Capacity building in Smart and Innovative eNERGY management

WP6

Stakeholder Networking, Community Building, Dissemination and Promotional Activities

D6.2

SINERGY Web Portal

Deliverable due date	30/06/2021
Deliverable submission date	30/06/2021

Dissemination level (marked with "X")		
PU	Public, to be freely disseminated	X
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 1st, 2021 – December 31st, 2023 (36 months)
Coordinator	Institute Mihajlo Pupin (IMP)

Document metadata

Deliverable no.	D6.2
Deliverable title	SINERGY Web Portal and Communication Material
Related WP no.	WP6
Related WP title	Stakeholder Networking, Community Building, Dissemination and Promotional Activities
Lead beneficiary	IMP
Contributors	AIT, NUIG
Deliverable type	Report

Document revision history			
Version/name	**Date**	**Institution**	**Author(s)**
V0.1 (draft)	01/02/2021	IMP	Valentina Janev
V0.2	03/05/2021	IMP	Marko Jelić
V0.3	31/05/2021	AIT	Johannes Stöckl
V0.4	04/06/2021	NUIG	Luis M. Blanes
Internal review	11/06/2021	IMP	Nikola Tomašević
Final version	30/06/2021	IMP	Dušan Popadić

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/)

Table of Contents

List of Figures

List of Tables

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
IMP	Valentina Janev (updating the website), responsible for interactions with other projects
	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
AIT	Johannes Stöckl responsible for the Pilots submenu
	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

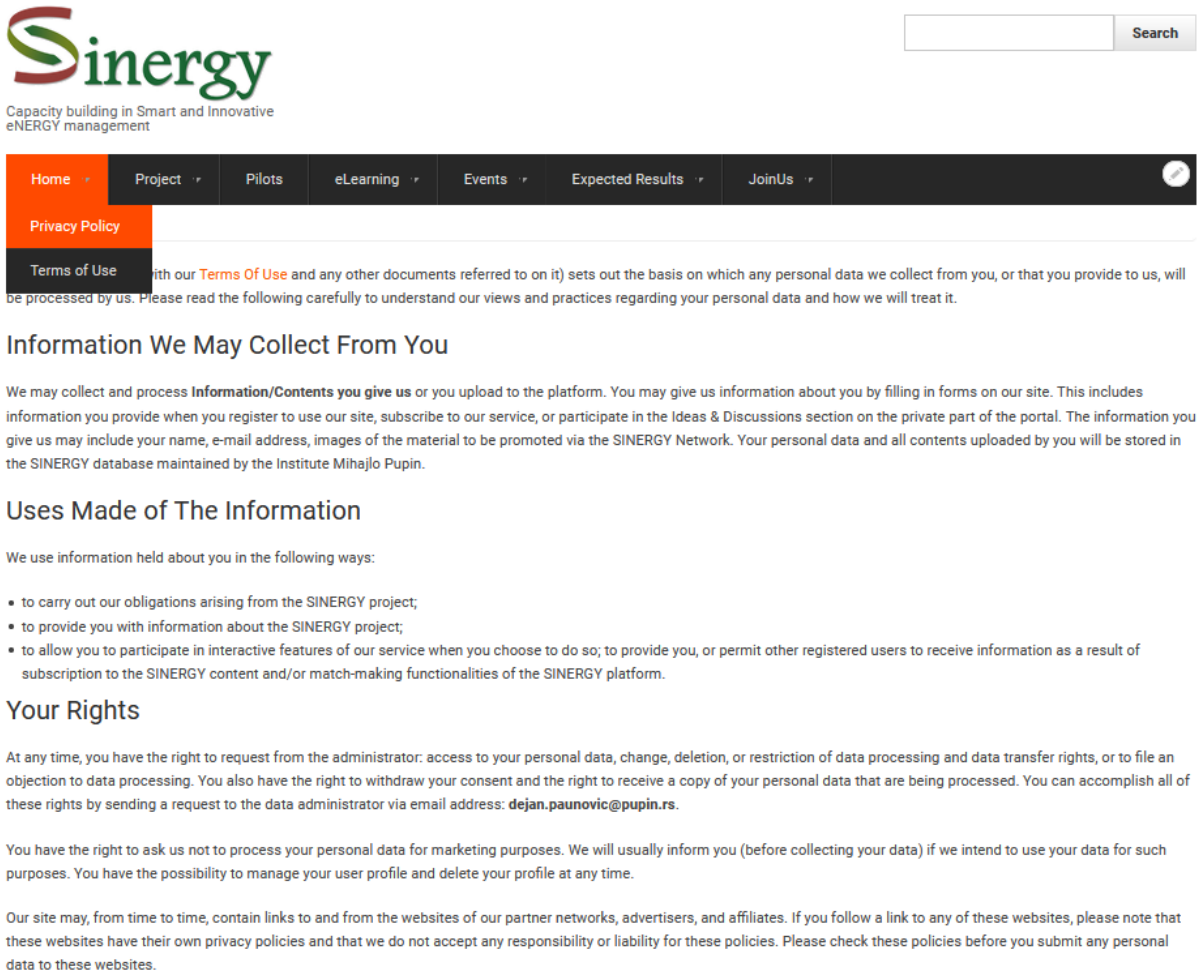

Figure 1. SINERGY Privacy Policy - website

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

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)

