



SINERGY Project Presentation

Institute Mihajlo Pupin

14. January 2021 – Kick-Off meeting





The SINERGY Project

› **Project lifetime:** Jan. 2021 – Dec. 2023

› **Partners**

- › IMP Institute Mihajlo Pupin, Serbia (**Coordinator**)
- › AIT Austrian Institute of Technology GMBH
- › NUIG National University of Ireland Galway

› **Long-term mission**

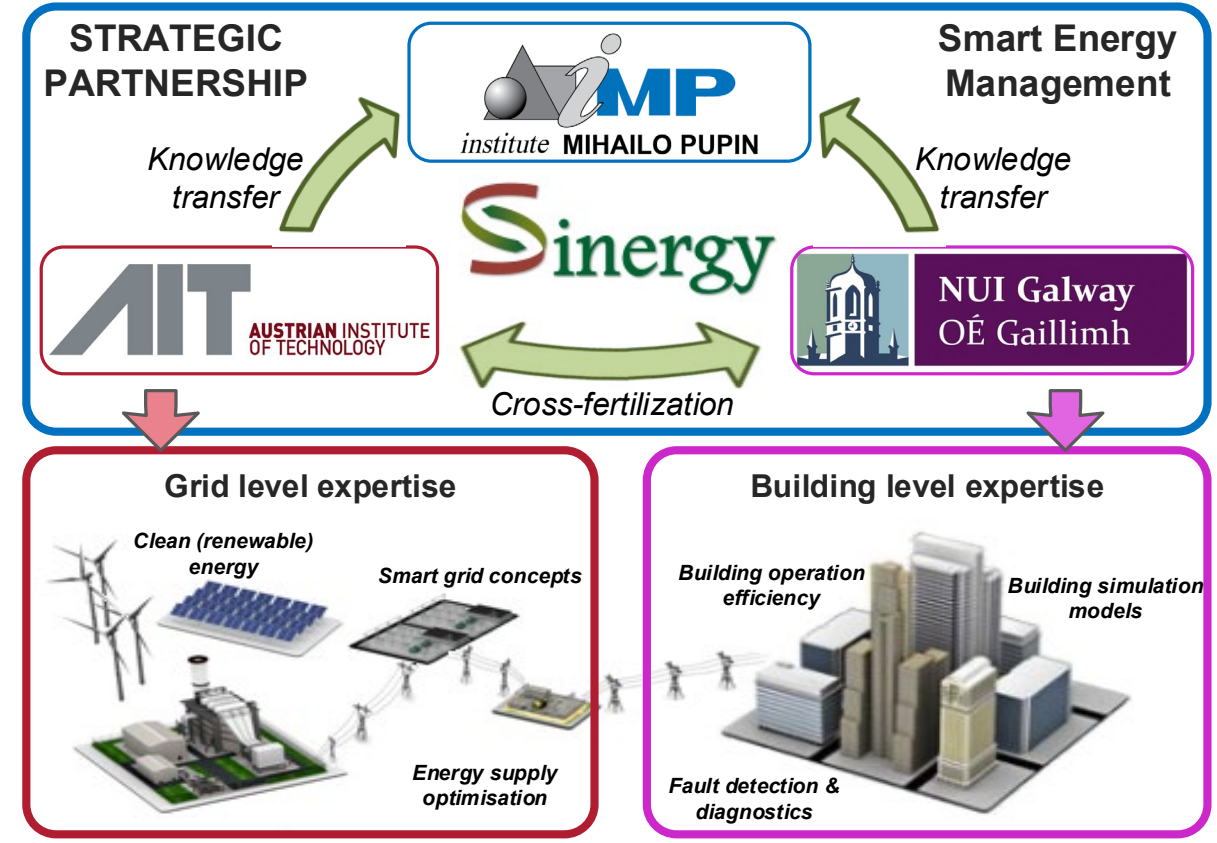
- › **Position the Institute Mihajlo Pupin (IMP) as one of the leading institutions in smart energy management** in Southeast Europe, capable of driving the region towards meeting the 21st century challenges in the Energy sector
- › **Unlock IMP's research potential** in domain of smart energy management and **integrate into European Research Area (ERA)**





