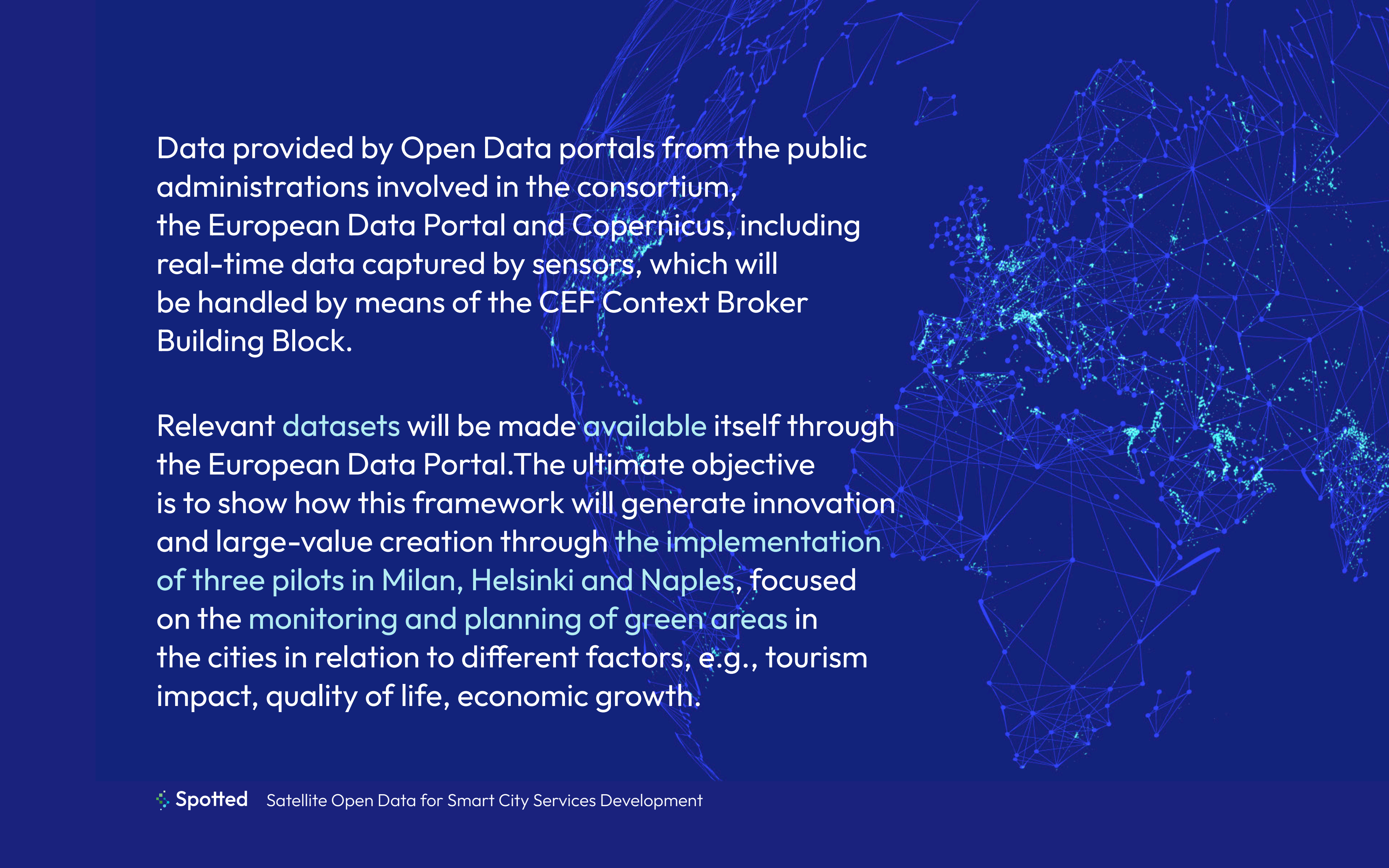# Spotted

Satellite Open Data for Smart City Services Development

Supports Public Administrations in the field
of green areas management

Spotted Achievements
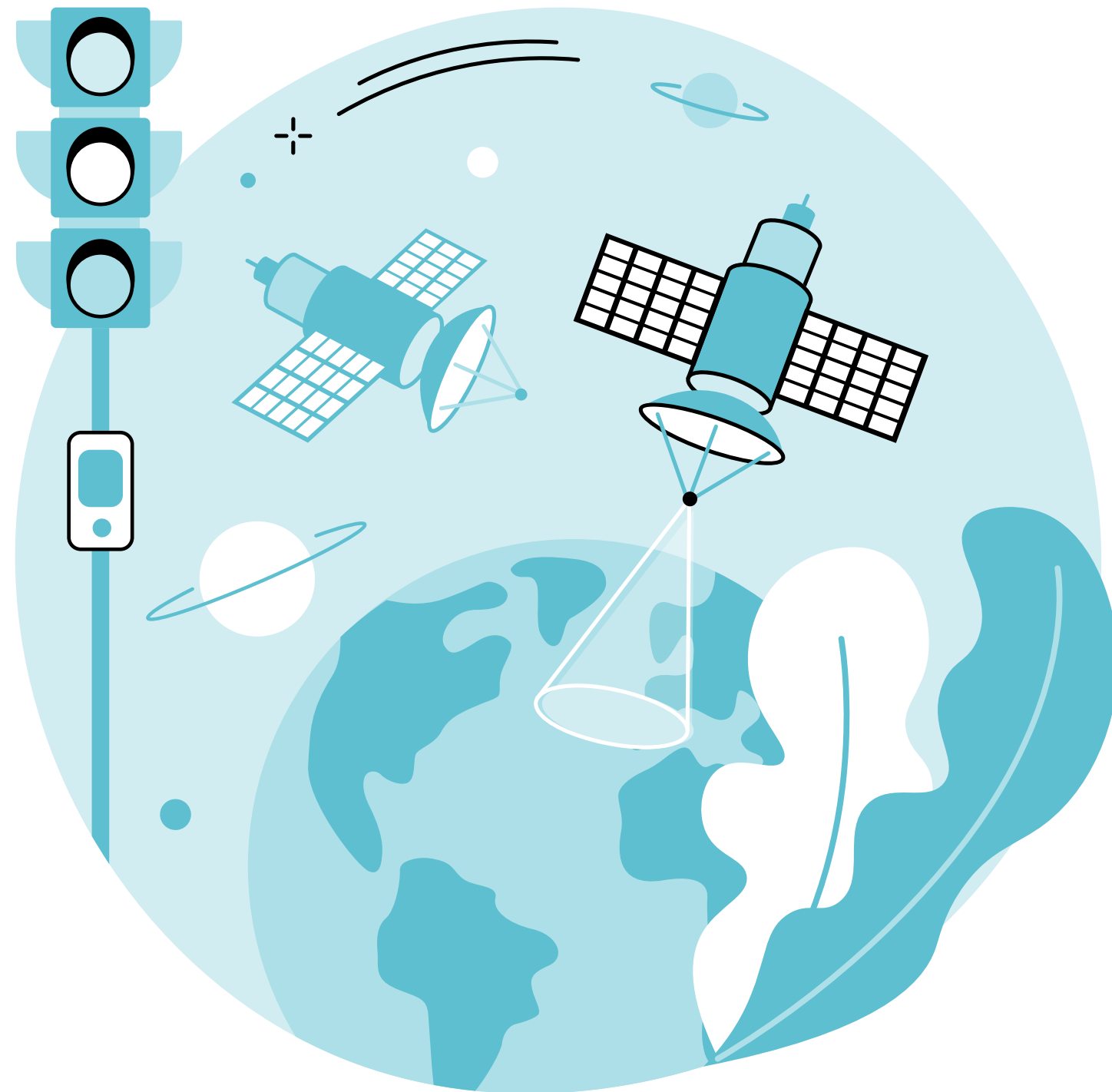
Funded by the European Commission under the Connecting Europe Facilities (CEF) program–Horizon2020, SPOTTED aims to provide an innovative solution based on the integration and customized processing of massive Open Data collections, including Earth Observation (EO) data, to monitor and support decision makers in the field of green areas management.

