MEZeroE

Measuring Envelope products and systems contributing to next generation of healthy nearly Zero Energy buildings

D4.5 Report with training material and best practices

January 2026

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The MEZeroE Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953157

Measuring Envelope products and systems contributing to next generation of healthy nearly Zero Energy buildings

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Authors (s)	Massimiliano Raciti, R2M Solution Eva Coscia, R2M Solution Alberto Pes, R2M Solution Giuseppe Scarpi, R2M Solution Fabrizio Perrotta, R2M Solution	
Checked by	Giulia Pondrano, R2M solution	2025-12-17
Reviewed by	Graziano Salvalai Roberto Lollini	2026-01-08 2026-01-08
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Disclaimer/ Acknowledgment

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Executive summary

Technological innovation in the construction sector is considerably difficult to implement due to several factors such as the fragmentation and complexity of this sector. Many disciplines are involved at various stages, design and production are usually separated, there is a large number of players with a vast majority of small-medium enterprises (SME), and supply chains are long and variegated. As a result, gathering the different specialists together is difficult, and many potentially effective innovative solutions do not even reach the market.

H2020 MEZeroE project aims at tackling this complex issue by creating an EU distributed open innovation ecosystem for (i) developing nearly Zero Energy Building (nZEB) Enabler Envelope technology solutions; (ii) transferring knowledge; (iii) matching testing needs with existing facilities; (iv) providing monitoring in living labs; and;(v) standardizing cutting-edge solutions coming from SMEs and larger industries, to foster inclusive change in the building sector, being accessible via a single-entry point to all users.

MEZeroE ecosystem is accessible via a single-entry point online platform which includes 9 Pilot Measurement & Verification Lines (PM&VL), 3 Open Innovation Services (OIS), a living lab (LL) building-technology match making service to enable real-world validation, and resources for training, business model development, intellectual property (IP) and knowledge management. MEZeroE fast-tracks prototypes to the market as fully characterized products.

A comprehensive feature guide and training resource for the MEZeroE platform, is a key component of the overall project's mission to accelerate the market readiness of nearly Zero Energy Building Enabler Envelope Solutions. By providing a virtual marketplace and access to specialized services, including Open Innovation consulting, dedicated laboratory testing, and real-world validation, the platform directly supports the transition of innovative building envelope products from concept to commercial viability. This guidebook is an essential companion for all platform users, ensuring they can effectively utilize the resources designed to achieve the project’s goal of market acceleration.

The primary target readers for this guide are the diverse set of stakeholders engaging with the MEZeroE platform. This includes Manufacturers (SMEs and larger industry players) looking to test, validate, and commercialize their innovative envelope solutions; Service Providers such as RTOs, testing facility leaders, and Open Innovation experts managing their service offerings; and any Platform Users who utilize the marketplace for knowledge and collaboration. The materials are structured to provide step-by-step instructions for all workflows, making them immediately useful for practitioners and business modelling experts involved in the development and market uptake of sustainable building solutions.

The guide summarizes the platform's core functionalities and workflows, presenting a clear overview of how the Public Area showcases services and success stories, and how the Private Area enables core functions like service request submission, status tracking, and access to valuable tools like the BIM Configurator. In conjunction with recorded guided tours and a detailed user manual, this material ensures effective adoption and use of the platform, reinforcing its value proposition with concrete examples of successful product acceleration.

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List of acronyms

AEC	Architecture, Engineering, and Construction
BIM	Building Information Modelling
BIPV	Building Integrated Photovoltaics
BIM	Building Information Modeling
IEQ	Indoor Environmental Quality
IP	Intellectual Property
IPR	Intellectual Property Rights
LL	Living Lab
nEES	nZEB Enabler Envelope Solutions
nZEB	nearly Zero Energy Building
OIS	Open Innovation Service
OITB	Open Innovation Test Bed
PM&VL	Pilot Measurement and Verification Line
RTO	Research and Technology Organization
SME	Small Medium Enterprise

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1 Introduction

One of the goals of MEZeroE is the creation of an ecosystem in the shape of a multi-side virtual marketplace, open to exploit cross-fertilization among stakeholders in the construction sector. The ecosystem will provide turn-key start-up and upscaling services for modelling, testing, and monitoring nZEB Enabler Envelope technology Solutions (nEES), while setting up a comprehensive knowledge management environment and training on methods and standards.

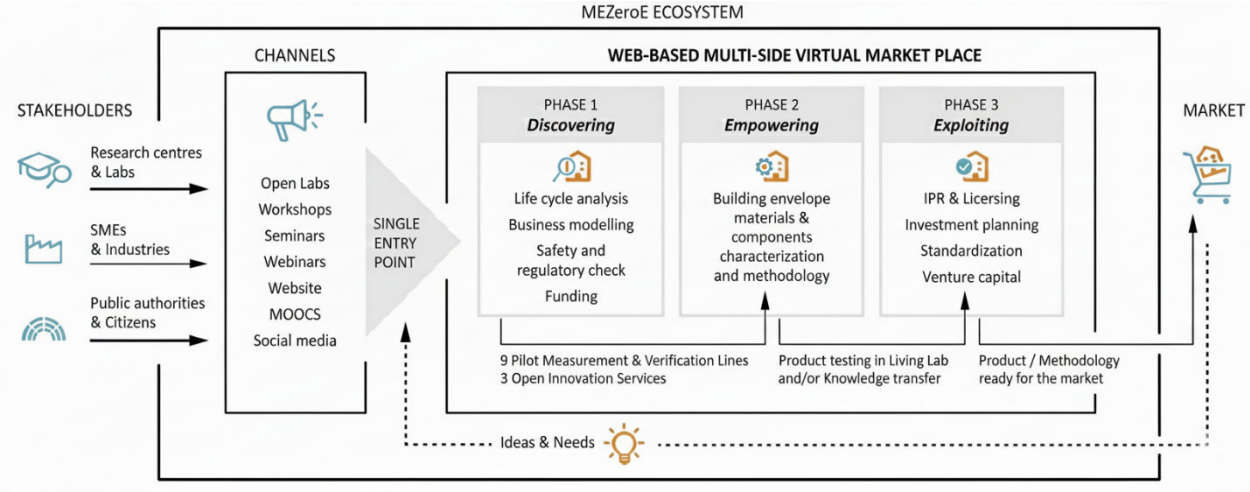

Figure 1. Schematic represnetation of MEZeroE Ecosystem workflows

As depicted in Figure 1, the web-based virtual marketplace will enable the stakeholders of the ecosystem (SMEs and industry players, supported by RTOs, public authorities and citizens) to use an open innovation approach consisting of three phases, namely *Discovery* (the early stage with feasibility study, product lifecycle analysis, business modelling, funding etc.—), *Empowering* (materials and components characterization, methodology development, prototyping–) and *Exploiting (*IPR and licensing, investment planning, venture capital etc.*)*.

In general terms, the process a product undergoes from an idea to the product launched into the market is characterized by 4 stages:

- *Idea*: creation and selection of the idea of a product to solve a specific problem/need.
- *Prototyping/testing&validation*: development of the idea, creation of the first prototypes where different materials and process are considered.;
- *Demonstration and certification*: the optimised and validated version of the product needs to be tested for mandatory and optional certifications (e.g. CE marking).;
- *Manufacturing*: the product is ready to be launched into the market, so the processes and system to upscale the manufacturing of the product need to be carried on.

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The main goal of the MEZeroE marketplace is the creation of the ecosystem (the stakeholders, clients and providers of services, etc.) and a virtual web-based platform where all the actors involved in the value chain of nEES offer and retrieve knowledge, processes and services to develop products using an open innovation approach.

This platform offers the 9 Pilot Measurement & Verification Lines (PM&VLs) and 3 Open Innovation Services (OIS) as developed in the project, as well as it can be used to offer training, business model development, systematic Intellectual Property (IP), and knowledge management. Furthermore, a section dedicated to the management of a set of real buildings used as Living Laboratories and located in various countries is under development.

The series of tests provided by the **PM&VLs** make it possible to evaluate and validate that all the materials and the envelope components' use will be compliant to the building norms and will fulfil their technical requirement in terms of performance, lifetime, safety and health.

The three **OISs** are designed to support certification and marking procedures, for measurement and verification in living labs to verify and characterise the performance of building envelope products in real working conditions collecting users' feedback, and guidance for leading performance-based (also open) innovation processes assuring sustainability and feasibility of the product development. These OISs and testbeds can help stakeholders dealing with challenges such as fragmentation or slowness and help them identify the innovations best suited to their needs.

The **Living Laboratories Testing Site** is a physical realization of the Living Lab concept, intended to evaluate nZEB envelope products and user interaction in real conditions as well as performing monitoring of selected parameters. Practically this is a real building equipped with sensors to monitor indoor environmental quality, whereas the users' perception can complement measurements by providing their feedback regarding the installed products and living environment.

1.1 Purpose and scope

The purpose for creating this document is to provide training material, a user guide, and best practices to facilitate the user journey and the full use of the MEZeroE platform's functionality. It describes each section of the platform, explaining the basic idea behind its implementation and its features. Consequently, this document can work as well as detailed training material to complement the user manual.

The MEZeroE platform is designed to attract key stakeholders across the building envelope value chain. Its primary audience includes Small-Medium sized Enterprises (SMEs), acknowledging their essential role in driving innovation and economic growth within the building industry.

Beyond SMEs, the virtual marketplace targets several other crucial groups:

- **Larger Industry Players:** This includes manufacturers, suppliers, and contractors directly involved

in the design, production, and installation of building envelope components and systems.

- **Research and Technology Organizations (RTOs):** The platform serves as a vital link for RTOs, facilitating collaborative research and the effective dissemination of cutting-edge technological innovations.
- **Architecture, Engineering, and Construction (AEC) Experts:** By directly addressing AEC professionals, the platform ensures its resources and tools are practical and relevant to their daily workflows
- **Public Authorities and Citizens:** The marketplace provides a public area with success stories and best practices, aiming to increase transparency and foster trust in nEES products, thereby informing public procurement and encouraging citizen adoption of nZEB solutions.

An important aspect of the platform is that it consists of a public and a private area.

The public area is part of the platform that is designed to draw the attention of the user with a simple and clear description of the platform goals, the services offered, success stories and useful material to increase the ecosystem potential.

The private area is designed for matchmaking between manufacturers and service providers. Access requires registration, during which users select their specific user type. The features and functionalities available will vary depending on the chosen user type, as detailed in subsequent chapters of this document.

1.2 Structure of the report

Following the Executive Summary, the document is organized into distinct chapters that detail both the public-facing and private, registered-user areas of the platform. Chapter 2 is dedicated to the **Public Area**, describing sections such as the Homepage, Open Innovation, Measurement & Verification, Living Laboratories, Success Stories, and News & Events. Chapter 3, the **Private Area**, delves into the functionalities available to each of the five distinct user types (Manufacturer, OIS Expert, PM&VL Leader, LL Leader, and Platform User), detailing workflows for accessing services, managing requests, and using specialized tools like the BIM Configurator. Chapter 4 documents the most recent **Improvements and Bug Fixes**, while Chapter 5 introduces the comprehensive **Training Material** developed, including webinars and the User Manual. Finally, Chapter 6 provides an in-depth analysis of **Success Stories** as best practices, and Chapter 7 presents the final Conclusion.

2 Public Area

The public area of the MEZeroE platform is designed to draw the attention of the user with simple and clear description of the marketplace, services offered, success stories and useful material. The main goal of the public area is to advertise and showcase the content of the platform, so that the user is encouraged to register and create an account, which enables the access to the private area as manufacturer, service provider or as a generic stakeholder. The public area consists of the Homepage, the Open Innovation, the Measurement & Verification, the Living Laboratories, the Success stories and finally the News & Events page. In the following paragraphs functionalities and main features in each page are described.

2.1 Homepage

The homepage represents the access point of the MEZeroE platform, currently available at:

https://mezeroe-platform.eu/

The homepage is where the user can find the most important information about the platform, such as the mission, the advantages of using it, the partners' related information and other relevant details. This page has been designed to be really **captivating** with a proper information layout and **simple** and **clear** sentences (see Figure 2).

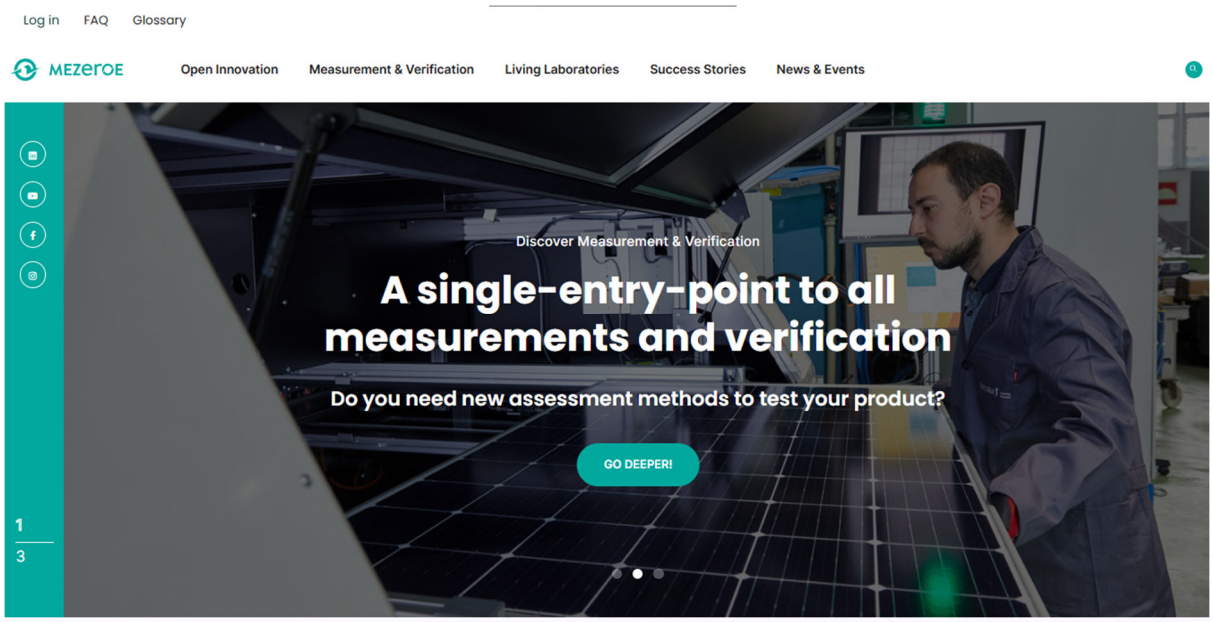

Figure 2. Homepage - Header and main gallery

The top of the page features a 3-button menu:

- **Log in,** that directs the user to the login page

- **FAQ,** that directs the user to the FAQ page, where the key questions about the platform are answered
- **Glossary,** where there is a list of acronyms about the platform is explained

The hero section[1] features a dynamic carousel gallery that displays and briefly describes the three services of the platform, as described below:

- **Open Innovation:** collection of services conceived to be a guidance during an innovation journey. Consultants can help with business model development, market assessment, performance characterization strategies, and knowledge transfer to bring your building envelope solutions to market.
- **Measurement & Verification:** specialized testing for your envelope products. 9 PM&VLs offer comprehensive characterization of thermal, optical, structural properties, BIPV integration, air quality impacts, and more in controlled laboratory conditions.
- **Living Laboratories:** validation in real-world conditions. Test innovative products in occupied buildings to gather performance data and user feedback, ensuring market readiness and regulatory compliance.

[1] A website's hero section is the large, attention-grabbing area at the very top (above the fold) of a homepage, acting as the site's "elevator pitch" with a strong headline, brief text, compelling visuals (image/video), and a clear Call-to-Action to instantly communicate value and guide visitors to the next step, setting the tone and first impression.

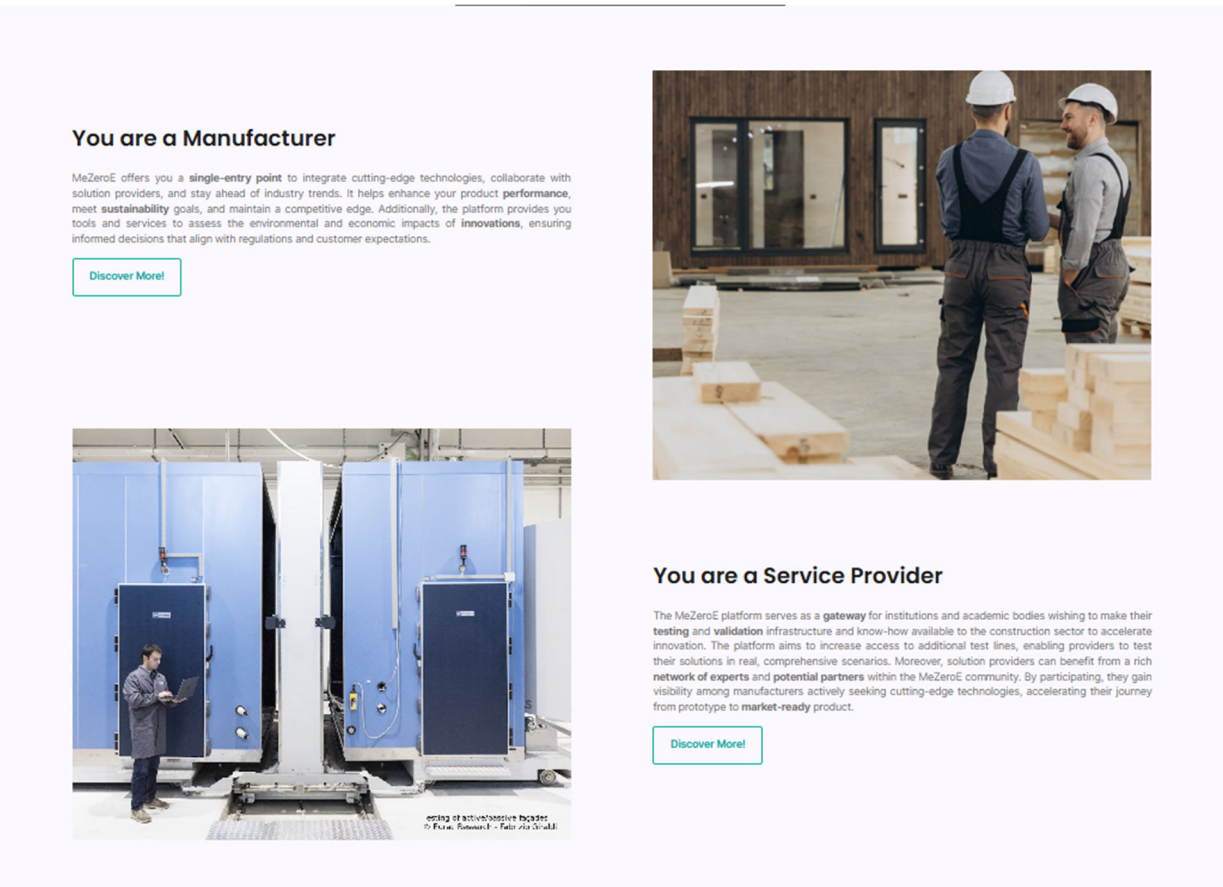

Figure 3. Homepage – Benefits for Manufacturers and Service Providers

Another important aspect to consider has been the description of benefits and advantages of accessing the platform for both Manufacturer and Service Provider users. Just below the gallery, there's a section dedicated to these two types of users, which is also guided by a distinctive photo. Along with a representative photo, a short text describes the contribution the platform can make to these users and invites users to learn more by clicking the “Discover More!” button (see Figure 3). This takes them to a dedicated page that clearly and simply explains the benefits and advantages of registering on the platform.

A little further down, a question-and-answer call to action has been added: “How can MEZeroE Help you Innovate in Building Envelope Technologies?”. The answer to this question is represented by three clickable elements that briefly describe the three services offered and lead to the related dedicated section (see Figure 4).

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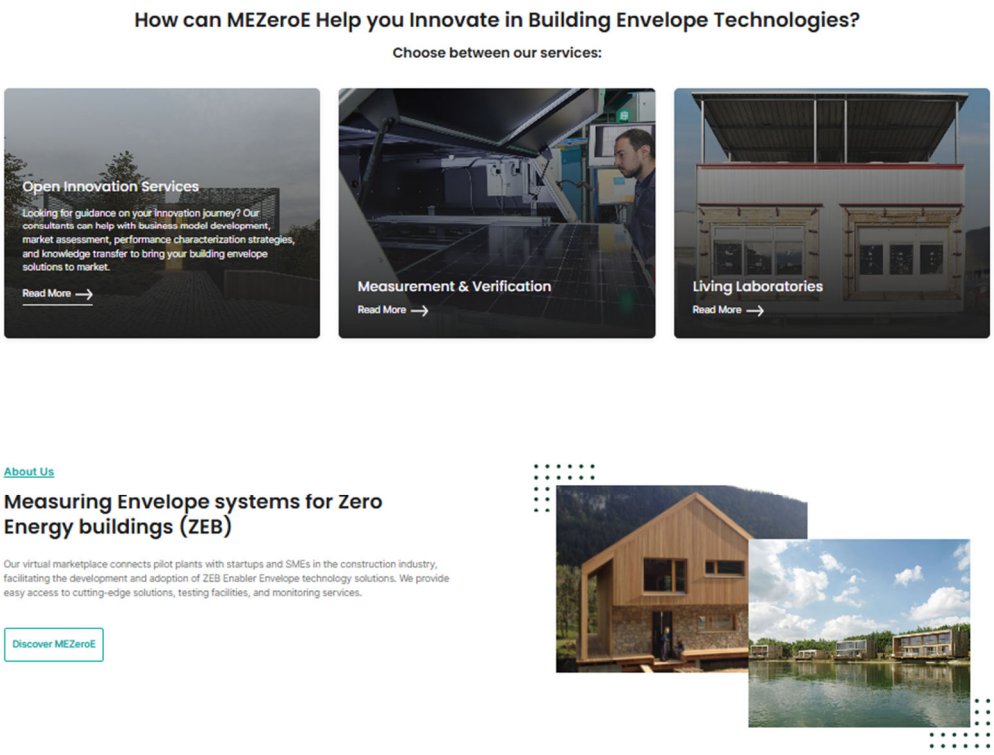

Figure 4. Homepage – Services call to action and About Us preview

The page continues with some details about the project, such as a preview of the About Us page, some statistics expressed through numerical counters, and a brief description of what One Single Entry Point means and what it can offer (see Figure 5).

At the bottom of the page, and each page in the public area, as seen in Figure 6, there is a footer which includes a newsletter subscription form ("Subscribe Newsletter"), contact email info, links to About Us, and Privacy Policy pages, as well as links to social media channels (LinkedIn, YouTube, Facebook, Instagram).

Also included is the EU funding acknowledgement: "This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953157."

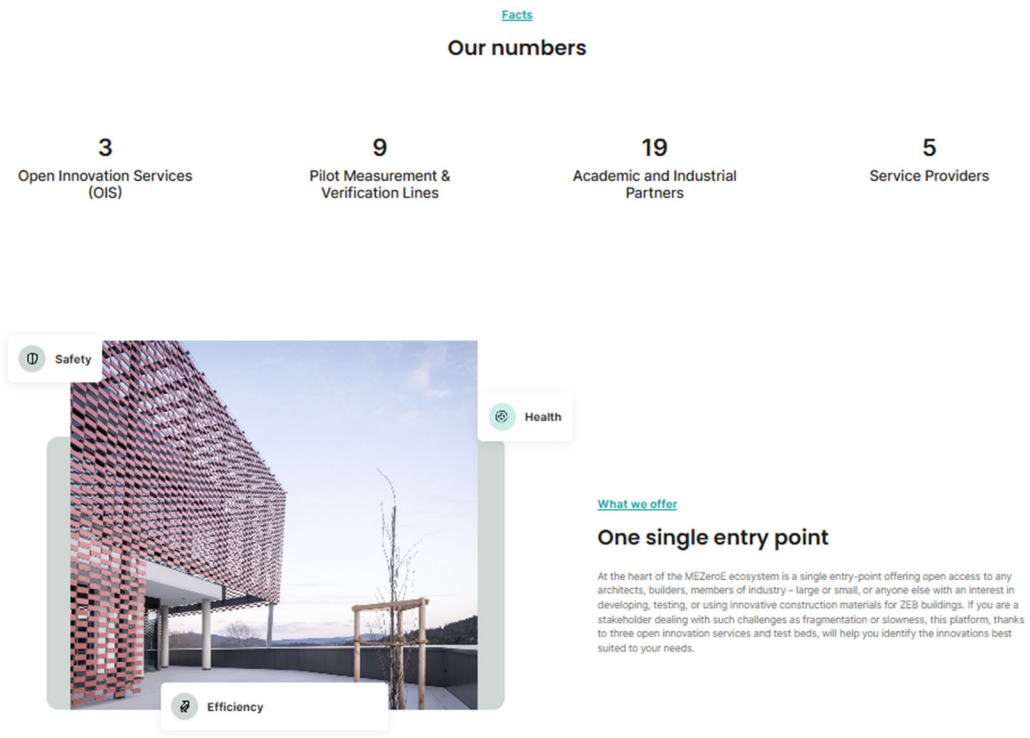

Figure 5. Homepage – MEZeroE numbers and offer

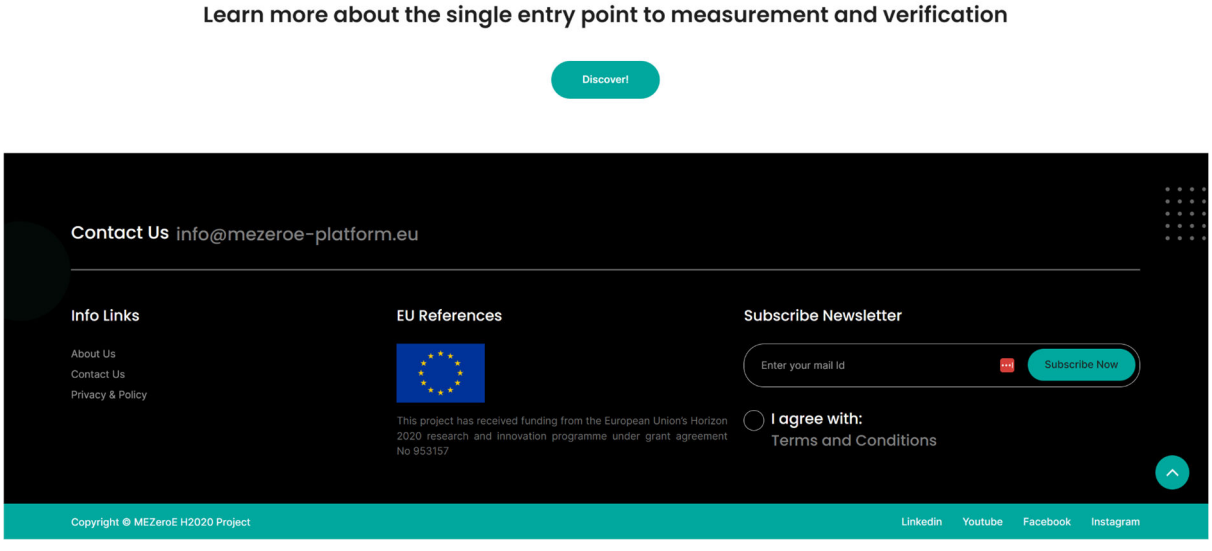

Figure 6. MEZeroE platform footer

2.2 Open Innovation

Open innovation is a thematic page related to the concept of the three Open Innovation Services (OIS) developed in the MEZeroE ecosystem. As depicted in Figure 7, after a brief description of the key aspects of the Open Innovation approach, this page allows access to a detailed description of each OIS with simple but also explanatory sentences.

