Project Acronym:

HYBUILD

Project Title:

Innovative compact HYbrid electrical/thermal storage systems for low energy BUILDings

Grant Agreement N°: 768824

Collaborative Project

Deliverable name	Web-based platform
Deliverable N°.	8.3
Task	8.2
Lead beneficiary	R2M
Authors and institutions	Thomas Messervey, Pascal Torres (R2M)
Due date	31/12/2017

DISSEMINATION LEVEL		
PU	Public, fully open, e.g. web	X
CO	Confidential, restricted under conditions set out in Model Grant Agreement	
CI	Classified, information as referred to in Commission Decision 2001/844/EC.	

European Commission | Horizon 2020 European Union funding for Research & Innovation

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Publishable executive summary

HYBUILD is an EU Horizon 2020-funded project, coordinated by COMSA CORP, which will develop two innovative compact hybrid electrical/thermal storage systems for stand-alone and district connected buildings.

The following document is deliverable D8.3 "Web-based platform" of project HYBUILD. It is part of Work Package 8 - *Communication*.

The purpose of this report is to describe both:

- the HYBUILD public web portal: a first version has been developed using the WordPress Content Management System and has been made available online at http://www.hybuild.eu. It will be further refined and enriched with additional content in parallel of the progress of the project;
- the internal web-based communication platform developed for the project: it was decided at the kick-off meeting of the project to setup an ownCloud platform which is provided and hosted by R2M.

The **HYBUILD public web portal** will be used to effectively communicate the objectives and outcomes of the project. It is an element of the overall dissemination and communication strategies that will be further detailed in the dissemination and communication plans to be developed in Task 7.1 - *Development of a Dissemination and exploitation plan* - and Task 8.3 – *Development of the communication plan*. The web portal is designed to disseminate the outcomes from the HYBUILD project to relevant stakeholders. It presents a collection of simple non-technical explanations of the goals and findings of the project and is structured in the following way:

- **About**: an outline of the global objective addressed by the HYBUILD project.
- **Hybrid storage**: an introduction to the overall context & market of hybrid energy storage. This page also provides a link to the HYBUILD FlipBoard, an interactive online journal being used for a market and technology watch of the energy storage sector.
- **Pilot sites**: a description of the 3 pilot sites in which the HYBUILD solutions will be implemented.
- **Partners**: the logo of each of the partners is shown and links to their organisations websites are provided.
- **Publications**: Public deliverables, open access conference papers and journal articles are incrementally uploaded on this page as they become available.
- **Blog**: the blog reports progress, news and events to facilitate user engagement in short articles written by the HYBUILD project partners.
- **Contact:** this page enables visitors to ask questions or request information about the project. It introduces the HYBUILD project coordinator, technical coordinator and exploitation & dissemination manager and provides their contact information.

The **ownCloud internal platform** aims at facilitating communication between the various beneficiaries through document sharing, automated backup system, management of access rights for documents edition and modification among other functionalities. The system has been installed on a R2M server, 73 user accounts have been created for the 21 beneficiaries of the project, and the initial structure of the HYBUILD repository has been created. A daily backup of all documents is configured on a secondary R2M server. The platform is up and running.

Acronyms and Abbreviations

DL	Deadline
EC	European Commission
GA	Grant Agreement
PC	Project Coordinator
PO	Project Officer
RP	Reporting Period
TC	Technical Coordinator
TL	Task Leader
WP	Work Package
WPL	Work Package Leader

1 Introduction

1.1 Aims and objectives

The purpose of this report is to describe:

- the HYBUILD project public web portal;
- the processes developed to optimise, manage and update the web portal;
- the internal web based communication platform developed for the project based on the ownCloud service.

The HYBUILD project web portal was initiated within the first three months of the project. It is designed to disseminate the projects objectives and outcomes to all relevant stakeholders.

This report may be used to inform other projects' dissemination plans. However, its primary target audiences are the HYBUILD Project Officer, the Reviewers of the project appointed by the European Commission and the HYBUILD consortium members.

1.2 Relations to other activities in the project

The wider communication & dissemination strategy will be further discussed in deliverables D7.1 - *Dissemination and exploitation plan* (due at M9), D8.1 - *Internal and external communication strategy* (due at M6) and D8.4 – *Communication plan* (due at M12). The public web portal is also linked to the HYBUILD FlipBoard, an interactive online magazine and content aggregator focused on energy storage, which is further described in D7.3 - *HYBUILD Flipbook*.

1.3 Report structure

Chapter 2 of this report outlines the public web portal content and describes the way it will be monitored, maintained and updated. Chapter 3 presents the internal web based communication platform based on the ownCloud system. Chapter 4 concludes the report.

1.4 Contribution of partners

R2M installed and configured the servers, developed the HYBUILD public web portal using WordPress, implemented the internal web based communication platform using ownCloud, and wrote the first draft of the present report. COMSA made a review of the report and suggested modifications. All consortium members provided content to populate the HYBUILD public web portal, including their logo and organisation description for the *Partners* section. All consortium members configured the ownCloud communication platform in their own working environment following the guidelines provided by R2M in Annex II of the document.