Spotted Satellite Open Data for Smart City Services Development

Data provided by Open Data portals from the public administrations involved in the consortium, the European Data Portal and Copernicus, including real-time data captured by sensors, which will be handled by means of the CEF Context Broker Building Block.

Relevant datasets will be made available itself through the European Data Portal.The ultimate objective is to show how this framework will generate innovation and large-value creation through the implementation of three pilots in Milan, Helsinki and Naples, focused on the monitoring and planning of green areas in the cities in relation to different factors, e.g., tourism impact, quality of life, economic growth.
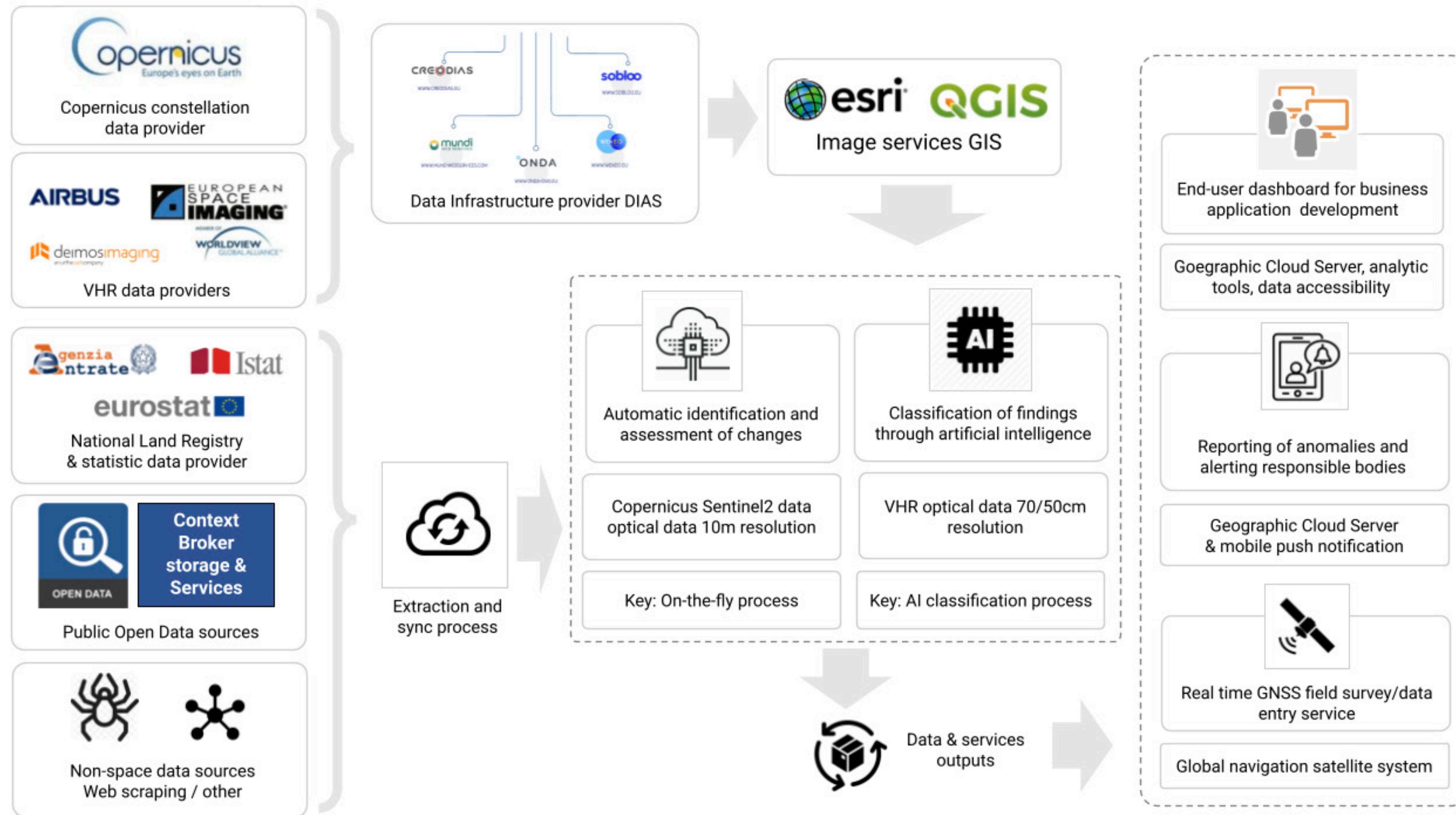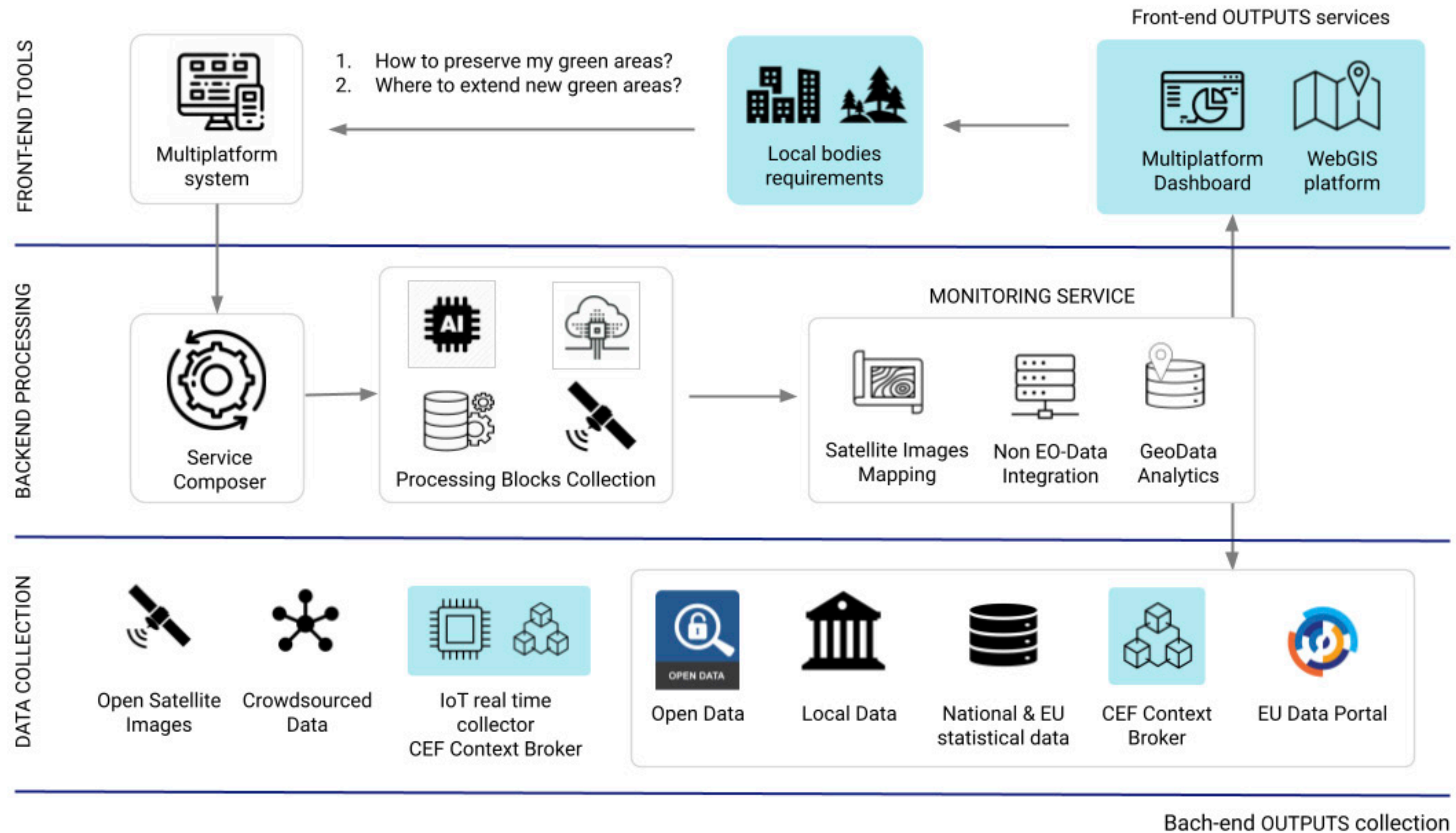
Spotted Virtual Hackathon

