

WP6

Stakeholder Networking, Community Building, Dissemination and Promotional Activities

D6.2 SINERGY Web Portal

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Executive Summary

This document presents the status of development of the **SINERGY Website** at six months after the start of the project and serves as a quick reference guide to functionalities currently available at the following link https://project-sinergy.org. Currently, the web site has been divided into two main Sections:

- Public part that serves to disseminate information about the project activities;
- Private part of the platform for the members of the consortium.

The Main menu leads the visitors to the following sections:

- HOME, https://project-sinergy.org/
- Project, https://project-sinergy.org/Objectives
- Pilots, https://project-sinergy.org/Pilots
- eLearning, https://project-sinergy.org/eLearning
- Events, https://project-sinergy.org/Events
- Expected Results, https://project-sinergy.org/Results
- JoinUs (https://twitter.com/H2020Sinergy, https://www.linkedin.com/company/project-sinergy-org/)



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Abbreviations and Acronyms

CMS Content Management System

WP Work Package



1. Introduction

This document is a description of the SINERGY website which is developed and will be maintained as part of Work package 6 (WP6) 'Stakeholder Networking, Community Building, Dissemination and Promotional Activities'.

1.1. Scope

WP6 "Stakeholder Networking, Community Building, Dissemination and Promotional Activities" is divided into six tasks as follows

- Task 6.1 Dissemination & Communication plan and Web portal development (M1-M6), Partners involved: IMP
- Task 6.2 Participation in local and international conferences and workshops (M7-M36), Partners involved: AIT (leader), NUIG, IMP
- Task 6.3 Publication of research papers in leading journals, magazines and books (M7-M36), Partners involved: NUIG (leader), AIT, IMP
- Task 6.4 Networking with regional stakeholders and universities (M10-M36), Partners involved: IMP (leader), AIT, NUIG
- Task 6.5 Organizing thematic meetings with industrial partners and SMEs (M10-M36), Partners involved: IMP (leader), AIT, NUIG
- Task 6.6 Promoting the project activities via press and electronic media (M7-M36),
 Partners involved: IMP (leader), AIT, NUIG

At the time of writing this deliverable, it is six months after the start of the SINERGY project. Hence, the aim of this document is to provide the status of development of the SINERGY Website at six months after the start of the project and to serve as a quick reference guide for functionalities currently available at the following link https://project-sinergy.org. Currently, the web site has been divided into two main Sections:

- Public part that serves to disseminate information about the project activities;
- Private part of the platform for the members of the consortium.

1.2. Structure of the Deliverable

This Deliverable is structured as follows. Section 2 will introduce the main menu and submenus visible on the private site of the portal. Section 3 documents the customization of the Drupal content management system with regards for the needs of the SINERGY project.

Table 1 gives the names of responsible people of administering and updating contents on the SINERGY website



Table 1. Main contacts

Partner	Organization				
	Valentina Janev (updating the website), responsible for interactions with other projects				
IMP	Dejan Paunović, Marko Jelić (maintaining the system and updates for Drupal CMS)				
	Nikola Tomašević and Marko Batić responsible for the Pilots submenu				
	Marko Jelić responsible for the visual appearance of the contents				
	Johannes Stöckl responsible for the Pilots submenu				
AIT	Thomas Strasser responsible for interactions with other AIT projects (e.g. EriGrid 2.0)				
NUIG	Luis M. Blanes responsible for the Pilots submenu				



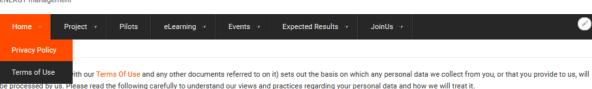
2. Introducing the SINERGY Public Website

2.1. HOME

The HOME Submenu, see https://project-sinergy.org/ or Figure 1, leads to:

- SINERGY Website Privacy Policy, https://project-sinergy.org/Privacy-policy
- SINERGY Website Terms of Use, https://project-sinergy.org/Terms-of-Use





Information We May Collect From You

We may collect and process Information/Contents you give us or you upload to the platform. You may give us information about you by filling in forms on our site. This includes information you provide when you register to use our site, subscribe to our service, or participate in the Ideas & Discussions section on the private part of the portal. The information you give us may include your name, e-mail address, images of the material to be promoted via the SINERGY Network. Your personal data and all contents uploaded by you will be stored in the SINERGY database maintained by the Institute Mihailo Pupin.

Uses Made of The Information

We use information held about you in the following ways:

- $\bullet\,$ to carry out our obligations arising from the SINERGY project;
- to provide you with information about the SINERGY project;
- to allow you to participate in interactive features of our service when you choose to do so; to provide you, or permit other registered users to receive information as a result of subscription to the SINERGY content and/or match-making functionalities of the SINERGY platform.

