



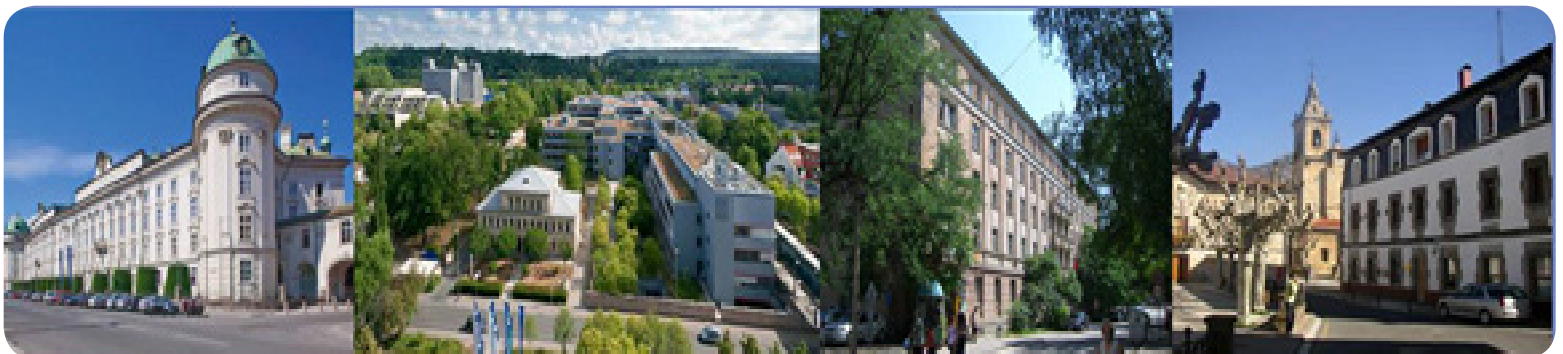
Newsletter

OrbEEt at a Glance:

OrbEEt aims to establish a holistic organizational energy performance framework build on top of contemporary and standardized energy performance rating practices by incorporating business and behavioural information through the fusion of three worlds:

- **Building Operational Rating**
- **Business Process Modelling**
- **Organizational & Behavioural Change**

OrbEEt aims to establish a trusted Systemic Enterprise Operational Rating framework that will present the ability for real time building monitoring, continuous measurement of the impact of different activities on the overall building energy performance and most importantly, for timely, relevant and personalized feedback towards energy efficiency.



The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649753

OrbEEt Partners



OrbEEt consortium partners present to your attention the first OrbEEt project newsletter. The first issue describes the project's parameters in general along with its main objectives and brief presentation of the involved partners. Highlights in this month's issue include:

- Project Overview
- Project Objectives
- Project Pilots
- Project Partners

If you want to learn more about the subjects addressed in this event you can go to our website which is listed below. To keep up with our daily activities you can follow us on our social media platforms which are to be found below.

Check out the latest news



www.orbeet.eu



[orbeet2018](https://www.facebook.com/orbeet2018)



[OrbEEt Project](https://www.linkedin.com/company/orbeet-project)



[OrbEEt_Project](https://twitter.com/OrbEEt_Project)

Project Coordinator:

Dery Torres
SOLINTEL

Contact:

dery.torres@solintel.eu

Project Overview

OrbEEt- Organizational Behaviour improvement for Energy Efficiency in public administrative buildings

To truly understand how a building uses and consumes energy we need to go beyond its structural characteristics and theoretical models that assess its energy efficiency based on the intrinsic performance potential of its envelope (the fabric) and services (such as heating, ventilation and lightning). Business operations (process organization and management) are an inseparable part of overall business services, as well as overall enterprise energy consumption. Occupant behavior is a significant determinant of building energy use either directly or indirectly by opening/closing windows, turning on/off or dimming lights, turning on/off office equipment, turning on/off heating, ventilation, and air-conditioning (HVAS) systems, and setting indoor thermal acoustic, and visual comfort controls.

Given the trend towards low energy buildings that reduce fossil fuel use and carbon emissions, actively engaging occupants during the building operation is critical to achieve high energy efficiency without sacrificing their comfort or productivity. Workforce behavior within other contexts. Such organizational – group – behavior is largely shaped by the context, including management guidelines, and workplace norms.

The fact that building energy consumption is directly influenced by workforce choices occurring during the execution of business processes in combination with the long life spans of buildings that require prohibitive renovation capital expenses, brings behavioural change of the workforce as the most promising and cost efficient approach (WBCSD) to achieve large and persistet energy savings to the forefront.

Project Objectives

The main innovation brought by OrbEEt is the alignment of fine-grain building energy use data to the organizational operational activities, thus allowing for a systemic and holistic view over the organizational energy performance.

