WP8 - Business Planning, Exploitation and Communication

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Abstract:

This deliverable provides the details of the communication methodology of the PHOENIX project along with the time plan for the communication activities that will take place under the framework of the project. Moreover, it reports and evaluates the (already) executed communication activities and the actions related to the interaction conducted with consortia of other H2020 projects.

Keywords:

Communication, training

Revision History

The following table describes the main changes done in the document since created.

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PHOENIX

Executive Summary

The major aim of this report is to build a holistic communication approach based on the project's targets, objectives, and unique characteristics in order to introduce, establish, and implement a specific action plan. Moreover, the specific plan for the training activities under the project framework, will be described.

To that purpose, this report includes the PHOENIX project's overarching communication strategy, the overall training plan, a thorough communication implementation plan, details on the activities completed thus far, and an evaluation of the progress towards the project's set communication targets.

In further detail, the general definitions of the dissemination and communication concepts are provided in order to highlight the differences between the two terms and to establish a thorough communication plan. After that, the target groups for the project communication activities and the target audiences are determined. In addition, the timeframe that should be followed according to the project requirements is offered, as well as the definitions and descriptions of target messages and communication channels. Furthermore, along with the project's communication content, the training activities that should take place are indicated and the channels that will be used for communication events are described.

The activities described in this report will be evaluated on a regular basis against the specified Key Performance Indicators, and against the semi-annual targets and milestones set forth. This procedure will allow the project's final communication goals to be met in a secure manner, as well as to support the raise of an important public awareness for the project's outcomes.

Disclaimer

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List of Acronyms and Abbreviations

Term	Description
AB	Advisory Board
AI	Artificial Intelligence
API	Application Programming Interfaces
BEMS	Building Energy Management System
BIM	Building Information Modelling
BMS	Building Management System
CHP	Combined Heat and Power
DHW	Domestic Hot Water
DoA	Description of Action
EPBD	Energy Performance of Buildings Directive
ESCO	Energy Service Company
EU	European Union
EV	Electric Vehicle
GDPR	General Data Protection Regulation
ICT	Information and Communication Technologies
IoT	Internet of Things
KPI	Key Performance Indicator
PnU	Plug and Use
PV	Photovoltaic
SME	Small and Medium-sized Enterprises
SRI	Smart Readiness Indicator
VRF	Variable Refrigerant Flow

1 Introduction

1.1 Project summary

PHOENIX has the aim of investigating and testing technologies and methodologies that will help on the upgrading of legacy equipment in buildings to increase and improve smart services for users and occupants. For this, PHOENIX will develop an ICT platform that will serve as a common arena to connect the different devices that one can find in a building. PHOENIX platform will be used also to host artificial intelligence mechanisms that provide solutions with a decision-making ability that will be used to provide recommendations and feedback to users, occupants, and building managers.

PHOENIX aims at changing the role of buildings from un-organised energy consumers to active agents orchestrating and optimising their energy consumption, production, and storage, with the goal of increasing energy performance, maximising occupants' benefit, and facilitating grid operation. The project will design a portfolio of ICT solutions covering all aspects from hardware and software upgrades needed in legacy equipment and optimal deployment of sensors, to data analytics and services for both building users and energy utilities. PHOENIX will take advantage of artificial intelligence technologies, as well as edge/cloud computing methods, to provide the highest level of smartness to existing buildings. The tools that will result from the different work packages will offer the possibility of establishing a new framework that will enable the optimisation of the energy use and infrastructure exploitation, while at the same time facilitating the creation of new SMEs and Start-Up ideas to exploit new revenue streams and business opportunities. To achieve this ambitious goal, PHOENIX relies on a consortium which has the technological knowledge and expertise to understand the social and technical requirements and to translate them into ICT innovations (within the fields of IoT, AI and Data Analytics) for the integration and smartness upgrading of existing buildings with legacy equipment and systems. To demonstrate the real impact and replicability of the results, the proposed solution with ICT innovations and cost-effective services will be validated in 5 different pilots at European level (i.e., Ireland, Greece, Sweden, and Spain). Moreover, the consortia have high expertise and business capacities to disseminate and exploit the PHOENIX results. PHOENIX will provide a portfolio of ICT solutions to increase the smartness of legacy systems and appliances in existing buildings which will increase the Smart Readiness Indicator (SRI) SRI of existing buildings. These improvements will translate in new human-centric services.

1.2 Scope and objectives of the deliverable

In this report the overall PHOENIX communication plan and communication strategy will be analysed, as well as the various communication techniques, tools, and materials to handle the project communication activities. Moreover, the specific timeline and quantified targets for those activities will be identified and drafted, while the actual activities of the first twelve months of the project will be reported and evaluated. Finally, the plan and targets of the training activities anticipated by the project will be discussed.

The major goal of this deliverable, in more depth, is to clearly define:

- The communication objectives in accordance with the project's goals.

- The initial timetable for the intended communication activities.

- The target groups for communication.

- The description of the project training activities

- The content and the message that must be developed throughout the project and presented at each identified communication channel.

- The description of the chosen communication methods, as well as a timeline for multiplying the expected effect to the specified target audiences.

- The interdependencies between the dissemination and communication activities and other project WPs and outputs.

- The partners' responsibilities for carrying out the planned communication activities.

1.3 Structure of the deliverable

The general definitions of the dissemination and communication concepts, as well as the main communication strategy, are discussed in the first section of this deliverable. More specifically, in this section, a clear difference between dissemination and communication is provided, followed by the recognition of various communication objectives, as well as the major approach that must be followed and the description of the SMART communication approach. In addition, the target

audiences are described in the same section, along with an identification of the groups on which the project should focus. Finally, the target messages and definitions of the communication channels and descriptions are provided, as well as the timeframe that must be followed according to what has been called the Description of Action.

Following the definition of terms, methodology, and strategy, the implementation plan for actual communication activities is described in the next section of this deliverable. First and foremost, in this section, a detailed plan of the project's intended communication activities is described, which will be constantly revised according to the performance of the actual communication activities. Following that, the PHOENIX project's precise target audiences and key stakeholder groups are identified, along with the actions and awareness-raising and engagement activities that will be used to motivate those key target groups. Finally, the important channels that will be used for the project's communication activities are identified and provided in this section, followed by a presentation of the project's actual communication activities up to this month.

In the final section of this deliverable, the monitoring, evaluation, and assessment of the realized communication activities are described. The methodology of the impact evaluation and the meaning of the Key Performance Indicators (KPIs) are described first in this section. Following the methodology definition, the outcomes of the evaluation are reported, which will be updated every six months to track the effective implementation of the planned activities. Finally, the project's online monitoring tool is provided, which will be utilized by all partners to track their activities regarding both communication and dissemination of the project.

1.4 Relation to other project tasks

As communication actions are part of practically every other project activity, they naturally have a horizontal relationship with all work packages and tasks in the context of a project. Nevertheless, there are specific interdependencies with tasks of considerable interest for those activities that need to be described in greater depth.

- **Task 8.2.** "Dissemination, Standardization and Stakeholders Engagement". Naturally the communication and training activities of the project, that will be performed under the framework of task 8.1, are tightly connected with the dissemination and stakeholders' engagement activities of task 8.2. Thus, those two tasks will develop tightly throughout the project's duration, and they will monitor together the performance of their activities towards the specified KPIs.

- **Deliverables 8.1, 8.2, 8.5 and 8.6**. The project's plan for communication and training activities will be described in the context of this report, deliverable 8.1 "*Communication and training*". Moreover, in this deliverable all the performed activities and their evaluation up to month 12 will be discussed. In month 22, under deliverable 8.2 "*Business planning, exploitation strategies and communication report – Initial version*" the communication and training activities up to month 18 will be described and evaluated. Following that, in month 31, with the submission of deliverable 8.5 "*Business planning, exploitation strategies and communication report – Intermediate version*" the communication and training activities up to month 30 will be described and evaluated. Finally, in deliverable 8.6 "*Business planning, exploitation strategies and communication report – Final version*" the communication and training activities up to month 36 will be described and evaluated, along with any changes in the initial communication plan.

M12 D8.1 → **M22** D8.2 → **M31** D8.5 → **M36** D8.6
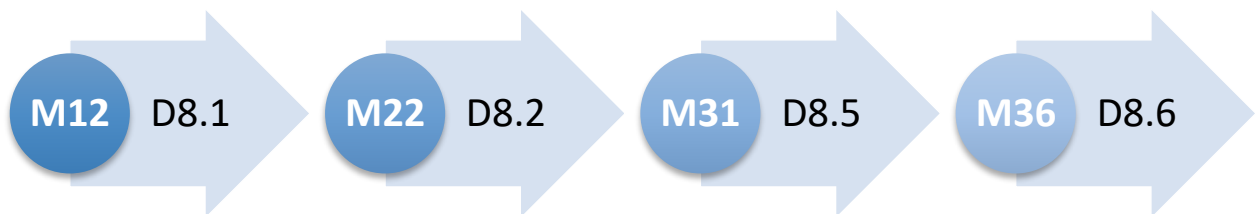
Figure 1: Report of communication activities in different deliverables.

- **Task 8.3**. Furthermore, the project's communication activities are inextricably linked to its exploitation activities. As a result, task 8.1 is linked to task 8.3 "*Business modelling, IPR management and exploitation planning"* and will work closely together throughout the project's implementation.

2 Project communication objectives and strategy

In this section of the deliverable, the content and the structure of the PHOENIX project's communication activities will be presented, which will be followed in the sections by a more detailed description of the communication activities that were implemented during the first period of the project. The PHOENIX project's draft Communication plan outlines a number of activities aimed at maximizing project impact. Task 8.1 entails the creation, implementation, and ongoing improvement of the project's Communication plan. It should be noted that the PHOENIX Communication plan and the channels described are inextricably linked to the exploitation of project results; effective publicity and wide exposure of project activities and/or results to targeted stakeholders and media would facilitate their use beyond the project's lifetime and thus increase the project's value. Moreover, the project's communication activities remain strictly depended on and connected to the dissemination of project activities among the relevant scientific stakeholders.

To that aim, horizontal actions will be performed in the context of task 8.1, with the goal of increasing the project's outreach and visibility. Such communication activities will be implemented in conjunction with dissemination activities under task 8.2, resulting in a project impact that is maximized while attempting to increase EU citizens' awareness of Horizon 2020 and its role in reinforcing the EU economy. As a result, the PHOENIX consortium developed an integrated communication campaign in conjunction with the project's dissemination activities, attempting to use a variety of tools and means to communicate the project's results and instruments in order to make the project's results more understandable to a wider audience of stakeholders.

2.1 Definitions

Before beginning to build a communication plan, it is critical to have a clear understanding of the fundamental definitions from which the development will begin and the approach that should be taken. The PHOENIX Communication plan will be in constant development and periodically updated throughout the project's duration. It is critical that this plan will be constantly monitored, re-evaluated and, if necessary, readopted, in order to meet the project's defined Key Performance Indicators (KPIs). The following Figure 2 depicts a description of the procedure.
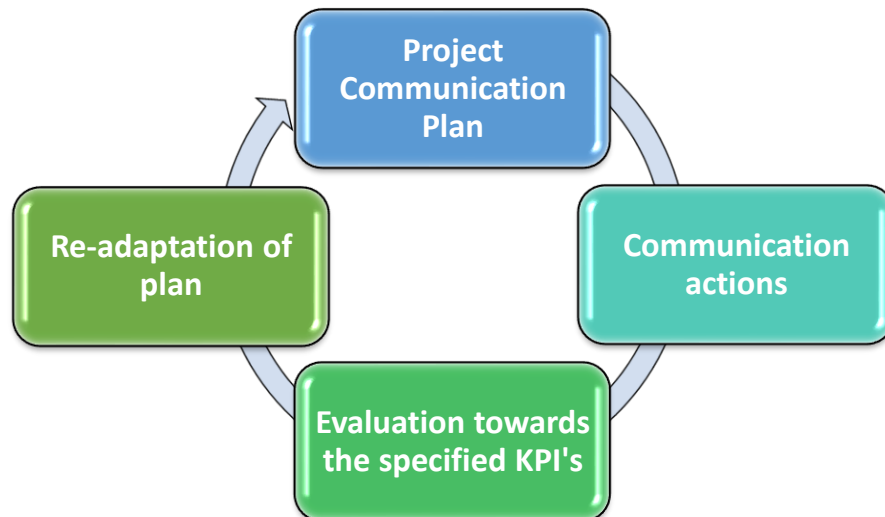
Figure 2: The constant development procedure of the PHOENIX communication plan.

Another key distinction to be made before deploying the project's communication plan is the distinction between communication and dissemination definitions. This distinction between the two terminologies is especially important for the success of any communication plan, as it influences various strategic factors and relative actions.

Taking this into account, these two concepts can be defined as follows according to [1]:

- **Communication** "*on projects is a strategically planned process that starts at the outset of the action and continues throughout its entire lifetime, aimed at promoting the action and its results. It requires strategic and targeted measures for communicating about the action and its results to a multitude of audiences, including the media and the public and possibly engaging in a two-way exchange.*"

- **Dissemination** is "*the public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium.*"

A review of the differences between those two terms is presented in the following Table 1, with an emphasis on target audiences and objectives [2].

Table 1: Distinction between communication and dissemination

Communication	Dissemination
About the project and results	About **results only**
Multiple audiences **Beyond the project's own community** **(including the media and the public)**	**Audiences that may use the results** in their own work e.g., peers (scientific or the project's own community), industry and other commercial actors, professional organizations, policymakers
Inform and reach out to society, show the benefits of research	**Enable use** and **uptake** of **results**

Finally, it should be noted that Task 8.1 "Communication Activities and Training/Awareness Actions" and the corresponding deliverable 8.1 "Communication and training" will draft the communication plan of the project and report on the communication activities, while Task 8.2 "Dissemination, Standardisation and Stakeholders Engagement" will draft the dissemination plan and will report the activities under deliverable 8.2 "Business planning, exploitation strategies and communication report"

2.2 SMART Communication Methodology

Before beginning to draft the project communication plan, it should be noted that it will be based on the SMART methodological concept. SMART methodology is a conceptual approach targeting to design a consistent and robust communication plan before starting to communicate and disseminate project results. In this approach the main key is consistency. In more depth, the SMART technique considers the following factors:

Figure 3 SMART Methodology.

- **Specific**: Answer key targeted questions (Who, What, Where, How, When, and Why?) to identify all the unique communication goals. Set clear communication goals to determine methods and vehicles, goals and messages, benefits and stakeholders, and the project's timeline.

- **Measurable**: Establish criteria for evaluating the project's communication progress. Metrics are critical in the formulation of a plan (e.g., online analytics, surveys and polls, feedback analysis).

- **Achievable/Attainable:** Set realistic communication goals and track the quality-quantity balance.

- **Realistic & Results Oriented:** Establish criteria for determining if the project's aims and techniques are on track to reach the expected objectives. Based on the answer, assess the communication's quality. Identify possible measures for improvement if the project's results aren't what was expected at the start.

- **Time Conscious:** A good communication plan necessitates complete adherence to the specified timeline and deadlines.

2.3 Communication objectives and main strategy

Following this distinction between dissemination and communication and the tasks' responsibilities, the determination of objectives behind communication-related activities is a first step on defining the project's communication strategy.

Thus, one can identify that communication strategy is driven by the following objectives:

1. To raise public knowledge of the project and its outcomes among potential users and the wider public.
2. To prepare communication materials with the goal of providing a clear picture of the project concept and proposed PHOENIX solutions to the general public.
3. To lay the groundwork for the project's outcomes to be exploited.
4. To assist the project's dissemination activities.
5. To familiarize the general public about Horizon 2020 initiatives and their impact on the EU society and economy.

As a result, and in order to accomplish those high-level communication goals, the PHOENIX project communication strategy includes the following principal steps:

1. The definition of the PHOENIX project primary messages and branding.
2. The identification of the main communication pillars and the project strength.
3. Finding the most appropriate communication channels and figuring out how to leverage them.

4. Prioritization of identified channels and identification of the recommended activities based on predicted outcomes.

5. Evaluate the identified communication channels, calculating the cost or effort required in relation to the target audience engagement, and the evaluation of results towards specified KPIs.

6. Concentrate on the most effective communication channels and means, that have achieved the best results in terms of resource consumption and benefit.

2.4 Target audience

Another crucial part of developing a coherent and effective communication plan is correctly identifying the target audience, because it is self-evident that putting up a plan without knowing who is being targeted will be futile. So, after establishing the goals and primary procedures for communication (what?) and the target audience (who?), their specific interest in the project must be identified. As a result, of the PHOENIX project's wide range of solutions and technologies, distinct types of end users associated with the communication Activities and project objectives have been defined. Then, those identified target audiences and stakeholders can be sorted based on their interest/relevance to the project. Those categories would be, the target audiences and stakeholder groups that are highly interested in the PHOENIX project and its outcomes, those who are moderately interested in the project, and those who have a more general and not specific interest in the project results.

2.5 Target messages

After determining the key objectives and core target groups for PHOENIX's communication strategy, the core target messages that will be transmitted should be determined. Communication with stakeholders and target groups appears to be difficult at times when the messages are not properly designed. So, it is critical to establish the appropriate key communication messages to guarantee that the primary points of dissemination and communication strategy are conveyed.

In parallel, it is critical to consider the following factors while determining the appropriate target messages:

- Is the messaging clear and to the point for all stakeholders?
- Is our core message written in active language and in a positive tone?
- Is our message accurately representing our activities?

- What are the anticipated outcomes of our primary message?

In this regard, the PHOENIX target messages will be evaluated and updated on a regular basis to ensure its relevancy, but also taking into account that the constant repetition is also vital because it reinforces the key messages and also ensures its uptake from the target focus groups.

Finally, in order for our message to be presented to the target audience in a clear and understandable manner, it must be created in a way in which it has been designed with the characteristics and needs of the focus groups, as illustrated in the following Figure 4.
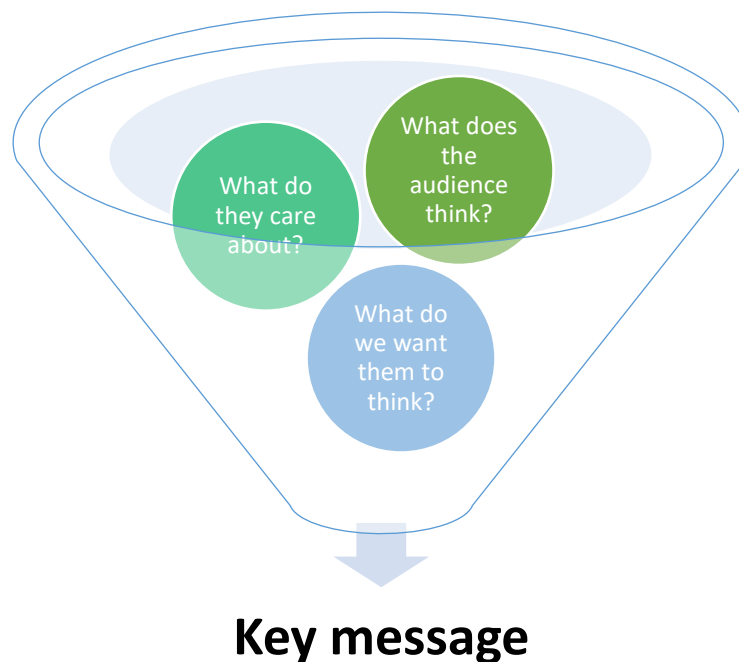
Key message

Figure 4: Comprehensive key message creation.

