eDIANA
Embedded Systems for Energy Efficient Buildings

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# eDIANA - First Year

**eDIANA project is finally reaching its first year of progress. After having developed the technological and market baseline in the first six month period the project is now going through the analysis of different stakeholders' requirements, scenarios modelling and defining architecture design methodologies to the specification of the eDIANA reference architecture and middleware. The base has been set and now the project will face the First Year Review that will take place in Brussels.**

**As previously mentioned, this period has been deeply influenced by the attempts to come up with the eDIANA reference architecture. Accordingly, next period will confirm the results obtained so far when defining platform's components that will have to seamlessly work together within the system, a challenge that will mean the success of this project.**

**Complementary activities regarding market and competitiveness have been carried out during this period. A report on market analysis and competitive assessment has been developed supported by a first year exploitation plan for the consortium to analyse the commercial potential of the project.**

ARTEMIS AUTUMN EVENT/ CO-SUMMIT - MADRID

**Finally, in order to increase project's propaganda as a topic in research activity the consortium attended some of the most important ICT events in Europe including the ARTEMIS Autumn Event & Co-Summit 2009 that took place in Madrid (29th – 30th October) and the Networked Monitoring and Control and the PPPs Info day held in Brussels (7th October). And wrapping up, the consortium has been invited to join the ICT4EE event, a major European event promoting energy efficiency that will be held in Brussels on the 23rd and 24th of February.**

# Period aftermath

**This phase of the project was mainly focused on modelling platform's concepts in order to specify the platform's architecture. Project partners took over this task by getting together all information generated in the previous period. Gathered requirements, modelled concepts and carefully specified technologies that ought to be part of the reference architecture.**

**An intense job by partners was performed by collecting all requirements generated and stored in data base that will serve the whole project for any requirement needed at any level. This powerful tool provided by the consortium for the project allows tracking requirements according previously set criteria developed within methodologies activities.**

**In order to support the job done with requirements partners spent efforts on developing models for platform's architecture features to match them with requirements stored in the data base. This way every feature can be linked to requirements and provide a more clear view of the platform's scope.**

**All the tasks performed by partners were aimed to come up with the benchmark for this whole project: the eDIANA Reference Architecture. This document, which is available in the project's web site, defines each platform's component and their technical features.**


eDIANA scenario - Office Building

## eDIANA relevant dates

### Upcoming Events

- 23 and 24 February 2010 – Brussels. The second edition of the High Level event on ICT for Energy Efficiency
- 2 March 2010 - Smart Metering 2010. Delivering a Smart UK - 76 Portland Place, London, UK
- 10-11 March 2010 - Copenhagen, Denmark - The 3rd edition of Smart Metering Scandinavia
- 14 – 16 April, 2010 - Inter Expo Centre, Sofia, Bulgary - International Congress on Energy Efficiency & Renewable Energy Sources for SE Europe
- 11 to 16 April 2010 - Light+Building – Frankfurt
- 19-20 May 2010 - All-Energy - Aberdeen Exhibition & Conference Centre – Aberdeen, UK

**More Info at http://www.artemis-ediana.eu/ediana_events_press.php**

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## Executive summary

### Main Objectives

**eDIANA´s main goal is improve energy efficiency in residential and non-residential buildings through the use of embedded devices.**
**This project is a strongly application-oriented initiative which is focused on the conceptualization, design, development, demonstration and validation of new devices operating in a uniform platform called eDIANA.**

### Technical Approach

**The eDIANA platform is a model-based architecture, implemented through an open middleware including specifications, design methods, tools, standards and procedures for platform validation and verification.**
**eDIANA Platform will enable the interoperability of heterogeneous devices at the Cell (living/working units) and MacroCell (building) level, and it will provide the hook to connect the building as a node in the producer/consumer electrical grid.**

### Expected Impacts

**The technology to be developed in eDIANA will improve energy efficiency and optimize building energy consumption by 25%, providing real-time measurement, integration and control. Moreover, comfort will improve making the user aware and enabling user-controlled policies for household devices.**
**Such progress in the state of the art will enable the building to become an "active MacroCell" in the energy network, connected to similar MacroCells in the district or urban area.**

# Project Partners