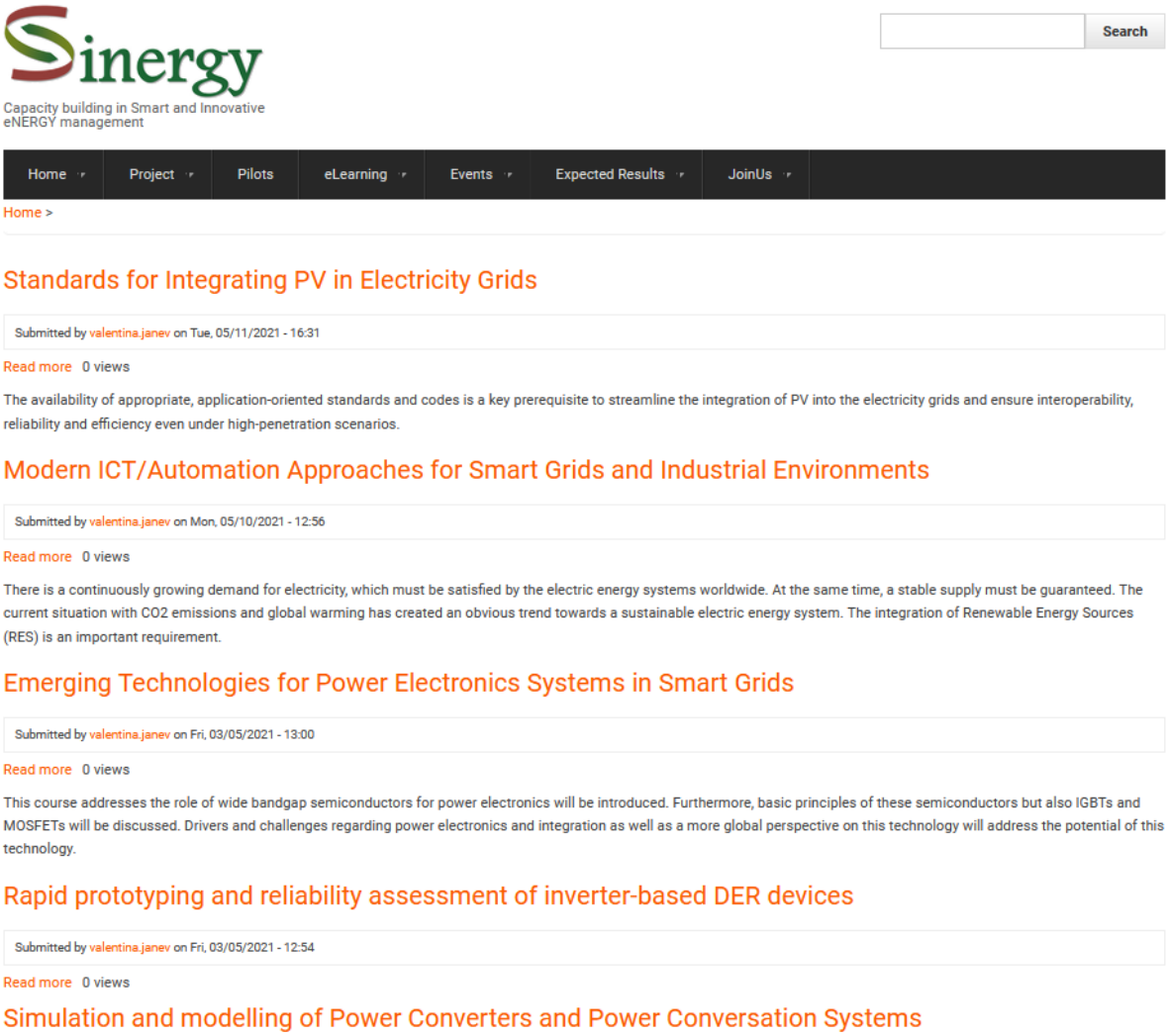

Figure 3. SINERGY eLearning Website – AIT Lectures

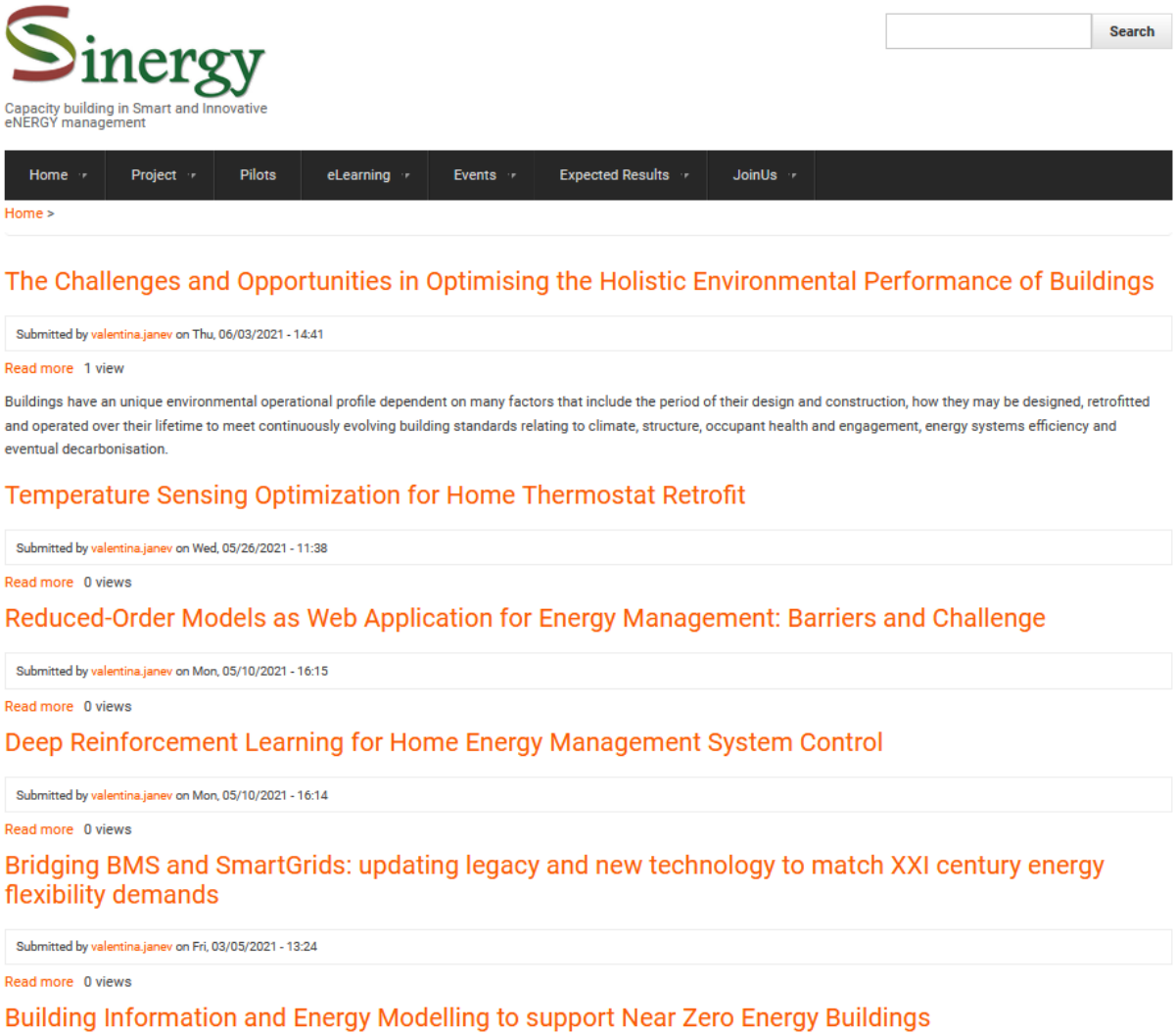

Figure 4. SINERGY eLearning Website – NUIG Lectures