2.6 Communication channels

Nowadays, there are a range of communication channels that may be utilized to reach various focus groups and stakeholders with various types of messages. Thus, the following questions must be answered in order to make the best choice between them and communicate the appropriate message to the target audience:

- Who do we want to deliver the message to?
- What is the message we want to deliver?
- What are our main objectives from the message delivery?

As a result, when we answer those questions, we eventually arrive at the most essential question: "How are we going to transmit the message?" which means that we use the most appropriate communication channels.

2.7 Communication timeline

As described in the PHOENIX project DoA [3], with regards to timeline, the PHOENIX communication plan is structured in three main phases:

1. PHOENIX communication activities start with a first phase involving all end-users of PHOENIX products/services:

   - With local interactions in pilot sites engaging local communities (UMU, ARDEN, KaMa, LTU, MIWENERGIA).
   - Stakeholders involved in the implementation and feedback; and
   - ESCOs and Aggregators supporting the project.

2. A second phase focused on on-going initiatives to promote PHOENIX approaches by chairing ABs of ABs meetings;

3. A third phase (global) where PHOENIX promotes its potential to all potential interested individuals/companies such as energy service providers and developers, facility managers, etc.

3 Implementation plan for communication activities

In this part of the document the specific plan for how the communication strategy will be carried out, as well as the actions associated with its implementation, will be discussed.

The communication **activities** are explained in depth in the first chapter, including the suggested communication channel to be used, an expected schedule, and the responsible partner to carry them out. The presented target **audience** and stakeholder groups are discussed in greater depth in the following chapter, and finally, the suggested communication **channels** used within the project are detailed in the next chapter.

3.1 Activities

The following Table 2 depicts a detailed strategy for the communication activities to be carried out within the project's framework. Throughout the project's lifespan, this strategy will serve as the primary guideline for all communication activities of the PHOENIX project.

Table 2: PHOENIX communication activities detailed plan

Activity	Time plan	Partner
Project website	M3 -M4: Website initial design and launch	MERITCH
	M4 – M36: Constant update of website content	Coordination: MERITCH Contribution: All partners
Social media	M3 – M4: Establishment of social media accounts in Twitter, LinkedIn, Facebook	MERITCH
	M5 – M36: At least 1 weekly update on Facebook, Twitter or LinkedIn and establishment of YouTube account	Coordination: MERITCH Posts: All partners
Dissemination material	M1 – M18: One project leaflet One project poster	MERITCH with contribution from technology provider and pilot partners

	M19 – M36: One update of project leaflet One update of project poster One project reference PPT presentation	MERITCH with contribution from technology provider and pilot partners
Newsletters	First newsletter in M12 of the project and after that 1 project newsletter every 6 months during project duration	Coordination: MERITCH Input: All partners
Press releases	One press release for important milestones during project duration	Coordination: MERITCH Input: All partners
Participation among interest groups	By M18: Participation in at least 1 interest group	Coordination: MERITCH, UMU Participation: All partners
	M19 – M36: Participation in at least another 2 interest groups	
Training / webinars	By M22: 1 training session covering the core and the objectives of the project	Coordination: MERITCH / UMU Organized & moderated by: PILOT PARTNERS and TECHNOLOGY PROVIDERS
	By M36: 1 training session covering the project's results	
Communication actions with other H2020	M1 – M18: Establishment of communication and synergies with at least 3 projects or one project community.	Coordination: MERITCH / UMU Contribution: All partners
	M19 – M36: Establishment of communication and synergies with at least another 3 projects or one more project community	

3.2 Audience

The findings of this mapping for PHOENIX stakeholders and end users, in categories with groups that interested in the PHOENIX project and its outcomes, groups who are moderately interested

in the project, and groups who have a more general and not specific interest in the project results as described in section 2.4, are shown in Figure 5 below.

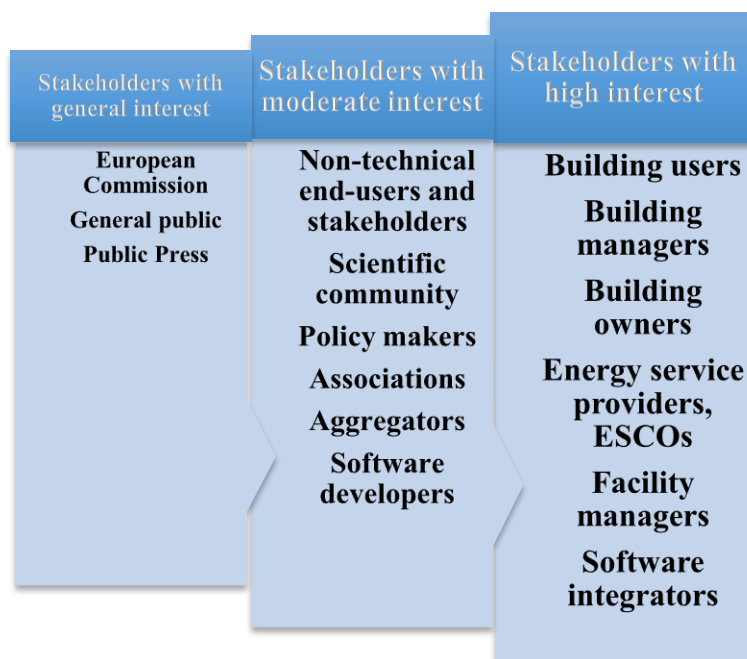**Figure 5: PHOENIX target audience mapping**

3.2.1 Target groups enrolment in communication Activities

After identifying the PHOENIX project's various stakeholder groups and defining the various communication objectives, a cross matrix analysis for each stakeholder group is presented, presenting the aim that the communication plan should focus on. This analysis is shown in the Table 3 below.

Table 3: Communication Objectives vs. stakeholders' cross matrix

European Union bodies	✓	✓	✓	✓	✓
General public	✓	✓			
Press	✓	✓	✓	✓	✓
Non-technical end-users and stakeholders	✓	✓		✓	✓
Scientific community	✓		✓	✓	
Policy makers		✓			
Associations	✓				
Aggregators	✓	✓			
Software developers			✓	✓	
Building users	✓	✓			✓
Building managers	✓	✓	✓		✓
Building owners	✓	✓	✓		✓
Energy service providers, ESCOs	✓	✓	✓	✓	
Facility managers	✓	✓	✓	✓	
Software integrators		✓	✓	✓	

3.3 Channels

3.3.1 Project Website

Websites are nowadays an integral part of our daily lives, and it was a long time ago when they used to be limited to the transmission of information from paper to the internet. Creating a website, particularly a project website, is one of the most effective ways to offer information to individuals. Therefore, it is critical to carefully design it, provide the appropriate material in an appropriate amount of information, and most importantly, provide the end-users with what they require. It is a challenge to design a website that is simple, efficient, appealing, and intuitive to those who use it.

For any project the official website is the starting point for anyone interested in learning more about it. The project website will serve as a valuable resource for presenting and promoting PHOENIX's goals, resources, and consortium partners. Various stakeholders will be invited to stay informed about PHOENIX's progress and to learn about the key parts of the project during its duration. The project website is a lively web tool that has been designed with the intention of making it both visually appealing and instructive about the project, being the major vehicle for successfully implementing the PHOENIX project's communication strategy.

The dedicated PHOENIX website – www.eu-phoenix.eu – was built using best practices for websites. The website will serve as a communication tool for promoting the PHOENIX project, its objectives/tools, and its collaborators, as well as a communication tool for informing all interested stakeholders about the project's results, outcomes, and forthcoming activities. The website's responsiveness is critical to its functionality (displayed on PC, tablet, and smart phones).

https://www.eu-phoenix.eu

3.3.2 Social Media

Nowadays, social media is a powerful instrument that can be utilized for both distribution and communication. The significant benefit of social media is that it can reach a wide range of audiences and varied targets, making it omnipresent and useful for communication, networking, and content sharing, ensuring the best possible distribution of PHOENIX project-related news, events, and outcomes. A complete social media strategy (Figure 6) is designed as part of PHOENIX's communication and dissemination plan for communication of the project concept and outcomes, as well as interaction with target audiences.
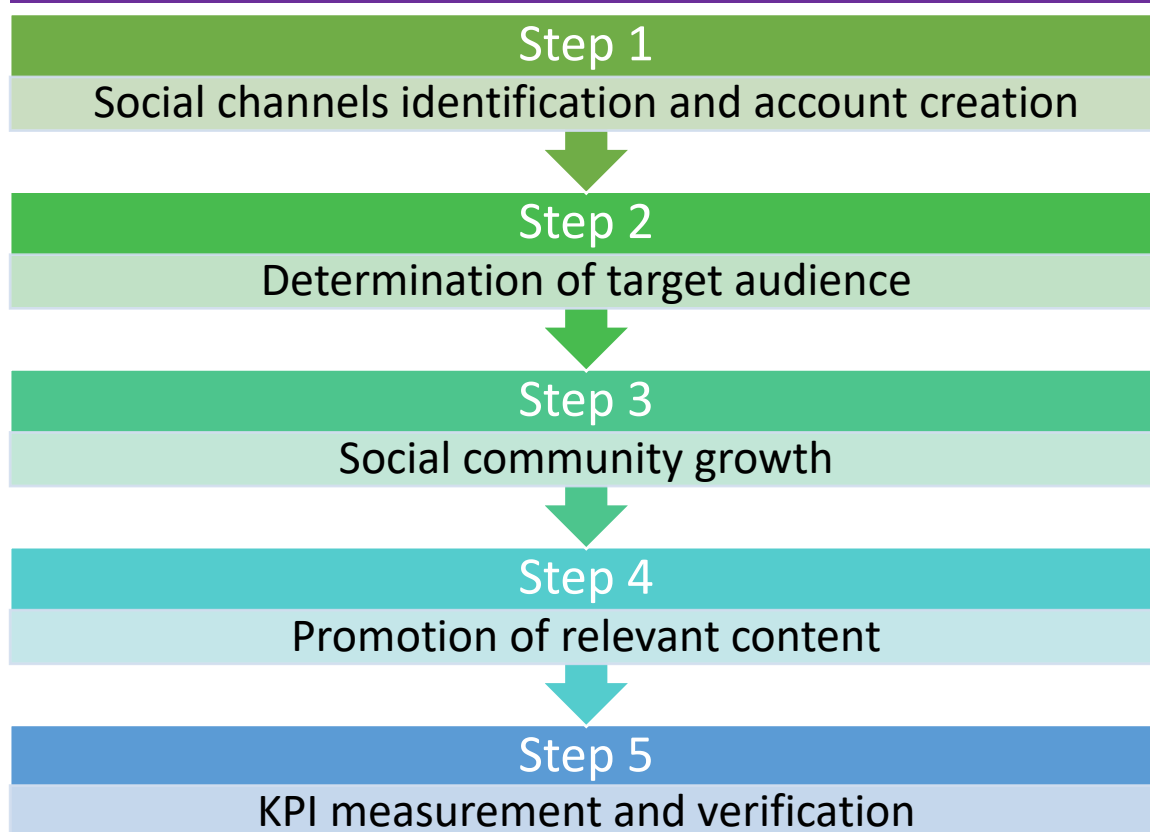
Step 1
Social channels identification and account creation

Step 2
Determination of target audience

Step 3
Social community growth

Step 4
Promotion of relevant content

Step 5
KPI measurement and verification

Figure 6: Steps of social media strategy

To that purpose, a number of project-related social media sites have been established. Thus, in month three of the project, PHOENIX created accounts on three of the most important social media platforms, Twitter, LinkedIn, and Facebook, which will allow the project to reach a much larger and more targeted audience, thereby increasing the project's impact and allowing for successful exploitation of the project's results. In addition, a YouTube account will be formed, which will be filled with content as soon as appropriate material, such as videos and other media.

Through those channels, all project partners will have an open approach and share as much information as possible with the public in order to inform and create a "buzz" about PHOENIX progress and news.

Those accounts in Social Media platforms will also provide very good insights, valuable analytics, and statistics, providing a great instrument to measure the project's "communication performance" in relation to the project's Key Performance Indicators (KPIs)

Regarding the posting frequency, it was advised to have at least one update weekly in one of the project accounts, following the project progress, to keep a "buzz" around the project, but also avoid spamming our followers, and urging quality over quantity.

Moreover, social media posting tips have been shared with partners, to help them understand the insights of successful posting. Special attention was given to the content, images, mentions, tags and sharing, as shown in the following Figure 7.
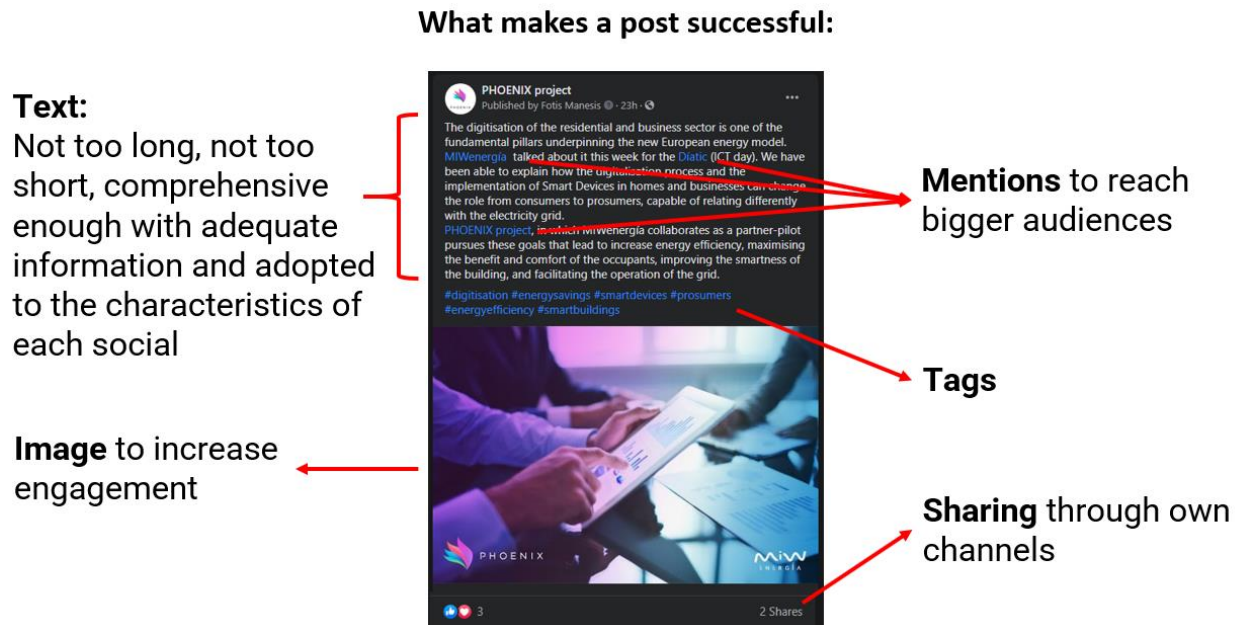

Figure 7: Tips for successful social media posting

Finally, more information about the specific activities on social media during the first 12 months of the project can be found in Section 5.3: Social media presence.

3.3.3   Participation in interest groups

Any association of individuals or groups, usually formally established, that strives to influence public policy based on one or more common concerns, is known as an interest group, or as a special interest group, advocacy group, or pressure group [4]. Their objective could be a policy that helps only members of a specific group or a specific part of society or a policy that advances a larger public goal. They try to achieve their objectives by lobbying—that is, applying pressure to policymakers to influence policy decisions in their favour.

The PHOENIX project has anticipated to establish communication with interest groups, according to the schedule presented in Table 2. Some of the potential interest groups that could be interesting for the project purposes, have been initially identified as follows:

- Smart Buildings & Cybersecurity Workgroup. A workgroup for smart building created by the IoT security foundation

- Smart cities network. A global platform for thought leadership, business intelligence, knowledge sharing and creating business opportunities for the smart cities
- Smart Buildings group (SBg) which provides a useful forum in which industry peers can discuss upcoming legislation, input into government policy, and help educate and provide best practice to the business energy demand side sector

This list will be further elaborated during the project duration, in order to establish communication with the most relevant interest groups following the specified time plan.

3.3.4 Newsletters

As shown in Table 2, a project newsletter will be published every six months, after month 12 of the project. The following Table 4 shows the roles and workflow of the newsletter issue operation.

Table 4: The workflow and responsibilities of the newsletter issue procedure

MERITCH	All partners
MERITCH will design the newsletter's layout as well as the graphic content.	All partners should give input, make suggestions, and write content.
MERITCH will compile all contributions and put together the final edition.	
MERITCH will send the newsletter to all project partners.	All partners are responsible to disseminate the newsletter to their own channels and mailing lists.

3.3.5 Communication material

The appropriate communication material will be distributed in the events in which the PHOENIX partners will participate or via social media and other distribution channels. The type of communication material that will be shared between the target audiences will be determined based on the project's progress and relevant results produced. The production of unique targeted messaging for each target group will guide the creation of promotional and distribution materials.

Thus, communication material is anticipated to be produced in two versions, during the project lifespan. The first version of this material should be finalized by month 18 of the project. The main purpose of the first version of this printed material is to convey the project objectives, the project

scope, and expected impact while referring to the anticipated PHOENIX solutions and technologies and presenting all PHOENIX partners' logos. Moreover, in order to keep a specific project identity and help the project be easily inferred from the target audiences, a common corporative image will be kept on all materials that will be produced for the PHOENIX project.

The second version of the printed material is expected to be produced closer to the end of the project, describing mainly the finalized project technologies and the results of the project demos. Those second versions of the printed material will be used to support the training activities which will take place by the end of the project. Moreover, they will be used to disseminate the project and its results after the project finalization and support the exploitation activities of the project.

The communication material that will be used from the project, will include tools form the ones described in the following list:

- **Brochures**. Brochures outline the project's goals and provide details on how it will be implemented.
- **Leaflets**. Leaflets outline the project's objectives, scope, and impact, and provide details on how they will be implemented.
- **Roll-up banners.** They promote the project's progress and results during events and conferences
- **Posters.** They facilitate the project's visibility in events and conferences
- **Press releases**. They will focus on the most significant project's outcomes
- **Project reference presentations**. They illustrate the project results in a way that it could be better understood by the general public.

Finally, as resented in Table 2, it has been already anticipated that two project leaflets, two project posters and one PPT presentation will be produced by the project. Nevertheless, following the project communication needs, more tools from this toolkit could be used if needed, to cover those requirements with additionally produced material.

