

FIWARE  
**Global  
Summit**

# Smart Data Models

AgriGateways: vertical domain applications based on FIWARE  
15-8-2022

ATOS

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# Slide 1: Presentation of the use case

## Green mobility data models and services for smart ecosystems

### Scope

- Mobility and pollution are challenges for most of cities
- Mix of data sources are relevant to address the topic
- Dealing with heterogeneity and scalability are crucial in this context

### Goal

- Definition and development of harmonized data models for green mobility
- Development of digital services for calculation and forecasting of noise, air quality and traffic related data
- Architecture of federated context data to tackle high demand scenarios in mobility

### Tech

- Smart Data Models, OSLO vocabulary
- Context Broker federation, NGSI-LD, NGSI-LDES
- AI models for analysis and prediction



# Slide 2: Main outcomes

## Green mobility data models and services for smart ecosystems

### 2. Main outcomes / results

- Reference architecture for mobility scenarios
- 3 extended Smart Data Models
- 9 new Smart Data Models submitted
- Some OSLO vocabularies and app profiles contextualized for mobility
- 8 mobility services for noise, air quality and traffic calculation and forecasting
- A new building block (potentially for FIWARE Catalogue) for solving federated queries across multiple Context Brokers
- Whitepaper with lessons learnt about the deployment of these models and services in the 3 pilots (Nice, Flanders, Murcia)

ALL RESULTS AVAILABLE AT [green-mov.eu](http://green-mov.eu)

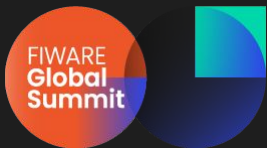


# Slide 3: Data Standardization and Smart Data models

## Green mobility data models and services for smart ecosystems

- **Adopted data models**
  - AirQualityMonitoring
  - GTFSSStopTime
  - WeatherObserved
  - WeatherForecast
- **Extended data models**
  - AirQualityObserved
  - NoiseLevelObserved
  - TrafficFlowObserved
- **New data models**
  - TrafficEnvironmentImpact
  - TrafficEnvironmentImpactForecast
  - NoisePollution
  - NoisePollutionForecast
  - BicycleParkingStation
  - BicycleParkingStationForecast
  - ResourceReport
  - ResourceReportForecast
  - AirQualityForecast





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**Thanks!**

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