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

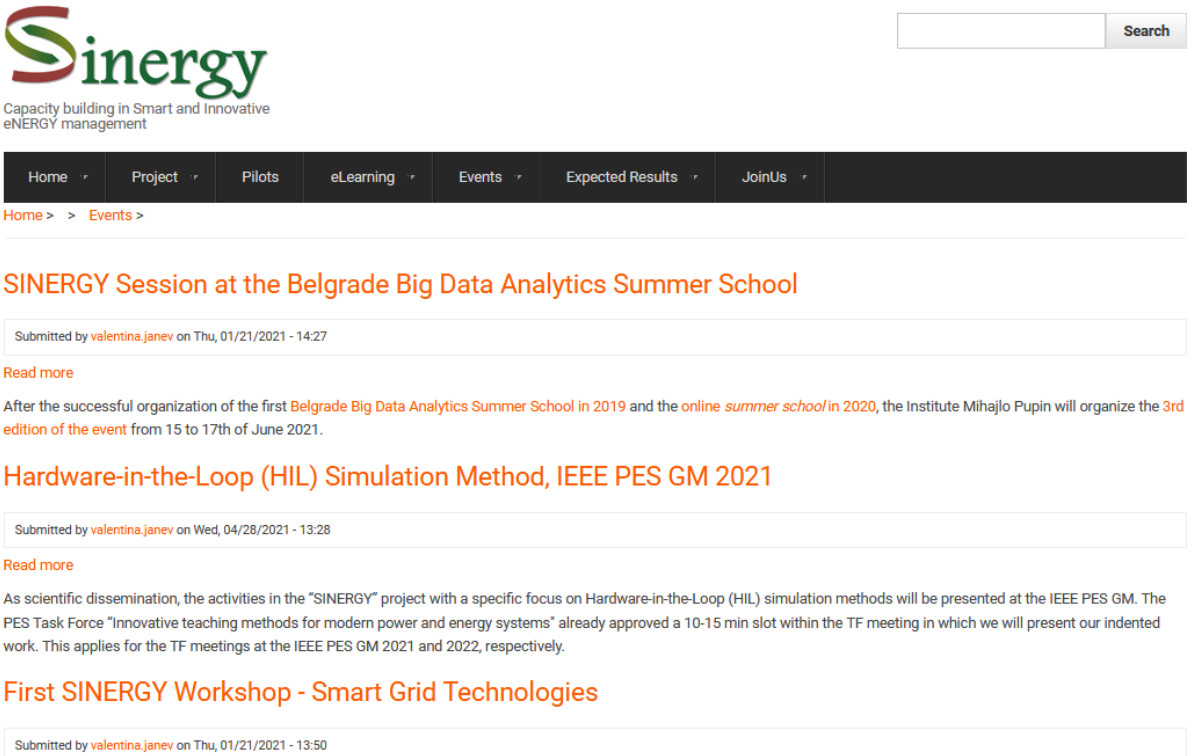

Figure 6. Future events

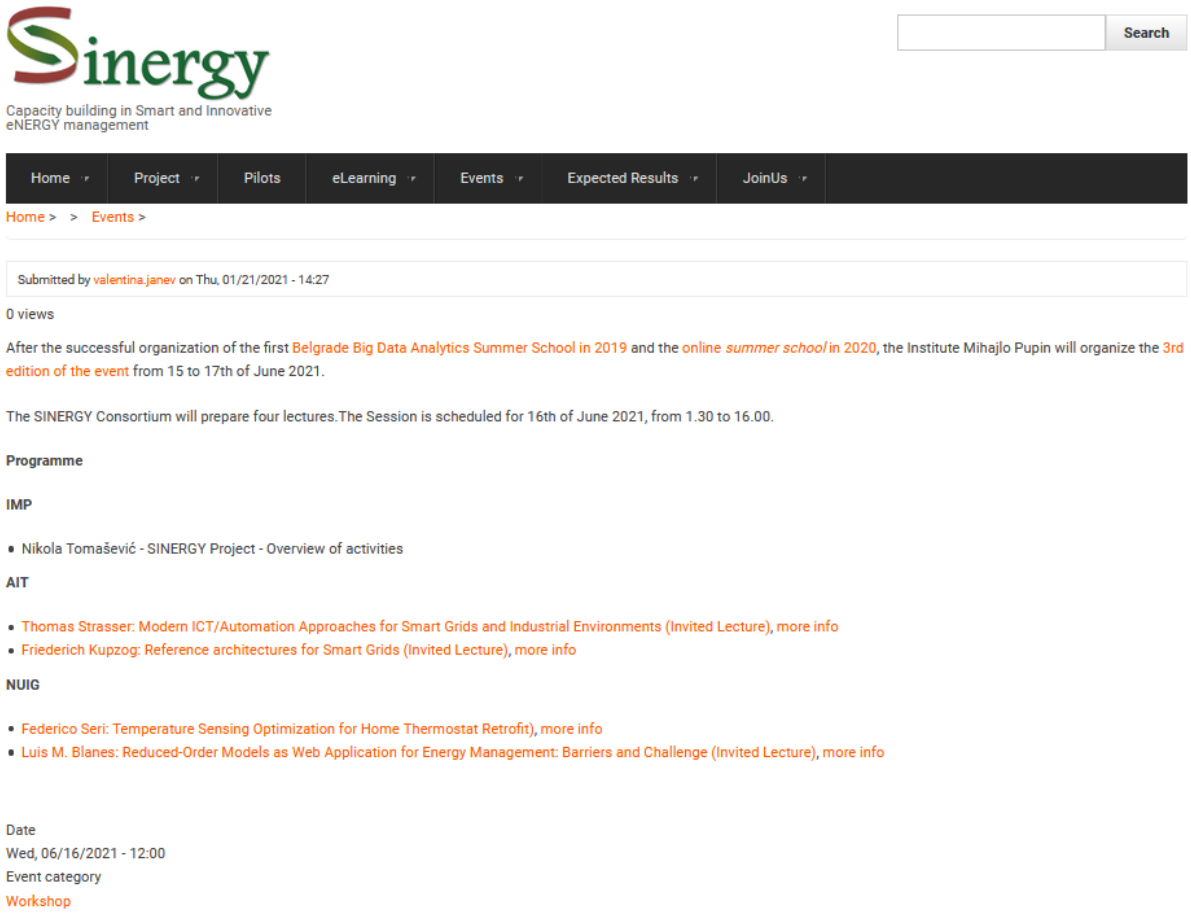

