FASTERNET

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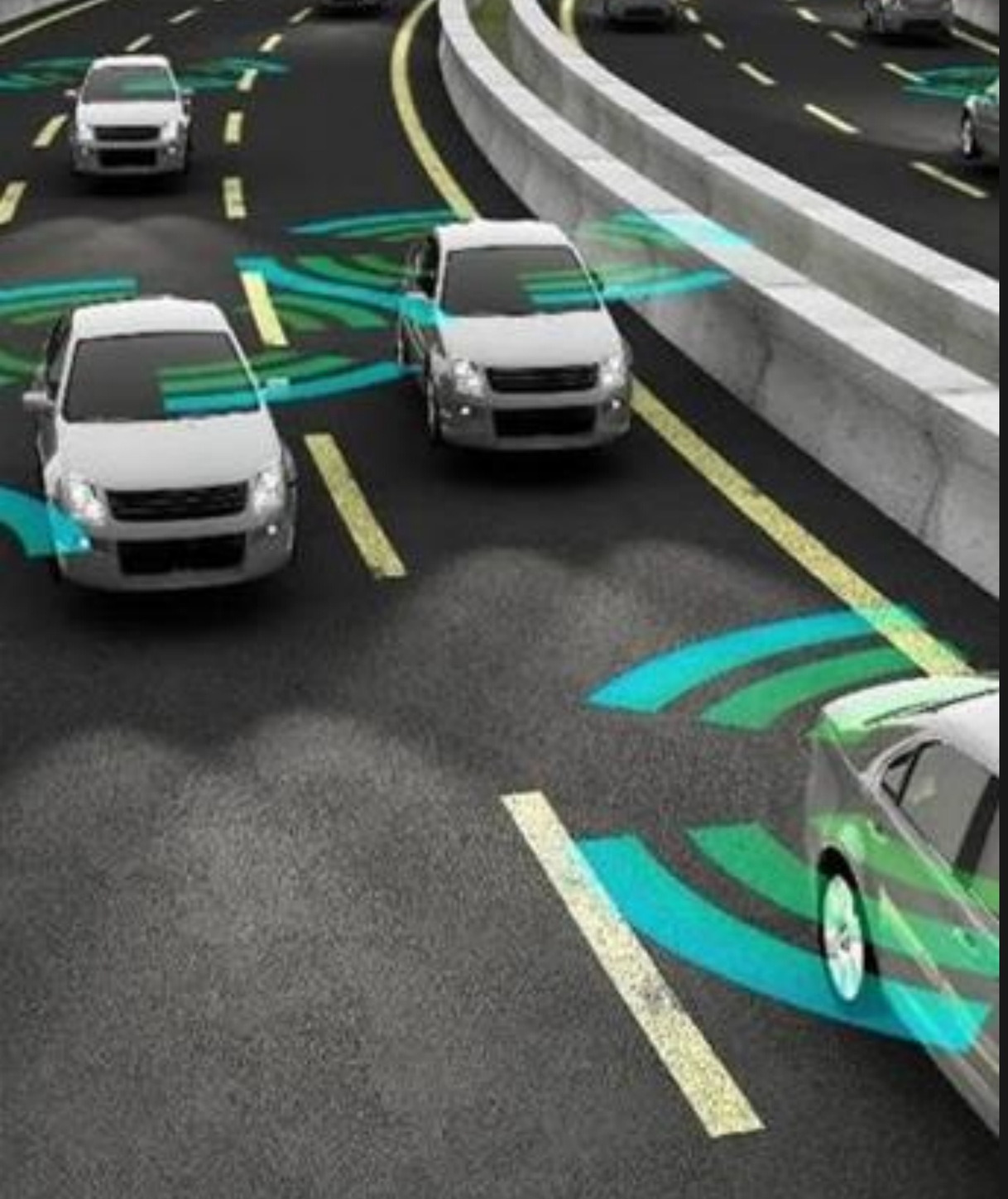
CONNECTED VEHICLES AND ON BORD SENSORS:

A NEW SERVICE FOR THE IMPROVEMENT OF ROAD SAFETY AND MAINTENANCE

M-APPERÒ



Motor vehicle as a sensor of the territory

The project is into the topic of sensors and connected vehicles and includes the communication systems vehicle- infrastructures.