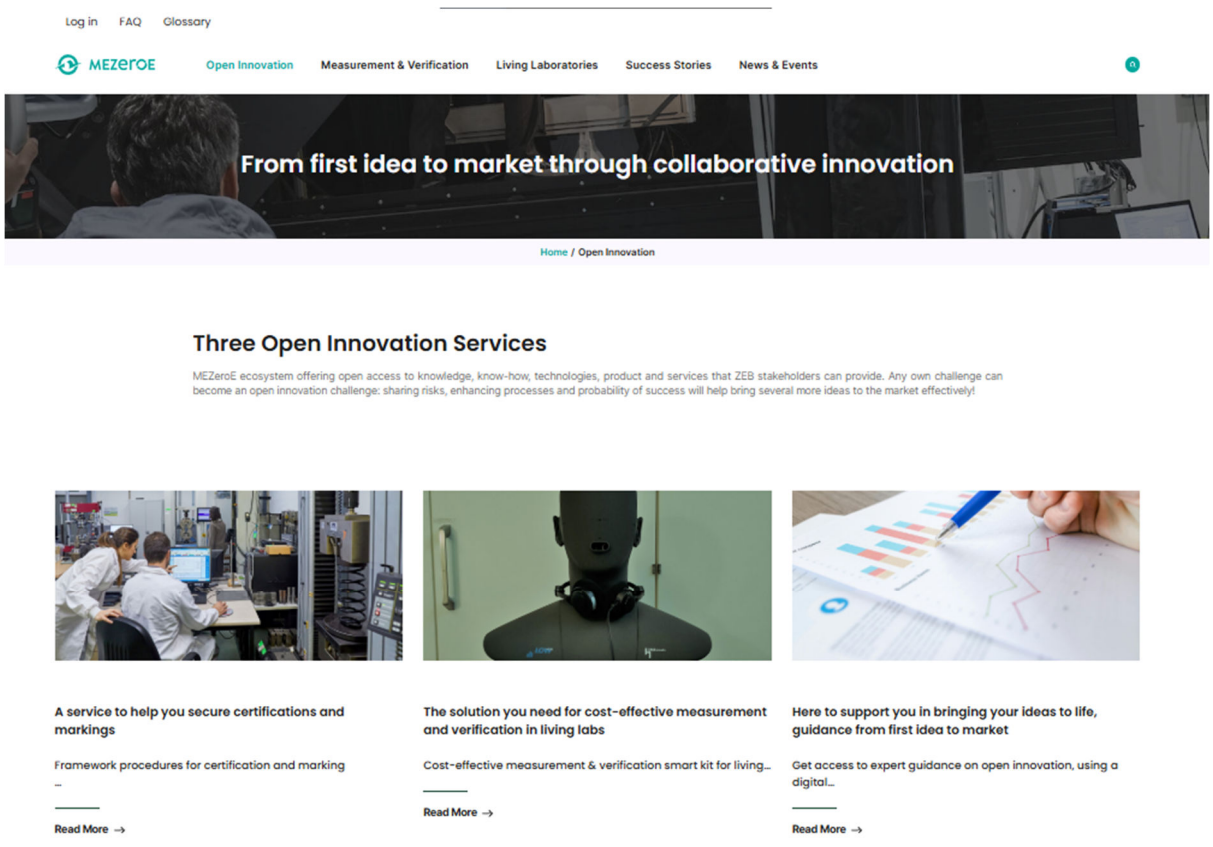

Figure 7. Open Innovation – Brief introduction and access to OIS detail description

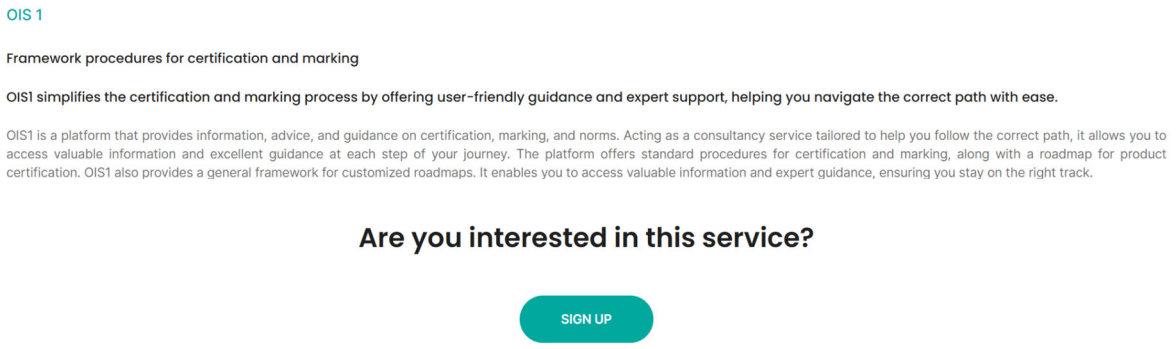

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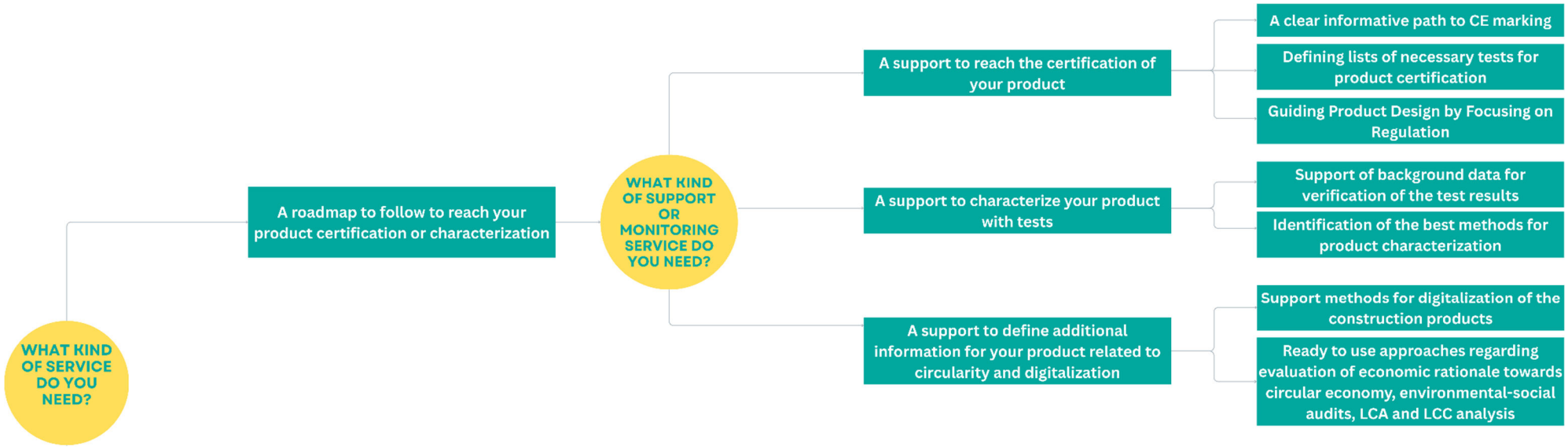
Figure 8. Open Innovation – Bottom of the page

At the bottom of the OIS description page, the platform is prompting users to 'Sign Up' to express their interest in the service and submit requests directly through the system (Figure 8).

Returning to the Open Innovation main page and scrolling down, a decision support system has been implemented that allows the user to display sub-service, using a filtering function based on the decision tree conceived by the project partner EURAC (see Figure 9). The decision tree is structured on two levels: The first level offers answers to the question: "What kind of service do you need?", the second level offers answers to the question: "What kind of support or monitoring service do you need?". The answer to both questions allows the sub-services filtering.



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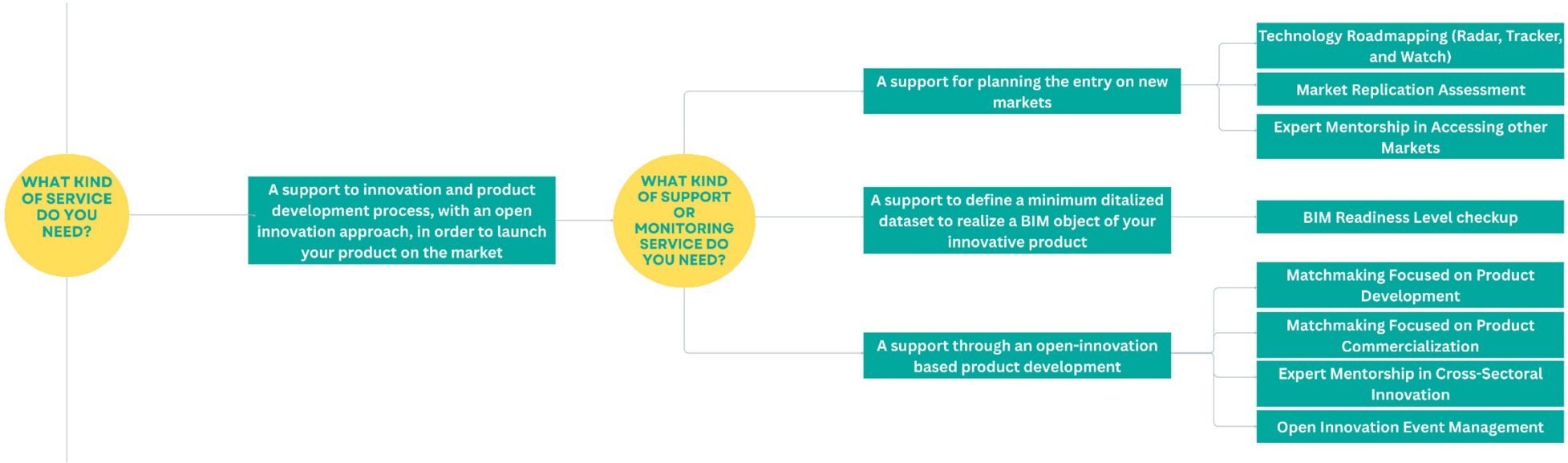

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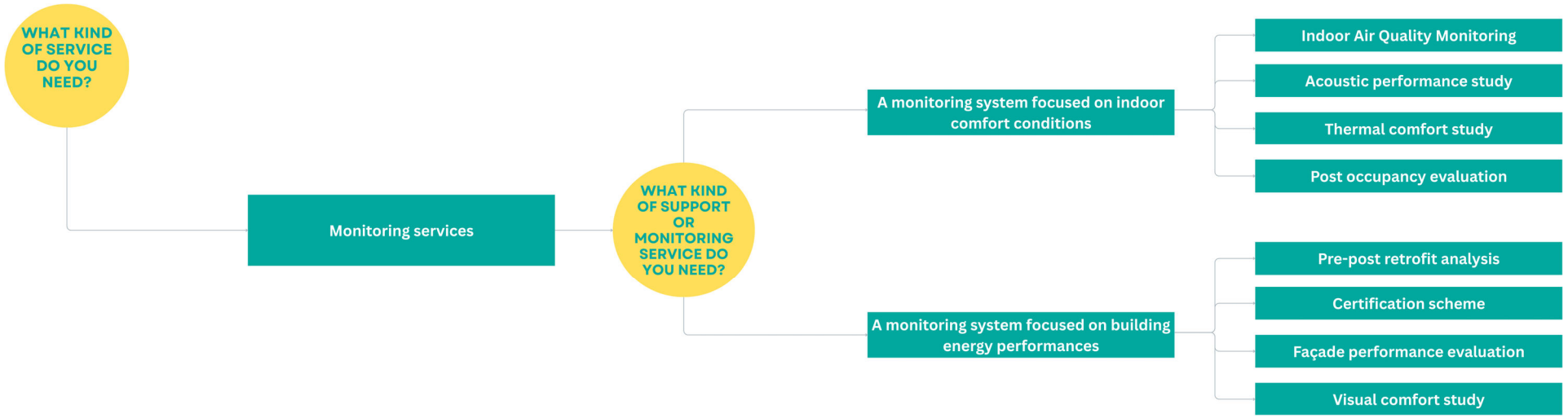

Figure 9. OIS Decision Tree (this figure has been divided into three parts for better visualization, please see the previous pages for the other parts)

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This decision tree has been implemented via hierarchical drop down menus, where the selections in the second menu are dependent on the choice made in the first menu. (see Figure 10). Upon clicking 'Apply', a list of available services will be displayed based on the selection made. From there, the user can choose 'Read More' to access further details.

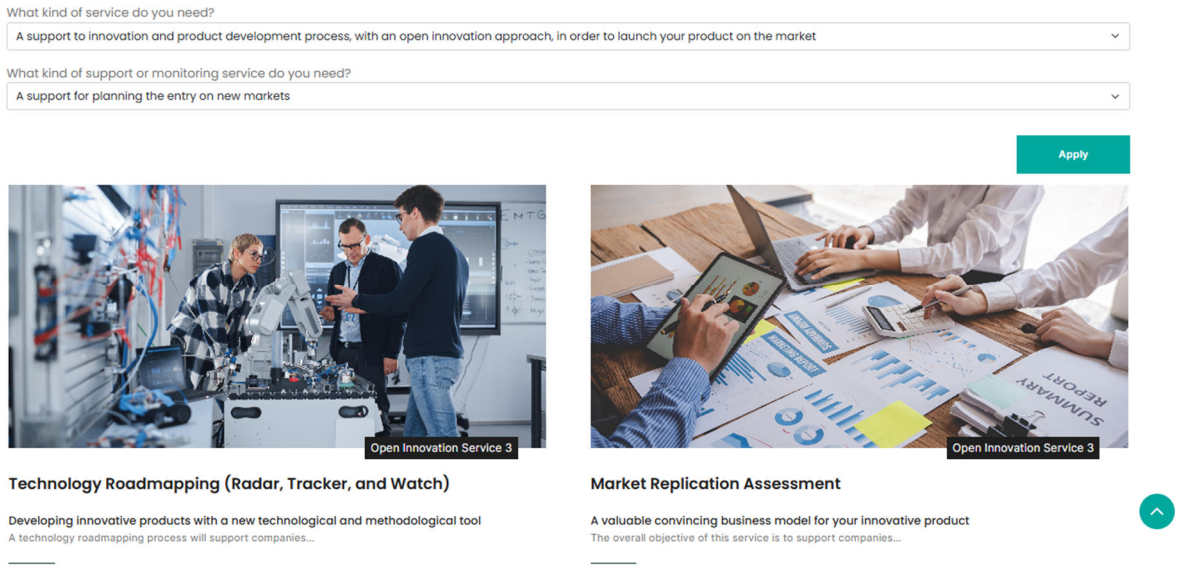

Figure 10. Open Innovation - Filtering Feature and access to sub-services detail description

A similar decision tree filtering function is also accessible in the private user area after logging into the platform, as further elaborated in Chapter 3.

2.3 Measurement & Verification

This section showcases the Pilot Measurement and Verification Lines (PM&VLs) available in MEZeroE, with their detailed descriptions.

As depicted in Figure 10 and Figure 11 the page consists of a short introduction followed by a filtering function that acts on the list of available PM&VLs (see Figure 12). Also, this filtering function is based on the decision tree conceived by the project partner EURAC and it has been implemented with hierarchical drop-down menus. The first level is related to the Construction Segment (or Envelope Product Category), the second level to the Testing Category.

For completeness, the categories belonging to these two filter elements are reported below:

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Construction Segments:

- Active solar energy systems
- Cladding systems
- Coatings and finishes
- Glazing and frames
- Green roofs and green façades
- Insulation
- Joints and connectors
- Membranes
- Multifunctional, multilayer façade systems

Testing Categories:

- Acoustic
- Aging
- Building-user interaction
- Chemical
- Electrical
- Fire safety
- Hygrometric
- Mechanical/Structural
- Optical
- Technological
- Thermal

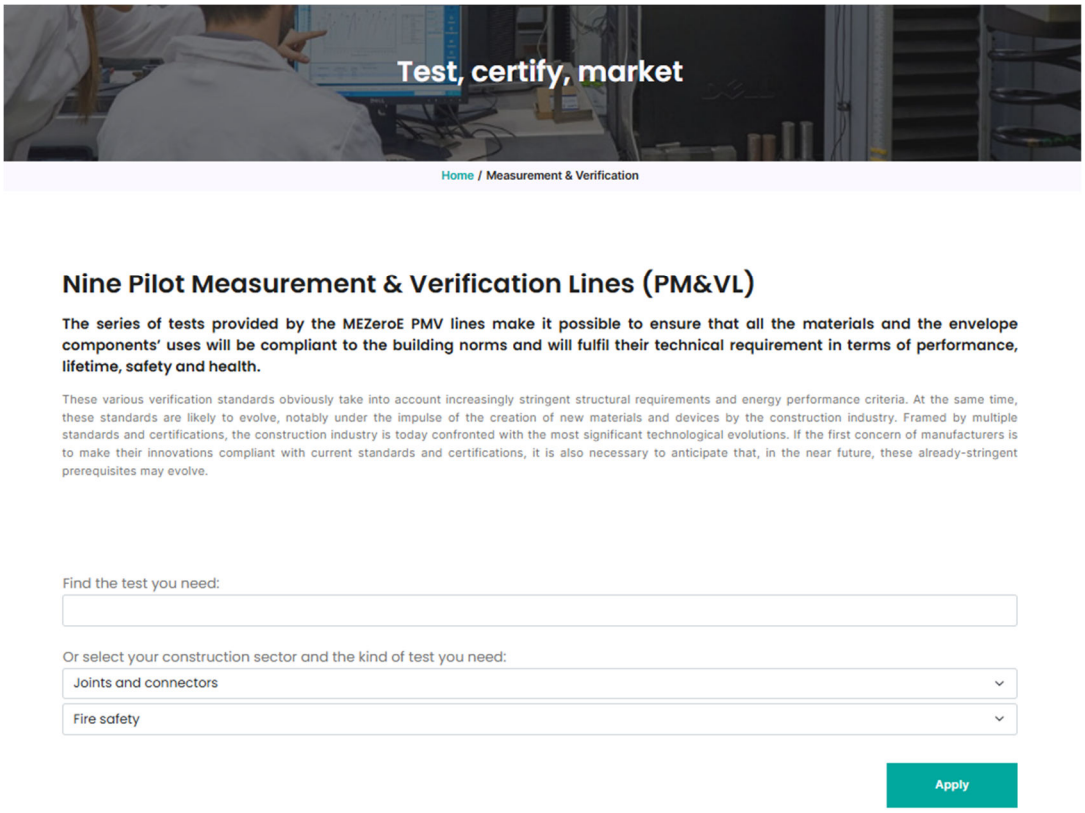


Figure 11. Measurement & Verification – Section introduction and filtering function

By visiting the details page of each PM&VL, the user can view reference images and read an extended description (see Figure 13).

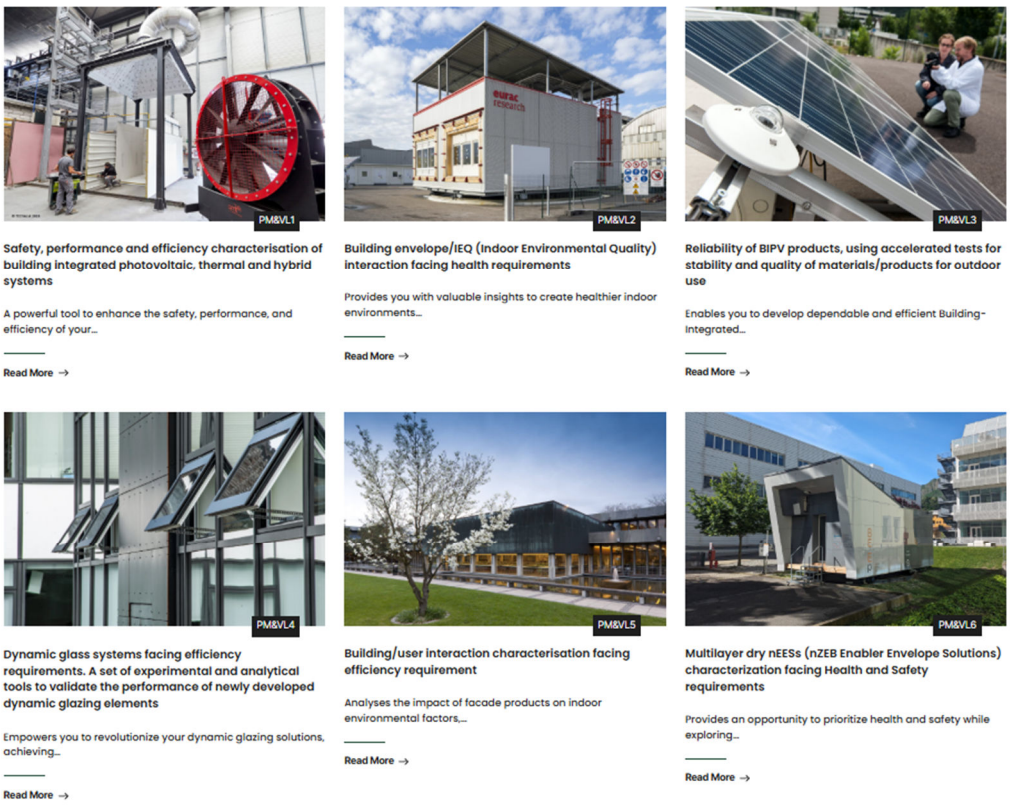


Figure 12. Measurement & Verification – Showcase list of PM&VLs available

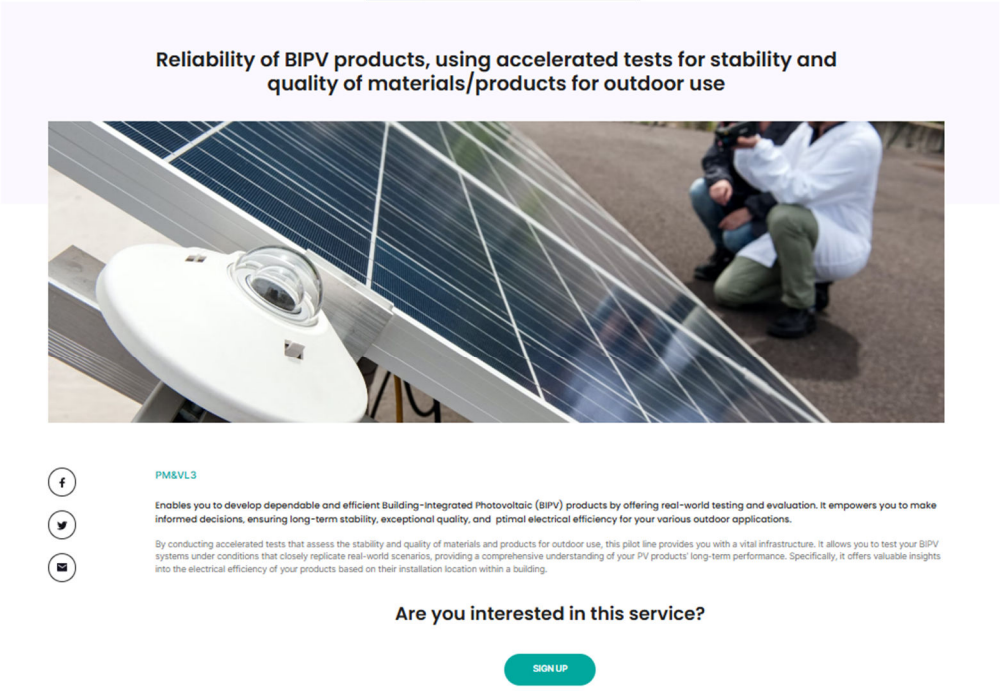


Figure 13. Measurement & Verification – Detail page of the PM&VL 3

2.4 Living Laboratories

The “Living Laboratories” page was developed to present an explanation of the Living Lab concept with descriptions, partners’ activities carried out and presence on the territory (Figure 14).

