Project Acronym:	**SIT4Energy**
Project Full Title:	**Smart IT for Energy Efficiency and Integrated Demand Management**
Project Duration:	**36 months (01/03/2018 – 28/02/2021)**

DELIVERABLE 5.3
SIT4Energy Fact Sheet and web site

Work Package	**WP5 – Project Management, Dissemination, communication, exploitation and impact assessment**
Task	**T5.2 – Dissemination & Communication**
Document Status:	**Draft v0.1**
Due Date:	**30.05.2018**
Submission Date:	**09.07.2018**
Lead Beneficiary:	**CERTH**

Dissemintation Level	
Public	X
Confidential, only for members of the Consortium (including the Commission Services)	

Authors List

Leading Author			
First Name	**Last Name**	**Beneficiary**	**Contact e-mail**
Stelios	Krinidis	CERTH	**krinidis@iti.gr**
Co-Author(s)				
#	**First Name**	**Last Name**	**Beneficiary**	**Contact e-mail**
1	Apostolos	Tsolakis	CERTH	**tsolakis@iti.gr**

Reviewers List

Reviewers			
First Name	**Last Name**	**Beneficiary**	**Contact e-mail**
Jasminko	Novak	HOST	**jasminko.novak@hochschule-stralsund.de**
Christopher	Schneider	SHF	**christopher.schneider@stwhas.de**

Legal Disclaimer

Copyright

Executive Summary

The deliverable 5.3 presents the project's fact sheet and website.

In this document, an overview of the website's structure and main features is provided, together with some accompanying screenshots. CERTH has designed the website and coordinated the task with the participation and joined effort of all project partners.

The SIT4Energy website provides a brief, but impactful description of the project and of its activities. It is meant to be a tool for communication, which helps promote the project goals and results beyond the project own community, in a way that is understood by non-specialists. The tone of voice will be simple, clear and straightforward.

The website presents the same style of the other communication materials composing the brand identity and coordinated image - Logo, Headed Paper template, PowerPoint Presentation template, etc. - making the project instantly recognizable.

The SIT4Energy website has been released on June 29th, 2018 and it is available at the address http://www.sit4energy.eu/. The website is written in English, but will be translated in German and Greek.

Table of Contents

List of Figures

1. General Features

The SIT4Energy website has been released on June 29th, 2018 and it is available at the address http://www.sit4energy.eu/. CERTH has designed the website and coordinated the efforts and contributions of all project partners.

The website is the primary source of information as per the project's activities and achievements. This is the reason why, the design and setup of the enCOMPASS website has been one of the first tasks to be accomplished at the very beginning of the project.

Dissemination through the website aims at raising:

- awareness (making the project known);
- understanding (learning about project approach and results);
- action (engaging and influencing)
- end-user engagement (providing access to questionnaires and SIT4Energy tools).

The website architecture has been studied by CERTH together with the content editing. The technical development and adjustments have been accomplished by CERTH using the platform CMS Wordpress (php open source) based on DB MySQL and PHP code hosted on a Linux server. The website template is designed with a responsive layout to fit into any screen size available.

The SIT4Energy website provides a brief, but impactful description of the project and of its main activities. The website presents the same coordinated image and style of the other communication materials - Logo, Headed Paper template, PowerPoint Presentation template, etc. - making the project instantly recognizable.

The SIT4Energy website is written in English, but it will also be translated in German and Greek to aid towards targeting a wider audience in the context of the Greek-German Billateral Cooperation.

Hereafter, an overview of the website is provided by following the site map. Screenshots are also provided.

2. Project Website

The SIT4Energy website offers information, data and materials about the project, its partners, and the designed research.

The website template is built with a responsive design to fit into any screen size. Responsive web design (or "RWD") is a type of web design that provides a customized viewing experience for different browser platforms. A website created with RWD displays a different interface depending on what device is used to access the site. For example, a responsive website may appear one way on a laptop, another way on a tablet, and still another way on smartphone. The template comes with rtl (right to left) support, Image Slider, a three line menu icon and Google Fonts. The domain name is 'encompass-project.eu' and it has been acquired and will be maintained for 5 years.

At the present stage, there are nine main sections composing the site: 0. Home, 1.Project, 2.Material, 3.Pilots, 4.Solutions, 5.News, 6.Consortium, 7.Contact, and 8.Login. The section "**Project**" provides an overview of the project, its main objectives and expected results together with an explanation of the technical architecture of the platform for energy saving and behaviour change applications. The "**Material**" section allows visitors to view and download all the communication and dissemination materials generated by the project, the press kit, the press releases, videos, photos, etc. The section "**Pilots**" is meant to explain how and where the pilots will be carried out too assess the effectiveness of the SIT4Energy system. The "**Solutions**" section is the area where the tools implemented from the SIT4Energy project will be demonstrated. The section "**Consortium**" presents the four technical and scientific partners with a short description of their contribution to the project. The "**News**" section aggregates all of the project's news related to project activities, energy research, energy business, etc. The "**Contact**" section is the interface page where the audience can get easily in contact with the project via e-mail or via social networks (i.e. Twitter).

All project partners have contributed to the structure and contents of the website and moderate the content.

2.1   Home Page

The website is structured to enable a quick access to all the sections - detailed description of the project, partnership, pilots, project materials, contact, project solutions and News - through a navigation allowed by a nine line menu section, on the central part of the screen (available in each page). To provide a brief overview of the project and the website in general, the Home page is built in a manner that offers key aspects of the SIT4Energy project.

