

EDITORIAL

BESOS is an EU Research and Development project funded by the EC in the context of the 7th Framework Program that proposes **the development of an advanced, integrated, management system which enables energy efficiency in smart cities from a holistic perspective.**

PROJECT RESULTS

Reference architecture and energy services

The first version of BESOS architecture and associated Common Information Model (CIM) have been designed during this period, taking into account requirements previously collected and other relevant architectures and data models coming from other projects or from standardization bodies.

The BESOS architecture is agnostic of EMS devices by supporting standard and extensible interfaces enabling its use in any city in the world independently of its size or location. The architecture main functionalities are comprised by EMS functions, encapsulating the real physical devices of Smart City Public Infrastructures, integrated by gateway functions that adapt EMS interfaces and data towards the BESOS service platform, OTESP.

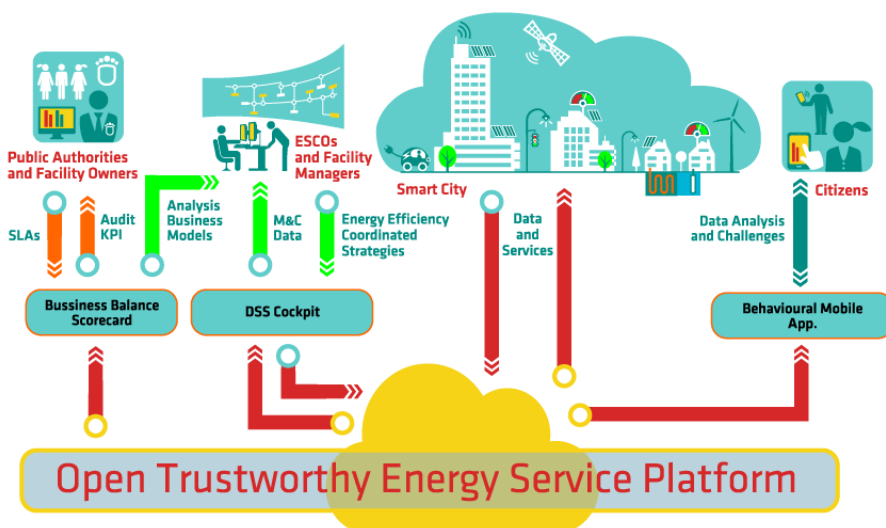
CONTENTS

- Editorial
- Project results
- SmartKye Workshops@EUSEW 2014
- Recent events and Publications
- Partners profile
- BESOS at a glance

BESOS workshops @ EUSEW 2014

BESOS Project was presented, together with other projects, in the context of the EUSEW 2014 in two different events:

- **Final event of BEAMS project.** The objective of the workshop, organized by ETRA, was to present the latest tools for the improvement of energy efficiency in the cities of the future. Three more projects were presented in the workshop, apart from BEAMS and BESOS. The event took place in Barcelona and more than 40 experts attended this workshop.
- **Practical cases of the Energy efficiency in Lisbon.** Lisboa E-Nova hosted a presentation of case studies of energy efficiency in Lisbon related to different areas.