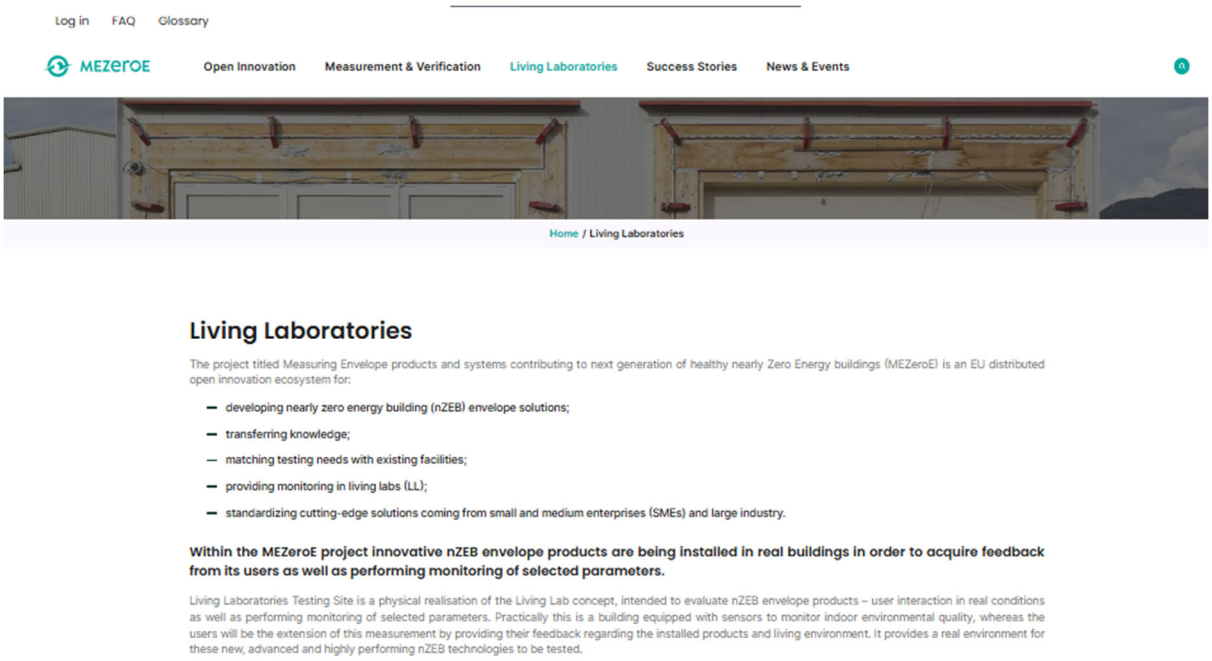


Figure 14. Living Laboratories page

The page also includes highlights from individual labs, such as the Focchi Living Lab (Figure 15), and a comprehensive inventory of the installed technologies, with detailed descriptions (Figure 16). The content is organized to use clear headings, categorized sections and descriptive lists in order to make complex technical information accessible to stakeholders, and the design supports both informational purposes and interactive engagement.

Figure 15. Living Laboratories – Living Lab no 1

Each living lab has a “Read More” button with all the specifications and tests that can be performed. The Installed Technologies section (Figure 16) lists all innovative envelope products deployed in the Living Lab, including shading devices, flexible structural connectors, bio-based insulation foams, prefabricated wooden envelopes, PV-integrated facades, advanced coatings, and tailored sealing and fastening systems. Each technology is presented with its name and manufacturer.

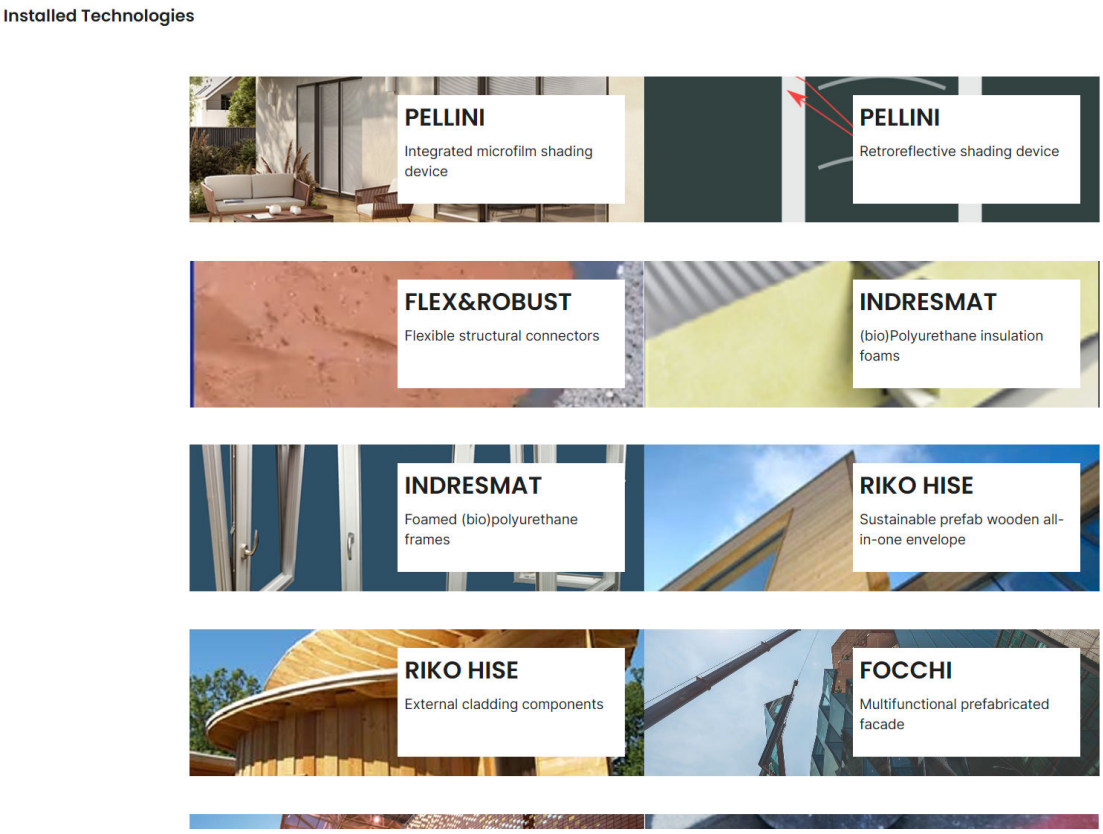


Figure 16. Living Laboratories – Installed technologies

2.5 Success stories

This page shows a curated collection of success stories related to products tested with services offered by the marketplace. This is an important section for newcomers because it demonstrates the concrete value of the MEZeroE services and explains how they can support innovation within the ecosystem. Success stories provide insight into the potential of being part of this ecosystem: they illustrate practical use cases for potential users, and at the same time they help build trust in the services offered through the platform.

Users can filter the content using a category selector that groups together the success stories considering the construction segment (see Figure 17).

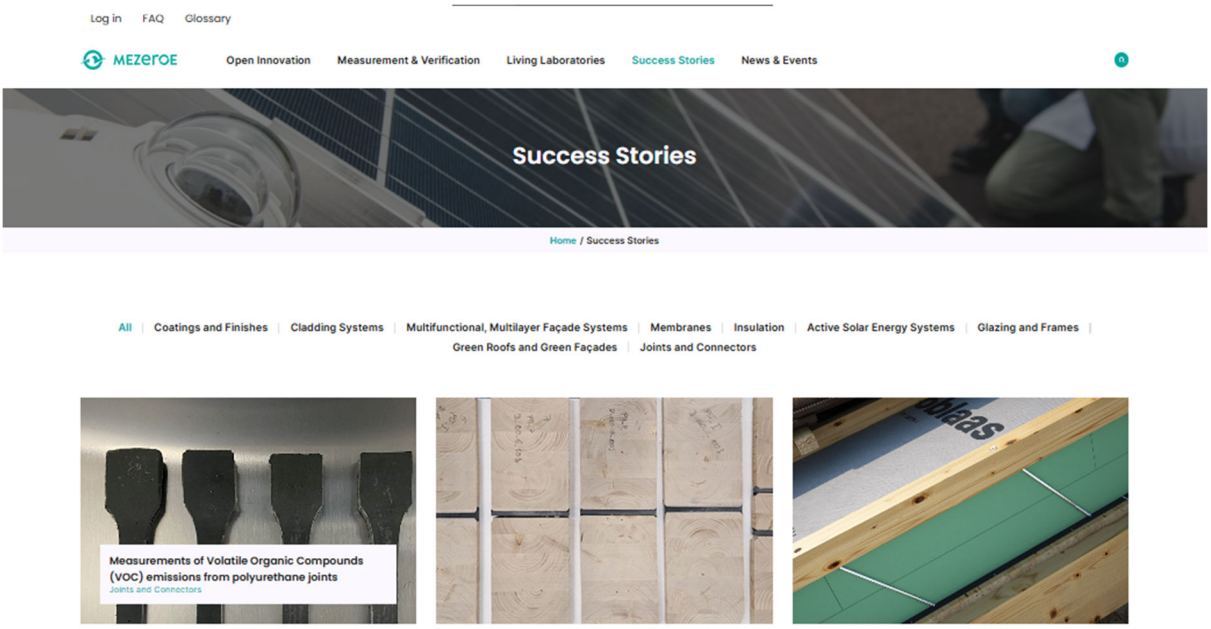


Figure 17. Success Stories section with filtering feature

Figure 18. Success Stories – Detail page of a Success Story (header and introduction)

The categories include:

- Coatings and Finishes
- Cladding Systems
- Multifunctional, Multilayer Façade Systems
- Membranes
- Insulation
- Active Solar Energy Systems
- Glazing and Frames
- Green Roofs and Green Façades
- Joints and Connectors

As depicted in Figure 18, in the detail page of a single success story the user can find first of all a summary with simplified information which helps to quickly understand the application context; scrolling down more in-depth information is available about experiments and related results. By clicking the "Click here to download!" button in the Detailed Info section, users can also download a further detailed document containing additional information.

Industrial partners and registered users are encouraged to publish data of their products sharing non-competitive publicly available information about their journey through the platform services. As indicated later in this document, platform members can submit a request to publish success stories using a specific feature in their private section.

At the time of writing this report, 20 success stories were uploaded on this page. Chapter 6 provides further analysis and the links to all success stories uploaded to the platform.

2.6 News & Events

The News & Events page as seen in Figure 19, presents updates, announcements and upcoming activities related to the MEZeroE project. The main content area holds a chronological list of posts, each marked by a date and labelled either News or Event depending on its nature. Users can click each item to go deeper into that item's content. This offers a way to keep the user engaged and informed about new services, meetings, and opportunities.

MeZeroE consortium members and registered users have been involved and encouraged to publish new material creating articles and virtual/live events. Thanks to their contributions, this section is constantly evolving. As indicated later in this document, platform members can submit a request to publish a news article using a specific feature in their private section.

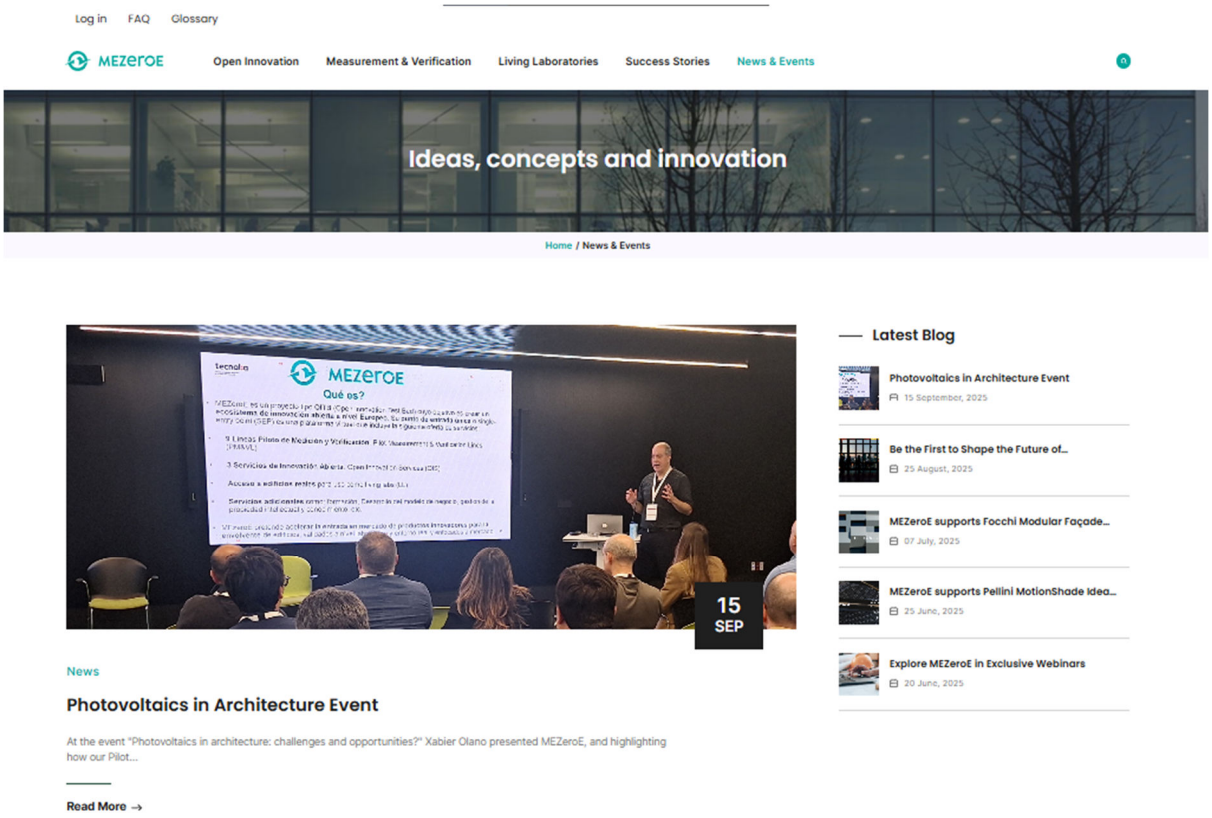


Figure 19. News & Events

2.7 Login

The login page serves as the single-entry point to the private area of the MEZeroE platform. The page includes fields for username and password, plus a “Forgot Password?” link and a prompt to sign up if the user doesn’t have an account (Figure 20).

Figure 20. Login Page

2.8 FAQ

The FAQ page, see Figure 21, provides a collection of clear, concise explanations that help users understand the core concepts behind the MEZeroE ecosystem. It defines the main technical terms used throughout the platform, such as PM&VLs, OISs, Living Labs, TRLs, and Open Innovation, and explains how these elements interact within the project's framework for developing and validating nearly zero-energy building envelope technologies. The page also outlines MEZeroE's goals, the challenges it addresses, and what services and resources the platform offers to support innovation. Overall, the FAQ serves as an introductory knowledge base to help users navigate the platform and understand its purpose.

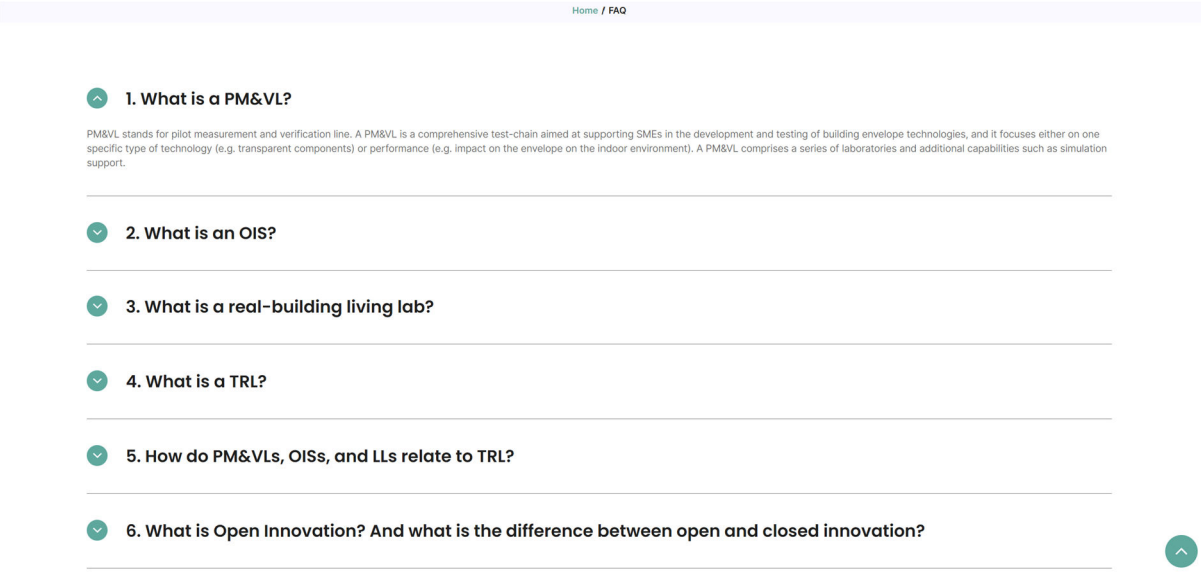
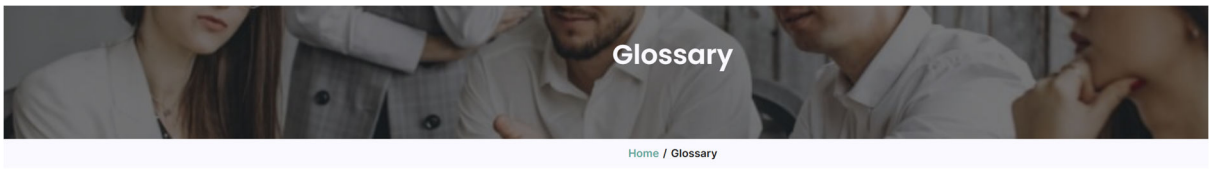


Figure 21. FAQ page

The MEZeroE Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953157

2.9 Glossary

The Glossary page (Figure 22) provides clear definitions of the main concepts and acronyms used across the MEZeroE platform. It clarifies terms such as PM&VL (Pilot Measurement & Verification Line), OIS (Open Innovation Service), Living Lab, TRL (Technology Readiness Level), and Open Innovation, explaining how each fits into MEZeroE's ecosystem. The page functions as a quick-reference glossary to help users. Whether they are manufacturers, service providers, or researchers — understand the project's structure and terminology in context.



- BIPV: Building Integrated Photovoltaics
- ETA: European Technical Assessment
- IEQ: Indoor Environmental Quality
- IND: Industry
- IPR: Intellectual Property Right
- LL: Living Lab
- M&V: Measurement and Verification
- nEES: nZEB Enabler Envelope Solution
- nZEB: Nearly Zero Energy Building
- OIS: Open Innovation Service
- PM&VL: Pilot Measurement and Verification Line
- PV/T: Photovoltaic / Thermal
- RTD: Research and Technology Development
- SME: Small Medium Enterprise
- TAB: Technical Assessment Body

Figure 22. Glossary page

The MEZeroE Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953157

3 Private area

The private area was designed to serve as a meeting point for innovative manufacturers and providers of consulting and testing services. All its features are designed to facilitate interaction between these two parties and make the process of bringing products to market simple and straightforward. Information-sharing features, such as publishing news and events, represent an added value that allows users to collaborate in the growth and development of a thriving community based on the cornerstone of open innovation.

Key features and purposes of the Private Area:

- Access requires registration, and features vary depending on the chosen user type: **Manufacturer**, **OIS Expert**, **PM&VL Leader**, **LL Leader**, and **Platform User**.
- It enables **Manufacturers** to browse and submit requests for Open Innovation Services (OIS), Measurement & Verification (PM&VL), and Living Lab (LL) services.
- It allows **Service Providers** (OIS Experts, PM&VL Leaders, LL Leaders) to manage their service profiles, receive and manage incoming requests, and upload output documents (e.g., test reports).
- It includes a **My Requests** section for tracking request status, exchanging input/output documents, and communicating via an integrated messaging tool.
- It hosts useful **Tools**, such as the Envelope Package BIM Configurator.
- It features a **Publish** section for registered users to submit content (news, events, success stories) for publication on the public platform.

The private area of the platform can be accessed from the home page Log in button, or the prompts to Sign up in various pages. The platform's private area is accessible from the home page via the "Log in" button, or by selecting the "Sign up" prompts located on various pages.

3.1 User Types

The following user typologies are available in the MEZeroE platform:

The **Service Leader** user type was designed for all of those who seek to become an Open Innovation Service Leader, a Testing Line Leader or a Living Laboratory Leader. After a short evaluation period of the request, those who have selected will be enabled for one of the following profiles:

- The **OIS Leader** user type: designed for all of those service experts who are able to provide services or know-how with an open innovation approach.

- The **PM&VL Leader** user type: designed in order to represent the testing line managers who want to increase their portfolio of potential customers by entering the information about their pilot line in MEZeroE platform and get the service requests through it.
- The **LL Leader** user type is designed for living laboratory managers who want to have their living laboratories listed in the platform get in contact with potential customers (Manufacturers).
- The **Manufacturer** user type is designed to represent producers and innovators who need support to bring their innovative products into the market, through access to open innovation services, pilot lines or living laboratories.
- The **Platform User** type is designed for all the other types of users who are interested in increasing their knowledge about the open innovation community and be part of the community as well, but do not fall under the categories above.
- The **Early Adopter** type is recently designed to attract all new users who wish to join the ecosystem in the early stages of its existence, taking advantage of special discounts and benefits. All the details of this initiative are available on this landing page.

In the following sections, all the features implemented by each type of user in their private area are described. A more detailed description of functionalities and workflow can be found in the user manual, which is available in 5.3.

3.2 Signup

The registration process for the MEZeroE platform starts by navigating to the dedicated sign-up page, accessible via the direct link:

https://mezeroe-platform.eu/user/register.

To successfully complete the sign-up, users are required to fill out a registration form. This form is designed to capture the necessary information for account creation and personalized platform access. The initial portion of the sign-up process, detailing essential user inputs, is visually represented in Figure 23, with subsequent parts likely shown in additional Figure 24. The required fields include personal identification details, contact information, desired credentials for accessing the platform and the user profile choice between manufacturer, platform user or service leader. To support selection, the form provides information about each user profile.