Style, pictures, layout, and colors have been selected in order to be emotional, attractive and in line with the domain of energy saving and efficiency.

The central part of the home page hosts a brief presentation of the SIT4Energy project, its solutions and pilots, along with the most significant news related to the project: its meetings, its participation to relevant international events, etc.; A contact form with key persons contact details in the buttom of the Home page allows easy communication to visitors, while in the footer, EU and the respective funding agencies are acknowledged.
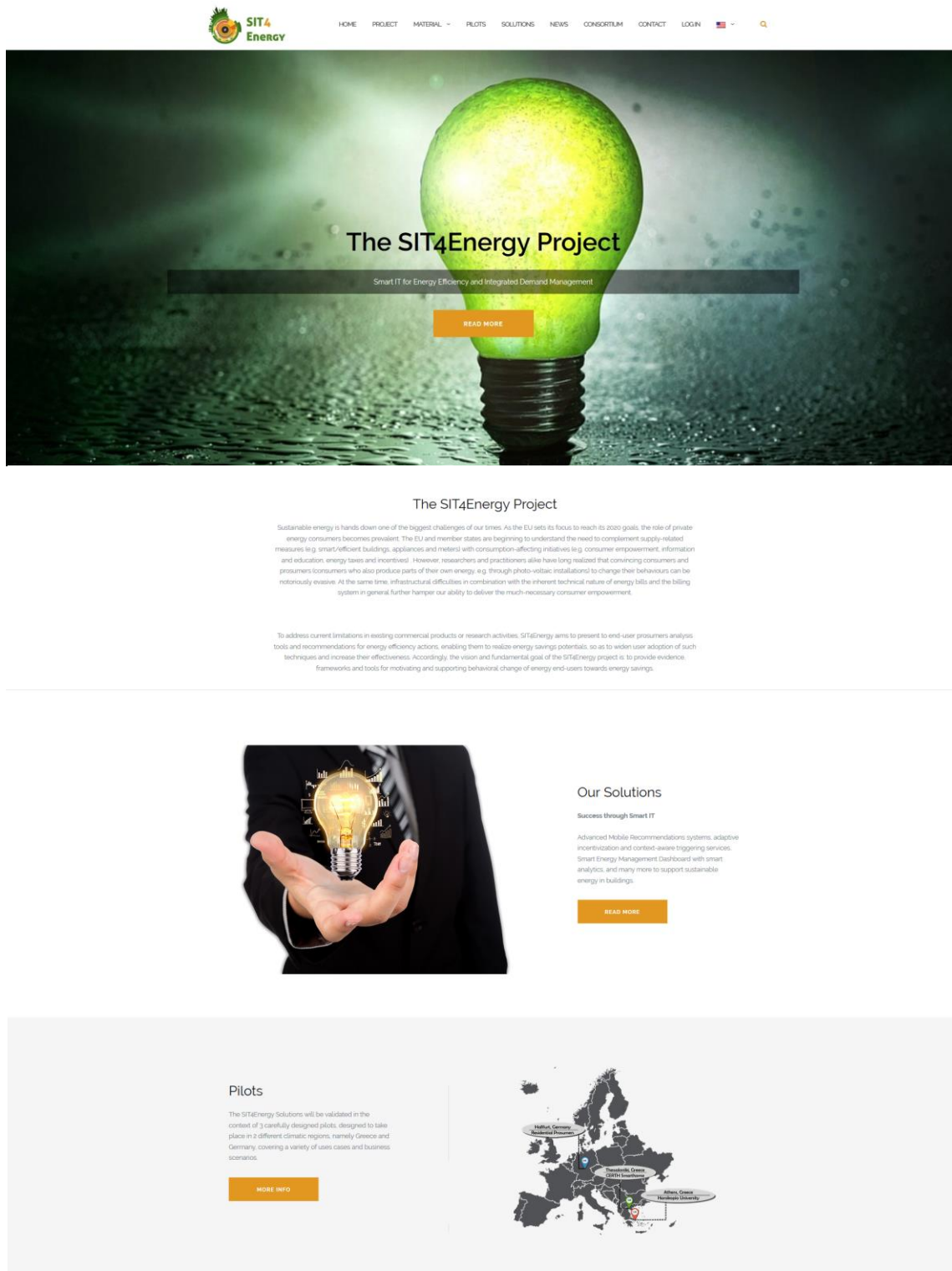
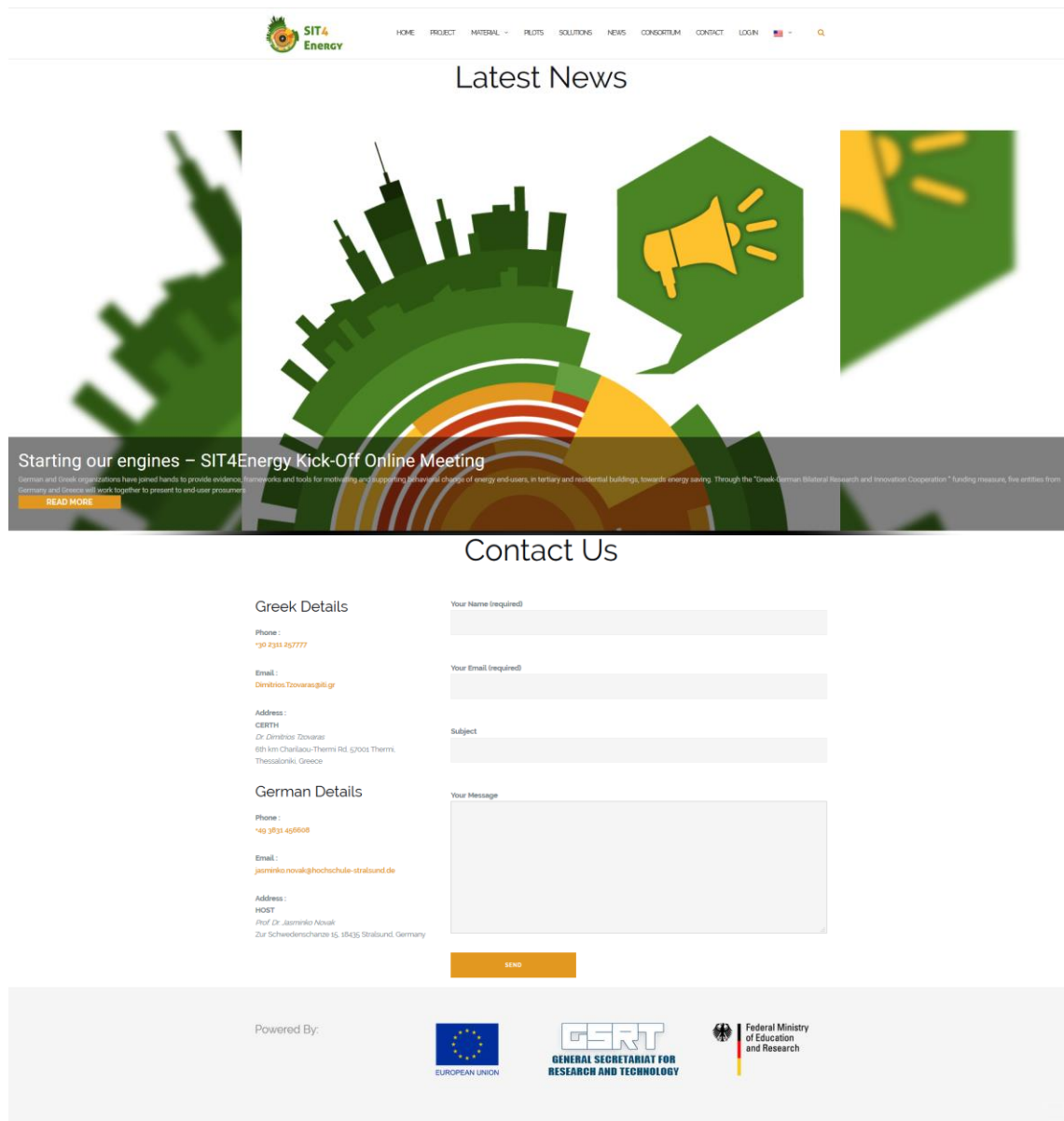**Figure 1. SIT4Energy Home Page**

