

WP₅
Organization of Joint SINERGY Events for Expertise Exchange and Hands-on Experience

D5.3 The Third SINERGY Workshop Belgrade's Smart Energy Management laboratory

Deliverable due date	31/12/2022
Deliverable submission date	22/12/2022

	Dissemination level (marked with "X")		
PU	PU Public, to be freely disseminated x		
СО	CO Confidential, only for members of the consortium including the Commission		





Project metadata

Project Acronym	SINERGY
Project Title	Capacity building in Smart and Innovative eNERGY management
Project Website	https://project-sinergy.org/
Grant Agreement no.	952140
Call identifier	H2020-WIDESPREAD-2020-5
Topic identifier	WIDESPREAD-05-2020
Funding scheme	Twinning
Project duration	January 1 st , 2021 - December 31 st , 2023 (36 months)
Coordinator	Institute Mihajlo Pupin (IMP)

Document metadata

Deliverable no.	D5.3	
Deliverable title	The Third SINERGY Workshop - Belgrade's Smart Energy Management laboratory	
Related WP no.	WP5	
Related WP title	Organization of Joint SINERGY Events for Expertise Exchange and Hands-on Experience	
Lead beneficiary	IMP	
Contributors	AIT, NUIG	
Deliverable type	Report	

Document revision history			
Version/name Date Institution Author(s)		Author(s)	
V1.0 (draft)	25/11/2022	IMP	Valentina Janev, Nikola Tomašević
	Contributors: All participants at the		Contributors: All participants at the event
Internal review	20/12/2022	NUIG, AIT	Luis Miguel Blanes & Johannes Stöckl
V1.0 (final)	22/12/2022	IMP	Valentina Janev



Executive Summary

In the SINERGY WP5 framework, three workshops as a combination of training courses and lectures, hands-on experience, social and networking activities were foreseen. The goal was to increase the competence level of Ph.D. students and other interested stakeholders in the domain of the SINERGY project.

This deliverable focuses on the organizational aspects and specific sessions of the third SINERGY workshop¹, coordinated by IMP (Belgrade, Serbia) from November 14th to November 16th, 2022.

Section 1 provides with an overview of the WP5 objectives.

Section 2 describes the organisational aspects of the 3rd workshop (hosted by Institute Mihajlo Pupin in Belgrade, Serbia), while the following three sections (Section 3, Section 4 and Section 5) summarize the completed activities along these lines:

- the SINERGY Plenary Meeting, including the proposal writing session;
- the Ph.D. workshop, see https://project-sinergy.org/Ph.D.-Workshop-4;
- the public event titled SINERGY Open event on "Smart and Innovative eNERGY management", see https://project-sinergy.org/3rd-Open-Event.

The open event was collocated with the TELFOR'22 Conference, Crowne Plaza, on 16th of November, see announcement on the TELFOR page https://www.telfor.rs/sr/

The third SINERGY workshop was an opportunity to present results from the SINERGY project, but also to promote the Institute Mihajlo Pupin as regional Centre of Excellence in the smart energy management, see *Promoting the Institute Mihajlo Pupin as a regional Centre of Excellence in Smart Energy Management*, https://www.pupin.rs/en/2022/12/promoting-the-institute-mihajlo-pupin-as-a-regional-centre-of-excellence-in-smart-energy-management/

At the TELFOR'22 Conference, the SINERGY Lab was promoted also via

- the IMP booth, https://www.pupin.rs/en/2022/11/institute-mihajlo-pupin-at-30-telfor-conference/
- the panel session "Do you know what digitalization/digital transformation is?" where numerous aspects of understanding and implementation of digitization and digital transformation processes were discussed.

Regional stakeholders from Serbia and the Region actively participated in SINERGY activities (at the Advisory Board meeting, the Ph.D. workshop and the Open event).

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¹ Third SINERGY Workshop - Smart Energy Management, November 2022



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Abbreviations and Acronyms

AIT Austrian Institute of Technology

CA Consortium Agreement

CO Coordinator

DSO Distribution System Operator

EMS Energy Management System

ERDF European Regional Development Fund

EU European Union

IEEE Institute of Electrical and Electronics Engineers

ICT Information and Communications Technology

IMP Institute Mihajlo Pupin

NUIG University of Galway

R&D Research and Development

WP Work Package



1 Introduction

The primary objective of SINERGY is to strengthen the research capacity and further unlock the innovation potential of IMP, transforming it into a regional Centre of Excellence in the smart energy management. To that aim, a set of actions that range from (1) exploring the synergies between the partners; via (2) exchange of personnel and early-stage researchers' involvement in joint research and development; to (3) organizing joint events for knowledge transfer, expertise exchange, awareness raising and stakeholders networking; have been started.