Figure 7. Example of announcement of an event

2.6. Expected Results

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

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

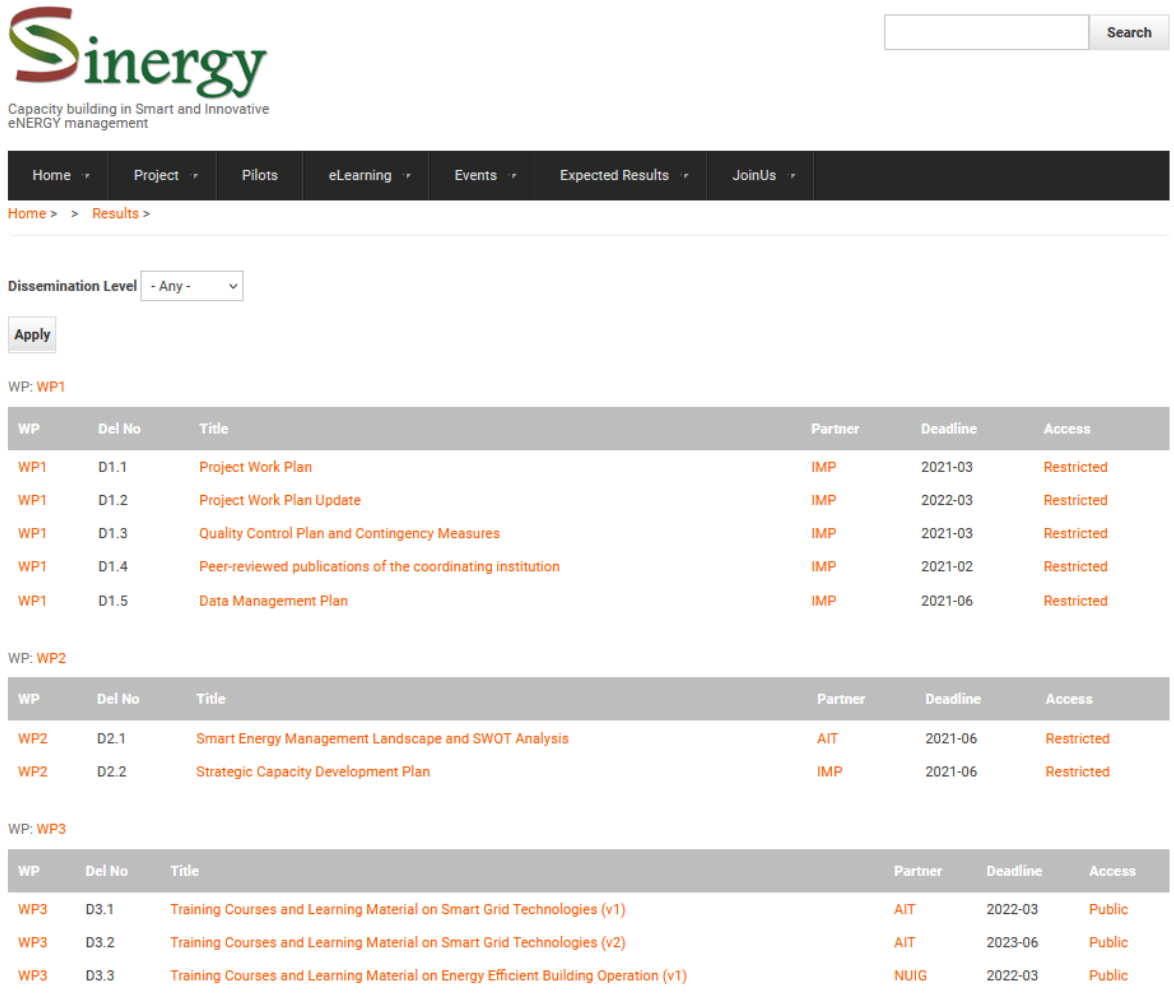

Figure 8. SINERGY Deliverables - website

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)