The project aims to develop a sensor monitoring system for suspensions that, through the solicitation of the same, collect significant data not only for the vehicle, but also for the territory on which it passes.

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Motor vehicle as a provider of Big Data

Black boxes and other devices are used to process and store real-time data, especially signals from accelerometer sensors.

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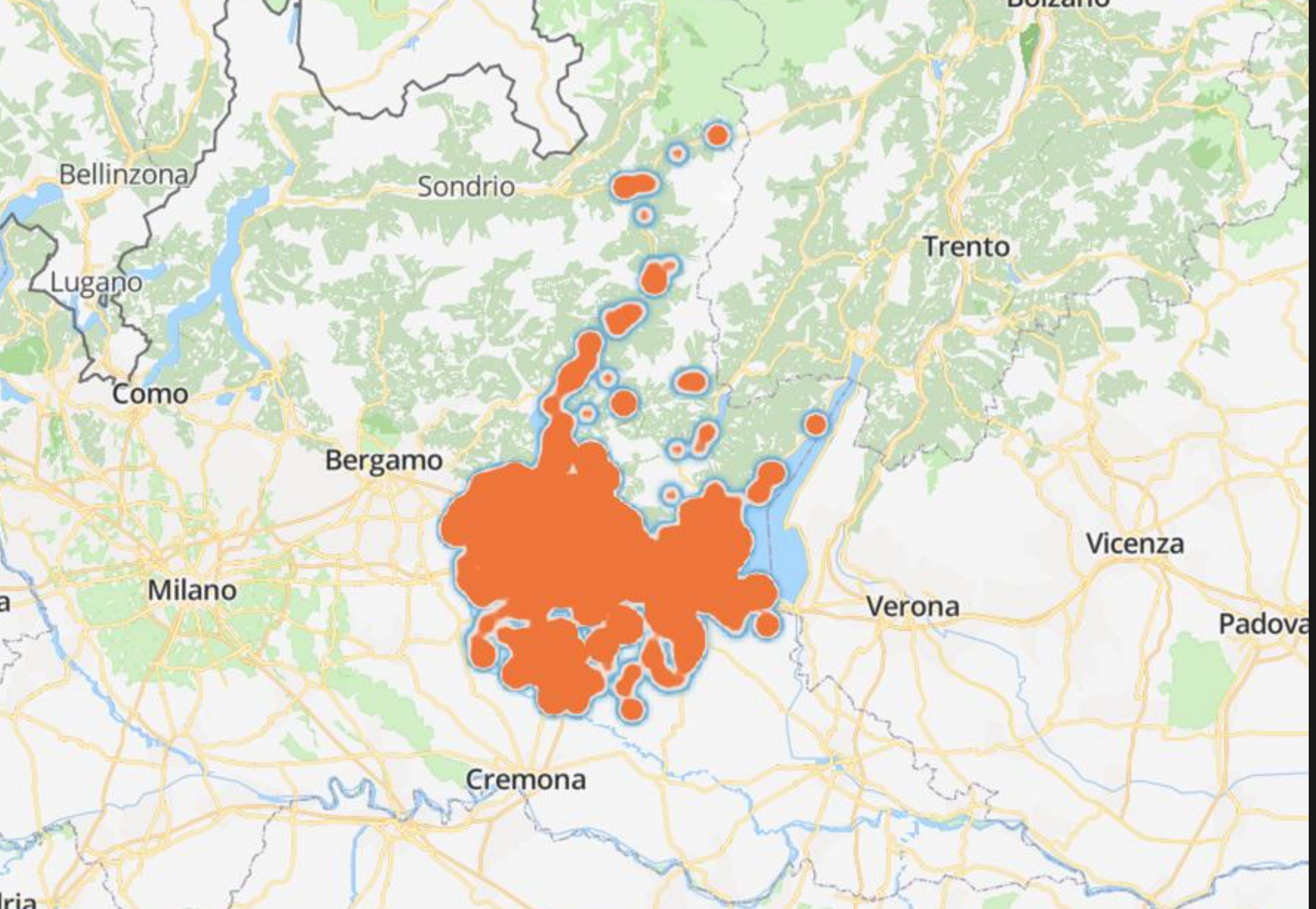

