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Latest Publications (to be published/ presented after the end of the project)

🌿 "Saving Energy in Indoor Swimming Pools using the Adapt4EE Strategies"

Publication prepared by UNAV partner of the Adapt4EE consortium. To be published in an International Indexed Journal

🌿 "El proyecto Adapt4EE aplicado a la arquitectura / Adapt4EE applied in Architecture"

Publication prepared by UNAV partner of the Adapt4EE consortium. To be published in EI Instalador Spanish Technical Journal

🌿 "Occupancy Diversity Factor in a Hospital Facility Through the Use of Innovative Occupancy Measurement"

Publication prepared by UNAV partner of the Adapt4EE consortium. To be published in an International Indexed Journal

🌿 "Adapt4EE Strategies"

Publication prepared by UNAV partner of the Adapt4EE consortium. To be published in an International Indexed Journal

🌿 "Adapt4EE Multi-Agent Simulation Framework"

Publication prepared by Almende partner of the Adapt4EE consortium. To be presented in the International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS) 2015

Adapt4EE Lays the Corner Stone for Occupant Aware Energy Efficiency in Enterprise Environments and Constructions



An international consortium of renowned academic and industrial organizations has been recently awarded with a new contract with the European Commission for the implementation of the Adapt4EE (Occupant Aware, Intelligent and Adaptive Enterprises) STREP project, which is funded in the context of the 7th Framework Programme's Objective for ICT Solutions and Energy Efficiency.

Energy performance of construction products during operation heavily relies on three interrelated spatio-temporal groups of factors: **construction assets and facilities, environmental conditions and occupant behavior**. Occupancy patterns in the domain of constructions of commercial use appear to be more complicated, involving multiple individuals, gatherings, single or collective movement patterns and different individual behaviors. Furthermore, in these same cases, occupancy patterns display high correlation with business episodes and respective everyday operations. Moreover, enterprises commonly experience changes in occupancy patterns and ad-hoc requirements due to sudden alterations in business processes as well as personal churns.

To this end, it is of great benefit to accurately capture and analyze the information of such trends for applications in enterprise modeling and simulation. Detection of occupant presence has been applied extensively in built environments for applications such as demand-controlled ventilation and security, and occupancy profiles are widely used in building simulations. However, the ability to determine the actual number of occupants in a predefined space, or even more, patterns of occupant movement is beyond the scope of current sensing techniques.

The project aims at augmenting the contemporary architectural envelope by incorporating business and occupancy related information thus providing a holistic approach to the planning, design & evaluation of energy performance of construction products at an early design phase and prior to their realization.

Adapt4EE will deliver and validate a holistic energy performance framework that incorporates architectural metadata and environmental parameters (BIM), critical business models (BPM), while treating occupants as the central reference point.

The Adapt4EE framework will align energy consumption points to all interrelated enterprise aspects and will provide a set of Open Business Reference Models as well as respective methods and tools for modeling and simulating the real life operation of construction products, thus allowing for more accurate and realistic evaluation of the energy impact of alternative design and planning decisions.



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Adapt4EE Project



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The tenth plenary meeting of the Adapt4EE project took place, in Pamplona, Spain on October 1-2, 2014.

The main objective of the meeting was to evaluate the progress of the simulation platform fine-tuning and the testing of the integration of the tool with external building performance simulation tools that are widely used by architects and engineers.

Moreover, during the meeting, the partners discussed about the results of the evaluation seminar that took place on 1st October 2014 and provided valuable feedback for further improving the Adapt4EE experience for the end-users.

Finally, the meeting focused on the preparation for the final project review, to be held in Brussels on



December 2nd, 2014.

Adapt4EE International Seminar and Workshop on Building Energy Performance Simulation



Universidad de Navarra

The Adapt4EE Project organized an International Seminar and Workshop on “Building Energy Performance Simulation”, hosted by Universidad de Navarra, in Pamplona, Spain, on October 1st, 2014.

The International Seminar and Workshop focused on the demonstration and testing of alternative building energy

performance software tools and their comparison with the Adapt4EE project solutions and aimed at evaluating the advancements brought by Adapt4EE against the needs of different actors - architects, engineers, facility managers - towards accurately evaluating the energy performance of buildings from their early design phase.

Adapt4EE introduces a novel building energy performance simulation environment that allows the building industry actors to assess the performance of buildings based on more accurate occupancy data resulting from the business process that are executed within an enterprise building.



Who

Architects, engineers, facilities managers and other responsible and end-users involved in the use of energy in buildings.

When and where

The 1st International Seminar and Workshop took place on Wednesday 1st October 2014, at the 'Amigos' Building of the Universidad de Navarra, Pamplona, Spain.

Acknowledgments

The International Seminar and Workshop was organized under the auspices of the EC/FP7 research Project Adapt4EE.

The International Seminar and Workshop on Building Performance Simulation was concluded with the participation of 50 professionals/ end-users from the D&E and Facility Management Communities.

Attendants had the opportunity to receive detailed information about the Adapt4EE concept and advancements, while demo presentations of the Adapt4EE modules took place to offer a full picture of the consortium effort and work during the 3-year implementation of the project.

Evaluation activities focused on the extensive testing and use of the Visual Analytics Module, allowing the participants to experiment with different use case scenarios, evaluate building performance under different modes of operation and compare the results of the Adapt4EE simulation, either between each other (alternative designs), as well as, with the results of popular

Building Performance Simulation Tools like Energy Plus.

Following the testing activities, attendees were asked to provide valuable insights and evaluate their experience with Adapt4EE by filling in questionnaires referring to the different actors participating in the workshop. Such questionnaires were made available through the Adapt4EE website.

Moreover, evaluation was further complemented with the participation of occupants participating in the Adapt4EE pilot activities (in Spain and Portugal) and focused, not only on their experience with the Adapt4EE installations but also on privacy and data protection issues.

All evaluation results of the project, covering all aspects required, have been thoroughly analyzed and reported in the Deliverable D7.4 “Adapt4EE Evaluation Report”.



The final project review of Adapt4EE has been scheduled on December 2nd 2014 in Brussels, Belgium.

The scope of the final review meeting is to present the latest project advancements, to the European Commission officers and reviewers, towards allowing them to properly evaluate the project progress against initially set objectives.

Prior to the review meeting, a final project meeting will take place in Rotterdam, Netherlands, hosted by Almende, with the aim to coordinate final preparations with view to the final project review meeting.