Motivation & Vision

- › **Strategic partnership and transfer of multidisciplinary “know-how”** from leading EU research institutions
- › **Building research potential through the collaboration with the AIT and NUIG** in domain of advanced smart grids and building operation efficiency, covering both energy supply and demand side





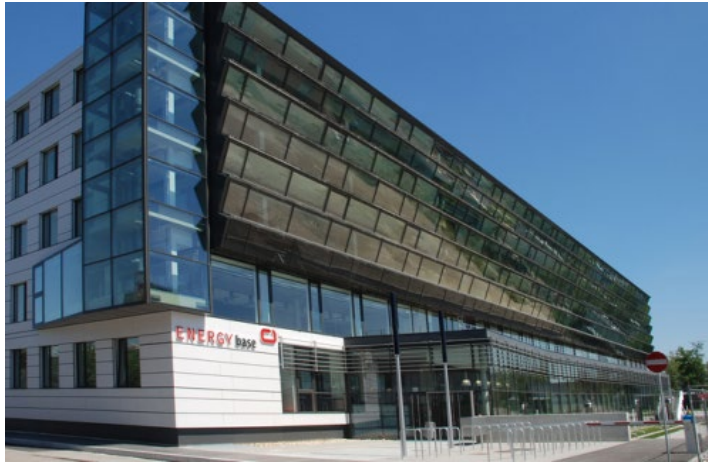
Motivation & Vision

- › **Strengthen IMP's human resources, engage young researchers and enhance the networking channels** with eminent researchers from abroad
- › **Establish knowledge and technology transfer platform** with necessary infrastructure and equipment:
 - › **Two project pilot settings** located in Vienna (Austria) and Galway (Ireland), and
 - › **Testbed pilot** in Belgrade (Serbia)



Knowledge & technology transfer platform

EnergyBase, TechBase
(Vienna)



Alice Perry Engineering
Building (Galway)