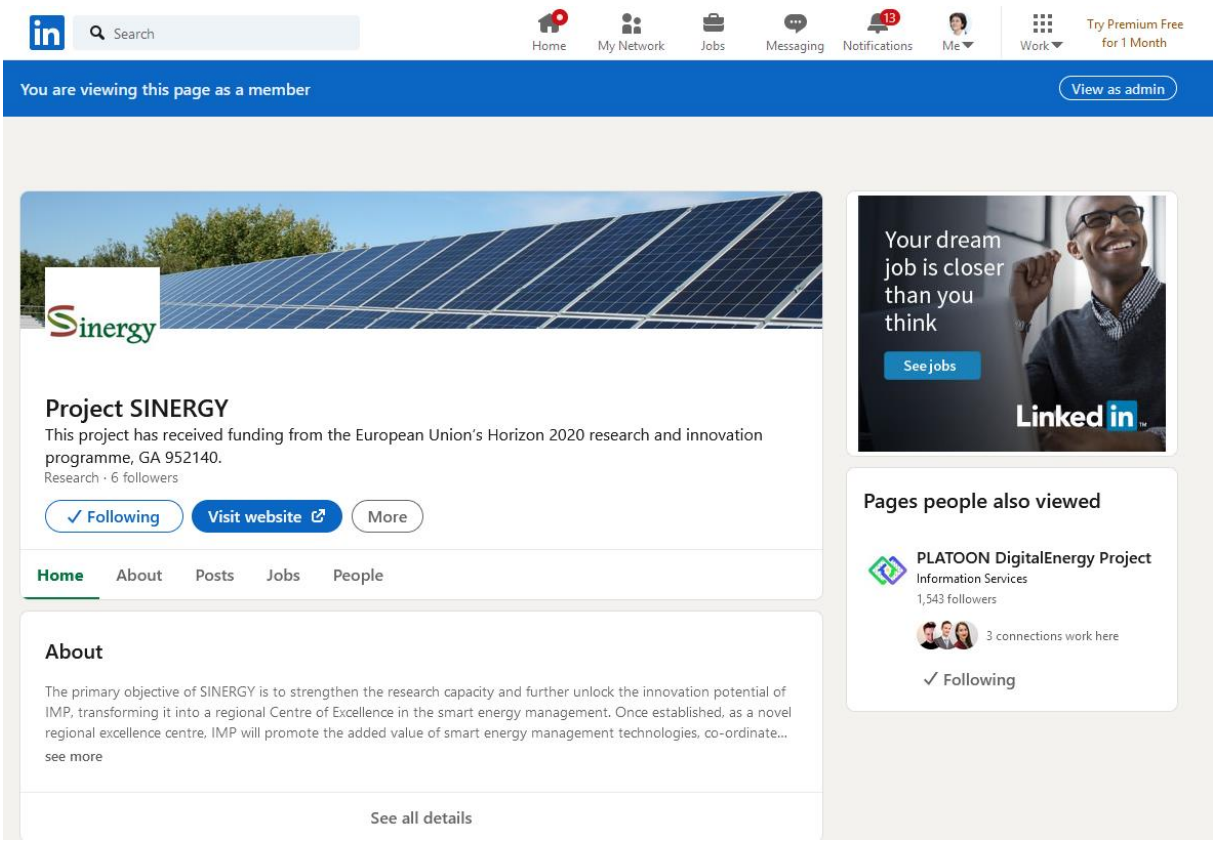

Figure 9. SINERGY LinkedIn page

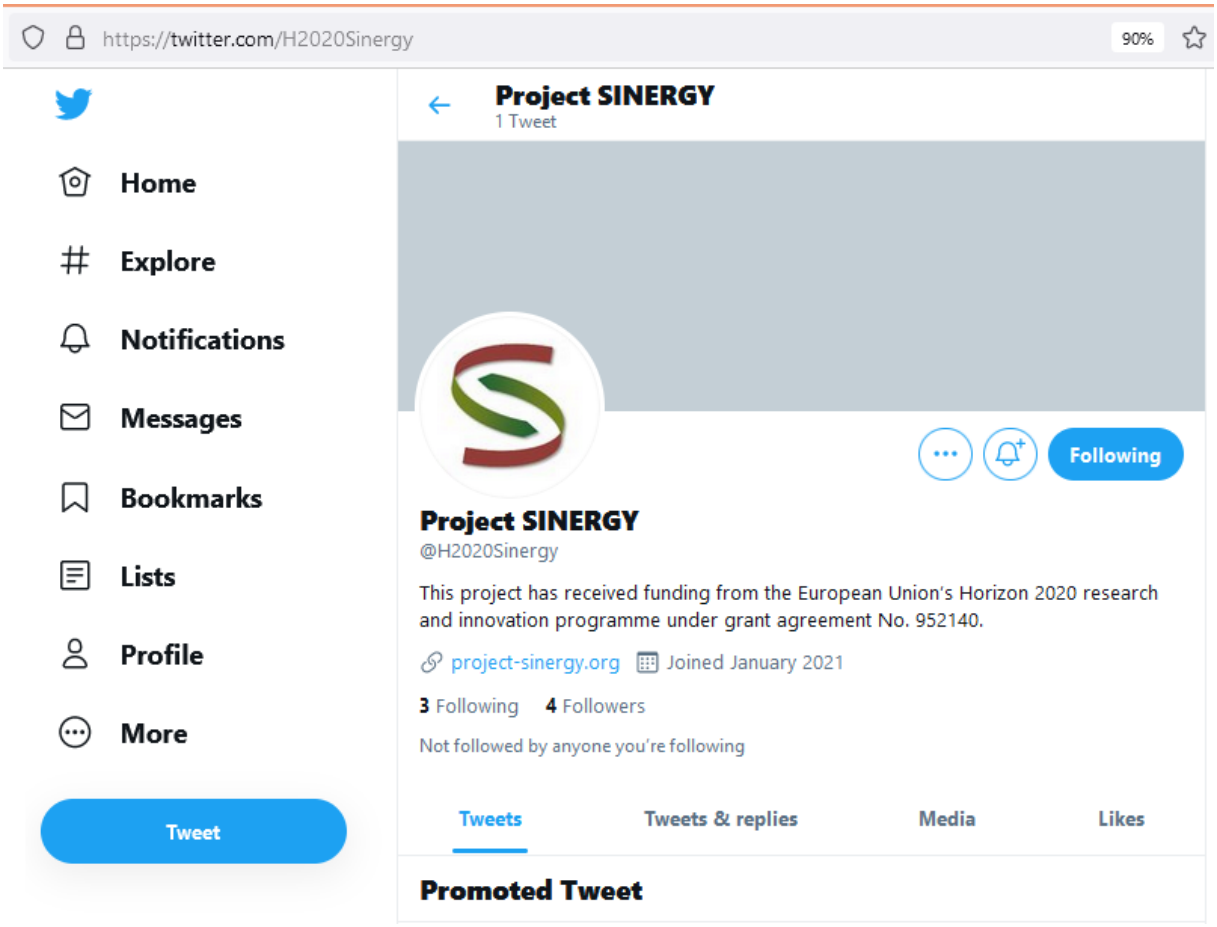

Figure 10. SINERGY Twitter account

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.