1.1 Main Objectives and Deliverable Scope

Workshops and conferences are seen as the most efficient way to get an insight into the state-of-the-art in selected research topics. Therefore, work package 5 focuses on the organization of joint project events that enable know-how exchange and provide with a "hands-on" experience in the domain of smart energy management. In the first two years of the project, three workshops as combination of training courses and lectures, hands-on experience, social and networking activities have been organized:

- 1st Workshop coordinated by AIT, November 2021, https://project-sinergy.org/Events/1st-Workshop;
- 2nd Workshop, coordinated by NUIG, May/June 2022, https://project-sinergy.org/2nd-Workshop;
- 3rd Workshop, coordinated by IMP, November 2022, https://project-sinergy.org/3rd-Workshop.

This deliverable focuses on the organizational aspects and specific sessions of the third workshop, coordinated by IMP (Belgrade, Serbia) from November 14th to November 16th 2022.



Figure 1. SINERGY Consortium in front of Institute Mihajlo Pupin (Day 1)





Figure 2. SINERGY Consortium in front of Institute Mihajlo Pupin, with guests from the Region (Day 2)



Figure 3. Dr. Nikola Tomašević (IMP) opening the SINERGY event (Day 3)

1.2 Structure of the Deliverable

This deliverable is structures as follows:

- Section 1 provides with an overview of the objectives of WP5.
- Section 2 describes the organisation of the 3rd workshop in Belgrade, Serbia.
- Section 3 follows with a presentation of the Day 1 activities that consisted on the SINERGY Plenary Meeting, including the proposal writing session.
- Section 4 briefly summarizes activities of Day 2 devoted to the Ph.D. workshop.
- Section 5 closes with the presentation of Day 3 and the public event titled SINERGY Open event on "Smart and Innovative eNERGY management". The open event was collocated with the TELFOR'22 Conference, Crowne Plaza, on 16th of November. The consortium presented results from the SINERGY project and other running EU projects.



2 Organization of the 3rd SINERGY Workshop

Figure 4 below presents a screenshot from the public SINERGY website where the workshops were announced. While the 1st SINERGY workshop was held in hybrid mode, the 2nd and 3rd workshops were face-to-face events.

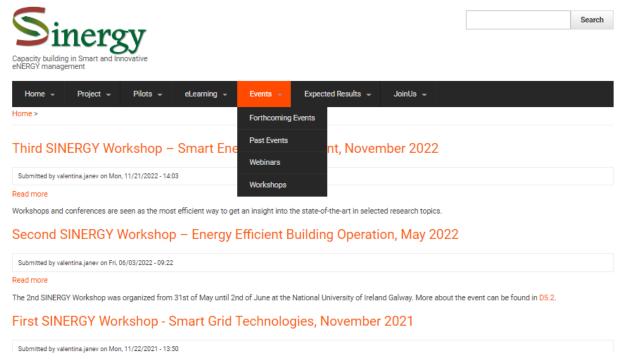


Figure 4. Workshop Announcement

Social media was used as well for sharing information about the event, see Figures below.

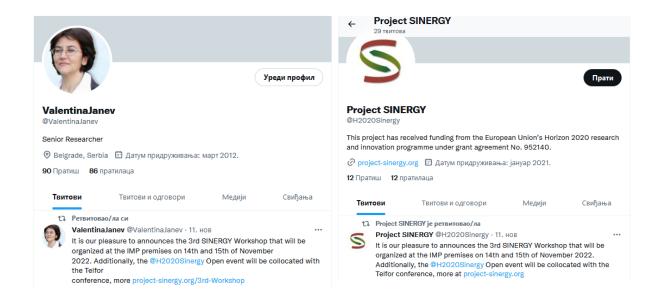


Figure 5. Workshop Announcement via Twitter





Figure 6. Post about the event shared via LinkedIn IMP account



3 Day 1 – November 14th, 2022 (Plenary meeting)

The agenda for Day 1 of this workshop was devoted to (1) review of Year 2 activates, planning of Year 3 activates, and (3) sustainability of the SINERGY action and proposal writing planning.

