



CELTIC-NEXT Proposers Day

23rd of February 2021, Online via WebEx



Advanced Sensing for Urban Automation Business Impact



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Project Info & Consortium



Start Date: January 2015

End Date: December 2017

Budget (total): 5302 K€

Effort: 58.8 PY

Netcad, Turkey

Beia Consult International, Romania

Geodata Ziviltechnikergesellschaft mbH, Austria

Montanuniversitat Leoben, Austria

Katholieke Universiteit Leuven, Belgium

Televic Healthcare NV, Belgium

Innovati Networks S.L., Spain

Karel Elektronik San. ve Tic. A.S., Turkey

<http://asua.netcad.com>

<https://www.youtube.com/watch?v=Txcun0iHv-A>



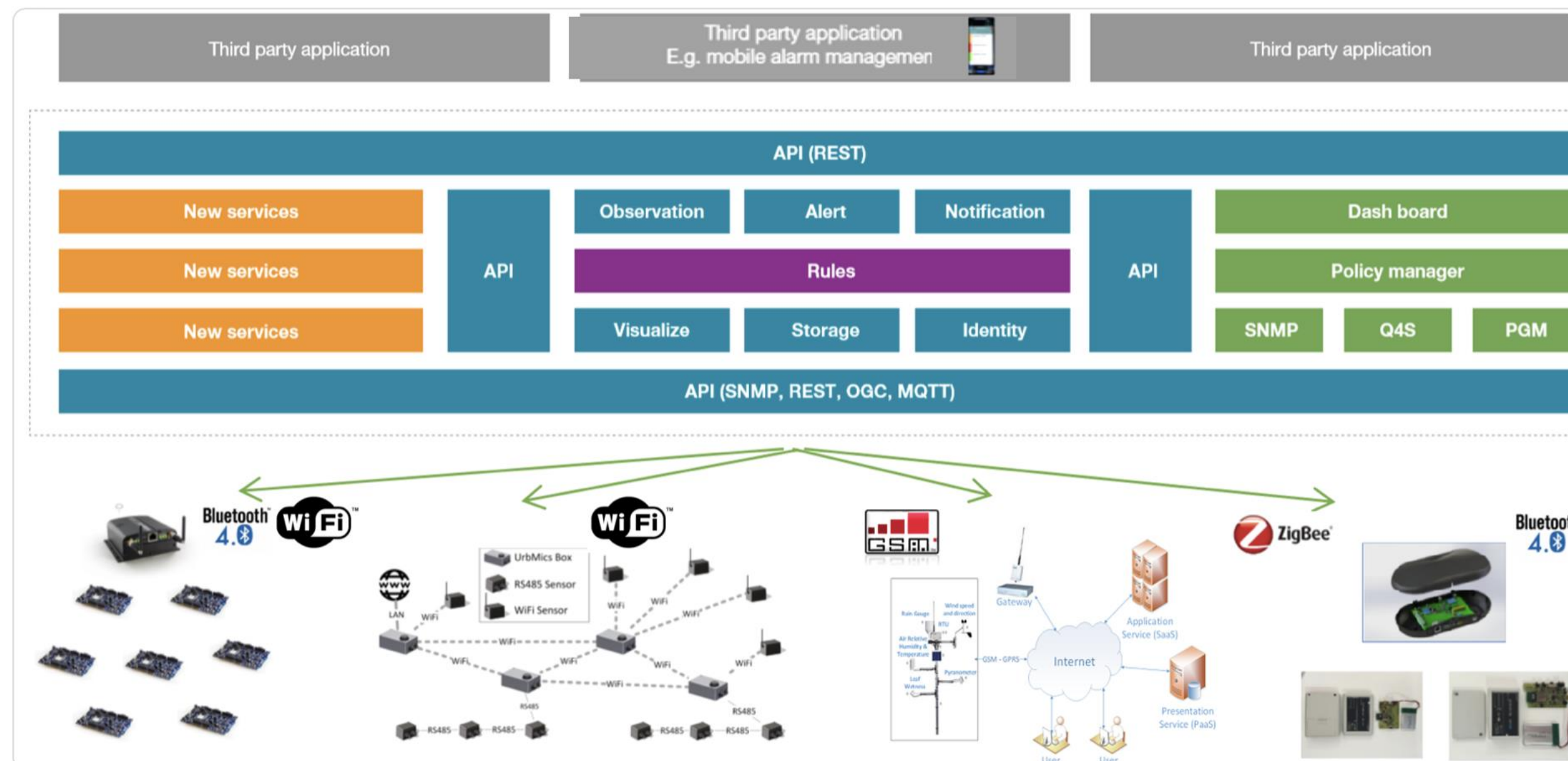
Scope

Problem Definition

- Network infrastructure complexity
- Interoperability
- Resource and energy constraints