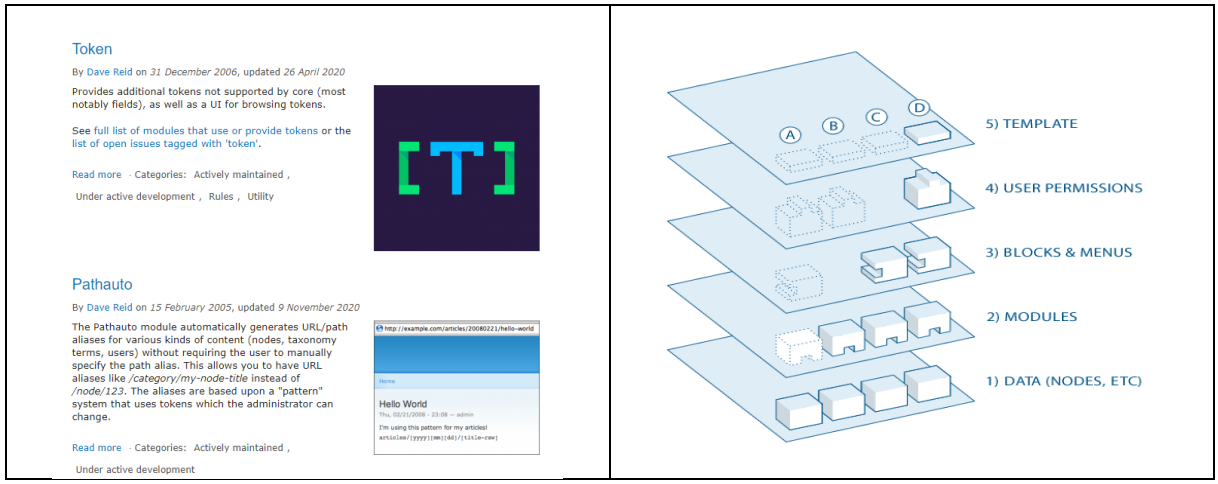

Figure 11. Overview of Drupal modules (left) and abstractions layers (right)

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.

