eeEmbedded

Newsletter Nr. 2
April-September 2014

WELCOME

Welcome to the second newsletter of our project: *"Collaborative Holistic Design Laboratory and Methodology for Energy-Efficient Embedded Buildings" (eeEmbedded),* funded by the 7th Framework Programme (FP7). Its duration is 4 years. It started on the 1st of October 2013 and has a budget of nearly 11 M€.

This newsletter is intended to keep you up to date with project developments, news and upcoming events. In this issue, you will find a summary of first deliverables already submitted.

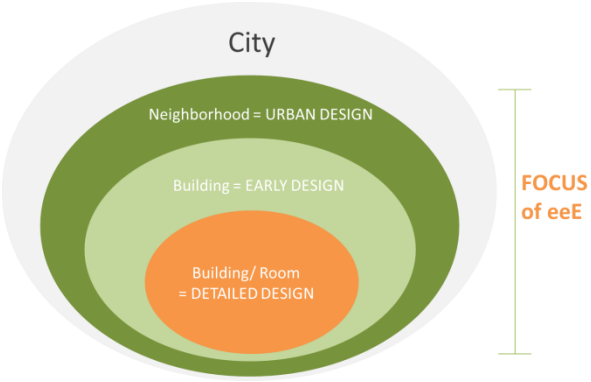
We hope you will enjoy the newsletter.

IN THIS ISSUE

D1.1 Vision and requirements	Page 1
D1.2 Use case scenarios	Page 2
Meetings in the current period	Page 2
Events	Page 3

eeEmbedded D1.1 VISIONS AND REQUIREMENTS TO A KPI-BASED HOLISTIC MULTI-DISCIPLINARY DESIGN

The objective of Deliverable D1.1 (which is a public document which can be found at www.eeEmbedded.eu) was to go deep in our vision of a holistic multi-disciplinary design of buildings and energy systems embedded in their neighbourhood and identify all relevant requirements for the *eeEmbedded* design framework which is structured in three levels: neighbourhood, building and room.



Focus of the eeE design system

D1.1 introduces the *eeE* design process. It covers the design phases, the stakeholders involved in the collaborative process and the tasks to be performed documented by means of use cases at urban, early and detailed design. The *eeE* design method is based on the definition of key points (Key Design Parameters, Key Performance Indicators and Decision Values), which guide the design process, and design patterns. This new method means an evolution from the nowadays design method based on AS-IS KPIs to a more ambitious TO-BE KPIs. Besides, D1.1 identifies the requirements related to:

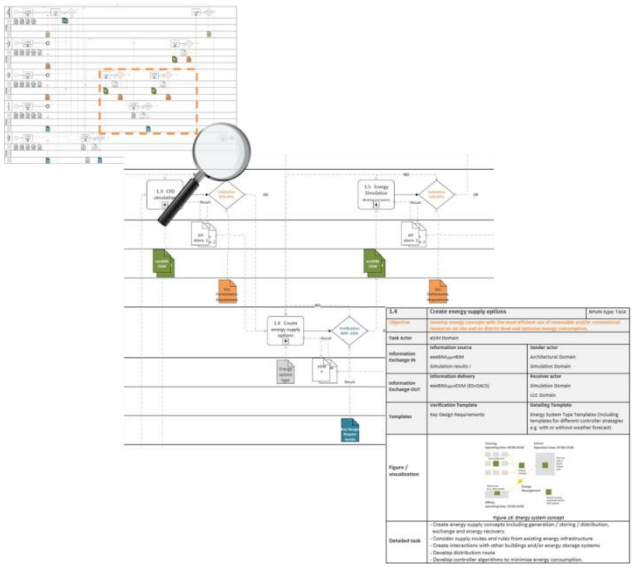
(1) Information exchange and quality in terms of tools/services interoperability and team collaboration

(2) Knowledge based design support in terms of templates to perform simulations, Life Cycle Costing and Life Cycle Assessment as well as stochastic scenarios to predict the life cycle dimension.

(3) Open virtual holistic design laboratory.

eeEmbedded D1.2 USE CASE SCENARIOS AND REQUIREMENTS SPECIFICATION

Deliverable D1.2 focused and documented in detail **the process map of use case scenarios** which is based in the Information Delivery Manual (IDM) methodology. The process map includes the location and definition of the key points which are the core of *eeEmbedded* vision for a more holistic verification, validation and decision-making. Below, a zoom of the Urban Design process map is shown.