Province of Brescia

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Decision Support System

- Safety
- Optimization of maintenance cost
- Sustainability
- Development of the interaction vehicle-infrastructure-environment

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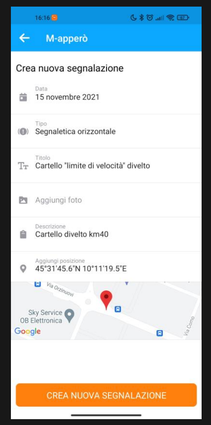
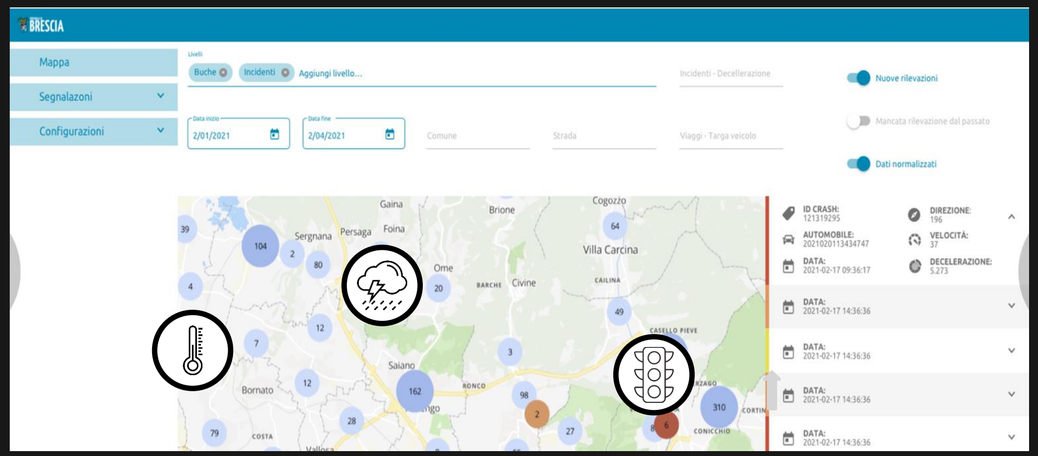


Data Usability e UI

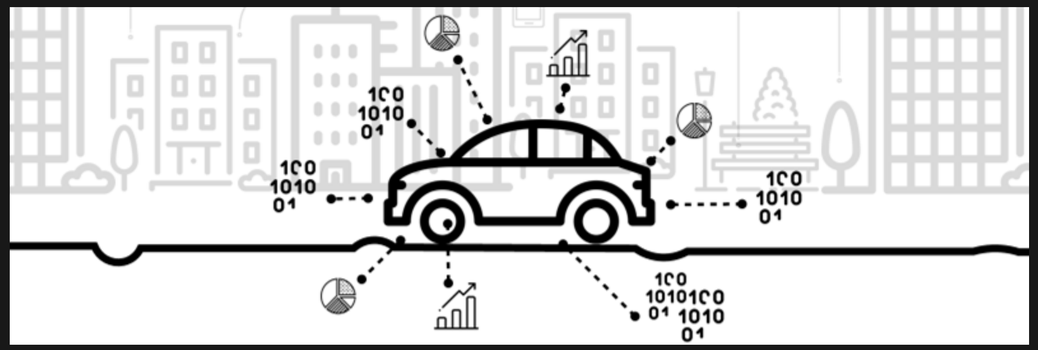
DSS for road manager and PA

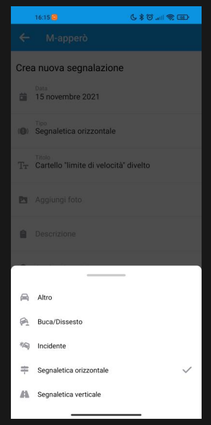
2



Data Ingestion & Orchestration

1





Data Acquiring

Coming from multply device)