3.3.6   Communication actions with other projects

The H2020 initiative covers a slew of European-funded projects cantered on critical disciplines, emphasizing the need of sharing ideas, forming close partnerships, and being inclusive. As a result, forming connections and communication pathways with other initiatives in the same field of

interest helps to spread results and energizes consortia to work together and achieve their common goal.

Since PHOENIX is not a stand-alone project in the field of upgrading smartness of existing buildings through innovations, establishing communication links with other projects could help promote its unique concept among the partners of other consortia, which include members from a variety of nations. Furthermore, disseminating scientific findings across projects could facilitate problem-solving and risk mitigation by allowing people to share their experiences and corrective steps in comparable situation.

PHOENIX consortium promotes an open-minded view and welcomes collaboration with other projects in the field of energy efficiency and the upgrade of the existing buildings' smartness through renovations. Those similar to PHOENIX projects can be divided into two categories: finished (or almost completed) projects and ongoing projects.

Some of the ongoing or completed projects and initiatives with which PHOENIX could share information and could collaborate in a variety of sectors are:

domOS - Operating System for Smart Services in Buildings

This project focuses on making the buildings smarter and more efficient. Smart building management systems, made possible by new technologies, are a new energy-efficient trend in the market. The 'smartness' of a building hinges on the capacity to connect to and interact with the energy system. This means automatically activating/deactivating lights, heating and cooling systems and appliances. The EU-funded domOS project will take a closer look at the smart building sector by researching two axes. The first one is the technology and secure connection of smart devices and smart appliances so that building owners can enforce privacy rules. The second addresses the development of smart services that increase efficiency of space heating. For instance, the project will study how buildings can become active nodes of an electricity grid or a district heating grid. The project's proposals will be tested on five demonstration sites.

REScoopVPP - Smart Building Ecosystem for Energy Communities

This project wants to create a smart way to put citizens at the heart of the energy transition. More and more energy communities are being established in Europe, and an estimated 98 million Europeans are expected to join them by 2050. The EU-funded REScoopVPP project will establish the most advanced community-driven smart building ecosystem for energy communities. This ecosystem consists of a community-driven flexibility box (COFY-Box) and tools to support energy services for aggregators, energy service companies, balance responsible parties and suppliers of

renewable energy sources. The COFY-Box is based on existing open-source home automation technology with more than 1,600 integrations, resulting in it being the first entirely open, affordable, and easy to install smart home energy controller. It will improve electric vehicles, photovoltaics, and electric battery control, and focus on the intelligent integration of sustainable thermal storage and heating solutions.

PLURAL - Plug-and-use renovation with adaptable lightweight systems

This project will create innovative solutions for deep building renovation. The deep renovation of residential buildings has emerged as an essential step towards the reduction of buildings' total primary energy consumption. The EU-funded PLURAL project will design and validate a set of flexible, adaptable, scalable, off-site prefabricated plug and play façade components, the Plug-and-Use (PnU) kits. It will deliver optimal practice, deep renovation examples for post-war residential buildings in different European climates. Partners will evaluate three key systems that couple heating-cooling, ventilation, and heat-harvesting systems with smart windows, 3D printing, low carbon footprint and nano-empowered coating materials. PLURAL relies on building information modelling, or BIM, Big Data management platform and a decision support tool to achieve optimal component selection and integration, perfect PnU kit design, and fast and low-cost manufacturing and installation.

SmartBuilt4EU - The EU Smart Building Innovation Platform

The smart building innovation community gathers industrials and research and development organizations engaged in supporting the deployment of smart buildings. SmartBuilt4EU is setting up task forces that investigate the key issues and trends related to smart buildings and identify barriers, challenges, and opportunities to support their take up. The outputs of this collaborative work will feed a Strategic Research Agenda to be presented to the EC. It should thus guide the drafting of the next related calls of the Horizon Europe funding programme. Moreover, through workshops and webinars organized by SmartBuilt4EU, projects can exchange with other innovators from the smart building value chain, share good practices, and trigger new collaborations. SmartBuilt4EU will also develop communicational material to promote projects' innovation (project brochures, success stories), material that is widely disseminated through their networks. Projects can also present their activities within the events organized by SmartBuilt4EU and get privileged access to the booths and timeslots booked by SmartBuilt4EU in key conferences such as Sustainable Places.

3.4 Audience and channel matching

The following Table 5 shows the target audience groups that have been identified, as well as the communication strategies that have been recommended for each one. Nevertheless, it should be noted that the given link between them, does not imply that those channels will be strictly and exclusively linked as presented in this table throughout the project. The use of these tools is initially judged to be the most efficient way for delivering the defined core message to each target audience, and they will be updated on a regular basis during the project's life cycle as part of the project's communication plan continuous development process.

Table 5: Matching between target audience and proposed channels

Target audiences	Proposed channels
European Union bodies	Website / policy briefs
General public	Website / social media / press releases / newsletter
Press	Website / social media / press releases / newsletter
Non-technical end-users and stakeholders	Website / social media / press releases / newsletter/ training
Scientific community	Academic journals / website / fora & events / workshops
Policy makers	Policy briefs / workshops
Associations	Policy briefs / academic journals / workshops / fora & events
ESCO, Aggregators	Website / workshops / fora & events / newsletter
Software developers	Academic journals / website / social media / fora & events / workshops
Building users	Website / social media / press releases / workshops / training
Building managers	Website / social media / press releases / workshops / training
Building owners	Website / social media / press releases / workshops / training
Energy service providers	Website / workshops / fora & events / newsletter / training / academic journals
Facility managers	Website / workshops / fora & events / newsletter / training
Software integrators	Website / workshops / fora & events / newsletter / training

4 Implementation plan for training activities

4.1 Scope

Through the training activities on the relevant project stakeholders, the building occupants, the energy sector participants, and in general future users of the project's technologies, training activities contribute to professional development. The main goal of the training activities within the PHOENIX project will be to enable all relevant stakeholders to learn about the project technologies and to gain the skills necessary to implement or use them in their everyday life or profession. This will allow the citizens to be better prepared for the smart transition from traditional building to smart buildings and will ensure that the building users are transformed at the same time as their buildings are made smart.

Figure 8: The scope and importance of training activities

The specific targets of the training activities of the project are:

- Knowledge sharing among participants:
    - from the consortium members to the involved stakeholders, to help them learn about the project and its technologies.
    - from the stakeholders to the consortium members, as feedback for the features and workability of the project technologies.
- Promotion of educational activities combined with soft landing strategies to make the transition of users from traditional building to smart buildings, smoother.
- Dissemination of knowledge from the project's academic and industrial professionals to young scientists and industrial workers outside the consortium.
- Bringing key stakeholders' attention to the importance of the unique services and technologies developed which will pave the path for effective exploitation and commercialization.

4.2 Activities planning

The consortium will organize two waves of training activities, one by month 20 (M20) of the project and one by the end of it.

4.2.1 Training sessions target

The first training session, by the end of M20, will focus on covering the core concept and the objectives of the project, while presenting the first versions of the project technologies. During this session, feedback will be asked from the training session participants, regarding the features and workability of project technologies. This feedback could be then taken into account, during the implementation of the technologies in the project pilots. This procedure will actively involve the stakeholders during the development of the technology and provide valuable feedback from its future users. This way the project will develop a user-centric approach that will ensure that the end-users' opinion was considered during the technology development and thus will boost the exploitation potential of the project results.

The second round of training will take place by the end of the project, focusing mainly on transferring knowledge to the end-users and relevant stakeholders on the developed by the project technologies. This, combined with the soft-landing strategies, will allow the citizens to smoothly transform their building from a traditional one to a smart one.

In conclusion, the first round of training will focus on a feedback loop and bidirectional knowledge transfer between the stakeholders and the consortium partners, focusing on establishing the user-centric innovation approach. From the other side, the second training round will focus mainly on unidirectional knowledge transfer, from the consortium members to the end-users and stakeholders, focusing mainly on ensuring the smooth transformation of traditional homes to smart ones. Moreover, as a more hands-on part of the training activities, the same users could also be project test users of the PHOENIX dashboard application. So, at the end of the project, the users could also familiarize themselves with the web/mobile app, while providing feedback for its usability. Through this procedure the lessons learnt from the applications of the third parties of our technologies will be able to be acquired by the consortium partners in the technology development procedure.
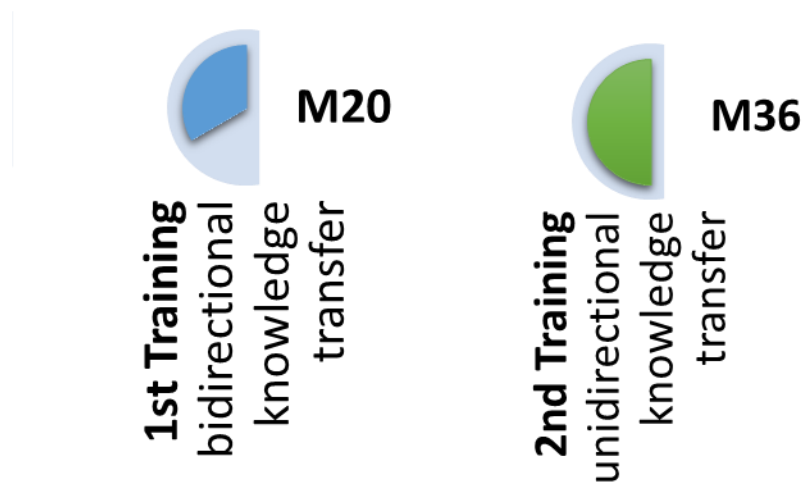
Figure 9: Training activities planning and scope

4.2.2 Target stakeholders and proposed training channels

The most important target stakeholders for the training sessions, are the users of the project pilot sites. The pilot site owners should engage pilot users in both waves of training, in order to participate in the feedback loop and the user-centric approach, but also to familiarize themselves with the web/mobile app. Ideally, the same users should be used in both waves of training in each pilot site, in order to have comparable results between them.

Moreover, two lists of stakeholders' contacts will be created for the training sessions. One list will include external stakeholders proposed by the partners and one list will include stakeholders linked with project partners. To create those lists all partners should propose and invite relevant stakeholders from their contacts to be included in.

Regarding the proposed training channels, in each pilot site one training session should be organized by pilot owners per training wave, with the participation of pilot users. Those sessions could be held either with physical presence[1] or online and will be related to the platform, the offered services or management aspects. In addition, one webinar will be organized by the consortium per training wave, with the participation of stakeholders included in the list of external stakeholders and stakeholders linked to project partners.

The summary of the training activities is presented in the following Table 6.

<p align="center">**Table 6: Training activities target stakeholders and proposed channels**</p>

Training activity	Scope of activity	Target stakeholders	Proposed channels
1st wave of activities	Bidirectional transfer between project partners and stakeholders	• Demo participants • External stakeholders proposed by all partners • Stakeholders linked with project partners	• One training session per pilot site with demo participants • One webinar with other stakeholders from all countries
2nd wave of activities	Training of stakeholders to familiarize them with the Phoenix app	• Demo participants • External stakeholders proposed by all partners. • Stakeholders linked with project partners	• One training session per pilot site with demo participants • One webinar with other stakeholders from all countries

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[1] *The situation of COVID-19 pandemic would be considered.*

5 Activities carried out up to M12

5.1 Branding of Phoenix

5.1.1 Branding strategy

PHOENIX project has a comprehensive and effective branding opportunity as the project is targeting to increase the smartness of existing buildings through innovations for legacy equipment. PHOENIX aims at changing the role of buildings from un-organised energy consumers to active agents orchestrating and optimising their energy consumption, production, and storage, with the goal of increasing energy performance, maximising occupants' benefit, and facilitating grid operation.

Targeting to implement an effective branding strategy, the PHOENIX consortium needed to create a new logo after the project kick-off in order to provide a common and exclusive graphic identity to support its branding throughout the project and beyond and to be used in the project's website and social media presence.

From all of the preceding, it is critical to appreciate the logo's holistic, comprehensive nature. Moreover, in all situations, the official project logo should retain the option of including the term "PHOENIX" beneath the emblem as a separate representation of the project.

5.1.2 Graphic identity

For the project identity, a distinctive project logo had to be created. A logo can assist the user in forming the correct impression of the project concept, by using a thoughtful element arrangement, as well as a careful selection of colours, typefaces, and icons.

Thus, in order to select the most suitable logo for the project, several different approaches were created focusing on a modern approach, with holistic and broad nature of the project's logo, reflecting the PHOENIX main mission and objectives, while representing a visual connection with the project's name. Then all partners were asked to vote for their favourite by rating them in linear Likert scale from 1 (Don't like it) to 5 (Love it!). For visibility reasons one vote was allowed per partner, and in case of more votes from the same partner only the last vote was considered.
Those proposed alternatives are presented in the following Figure 10, while the voting results are presented in Table 7.

Figure 10: Proposed logo alternatives

Table 7: Voting results for logo alternatives

Timestamp	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
16/10/2020 14:48:57	3	2	4	4	2	2
16/10/2020 14:52:08	2	3	3	4	3	2
~~16/10/2020 14:55:37~~						
16/10/2020 14:56:08	5	1	1	1	1	1
~~16/10/2020 15:36:30~~						
16/10/2020 15:47:35	4	4	5	5	2	2
16/10/2020 17:12:32	5	2	1	1	3	1
16/10/2020 17:20:18	4	1	5	1	2	3
16/10/2020 17:51:34	1	4	2	3	5	4
17/10/2020 13:25:22	5	2	4	1	5	2
19/10/2020 09:21:19	4	5	3	2	1	1
19/10/2020 14:15:56	2	4	2	5	3	1
Average	3.5	2.8	3	2.7	2.7	1.9

From this procedure, the final project logo was selected using these particular colours to resemble the technologies included in the project and the particular shape to visually connect with the project name. Moreover, the main principal followed throughout the project, is consistency with the branding design, so the same colours have been used for the templates, presentations, and other materials of the PHOENIX project.

After this selection, the final logo was developed for horizontal or vertical use in black and white, grayscale, and colour versions, as shown in Figure 11, Figure 12, Figure 13, Figure 14, Figure 15 and Figure 16.

Figure 11: Project logo in horizontal colour version

Figure 12: Project logo in horizontal grayscale version

Figure 13: Project logo in horizontal black and white version

Figure 14: Project logo in vertical colour version

Figure 15: Project logo in horizontal vertical version

Figure 16: Project logo in vertical black and white version

5.2 Project website

The PHOENIX website is both visually appealing and informative. An initial presentation of the website's structure is shown in the following Figure 17.
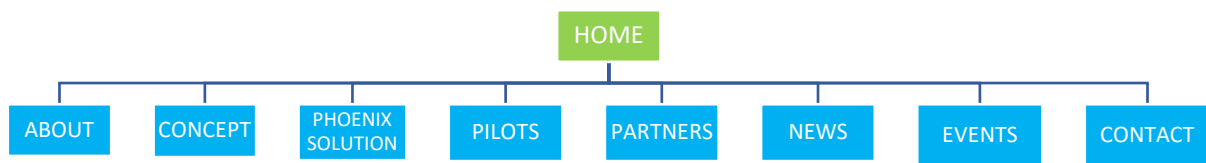
Figure 17: PHOENIX website structure

5.2.1 Website structure

5.2.1.1 Home page

The project's vision is explained in the first section of the HOME page (Figure 18). The message that appears here provides a synopsis of the PHOENIX project's vision. The HOME page is the website's primary page. It is PHOENIX's main entry point, containing a greeting note, the main project vision, the project mission (Figure 19), the project key objectives (Figure 20), and the project partners (Figure 21), among other things. The Home page brings together all the project's main elements into a single window. Depending on the section/subpage the visitor wishes to be switched to, the visitor has a variety of possibilities.
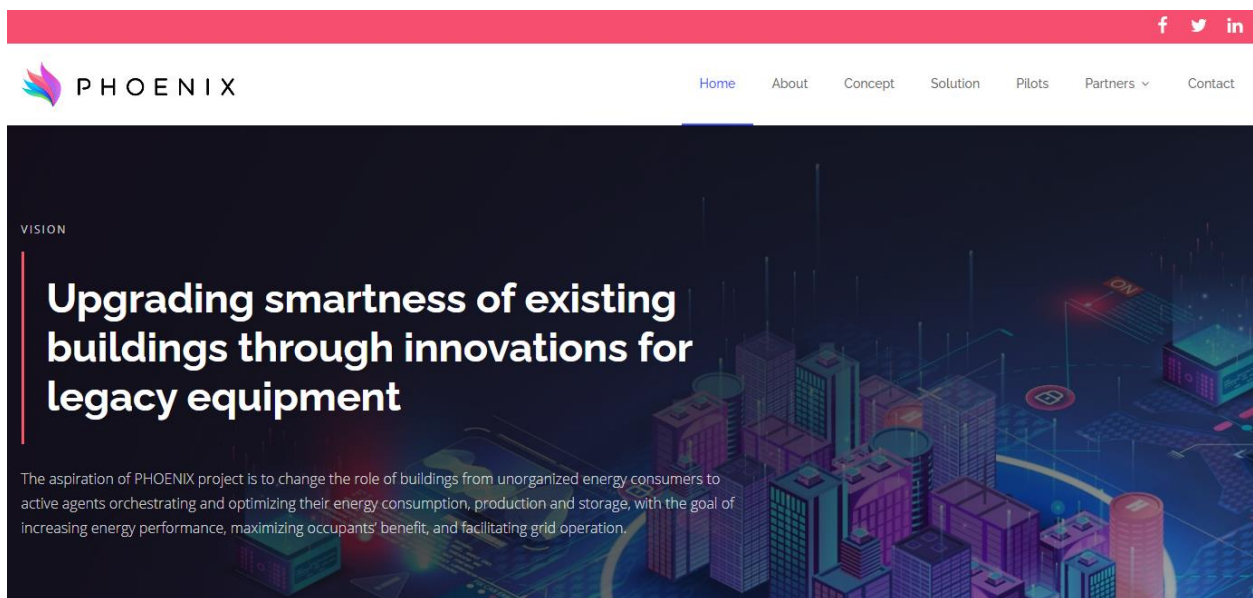
Figure 18: Home page screen capture with project vision

The vision displayed is the following:

"*Upgrading smartness of existing buildings through innovations for legacy equipment*"

"The aspiration of PHOENIX project is to change the role of buildings from unorganized energy consumers to active agents orchestrating and optimizing their energy consumption, production and storage, with the goal of increasing energy performance, maximizing occupants' benefit, and facilitating grid operation."
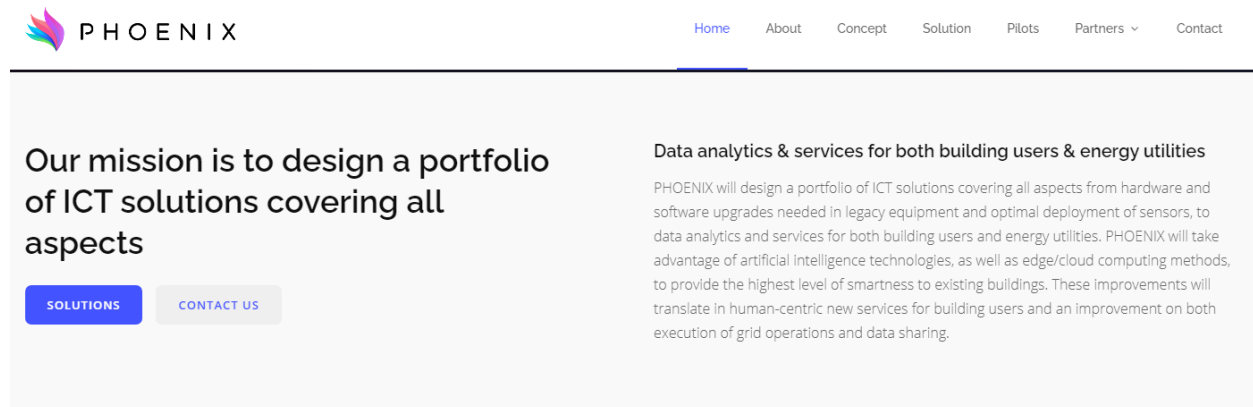
Figure 19: Home page screen capture with project mission

The mission displayed is the following:

"Our mission is to design a portfolio of ICT solutions covering all aspects"

"PHOENIX will design a portfolio of ICT solutions covering all aspects from hardware and software upgrades needed in legacy equipment and optimal deployment of sensors, to data analytics and services for both building users and energy utilities. PHOENIX will take advantage of artificial intelligence technologies, as well as edge/cloud computing methods, to provide the highest level of smartness to existing buildings. These improvements will translate in human-centric new services for building users and an improvement on both execution of grid operations and data sharing."