Figure 2. SIT4Energy Home Page (Continue)

2.2   **Project Page**

The project page provides generic information regarding the project in the form of a menu with tabs. In particular, a summary, the objectives and the concept of the project with some technical details are covered.
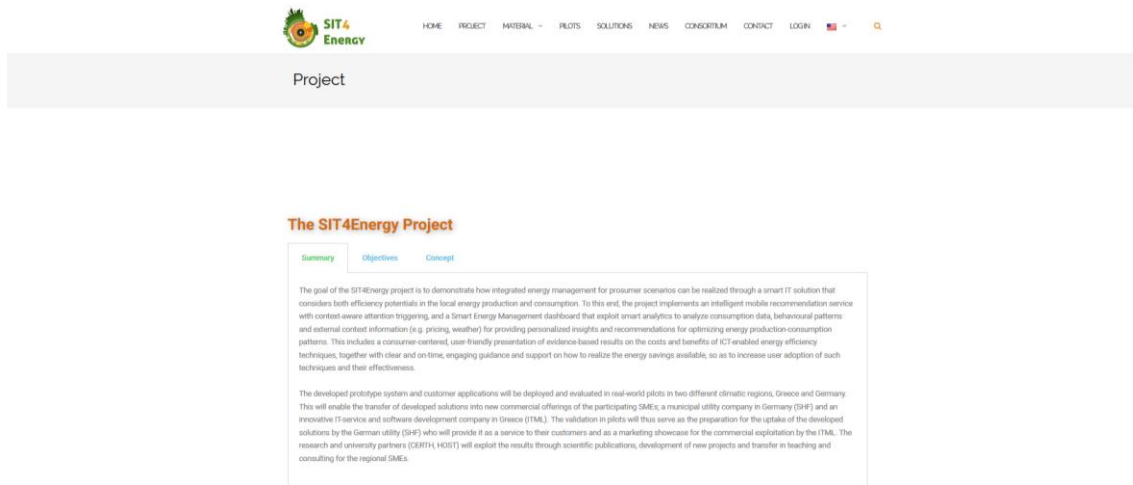
Figure 3. SIT4Energy Project overview.

2.3 **Pilots Page**

This webpage gives an overview on the structure of the SIT4Energy pilots, of the geographical areas involved, of their characteristics and on the buildings involved in the pilots. Each pilot is accessible through a specific tab, namely: a) Residential Buildings, Haßfurt, Germany, b) HUA, Athens, Greece, and c) CERTH nZEB SmartHouse, Thessaloniki, Greece.