2 HYBUILD Public web portal

2.1 Role of the public web portal

The project public web portal - www.hybuild.eu - is an important dissemination channel within the HYBUILD consortium communication strategy for the dissemination of the project objectives, achievements and results. As such a dedicated HYBUILD project web portal was setup within the first three months of the project. It is the project's main gateway to the outside world, providing information on HYBUILD objectives, partners, technical solutions, results, publications, pilots, activities and success stories.

Currently the web portal is a first version with simple and non-technical information which aims at raising awareness about the project. The content will be incrementally enriched with additional blog posts and the public deliverables and scientific publications published by the consortium members.

2.2 Structure of the public web portal

The initial structure (M3) of the HYBUILD web portal is as follows:

- **About**: an outline of the global objective addressed by the HYBUILD project.
- **Hybrid storage**: an introduction to the overall context & market of hybrid energy storage. This page also provides a link to the HYBUILD FlipBoard, an interactive online journal being used for a market and technology watch of the energy storage sector. The HYBUILD FlipBoard will be further described in deliverable D7.3.
- **Pilot sites**: a description of the 3 pilot sites in France, Cyprus and Spain which will implement and demonstrate the HYBUILD hybrid energy storage solutions.
- **Partners**: the logo of each of the partners is shown and links to their organisations websites are provided.
- **Publications**: Public deliverables, open access conference papers and journal articles are incrementally uploaded on this page as they become available.
- **Blog**: the blog reports progress, news and events to facilitate user engagement in short articles written by the HYBUILD project partners.
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A few pictures of the public web portal are provided in Annex I.

2.3 Ensuring web traffic

2.3.1 Links on established websites

By having links to a new website on well-established websites it is possible to significantly increase the number of visitors to the new website. Therefore, to make the most out of the traffic on the project partners' existing well-established websites each of them will add a link to the HYBUILD project web portal.

2.3.2 Use of a QRCODE

A Quick Response (QR) is a mobile phone readable bar code. A QR code is used to store the HYBUILD web portal URL and will be used on all project posters and leaflets etc., ensuring that those reading this material can quickly and easily access the HYBUILD web portal.

2.3.3 Search engine optimisation and analytics

HYBUILD website is powered by WordPress which is one the most popular CMS – Content Management System. To optimise the HYBUILD public web portal visibility, WordPress SEO functionalities and plugins will be utilised. SEO is the process of improving the visibility of a public web portal or a web page in search engine results. In general, the earlier (or higher ranked on the search results page) and more frequently a site appears in the search results list, the more visitors it will receive from the search engine's users.

The SEO also provides indicators that demonstrate the success of communication and dissemination activities. These include:

- **Web statistics** (see Figure 1)**:** A statistical analyser (module included in the web portal content management system) which counts the number of visitors hourly, daily and monthly by domains. The geographical location of visitors is recorded alongside audience analysis of the behaviour of the site visitors, and also what type of device they used to access the site (computer, phone etc.).
- **Number of e-mails received** from outside of the consortium: visitors to the HYBUILD public web portal can contact the consortium directly (more precisely they can contact the Project Coordinator (COMSA), the Technical Coordinator (UDL) and the dissemination and exploitation manager (R2M)). The number of e-mails received (responses to 'request for comments' etc.) will indicate the interest of the outside community.

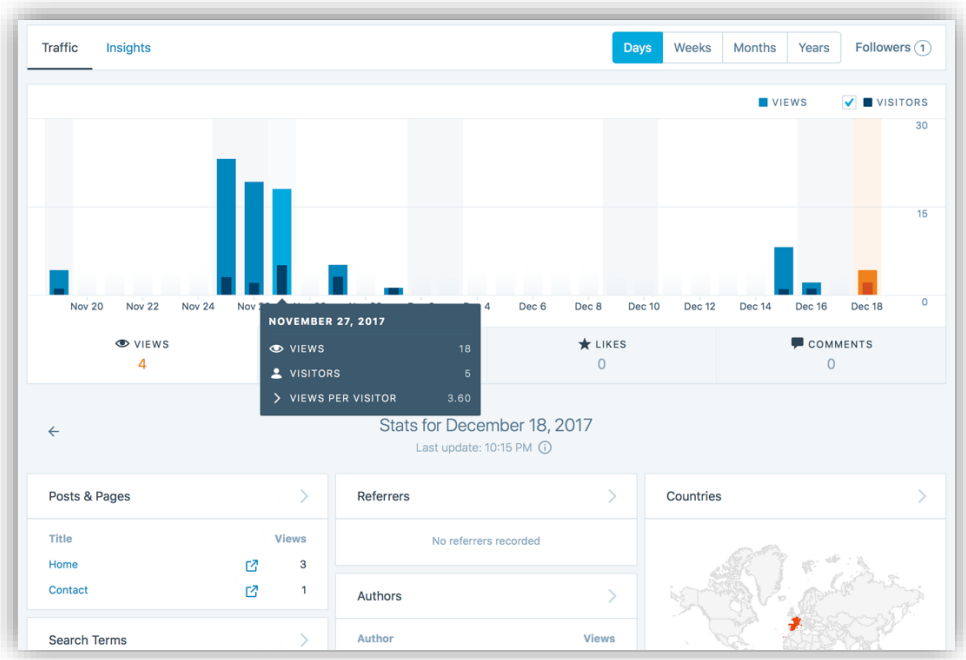


Figure 1. WordPress analytics for the HYBUILD website (JetPack plugin)

2.3.4 Mobile-optimised web portal – responsive technology

The HYBUILD public web portal is using a mobile-optimised template using responsive technology. This means users can get most of the web portal content using a regular computer, a tablet or a mobile phone (see Figure 2, Figure 3 and Figure 4).