Moreover, by clicking on the "solutions" button the user is redirected to the "solution" section, while by clicking on the "contact us" button the user is redirected to the contact form section.

Figure 20: Home page screen capture with project key objectives

The key objectives displayed are the following:

- *Seamless Adapt & Play*. *Allow Adapt-&-Play seamless integration of domestic appliances, legacy equipment and building systems.*

- *Innovative Technologies*. *Create building knowledge with innovative techniques to upgrade the smartness of existing buildings.*

- ***Real-time Communication***. *Enable real-time communication with energy stakeholders to optimize the grid operation.*

- ***Cost-Effective Services***. *Provide cost-effective services for building end-users to maximize the energy efficiency and the overall performance.*

- ***Security and Building Privacy***. *Allow security and privacy of building data regarding the revised EPBD and the GDPR law.*

- ***Suitable Building Strategies***. *Create suitable business models and exploitation strategies to target the broad market of smart buildings.*

- ***Human-centric approach***. *Develop human-centric approach and training/awareness activities to prepare citizens for smart buildings.*
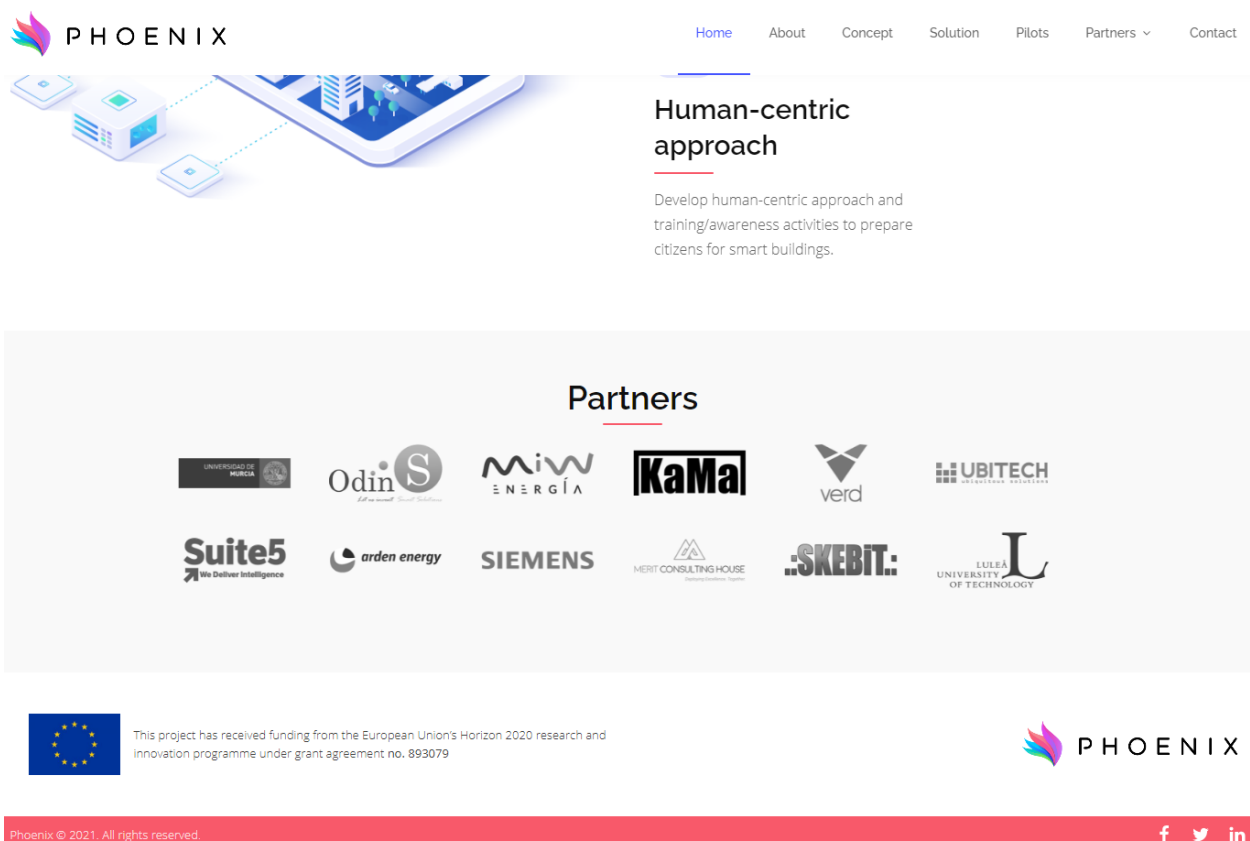
Figure 21: Project partners logos displayed in the homepage

5.2.1.2 About

In the "ABOUT" tab, five sub-sections are displayed: the Current Status and Motivation; the project framework; the project scope; the project's consortium and the project demos, as described below.

The Current Status and Motivation displayed is the following (Figure 22):

"*The EU has committed to reduce by at least 40% greenhouse gas emission by 2030. To do so, a new framework called "Clean energy for all Europeans package" has defined new regulations, which set the necessary legal framework and financial infrastructure to achieve this ambitious goal.*"
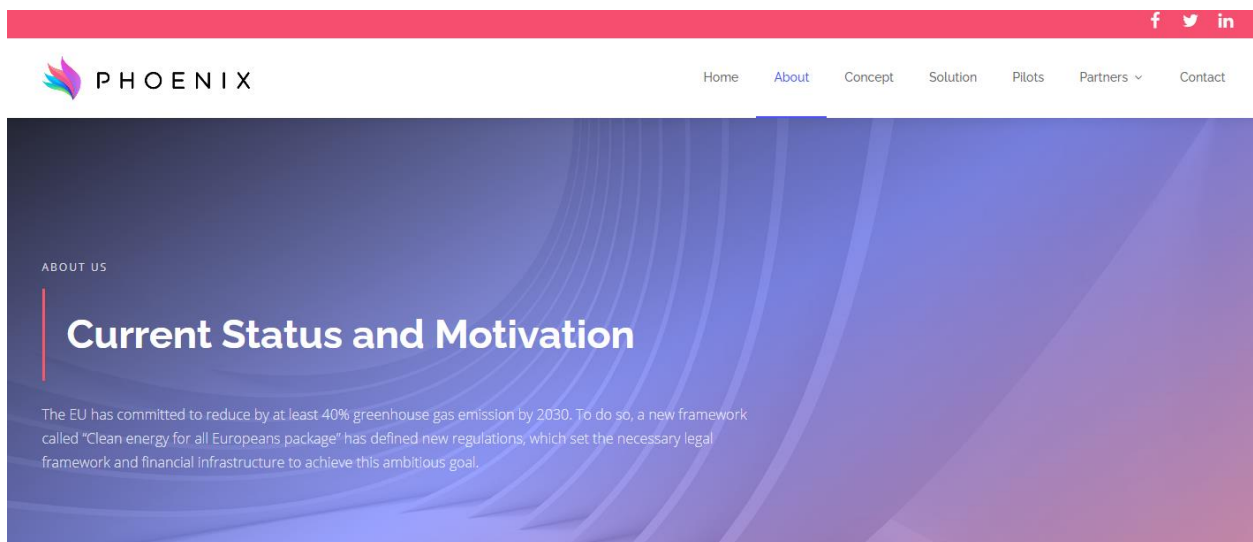
Figure 22: Current status and motivation subsection in "about" page

The project framework displayed is the following (Figure 23):

"*In this framework one step further has been taken by the EU in the 2018, which aims to further promote smart building technologies, in particular through the establishment of a Smart Readiness Indicator (SRI) for buildings. The SRI shall provide information on the technological readiness of buildings for interacting with their occupants and the energy grids, and their capabilities for more efficient operation and better performance through ICT technologies in the form of services. Therefore, the SRI should accelerate the transformation of the European Building Stock from standard and manually managed buildings to smart buildings.*"

Moreover, by clicking on the "contact us" button, the user is redirected to the contact form section of the website.

Figure 23: Project framework subsection in "about" page

The project's scope displayed is the following (Figure 24):

"PHOENIX's goals are well aligned with the challenges summarized earlier. The project will design a portfolio of ICT solutions to increase the smartness of legacy systems and appliances in existing buildings which will increase the SRI and energy efficiency."

*"**Upgrades**. Those solutions will cover all aspects from hardware and software upgrades needed in legacy equipment and optimal deployment of sensors, to data analytics and services for both building users and energy utilities. Those solutions will cover all aspects from hardware and software upgrades needed in legacy equipment and optimal deployment of sensors, to data analytics and services for both building users and energy utilities."*

*"**Artificial Intelligence**. PHOENIX will take advantage of artificial intelligence technologies, as well as edge/cloud computing methods, to provide the highest level of smartness to existing buildings."*

*"**Layers**. The PHOENIX layers that will result from the different work packages will offer the possibility of establishing a new framework that will enable the optimization of the energy use and infrastructure exploitation, while at the same time facilitating the creation of new SMEs and Start-Up ideas to exploit new revenue streams and business opportunities."*
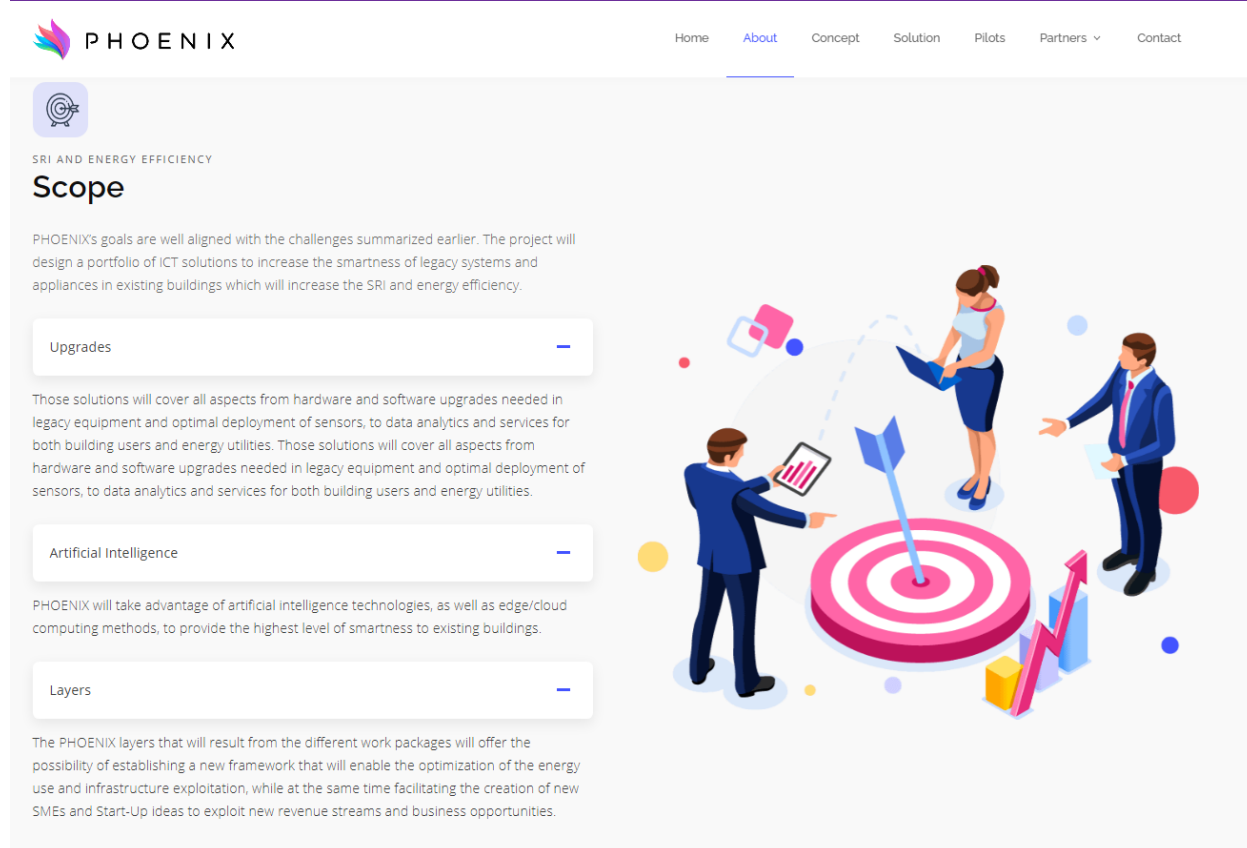
Figure 24: Project's scope subsection in "about" page

The project's consortium information displayed are the following (Figure 25):

"*To achieve this ambitious goal, PHOENIX relies on a consortium which has the technological knowledge and expertise to understand the social and technical requirements and translate them into ICT innovations (i.e., IoT, AI and Data Analytics) for the integration and smartness upgrading of existing buildings with legacy equipment and systems. Moreover, the consortium has high expertise and business capacities to disseminate and exploit the PHOENIX results*.".

By clicking on the "learn more" button the user is redirected in the "partners" section.
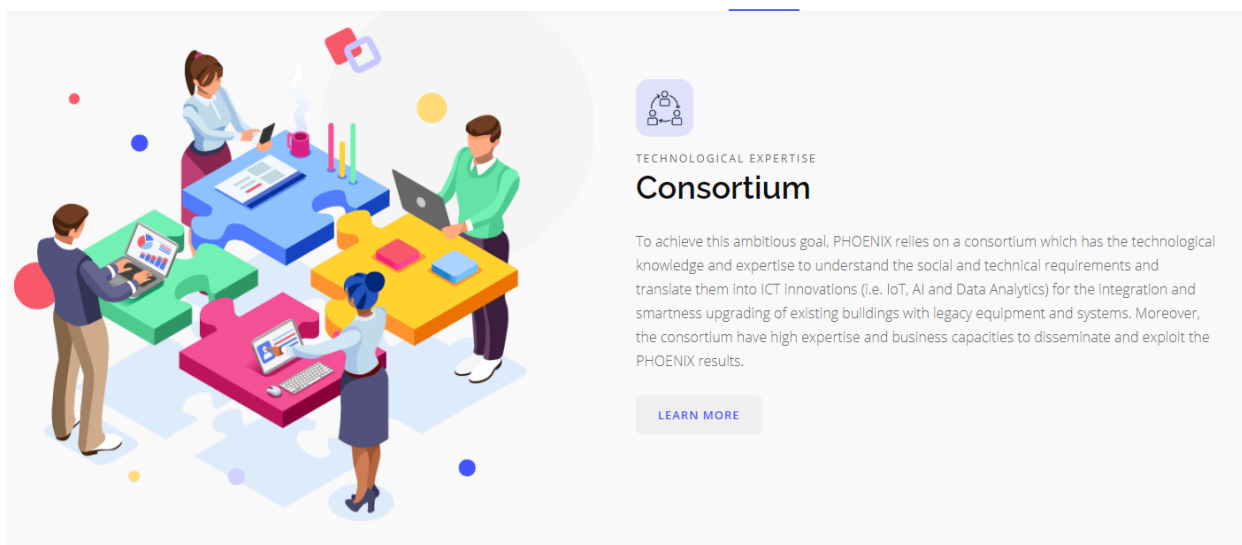
Figure 25: Project's consortium subsection in "about" page

The project demos information displayed are the following:

"*To demonstrate the real impact and replicability, the proposed solution with ICT innovations and cost-effective services will be validated in 5 different pilots at European level (Ireland, Greece, Sweden and Spain).*"

By clicking on the "learn more" button the user is redirected in the "pilots" section of the website.
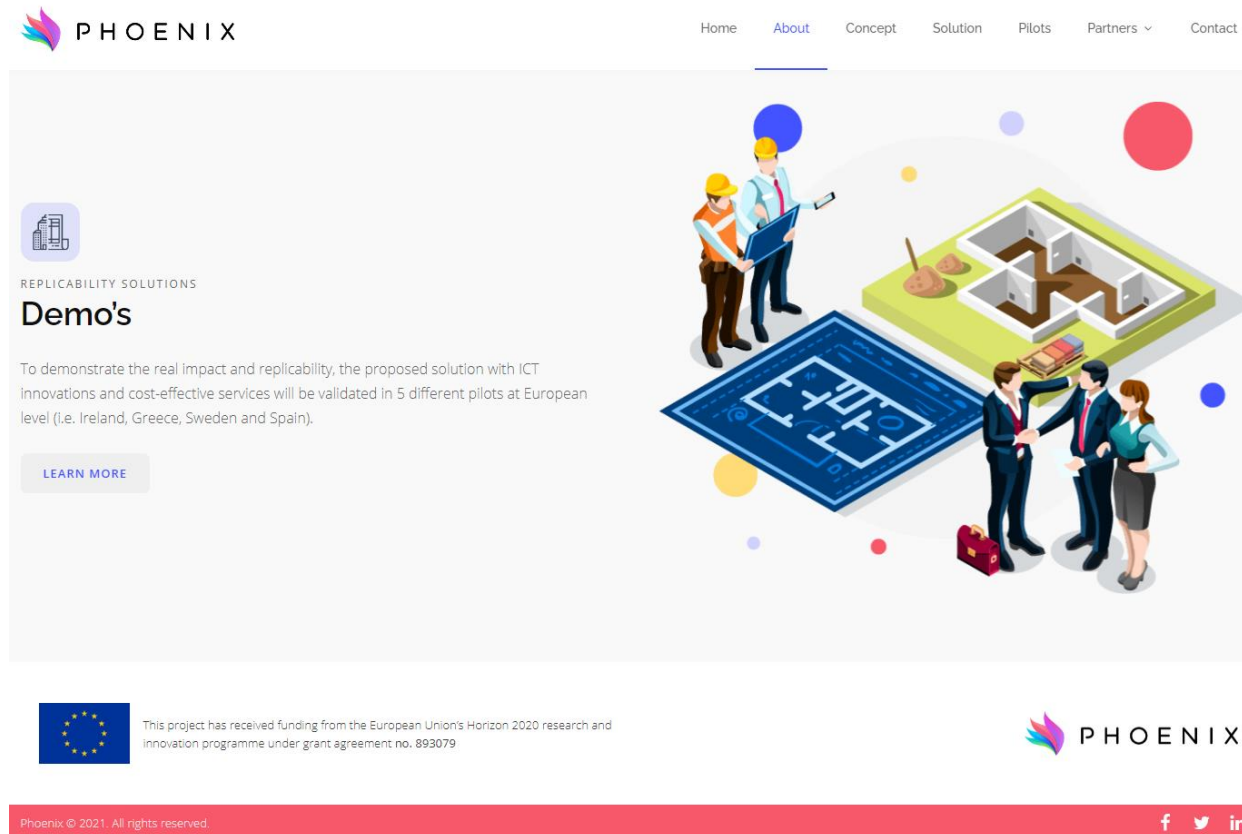
Figure 26 Project demos subsection in "about" page

5.2.1.3 Concept

In the "CONCEPT" tab three sub-sections are displayed, the general concept; information about the architecture and the information flow, as described below.

