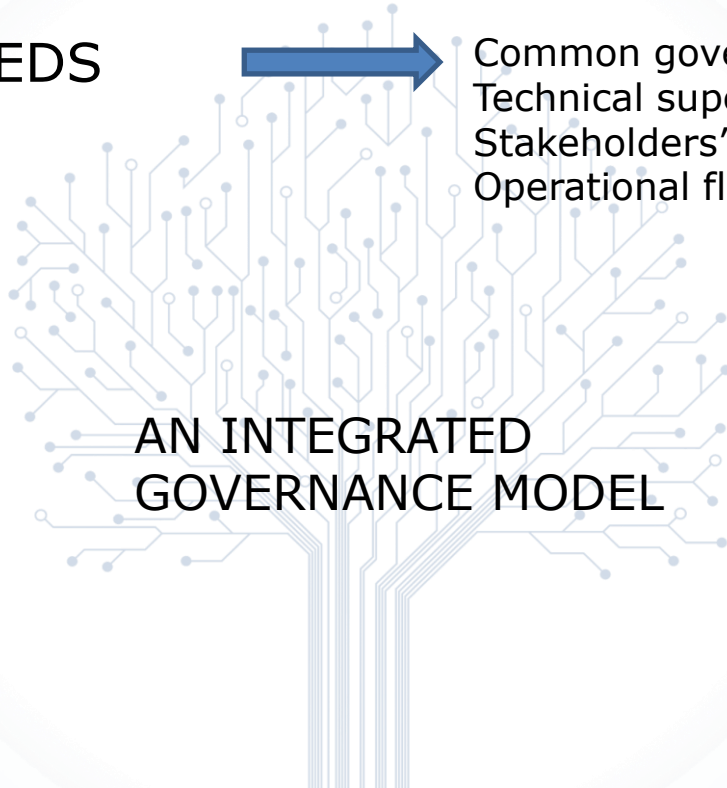
The on-going context

The challenge: towards an integrated Smart City perspective

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Common governance
Technical supervision
Stakeholders' involvement
Operational flexibility



Roma Data Platform as enabling project

Towards a full data interoperability model

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Breaking the data silos'



Rome Data
Platform (PON
Metro project)

Roma Data Platform as enabling project

Roma Data Platform: mapping the digital ecosystems



Roma Data Platform as enabling project

Rome Data Platform: data scouting and collection

DATA SCOUTING INTERNAL SOURCES & REQUIREMENTS



- ▶ Data mapping of the involved internal stakeholders
- ▶ Detailed analysis of stakeholders's requirements

GAP ANALYSIS



- ▶ Comparative evaluation of the «as-is» stakeholder's data availability vs requirements.
- ▶ Identification of the operational tasks to close the gap.

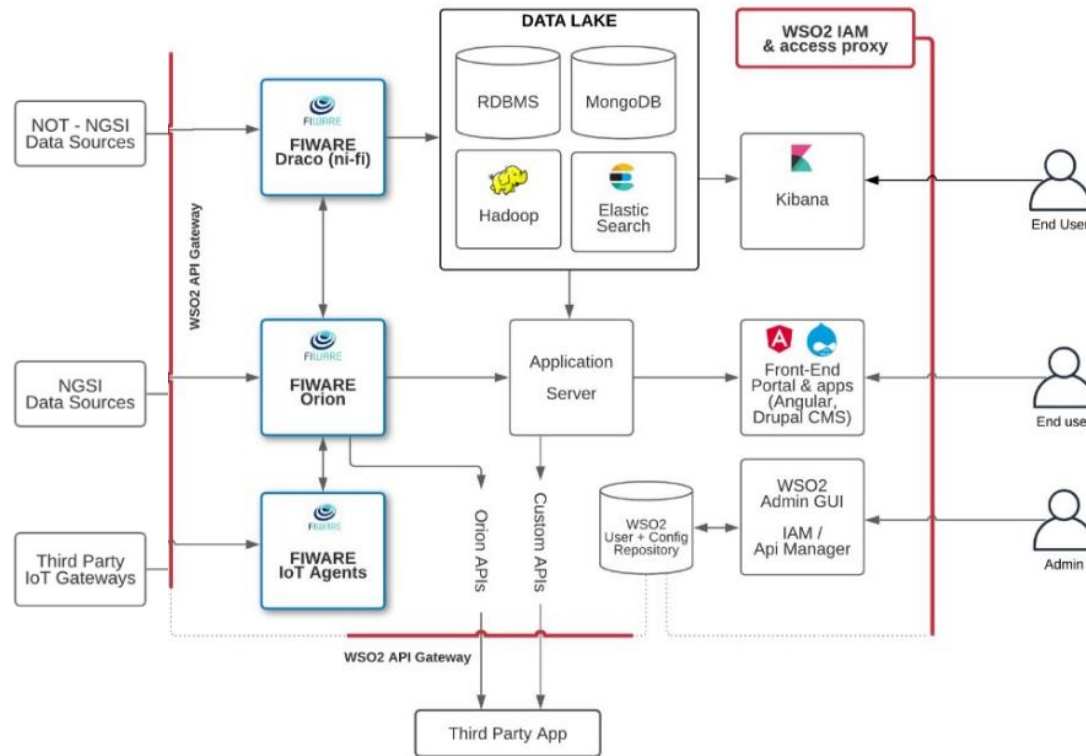
DATA SCOUTING EXTERNAL SOURCES



- ▶ Scouting and collection of the data from external sources (other PAs, open data, market offer) to satisfy the stakeholders's requirements.

Roma Data Platform as enabling project

Roma Data Platform: open source platform architecture



Roma Data Platform as enabling project

Roma Data Platform: customized management dashboards



Roma Data Platform: what's next

Further developments: launch of vertical ecosystems

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Launching new services in 2025

We selected 4 digital ecosystems, related to 4 different Departments

3 ecosystem for:

- Tourism
- Culture
- Mobility



Ambito Giubileo

1 ecosystem for:

- Environment



Ambito Ciclo Rifiuti



Roma Data Platform: what's next

The extended stakeholders' network



Ambito Giubileo



Ambito Ciclo Rifiuti



TURISMO



CULTURA



MOBILITÀ



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- ▶ [Aeroporti di Roma \(CmRC\)](#)
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STAKEHOLDER E FONTI
DATI

Roma Data Platform: what's next

User's perspective: Virtual Travel Assistant





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Thank you!

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Roma 