Results

- Urban Automation Reference Platform
- Abstraction of sensor, network and server layers
- Standards based communication between layers
- Deep sleep/auto wake up functionality on gateways and sensors.
- BLE mesh network is developed.
- LoRa supported gateways
- Rule based SNMP protocol to reduce data transmission load



Business Impact - Cumulative

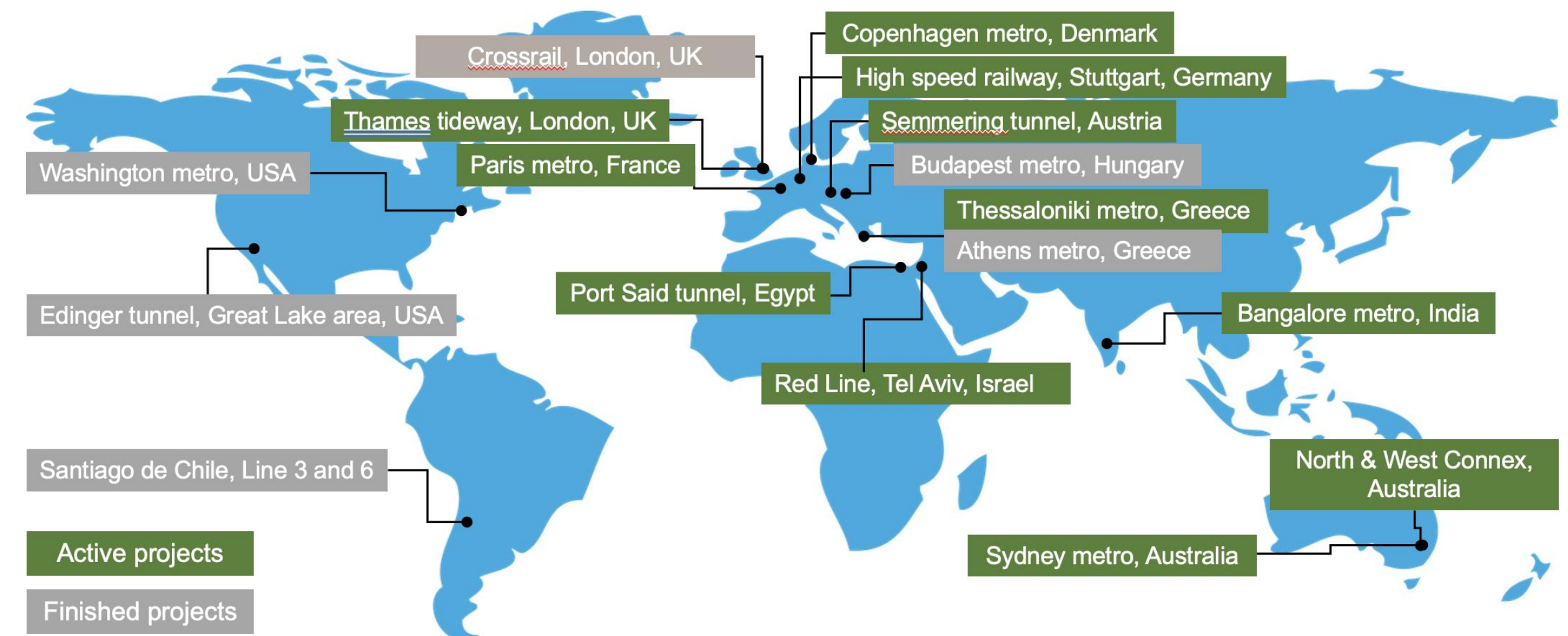


| | |
|-------------------------|-------------------|
| New Products / Services | 11 |
| Sales | 25 |
| Euros | 1.1M + Undeclared |
| Jobs | 31 |



Business Impact - GEODATA

- # of products created by ASUA
 - 1 smart gateway (UrbMics box)
 - 1 WSN mesh network (UrbMics WSN)
 - 1 Information and control center (UrbMics center)
 - 4 for related services (installation, training, maintenance and support)
- # of sales so far
 - 17 major tunnel projects
 - Sensors, gateways, SW licenses + related services
- # of jobs created by ASUA
 - 5 jobs at Geodata head office (1 product owner, 1 automation engineer, 1 sw developer, 1 data scientist, 1 member of support team)
 - 11 jobs at tunnel projects (onsite IT experts)