As the project's activities progress, more information regarding the pilots will be added to the SIT4Energy website, allowing visitors to have a better understanding over the premises where the SIT4Energy solutions were applied.
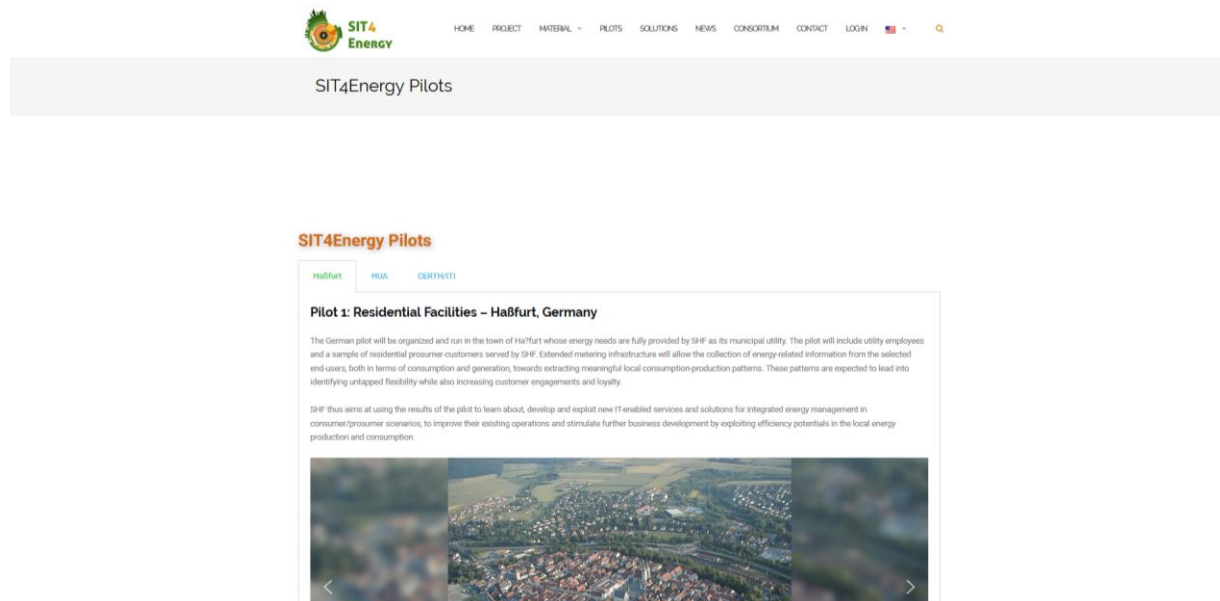
Figure 4. SIT4Energy Pilots Section

2.4   Solutions Page

This section will host the project's solutions. Namely, the mobile application and the web-based smart dashboard will be presented in detail, giving an overview to the visitors along with, potentially, access to demo versions for experiencing their functionality first hand.

2.5   News Page

All of the project news
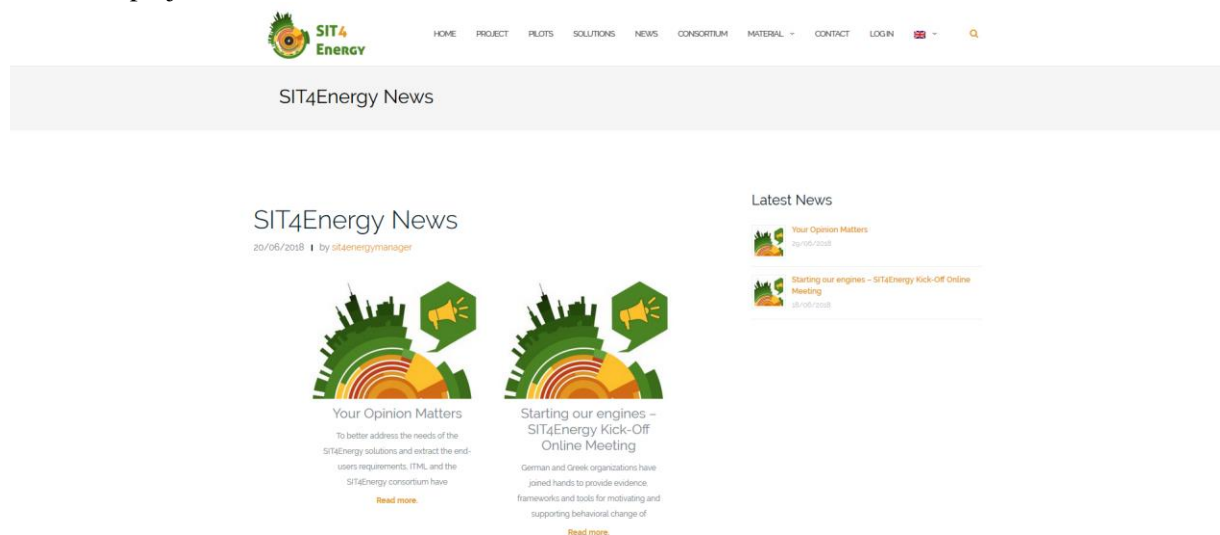
2.6   Consortium Page