Below the agenda for DAY 1 and the Table 1 with the list of participants

12:00 - Welcome at Pilot Site

13:30 SINERGY General Assembly

- Coordinator updates
- WPs Updates
- Deliverables
- Reporting Status
- Year 3 Activities
- Other issues

17:00 - End of 1st Day - Transfer to Hotel.

DAY 1 participants list is shown below in Table 1.

Table 1. DAY1 SINERGY Participants

IMP team	AIT Team	NUIG Team
 Dr. Nikola Tomašević Dr. Valentina Janev Mrs. Dea Pujić Mr. Marko Jelić 	 Dr. Johannes Stöckl Mr. David Reihs Dr. Bharath-Varsh Rao Mr. Troy Eskilson 	Dr. Marcus M. KeaneMr. Luis M. Blanes

3.1 SINERGY Plenary Meeting



Figure 7. Proposal writing session



Topics for discussion at the plenary meeting were as follows:

- The project coordinator Dr. Valentina Janev presented progress in all WPs which lead to fruitful discussion on work done and further planning the activities ahead;
- Updates on periodic reporting and administrative matters related to the last six months (M19-M24;
- Lessons learned from the 1st Review Meeting;
- Journal papers' writing activities;
- Proposal writing and compilation of a list of potential calls;
- Organization of the final Conference to be held in Belgrade
- Review of the Ph.D. topics and update on status of enrolment of Ph.D. students;
- Update on Trainings and staff exchange.

3.2 SINERGY Proposal Writing Session

The session was led by Dr. Bharath-Varsh Rao related to the THEBUILDING proposal to be submitted for TOPIC ID: HORIZON-CL5-2022-D4-02-04 Smart-grid ready and smart-network ready buildings, acting as active utility nodes (Built4People).



4 Day 2 – November 15th, 2022

On DAY 2 two separate meetings were organised

- Steering Committee Meeting
- Ph.D. Workshop (students from IMP, AIT and the Region)

The DAY 2 agenda is shown below alongside the list of participants.

Location: Institute Mihajlo Pupin, Belgrade, Serbia

Small Meeting Room	Technology Transfer Office	
Coming together		
Visit of IMP campus	(SCADA Department)	
10:00 - 12:30 Advisory Board Meeting Ph.D. Workshop Introduction		
	Ph.D. Workshop Mapping Research progress	
	Ph.D. Workshop Creativity, Innovation and	
Creative Problem Solving		
Lunch Break		
13.30-14.30 Ph.D. Workshop Idea Generation		
16:00 - End of 2 nd Day - Transfer to Hotel		

Table 2. DAY 2 Sinergy Participants

Participants - Senior Researchers	Participants - Ph.D. Students
IMP: Dr. Nikola Tomašević Dr. Valentina Janev Dr. Lazar Berbakov Dr. Marko Batić	IMP: Mrs. Dea Pujić Mrs. Katarina Stanković Mr. Miloš Nenadović
AIT - NUIG: • Dr. Johannes Stöckl • Dr. Marcus M. Keane • Mr. Luis M. Blanes	 AIT: Mr. David Reihs Mr. Bharath-Varsh Rao Mr. Troy Eskilson Ms. Anja Banjac
Inv	ited
Advisory Board Members Prof. Vedad Pašić Prof. Dimitar Taškovski Prof. Vladimir Dimčev Ms. Marina Blagojević	Ph.D. Students • Mrs. Aleksandra Zlatkova • Mrs. Ajša Hrustić



4.1 Presentation of the IMP pilot



Figure 8. Visit to the SCADA Department



Figure 9. Visit to the SCADA Department



4.2 Steering Committee Meeting

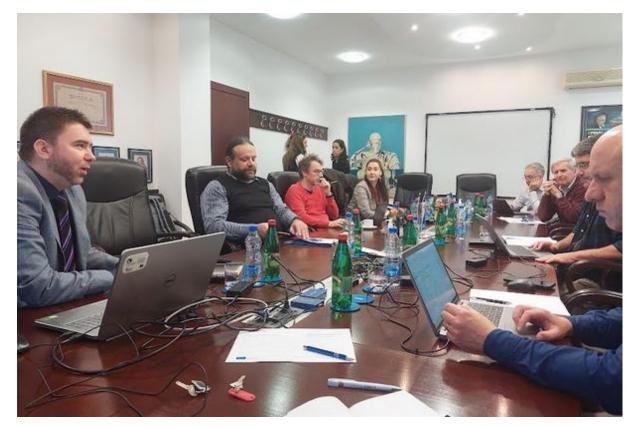


Figure 10. Steering committee meeting

The steering committee meeting took place at the IMP Small Meeting Room. The possibilities for enlargement of the SINERGY network were discussed e.g. engagement of organizations from the West Balkan in open calls organised by EU projects (ERIGrid 2.0², STORIES³) and related to exploration of AIT infrastructure.