Your Rights

At any time, you have the right to request from the administrator: access to your personal data, change, deletion, or restriction of data processing and data transfer rights, or to file an objection to data processing. You also have the right to withdraw your consent and the right to receive a copy of your personal data that are being processed. You can accomplish all of these rights by sending a request to the data administrator via email address: dejan.paunovic@pupin.rs.

You have the right to ask us not to process your personal data for marketing purposes. We will usually inform you (before collecting your data) if we intend to use your data for such purposes. You have the possibility to manage your user profile and delete your profile at any time.

Our site may, from time to time, contain links to and from the websites of our partner networks, advertisers, and affiliates. If you follow a link to any of these websites, please note that these websites have their own privacy policies and that we do not accept any responsibility or liability for these policies. Please check these policies before you submit any personal data to these websites.

Figure 1. SINERGY Privacy Policy - website



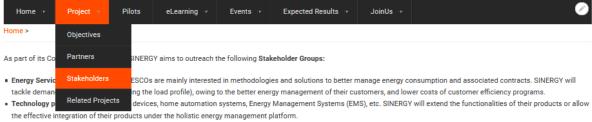
2.2. Project

The Project Submenu leads to:

- Objectives, https://project-sinergy.org/Objectives
- Partner descriptions, https://project-sinergy.org/Partners
- Stakeholders description, https://project-sinergy.org/Stakeholders (see Figure 2)
- Related projects, https://project-sinergy.org/Related-Projects







- Energy Utilities & DSOs: Energy utilities and distribution system operators could represent one of the channels for commercialization of the SINERGY results. In this regard, the provision of support to the integration of distributed generation elements and other smart grid concepts is valuable to enable efficient operation of gird and RES penetration.
- Governments / Policy Makers: The results coming from SINERGY can have a great impact on energy consumption and emissions reduction. Particularly, regional and EU governments and policymakers will have a great deal of interest in maximizing the penetration of the SINERGY results to achieve the highly ambitious EU2020 and even 2050 goals for energy consumption and emissions reduction.
- Municipalities: As customers, municipalities and social housing associations own a large amounts of buildings of different sizes and purposes and, as public entities, they are particularly keen to minimize the normally scarce resources they have to allocate and make economic savings in return. As policymakers, they are entitled to create and use different regulations within their jurisdiction that will improve energy efficiency.
- Architects & civil engineers: District/building infrastructural architects could be interested in SINERGY results and services to improve building efficiency characteristics in the building planning/design phase.

0 views



Figure 2. SINERGY Stakeholders - website

2.3. Pilot

The focus of SINERGY is experience and knowledge exchange in the field of smart energy management among the partners, especially towards the reinforcement of IMP's capabilities. Therefore, a suitable platform for excellence and innovation capacity-building is envisaged that will allow for a faster take-up and transfer of domain knowledge and technologies.

The platform also contains the corresponding depictions of two pilot settings, allowing for a practical demonstration of the state-of-the-art concepts and methodologies in the smart energy management domain:



- **Pilot 1 Smart Grid Technologies** aims to demonstrate grid-level techniques and technologies (such as relevant smart grid concepts and integration of distributed smart grid elements), see AIT facilities (EnergyBase, TechBase),
- Pilot 2 Energy Efficient Building Operation is aimed at demonstrating building level optimization approaches such as building modeling and improving building operation efficiency, thus ensuring exchange of complementary know-how and expertise which covers both energy supply and energy consumption side, see NUIG Alice Perry Engineering Building.

Pilot settings are made available by AIT and NUIG for the purpose of the project activities, such as combined live demonstrations and theoretically oriented lectures and workshops to be carried out. In addition to these pilot settings,

• **Testbed** pilot will be set up at IMP premises (see "Blue building"), providing a training site for direct deployment of advanced technologies delivered by the strategic partners.

More information about the pilots will be given at the following link https://project-sinergy.org/Pilots.