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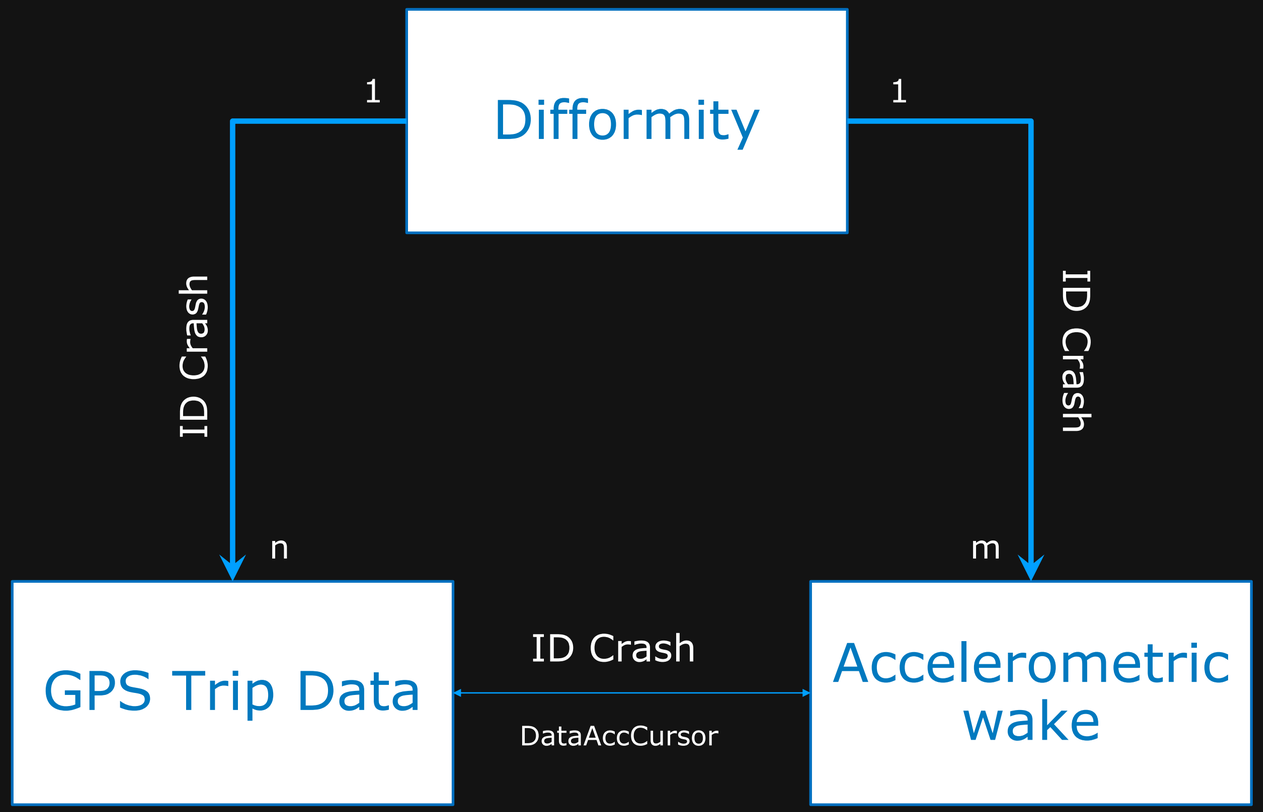
Data Schema



GPS Data Acquiring process

Black boxes send data on UMTS network in real time.

Data are acquired, stored and orchestrated on cloud platform. All the history is collected, clustered and elaborated on environment contest.

