

# International Brokerage Event Brussels, 26-27/10/2017

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# Description of the Organization: IoT solutions provider



SenseOne is an experienced innovator in IoT-based business automation. Our company designs and implements Internet of Things solutions of varying sophistication levels: from smart metering (electricity, gas, water) to remote management of heating/cooling, lighting, BMS systems, building-integrated renewables, IT/non-IT equipment and assets inside buildings, water and wastewater infrastructure management to complex Smart Cities and Industrial IoT solutions.

The customer base of SenseOne includes commercial banks, big retailers (food and non-food), real estate owners and developers, facility management companies, hospitals, private schools, operators of industrial parks, utilities and municipalities. SenseOne is actively involved in international R&D initiatives related to Smart Cities and Smart Buildings like the “Optimus Smart City”.

Our primary offering is SenseOne IoT Platform that is intended to support the rigorous demands of IoT-based interoperability and protocol convergence between more than 70 industry-standard protocols across five key domains: automatic meter reading, power system automation, building automation, process automation and industrial control systems.



# Description of your research interest

## IoT for Smart Cities



- Research Interests:
  - IoT technologies, Smart energy/water/waste management
- Exploitation goals:
  - Enhancement of IoT solution with **innovative tools**, e.g., advanced data analytics, robust communication frameworks (LPWAN), sophisticated automation control
  - Enhancement of IoT solution on **vertical markets**: energy efficiency buildings, waste and water management
- Previous Experience:
  - Partner in FP7-ICT **OPTIMUS** (“OPTIMising the energy USE in cities with smart decision support system”)
  - Synergy with SingularLogic (mother company) on active H2020 project relevant to water management (H2020-MSCA-RISE **Water4Cities**)
- SenseOne is member company of **SingularLogic** Group
  - Dedicated team with extensive experience in EU R&D projects
  - Indicative projects: IoT (VITAL, DIGICOR), Big data (CLOUDBAPPLIANCE, CrowdHealth), Smart cities (MOBIS, GEYSER), Water management (Water4Cities)

# PROBUILD-Proactive behaviour of buildings utilizing big data and engaging users in residential environments



- Develop an overall framework for building proactive behaviour consisting of:
  - Big data analytics and knowledge generation through heterogeneous information sources (consumption, weather, ...)
  - Define consumption behavioural patterns at different scales (apartment, neighbourhood, city)
  - Energy demand forecasting considering behavioural models and related data sources
  - Digital representation of building, encapsulating “proactiveness” at the design and construction phase
- Utilizing
  - NRG4Cast FP7 project results (forecasting capabilities)
  - SenseOne IoT platform
  - DIGICOR secure and private collaboration space (secure and private market/collaboration spaces)
  - Energy billing solution provided by SingularLogic
- Develop the necessary ICT solution and tools:
  - Forecasting services
  - Awareness creation and user engagement services
  - Predictive analytics for anomaly detection and predictive maintenance of cost equipment/infrastructure (e.g. HVAC).
  - Security and privacy services ensuring anonymization in data collection and processing
  - Integration toolkit - “plug n’ play” capabilities for controlling and other related services
  - Integration with BIM systems - “Proactive by design”
- Benefits
  - Improved reaction to potential anomalies (due to high energy demand, malfunctions of HVAC, etc.)
  - Improved demand response at apartment, building and more enlarge scale
  - New business models for energy providers (pricing models)
  - ESCOs/Cities and other external stakeholders to improve energy footprint

# Consortium - profile of known partners *(if any)*



No	Partner Name	Type	Country	Role in the Project
01	SenseOne	IND	Greece	IoT - BIM solution provider
02	Existing SensOne installation (partner)	IND	Greece	Greek pilot
03	SingularLogic SA	IND	Cyprus	ICT provider/middleware/IOT
04				
05				
06				
07				

# Consortium - required partners



No	Expertise	Type	Country	Role in the project
01	Social science	RTD	EU	Social aspects/user engagement
02	Pilots	SME	EU	Blocks of residential buildings
03	Energy experts	RTD	EU	Energy consulting
04	ESCO	IND	EU	New Energy business models
05	Big data/analytics	RTD	EU	Analytics services/forecasting
06	Building Automation	IND	EU	Building automation systems provider
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