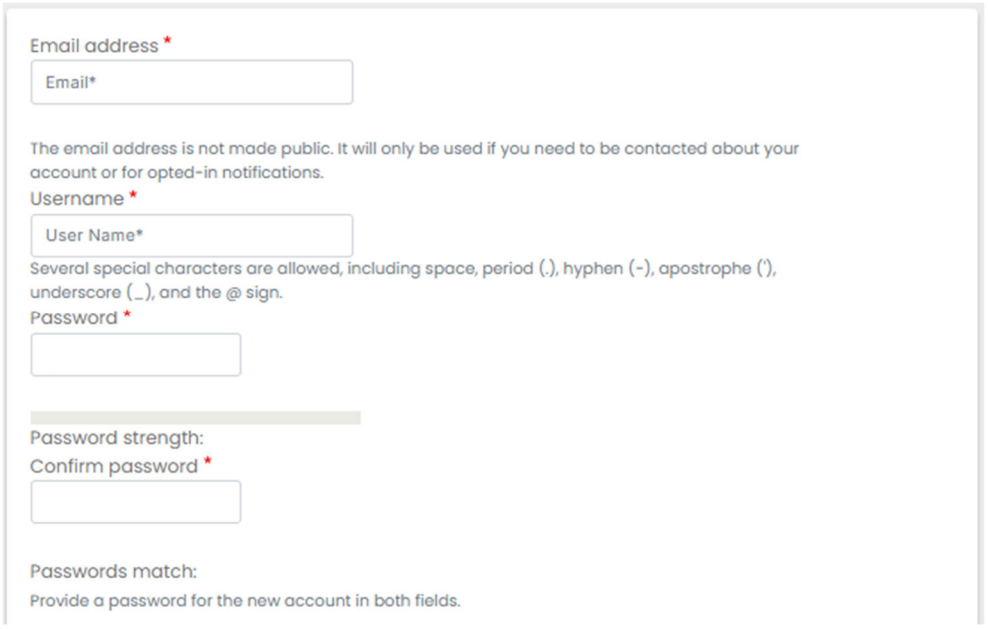


Figure 23. Upper part of Sign-Up Page for setting user credentials

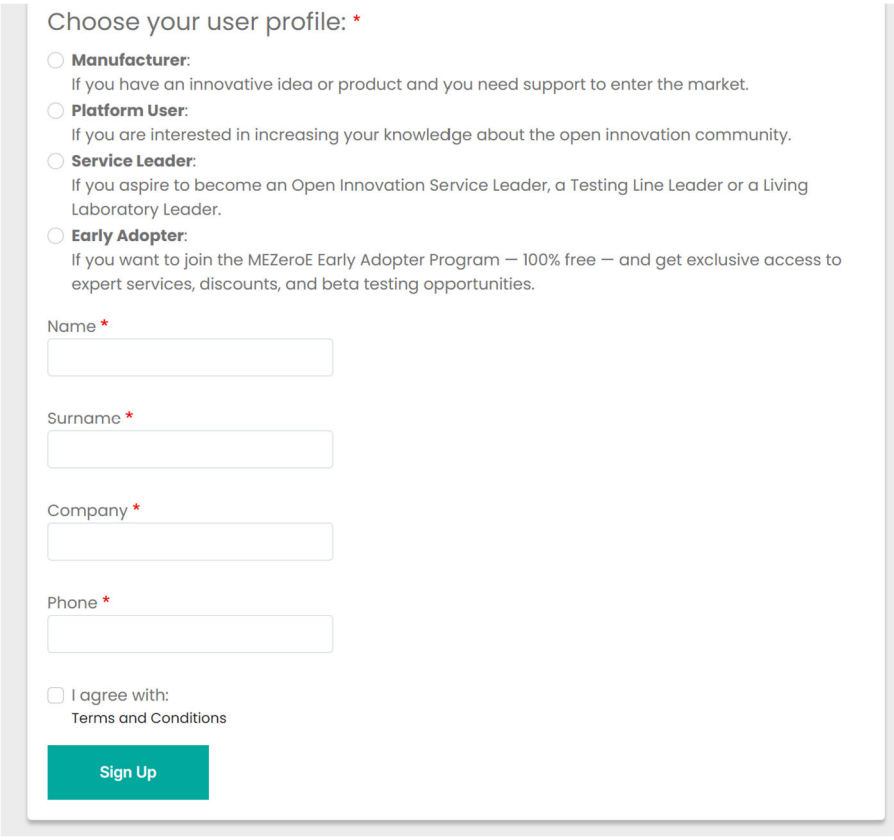


Figure 24. Bottom part of the Sign-Up Page dedicated to the user's contact information

The MEZeroE platform follows all relevant cybersecurity best practices and regulatory frameworks, including the comprehensive General Data Protection Regulation (GDPR). All data provided by the user during the sign-up process and subsequent platform use is securely stored in Europe within a robust and protected database environment, ensuring the confidentiality and integrity of personal information.

3.3 Login

After completing the sign up process it is possible to access the private area through the login page, as explained in 2.7, using the credentials used in the Sign-Up process (Figure 25).

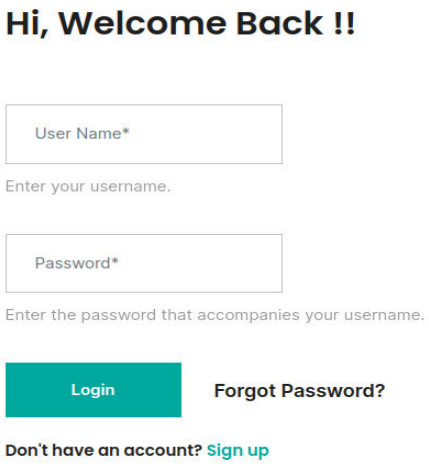


Figure 25. Log In Page

3.4 Dashboard overview

The dashboard represents the main landing page of the user's private area and the first page displayed after login. It provides quick access to all features and tools available on the MEZeroE platform with a clear and structured layout.

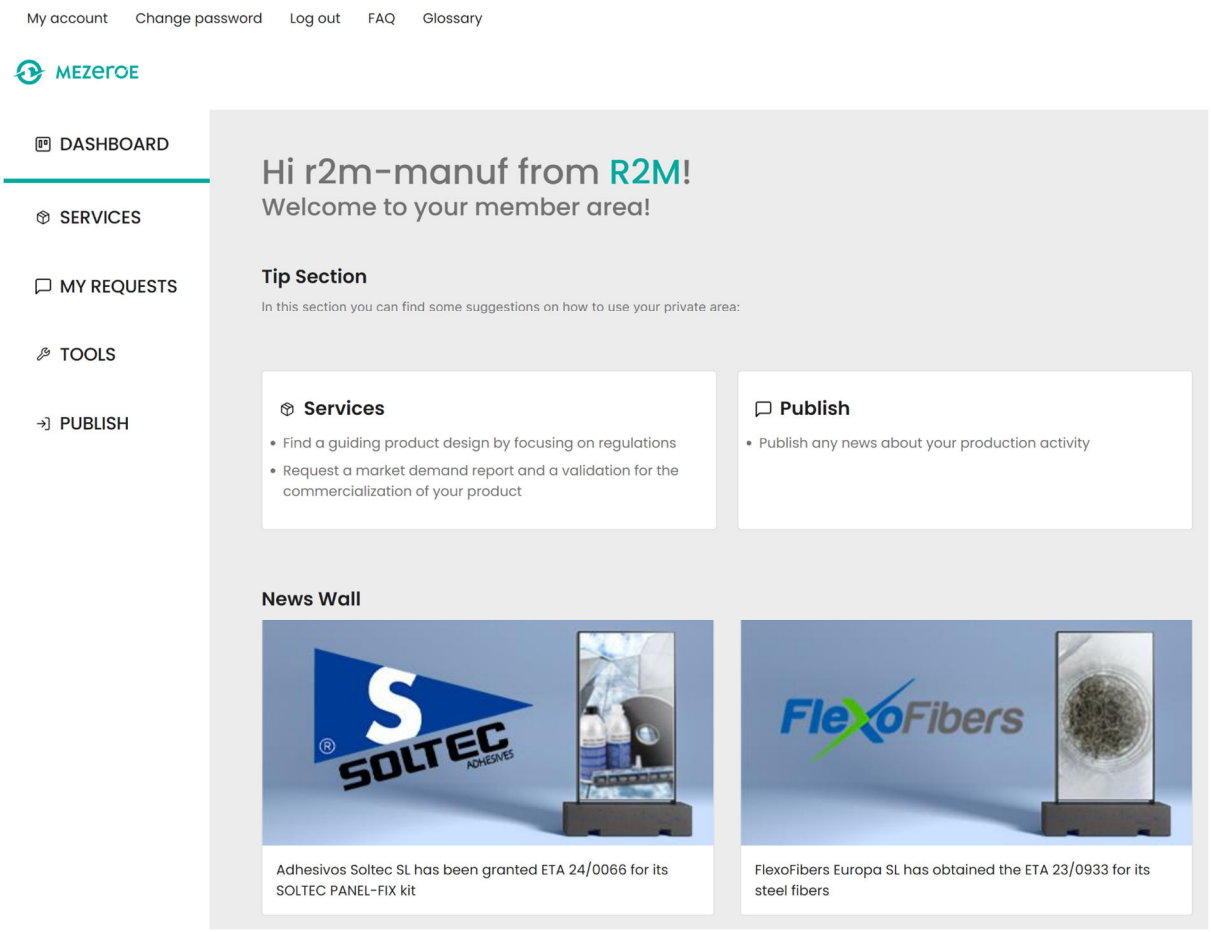


Figure 26. Dashboard Preview

The dashboard interface, as illustrated in Figure 26, is divided into four sections:

- **Top Navigation Bar:** Positioned at the top of the page, this menu allows users to manage their account settings and access key platform resources. It includes options such as My Account, Change Password, Log Out, FAQ, and Glossary, ensuring easy account management and support access at any time.
- **Side Menu (Left Panel):** The vertical sidebar provides navigation to the main sections of the private area, including Dashboard, Services, My Requests, Tools, and Publish. This menu is allowing users to move between platform sections.
- **Tip Section (Upper Central Area):** Located at the top of the main content area, the Tip Section provides short guidance and suggestions for using the platform. It highlights quick actions such as accessing Services for product design guidance, market reports, and validation requests and Publish, which enables users to share news about their production activities.
- **News Wall (Lower Central Area):** The lower part of the dashboard displays the News Wall, showing recent updates and announcements relevant to the user's profile and activity. Each

news card includes an image, company name, and short description, such as updates from companies like Soltec and FlexoFibers.

In the following chapters, the various functions available and how to use them are described per user type.

3.5 Private area - Manufacturer

This category of users is primarily interested in accessing the services available in the platform by sending requests to service providers. All the activities that manufacturers can perform within their private area are indicated in the following paragraphs.

3.5.1 Services

The services page (Figure 27) is designed to allow the Manufacturer to browse all the services available into the MEZeroE platform and send contact requests.

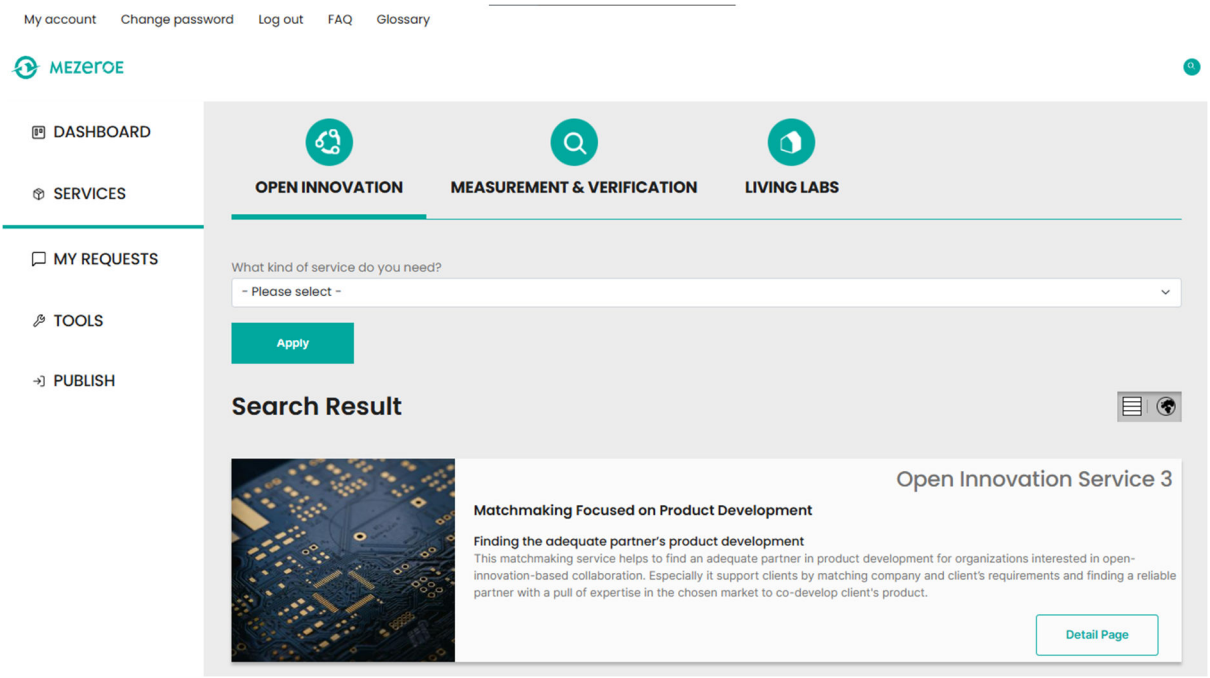


Figure 27. Services Section for the Manufacturer

The services section is divided into three tabs: Open Innovation, Measurement & Verification and Living Laboratories. This differentiation is specifically designed in order to separate the different types of services both visually and conceptually.

In each of these subsections there is a dedicated filtering system.

3.5.1.1 Open Innovation

In the Open Innovation tab (Figure 28), the system is based on identifying the needs of the producer. The manufacturer can specify the macro-category of service of interest and then the type of support or

monitoring service preferred. The filters, identical to the ones in the public area, when applied will reduce the list of services showing the ones who meet the selected criteria.

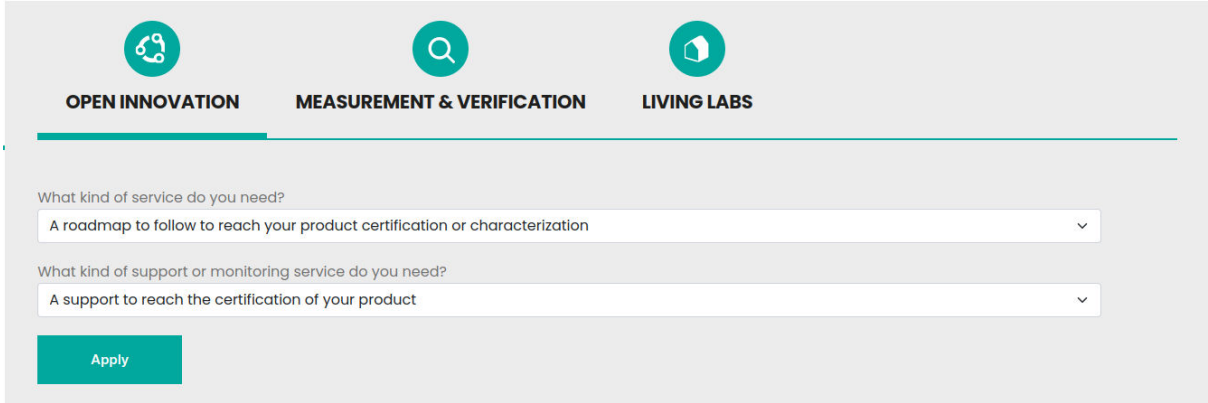


Figure 28. Open Innovation Tab Filtering System

Users can optionally filter the list, click Apply and see the services listed in the Search Results area. It is then possible to select and review service description on the Detail Page (Figure 29).

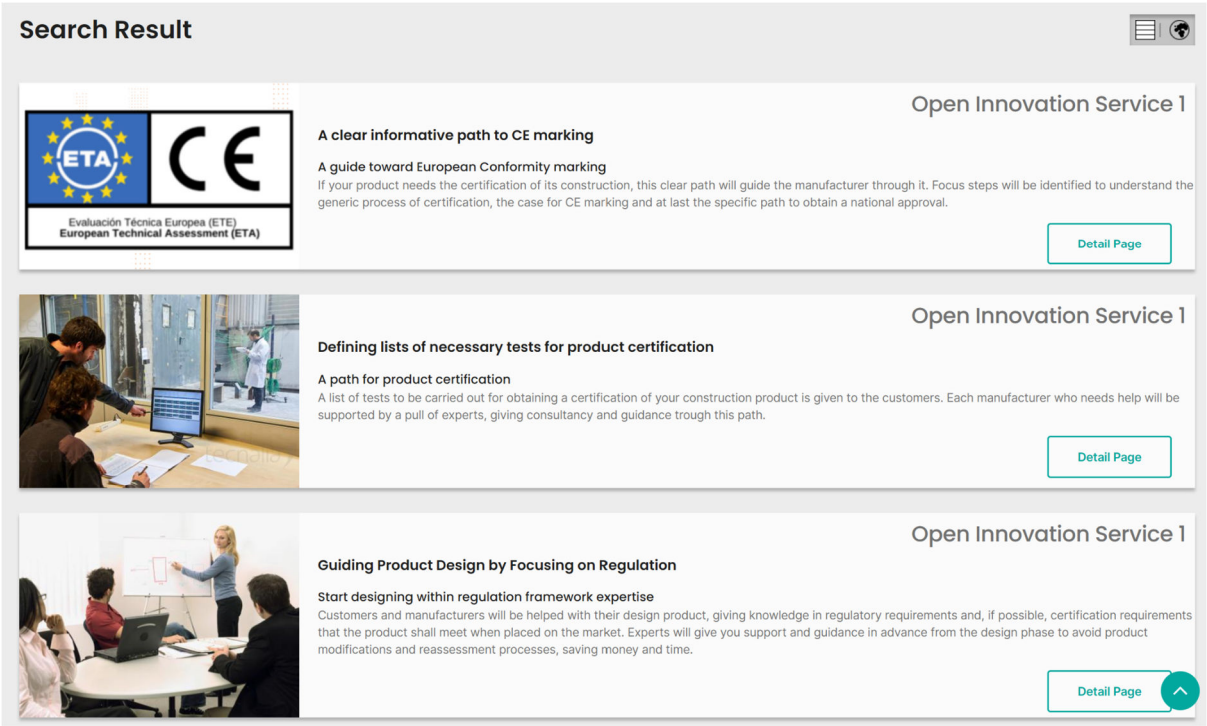


Figure 29. Open Innovation Service Request Search Results

The service detail page provides an extended description and lists the organizations or experts providing the service (Figure 30). To proceed, users can submit a request by completing and submitting the Request form (Figure 31).

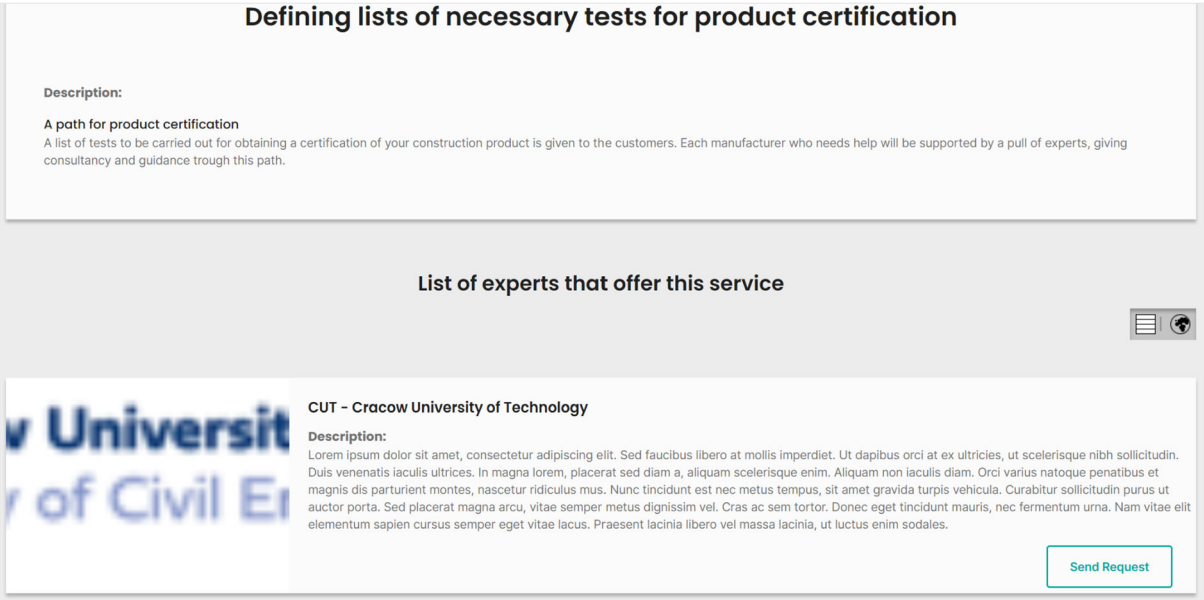


Figure 30. Open Innovation Service Description & Send Request

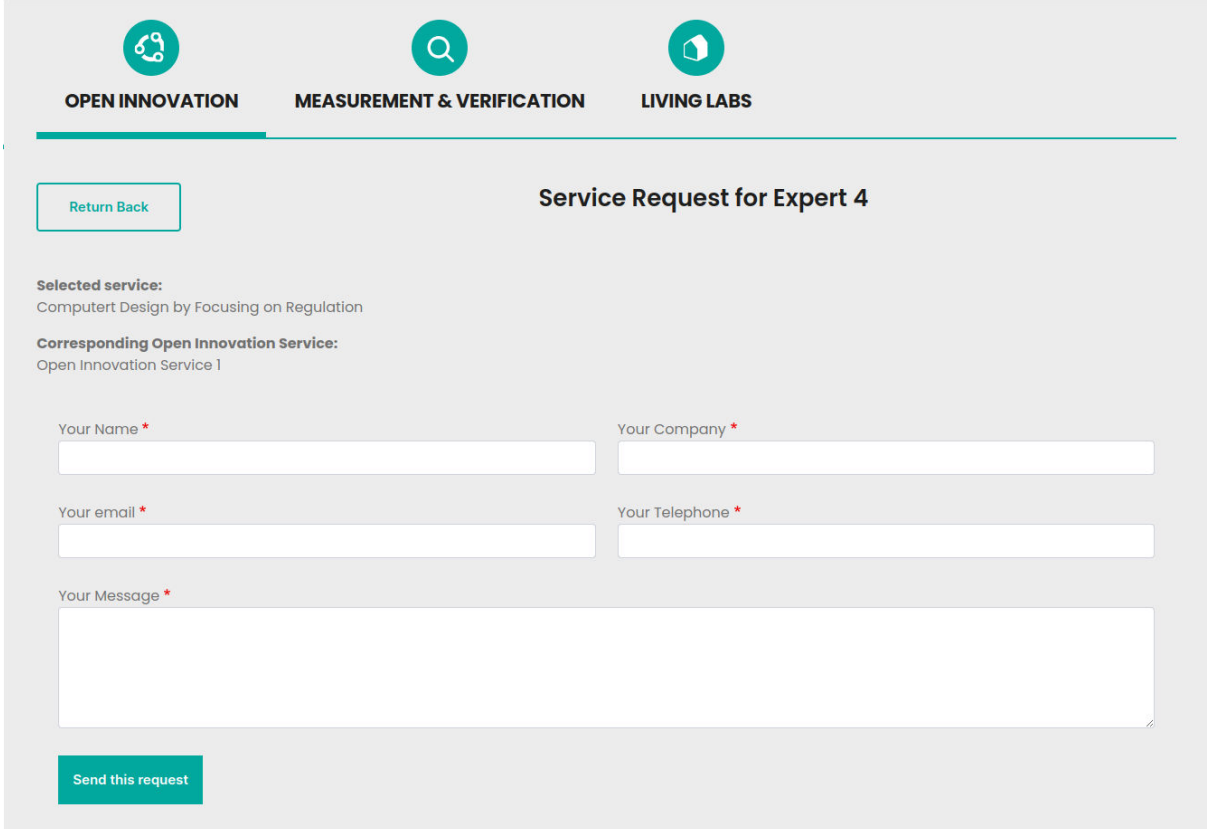


Figure 31. Open Innovation Service Request Form

3.5.1.2 Measurement & Verification

In the Measurement & Verification tab, the manufacturer can search, view and request information about testing services (a.k.a. Features) relevant to their products. (Figure 32).

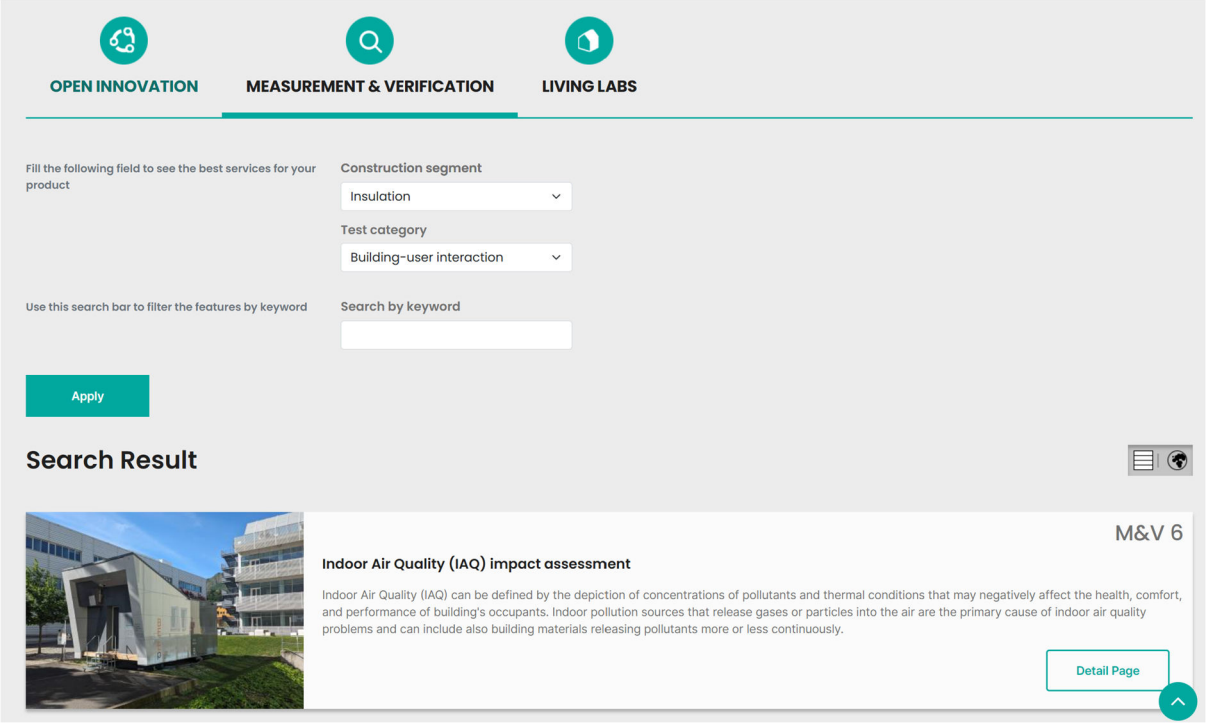


Figure 32. Measurement & Verification Tab Filtering System

The list of testing services can be filtered using optional dropdown menus or a keyword search. Users can review the full list of services, including a map view option, and select the 'Detail Page' for any service of interest to check its extended description and evaluate its suitability, while also viewing other related services in the same PM&VL (here abbreviated as M&V). Once the desired services are selected, users can click the 'Send a Request for the selected features' button (Figure 33), fill in the subsequent Request form in following page using their details and message, and submit it using the 'Send' button to finalize the request (Figure 34).