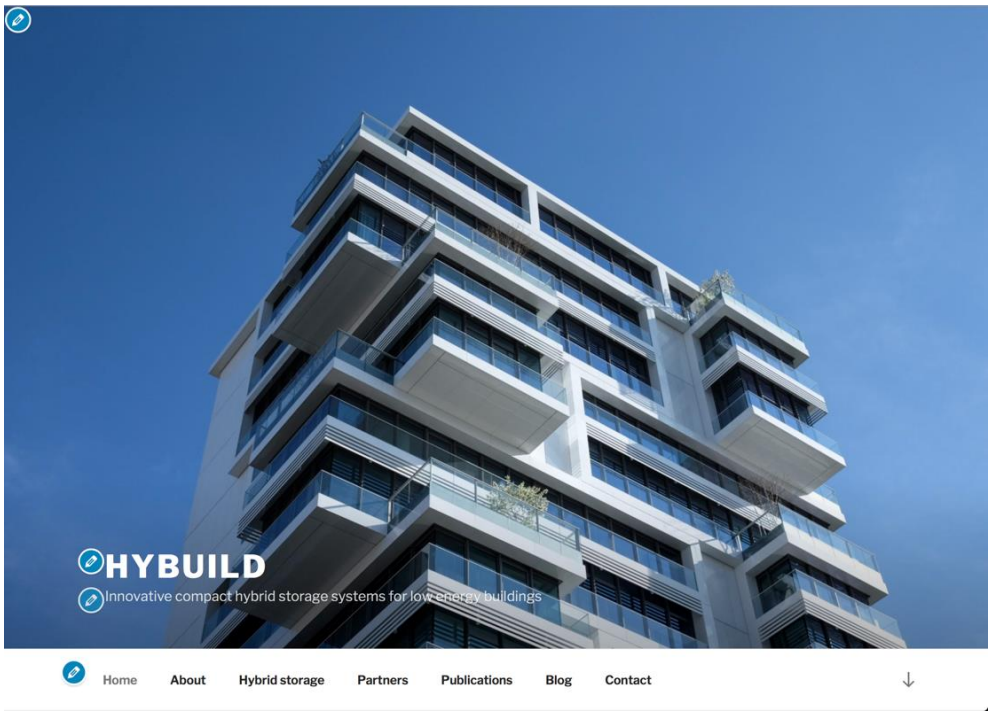


Figure 2. HYBUILD web portal preview using a regular computer

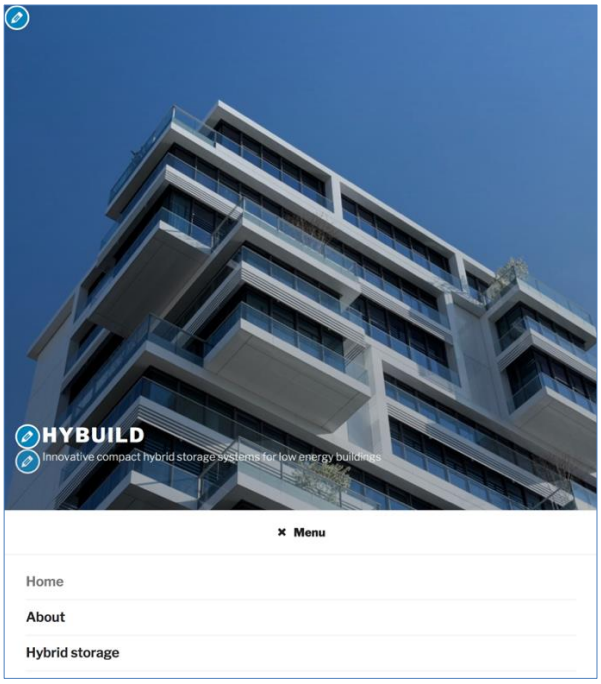


Figure 3. HYBUILD web portal preview using a tablet

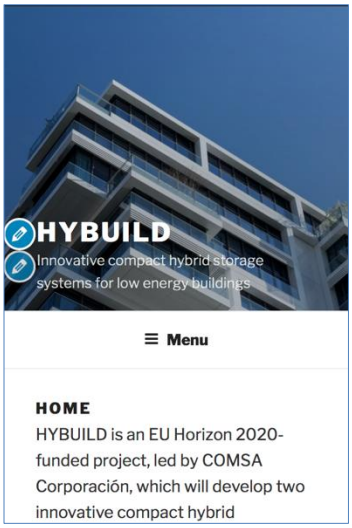


Figure 4. HYBUILD web portal preview using a mobile phone

Such technology improves the user experience when visiting the website.

2.4 Web portal management

A series of protocols were designed to request an update on the web portal (see Table 1). These protocols include: length of the text, format of dates, copyright. They are designed to:

- Define roles and responsibilities;
- Optimise the times for publishing contents to avoid "ad hoc" requests;
- Standardise the layout of the web portal.