A brief description of the project partners' roles in the project, their logos and a link to the respective website are available.
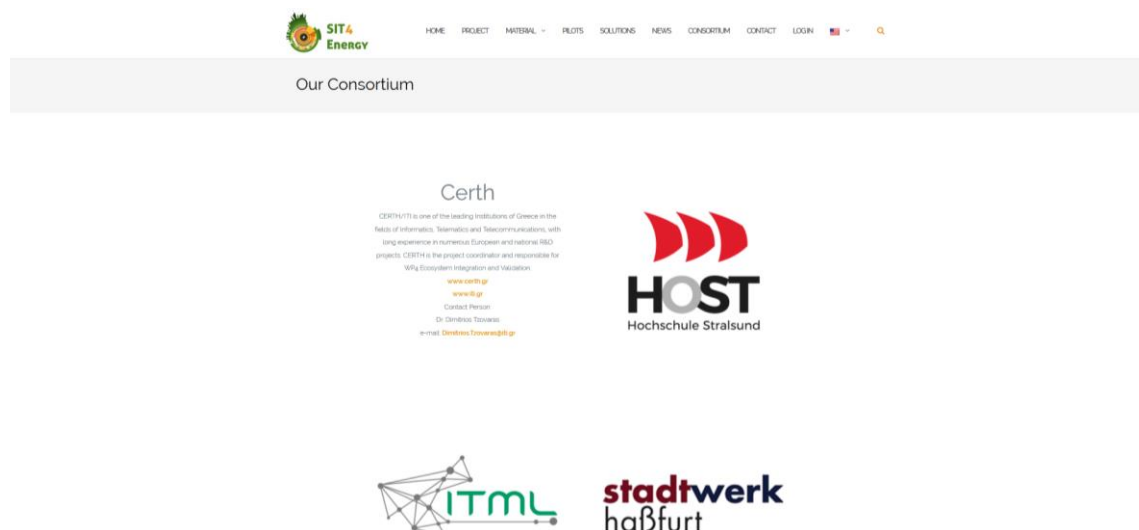
Figure 5. The SIT4Energy Consortium

2.7   Material Page

In this page all the available public materials generated by the project will be made available. This covers: a) public deliverables, b) newsletters, c) presentations, d) publications, e) questionnaires (currently only the links, later on some of the results may be included), and f) videos.
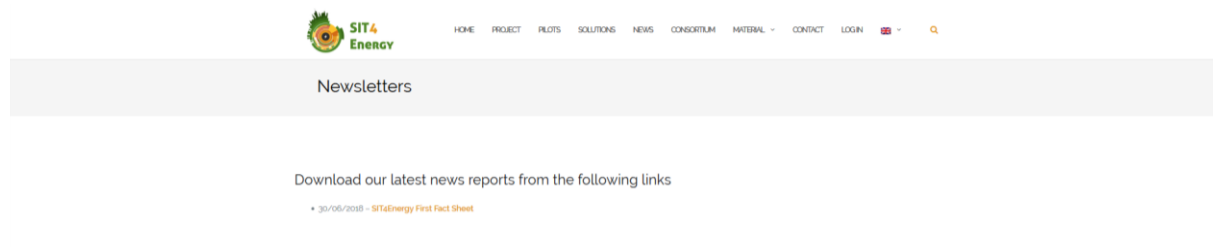
Figure 6. Project's Material page. Sections that currently don't have any context are presented as under construction (i.e. Newsletters).

2.8   Contact Page

Within the Home Page, at the bottom, several ways to reach the project are available. To facilitate visitors, a separate tab has also been provided (even though the contact form and related information are on the Home Page).
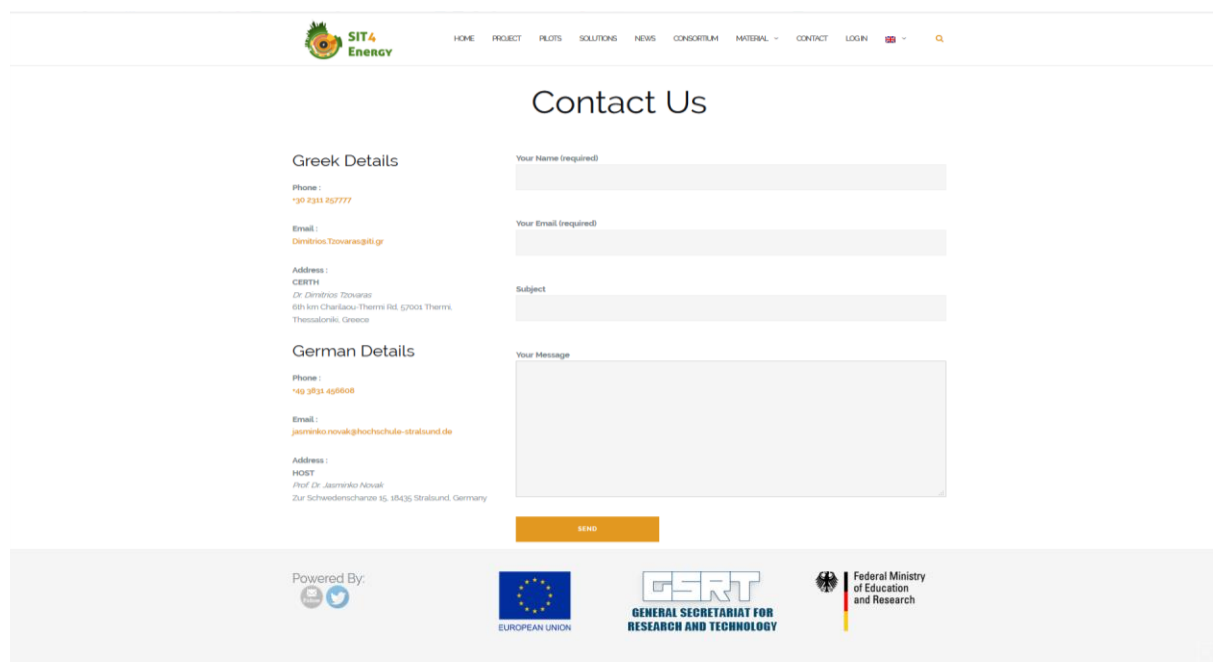
Figure 7. Contact Section on the Home Page