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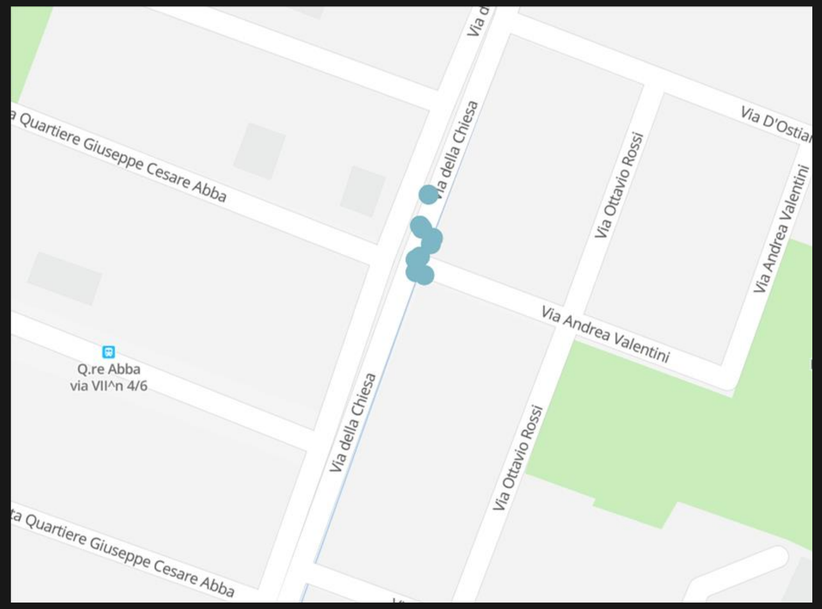
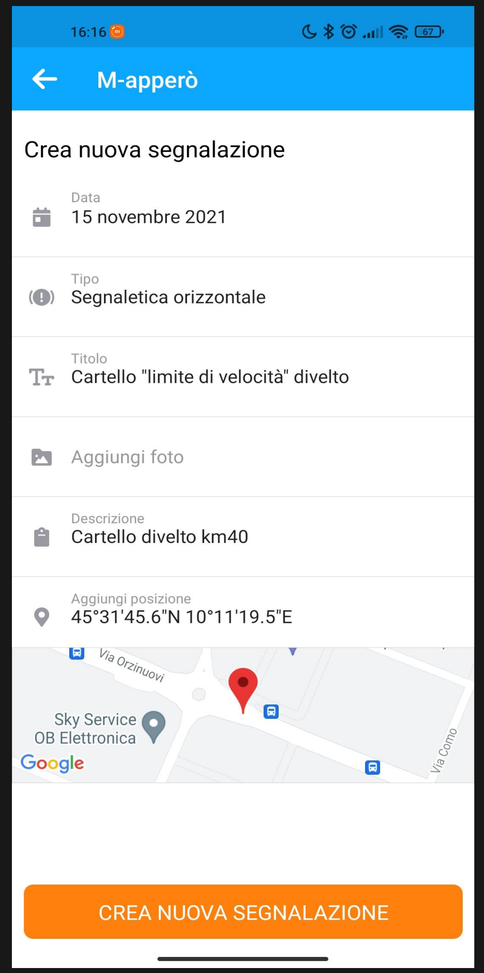
Support system