Table 1. Roles and responsibilities for updating the web portal

Role	Responsibilities
Requestor **(Any partner)**	Write and submit content to be published on the public web portal, submit all graphic content (images, videos), submit requests via email, get permissions (if third parties involved) to publish contents to avoid copyright infringements.
Updater (R2M - responsible for the web site management)	Update the web portal every Friday. Copy edit content (i.e. edit for grammar, style etc.) Substantial editorial issues will be referred back to the submitting partner.

The updates to the web portal are recorded by R2M, which manages the website.

3 Internal web-based communication platform

HYBUILD is a collaborative project with a large consortium of 21 beneficiaries. There is therefore a crucial need for an efficient and smooth internal communication and document sharing system during the 48 months of the project. At the kick-off meeting of the project - held on 18th October in Brussels at the European Commission - several options were discussed. It was eventually agreed to use the ownCloud system, setup, hosted and maintained by R2M.

ownCloud is a suite of client–server software for creating file hosting services and using them. ownCloud is functionally very similar to the widely used Dropbox, with the primary functional difference being that the Server Edition of ownCloud is free and open-source, and thereby allowing anyone to install and operate it on a private server (see Figure 5).

Figure 5. ownCloud key principles (Source http://owncloud.com)

It also supports extensions that allow it to work like Google Drive, with online document editing, calendar and contact synchronization, and more. Its openness eschews enforced quotas on storage space or the number of connected clients, instead having hard limits (like on storage space or number of users) defined only by the physical capabilities of the server.

For the HYBUILD project, ownCloud has been set up by R2M as follows:

- Installation on the following R2M server: https://mare.istc.cnr.it/owncloud/index.php
- Configuration of a daily back-up on a secondary server
- Creation of 73 accounts for the 21 beneficiaries of the project
    - For the initial period of the project and for getting familiarised with the platform, most of the accounts have limited “delete” permissions except users with a key role in the project (e.g. project coordinator, technical coordinator, etc.). Access rights and permissions will be adapted further according to the progress of the project.
- Creation of an initial structure and upload of baseline documents (see Figure 6).

- For their specific work areas, users can establish the structure that suits better their needs and preferences (WP folders for example). For modifying the overall structure, the main contact is Alvaro Picatoste – COMSA.

- The head of ICT and system administration at R2M – Massimiliano Raciti – is providing a technical hotline to HYBUILD users in case they are facing a problem with ownCloud.

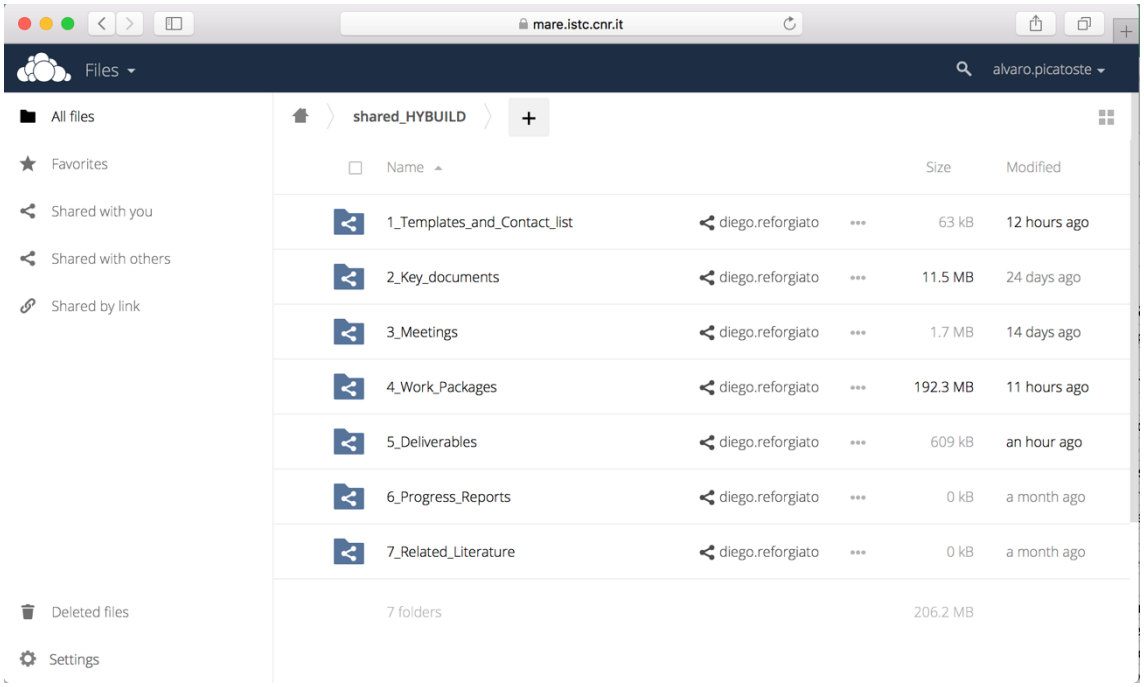


Figure 6. HYBUILD ownCloud platform - Root files folder

In Annex II of the report, a brief ownCloud installation user Guide is provided for new users who will be joining along the project.

4 Conclusions

The public web portal presented in this report is a tool to enable the wide dissemination of the HYBUILD project's goals and outcomes. It is an important element of a global dissemination and communication strategy which will be further developed and described in the context of Task 7.1 - *Development of a Dissemination and exploitation plan* - and Task 8.3 – *Development of the communication plan*.

