SATURN
SATellite applications for URbaN mobility

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2014, and still many “basic” transportation challenges...
But today, we have a lot of data!

- Copernicus data (raw satellite imagery + added-value products from the Core services)
- Thousands of in situ data (e.g. sensors or measurements)
- Public data e.g. CUB datasets an more generally INSPIRE sources
- Other data from the “open world” (Bordeaux OPEN data...)
- Interfaces with the demonstrators will rely on standards (OGC/INSPIRE)

Maybe too much?
SATURN Ambition:

- Building one geo-information platform, providing eased access to geo-information data
- Developing 4 technical demonstrators
- Testing it on real-environment
IGIK + Heller Consult: Road safety and maintenance

Earth Observation data

Traffic and road data ingested from multiple sources

In situ data
IGIK + Heller Consult: Road safety and maintenance

2D presentation of Aquaplaning risk factor

Calculated with usage of meteorological data like:
- Rainfall
- Temperature
- Sun exposure
Fly’n’Sense: Monitoring transport infrastructures & doubt removal

FnS-X4 : VTOL Versatile Mutirotor

ITS CHARACTERISTICS

=> Operation short range
  range 2km
=> Hovering
  Multirotor with stabilized flight
  fixed point flying
  Mission in harsh environment
  Urban operation (Scenario S3)

THE APPLICATIONS

=> Security
  Missions day/night, Fires
=> Industry
  Inspection of infrastructure
=> Environment
  Agriculture, Pollution of
  cities ...

MTOW: 2Kg
Diameter: 80 cm
Payload: EO/IR (300gr)
Endurance: => 20 min
Electric Engine
ULEIC:
HGV Vehicles routing

Satellite and GNSS data

Data process

ROUTE

- Parking facilities
- Appropriate routes for HGVs
- Weight, Height and Width
- Safety margins
- Near fuel stations

- Estimated Time of Arrival
- Distance to destination
- Real-time Weather
- Real-time traffic information
CEREMA: Using earth observation for better urban policy decisions
Experimentation by October 2015.

Meet them at ITS WC 2015 in Bordeaux!
Merci !