AQSENS: 
AN INTEROPERABLE PLATFORM INTEGRATING CITIZEN SCIENCE AND AUTHORITATIVE AIR QUALITY DATA

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OVERVIEW

• European project conducted by the Joint Research Centre (JRC) of the European Commission
• Supporting the development of AQ Sensor Networks in Europe
• Integrating smart sensors and modelling for air quality monitoring in cities
• Complement authoritative sensor networks with affordable sensing devices (AQSens boxes)
**Tasks**

- The project covers a broader context:
  - Compare the capability and performance of lower-cost sensor systems to measure air pollution with conventional monitoring and modelling
  - Develop a traceable calibration technique for lower-cost sensor systems
  - Elaborate on a potential way to integrate lower-cost sensor systems in existing monitoring networks and modelling systems
  - Develop a platform for integration and visualization of data from sensors
  - Establish guidance on the use of lower-cost sensor systems and their interrelationship with already existing conventional monitoring and modelling systems

- AQSens Data Platform is one element of the project to support the exchange of air quality data

- Deployment of 85 sensor boxes in three cities: Antwerp (Belgium), Oslo (Norway), Zagreb (Croatia)
**AQSENS DATA PLATFORM**

- Integrate different data sources
  - Raw data of AQSENS sensor boxes
  - Reference data from authoritative measurement networks
- Perform validation of incoming data (based on R)
- Enable interoperable access to the collected data via INSPIRE compliant interfaces
  - OGC Sensor Observation Service
  - OGC SensorThings API
- Provide means for visually exploring the collected data (Web viewer)
- All components will be available as open source software
SYSTEM ARCHITECTURE
VISUALIZATION
THANK YOU FOR YOUR ATTENTION!

Questions?

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