2.9 Login Page

For the initial version of the SIT4Energy website the login page allows access to the Wordpress platform for editing the website. This is also available for the website administration (namely the "sit4energymanager).
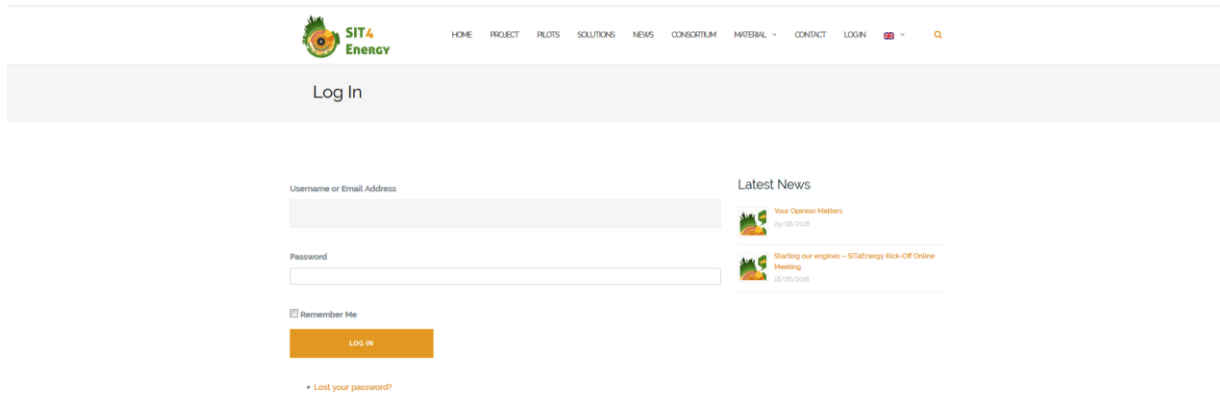
Figure 8. Login page for the SIT4Energy website

The same section may be utilised for also accessing (or be redirected) to the SIT4Energy Smart Dashboard.

2.10 Search Bar

Finally, the menu (navigation) bar on the top of each page on the SIT4Energy website is equipped with a search bar that allows visitors to search the website context if something isn't easily detectable.

Figure 9. Search button on the upper right side of the menu bar

3.Website Analytics

Google Analytics is active and will be used to analyze visitor traffic and behavior. Google Analytics is a powerful tool to monitor the results of the communication strategy and to get a complete picture of the audience, in terms of: number of hits; number of unique visitors; traffic sources; location, etc.

4.Project Fact Sheet

The first SIT4Energy fact sheet includes mainly general information about the project such as: brief summary, key objectives, expected impact, the consortium and the results from the kick-off meeting.

The full fact sheet is available on: https://sit4energy.eu/newsletters/

PROJECT FACT SHEET
GREEK-GERMANY CO-FUNDED PROJECT

project proposal to the funding measure

"Greek-German Bilateral Research and Innovation Cooperation"

Project acronym:

SIT4Energy

Smart IT for Energy Efficiency and Integrated Demand Management

Author:

done in Thessaloniki on:
Monday, June 18, 2018

Project duration: March 2018 - February 2021
Project total cost: 882.578,00 €
EU contribution (through National Funding Agencies): 711.832,00 €
Coordinating entity: CERTH
Charilaou Thermi Road 6km –57001 Thessaloniki - Greece
Coordinator: Dr. Dimitrios Tzovaras
Tel.: 0030–2311 257777 email: Dimitrios.Tzovaras@iti.gr
Project web site: http://www.sit4energy.eu

SIT4Energy

The goal of the *SIT4Energy* project is to demonstrate how integrated energy management for prosumer scenarios can be realized through a smart IT solution that considers both efficiency potentials in the local energy production and consumption. To this end, the project implements an intelligent mobile recommendation service with context-aware attention triggering, and a Smart Energy Management dashboard that exploit smart analytics to analyse consumption data, behavioural patterns and external context information (e.g. pricing, weather) for providing personalized insights and recommendations for optimizing energy production-consumption patterns. This includes a consumer-centered, user-friendly presentation of evidence-based results on the costs and benefits of ICT-enabled energy efficiency techniques, together with clear and on time, engaging guidance and support on how to realize the energy savings available, so as to increase user adoption of such techniques and their effectiveness.

The developed prototype system and customer applications will be deployed and evaluated in real world pilots in two different climatic regions, Greece and Germany. This will enable the transfer of developed solutions into new commercial offerings of the participating SMEs; a municipal utility company in Germany (SHF) and an innovative IT-service and software development company in Greece (ITML). The validation in pilots will thus serve as the preparation for the uptake of the developed solutions by the German utility (SHF) who will provide it as a service to their customers and as a marketing showcase for the commercial exploitation by the ITML. The research and university partners (CERTH, HOST) will exploit the results through scientific publications, development of new projects and transfer in teaching and consulting for the regional SMEs.