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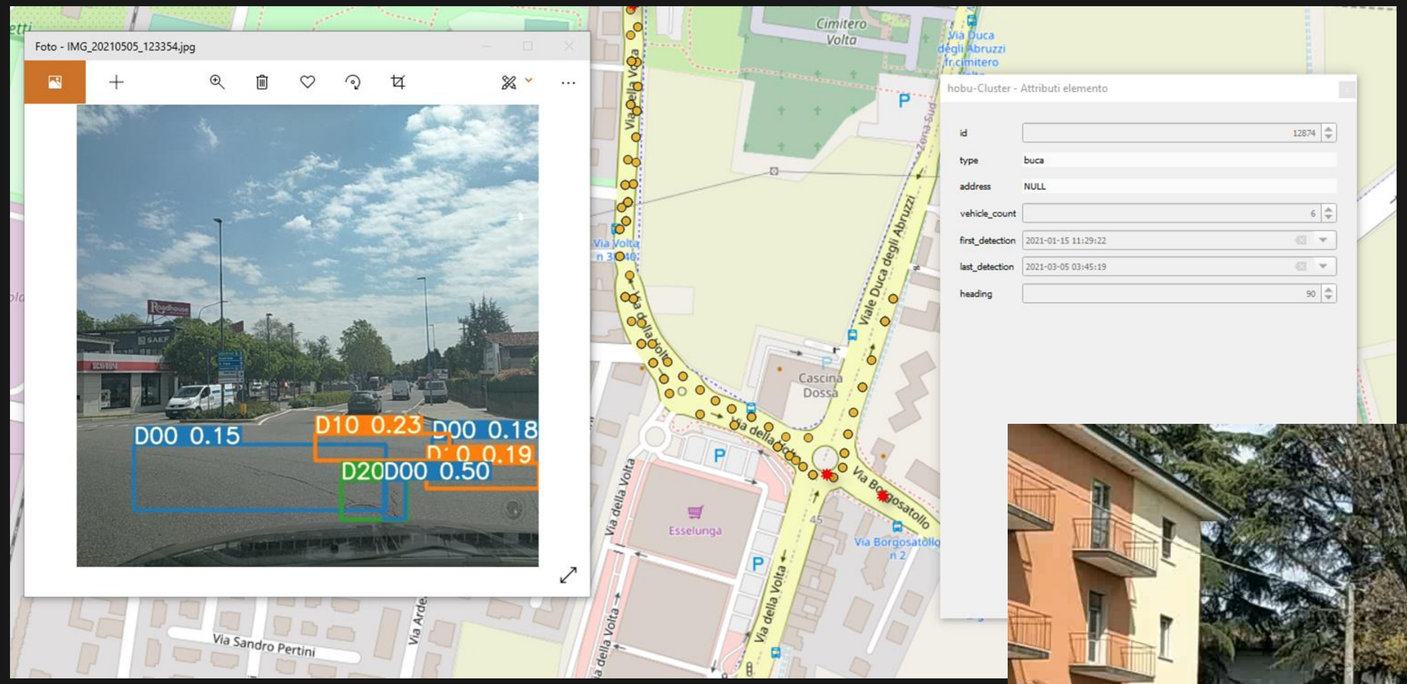

MULTIPLE PROVIDERS

IMAGE ANALYSIS
(BUSINESS INTELLIGENCE)

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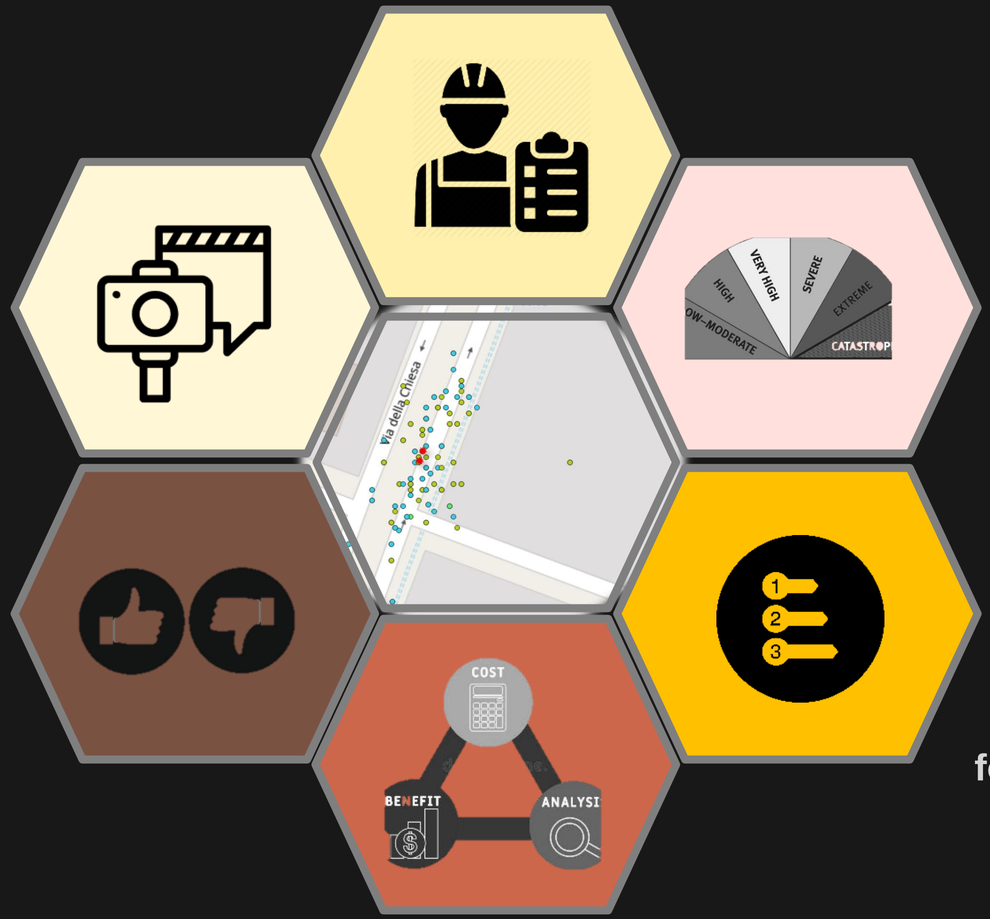
Focused inspections