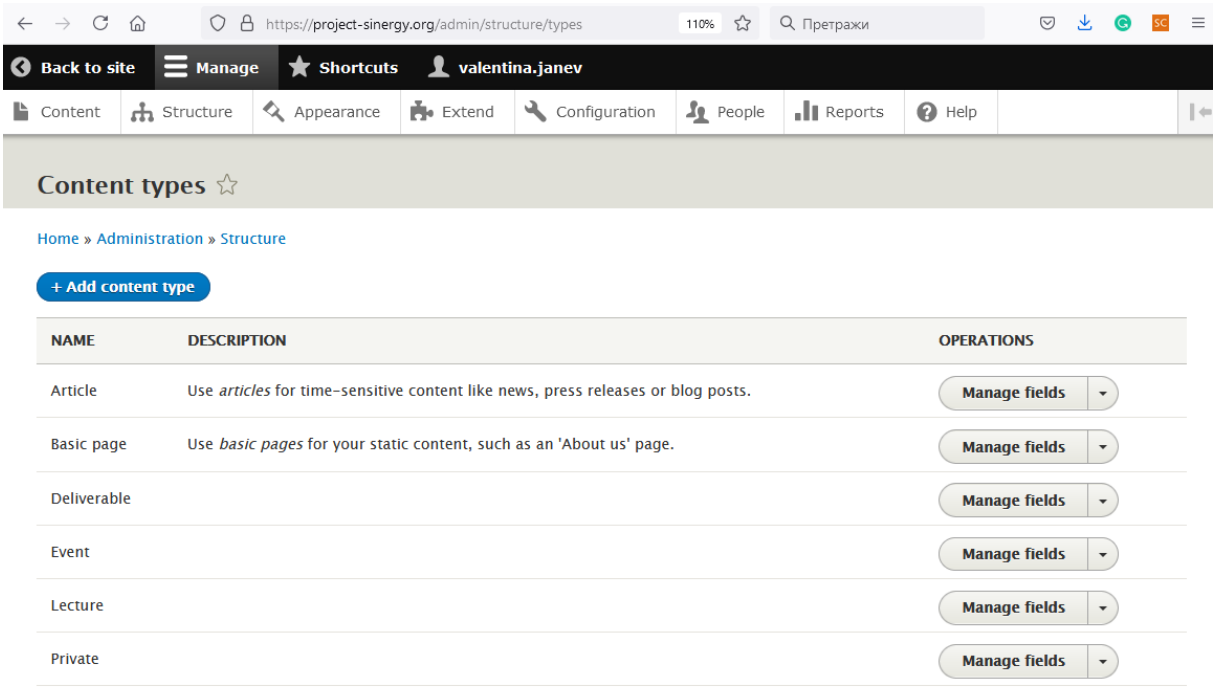

Figure 12. Platform - content types

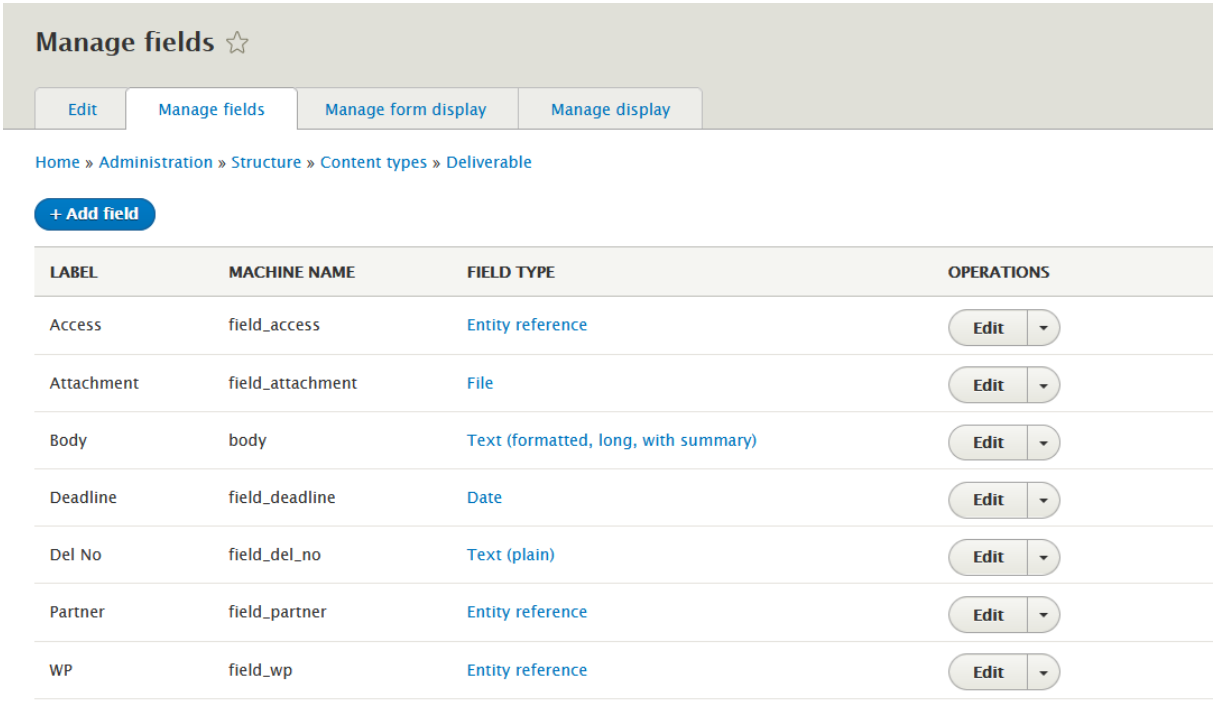

Figure 13. Platform - content type - R&D organization

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.