2.4. eLearning

The eLearning Submenu, https://project-sinergy.org/eLearning leads to:

- About eLearning materials
- Smart grid technologies (see Figure 3)
- Energy efficient building operation (see Figure 4)

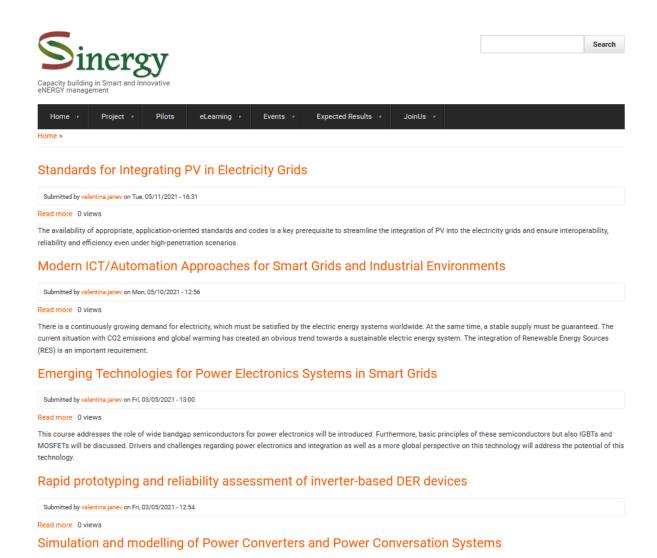


Figure 3. SINERGY eLearning Website - AIT Lectures





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CNEKOT manage	ment					
Home ·r	Project ·r	Pilots	eLearning ·r	Events ·r	Expected Results •	JoinUs r
Home >						
The Chal	enges an	nd Oppo	rtunities in	Optimisin	g the Holistic	Environmental Performance of Buildings
Submitted by val	entina.janev on Thu	, 06/03/2021 - 1	4:41			
Read more 1 vi	ew					
_	er their lifetime t					d of their design and construction, how they may be designed, retrofitted e, occupant health and engagement, energy systems efficiency and
Tempera	ture Sens	ing Opti	mization fo	r Home T	hermostat Re	trofit
Submitted by val	entina.janev on Wed	d, 05/26/2021 - 1	11:38			
Read more 0 vi	ews					
Reduced-	Order Mo	dels as	Web Appli	cation for	Energy Manag	gement: Barriers and Challenge
Submitted by val	entina.janev on Mor	n, 05/10/2021 - 1	16:15			
Read more 0 vi	ews					
Deep Rei	nforceme	nt Learr	ning for Ho	me Energy	y Managemen	t System Control
Submitted by val	entina.janev on Mor	n, 05/10/2021 - 1	6:14			
Read more 0 vi	ews					
Bridging flexibility			rids: updat	ing legacy	and new tech	nnology to match XXI century energy
Submitted by val	entina.janev on Fri,	03/05/2021 - 13	24			
Dood more Ovi						

Building Information and Energy Modelling to support Near Zero Energy Buildings

Figure 4. SINERGY eLearning Website - NUIG Lectures



2.5. Events

The Events Submenu, https://project-sinergy.org/Events leads to:

- Past Events (see Figure 5)
- Forthcoming Events (see Figure 6)



Figure 5. SINERGY Past events in 2021





	Search
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SINERGY Session at the Belgrade Big Data Analytics Summer School

Submitted by valentina janev on Thu, 01/21/2021 - 14:27

Read more

After the successful organization of the first Belgrade Big Data Analytics Summer School in 2019 and the online summer school in 2020, the Institute Mihajlo Pupin will organize the 3rd edition of the event from 15 to 17th of June 2021.

Hardware-in-the-Loop (HIL) Simulation Method, IEEE PES GM 2021

Submitted by valentina janev on Wed, 04/28/2021 - 13:28

Read more

As scientific dissemination, the activities in the "SINERGY" project with a specific focus on Hardware-in-the-Loop (HIL) simulation methods will be presented at the IEEE PES GM. The PES Task Force "Innovative teaching methods for modern power and energy systems" already approved a 10-15 min slot within the TF meeting in which we will present our indented work. This applies for the TF meetings at the IEEE PES GM 2021 and 2022, respectively.

First SINERGY Workshop - Smart Grid Technologies

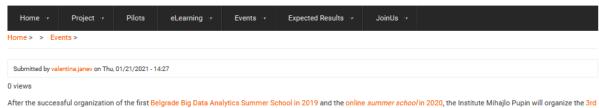
Submitted by valentina.janev on Thu, 01/21/2021 - 13:50

Read more

Figure 6. Future events







After the successful organization of the first Belgrade Big Data Analytics Summer School in 2019 and the online summer school in 2020, the Institute Mihajlo Pupin will organize the 3rd edition of the event from 15 to 17th of June 2021.

The SINERGY Consortium will prepare four lectures. The Session is scheduled for 16th of June 2021, from 1.30 to 16.00.