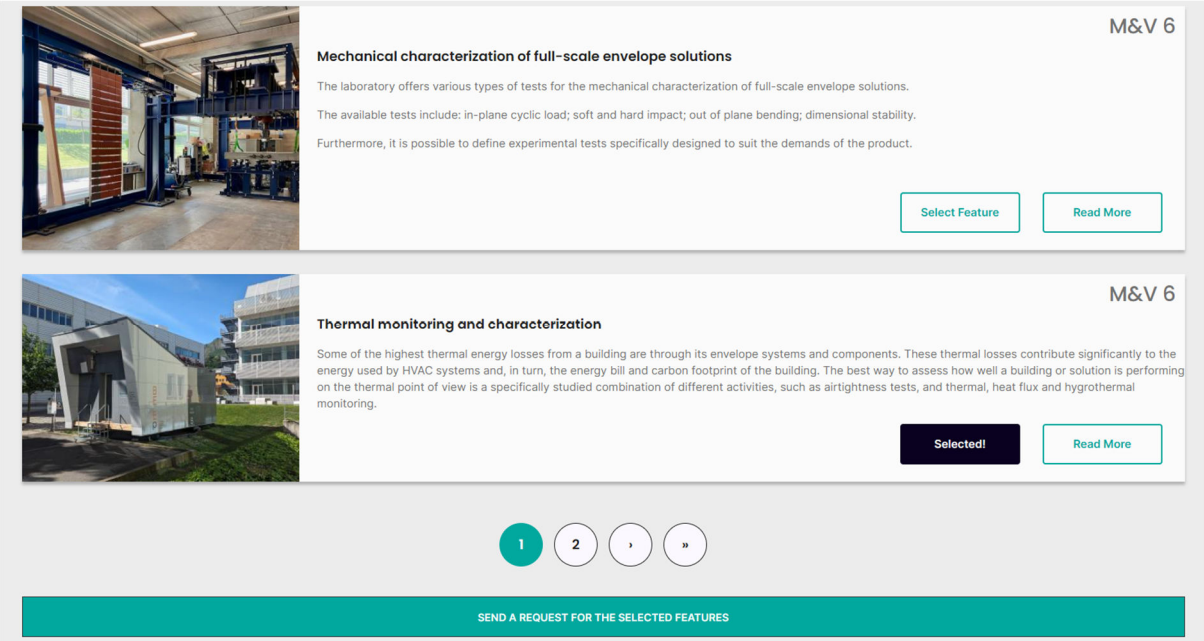


Figure 33: Measurement & Verification Tab Selecting Services

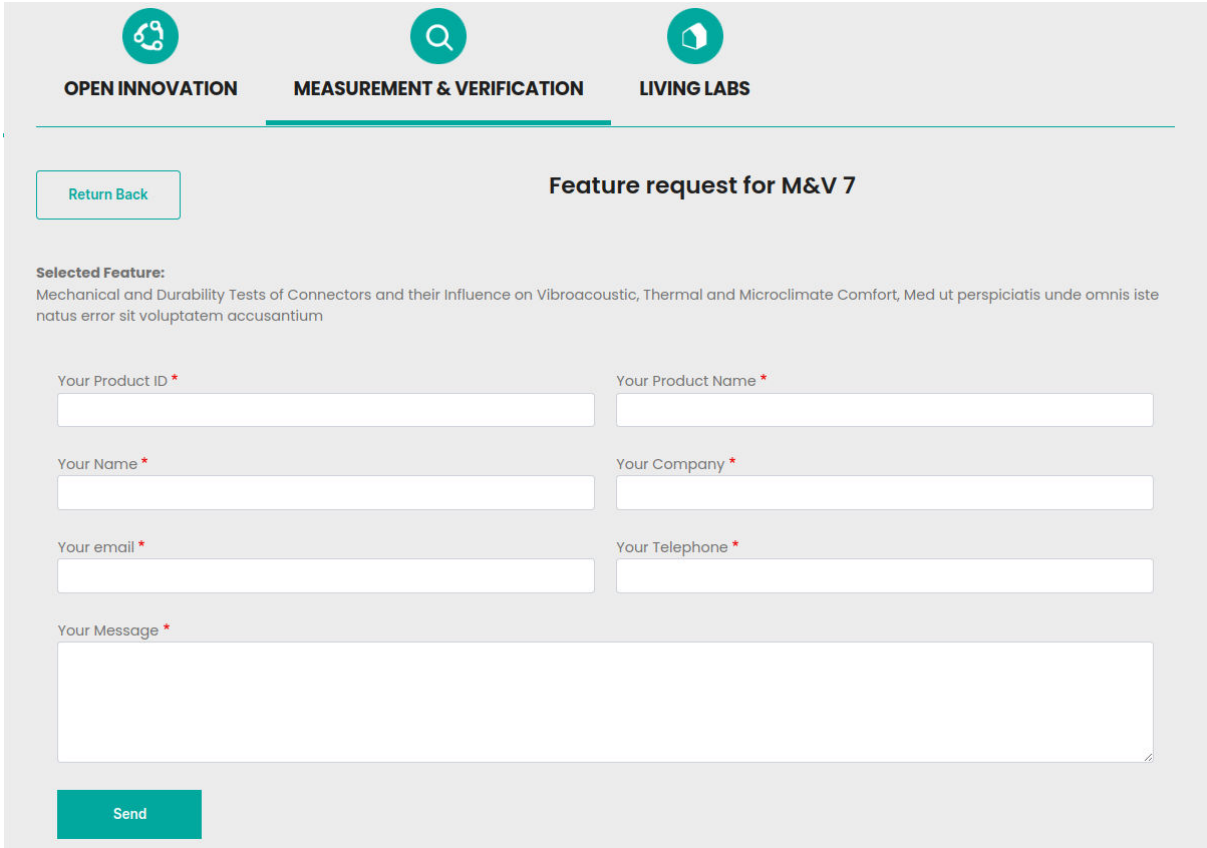


Figure 34. Measurement & Verification Tab Testing Line Service Request

3.5.1.3 Living Laboratory Detail Page

To select and request a service from a Living Lab, users must first navigate to the "Living Labs" tab (Figure 35). They can optionally use the search by keyword function to filter the available laboratories. After reviewing the list of available laboratories, which can also be viewed in Map View mode, the user should click the "Detail Page" button for the service of interest to check the extended laboratory description. If the laboratory is suitable, the user proceeds by clicking the "Send Request" button, filling in the subsequent Request form, and selecting the "Send" button to submit the request (Figure 36).

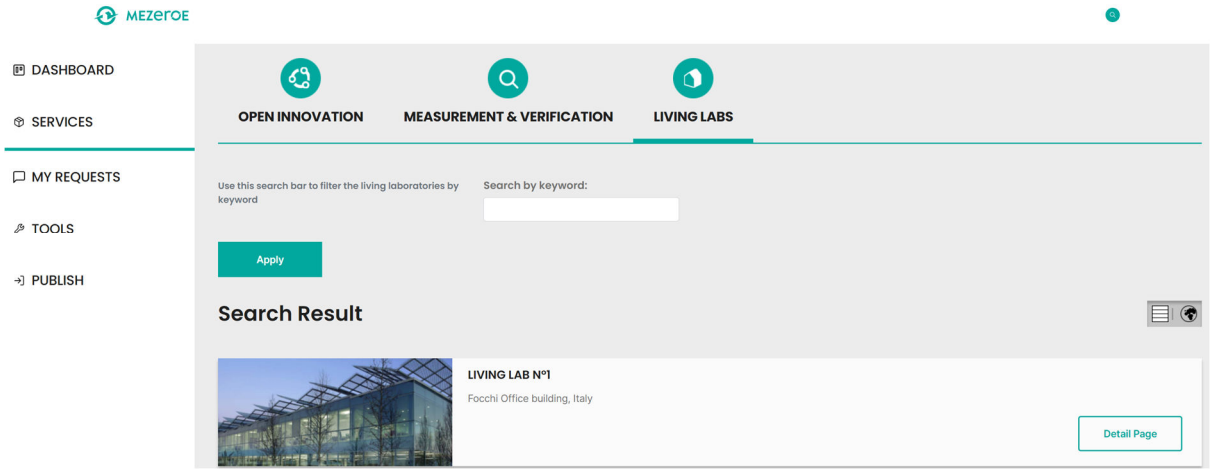


Figure 35: Living Labs

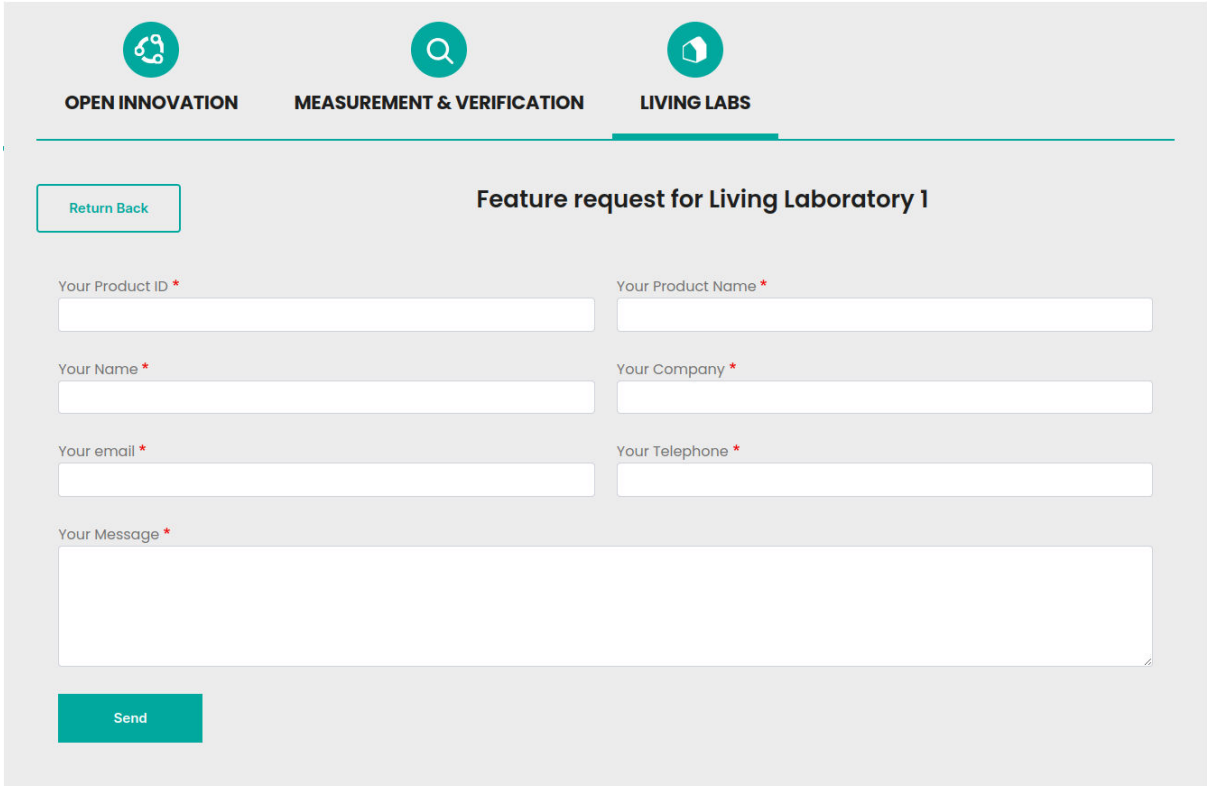


Figure 36. Living Labs Service Request

Requests sent using the procedures described above are available in the My Requests section.

3.5.2 My Requests

In the “My Requests” section, the manufacturer can keep track of all the requests they sent to the service providers, as seen in Figure 37 below.

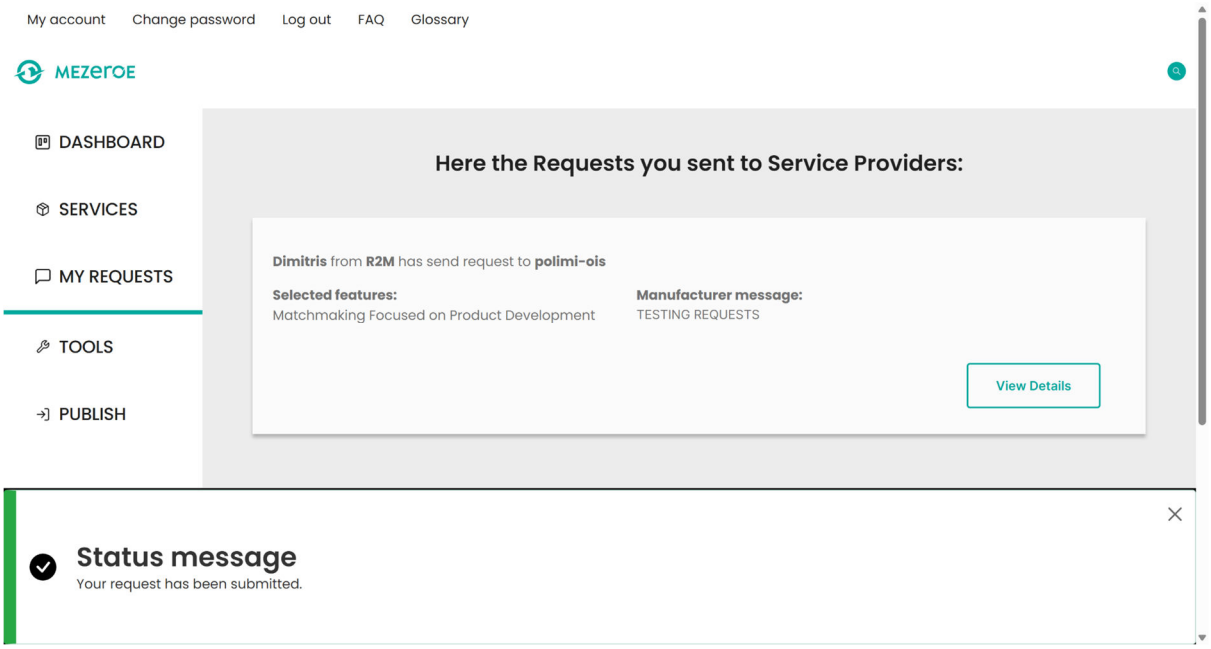


Figure 37. My Request for the Manufacturer

By clicking on the View Details button, it is possible to review the sent message, send input documents to the service provider (Figure 38), receive the output documents (test results, graphs, documents etc.) and finally use the integrated messaging tool for quick and effective communication (Figure 39).

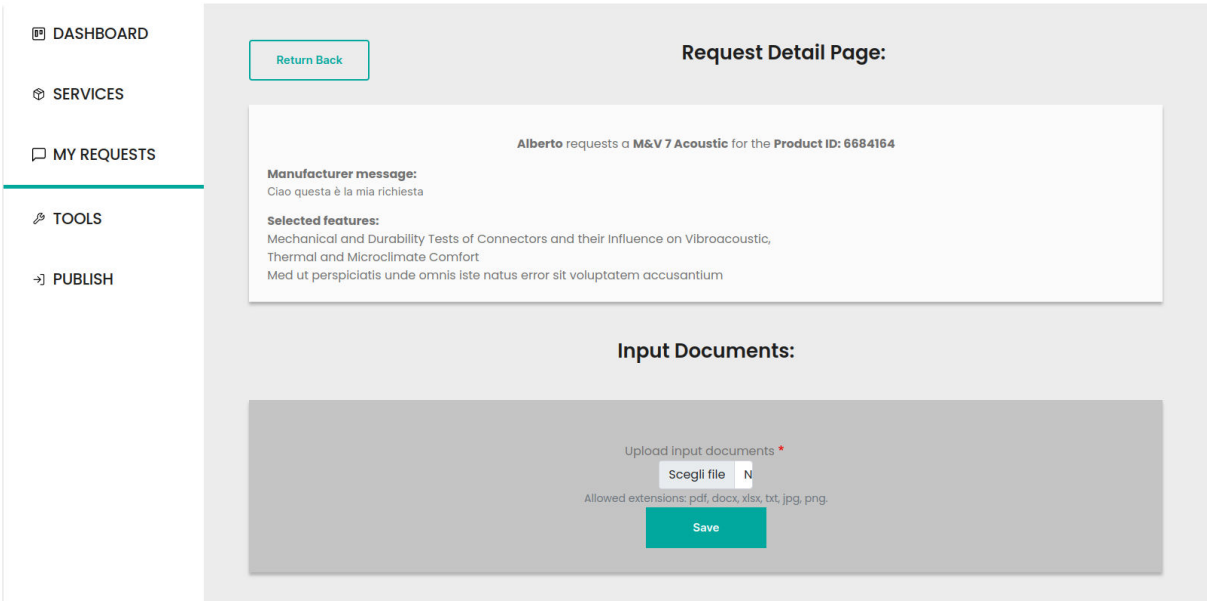


Figure 38. Detail Page of a Request (message sent and input documents)

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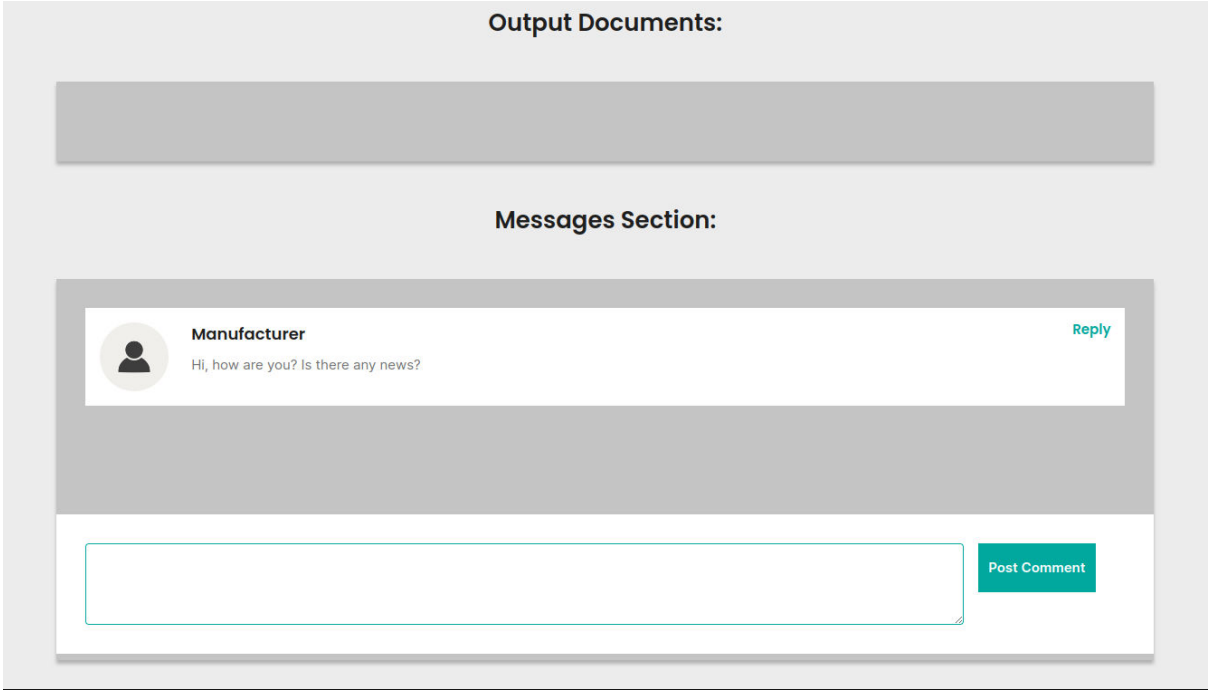

Figure 39. Detail Page of a Request (output documents and messages section)

3.5.3 Tools

The “Tools” section (see Figure 40) is dedicated to host useful tools in the platform, freely available to the community members who are registered (including manufacturers). These are data visualization tools that have been designed to support the activities of all those who work in the sector of innovative building envelope products. The tool can be selected by clicking Start it! button.

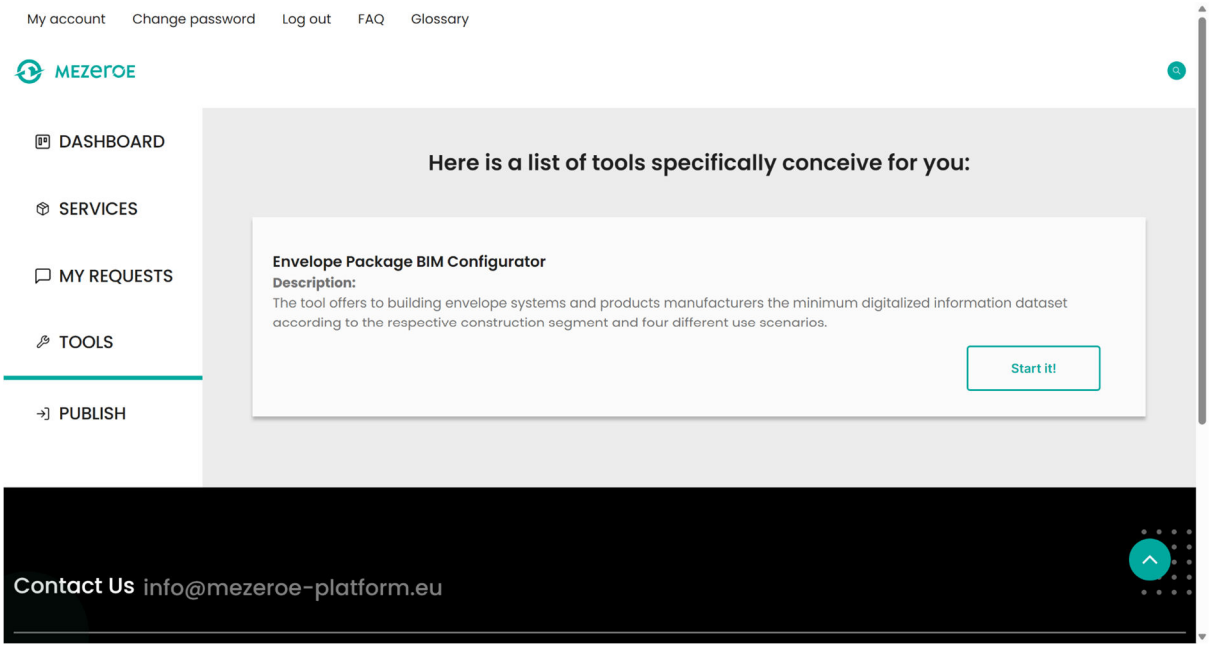

Figure 40. Tools Section

3.5.3.1 Envelope Package BIM Configurator

The OIS3 Envelope Package BIM Configurator tool, shown in Figure 41,offers to nZEB Enabler Envelope Solutions (nEESs) manufacturers the minimum digitalized information to be included in a product dataset according to the relevant construction segments and for the specific scopes/scenarios (i.e., product marketing and communication, product testing and monitoring within the PM&VLs, product certification, product installation/operation/maintenance).

The process to follow to execute the service through the MEZeroE web-based platform foresees firstly the choice from two drop-down menus by the user of:

- the choice of the construction segment (14 have been identified) to which the envelope product belongs (multifunctional, multilayer façade systems; cladding systems; coating and finishes; glazing and frames; membranes; joints and connectors; insulation; green roofs and green façades; active solar energy systems)
- the relevant scenario for which the user wants to query the BIM package configurator to visualize the filtered results in terms of minimum digitalized information according to the defined MEZeroE standardized dataset for nEESs.

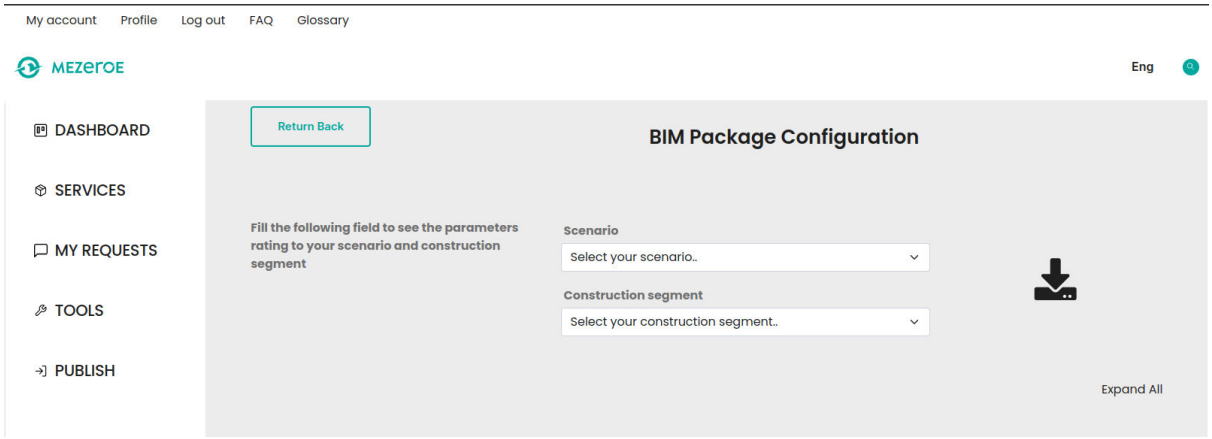

Figure 41. BIM Package Configurator (empty selection)

By pressing on the name of the category or on the small green icon with a white arrow positioned on the side, it is possible to collapse the various sections. You can act on all sections by pressing on the wording Expand All and Collapse All.