The public web portal is also augmented by the HYBUILD FlipBoard, an online magazine populated by project watch activity results, and which will give the latest updates related to the energy storage sector in relation with the HYBUILD technological developments.

This report also presented the internal web-based communication platform put in place for the beneficiaries of the project. It is based on the ownCloud system and it provides a very intuitive service for sharing and storing documents, managing access rights and backups. The platform has been structured according to the project organisation in Work Packages and Tasks from the Grant Agreement.

Annex I – Pictures of the HYBUILD web portal

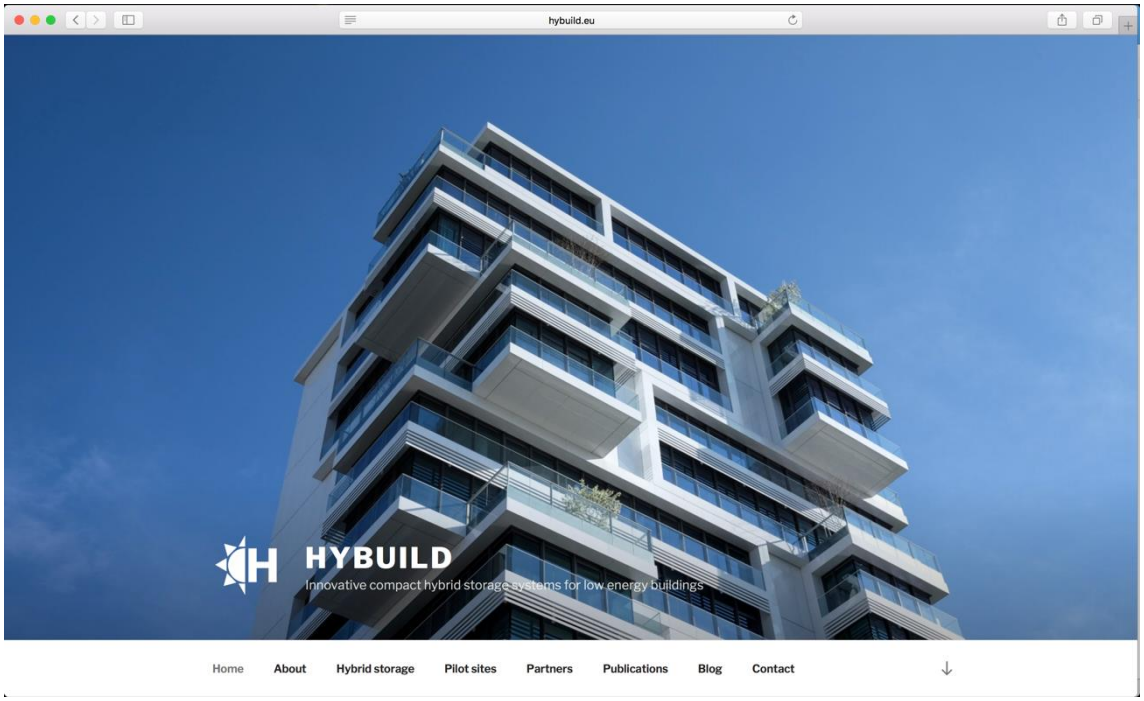


Figure 7. HYBUILD web portal - Home page

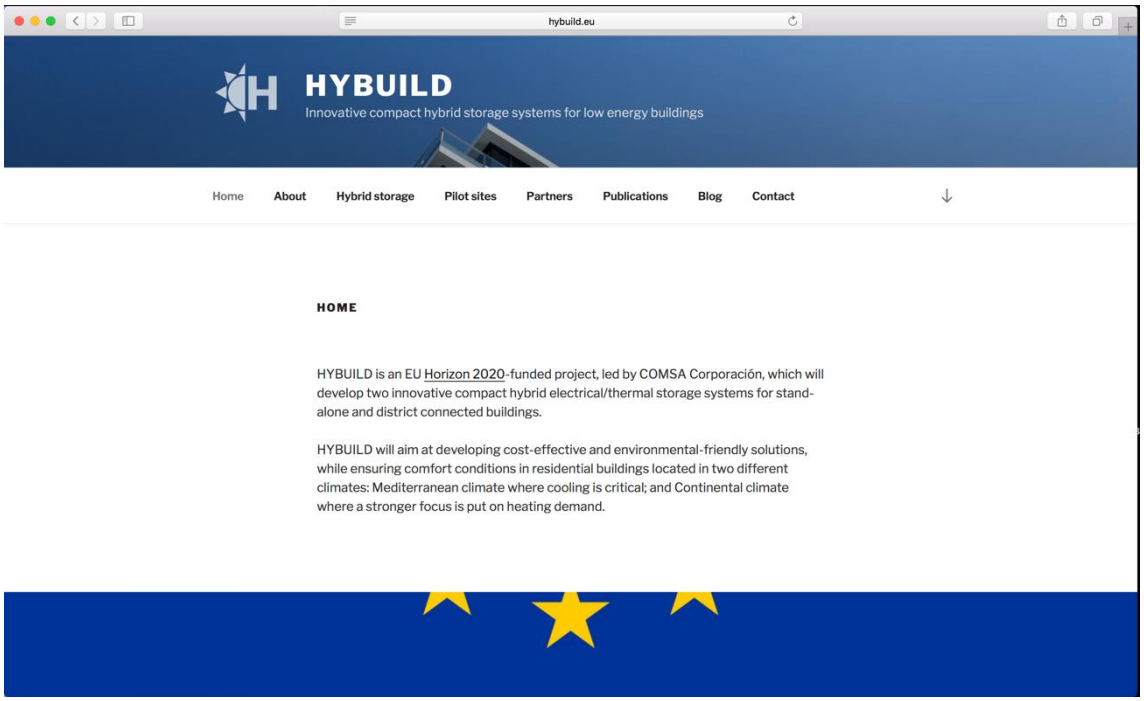


Figure 8. HYBUILD web portal - Home page (scrolled down)