The project's concept displayed is the following (Figure 27)

"*Deep Integrations with new mechanisms to offer business opportunities*"

"*The PHOENIX architecture will be developed with open & secure Application Programming Interfaces (APIs) to enable deep integration of existing building systems, the incorporation of new mechanisms or tools by third parties as well as the development of new services and business opportunities between multiple actors. The architecture will be based on standardised protocols (e.g., HTTPS) for a secure data exchange made up of trusted partners.*"
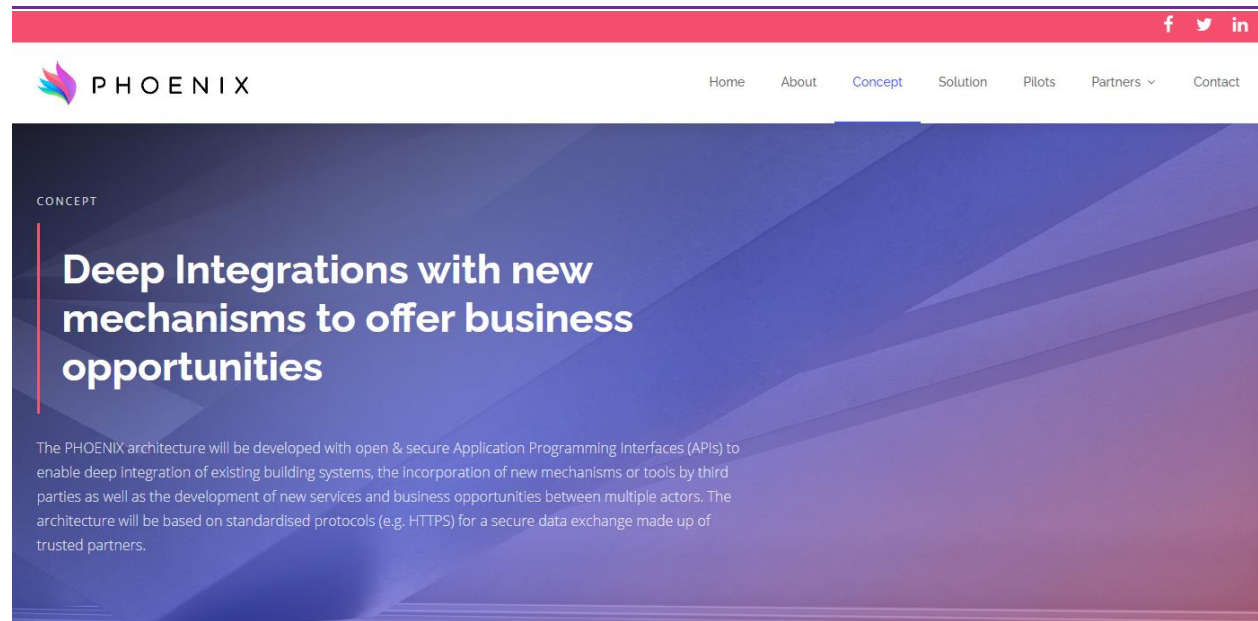
Figure 27: Project's concept subsection in "concept" page

The project's architecture displayed is the following

In the first tab (Figure 28):

"*THE ULTIMATE Advanced Building Intelligence*

PHOENIX will build an interoperable architecture with advanced capacity to incorporate and process all kinds of building data and knowledge to improve the intelligence of services offered to end-users and stakeholders.

- *Application Programming Interfaces (APIs)*

- *Secure data exchange*"
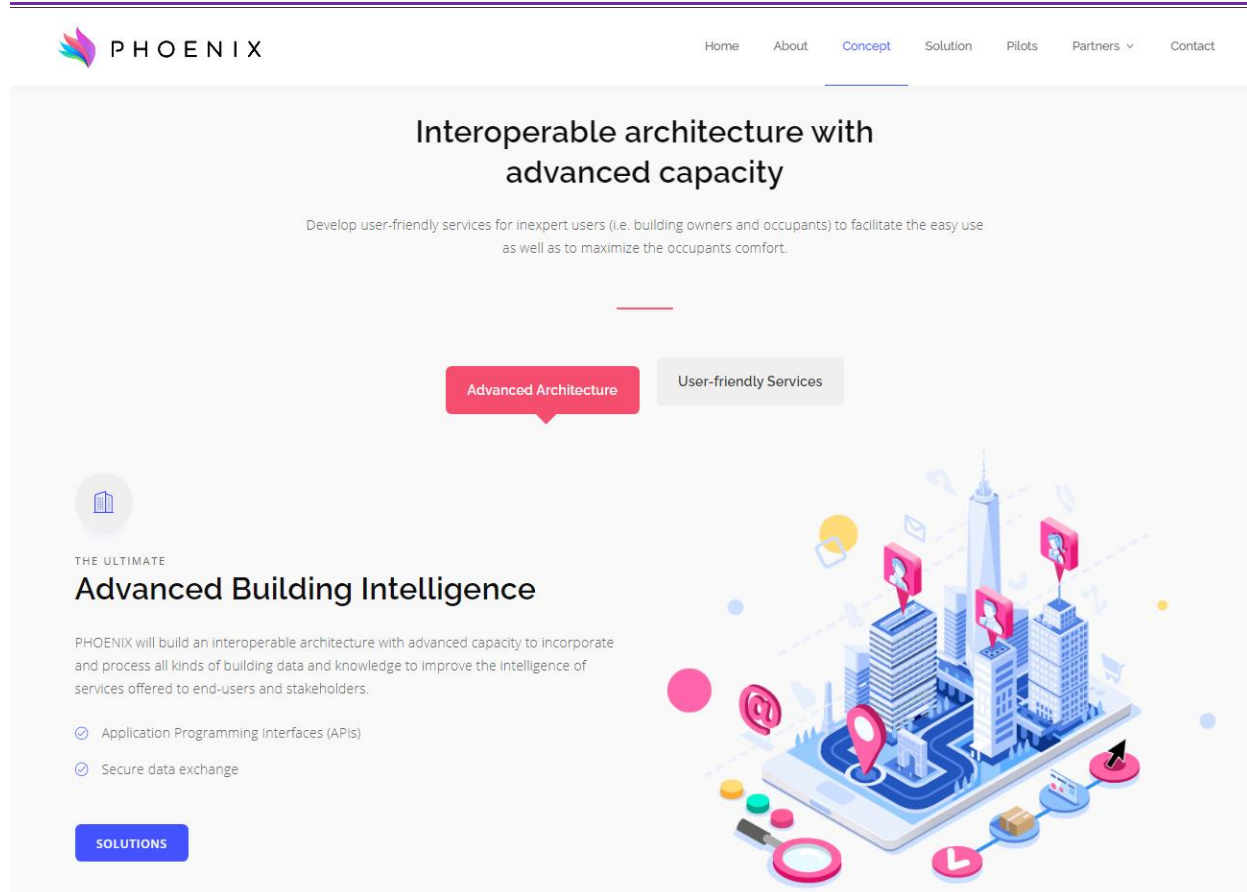
Figure 28:The first tab of the architecture subsection in "concept" page.

And in the second tab (Figure 29):

"*THE ULTIMATE Cost-effective Principle*

PHOENIX will develop user-friendly services for inexpert users (i.e., building owners and occupants) to facilitate the easy use as well as to maximize the occupants' comfort. Moreover, PHOENIX services will be implemented based on a cost-effective principle to minimize the costs of installation and maintenance as well as to maximize the energy savings."
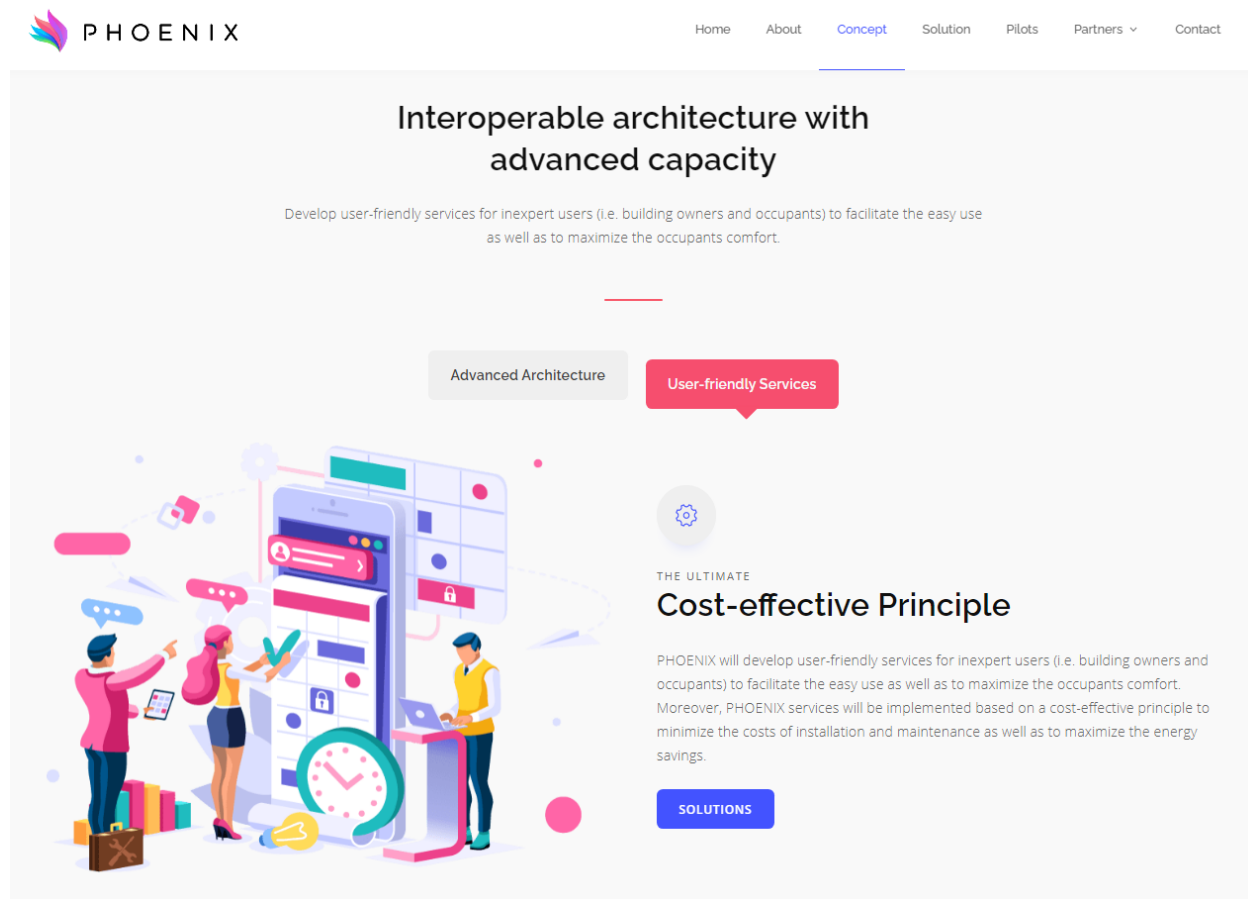
Figure 29: The second tab of the architecture subsection in "concept" page

The project's information flow and conceptual assets displayed is the following

"*Information Flow*

The PHOENIX project proposes an architecture divided into five horizontal layers and a security vertical layer to develop, integrate, and deploy a secure interoperable ecosystem for heterogeneous Energy Efficiency in Buildings scenarios as well as the interactions with non-technical end-users and stakeholders.

High level conceptual concept assets

The PHOENIX architecture is using a high-level conceptual design based on the flow of generating data, extraction of information and knowledge from the building assets, provision of a set of data analysis to the services and business opportunities through the following layers:

- *Business layer represents the point of views and the interactions with the end-users (e.g., building users/managers) and stakeholders (e.g., ESCO, Aggregators, etc.) based on an active democratic participation.*

- *Function layer includes multiple smart cost-effective services offered to the end users to optimize the energy saving, the occupants' satisfaction, the overall performance of the buildings and the grid operations.*

- *Knowledge layer enables modular tools for creating building knowledge, based on homogenized data through data processing and analytic to upgrade the smartness of the buildings.*

- *Integration layer provides the mechanisms for the remote control and data monitoring from different building equipment, systems, and external data sources (i.e., weather predictions) with heterogeneous protocols and technologies*

- *Asset layer consists of heterogeneous legacy equipment and systems already deployed in the buildings that must be integrated and managed intelligently.*

- *Vertical protection layer provides the techniques and protocols to ensure the security, privacy and trust of the data exchange in all the horizontal layers."*

Figure 30: The project's information flow and conceptual assets subsection in "concept" page

5.2.1.4 Solution

The solution section of the website will describe the technologies and the solutions resulting for the project. In this first stage of the PHOENIX project in the "solutions" section it is displayed (Figure 31):

"*Smart cost-effective Integrations*

The envisaged PHOENIX solution will be a Smartness hub based on ICT with modular components to integrate seamlessly the legacy equipment of buildings in order to offer user-friendly and cost-effective services adaptable to the specific needs of buildings users and grid utilities.
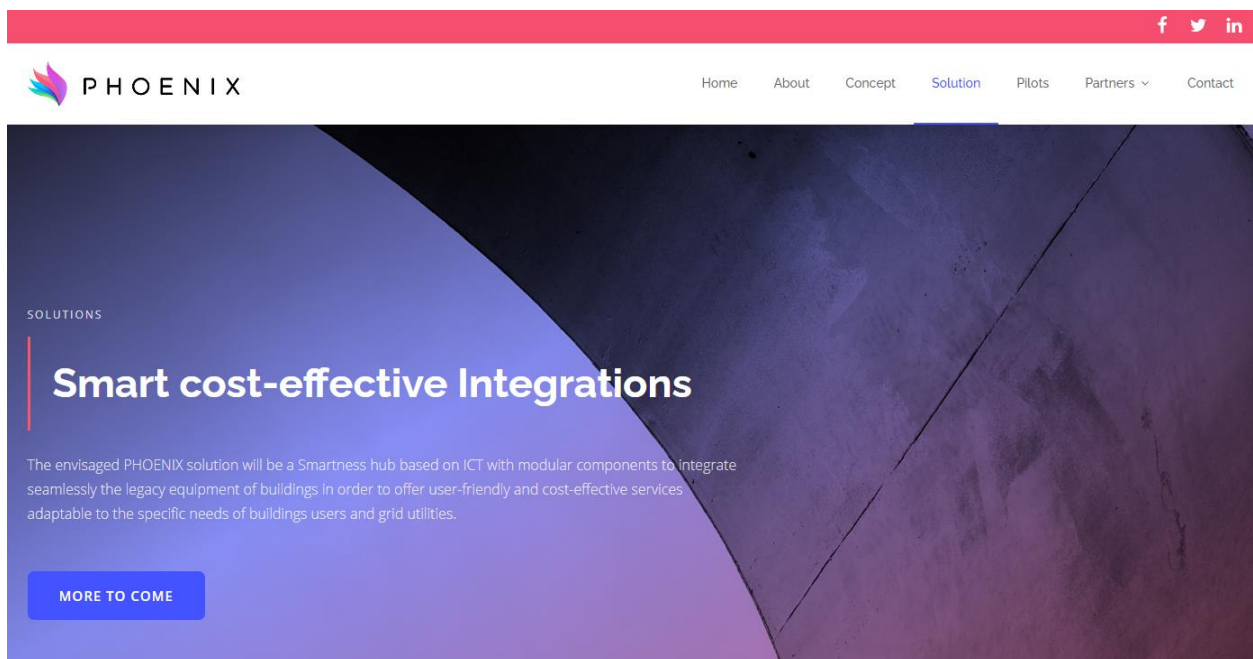
More to come"

Figure 31: The "solutions" section of the website

In the next period, and as the project technologies will mature and prepare to be demonstrated, more analytical description will be added in this section, with the contribution of the technology providers.

5.2.1.5 Pilots

In this section the PHOENIX pilot sites are presented and described.

As an introductory text it is displayed:

"*To validate and evaluate the proposed solution, PHOENIX partners will provide 5 different real-world pilots, located in Thessaloniki (Greece), Dublin (Ireland), University of Murcia (Spain), Region of Murcia (Spain) and Skellefteå (Sweden)*)"

Following this introductory text, the five pilots are described:

The information for the Irish pilot site presented is the following (Figure 32):

"*The Irish Pilot is based in the Ringsend Irishtown Sustainable Energy Co-operative (RISEC), a community led initiative to promote and deliver investment in sustainable energy located in the southeast of Dublin City. It includes residential buildings and a commercial building to demonstrate the integration of smart controls as a retrofit solution in existing buildings.*

The commercial pilot building is the National Centre for the Circular Economy in Ireland, the Rediscovery Centre. The building is a repurposed boiler house and includes solar PV, CHP, heat pump and solar thermal. It is an ideal demonstration site for optimisation in a building with a BEMS and a range of energy using and conversion technologies.