Photos/videos analysis

Analysis of damage



Index of quality for maintenance

Priorities for maintenance

Cost analysis (LCC included)

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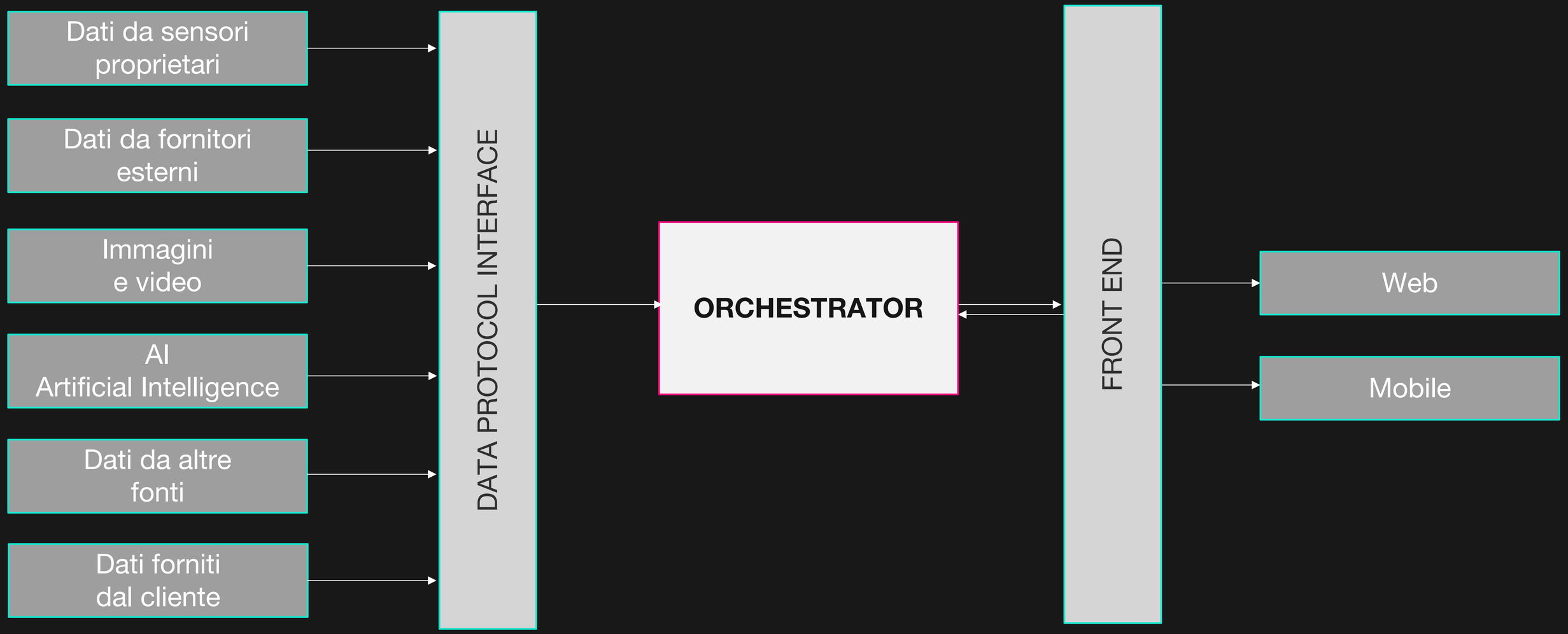