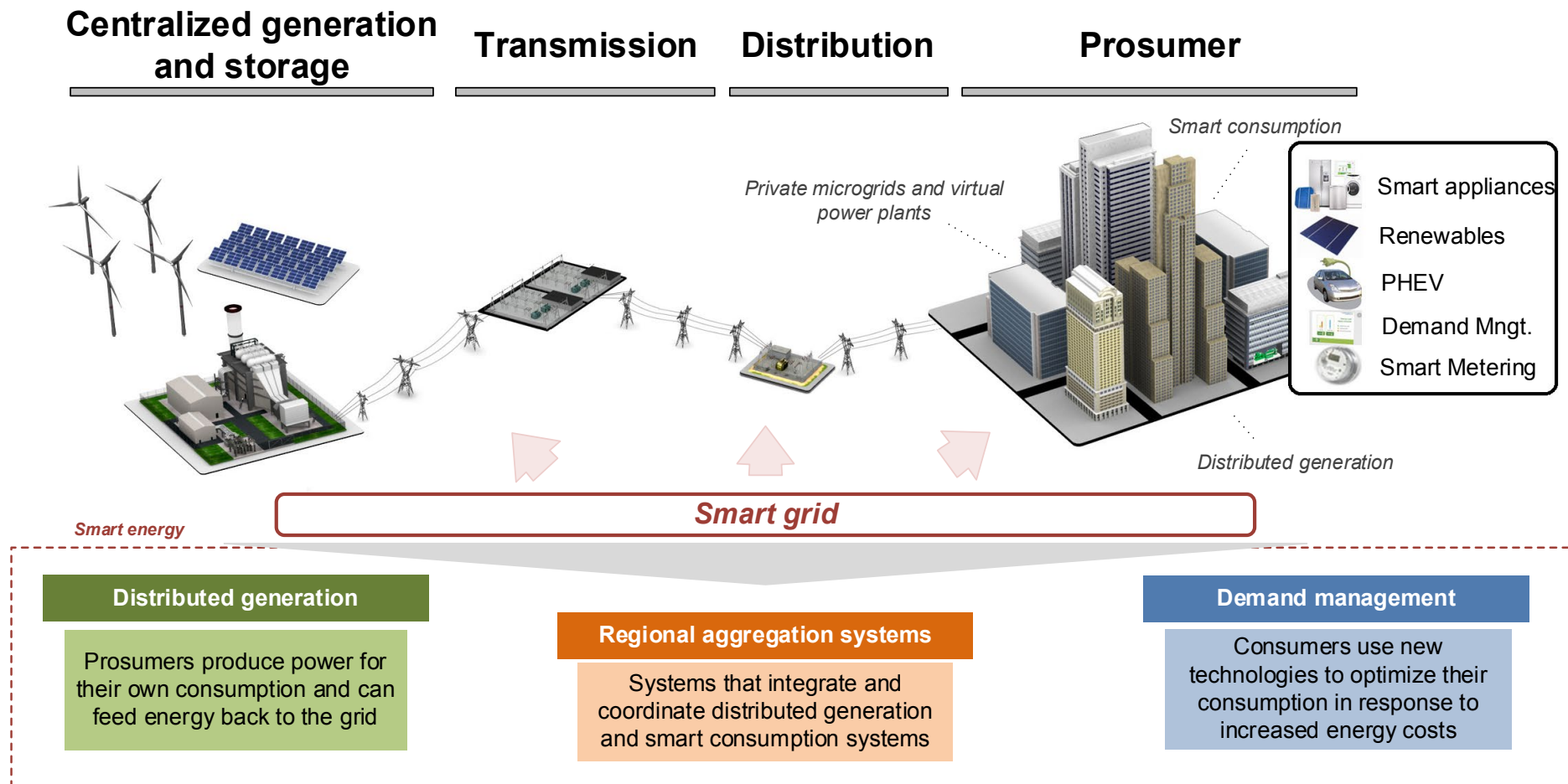


Institute Mihajlo Pupin
(Belgrade)