Related to the Year 3 activities, advisory board members will check the possibilities for organising events in Tuzla, Bosnia and Herzegovina (June 2023) and Skopje, North Macedonia (tentative autumn 2023).

Table 3. Participants of the SINERGY Steering Committee meeting

IMP team	AIT Team	NUIG Team
Valentina Janev	Johannes Stöckl	Luis Miguel Blanes Restoy
Nikola Tomašević		Marcus Keane
Steering Committee Participants (from the Region)		
Prof. Dimitar Taškovski	Facult. of Elect. Eng. Ss. Cyril and Methodius Univ. in Skopje	
Prof. Vladimir Dimčev	Facult. of Elect. Eng. Ss. Cyril and Methodius Univ. in Skopje	
Prof. Vedad Pašić	Faculty of Natural Sciences and Mathematics, Univ. of Tuzla	
Ms. Marina Blagojevic	ICT Network	

² https://erigrid2.eu/

³ https://www.storiesproject.eu/calls



4.3 Ph.D. Workshop with Dr. Kevin Byron

The Ph.D. workshop was conducted by Dr. Kevin Byron and was focused on new innovative methods to foster research creativity. Dr. Kevin Byron is an associated speaker of NUIG Bioinnovate Fellowship⁴. This is a permanent NUIG facility to train Ph.D. students organise effectively their research journey and is an established training program at NUIG.

The session comprised two introductory training lectures followed with a participatory Ph.D. activity using the methods and techniques proposed by Dr. Byron in the presentations given. The material was made available for the attendees. Additional to the face-to-face interactions, there was on-line presence of Ph.D. Students from IMP, AIT and the Region.

After a brief introduction of all Ph.D. participants and research topics Dr. Byron presented a lecture on idea-generation, creativity, problem solving and introduced the concept of the sigmoid curve to illustrate the evolution of a research topic. This is a methodology to help Ph.D. students find out the research stage of their topic of interest and how mature is their field of study.



Figure 11. Dr. Kevin Byron with Ph.D. students in IMP Technology Transfer Office

4.4 Ph.D. interactive session: mapping your research progress.

The students participating were instructed to prepare a diagrammatic idea using the method proposed to illustrate their research question and maturity. Students used PVC A1 sheets and markers which helped visualise and discuss over different topics (Figure 12). Students' maps are shown in following figures.

⁴ Galway University Foundation - BioInnovate (guf.ie)







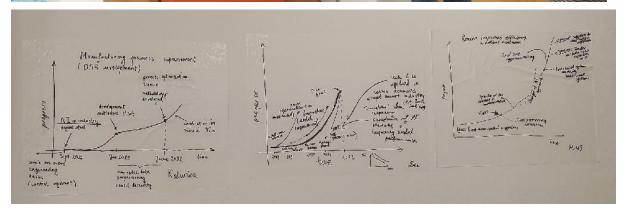


Figure 12. Ph.D. students exercise of mapping their research progress using sigmoid method



5 Day 3 – November 16th, 2022 (Open Event)

5.1 Open Event – Agenda

The SINERGY Open event was collocated with the TELFOR'22 Conference, Crowne Plaza, on 16th of November.



Figure 13. Networking at TELFOR 2022

The consortium presented results from the SINERGY project (Session 1) and other running EU projects (Session 2).