Programme

IMP

Nikola Tomašević - SINERGY Project - Overview of activities

AIT

- Thomas Strasser: Modern ICT/Automation Approaches for Smart Grids and Industrial Environments (Invited Lecture), more info
- Friederich Kupzog: Reference architectures for Smart Grids (Invited Lecture), more info

NUIG

- $\bullet \ \ \mathsf{Federico} \ \mathsf{Seri:} \ \mathsf{Temperature} \ \mathsf{Sensing} \ \mathsf{Optimization} \ \mathsf{for} \ \mathsf{Home} \ \mathsf{Thermostat} \ \mathsf{Retrofit}), more \ \mathsf{info}$
- Luis M. Blanes: Reduced-Order Models as Web Application for Energy Management: Barriers and Challenge (Invited Lecture), more info

Date

Wed, 06/16/2021 - 12:00

Event category

Workshop

Figure 7. Example of announcement of an event



2.6. Expected Results

The Expected Results Submenu, https://project-sinergy.org/Results leads to:

- Deliverables (see Figure 8)
- Publications
- Preceding publications

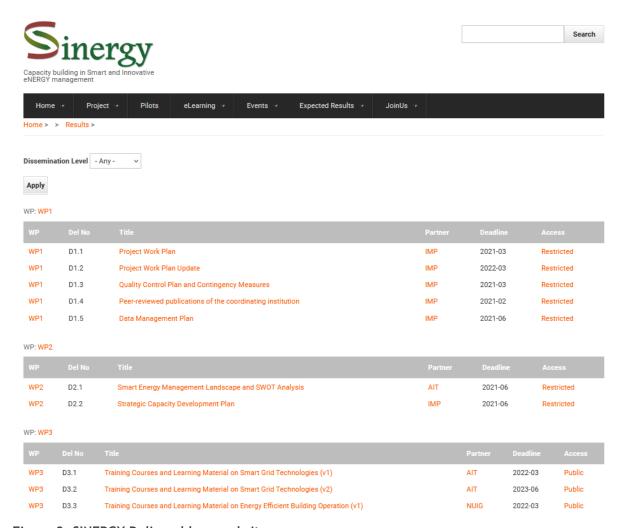


Figure 8. SINERGY Deliverables - website



2.7. JoinUs

The SINERGY consortium currently uses the following social media channels:

- LinkedIn Page, https://www.linkedin.com/company/project-sinergy-org/ (see Figure 9)
- Twitter, https://twitter.com/H2020Sinergy (see Figure 10)

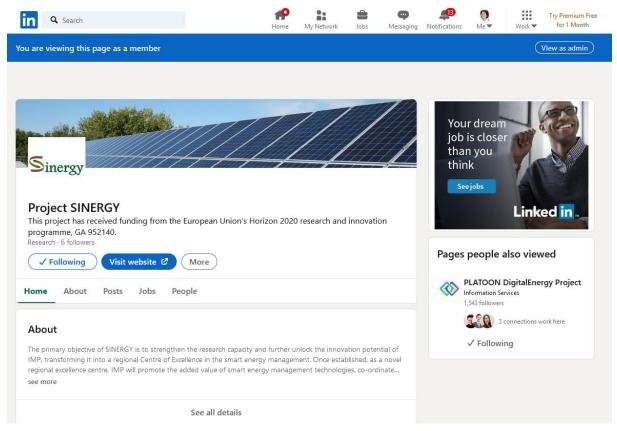


Figure 9. SINERGY LinkedIn page



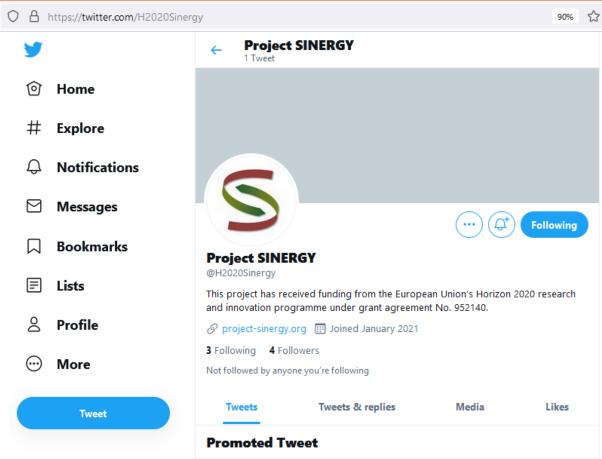


Figure 10. SINERGY Twitter account



3. Implementation Details

3.1. About the Drupal CMS

There are different state-of-the-art solutions for content management systems that can be utilized to develop and maintain a platform such is required by the SINERGY consortium. The most commonly utilized are WordPress, Joomla and Drupal. Following previous experiences from ongoing and completed twinning projects, the following list of key features has been isolated as the most crucial for the CMS of choice:

- Technical advancement
- Security features;
- Customization capabilities;
- Active user community;
- Performances.