Project overall concept





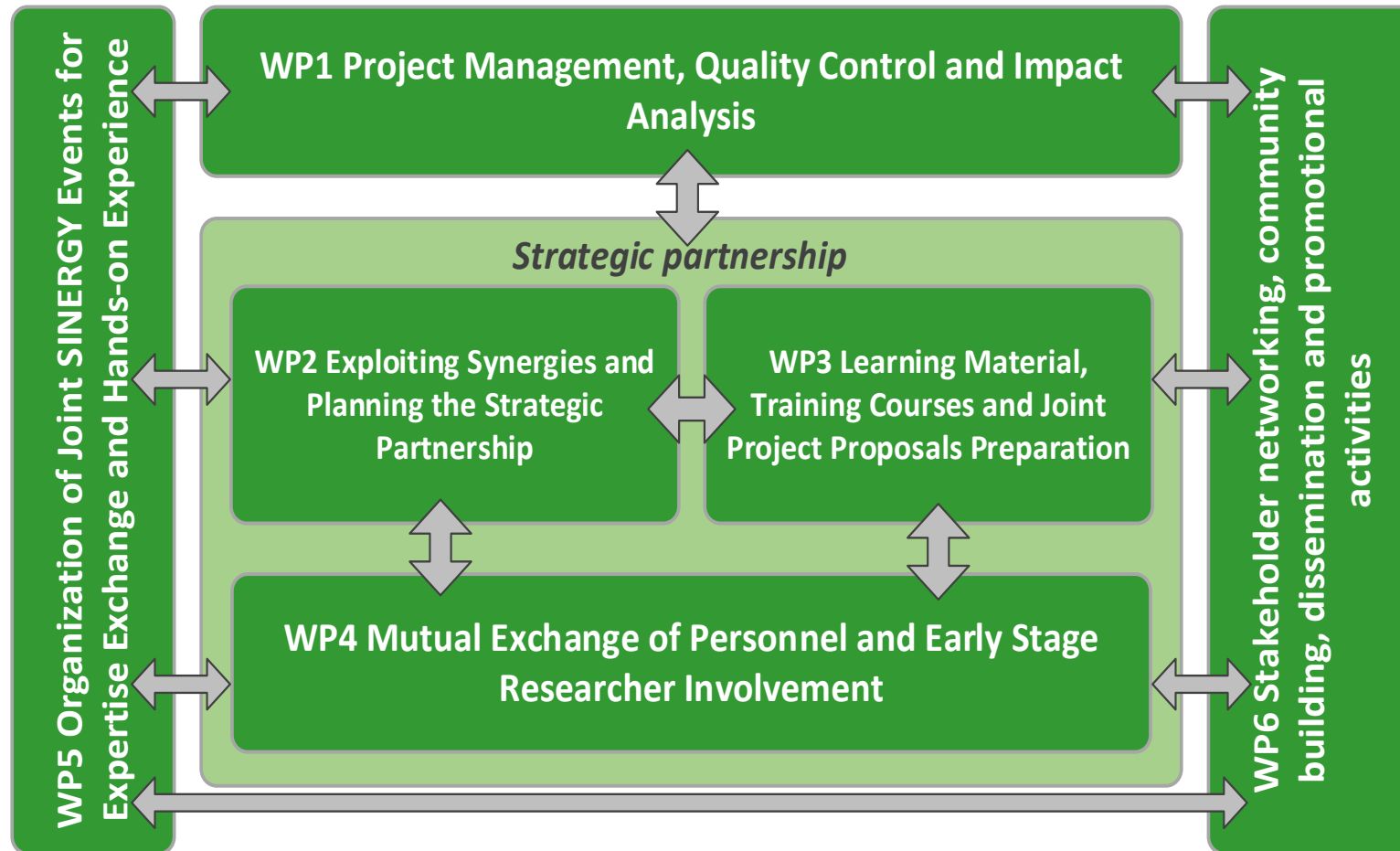
Objectives

- › **OB1: Strategic Partnership** - Establishment and development of productive and fruitful long-term cooperation that continues after project completion.
- › **OB2: Reinforcement of scientific and technology excellence** of the linked institutions in domain of Smart energy management.
- › **OB3: Cross-fertilization and aggregation of competences** and experience related to the smart grid technologies and energy efficient building operation.
- › **OB4: Organization of joint networking events** for capacity building and spreading excellence throughout the widening country and the West Balkan/Southeast Europe region.
- › **OB5: Awareness raising and promotion of newly established Centre of Excellence** serving as a regional “point of reference” for Smart energy management.
- › **OB6: Continuous assessment of the key-objectives achievement** to ensure high quality of project results and defined cooperation strategy is followed.





Work Plan (Pert chart)





WP2 Objectives

- › To enable the Centre of Excellence to be established in IMP to find its place in ERA and to plan its research and innovation activities;
- › To identify the areas of ICT specialisation of IMP and future research challenges and opportunities;
- › To perform the SWOT analysis and examine and evaluate the Strengths, Weaknesses, Opportunities, and Threats of the Twinning initiative and the long term collaboration of the linked institutions;
- › To identify the opportunities and factors for scientific excellence, capacity building and prepare a detailed 3-year plan.



WP3 Objectives

- To prepare **learning material and training courses** to be held during the life-time of the project;
- To enhance the **competence level** and managerial skills of IMP's researchers and project managers;
- To improve the **networking** by creating new contacts with the most distinguished researchers from AIT and NUIG and with their respective research organization, joining networks of their strategic partners;
- To facilitate better integration of IMP into **ERA**, using channels opened via strategic partnership, and
- To prepare competitive **joint project proposals** for research and industrial funding.



WP4 Objectives

- › **Plan and organize the mutual exchange of personnel** between IMP and the strategic partners AIT and NUIG.
 - › Organization of an efficient two-way exchange of experts and researchers in order to ensure the cooperation and exchange of know-how.
- › **Hosting of distinguished foreign researchers** (from AIT and NUIG) and their participation in the **expert group meetings and training** of IMP researchers.
- › **Organize both short-term and long-term stays of IMP personnel** in premises of strategic partners.
 - › Short-term stays will be aimed for IMP's senior researcher and project managers
 - › Long-term stays will serve for training of early stage researches
- › **Ensure the involvement of IMP's early stage researchers** in terms of providing an adequate support by strategic partners as part of their training and (co-)mentoring activities.



WP5 Objectives

- › Organizing three international workshops and one conference in research area of smart energy management technologies, with emphasis on their applications;
- › Increasing the competence level of local and regional experts in the selected research domain;
- › Facilitating networking between regional and EU experts in the field;
- › Presenting the latest research results of distinguished experts from strategic partner organizations and providing “hands-on” experience.