A competition for innovative ideas aimed at developing new smart services, solutions or applications in the sector of urban green areas management and open data (including satellite data and Earth Observation data).

Create innovative solutions to support technical and business activity.

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Spotted Framework

Copernicus constellation data provider

AIRBUS · EUROPEAN SPACE IMAGING · deimosimaging · WORLDVIEW GLOBAL ALLIANCE

VHR data providers

agenzia entrate · Istat · eurostat

National Land Registry & statistic data provider

OPEN DATA · Context Broker storage & Services

Public Open Data sources

Non-space data sources Web scraping / other

CREODIAS · sobloo · mundi · ONDA

Data Infrastructure provider DIAS

esri QGIS
Image services GIS

Extraction and sync process

Automatic identification and assessment of changes

Classification of findings through artificial intelligence

Copernicus Sentinel2 data optical data 10m resolution

VHR optical data 70/50cm resolution

Key: On-the-fly process

Key: AI classification process

Data & services outputs

End-user dashboard for business application development

Goegraphic Cloud Server, analytic tools, data accessibility

Reporting of anomalies and alerting responsible bodies

Geographic Cloud Server & mobile push notification

Real time GNSS field survey/data entry service

Global navigation satellite system

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Architecture of proposed system

FRONT-END TOOLS

Multiplatform system

1. How to preserve my green areas?
2. Where to extend new green areas?

Local bodies requirements

Front-end OUTPUTS services

Multiplatform Dashboard   WebGIS platform

BACKEND PROCESSING

Service Composer

Processing Blocks Collection

MONITORING SERVICE

Satellite Images Mapping   Non EO-Data Integration   GeoData Analytics

DATA COLLECTION

Open Satellite Images   Crowdsourced Data   IoT real time collector CEF Context Broker

Open Data   Local Data   National & EU statistical data   CEF Context Broker   EU Data Portal

Bach-end OUTPUTS collection

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About the Building Blocks of the European Commission

The EU Digital Single Market aims to create the right environment for digital networks.

To support the success of the Digital Single Market, the Connecting Europe Facility (CEF) Horizon2020 programme was funding a number of generic and reusable Building Blocks that provide core capabilities that can be reused in any European project to facilitate the delivery of digital public services across borders and sectors.

What is Context Broker?

Context Broker is a digital platform component that enables the integration of gathered data including insights for further exploitation.

Data Broker

Assemble information from different systems and belong to different organisations, instead of having them perform in separate silos.

Leverage investments

Enable the creation of a data marketplace in the Digital Single Market (of portable and interoperable solutions).

Easy development

Reduce costs and time in the development of context information-based platforms and solutions. Experience has shown that it is possible to create meaningful dashboards in just a few days!

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Partners

the Lisbon council
think tank for the 21st century

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