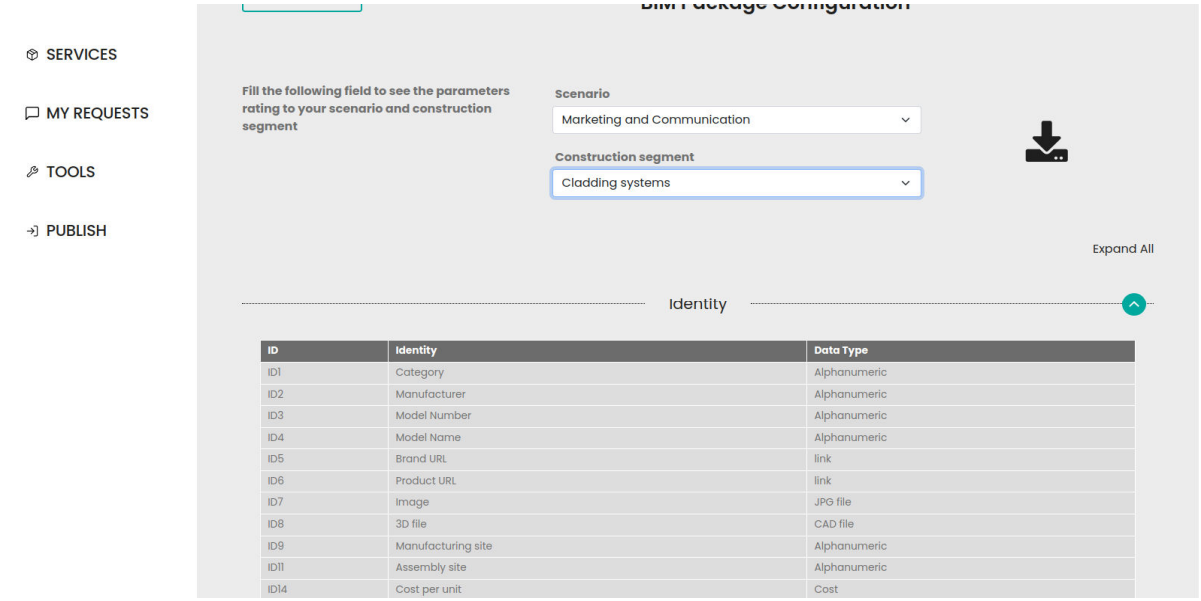

Figure 42. BIM Package Configurator

By pressing the download button, it is possible to download a csv file containing all the parameters relating to the current selection (Figure 42).

3.5.4 Publish

The "Publish" section (Figure 43) can be utilized to send a request to publish a success story about user's product, news or event in the public section of the platform described previously. This feature has been conceived in order to spread the information and provide benefit to all users of the community. The request, once sent, is analysed and moderated by the platform manager, and the content is reviewed and then published in the dedicated section. Figure 44 shows the form to submit a success story for approval, while Figure 45 and Figure 46 shows the form to submit news and event respectively.

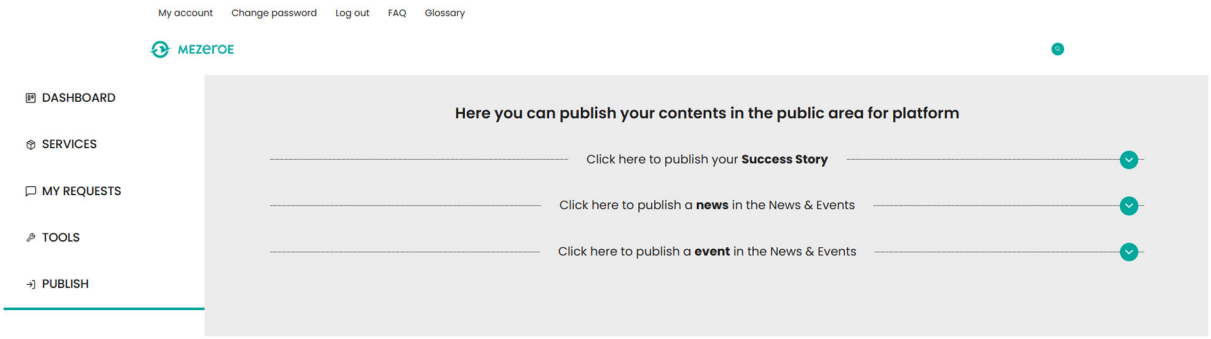

Figure 43. Publish Section

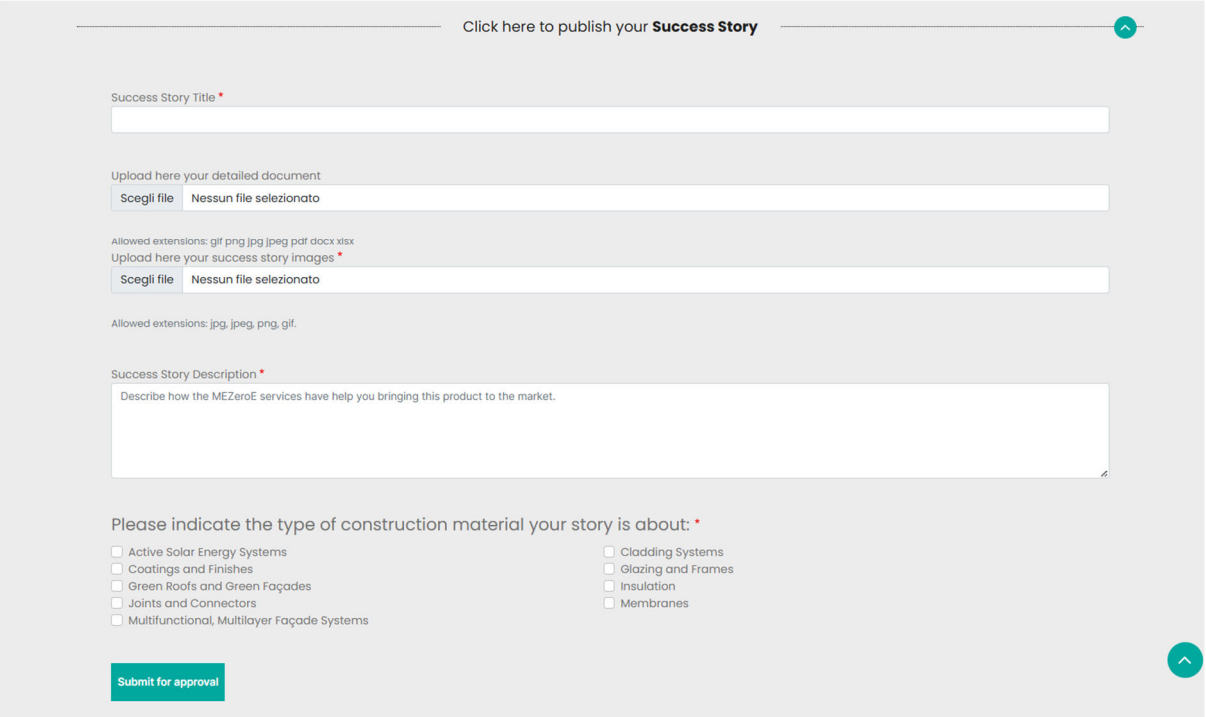

Figure 44: Publish a Success Story

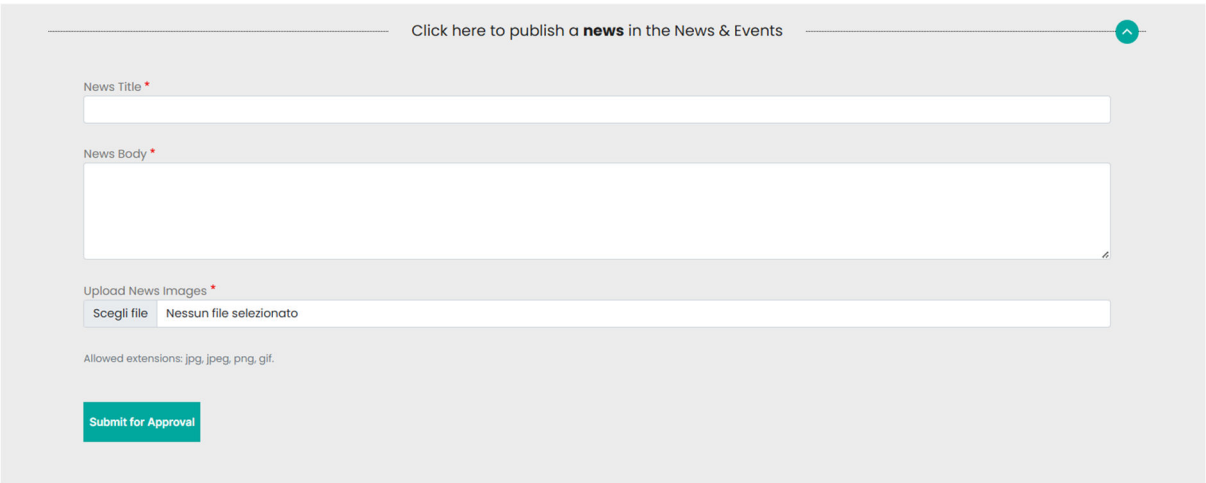

Figure 45. Publish a News

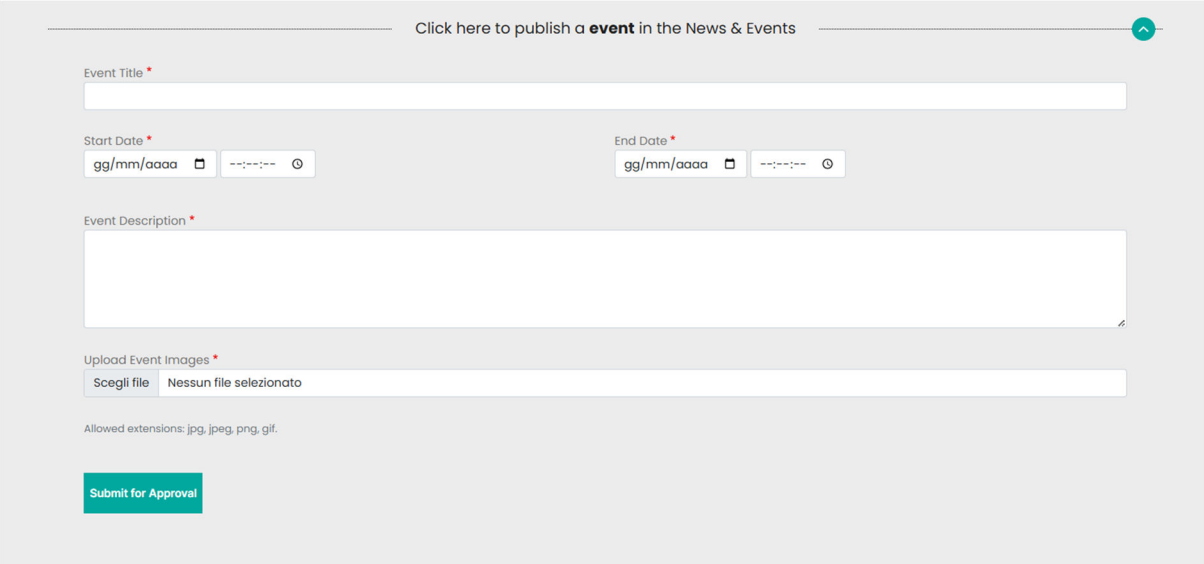

Figure 46. Publish an Event

3.6 Private area – OIS Expert

This category of users is interested in joining the platform to provide their consulting services. All features dedicated to this category of users will be described below. For features shared with Manufacturer users there will be references to the previous section.

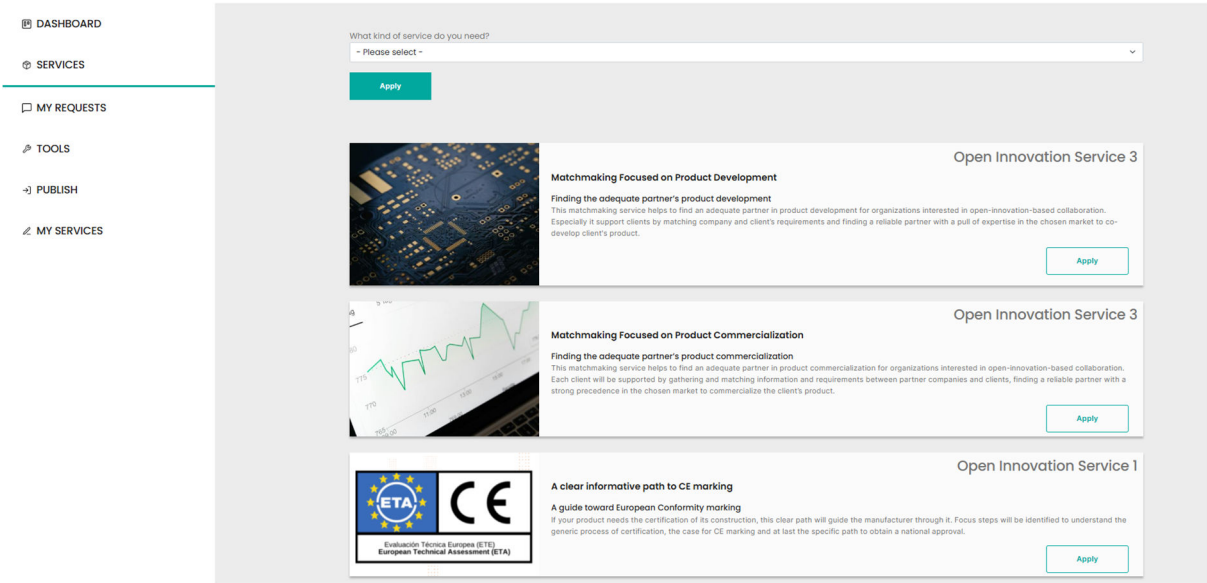

Figure 47. Services Section for the OIS Leader

3.6.1 Services

The Services section for OIS Leader users is characterized by the fact that they can only view the list of available Open Innovation Services (Figure 47). In particular, this Services section displays the services for which the OIS Leader can submit a subscription request to become a provider (Figure 48 and Figure 49). The platform manager will then receive and analyze this request. If approved, the OIS Leader user will join the list of experts for that service and be able to receive contact requests from manufacturers.

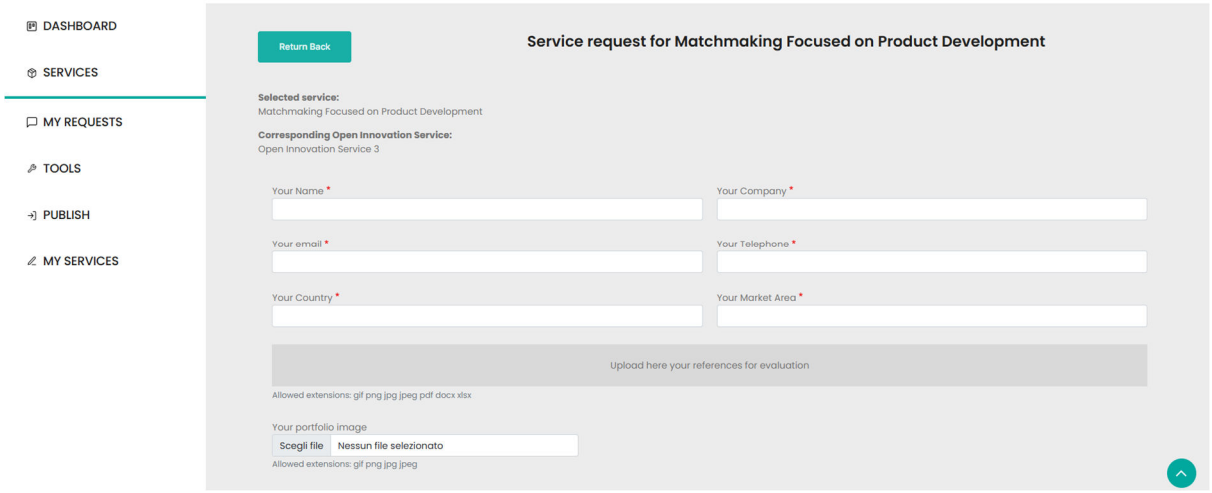

Figure 48. Request to perform a service (part 1)

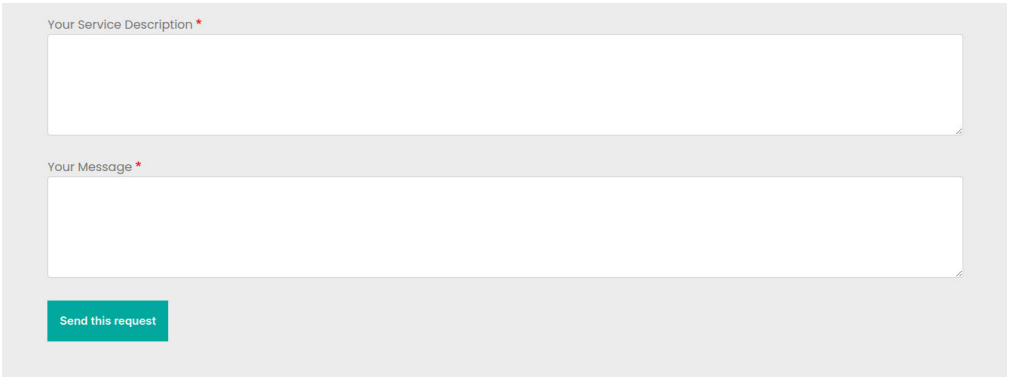

Figure 49. Request to perform a service (part 2)

3.6.2 My Requests

This section is very similar to the one described above in section 3.5.2 regarding the manufacturer user type. Here the OIS Leader can keep track of all the requests he received from the manufacturers.

In the detail page of a single request, it is possible to review the received message, see the input documents received from the manufacturer, send the output documents (test results, graphs, advice) and finally use the integrated messaging tool for quick and effective communication.

3.6.3 Tools

This section is the same as the one described above regarding the manufacturer user type. Please refer to 3.5.3.

3.6.4 Publish

The “Publish tab” when logged in as an OIS Leder allows to send a request to publish success stories, news or event in the public section (Figure 50). The request is then analysed by the platform manager; the content is reviewed and published in the dedicated section. This page is similar to the Publish page dedicated to manufacturer users, as seen in 3.5.4.

Figure 50. Publish Section for the OIS Leader

3.6.5 My Services

In this section, the OIS Leader user can review all requests for the execution of services sent to the Platform Manager. By clicking on the Edit button, the OIS leader can modify the information sent. By clicking on the Delete Subscription button the OIS leader can cancel the subscription (Figure 51).

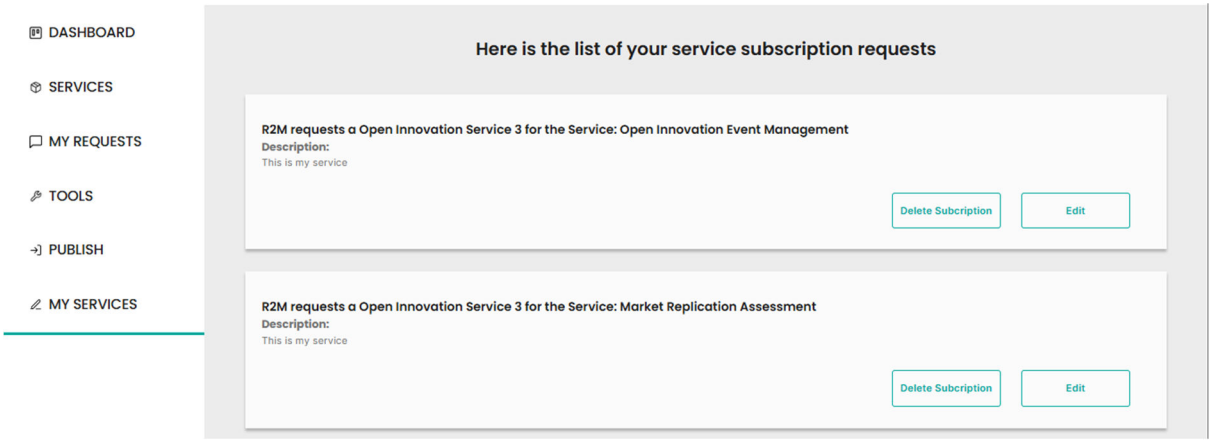

Figure 51. My Services Section

The service request can be edited and saved using the form as illustrated in Figure 52 and Figure 53.

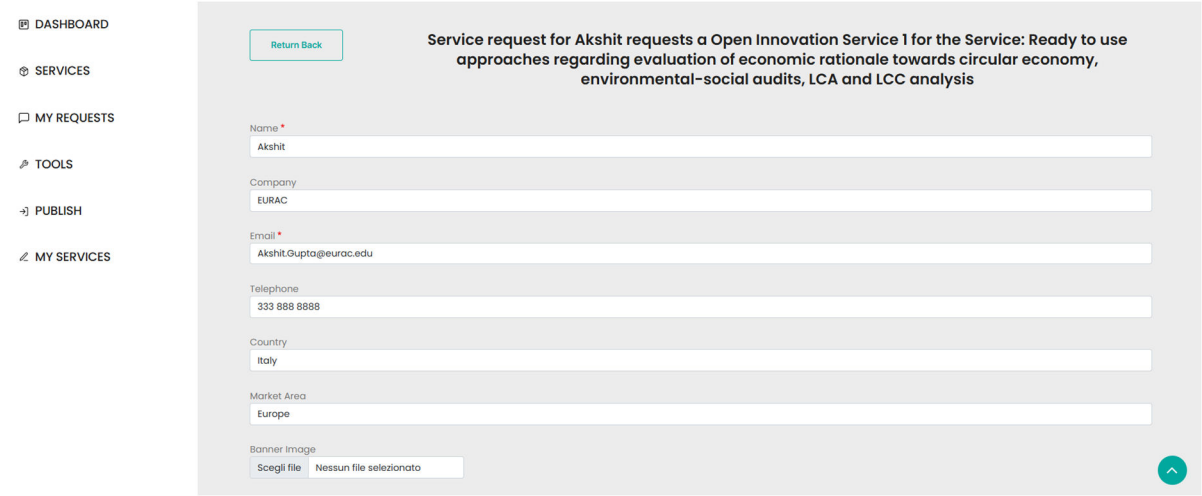

Figure 52. Editing of a Subscription Request (part 1)

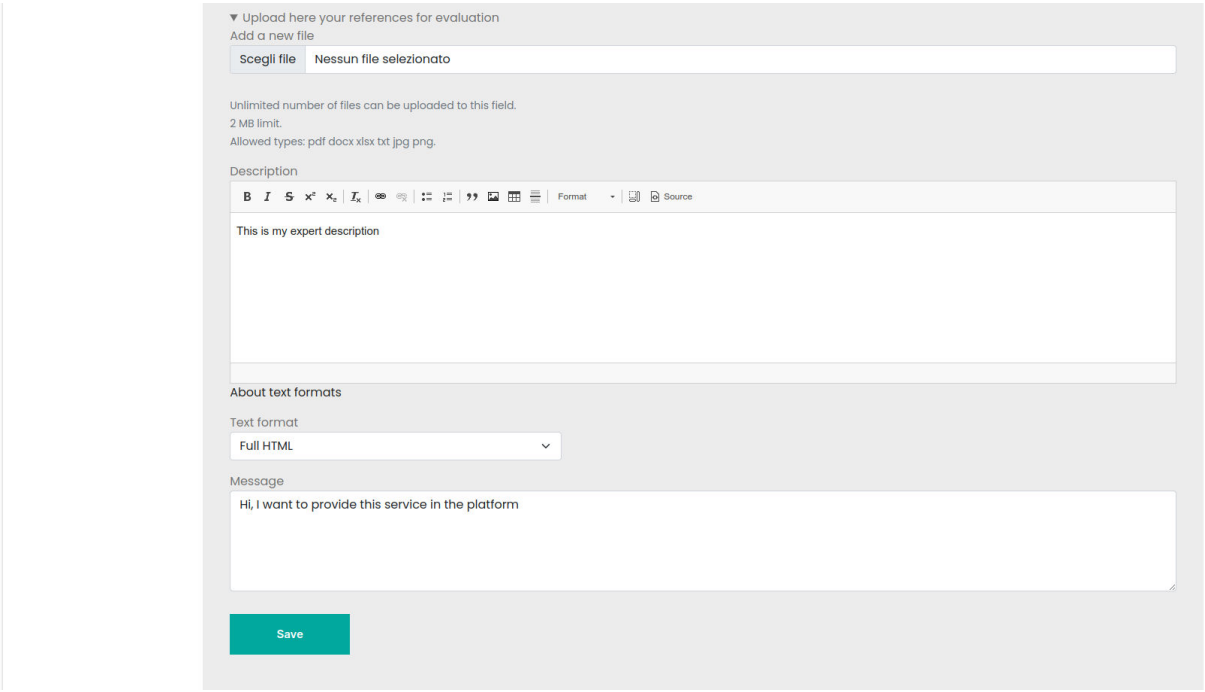

Figure 53. Editing of a Subscription Request (part 2)

3.7 Private area – PM&VL Leader

This category of users is interested in joining the platform to provide their testing line services. All features dedicated to this category of users will be described below. For features shared with Manufacturer and OIS Leader users there will be references to the previous section.