IDM Process Map Urban Design

Furthermore, Deliverable D1.2 sets expectation, especially in terms of the **functional requirements** envisioned by the end-users which will be used as basis for the coming development works on interoperability, knowledge based design support and the system architecture of the Virtual Design Laboratory.

The business models of *eeEmbedded* partners are also presented in Deliverable D1.2 highlighting the added value of adopting a holistic design methodology and to develop a Virtual Design Laboratory.

MEETINGS IN THE CURRENT PERIOD

2nd WORKING GROUP MEETING (MUNICH)

12-13 May 2014

The second working group meeting took place on the 12th and the 13th of May, 2014 in Munich (Germany). The technical goals of the workshop were:

- Agreement on the content of D1.1.
- Discussion on the process maps of *eeB* method, the exchange requirements, the Levels of Information and the templates. All of them are deliverables of WP1.

3rd WORKING GROUP MEETING (VIENNA)

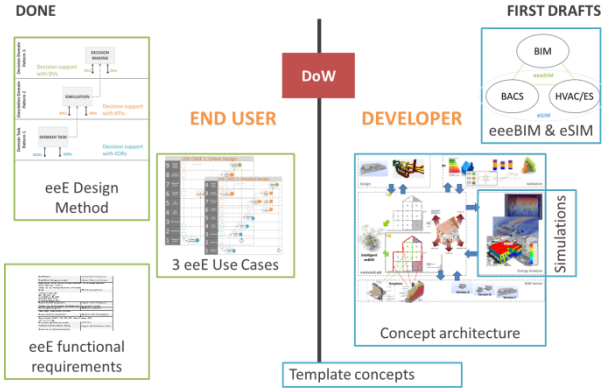
15-16 September 2014

The third coordination workshop took place at the premises of STRABAG AG in Vienna (Austria).

The main goal of the meeting was to discuss all functional requirements with regard to the architecture components as well as to take decisions about the *eeE* system architecture and their (new) components.

Moreover, other goal was to take the decision about 2-3 pilot scenarios.

After nearly a year of work, the team has developed and defined the objectives and visions from 2 points of views: end users and developers and will bring it together in the next steps.

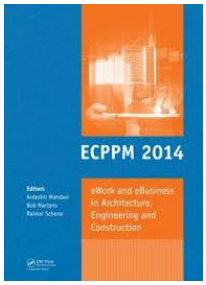


eeE PRESENTED AT…

…5th Workshop on eeBuilding Data Models at ECPPM Conference

Vienna (Austria), 17-19 September 2014

The workshop on *eeBuilding Data models* initiated by the European Commission and organised by the Institut of Construction Informatics of TU Dresden was held as part of the European Conference for Product and Process Modelling (ECPPM) from 17th to 19th September 2014 in Vienna (Austria).



Within this workshop the *eeEmbedded* project was represented by two presentations:

- Prof. Raimar Scherer, Technical University of Dresden: *Towards a KPI-controlled holistic design method for eeBuildings.*
- Marie-Christine Geißler, BAM Deutschland AG: *Processes and Requirements for an eeEmbedded Virtual Design Laboratory.*

The corresponding papers are published in "ECPPM 2014 – eWork and eBusiness in Architecture, Engineering and Construction", ISBN: 978-1-138-02710-7.

UPCOMING EVENTS

2nd International Conference on ICT for Sustainable Places (ICT4SP2014)

Nice (France), 1-3 October 2014

SUSTAINABLE PLACES 2014 October 1-3, 2014 Nice, France

This international conference will focus on energy efficiency at building, neighbourhood, district and city levels. It will cover research and innovation projects and initiatives across the construction value chain. The thematic of the conference is in line with the *eeEmbedded* project, and it is an opportunity to share and exchange experiences.

This conference will host the 2nd eeBuilding Key Performance Indicators Workshop in which *eeEmbedded*'s TUD partner, Ms. Romy Guruz and Prof. Dr-Ing. Raimar J. Scherer, will present the paper: *Building Requirements as Basis for a Key Point controlled Design Method*.

This project has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement n° [609349]

PROJECT COORDINATOR

Prof. Dr. Ing. Raimar J. Scherer
Technische Universität Dresden
Faculty of Civil Engineering
Institute of Construction Informatics

DISSEMINATION MANAGER

Dr. Noemi Jimenez Redondo
R&D Manager
CEMOSA
Benaque, 9. 29004 Malaga (Spain)