OrbEEt will combine off-the-shelf mature technological solutions and products, with proven and validated state of the art data analytics technologies, to establish a non-intrusive but still efficient sensor cloud IT ecosystem enabling Workplace Sensin and integrated Business Energy Analytics. Thus the main goals of the OrbEEt consortium are:

Objective 1

To introduce Intelligence in Business Operations towards Real-time Assessment of their energy impact and revelation of previously unknown Aspects of energy-related organizational behavior

Objective 2

To establish an innovative IT Ecosystem enabling wide deployment of Cleanweb

Objective 3

To facilitate Public and Social Engagement to action for Energy Efficiency

Objective 4

To introduce Open Innovation in Real-life deployment and Validation of the OrbEEt Framework



Project Pilots

In order to validate the innovative OrbEEt solutions in real-life conditions over an extensive 18-months piloting period, in a variety of public buildings/ organizations (hospitals, municipal administrative offices and multi-faceted – offices and museum- buildings), incorporating a wide range of administrative/ business processes and services to the general public (generating wide visibility of results) and under different environmental, social and cultural contexts in four dispersed geographical areas (Innsbruck in Austria, Erlangen in Germany, Pernik in Bulgaria and Asparrena in Spain).

Project Partners



Contribution to OrbEEt:

Business Process Management (in the cloud): technical solution and background from 20 years of industry experience

Modelling Expertise: as a development approach to conceptualize, implement and deploy metamodels in form of modelling method;

Metamodelling platform ADOxx*: as a technical basis/modelling method compiler for supply chain management tool development



Contribution to OrbEEt: Energy audit; Dissemination

Comprehensive approach to the development, management and implementation of PROJECTS in the field of: Increasing the energy efficiency in buildings; Construction, modernization and active management of energy systems in manufacturing plants; EPC Contracting of systems for the production of energy from RES; Implementation of ESCO Contracts- increasing energy efficiency in private, municipal and state buildings.



Contribution to OrbEEt: One of the four project pilot sites

Focusing on Public-Health, Technology Assessment (TA), simulation-based Outcome Research; Joint facility of the University Hospital Erlangen and the University Erlangen-Nürnberg; Collaborative working among clinicians, IT-experts, managers and social care organisations and with health policy decision makers; National Leading-Edge Cluster Medical Technologies "Medical Valley EMN"



Contribution to OrbEEt: Administration Management; Quality Assurance and Innovation Management; Ethical Helpdesk

High-tech Spanish SME, based on engineering focused in high-performance materials, processes and energy efficiency for buildings, districts and industrial facilities; offer of a great variety of technological services (methods, materials, tools and components) oriented to business; management consulting to European and Latin American companies; more than 15 years of experience in participating in FP5 and FP6 projects, as well as in Eureka and other research initiatives at the European and Spanish level.



Tools for Creating Detailed Consumption Profiles (Consumer Profiling), Tools for personalized billing reports (Informative Billing) and Innovative Solutions for Building Automatin. Multiparametric solutions to optimize energy consumption without compromising business performane targets (Enterprise Performance and Sustainability), Tools for the analysis and real-time monitoring of power consumption data (Billing Analysis, Monitoring and Optimization), along with energy consumption forecasting and reporting tools.



GRINDROP LIMITED

Deliver Human Centric Products & Services for Homes & Offices; Explore alternative ways to capture human preferences towards offering a truly personalized building experience; Introduce the IoT paradigm into loG and FM applications turning buildings into dynamic & responsive grid elements, continuously adapting the environmental conditions, human preferences & business needs; Cloud Based System for Dynamic Control of Home Lighting based on Automatically extracted User Profiles
Contribution to OrbEEt: Introducing Individual & Group Comfort/ Preference Profile Models & a Dynamic Profiling Engine into the OrbEEt Framework

Contribution to OrbEEt: One of the four project pilot sites



Burghauptmannschaft Österreich



Responsible for: „Sustainable preservation of the cultural heritage sites owned by the the Republic of Austria“; “Sustainable management of the cultural sites owned by the Republic of Austria“; “Sustainable cultural and tourism operations in cultural heritage sites owned by the Republic of Austria”



Serious Games Institute (SGI)- Primary research goal: to understand how effective game-based learning of behavioural change strategies can be designed and applied; Delivered 14 EU and 4 UK-funded large rants (STREPs, BPNs, NoEs) since 2008; Academic research group with educational theorists, psychologists, and computer scientists
Contriution t OrbEEt: Theory and practice of behavioural chang; Expertise in game-based approaches (WP1 Lead);Gamified service/ intervention design and implementation (T3.2 Lead); Synthesis and evaluation of the platform across pilot sites (T4.3 Lead)



Asparrena

The Municipality of Asparrena

Contribution to OrbEEt: One of the four project pilot sites

Capital of the municipality; ¾ of the whole population (1200 inhabitants); Northwest part of The province of Araba; Close to the Main Cities of the Basque Country; Industrial heritage from the 19th century; Strategic location; Industrial centre: main boost of local economy; Traditional occupations in primary sector (cattle raising, agriculture)



Pernik Municipality

Contribution to OtbEEt:One of the four project pilot sites

The revival of the industrial zone in Pernik municipality has been a leading force and motivation. Pernik Municipality developed a “Plan for development of Pernik Municipality 2014-2020” and also Pernik Municipality is involved in the National Plan for industrial zonea.