ALGORITHMS:

- Clusterization in API Route Analysis
- Classification in Business Intelligence

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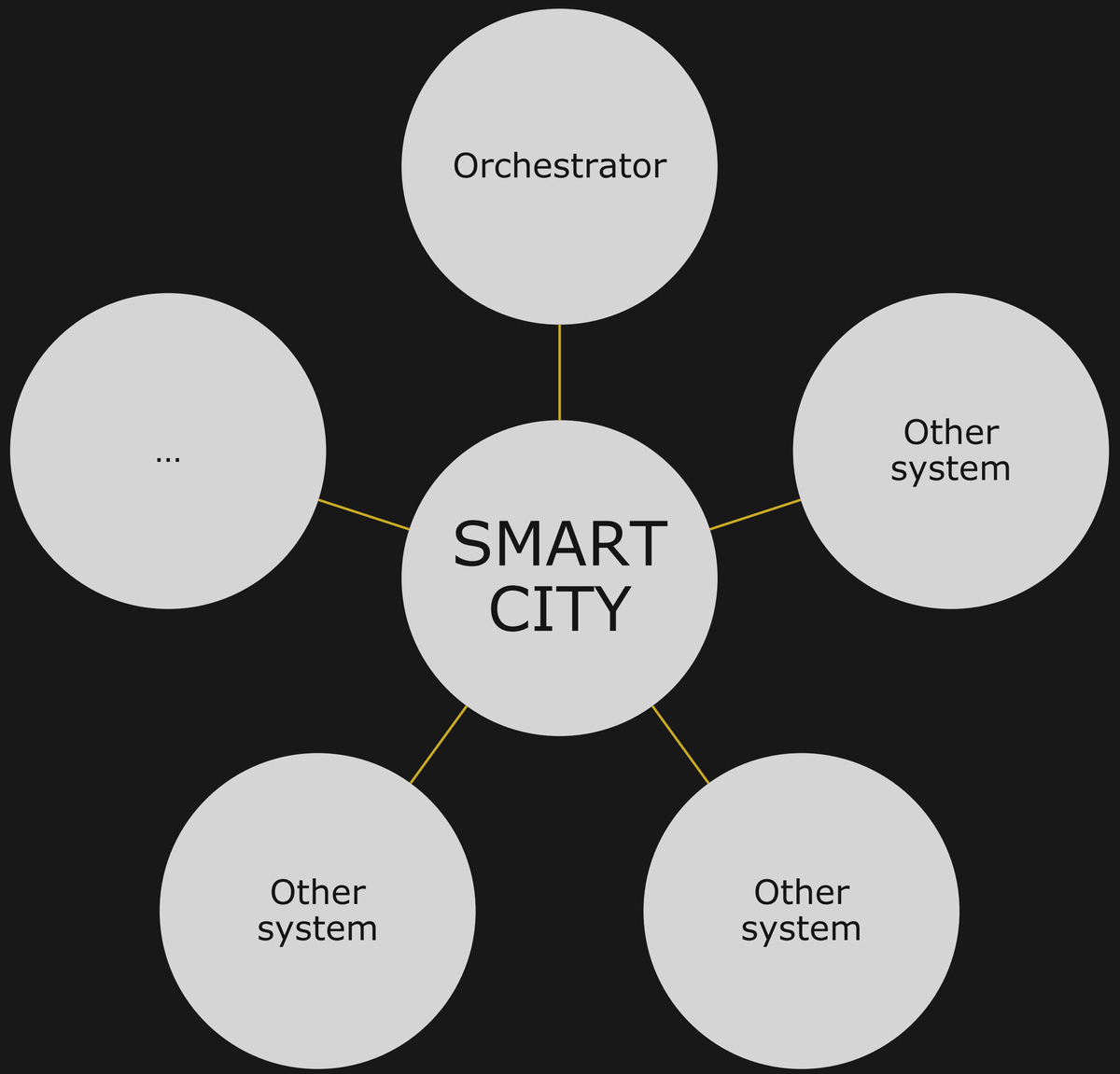

Orchestrator as an open system

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