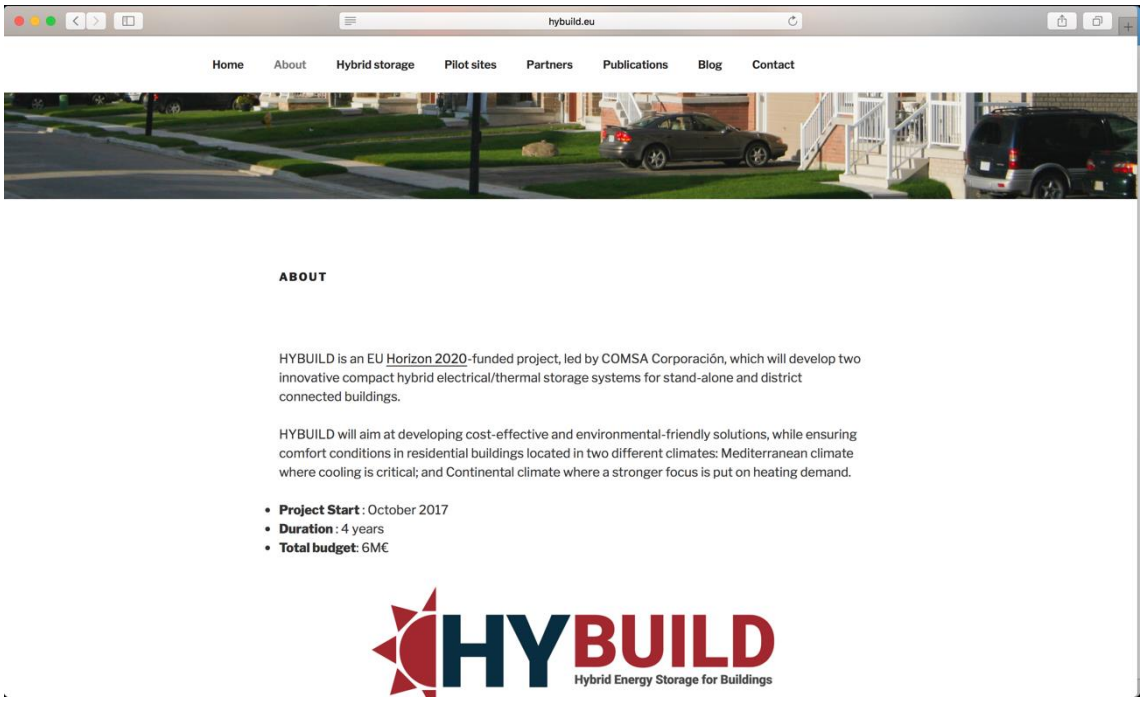


Figure 9. HYBUILD web portal - About section

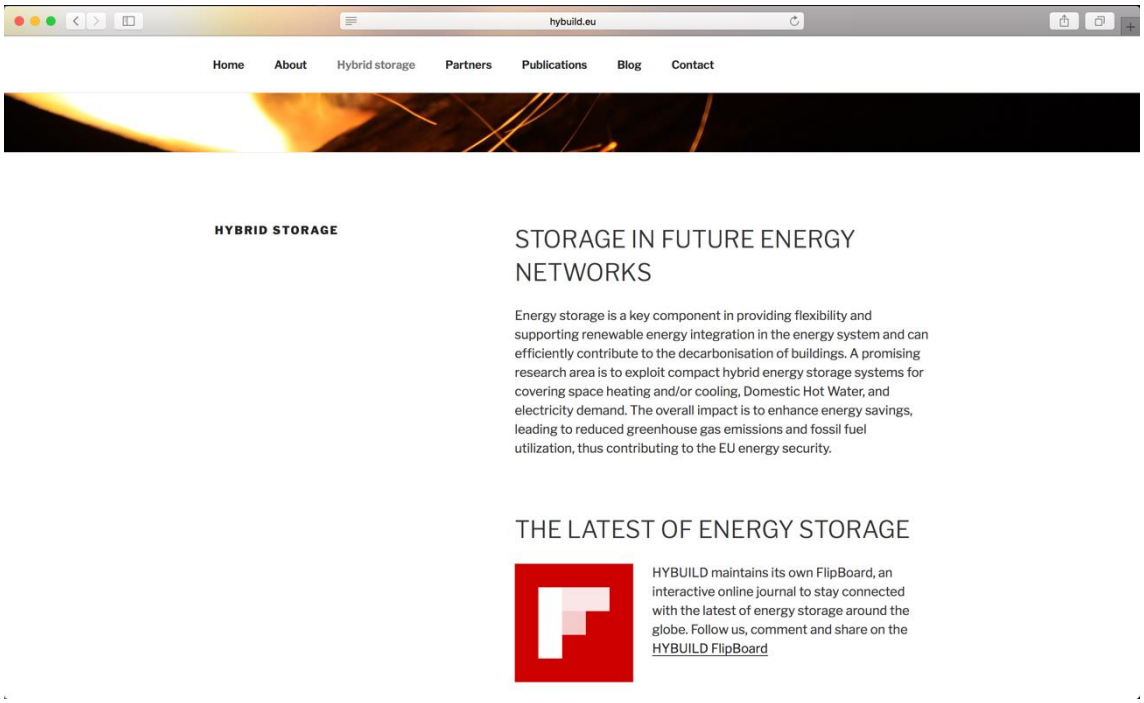


Figure 10. HYBUILD web portal - Energy storage section