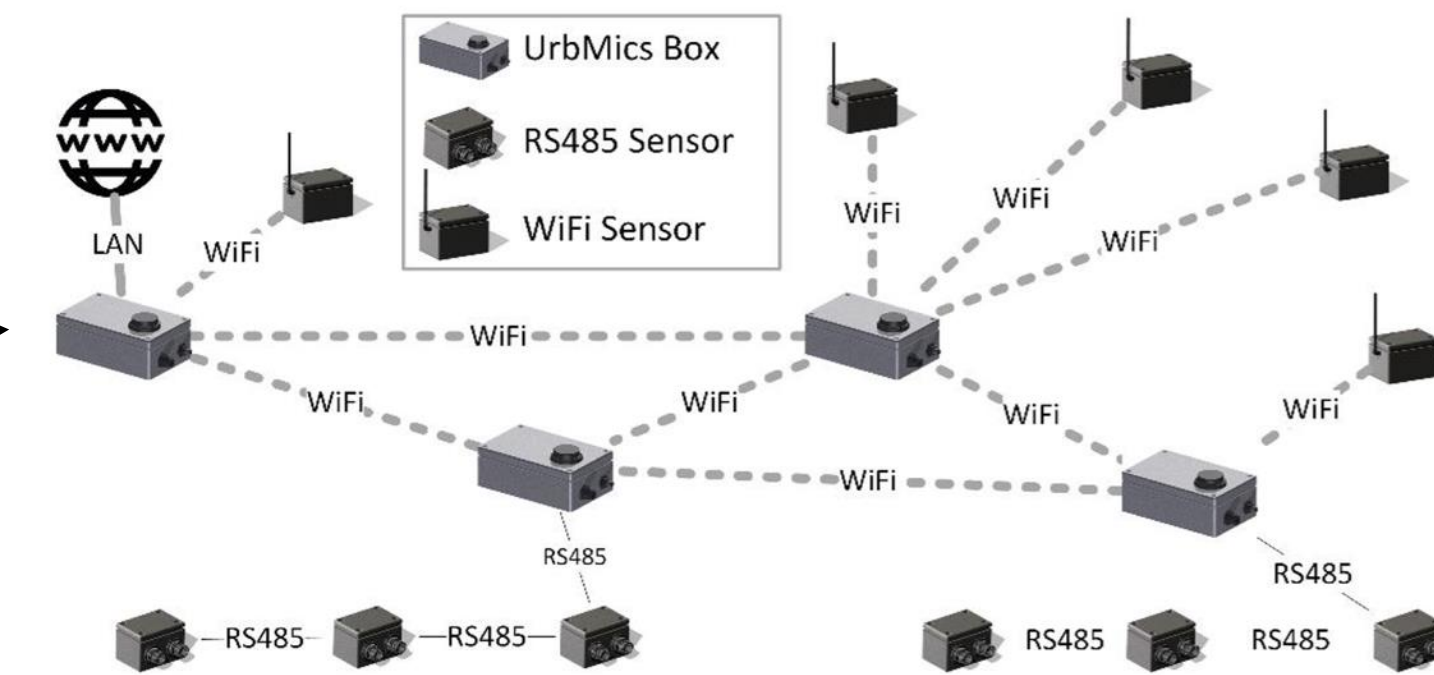


Business Impact - GEODATA



UrbMICS - Urban Monitoring Information & Control System

3 ASUA products were developed + related services



1. UrbMICS box
Smart gateway for tunnel monitoring

2. UrbMICS WSN
Mesh WSN for tunnel monitoring data transfer

3. UrbMICS center (KRONOS)
IoT platform for tunnel data m & system control



Business Impact - KAREL



- **Products created based on ASUA experience and assets**
 - **1 service for smart city telemetry**
- **# of sales**
 - **1 Customers (~120K Euro)**
- **# of jobs created by ASUA**
 - **2 (1 senior)**
- **More info**
 - <https://www.karel.com.tr/blog/nesnelerin-interneti-iot-ve-sensor-uygulamalari>



Business Impact - BEIA



- **Products created based on ASUA experience and assets**
 - **1 service for smart city telemetry**
- **# of sales**
 - **2 Customers (~100K Euro each)**
- **# of jobs created by ASUA**
 - **2 (1 junior and 1 senior)**
- **More info**
 - **www.beiario.eu/asua**



Business Impact - EXPERIS



- **Number of products created by ASUA:**
 - **Rules Engine for Network Elements Monitoring, integrated in our Network Monitoring Solutions**
- **# of sales so far**
 - **2 clients, 300k each**
- **# of jobs created by ASUA:**
 - **3 (2 juniors and 1 senior)**



Business Impact - NETCAD



- **Products created based on ASUA experience and assets**
 - **1 solution family**
- **# of sales**
 - **3 customers (~200K Euro)**
- **# of jobs created by ASUA**
 - **8 (a new smart city solutions department)**
- **3 patents claimed**
- **1 new smart city project**
 - **Submitted and labelled (CelticNext)**