The domestic pilots are privately owned houses with a range of legacy systems including solar PV, EV chargers, electric water heaters and gas heating systems. The systems are isolated with minimal controls and communication protocols. These pilots will demonstrate the integration of various legacy systems into a single platform for optimized and co-ordinated control."
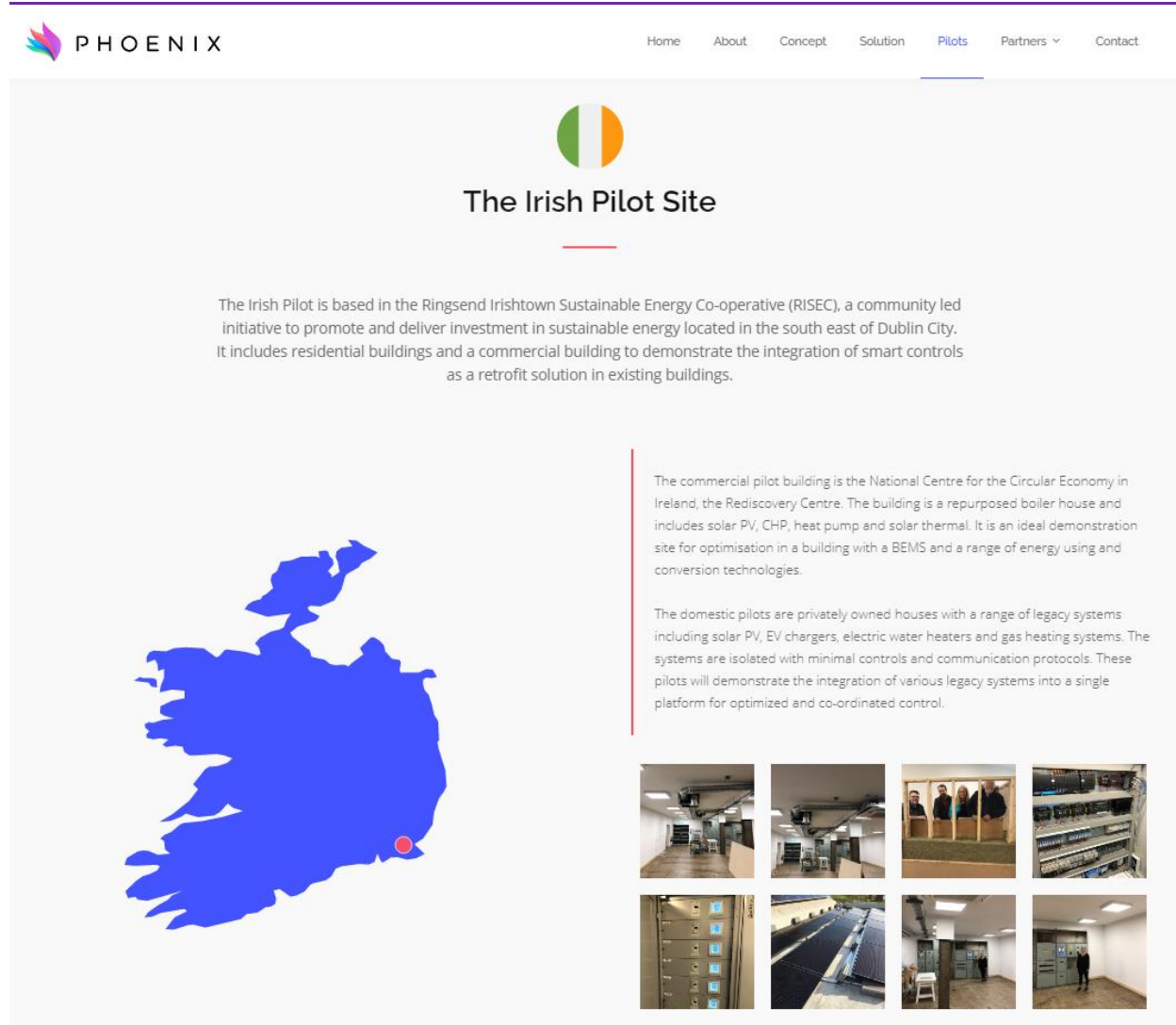
Figure 32: The Irish pilot site as displayed on the website

The information for the Spanish pilot sites is presented in two tabs as following:

MIWenergia Pilot Site (Figure 33)

"*MIWenergia´s pilot site is located at Region de Murcia and includes two different types of building, one commercial and one residential.*

The demonstration activities for commercial building will take place at CEEIC in Cartagena. This business incubator building focus on start-up and early-stage innovative companies. 20 spaces between company's offices and lecture rooms will participate in PHOENIX project. The residential building selected it is located at the city centre of Murcia. Four apartments will be involved in the pilot site. Each apartment has approximately 125 square meters and they are

equipped with common domestic appliances. Both buildings currently do not have smart sensors and devices to monitor energy consumption nor BEMS to control legacy equipment and will benefit largely in efficiency, flexibility and the possibility to participate in the energy market thanks to PHOENIX project."
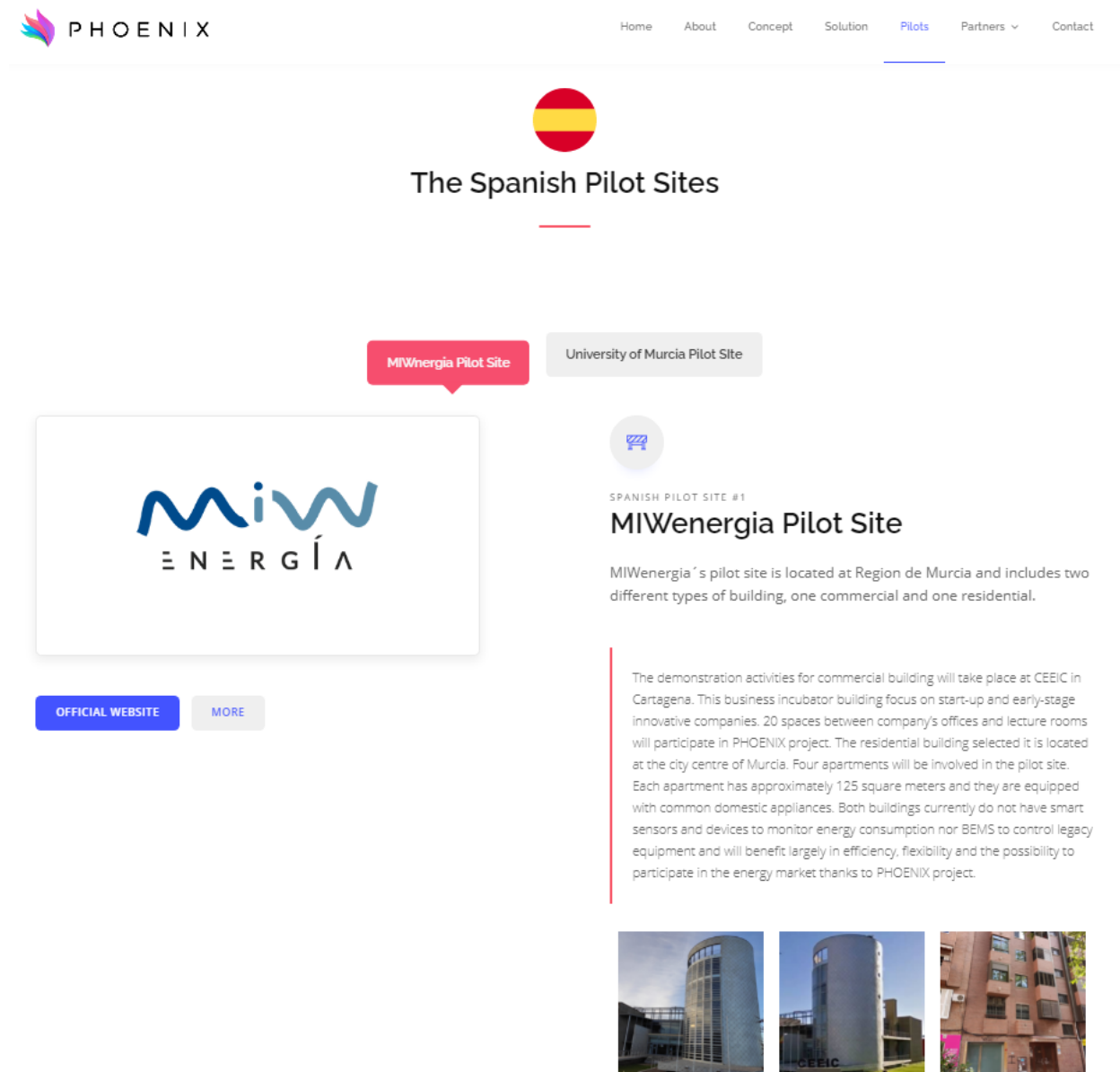

Figure 33: The first Spanish pilot site as displayed on the website

The University of Murcia pilot site (Figure 34)

"The University of Murcia (UMU) is one of the largest Universities in Spain, located in the Region of Murcia where it is the largest. The Region of Murcia, with over 430,000 inhabitants, is in the south-east of Spain.
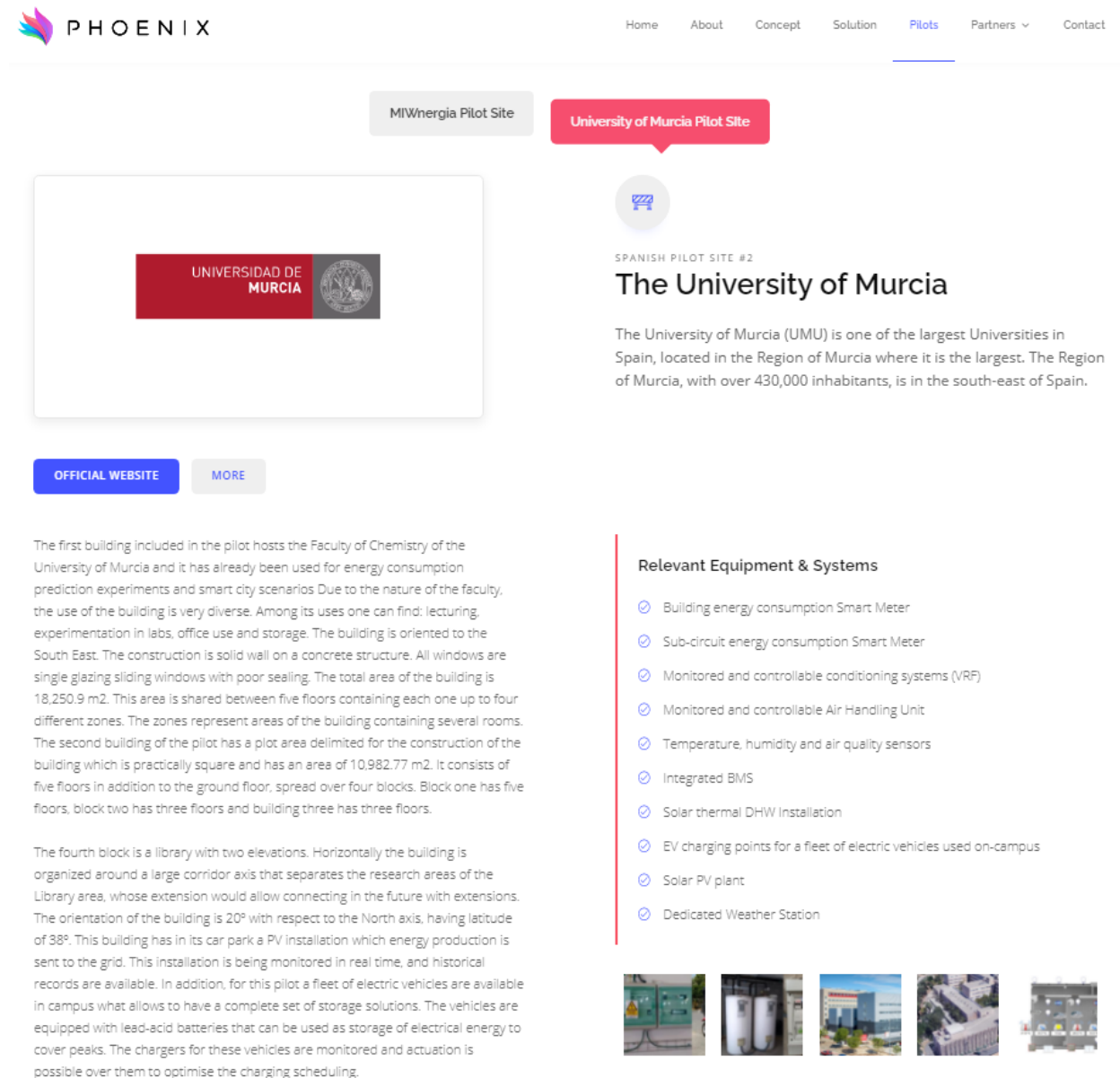
The first building included in the pilot hosts the Faculty of Chemistry of the University of Murcia and it has already been used for energy consumption prediction experiments and smart city scenarios Due to the nature of the faculty, the use of the building is very diverse. Among its uses one can find: lecturing, experimentation in labs, office use and storage. The building is oriented to the Southeast. The construction is solid wall on a concrete structure. All windows are single glazing sliding windows with poor sealing. The total area of the building is 18,250.9 m2. This area is shared between five floors containing each one up to four different zones. The zones represent areas of the building containing several rooms. The second building of the pilot has a plot area delimited for the construction of the building which is practically square and has an area of 10,982.77 m2. It consists of five floors in addition to the ground floor, spread over four blocks. Block one has five floors, block two has three floors and building three has three floors.

The fourth block is a library with two elevations. Horizontally the building is organized around a large corridor axis that separates the research areas of the library area, whose extension would allow connecting in the future with extensions. The orientation of the building is 20º with respect to the North axis, having latitude of 38º. This building has in its car park a PV installation which energy production is sent to the grid. This installation is being monitored in real time, and historical records are available. In addition, for this pilot a fleet of electric vehicles are available in campus what allows to have a complete set of storage solutions. The vehicles are equipped with lead-acid batteries that can be used as storage of electrical energy to cover peaks. The chargers for these vehicles are monitored and actuation is possible over them to optimise the charging scheduling.

Relevant Equipment & Systems:

- *Building energy consumption Smart Meter*

- *Sub-circuit energy consumption Smart Meter*

- *Monitored and controllable conditioning systems (VRF)*

- *Monitored and controllable Air Handling Unit*

- *Temperature, humidity, and air quality sensors*

- *Integrated BMS*

- *Solar thermal DHW Installation*

- *EV charging points for a fleet of electric vehicles used on-campus*

- *Solar PV plant*

- *Dedicated Weather Station*"

PHOENIX   Home   About   Concept   Solution   Pilots   Partners ⌄   Contact

MIWnergia Pilot Site   University of Murcia Pilot Site

UNIVERSIDAD DE MURCIA

SPANISH PILOT SITE #2
The University of Murcia

The University of Murcia (UMU) is one of the largest Universities in Spain, located in the Region of Murcia where it is the largest. The Region of Murcia, with over 430,000 inhabitants, is in the south-east of Spain.

OFFICIAL WEBSITE   MORE

The first building included in the pilot hosts the Faculty of Chemistry of the University of Murcia and it has already been used for energy consumption prediction experiments and smart city scenarios Due to the nature of the faculty, the use of the building is very diverse. Among its uses one can find: lecturing, experimentation in labs, office use and storage. The building is oriented to the South East. The construction is solid wall on a concrete structure. All windows are single glazing sliding windows with poor sealing. The total area of the building is 18,250.9 m2. This area is shared between five floors containing each one up to four different zones. The zones represent areas of the building containing several rooms. The second building of the pilot has a plot area delimited for the construction of the building which is practically square and has an area of 10,982.77 m2. It consists of five floors in addition to the ground floor, spread over four blocks. Block one has five floors, block two has three floors and building three has three floors.

The fourth block is a library with two elevations. Horizontally the building is organized around a large corridor axis that separates the research areas of the Library area, whose extension would allow connecting in the future with extensions. The orientation of the building is 20° with respect to the North axis, having latitude of 38°. This building has in its car park a PV installation which energy production is sent to the grid. This installation is being monitored in real time, and historical records are available. In addition, for this pilot a fleet of electric vehicles are available in campus what allows to have a complete set of storage solutions. The vehicles are equipped with lead-acid batteries that can be used as storage of electrical energy to cover peaks. The chargers for these vehicles are monitored and actuation is possible over them to optimise the charging scheduling.

Relevant Equipment & Systems

- Building energy consumption Smart Meter
- Sub-circuit energy consumption Smart Meter
- Monitored and controllable conditioning systems (VRF)
- Monitored and controllable Air Handling Unit
- Temperature, humidity and air quality sensors
- Integrated BMS
- Solar thermal DHW Installation
- EV charging points for a fleet of electric vehicles used on-campus
- Solar PV plant
- Dedicated Weather Station

Figure 34: The second Spanish pilot site as displayed on the website

The information for the Greek pilot site presented is the following (Figure 35)

"*A residential two-story building belonging to the main body of the Greek Army and recently renovated, has been selected to comprise a pilot site for the PHOENIX project in order to evaluate the innovative and sustainable energy solutions developed here. The building is located in Thessaloniki, in Northern Greece and accommodates eight apartments of approximately 80 square meters each.*

At the beginning of PHOENIX project, although the Greek Pilot-site had just been restored and modernized in terms of construction, no innovative or smart solutions were implemented by that point in terms of house appliances, building equipment and energy management systems. Since September 2020, when PHOENIX project started, several upgrades regarding energy generation, energy integration and building smartness have been incorporated, or are in the process of being incorporated, aiming at increasing the value of the facilities and the life quality of the inhabitants. These include:

- *Photovoltaic panels for renewable energy production*

- *Decentralized solar thermal system for domestic hot water*

- *Battery storage system for supporting electricity blackouts*

- *Smart meters for energy consumption & production measurements*

- *Electric vehicle charging*

- *Smart led lighting*

- *Automatic shading systems*

- *Smart controlling of home appliances*"

Figure 35: The Greek pilot site as displayed on the website

The information for the Swedish pilot site presented is the following

"*The Swedish Pilot site is based in Skellefteå, which is located in the north of Sweden. Climate conditions in the zone are characterized by a cold winter with snow, and a mild summer.*

The pilot will include a building which is both residential and commercial. Being in the north of Sweden the building is has both district heating connection and electricity connection from the energy company. It has 12 apartments and a commercial space at the front facing the street on the ground floor. It has 3 floor levels and a basement. The total area including the commercial space is: 1920m2 heated area and 1278m2 living area.

The building has big apartments with of 4-5 rooms each. In addition to the apartments there is a community laundry room, a common room for socializing. There are 4 outdoor parking places on the street with electric points for heating the cars and 10 indoor car garages. The building is built in 1966 and is made of concrete with 3 pane glass windows. The building has an FX system for ventilation with two fans for supply and exhaust air with a rotating heat exchanger where 80% of

the energy is sent back into the building. The occupants age group ranges between 20 years to 76 years with an average age of 50 years approximately. All apartments are equipped with appliances owned by the owners such as fridge, dishwasher, and microwave, etc. Approximately 50% have their own washing machine but others use washing machines in the communal laundry room.