3.7.1 Services

This section is the same as described in 3.5.1 regarding the Manufacturer user type except that the Pilot Measurement and Verification Line (PM&VL) Leader user cannot send requests to other service providers.

3.7.2 My Requests

This section is very similar to the one described above regarding the Manufacturer user type. Here the PM&VL Leader can keep track of all the requests he received from the manufacturers.

In the detail page of a single request, it is possible to review the received message, see the input documents received from the manufacturer, send the output documents (test results, graphs, reports) and finally use the integrated messaging tool for quick and effective communication.

Please refer to 3.5.2 for further information.

3.7.3 Tools

This section is the same as the one described above regarding the Manufacturer user type. Please refer to 3.5.3.

3.7.4 Publish

This section is the same as the one described above regarding the OIS Leader user type. Please refer to 3.6.4.

3.7.5 My PM&VL

This section contains all the PM&VL Features managed by the PM&VL Leader. As previously described the features of a PM&VL are the individual tests that manufacturers can request. The concept of a PM&VL can be associated with the concept of a testing line, which includes a defined set of tests dedicated to one or more innovative product categories and pursues a specific testing objective. Manufacturers can choose one or more tests belonging to the same PM&VL or perform a combination of PM&VL tests depending on their needs. By clicking on the Detail Page button, it is possible to view all the information of the selected PM&VL Feature.

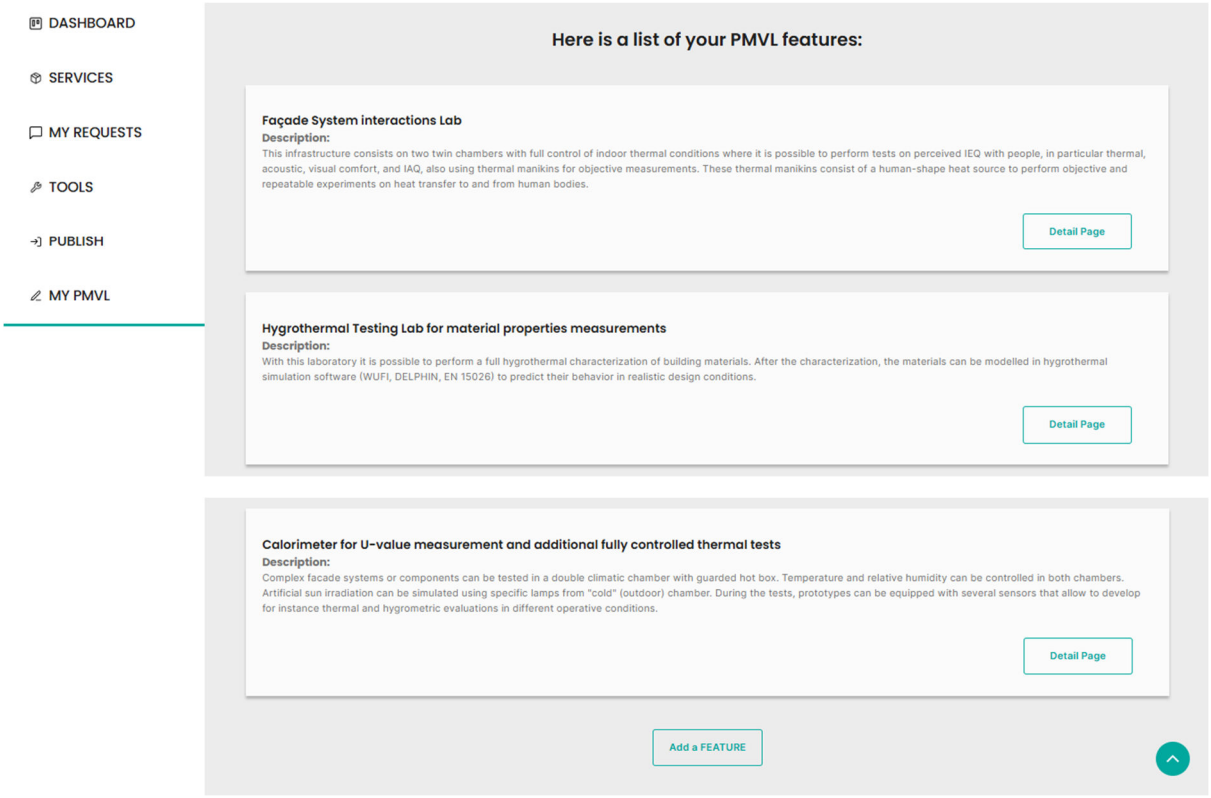

Figure 54. My PMVL Section

It is also possible to send a request for the creation of a new PM&VL Feature by clicking on the Add a FEATURE button (Figure 54). To add a new Feature, an initial title and description are mandatory and indicated with a * symbol (Figure 55). After the new Feature approval, the PM&VL Leader user can click on the Detail Page button in order to modify the related information included titles, descriptions and images (Figure 56).

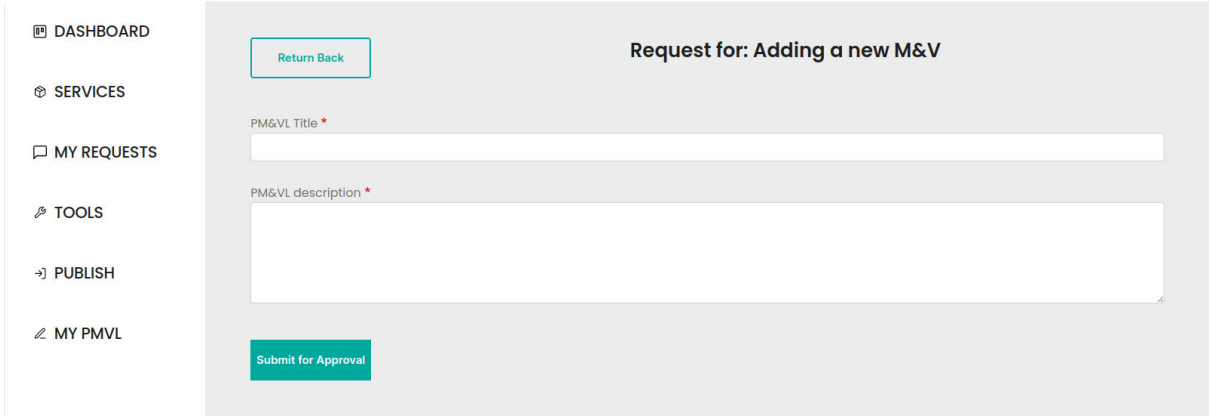

Figure 55. Request for Adding a New PMVL Feature

The MEZeroE Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953157

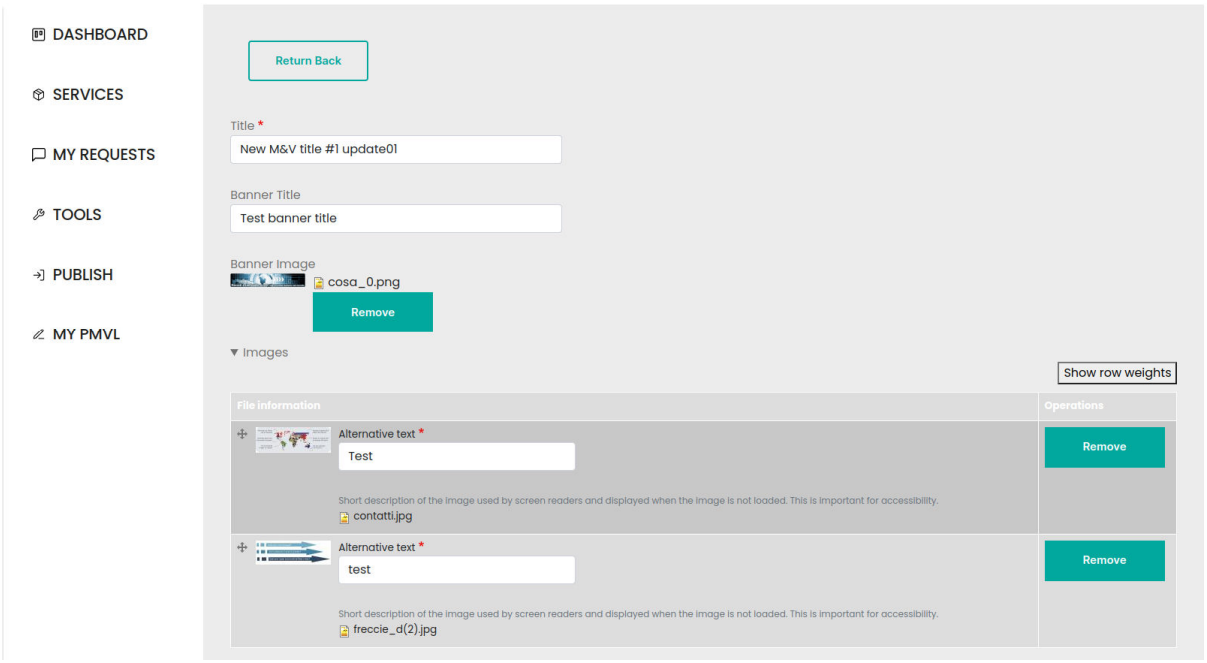

Figure 56. Editing a PMVL Feature

3.8 Private area – Living Lab Leader

This category of users is interested in joining the platform to provide their living laboratories services. All features dedicated to this category of users will be described below. For features shared with users there will be references to the previous section.

3.8.1 Services

This section is the same as described above regarding the Manufacturer user type except that the Living Lab Leader user cannot send requests to other service providers.

3.8.2 My Requests

This section is very similar to the one described above regarding the OIS Leader and PM&VL Leader user types. Here the Living Lab Leader can keep track of all the requests received from the manufacturers.

In the detail page of a single request, it is possible to review the received message, see the input documents received from the manufacturer, send the output documents (test results, graphs, advice) and finally use the integrated messaging tool for quick and effective communication.

Please refer to 3.5.2 for further information.

The MEZeroE Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953157

3.8.3 Tools

This section is the same as the one described above regarding the Manufacturer user type. Please refer to 3.5.3.

3.8.4 Publish

This section is the same as the one described above regarding the OIS Leader user type. Please refer to 3.5.4.

3.8.5 My LL

This section contains all the Living Laboratories managed by the Living Lab Leader. By clicking on the **Detail Page** button, it is possible to view all the information of the selected Living Laboratory. By clicking on the **Edit** button, it is possible to modify the information.

It is also possible to send a request for the creation of a new Living Laboratory by clicking on the **Add New LL** button (Figure 57).

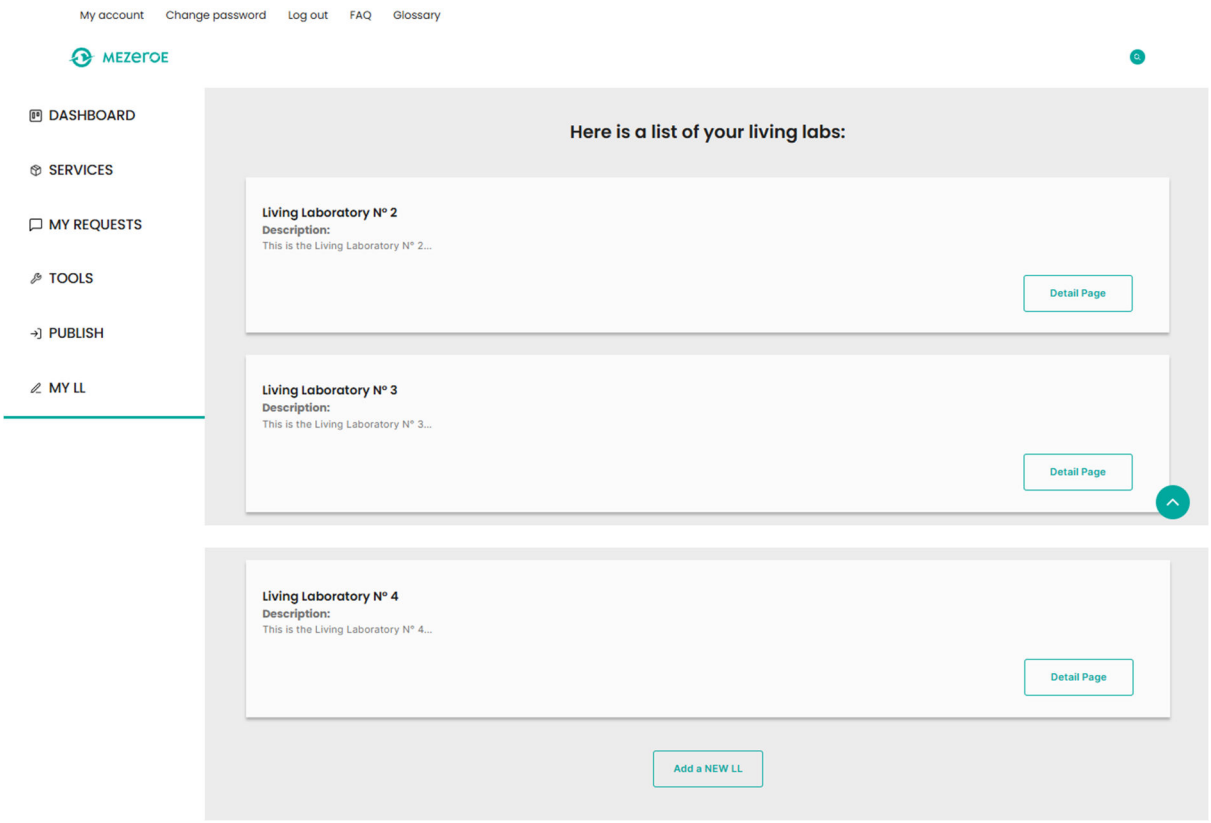

Figure 57. My LL Section

A new page pops up and requires the LL Title and Description as mandatory fields to be able to submit the request for approval by the platform managers (Figure 58).

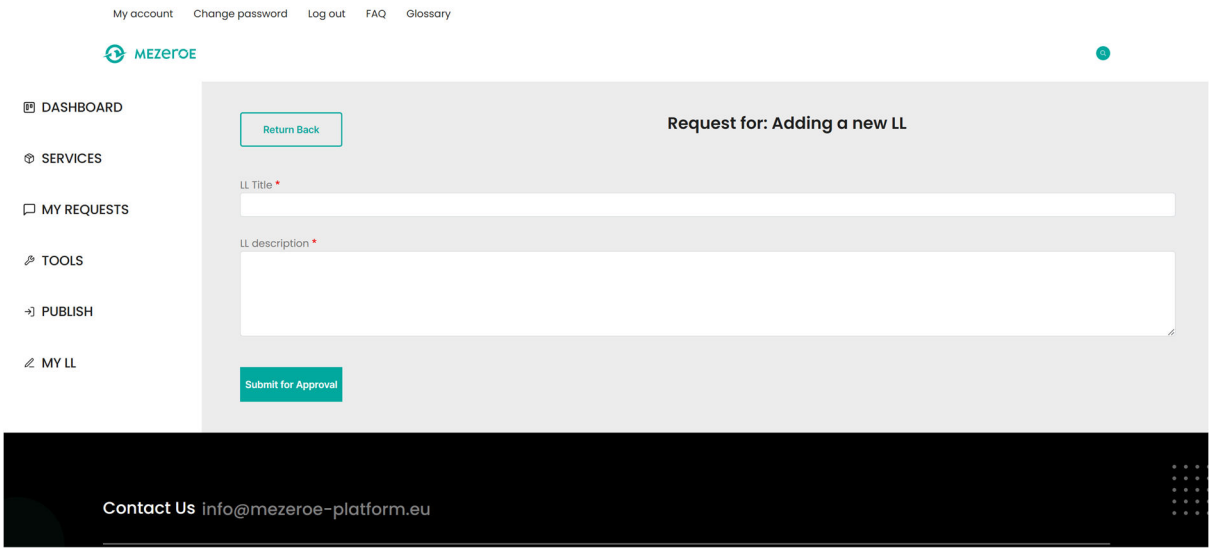

Figure 58. Request for adding a new LL

3.9 Private Area – Platform User

This category of users is interested in increasing their knowledge about the open innovation community and be part of the community as well, but do not fall under the categories above. Specifically, users who fall into this category may include ordinary citizens, public officials, legislators, investors and any other stakeholders interested in the world of open innovation and innovative products in the construction industry. All features dedicated to this category of users will be described below. For features shared with users there will be references to the previous section.

3.9.1 Services

This section is the same as described above regarding the Manufacturer user type except that the Platform User cannot send requests to other service providers. Please refer to 3.5.1.

3.9.2 Tools

This section is the same as the one described above regarding the Manufacturer user type. Please refer to 3.5.3.

3.9.3 Publish

This section is the same as the one described above regarding the OIS Expert user type. Please refer to 3.6.4.

4 Optimization and debugging after test and validation

The following section provides a detailed overview of the key enhancements, bug resolutions, and content additions implemented across the MEZeroE platform following some internal testing and validation sessions. These improvements address various aspects of the platform, from content presentation to user authentication and administrative control.

Key Platform Enhancements and Content Strategy:

- **Content Enrichment and Landing Pages:** The news section has been strategically populated with contributions from partner organizations, ensuring a dynamic and relevant content stream. Furthermore, dedicated landing pages have been developed for key initiatives, specifically targeting early adopters (Pellini and Focchi context) and promotional activities like the summer webinars, improving user engagement and platform adoption.
- **Homepage Optimization for Key Audiences:** The main homepage has been refined to be more compelling and targeted. A new, prominent section has been integrated to clearly articulate the unique benefits of the MEZeroE platform for both Manufacturers and Service Providers, making the value proposition immediate and clear.
- **Living Lab Section Deep Dive:** The Living Lab section, a critical component of the platform, has received several updates:
    - The Focchi Office building now features a comprehensive Identity Card, providing detailed technical specifications and context for this specific Living Lab.
    - A new mosaic section has been introduced to visually showcase all the diverse technologies and components currently installed and tested across the various living labs, offering a quick, visual overview of the technological scope.
- **Success Stories Expansion:** The dedicated Success Stories section has been updated with the addition of 17 new case studies. This substantial increase strengthens the platform's evidence base and provides users with a richer set of examples demonstrating the impact and effectiveness of the MEZeroE approach.
- **Tool Usability Improvements:** Icons have been integrated into the Envelope Package Configurator tool. This enhancement was introduced to improve the tool's visual clarity and overall user-friendliness.

User and Authentication System Upgrades:

- **User Profile and Authentication:** Critical user management functions have been implemented to enhance autonomy and security:
    - The capability to edit the email address associated with a user profile is now fully functional, offering users greater flexibility in managing their accounts.
    - The essential "forget password" feature has been successfully enabled, ensuring users can securely regain access to their accounts without administrative intervention.

- **New User Registration and CRM Integration:** Significantly, this registration process is fully integrated with the Customer Relationship Management (CRM) system, automatically adding the corresponding contact for efficient follow-up and relationship management and engagement.
- **Targeted User Mapping:** A specific user type, "Early Adopter user," has been created. This is used to accurately map and categorize users who register via the dedicated Early Adopters landing page, facilitating targeted communication and support.

Content Management and Administration:

- **Enhanced Publishing Capabilities:** The "Publish" section has been significantly optimized to offer granular content submission controls:
    - The ability to add new success stories has been enabled for all user roles *except* standard platform users, ensuring that only vetted contributors can submit these high-value items.
    - The functionality for image insertion into news items has been added, allowing for more visually engaging and informative news posts.
- **Administrative and Data Management:**
    - **User Data Export:** New functionality has been added to the administrative panel, enabling the export of user data, which is vital for reporting, analysis, and data compliance purposes.
- **Plugin and Module Installation for Governance:** Several governance and content management tools have been integrated:
    - The **iubenda plugin** has been installed to manage cookie consent and compliance, addressing crucial data privacy requirements.
    - The **Publish Content plugin** has been installed and configured, enabling highly granular management of the content publishing workflow.
    - The **Content Moderation module** has been installed and configured to establish a necessary workflow for reviewing and approving user-submitted or draft content before it goes live.
    - Dedicated **access credentials** have been created for a specific news manager role to streamline the news publishing workflow.

Bug Fixes for Stability and Accuracy:

- **Private Area Link Fix:** A bug affecting the links in the tips section of the private user area has been resolved. The links to the Services and Publish subsections now correctly direct users to the intended pages.
- **Detail Page Feature Display Fix:** A bug related to text display on the Detail Page Features (M&V - Monitoring & Verification) within the private area has been fixed. The system now

correctly displays the full description of the feature rather than just a summary, ensuring users have access to all necessary information.

5 Training Material

To support user adoption and platform engagement, a comprehensive set of training materials has been created. These materials are designed to guide users through the platform's features, services, and user workflows. The materials developed include live guided tours (webinars) and a formal document-based user manual.

5.1 Guided Tour Webinars

To provide an interactive demonstration of the digital platform, two live guided tour webinars were conducted:

- **Initial Session:** February 21, 2024 (Link HERE)
- **Webinar Replay:** August 26, 2025 (Link HERE)

Both webinars provided a comprehensive 45-minute guided tour of the MEZeroE platform, led by Alberto Pes (R2M) and introduced by project coordinator Francesco Babich (EURAC). The tour's stated goal was to explain the platform's role as an "Open Innovation Test Bed" designed to help new, innovative building envelope solutions bridge the "valley of death" and successfully reach the market.

They were recorded and are accessible for on-demand viewing on the project's YouTube channel, ensuring long-term access for all stakeholders. Figure 59 presents a screenshot capturing a moment from the webinar replay session, which was uploaded to YouTube on August 29, 2025.

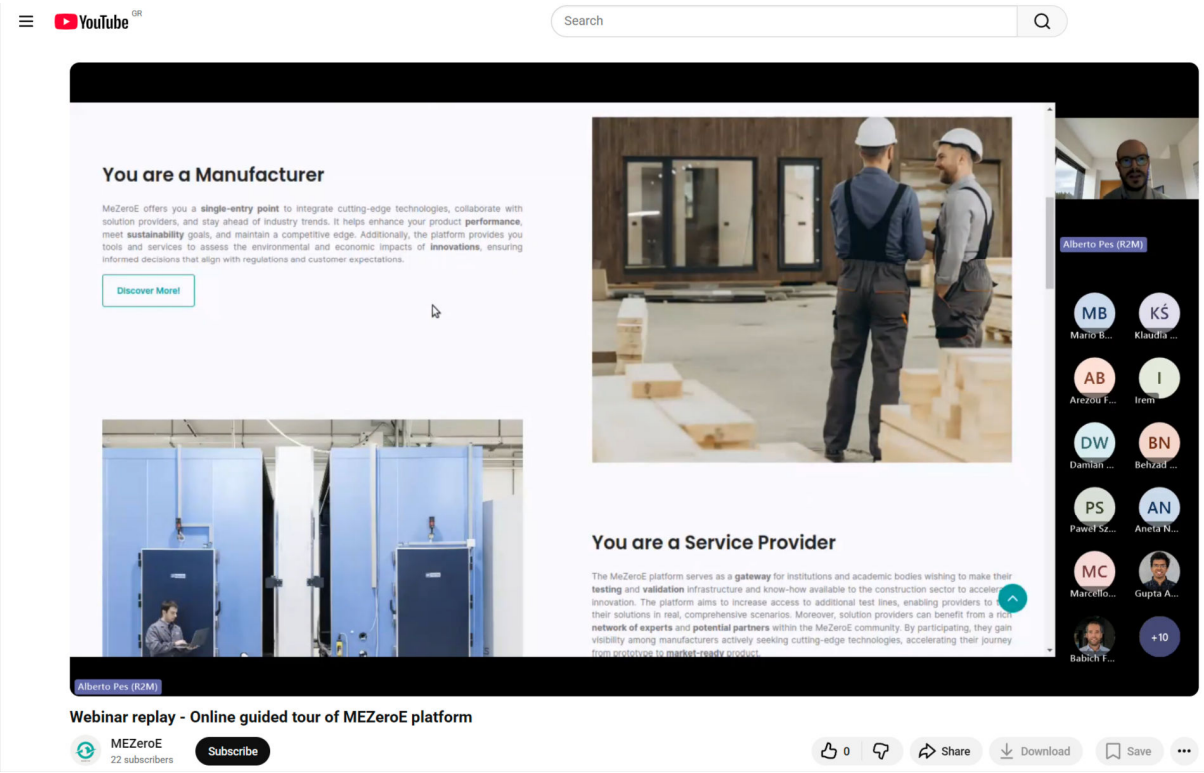

Figure 59: Screenshot from the MEZeroE Platform Webinar Replay

A link to the recording of this webinar is also available following the “Watch the recording!” button in the MEZeroE website. The webinar invitation was promoted via the MEZeroE website (see Figure 60) and social media.