With regards to the other two choices, Drupal is the most powerful mentioned platform and is chosen as an ideal one for creating a complex website as SINERGY necessitates. Drupal is boasted as a highly stable, highly versatile open-source platform that can facilitate many users. Furthermore, owing to its active community, it offers a couple of thousands of themes as well as numerous plugins that can be used to easily extend the platform.

However, it should also be noted that Drupal it is a notably more complex choice than the other two, but in turns provides more technical advances and a lot of features and functionalities. Furthermore, it offers strong, enterprise-grade security to the websites that use it, resulting in significantly more security as compared to WordPress for example. Finally, its resource requirements are relatively low, resulting in quick operation.

The architecture of Drupal CMS is modular. Concretely, it consists of a few core modules and a vast number of different plug-ins that can be switched on and off as required. The core provides basic services which enable the modules to implement specific features as presented in the next figure. On the other hand, for missing functionalities, a new plug-in can be easily developed or included.

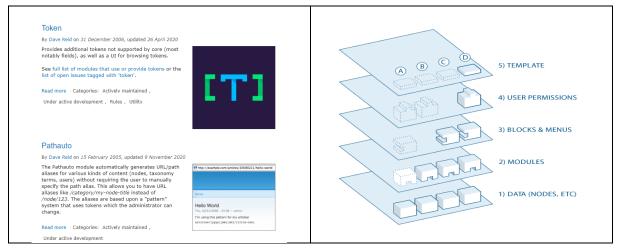


Figure 11. Overview of Drupal modules (left) and abstractions layers (right)

The architecture is divided into several layers of abstraction which have shared responsibility. The layers are:



- Data layer,
- Modules layer,
- Block and Menus layer,
- User permissions layer and
- Template layer,

as shown on Figure 11.

3.2. Platform Information Architecture

The platform is a set of web pages that could contain many types of content, such as informational pages (articles), news items, lectures pages, etc. In Drupal, each item of content is called a *node*, and each node belongs to a single *content type*, which defines various default settings for nodes of that type, such as whether the node is published automatically and whether comments are permitted.

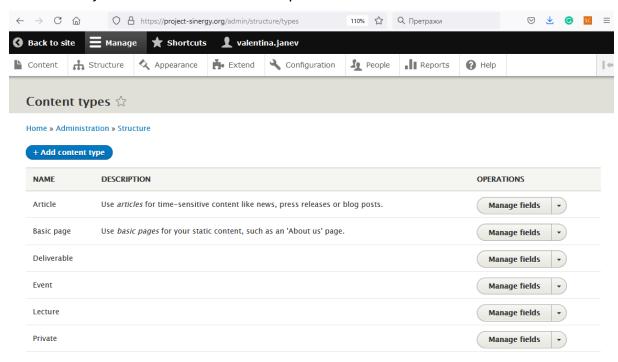


Figure 12. Platform - content types



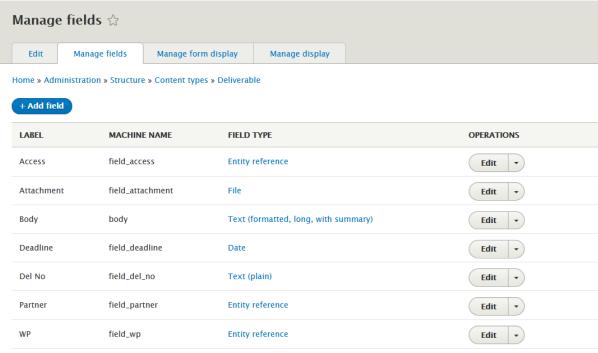


Figure 13. Platform - content type - R&D organization

Example: In order to structure the information, each content type is described with a set of attributes, see Figure 13.

3.3. Maintaining activities

The SINERGY platform with all its contents is maintained by the IMP team.

The server is regularly updated with security components that prevent malicious cyberattacks, while unintended users are blocked by IMP administrators.



4. Conclusion

This document provides an early overview of the functionality that is provided by the SINERGY website/portal. The document pays special attention to the structure of the website and its features stemming from the underlining CMS in relation to the requirements from the portal from the perspective of a twinning project that is intended to facilitate cooperation and knowledge exchange between different institutions. Furthermore, the SINERGY website, as described in this deliverable, is designed and deployed as a centralized hub of data, information and various other types of materials that could be of potential use for both the consortium partners as well as different institutions working in the domain of energy. The document also lists other means of communication between the consortium and interested third parties.