2. PROJECT SCOPE

The specific objectives and main ideas:

1. (Obj.#1) Acquire the necessary insights and understanding of the interests, preferences and behavioural drivers of *SIT4Energy* users.
2. (Obj.#2) Design a prototype Business Model (BM) involving multiple actors within the EU single market.
3. (Obj.#3) Engineer a consumer-empowerment framework (data transparency, usable interface design, behavioural engineering and social marketing techniques and tools) to trigger sustainable energy consumer/prosumer practices
4. (Obj.#4) Pre-validate and adapt accordingly the consumer-empowerment framework to match strategies for increased consumer engagement in sustainable energy
5. (Obj.#5) Exploit micro-moments to implement individualized strategies for inducing and supporting behavioral change.
6. (Obj.#6) Stimulate actual empowerment of consumers and increased understanding of sustainable energy and energy billing
7. (Obj.#7) Implement context-based mobile recommendation services for energy endusers based on user micro-moments and other means of feedback to consumers.
8. (Obj.#8) Develop adaptive incentivation and context-aware triggering service for increasing the uptake of the energy efficiency recommendations and behavioural change by the end-users.
9. (Obj.#9) Exploit and integrate consumption, context data and behavioural analytics to develop a smart visual analytics dashboard enabling integrated energy management that identifies and exploits energy efficiency potentials on both demand and supply side

Taking into account the issues and the aforementioned needs identified above, the main idea of *SIT4Energy* is to combine and advance research findings in 3 pillars, namely (P1) technological innovation, (P2) new business models and (P3) consumer empowerment solutions. In doing so, *SIT4Energy* will: tackle consumers' lack of knowledge and confidence in the new technologies; will increase their awareness about real energy efficiently benefits; and will guide and support them in adopting new energy saving habits. The developed solutions will be validated in the context of three (3) carefully designed pilots, designed to take

place in 2 different climatic regions, namely Greece and Germany. This approach is depicted on the following figure that summarizes the *SIT4Energy* vision and the main steps of *SIT4Energy* methodology.
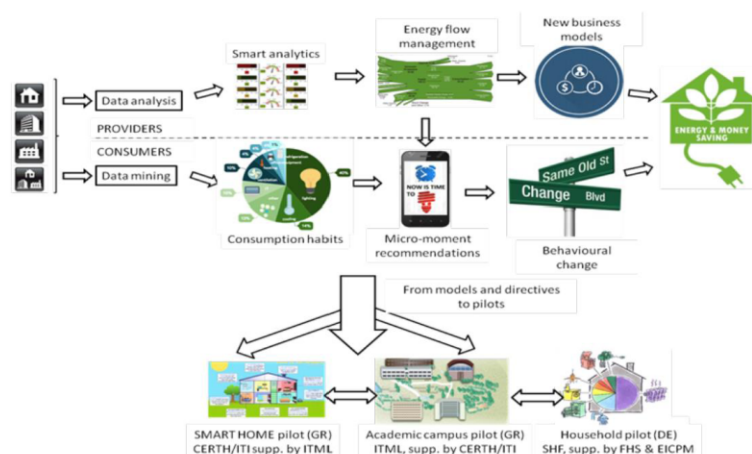
The main ideas and technologies involved:

The project has been developed around the idea of demonstrating how integrated energy management for prosumer scenarios can be realized through a smart IT solution that considers both efficiency potentials in the local energy production and consumption. To deliver this, the *SIT4Energy* project will be developed around two core elements: a) an intelligent mobile recommendation service and b) a SmartEnergy Management dashboard that exploit smart analytics to analyse consumption data, behavioural patterns and external context information (e.g. pricing, weather) for providing personalized insights and recommendations for optimizing energy production-consumption patterns.

The proposed solutions will be designed and implemented based on consumer-centered, user-friendly presentation of evidence-based results on the costs and benefits of ICT-enabled energy efficiency techniques, together with clear and on-time, engaging guidance and support on how to realize the energy savings available, so as to widen user adoption of such techniques and increase their effectiveness.

The overall methodology: The project will be implemented in 4 distinct phases:

1) Definition of user requirements;
2) Framework design;
3) Prototyping, implementation and system integration;
4) Iterative deployment, demonstration and evaluation.

Due to the agile approach adopted by *SIT4Energy*, this phase will be run almost in parallel with design, development and integration activities, and will focus on fine-tuning and validation of the whole framework as well as on the assessment of the demon-stration phase of the project

The scope of collaboration:

Building upon existing experiences of the partners in Greek-German cooperation, the SIT4Energy project's aim, in regards to collaboration, is twofold: (i) collaboration with respect to gaining insight into and access to specifics of Greek and German energy efficiency IT solutions and markets and (ii) collaboration on the specific work topics in SIT4Energy. In particular, the access to competence of German partners SHF and HOST in the area of IT solutions for energy saving will be strongly beneficial to Greek partners, especially

SIT4Energy

ITML who will be enabled to build a new commercial service for their business portfolio. Similarly, the experiences of ITML with their existing mobile services and of CERTH with research in energy management for buildings will be a fruitful input for German partners in addressing the design of the Smart Energy Management Dashboard for the German pilot. Mutually beneficial is also the validation in two different climatic areas due to a Greek and a German pilot, testing the solutions in such different conditions wouldn't be possible for a single side.