WP6 Objectives

- › Support the other work packages (WP2-WP5) in spreading information about the project, publicizing and promoting newly established SINERGY Regional Centre of Excellence in smart energy management, and its capability to undertake high-impact multidisciplinary energy domain projects, not only in the EC H2020 priority topics, but also in cohesion policy programmes (ERDF and IPA) areas.
- › This work-package is conceived as the marketing work-package of the project, but it also aims at sustaining project activities after the end of the project.
- › All dissemination and promotional activities will be performed in accordance with the Dissemination plan (M6).

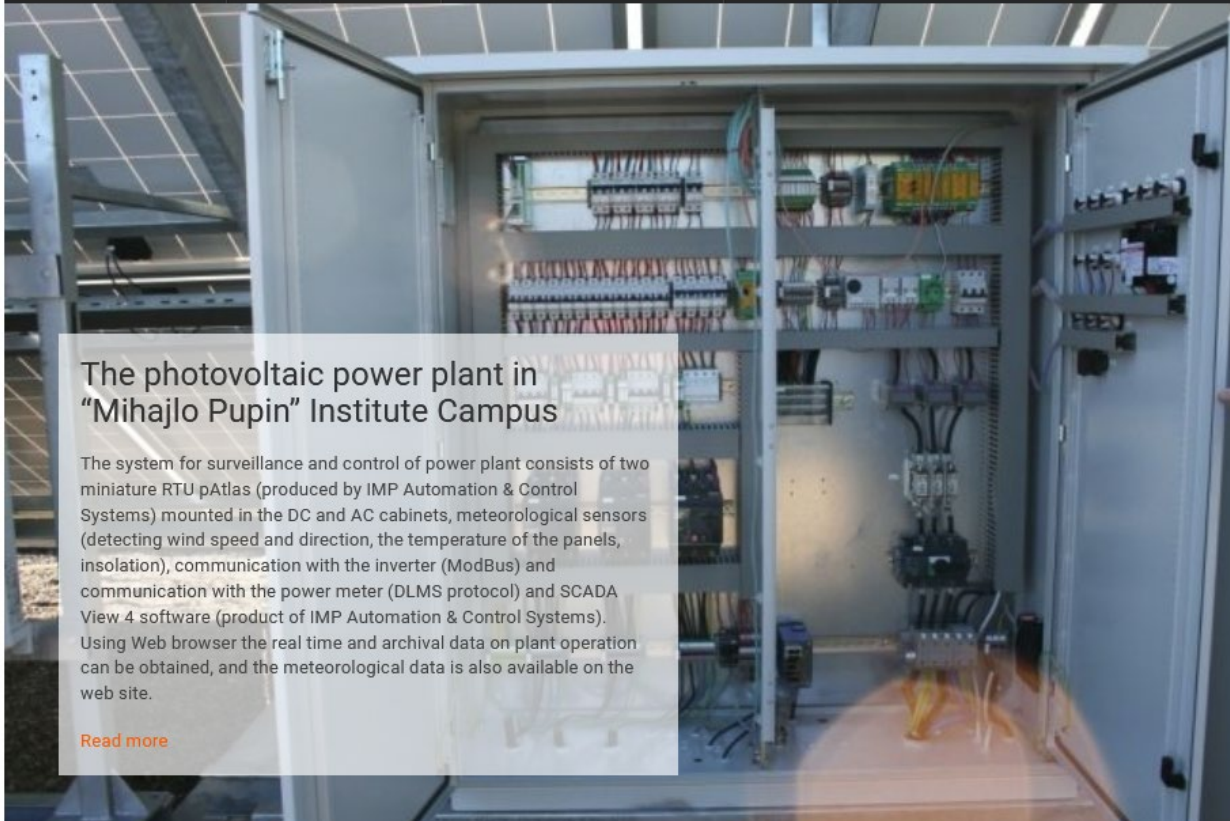


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The photovoltaic power plant in “Mihajlo Pupin” Institute Campus

The system for surveillance and control of power plant consists of two miniature RTU pAtlas (produced by IMP Automation & Control Systems) mounted in the DC and AC cabinets, meteorological sensors (detecting wind speed and direction, the temperature of the panels, insolation), communication with the inverter (ModBus) and communication with the power meter (DLMS protocol) and SCADA View 4 software (product of IMP Automation & Control Systems). Using Web browser the real time and archival data on plant operation can be obtained, and the meteorological data is also available on the web site.

[Read more](#)





Thank You for Your Attention !

Institute Mihajlo Pupin

14. January 2021

