Dear Subscriber,

we are proud to present to you the 5th HOLISTEEC project newsletter. It will bring you information about the events, outcomes and planned activities.

With best regards,

Eduard Mrazek
Dissemination Manager

Holistic and Optimized Life-cycle Integrated Support for Energy-Efficient building design and Construction

HOLISTEEC Newsletter #5

BIM-BASED DESIGN: ICT TOOLS FOR BUILDING DESIGN SIMULATION AND ASSESSMENT OF HIGH PERFORMANCE BUILDINGS

SUSTAINABLE PLACES 2016 – UNIVERSITY OF PAU AND BASQUE COUNTRY

JUNE 29TH, 2016

INVITATION TO A WORKSHOP ORGANIZED BY HOLISTEEC PROJECT

HOLISTEEC Consortium is pleased to announce the Joint Workshop “BIM-based design: ICT tools for building design simulation and assessment of high performance buildings” organized with the help of the FP7 projects STREAMER, eeEmbedded and Design4Energy. The workshop will take place within the context of the Sustainable Places 2016 conference in Anglet, France.

HOLISTEEC IN BRIEF

By means of **HOLISTEEC**, all the actors involved in the building value chain including architects, designers, contractors, owners, component suppliers, users and related public authorities will be able to effectively interact in the different design, construction, operation, and maintenance phases of the building, ensuring that the best construction techniques are applied, possible problems and drawbacks early detected and correction strategies promptly applied, contributing to boost high quality new energy efficient buildings design and construction.
The main objective of the project is to **design, develop, and demonstrate a BIM-based, on-the-cloud, collaborative building design software platform**, featuring advanced design support for multi-criteria building optimization, taking into account external neighborhood-level influences.

WORKSHOP OBJECTIVES AND CONTENTS

HOLISTEEC has been influential in the technical successes of previous Sustainable Places international conference editions (2013-2015), with several influential journal papers, presentations, and posters. This year, 2016 marks the ongoing strengthening between the HOLISTEEC project and the Sustainable Places community of 'Building Energy Efficiency' (EeB) leadership by announcing the joint workshop "**Energy-Efficient BIM-based design and construction**". This important networking opportunity will leverage synergies between the European Commission FP7 flagship projects in the EeB domain, namely **HOLISTEEC, STREAMER, eeEmbedded** and **Design4Energy**. Specifically, the following topics will be addressed:

- *Collaborative and integrated approach* in order to involve in the decision-making process all the strategic stakeholders, increasing the harmonization among the design of the different building design components
- *BIM (Building Information Model) use since the early design stages* as a common basis on which rely on in order not to miss or duplicate information over the whole project implementation
- *A performance-based approach* so that to emphasize the setting of project targets as functional targets of end product (building) and evaluate the fulfillment of these targets during design, construction and operation. This approach is based on the definition of a *performance evaluation framework in terms of Key Performance Indicators* (KPIs).

WHY TO CONSIDER TAKING PART IN THE WORKSHOP?

The workshop targets stakeholders involved in the activities related with building design processes: Building owners, Construction managers, Architects, Engineers and Contractors, Facility managers and building permitting authorities.
Participants will be able to get information on:

- The latest developments of best practices in building design methodology.
- The latest advancements in software and tools development for building design processes.
- Few examples from demonstration activities of tools developed within EC flagship projects for the building domain, in relation with communication management issues for the BIM processes and in KPI management for a performance based evaluation of building design models.

In addition, it will be a great networking opportunity that will be attended by fellow FP7 and H2020 project partners from the PPP EEB area.

BIM-BASED DESIGN: ICT TOOLS FOR BUILDING DESIGN SIMULATION AND ASSESSMENT OF HIGH PERFORMANCE BUILDINGS - AGENDA

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In order to present the Building Design Methodologies (BDM) developed by HOLISTEEC and the other related EU projects to a wider public and get feedback on that, the Consortium is organizing a workshop, during which main characteristics of the methodology will be presented and comments from the audience will be collected. The different presentations will be organized by the participating projects according to

Session 1: “Methodologies and KPIs for performance-based design” (10.30 – 12)

- **HOLISTEEC –** Project and focus, methodology features and KPI definition (20 mins)
  - workflow to collaboratively design and construct building (**Davide Mazza**)
  - KPI-based design: definition, computation and management (**Dirk Van Maercke**)
- **STREAMER –** A methodology for hospitals application (20 mins)
  - Presentation of the design methodology adopted in STREAMER (**Freek Bomhof**)
  - KPI management in the STREAMER project (**André van Delft**)

- **eeEmbedded –** Project and focus, methodology features and KPI definition (20 mins)
  - Collaborative design methodology and KPI definition (**Romy Guruz**)
  - Interoperability and interlinking among design models (**Mathias Kadolsky**)
- **Design4Energy –** Design methodology for creating energy-efficient buildings (20 mins)
  - Overview of the workflow and the underlying methodology (**May Bassanino**)

Q&A and discussion (10 mins)

Lunch break (12 – 14)

Session 2: “Tools for performance-based design” (14 – 15.30)

- **HOLISTEEC –** The HOLISTEEC design platform (**Asier Mediavilla**) (20 mins)
- **STREAMER –** The tools for hospital performance-based design (20 mins)
  - Tools developed for STREAMER project to support design flow (**Marc Bourdeau**)
- **eeEmbedded –** eeBIM Lab and Collaborative Design Platform (**Raimar Scherer**) (20 mins)
- **Design4Energy –** Implementation of the Design4Energy Approach (20 mins)
  - Collaboration portal for designing energy efficient buildings (**May Bassanino**)
  - Approaches to transfer building information models to building energy simulation tools (**Mathias Kadolsky**)

Q&A and discussion (10 mins)