3. PROJECT TECHNICAL DESCRIPTION & IMPLEMENTATION

Implementation and phase of the project:

The SIT4Energy project has started officially in March 2018 and is currently in phase 1: Definition of user requirements. During this phase and within WP1-WP2, the groundwork of the project, including all major common activities required for the definition of the Framework design and the SIT4Energy business models will be set, along with requirements, use cases and operational scenarios.

Main technologies demonstrated and expected results:

SIT4Energy will develop and demonstrate a first smart IT solution for energy efficiency that addresses both energy consumers and energy prosumers, who produce their own energy in an integrated approach and user-friendly service. The conceived Smart Energy Management Dashboard and the Intelligent Mobile Application will demonstrate a novel approach to smart energy analytics that integrates data-driven methods (e.g. consumption monitoring) with context-based information *and* behavioural analytics for optimization of energy demand and energy supply management. These are highly innovative approaches that hold a high chance of publishing in premier scentific publications and can stimulate further research in the field. Finally, the validation in real-world pilots promises to provide valuable empirical data and results that will be published to inform both scientific research and business practice. TRL7 is considered a critical threshold as is a significant step beyond TRL 6, requiring an actual system prototype demonstration in a space environment. The prototype should be near or at the scale of the planned operational system and the demonstration must take place in field[1]. This TRL is the ultimate milestone that is expected to be reached with the final prototype. The process followed will generate a gradually increasing TRL for the whole system and for each component individually.

4. RESULTS ACHIEVED

At Kick-Off: On March 2018 the SIT4Energy project started. To mark this event, have partners get to know each other better and share a clear and detailed overview of the project with everyone's roles in it, and to jump-start implementation of the project, all partners were invited for a full-day online meeting event on the 18 of June 2018. All four partners participated in the event, totalling to 8 participants, including representative from EICPM, which is a sub-contracting company.

During this event, partners reviewed the *SIT4Energy* proposal, discussed on management, dissemination and organisation matters and presented the work already performed in the context of WP1 and in particular T1.1. Furthermore, extended discussion about the pilots followed, towards clarifying the capacity of each pilot and the requirements from each partner. Finally, the partners agreed on the specific actions to be followed within the first months of the project. These would mainly include activities for: disseminating the project's ideas and values (launching the project website, social network pages, hold press releases, distribute them to relevant EU media); performing state of the art analysis on current relevant technologies; agree on functional and technical requirements and draft the *SIT4Energy* technical architecture.

The aforementioned actions would set-up the basis for reaching the 1st year milestones:

---

[1] http://serkanbolat.com/2014/11/03/technology-readiness-level-trl-math-for-innovative-smes/

SIT4Energy

1. SIT4Energy pilot sites surveys and use case scenarios available
2. SIT4Energy architectural design available
3. IPR Plan available

5. IMPACT

Impact on project partners:

SIT4Energy will improve the innovation capacity and the product/service portfolio of (1) ITML by allowing the integration of complementary components which would address different needs of targeted users; (2) SHF by enabling real-time data aggregation and management, which would allow depth understanding of energy consumption of user and building profiles and providing a deep understanding in energy consumption data to be used to develop new services (i.e. new price tariffs) which would create a new era in their customer relationships (3) Facility managers (all partners) by providing better services to optimize energy consumption, which would result in energy efficiency abdby proving the interoperability and replicability of similar solutions on a wide diversification of types of buildings and European countries (climatic areas); (4) Academias and Research Institutes on applying the acquired knowledge and expertise in the above fields in further national and EU research projects, whereas it will also investigate the creation of SME companies as spin-offs oriented in commercializing products derived from the above research and the participation in new spin-off commercial companies capable of exploiting its research when new market needs and solutions are identified.

Impact on employment:

SIT4Energy will educate and contribute towards more skilled and energy-literate users and facility managers by developing significant know-how in the energy efficiency technological area. Moreover, we envision SIT4Energy's innovative ideas such as negotiation and loyalty approaches will boost new ideas and that will increase the number of SMEs that introduce new services to the EE sector, creating new jobs in the area.

Economic impact:

SIT4Energy contributes to the creation of knowledge intensive services and will deliver its services as "sales of new to market". Developed products will be cost-effective with user friendly interfaces. *SIT4Energy* will be beneficial to DSOs and ESCOs to identify end-users' needs and motivations and will interpret energy consumption data associated with human dimension. This information could be further integrated in respective companies' price tariffs and that they become more competitive and increase their share in the energy market.

Social and/or environmental impact:

The outcomes of *SIT4Energy* will support the decision making process by providing significant information of the sustainability and the affordability of the Ecosystem proposed, that will be the basis to replicate *SIT4Energy's* outcomes in a wide number of buildings and climatic conditions, which will accelerate the consecution of such environmental impacts. Furthermore will substantially on the CO_2 emission savings by shaping human behaviour while ensuring comfort in the living and working environment in low-energy and low-emission buildings

The *SIT4Energy* approach will have a strong social and educational impact beyond direct savings on the pilot sites. In particular, *SIT4Energy* intends to engage highly diverse stakeholders with different profiles including residents, students, staff, and facility managers to be actively using the *SIT4Energy* Ecosystem. In addition to these impacts, the implementation of *SIT4Energy* platform will imply the generation of employment, in particular; it is considered it would create 2 new jobs during the project lifetime, which would be increased until 2023. Finally, the implementation of the proposed solution in social housing would reduce their energy consumption and could reduce the overall levels of energy poverty.