Table 4. Sinergy public event AGENDA

Session 1: Smart and Innovative eNERGY management

09.00	Getting together	
09.15	Capacity building in Smart and Innovative eNERGY management (Opening)	Nikola Tomašević, IMP
09.30	Smart Grid Technologies	Johannes Stöckl, AIT
10.00	Energy Efficient Building Operations	Marcus Martin Keane, NUIG
10.30	Demand side management aspects in Smart Grids (Invited Talk)	Aleksandra Krkoleva Mateska

Session 2: EU Project Networking Session

09.00	Getting together	
11.15	DE-RISK the adoption of Local Flexibility Markets to unlock the safe and reliable mass deployment of Renewable Energy Systems	DE-RISK
11.30	Next-Generation Integrated Energy Services fOr Citizen Energy CommuNities	NEON



11.45	GENerating energy secure COMMunities	GENCOMM
12.00	Holistic dEmand response Services for European residenTIAL communities	HESTIA
12.15	Digital PLAtform and analytical TOOls for eNergy	PLATOON
12.30	Orchestrating an interoperable sovereign federated Multi- vector Energy Data Space built on open standards and ready for GAia-X	OMEGA-X
12.45	Closing	





Figure 14. Dr. Johannes Stöckl presenting the AIT activities







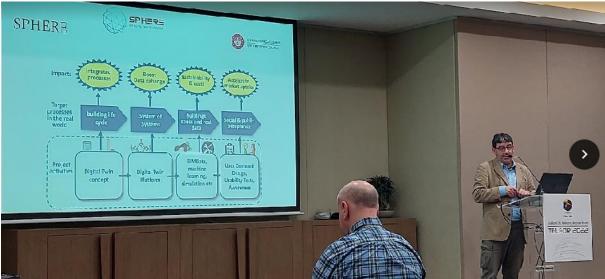


Figure 15. Dr. Marcus M. Keane presenting the NUIG activities





Figure 16. Dr. Aleksandra Krkoleva Mateska (invited talk)



Figure 17. Mr. Luis Blanes presenting the De-Risk project





Figure 18. EU Policy Framework and the OMEGA-X project vision presented by Dr Marko Batić



Figure 19. Mrs Dea Pujić presenting PLATOON project



Figure 20. Contributions of IMP to HESTIA project presented by Dr. Lazar Berbakov



5.2 Other activities

Additionally, the Institute Mihajlo Pupin was involved in other activities such as promotion of the SINERGY Lab at the IMP booth (see Figure 21) and involvement in the panel session "Do you know what digitalization/digital transformation is?" where numerous aspects of understanding and implementation of digitization and digital transformation processes were discussed.



Figure 21. IMP booth at TELFOR 2022



6 Conclusion

The Third SINERGY Workshop was organized in Institute Mihajlo Pupin and in the Crowne Plaza Hotel, Belgrade, Serbia in the period from 14th to 16th of November 2022.

Altogether, fourteen researchers (fellows) from abroad (Ireland, Austria, North Macedonia, Bosnia and Herzegovina and UK), travelled to Belgrade to take part in the activities (Plenary meeting, Advisory Board Meeting, Ph.D. Workshop, SINERGY Open Event.

The Plenary Meeting was an opportunity to plan the year 2023 activities such as staff exchange, proposal writing, joint publications and the organization of the SINERGY Conference, see announcement https://project-sinergy.org/International-Conference).

The Advisory Board members provided valuable directions related to

- the Plan for year 2023 and boosting the cooperation between the SINERGY researchers and the organizations from the targeted countries North Macedonia and Bosnia and Herzegovina.
- networking SMEs from Serbia (with the support of the ICT Cluster) and involving stakeholders from Montenegro (contacted and invited to SINERGY trainings).

At the Plenary Meeting, the plan of trainings for year 2023 was discussed and confirmed, see

- AIT Training Plan
- NUIG Training Plan

Report on Early Stage Researcher Engagement and Mentoring will be delivered at the end of the project, in D4.4.

As part of the SINERGY Open event, hosted on the 16th of November 2022 at the Crowne Plaza hotel and collocated with the TELFOR 2022 Conference, the EU Project Networking Session was organized where additional EU projects were included in the discussion (see DE-RISK⁵, NEON⁶, HESTIA⁷, PLATOON⁸, OMEGA-X⁹).

⁵ <u>DE-RISK the adoption of Local Flexibility Markets to unlock the safe and reliable mass deployment</u> of Renewable Energy Systems

⁶ Next-Generation Integrated Energy Services for Citizen Energy CommuNities

⁷ Holistic dEmand response Services for European residenTIAl communities

⁸ Digital PLAtform and analytical TOOls for eNergy

⁹ Orchestrating an interoperable sovereign federated Multi-vector Energy Data Space built on open standards and ready for GAia-X