- *4-5 Rooms each apartment*

- *Community laundry room*

- *Socializing room*

- *Outdoor parking places & 10 Indoor*

- *80% energy efficient air ventilation system*

Figure 36: The Swedish pilot site as displayed on the website

5.2.1.6 Partners

A brief profile of each PHOENIX consortium partner is available in this section of the website. More in detail, a brief description of each partner is presented on the main page, while a "read more" button in each partner's description is available. This button takes you to a page with more detailed information and a link to each partner's official website. The following Figure 37 depicts a part of the main "partners" page.
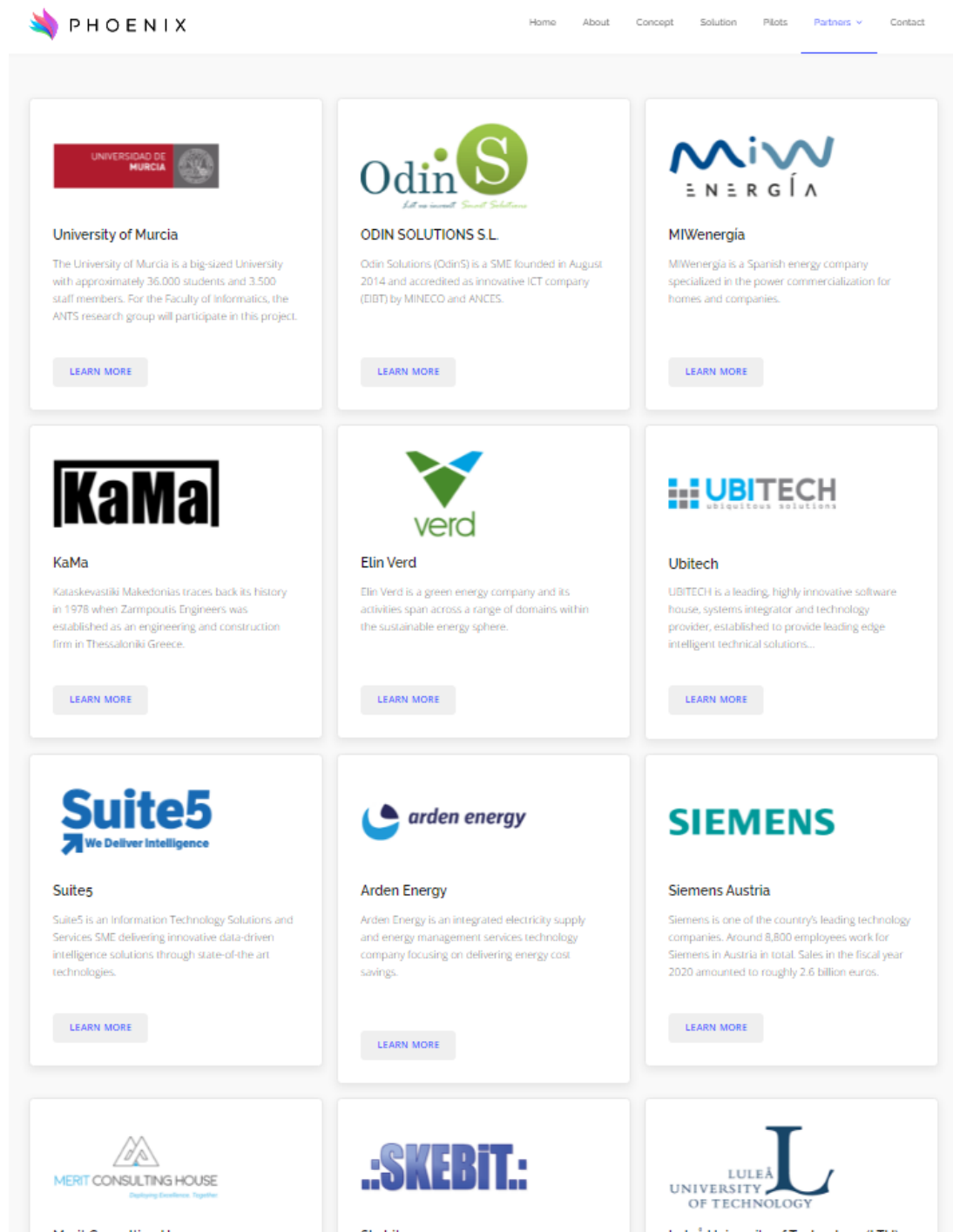
Figure 37: Screen capture of the "partners" section

5.2.1.7 Contact

In this section of the project web site, visitors will have the opportunity to communicate with project coordinator and the communication manager through a contact form.

5.2.1.8 Inactive tabs

Finally, sections for "news" and "events" are anticipated on the website, but those tabs remain inactive for time being, until relevant content is added.

5.2.2 Website metrics

To track and evaluate the performance of the website, the online tool "Analytics" is used, provided by Google. As presented in the following Figure 38, the total unique visitors of the website are 510, up to August 2021, with 707 sessions in total and 1873 pageviews. The average pageviews per session are 2.65, while the average session duration 1 minute and 39 seconds. The last result, regarding the time spent on the website per user is rather low, since the website has a small volume of content in the first stage of the PHOENIX project. As it continues and its technologies become more mature it is expected to have more content on the website and thus, increase the interest of its audience and as a result the average session duration. In any case, this KPI will be constantly monitored, and actions will be taken to raise the time spent on the website by the users and keep it above 2 minutes.

Figure 38: Website analytics – Audience overview

5.3 Social media presence

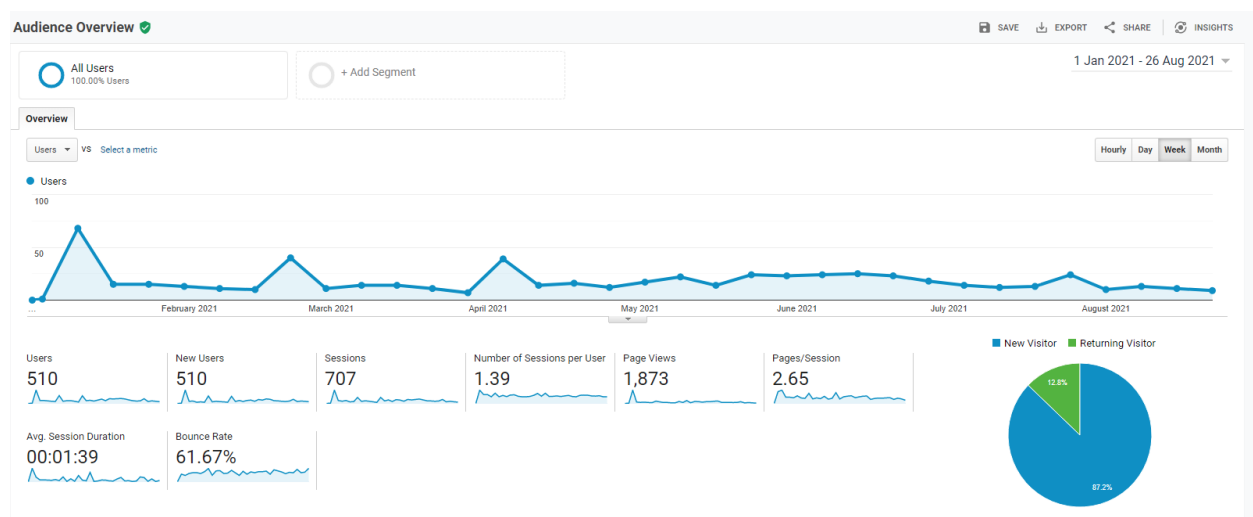During the first three months of the project, PHOENX accounts have been created in Twitter, LinkedIn, and Facebook with the target to have at least one update weekly in one of the project accounts, following the project progress. More information about those accounts can be found in the following sections.

5.3.1 Twitter

Given its efficiency in terms of user interaction and visibility by quickly reaching a large audience or retweeting pertinent content, the project Twitter account, as illustrated in Figure 39, will be employed as one of the key communication media. One of Twitter's most compelling features is its ability to link users through hashtags and mentions. This feature of Twitter can ensure that the project will be really accessible throughout its duration.

The project Twitter account will be mostly dedicated to "non-visual" information in order to communicate mostly the project's message and updates. The PHOENIX Twitter account will be utilized as a constant update channel during the project's technology development, distribution of project results, and as a reminder for all project activities and events.

The goal of the PHOENIX Twitter account is to make the PHOENIX account viral by having all project partners "mentioned" and "re-tweeting" it, resulting in a significant number of followers.

The following link will take you to the PHOENIX Twitter account.

https://twitter.com/H2020_phoenix
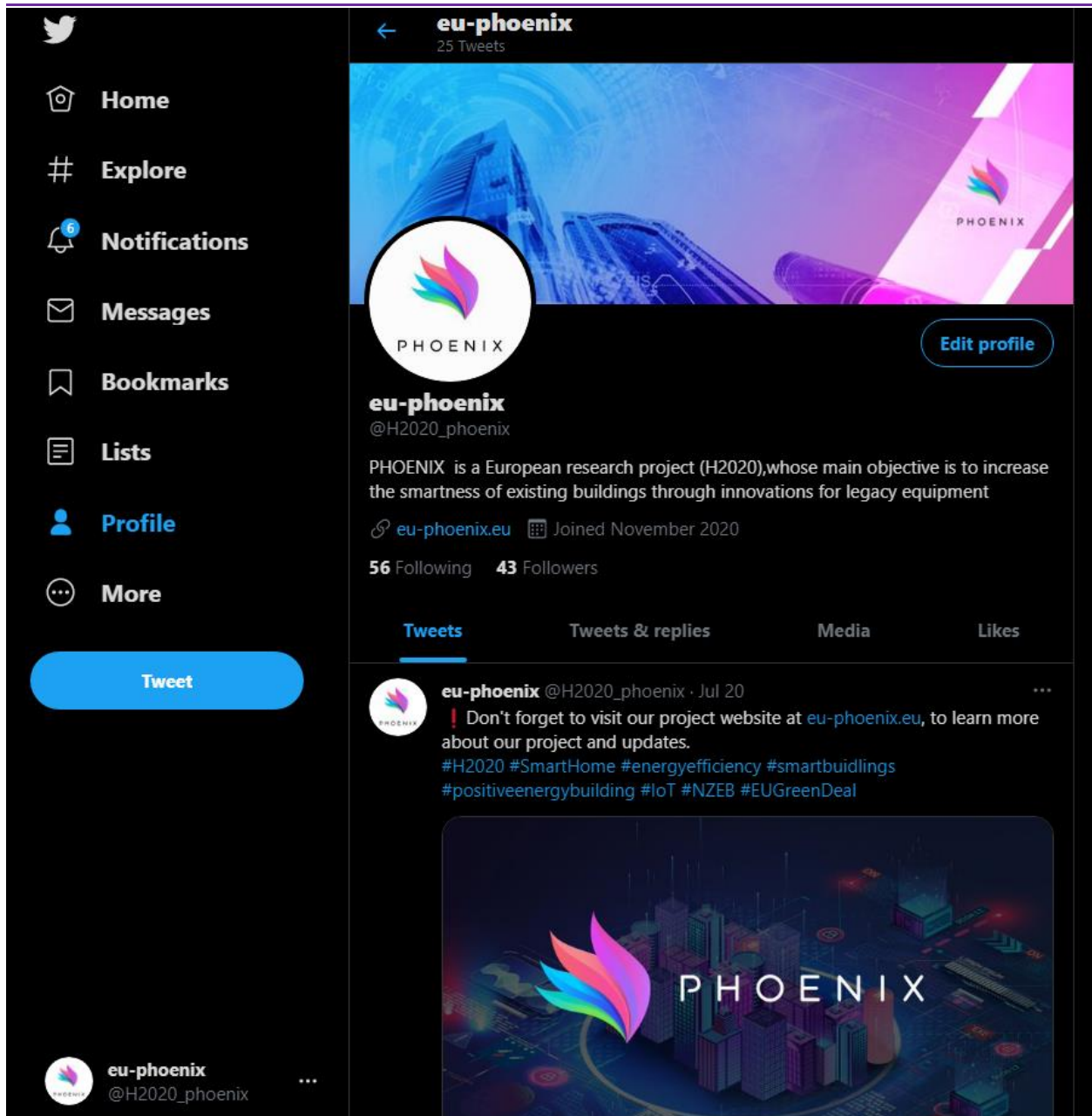
Figure 39:Phoenix twitter page

5.3.2   *LinkedIn*

LinkedIn has been picked as the next social media channel to be created under the PHOENIX project. Although the LinkedIn platform is not as well-known as other social media platforms, it is the most useful for professional use and business networking. As a professional networking site, LinkedIn can be used to reach out to other corporate organizations, institutions, professionals, or other projects who might be interested in the PHOENIX project's scope, objectives, results, or solutions.

Our goal in implementing our LinkedIn strategy for PHOENIX is to create networks or target people with specific interests, as well as provide dedicated content that can engage professionals and related companies, as well as connect with previously established groups. Furthermore, LinkedIn may be a very successful tool for implementing the project's exploitation aims, as it can promote the PHOENIX project as a unique idea on the market, activating potentially interested end users, companies, and stakeholders, if used appropriately.

The PHOENIX LinkedIn account can be accessed in the following link:

https://www.linkedin.com/company/h2020phoenix
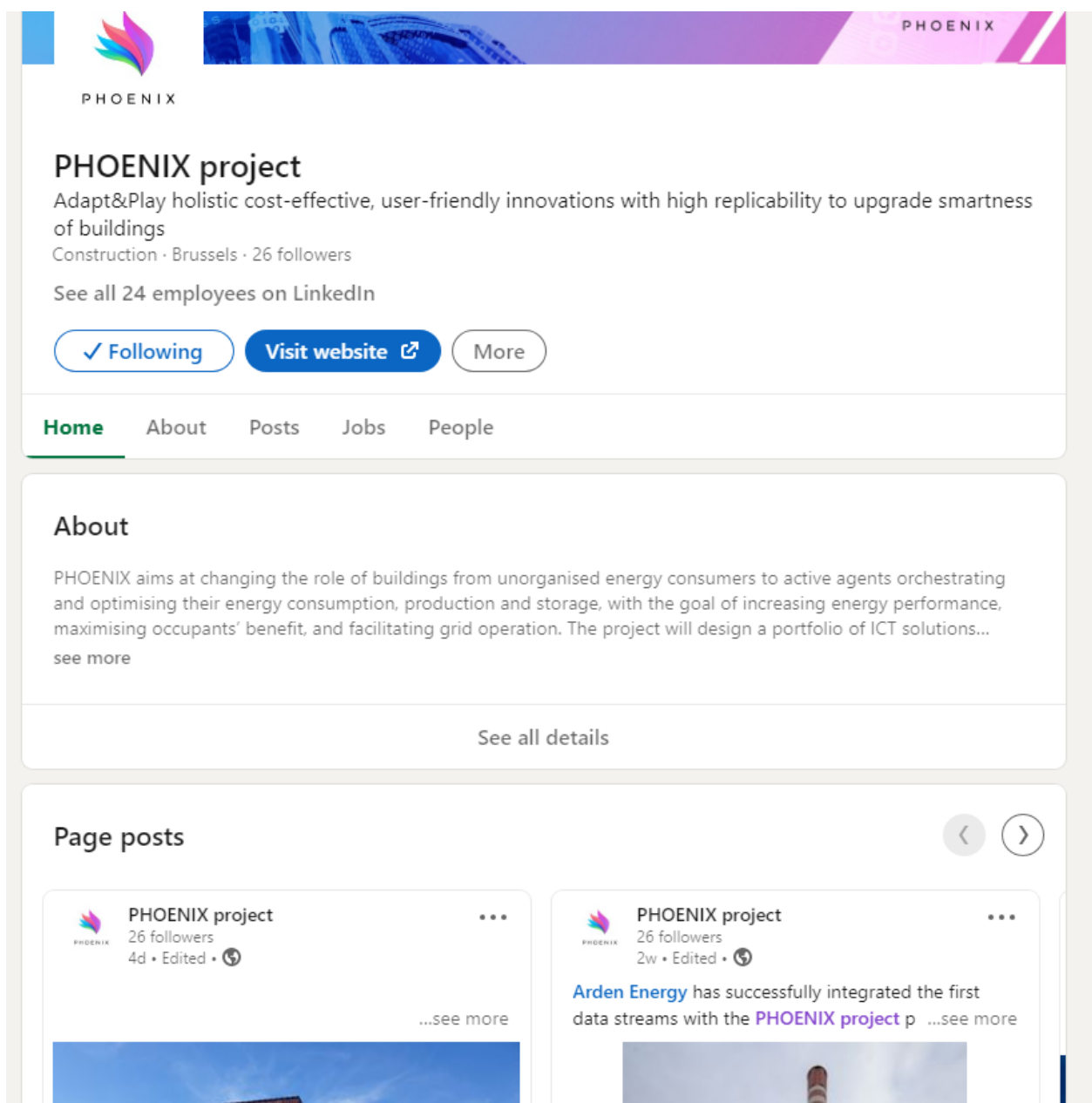
Figure 40: PHOENIX LinkedIn account

5.3.3 Facebook

The PHOENIX project's third social media platform, in addition to its Twitter and LinkedIn pages, is Facebook (Figure 41). Facebook is the most well-known and widely used social media platform. As a result, it could reach a large audience with numerous targets, ensuring the best possible outcomes in distributing information about the PHOENIX project, events, updates, and results. Furthermore, the Facebook analytic tool "Facebook Insights" can provide valuable statistics, such as the number of individuals reached and their characteristics, making it a great tool for measuring the project's social media impact against the project's Key Performance Indicators (KPIs).

Figure 41: PHOENIX Facebook account

The PHOENIX Facebook account can be accessed in the following link:

https://www.facebook.com/H2020phoenix

Finally, in the following Table 8, the project social media accounts are presented in a brief, with the account name and URL for each one.

Table 8. PHOENIX social media in a brief.