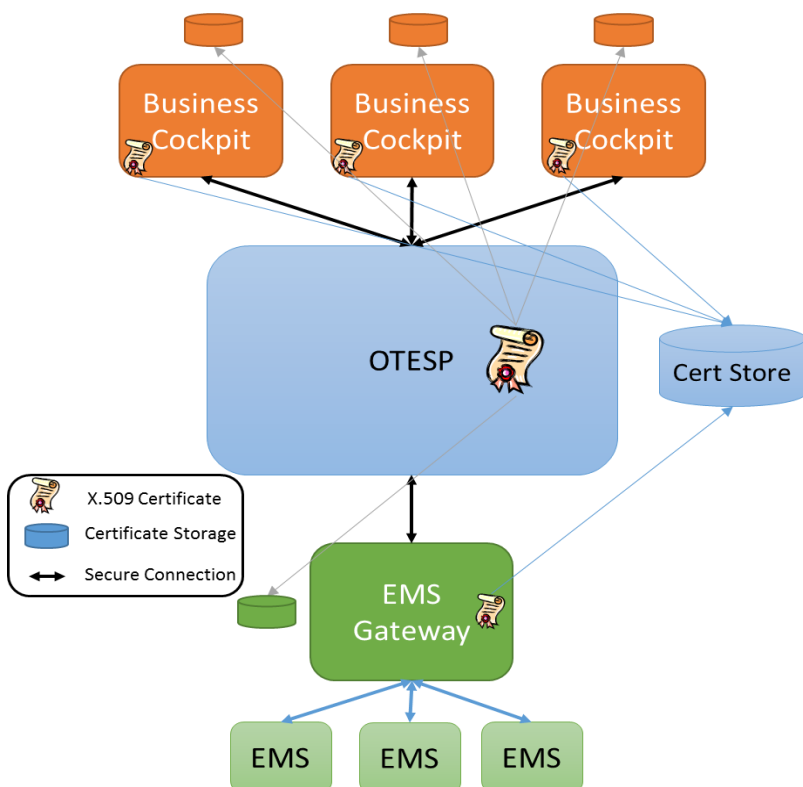


Design and Specification of the OTESP

The OTESP of the BESOS Project is a communication platform designed to coordinate the interaction between all involved components for energy management in a smart city, such as EMS gateways which are directly connected to the energy producer or consumer. Additionally, business cockpits will be connected to the OTESP, designed to track the status and manages EMSs as well as monitoring energy production and consumption.

This platform follows the architectural requirements defined in the previous stage of the project, in order to fulfil all specifications of the BESOS project. Some of the most important requirements are:

- Modular structure to allow adaptation and extension of the OTESP platform.
- Development of data filtering and aggregation of information (energy metrics etc.)
- Introduce secure communication between services using cryptography .



Relevant events and publications – Meet BESOS!

The BESOS project’s objectives have been already present in some European media:

- "Workshop of Update of knowledge on the energy certification of buildings system". 2nd March 2014
- Brussels EeB Impact workshop Smart cities. April 2014
- Workshop EUSEW 2014, June 2014, Barcelona. Synergies with BEAMS and SmartKYE.
- Workshop in the Sustainable places 2014, October 2014, Nice, France





PARTNERS PROFILES

ETRA I+D is the hi-tech unit within ETRA Group, one of the leading industrial groups in Spain. Its mission is putting in the market the most advanced solutions either directly or through the 10 companies of the Group.

Universität Duisburg-Essen covers the spectrum of Cooperating Objects and is coordinating several projects.

Sodexo España is a division of Sodexo Spain, a subsidiary of the French multinational Sodexo Alliance

Enercast GmbH is an international specialist in the field of renewable energies forecasts, based in Kassel, Germany.

Portugal Telecom Inovação, SA develops innovative and competitive services and solutions for the ICT market.

LISBOA E-NOVA seeks to contribute to the sustainable development of the city of Lisbon through good practices.

HYPERTECH provides flexible solutions for electricity consumers, electric utilities and DSM service providers.

Barcelona Municipality is the local authority responsible for services for the city of Barcelona.

Cobra Group possesses extensive experience in the development, construction, operation and maintenance of industrial facilities and power plants.

Ficosa engaged in the research, development, production and commercialization of systems and components for automobiles, commercial and industrial vehicles.

BESOS at a glance

Building Energy decision Support systems fOr Smart cities

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Partners: ETRA I+D, Universität Duisburg-Essen, Sodexo, Enercast, Portugal Telecom, LISBOA E-NOVA, HYPERTECH, Barcelona Municipality, Cobra Group and Technoflex.

Duration: 36 months

Start: 01.10.2013

Total Cost: 4,610,538 €

EC Contribution: 2,925,813 €

Contract Number 608723 - ICT

Strategic Goal: BESOS strategic goal is to develop an advanced, integrated, management system which enables energy efficiency in smart cities from a holistic perspective.

Project website:

<http://besos-project.eu>