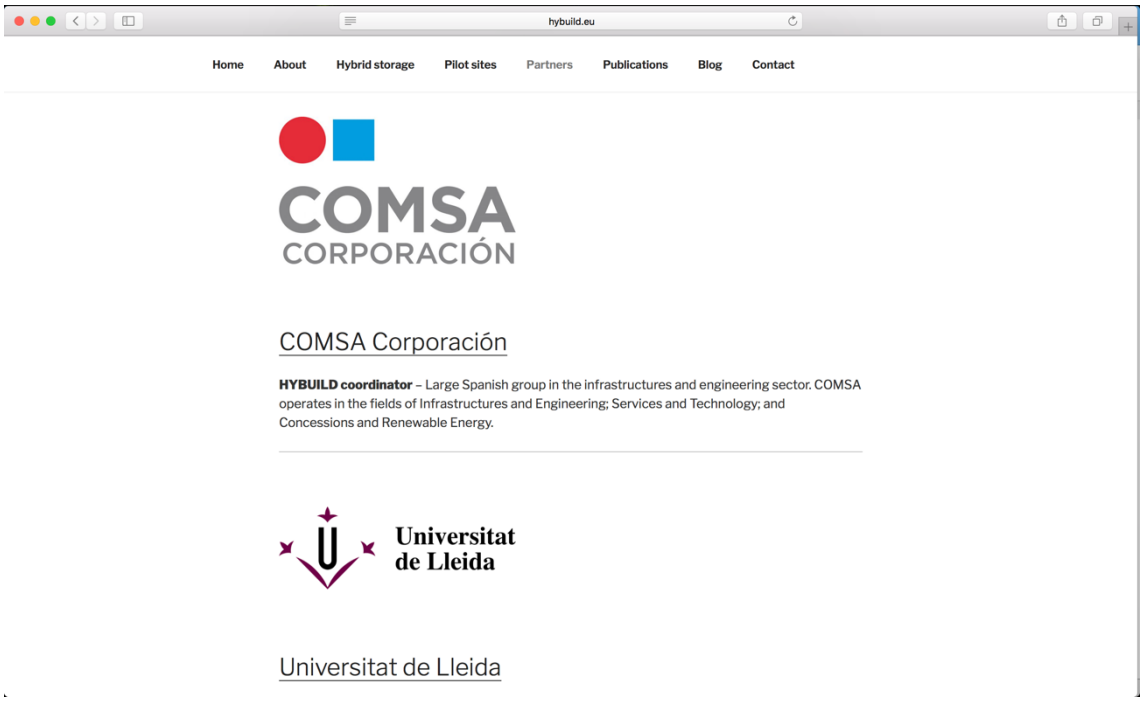


Figure 11. HYBUILD web portal – Partners section

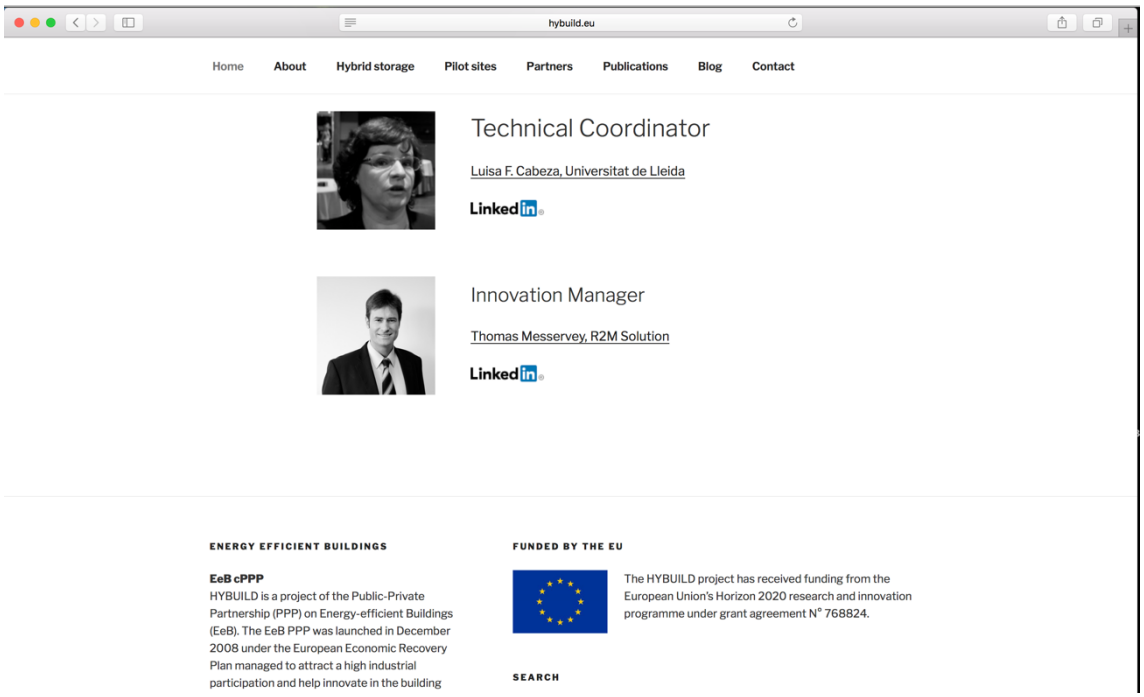
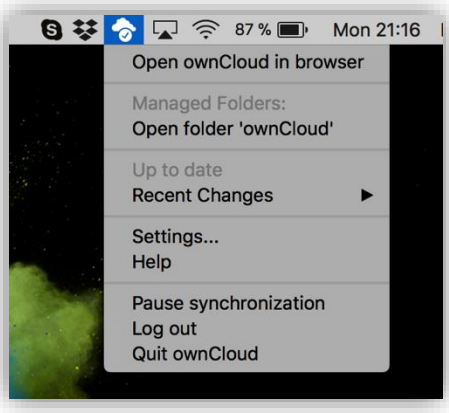