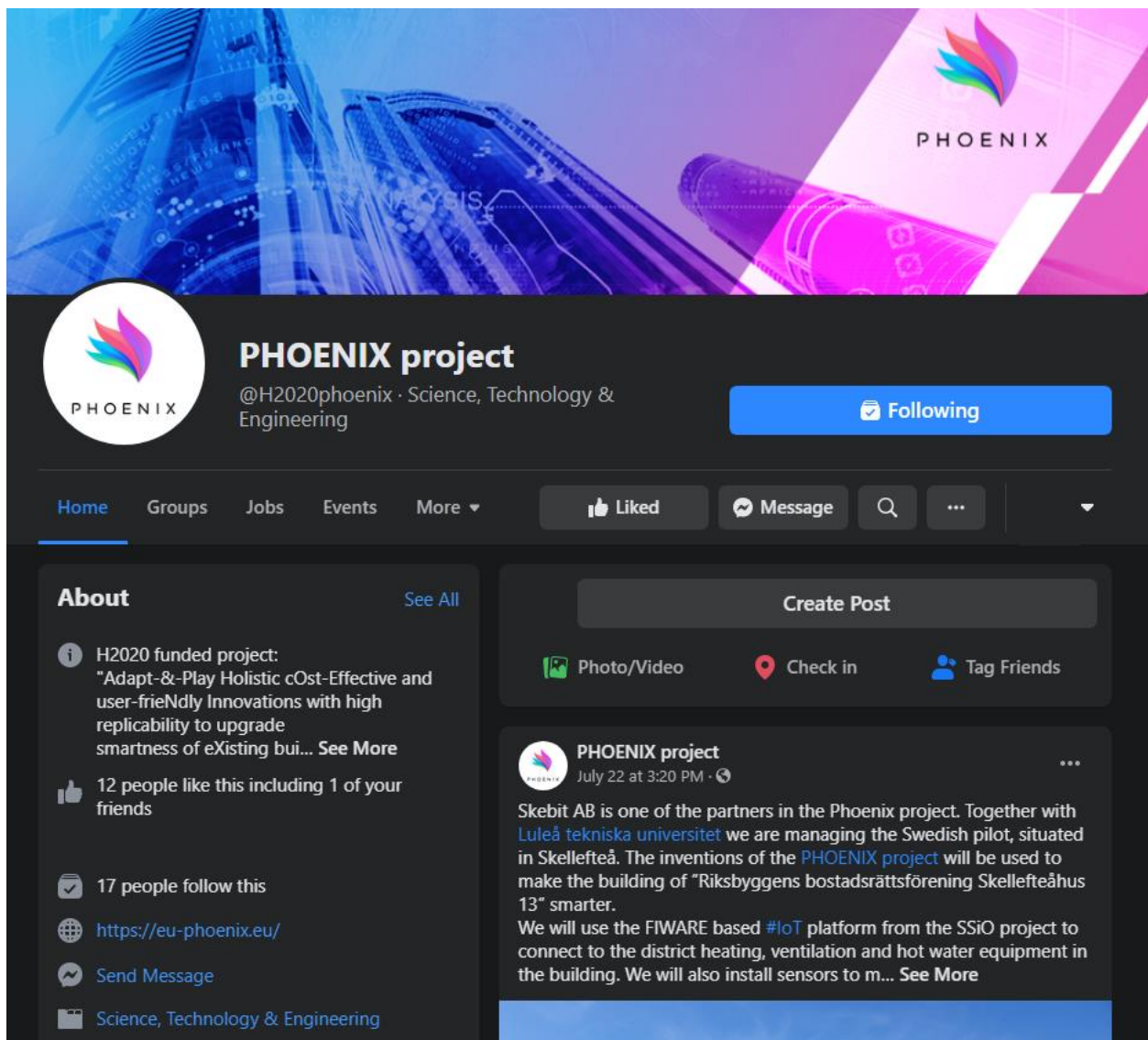| Social Network	PHOENIX account name	PHOENIX account URL
Twitter	@H2020_phoenix	https://twitter.com/H2020_phoenix
LinkedIn	@ h2020phoenix	https://www.linkedin.com/company/h2020phoenix
Facebook	@H2020phoenix	https://www.facebook.com/H2020phoenix

5.3.4   Social media update timeline

As already mentioned in section 3.3.2 Social Media, the PHOENIX social accounts should be updated in a weekly basis, in order to create and sustain a "buzz" around the project. To that aim, it was determined that all partners would be prompted to engage in this work, and as a result, a list of responsible partners for the "post of the week" was produced, effective May 14th, 2021. This list has been uploaded to a relevant folder in the project OnlyOffice repository, under the WP8 activities, so that all partners can see it. Thus, every Monday each partner is reminded that the coming Friday is responsible for sending a social media post to task 8.1 leader, who will then post it in the appropriate channel.

All partners will engage in accordance with the plan, contributing on a regular basis and a total of ten times during the project's duration.

A part of the social media timeline, updated with partners contribution by the end of July 2021 is presented in the following Figure 42, while the analytical tables of the social media update timeline with the responsible partner each week, is presented in Annex I.

	A	B	C
1	PHOENIX		
2	Communication update by:	Responsible partner:	Completed:
3	14/05/2021	UMU	Completed
4	21/05/2021	OdinS	Completed
5	28/05/2021	MIWENERGIA	Completed
6	04/06/2021	KaMa	Completed
7	11/06/2021	VERD	Completed
8	18/06/2021	UBITECH	Completed
9	25/06/2021	SUITE5	Completed
10	02/07/2021	Arden	Completed
11	09/07/2021	SAGOE	Completed
12	16/07/2021	MERITCH	Completed
13	23/07/2021	Skebit AB	Completed
14	30/07/2021	LTU	Pending
15	06/08/2021	UMU	
16	13/08/2021	OdinS	
17	20/08/2021	MIWENERGIA	
18	27/08/2021	KaMa	
19	03/09/2021	VERD	
20	10/09/2021	UBITECH	

Figure 42: Social media update responsibilities per partner

Regarding the expected contribution from partners, some examples of inputs that they can provide are:

- A possible post/Tweet with updates/news on the progress of the partner's work.

- A link to a video related to the progress of the PHOENIX project.

- A link to a relevant article/studies or news for the PHOENIX project with 1-2 sentences description for Facebook or twitter and a more analytical description for LinkedIn

- A description of a participation in event or conference (also including photos)

For Facebook and Twitter posts, partners were reminded to try to keep the messages short and effective to maximize their impact and to bear in mind that providing a post for Twitter has the restrictions of 280 characters. For LinkedIn articles and website updates, partners were prompted to use more technical and analytical language with a more thorough description.

5.4 Communication actions with other projects

During the first 12 months of its duration, PHOENIX, established communicated and declared its participation in one project community, the "SmartBuilt4EU innovation community", which gathers industrials and research and development organisations and individuals engaged in supporting the deployment of smart buildings.

SmartBuilt4EU open task forces investigate the key issues and trends related to smart buildings and identify state of the art, best practices, barriers, challenges, and opportunities to support their uptake. Their collaborative work will feed a Strategic Research Agenda to be presented to the European Commission.

Those task forces are:

- **Task Force 1: Interactions with users**. With main topics of interest being, the end-user awareness, acceptance, and feedback.

- **Task Force 2: Efficient building operation.** With main topics of interest being, interoperability, cost optimisation and resources efficiency.

- **Task Force 3: Interactions with the external environment**. With main topic of interest being to Provide flexibility to the (power, DH&C) networks.

- **Task Force 4: cross cutting**. With main topics of interest being, data, security, business & finance, education.

PHOENIX project has become part of the cluster task forces 1 and 2 about Interactions with users and Efficient building operation, while PHOENIX was represented in their first meeting and has provided details (logo, description, partners, etc.) to be included in the SmartBuilt4EU brochure.

This participation will allow PHOENIX to collaborate with other projects in the field of energy efficiency that are also part of this cluster, also discuss about and the other projects'' technologies and innovation in the field of upgrade of the existing buildings' smartness through renovations.

PHOENIX consortium has been highly active with the project SmartBuilding4EU. The Project Manager gave a presentation on the SmartBuilt4EU webinar on the 17th of June where topics such as optimization of energy consumption and (renewable) generation, the provision of flexibility services to the power network, improved wellbeing, and new services to occupants as well as new

business opportunities and models were discussed. The PM gave a presentation about the progress that have been done on PHOENIX about these aspects.

Also, the consortium has participated on the different meeting of Task force 2 and Task force 3. It is worth noting that as a result of the meeting a White Paper of Task Force 2 Interoperability has been developed and opened for consultation. Also, in Task Force 3 another White Paper has been done and it is on the form of a draft at the time of writing.

6 Monitoring, evaluation, and impact assessment

During the implementation of communication activities in the context of the project, it is crucial to consider how the messages are delivered to the designated target groups and evaluate their impact. Because communication activities are not one-time event, there should be a long-term engagement with the targeted stakeholders and end-users, allowing for regular monitoring and constant evaluation. The PHOENIX project consortium will use Key Performance Indicators (KPIs) to define and track the progress and performance of the activities towards the predetermined targets.

6.1 Methodology and Key Performance Indicators

The already presented Table 2 offers an indicative set of expected results for the project communication activities as well as an expected set of performance metrics. For those activities quantitative targets pre project period is presented in greater detail in the table below (Table 9). Those metrics (KPIs) will be revised with every update of the PHOENIX communication plan, to provide a consistent measure of performance for the communication activities.

Table 9: Communication activities KPIs (accumulative targets)

Activity	M12	M18	M24	M30	M36
Leaflets brochures		1st Version		Updated version	
Posters		1st Version		Updated version	
Reference ppt presentation			1st Version		
Newsletters	1st	2nd	3rd	4th	5th
Website	500 Visitors,	700 Visitors	1000 Visitors	1500 Visitors	2000 Visitors
Twitter / Facebook / LinkedIn	100 Followers 250 reactions Weekly update	120 Followers 350 reactions Weekly update	150 Followers 450 reactions Weekly update	200 Followers 600 reactions Weekly update	250 Followers 800 reactions Weekly update
Training / webinar			1st training session		2nd training session

Participation among interest groups		Participation in 1 interest group			Participation in 2 interest groups
Communication actions with other H2020		Communication and synergies with at least 3 projects or one project community			Communication and synergies with at least 6 projects or two project communities

6.2 Current status

The project's quantitative communication targets are compared to current performance in the following Table 10, which will be revised every six months.

Table 10: Communication targets Vs current status

Activity	Accumulative target for month 12	Status in month 12
Leaflets / brochures	No specified target	No results for this period
Posters	No specified target	No results for this period
Reference ppt presentation	No specified target	No results for this period
Newsletters	1st newsletter issued	The first newsletter issued in August 2021
Website	Launched Monthly updated 500 visitors	Project website launched in January 2021 and updated regularly since then. The total unique visitors are 510 up to month 12.
Twitter / Facebook	Signed up Weekly updated 100 followers in total	Accounts created in November 2021 and updated with an average interval of once every week. The total accumulative followers are 115 (60

	250 reactions in total	in Twitter, 25 in Facebook and 30 in LinkedIn). The total reactions are 294 up to August 2021 (119 in Twitter, 113, in Facebook and 62 in LinkedIn)
Training / webinar	No specified target	No results for this period
Participation among interest groups	No specified target	No results for this period
Communication actions with other H2020	Communication and synergies with at least 3 projects or one project community	Participation in one project community.

As one can see in Table 10 above, all the quantified targets for the first 12 months of the project were reached.

6.3 Project communication and dissemination monitoring tool

An online dissemination and communication monitoring tool was built in order to improve the efficiency of dissemination and communication activities, to better monitor the completed activities by all partners, to monitor the progress toward the specified KPIs, and to propose new target events, target publications, and networking opportunities.
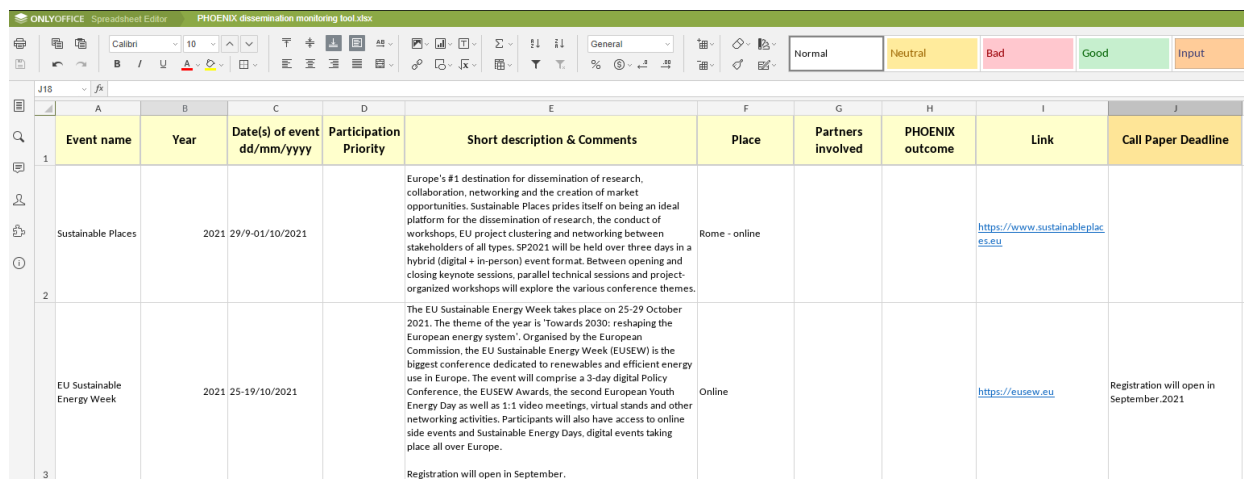
This application is an online spreadsheet with 6 different tabs that may be accessible by all parties through the online project repository in OnlyOffice. The partners are provided instructions on how to utilize the tool in the first tab, as seen in Figure 43 below.

Figure 43: Online dissemination monitoring tool - Instructions tab tool

The partners should fill out the next tabs with details on the completed dissemination activities, including the name of the event, the date, the location, the partners engaged, the audience, the type, and the activities that took place. In addition, the event's link should be included, as well as any other comments from the partners. This section is depicted in Figure 44 below.

Figure 44: Online dissemination monitoring tool - Completed events tab
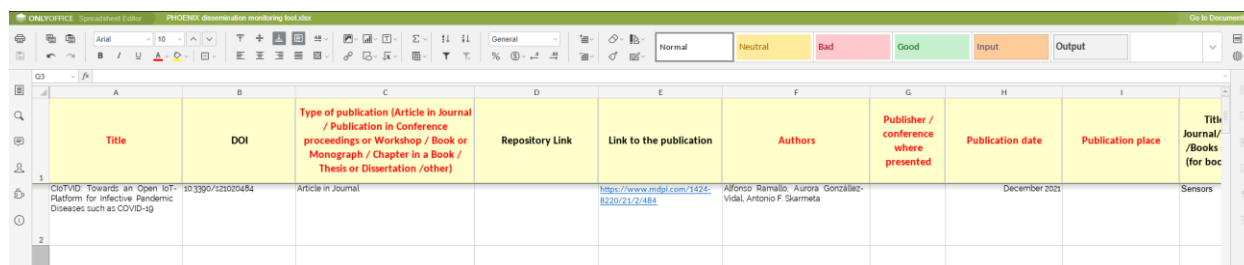
The partners should add the target future conferences and events to the next tab of the tool. Details regarding the event's name, date, location, partners engaged, audience, type, and activities should be provided once again, followed by details about the participation priority as presented in the instructions and the Call Paper Deadline. The following Figure 45 depicts this section.

Figure 45: Online dissemination monitoring tool - Target events tab

The target publications, with details about title, category, publisher, periodicity, location, and any remarks, should be provided in the next tab by project partners. This section is depicted in Figure 24 below.

Figure 46: Online dissemination monitoring tool - Publications tab

Next, the dissemination and communication KPIs are displayed on the last sheet as a reminder of the goals we should achieve each semester. (Figure 47)

Figure 47: Online dissemination monitoring tool -KPIs tab

Finally, in the last tab, the post of the week timeline is presented, as reminder for all partners.

7 Conclusions

The main goal of this report was to build a holistic communication approach for the PHOENIX project and to create the communication plan, based on the project's targets, objectives, and unique characteristics. Moreover, through this report the specific quantified targets for the communication activities should have been identified.

To that end, this deliverable met its objectives by detailing all the communication parameters, establishing an implementation plan, presenting all the completed activities for this period, and identifying the specific targets that the communication activities should achieve, as well as the Key Performance Indicators that will be used to evaluate them.

Regarding the specific activities, all the anticipated actions were carried out according to plan during the first twelve months of the project. Nevertheless, the target for weekly update in the social media platforms was difficult to meet in the first months of the project. Thus, to mitigate this risk, it was decided to create a list, designating the responsible partner for each week's post in those social media accounts. This procedure will eliminate the possibility of failing to meet this KPI in the future and during the project lifecycle. Moreover, another important metric that will be constantly monitored is the average session duration of the project website analytics. Currently the average time spent by each user on the website is below 2 minutes, which should be increased in the next period. As anticipated, when more content will be added on the website, this duration will be increased, but the metric will be monitored in order to take mitigation actions if the result remains below the borderline of two minutes. Similarly, all the rest quantified targets and KPIs will be constantly monitored, and in case that any risk to meet those KPIs is identified, actions will be taken to get the communication performance back on track.

Annex I – Post of the week responsibilities

Communication update by:	Responsible partner:
14/05/2021	UMU
21/05/2021	OdinS
28/05/2021	MIWENERGIA
04/06/2021	KaMa
11/06/2021	VERD
18/06/2021	UBITECH
25/06/2021	SUITE5
02/07/2021	Arden
09/07/2021	SAGOE
16/07/2021	MERITCH
23/07/2021	Skebit AB
30/07/2021	LTU
06/08/2021	UMU
13/08/2021	OdinS
20/08/2021	MIWENERGIA
27/08/2021	KaMa
03/09/2021	VERD
10/09/2021	UBITECH
17/09/2021	SUITE5
24/09/2021	Arden
01/10/2021	SAGOE
08/10/2021	MERITCH
15/10/2021	Skebit AB
22/10/2021	LTU
29/10/2021	UMU
05/11/2021	OdinS
12/11/2021	MIWENERGIA
19/11/2021	KaMa
26/11/2021	VERD
03/12/2021	UBITECH
10/12/2021	SUITE5
17/12/2021	Arden
24/12/2021	SAGOE
31/12/2021	MERITCH
07/01/2022	Skebit AB
14/01/2022	LTU
21/01/2022	UMU
28/01/2022	OdinS
04/02/2022	MIWENERGIA
11/02/2022	KaMa
18/02/2022	VERD
25/02/2022	UBITECH
04/03/2022	SUITE5

11/03/2022	Arden
18/03/2022	SAGOE
25/03/2022	MERITCH
01/04/2022	Skebit AB
08/04/2022	LTU
15/04/2022	UMU
22/04/2022	OdinS
29/04/2022	MIWENERGIA
06/05/2022	KaMa
13/05/2022	VERD
20/05/2022	UBITECH
27/05/2022	SUITE5
03/06/2022	Arden
10/06/2022	SAGOE
17/06/2022	MERITCH
24/06/2022	Skebit AB
01/07/2022	LTU
08/07/2022	UMU
15/07/2022	OdinS
22/07/2022	MIWENERGIA
29/07/2022	KaMa
05/08/2022	VERD
12/08/2022	UBITECH
19/08/2022	SUITE5
26/08/2022	Arden
02/09/2022	SAGOE
09/09/2022	MERITCH
16/09/2022	Skebit AB
23/09/2022	LTU
30/09/2022	UMU
07/10/2022	OdinS
14/10/2022	MIWENERGIA
21/10/2022	KaMa
28/10/2022	VERD
04/11/2022	UBITECH
11/11/2022	SUITE5
18/11/2022	Arden
25/11/2022	SAGOE
02/12/2022	MERITCH
09/12/2022	Skebit AB
16/12/2022	LTU
23/12/2022	UMU
30/12/2022	OdinS
06/01/2023	MIWENERGIA
13/01/2023	KaMa
20/01/2023	VERD
27/01/2023	UBITECH
03/02/2023	SUITE5
10/02/2023	Arden

17/02/2023	SAGOE
24/02/2023	MERITCH
03/03/2023	Skebit AB
10/03/2023	LTU
17/03/2023	UMU
24/03/2023	OdinS
31/03/2023	MIWENERGIA
07/04/2023	KaMa
14/04/2023	VERD
21/04/2023	UBITECH
28/04/2023	SUITE5
05/05/2023	Arden
12/05/2023	SAGOE
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26/05/2023	Skebit AB
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25/08/2023	LTU

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