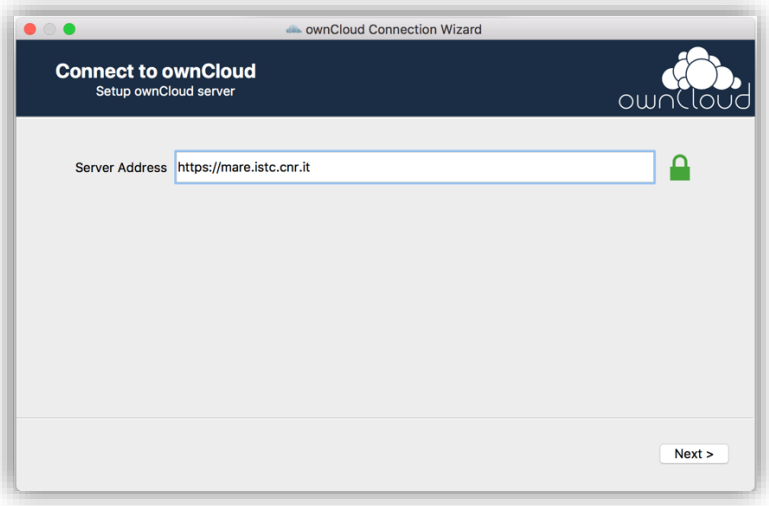
Figure 12. HYBUILD web portal - Contact page

Annex II – 9 steps guide on how to configure the HYBUILD ownCloud

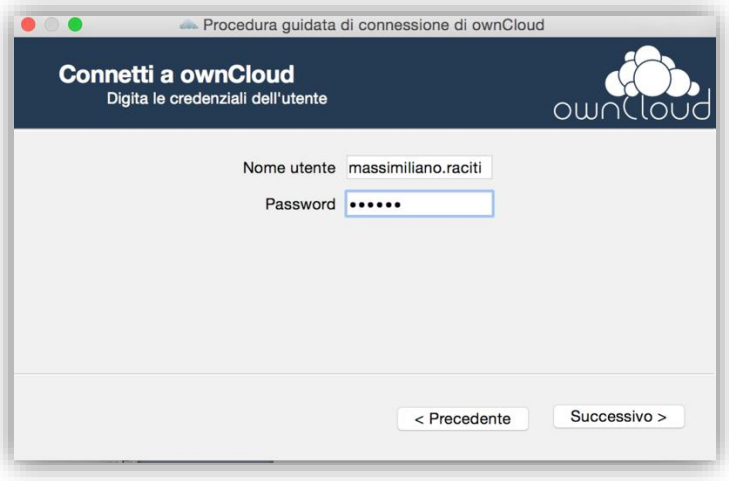
1. Go to https://owncloud.org/install/#install-clients, download the file and install it
2. Click on "**Settings**" on the ownCloud menu icon



3. If it doesn't show automatically, click on "**Add new account**"
4. Enter the address of the HYBUILD ownCloud server: https://mare.istc.cnr.it/owncloud and click "**Next**"



5. Enter your **Username** and **Password**
   (Please contact R2M – Massimiliano Raciti if you don't have them yet)



6. Choose "**Sync everything**"
7. **Important note:**

   If you have other ownCloud directories – do not use the default directory or same pathway as the other directories. Instead, choose a different path to store your HYBUILD files (so that all files don't get mixed into the same folder location). Below you can see how it appears as a default option.

   For HYBUILD, a good path would be the following:

   C:/HYBUILD/ (for mac users /users/your_usename/HYBUILD)

   You can also use external or secondary drives i.e.

   D:/HYBUILD (or /Volumes/EXTERNAL_DRIVE_NAME/HYBUILD for mac users)
8. Click on **Connect**.
9. *Done!*