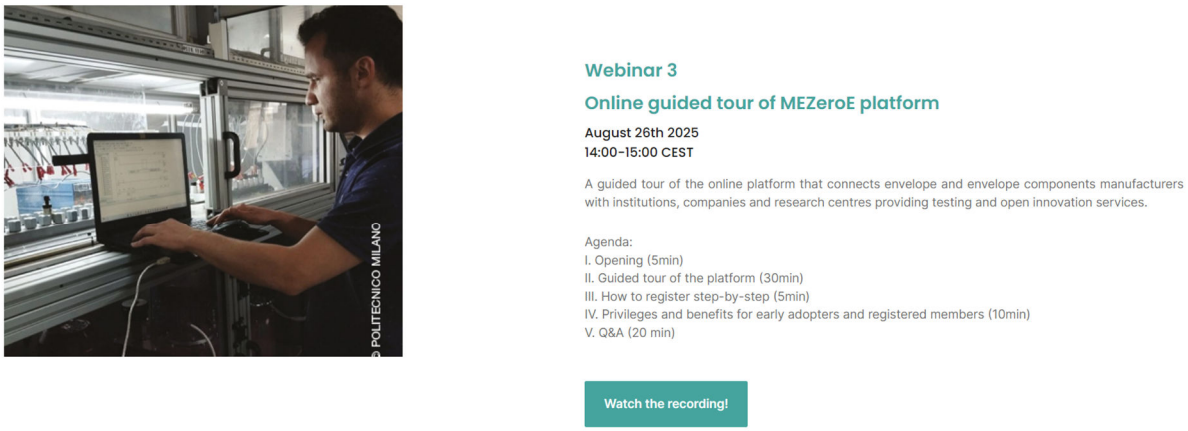

Figure 60: MEZeroE platform Webinar Invitation

The tour was structured into two main parts:

1. Public-Facing Platform Tour:
    a. Core Sections: A review of the three main public sections: Open Innovation, Measurement & Verification (M&V), and Living Laboratories.
    b. Service Catalogue: A demonstration of the nine "Pilot Measurement & Verification Lines" (PM&VLs) and the Open Innovation Services (OIS), including how to filter them.
    c. Validation: A review of the "Success Stories" section, which details past projects and validation results.

2. Private User-Only Platform Tour:
    a. Manufacturer Workflow: Showcased the dashboard for Manufacturers, demonstrating how to browse services, send a direct request to a service provider, track the status of requests, and exchange documents (like test reports).
    b. Service Provider Workflow: Showcased the dashboard for Service Providers, demonstrating how to receive and manage incoming requests, upload output documents, and manage their public-facing service profiles.

The webinar also highlighted the "Early Adopter" campaign and concluded with a Q&A session, which included collaboration requests from university students and professors.

5.2 Internal Training Sessions

Beyond the public-facing Guided Tour Webinars, internal training sessions (Figure 61 is meant to be a testimony) were held during project meetings to ensure the MEZeroE consortium partners were fully familiar with the platform's functionality and workflows. These sessions served as crucial internal testing and feedback loops, specifically focusing on platform usability and gathering partner insights to drive continuous improvement. A snapshot from the platform training session, held during the consortium meeting in Bilbao, Spain, is shown in the image below. This session took place on Tuesday, May 27th, 2025.

Figure 61: MEZeroE platform consortium internal training session

Key objectives of the internal training included:

- **Usability Testing:** Allowing different user-type representatives (e.g., future PM&VL Leaders, OIS Experts, and LL Leaders) to navigate the private area and execute their specific workflows (e.g., managing service profiles, reviewing incoming requests, uploading results).

- **Workflow Validation:** Confirming that the back-end processes, such as the request submission and fulfillment pathways for manufacturers and service providers, were operating as intended and logically structured.

- **Feedback Collection:** Systematically collecting feedback on interface design, terminology clarity, filter functionality, and any bugs or friction points encountered during use. This feedback was used for the list of Improvements and Bug Fixes outlined in Chapter **Error! Reference source not found.**.

These targeted internal sessions ensured the platform was robust, user-friendly, and aligned with the operational needs of the MEZeroE ecosystem providers before being heavily promoted to external stakeholders.

5.3 User Manual

In addition to the video tours, a comprehensive document user manual was created. The user manual provides a structured, step-by-step guide for all types of users interacting with the MEZeroE digital

platform: PM&VL Leaders, OIS Leaders, and Manufacturers. It explains how each user group can manage and personalize their profile (including updating photos, descriptions, and visual assets), how to propose or modify images associated with services or facilities, and how to respond to incoming requests from manufacturers. The manual also details the procedures manufacturers must follow to submit Open Innovation Service requests and Testing Line features requests. Finally, it includes instructions on how any user can propose news or events for publication on the platform. Overall, the document serves as a complete operational guide to ensure users can effectively manage their presence and activities within the MEZeroE ecosystem.

The user manual is available in the following link.

https://mezeroe-platform.eu/sites/default/files/2025-11/UserManual-v0.5.pdf

6 Success Stories (Best Practices)

The Success Stories on the MEZeroE platform consist of a curated collection of case studies that highlight testing, characterization, validation, and demonstration of advanced nearly-zero-energy building (nZEB) envelope technologies. Each story focuses on a specific product and describes the experimental setup, partners involved, and key findings from laboratory and real-life measurements (PM&VLs). These stories help illustrate how innovative building envelope components perform in terms of efficiency, durability, health, and multi-functional comfort, offering concrete evidence of technological readiness and value within the MEZeroE ecosystem.

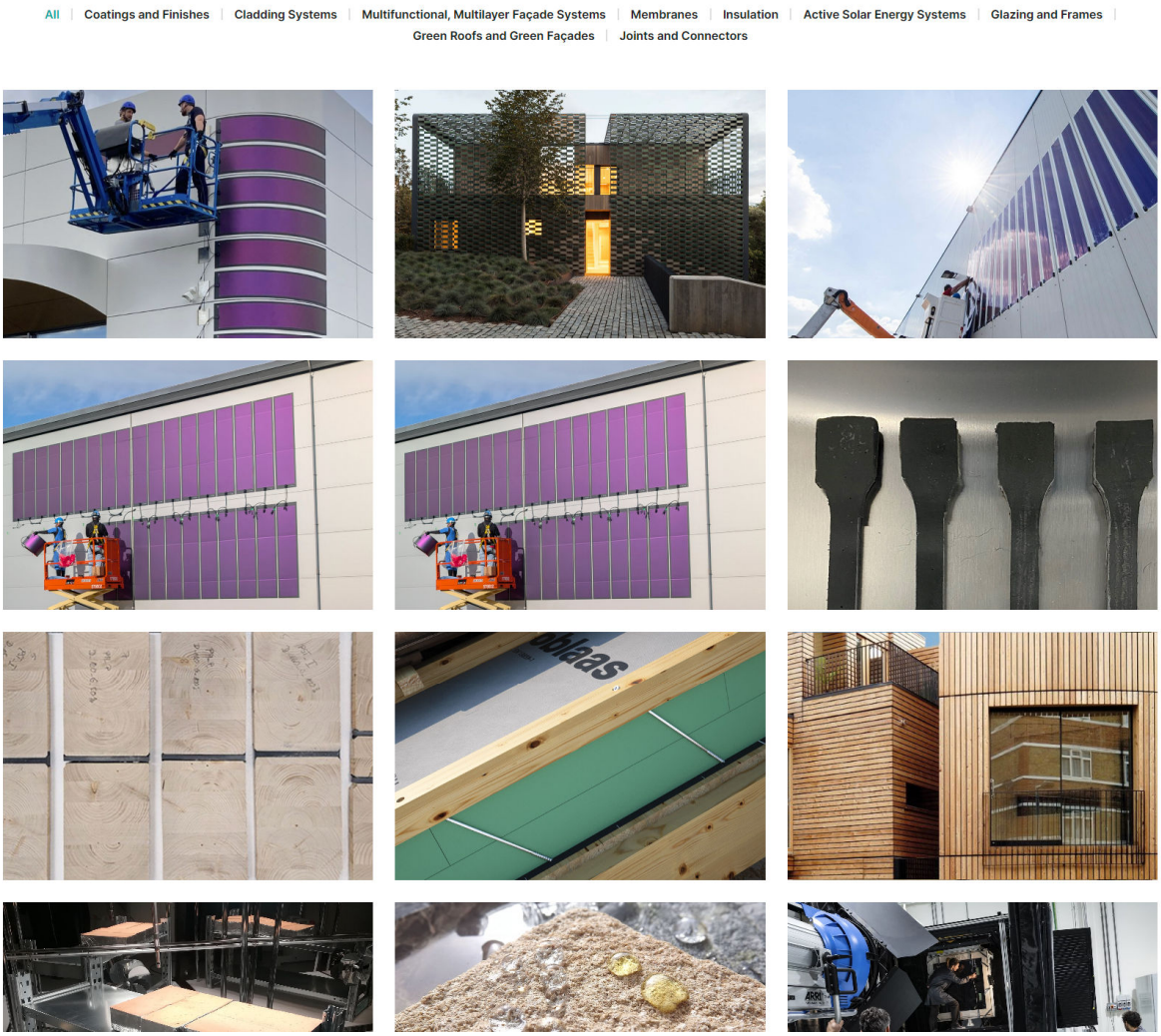

Figure 62. Success Stories

The platform displays a comprehensive list of these documented case studies, which demonstrate the value proposition of the MEZeroE ecosystem (Figure 62).

The MEZeroE Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953157

By providing concrete examples of how innovative nZEB Enabler Envelope Solutions (nEES) products have been tested, validated, and accelerated toward market readiness, success stories function as crucial instructional material and powerful motivation for new SMEs and manufacturers considering engagement.

6.1 Structure of a MEZeroE Success Story

The structure of a success story is highlighted below:

Title

The story begins with a clear and descriptive title that names the technology or product being tested (e.g., "Active multifunctional façade performances") (see Figure 63).

Figure 63. Success Stories – Detail page of a Success Story (Title)

About Experiment, Partner & Product

A section that introduces the industrial partner(s), the product under test, and what makes the product special or innovative. This describes the goal of testing and why this product is relevant to the nZEB (nearly zero energy building) context.

Measurement & Verification (M&V)

Specifies which **PM&VL** (Pilot Measurement & Verification Line) is used (e.g., PM&VL 2 or PM&VL 3).

Describes the scope of measurement: what properties are being tested (energy, thermal, mechanical, durability, etc.).

Partners

Lists the scientific partner(s) (e.g., research institutions) and industrial partner(s) involved in the test.

Names the “main author” of the story, usually from the scientific partner.

About

Keywords or tags that summarize the themes of the test, such as Efficiency, Health, Occupant Interaction, or Safety.

Detailed Info / Download

A “Detailed Info” section, often with a link to download a full report or a PDF with more data, see Figure 64 below.

Figure 64: Success stories - Detail page of a Success Story (In-depth information)

Design of Experiments

Description of how the experiments are conducted (see Figure 65). This includes the test setup, boundary conditions, sequences of tests (e.g., thermal cycling, UV exposure, mechanical stress), and methodology.

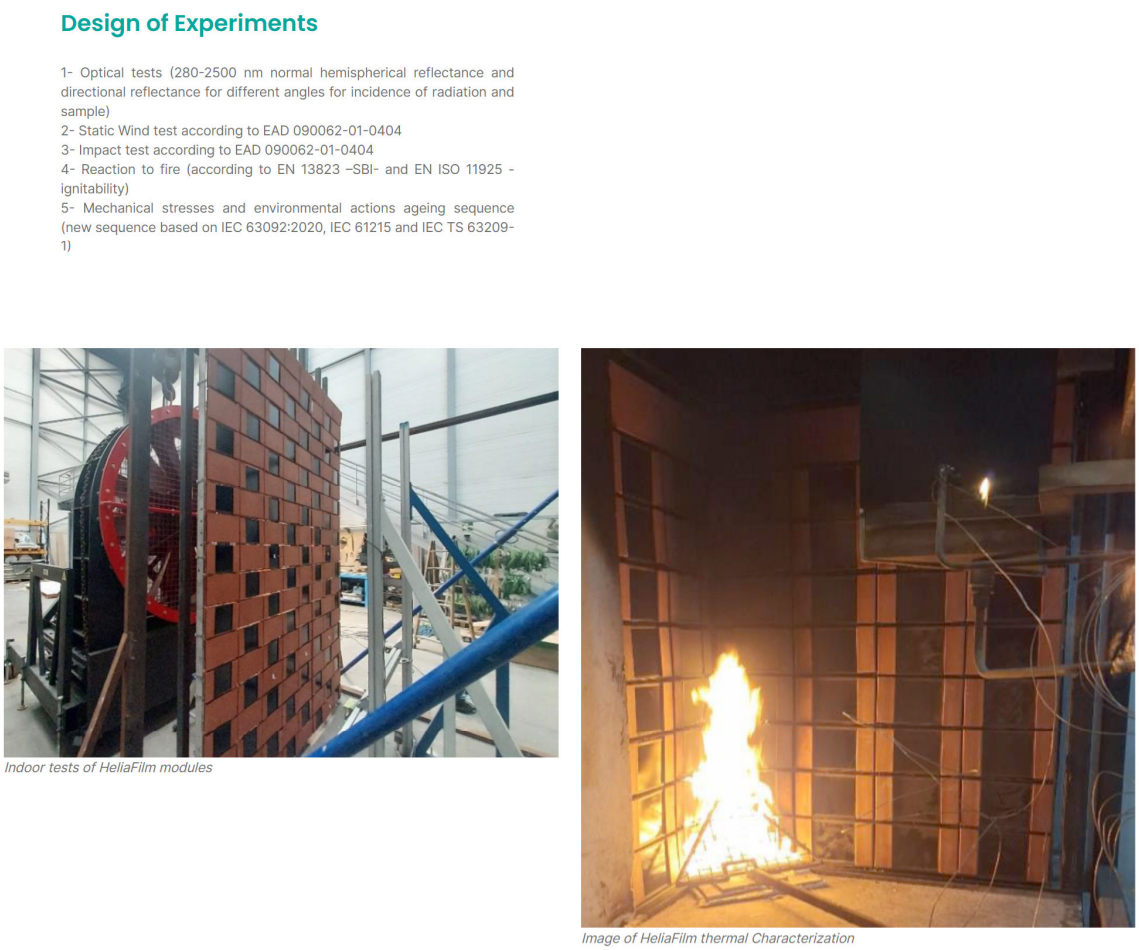

Figure 65: Success stories - Detail page of a Success Story (Design of Experiments)

Results

Presentation of key experimental outcomes as shown in Figure 66. This often includes tables, graphs, or numerical results that show performance changes, degradation, efficiency, or other measured metrics.

Quantitative findings (e.g., power loss %, reduction in solar gain, durability metrics) and sometimes comparison before/after testing.

Conclusion

A summary of the main insights derived from the tests: what performed well, what challenges were encountered, and possible next steps or improvements (see Figure 66).

Construction Segment

Specifies the category of building envelope this technology belongs to (e.g., “Coatings and Finishes”, “Active Solar Energy Systems”, “Membranes”).

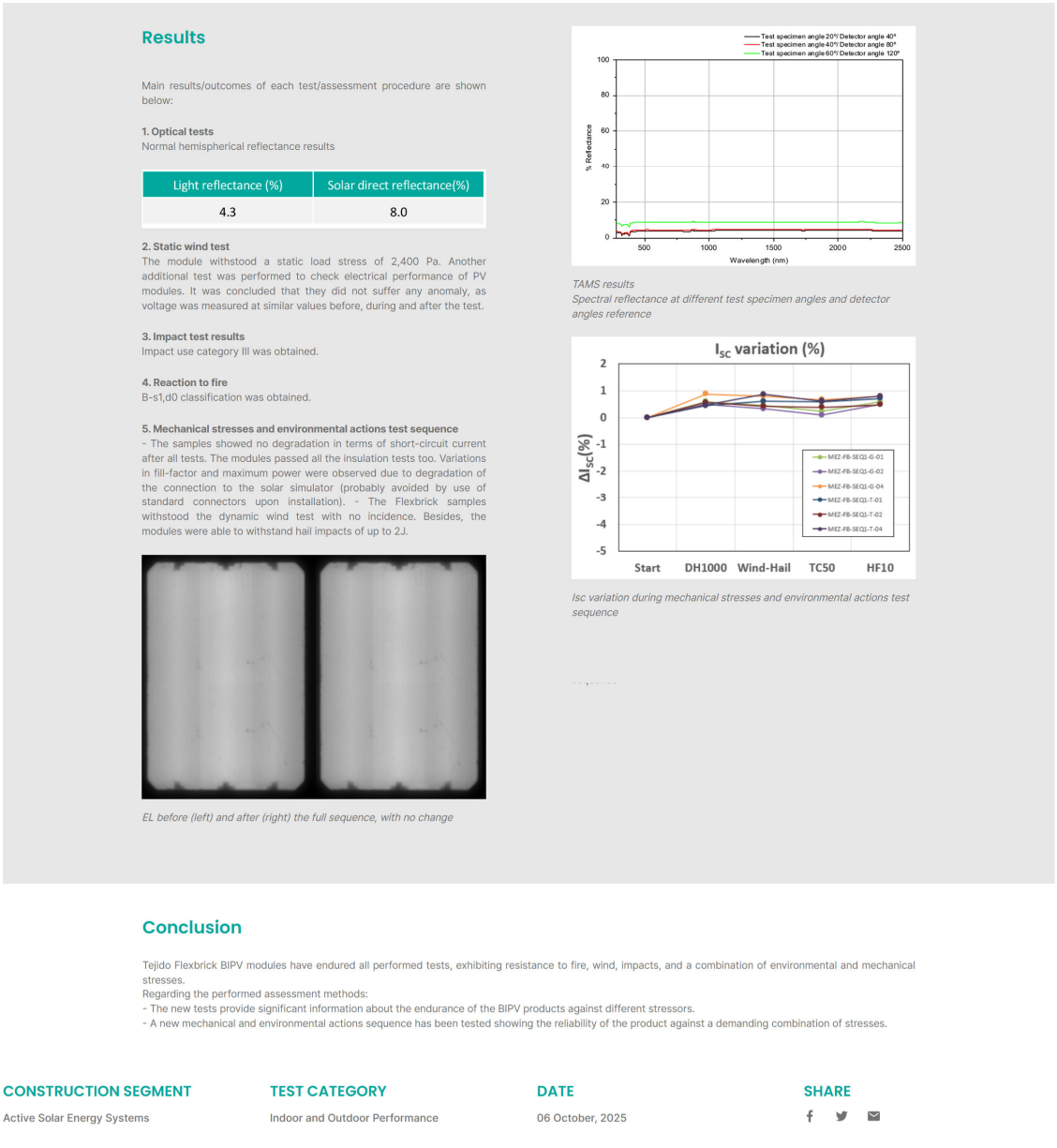

Figure 66: Success stories - Detail page of a Success Story (Results)

Test Category

Indicates the type of tests conducted, such as *Thermal*, *Mechanical*, *Durability*, *Energy Performance*, or *Indoor-Outdoor Performance*.

Date

The date when the success story was published or concluded.

Share / Social

A “Share” option, often for sharing the story via social media or email.

6.2 Stories uploaded to the platform

Each of the success stories uploaded to the platform are listed in the Table 1 below as a hyperlink to the corresponding page:

Table 1: Success stories in MEZeroE platform

Title	Link
Optical and energy performance measurements for a photovoltaic module for building envelopes	https://mezeroe-platform.eu/index.php/success-stories/optical-and-energy-performance-measurements-photovoltaic-module-building-envelopes
Stress test and energy performance characterization	https://mezeroe-platform.eu/index.php/success-stories/stress-test-and-energy-performance-characterization
Energy performance and characterization test	https://mezeroe-platform.eu/index.php/success-stories/energy-performance-and-characterization-test
New extended-stress sequential testing assessment of a building integrated photovoltaic construction system	https://mezeroe-platform.eu/index.php/success-stories/new-extended-stress-sequential-testing-assessment-building-integrated-photovoltaic

Measurements of Volatile Organic Compounds (VOC) emissions from polyurethane joints	https://mezeroe-platform.eu/index.php/success-stories/measurements-volatile-organic-compounds-voc-emissions-polyurethane-joints
Flexible structural connectors	https://mezeroe-platform.eu/index.php/success-stories/flexible-structural-connectors
DGZ screws for continuous connection of the insulation layer testing activity	https://mezeroe-platform.eu/index.php/success-stories/dgz-screws-continuous-connection-insulation-layer-testing-activity
Sustainable prefab wooden external cladding components	https://mezeroe-platform.eu/index.php/success-stories/sustainable-prefab-wooden-external-cladding-components
Assessment of formaldehyde removal by photocatalytic coating	https://mezeroe-platform.eu/index.php/success-stories/assessment-formaldehyde-removal-photocatalytic-coating
Testing nanoparticle-based coatings hygrothermal properties	https://mezeroe-platform.eu/index.php/success-stories/testing-nanoparticle-based-coatings-hygrothermal-properties
Testing heat barrier coating on a glazed surface	https://mezeroe-platform.eu/index.php/success-stories/testing-heat-barrier-coating-glazed-surface
Active multifunctional façade performances	https://mezeroe-platform.eu/index.php/success-stories/active-multifunctional-facade-performances
Mechanical, Durability, Acoustic tests and Thermal simulations of window frame	https://mezeroe-platform.eu/index.php/success-stories/mechanical-durability-acoustic-tests-and-thermal-simulations-window-frame

Mechanical and Durability tests and Thermal simulations of Indresmat sandwich panel	https://mezeroe-platform.eu/index.php/success-stories/mechanical-and-durability-tests-and-thermal-simulations-indresmat-sandwich-panel
Mechanical characterization of adhesive tape-membrane joints	https://mezeroe-platform.eu/index.php/success-stories/mechanical-characterization-adhesive-tape-membrane-joints
Mechanical tests and Durability to UV and heat of membranes	https://mezeroe-platform.eu/index.php/success-stories/mechanical-tests-and-durability-uv-and-heat-membranes
Durability of membranes and tapes connections to UV and heat	https://mezeroe-platform.eu/index.php/success-stories/durability-membranes-and-tapes-connections-uv-and-heat
Vapor control membrane performance assessment through hygrothermal sensor	https://mezeroe-platform.eu/index.php/success-stories/vapor-control-membrane-performance-assessment-through-hygrothermal-sensor
Hygrothermal monitoring of membranes with varying vapor resistance	https://mezeroe-platform.eu/index.php/success-stories/hygrothermal-monitoring-membranes-varying-vapor-resistance
Multifunctional Active Façade: Impact on Occupant IEQ Perception and Comfort	https://mezeroe-platform.eu/index.php/success-stories/multifunctional-active-facade-impact-occupant-ieq-perception-and-comfort
Thermal monitoring of a heat barrier treatment for glass surfaces	https://mezeroe-platform.eu/index.php/success-stories/thermal-monitoring-heat-barrier-treatment-glass-surfaces

7. Conclusion

This document provides a comprehensive feature guide and overview of the MEZeroE platform, which functions as a cutting-edge, EU-distributed open innovation ecosystem. The core objective has been to detail the platform's structure, functionality, and tailored workflows to ensure stakeholders, from innovative SMEs to RTOs and industry players, can fully leverage its capabilities to accelerate nearly Zero Energy Building (nZEB) Enabler Envelope Solution (nEES) prototypes to market.

The platform is structured into a **Public Area** and a **Private Area**. The Public Area serves as the initial access point, captivating potential users with a clear articulation of the MEZeroE mission, the benefits of engagement for manufacturers and service providers, and a showcase of the three fundamental service categories: Open Innovation (OIS), Measurement & Verification (PM&VLs), and Living Laboratories (LLs). This public-facing content is designed to inform, build trust through Success Stories, and drive registration.

The **Private Area**, accessible upon registration, is the operational core of the ecosystem. It enables dynamic matchmaking and service execution, with functionalities tailored to five distinct user types: **Manufacturer**, **OIS Leader**, **PM&VL Leader**, **LL Leader**, and **Platform User**.

The common sections are:

- *Services*, where it is possible to search and filter Open Innovation Services, Measurement and Verification Services (testing pilot lines) and Living Laboratories.
- *My Requests,* where manufacturers can retrieve the records of requests made and upload content or send messages to the service provider, while on the other hand the service provider can get the requests, upload report or test results and communicate with the customer.
- *Publish:* this section allows all user type to make request for publication of news, events, resources and success stories (restricted to Manufacturers).
- *Tools:* this section contains data visualization tools freely available in the platform. The first instance is the Envelope Package BIM Configurator, that displays the minimum required dataset to describe a BIM object for a given scenario of usage.

Tailored for each user type, there are sections that allow the management of the services by the providers:

- Services, this section has a different purpose to the OIS Leaders, as they can explore services they can enrol and become service providers.
- My Services: for the OIS Leader, this contains the list of services where the expert is subscribed and can then manage its subscription
- My PM&VL: for the PM&VL Leader, allows the creation of a new pilot line, a new feature or the editing of the existing ones.
- My LL: for the Living Laboratory Leader, allows the creation or the editing of Living Laboratories listed in the platform.

A set of training materials, including two Guided Tour Webinars, consortium training sessions and a detailed User Manual, have been developed and disseminated to ensure immediate and effective platform adoption across all stakeholder groups. These resources explain complex workflows, such as the manufacturer's journey from service discovery to request submission and the provider's fulfilment process, making the open innovation process transparent and accessible.

The MEZeroE Success Stories validate the platform's value. They demonstrate successful testing and characterization of nEES products using the OIS, PM&VL, and Living Lab services, building credibility and providing best practice guidance. These stories, continuously accumulated through the 'Publish' feature, transform the platform into a vital knowledge repository, inspiring manufacturers and accelerating the adoption of nZEB solutions across Europe.

Moving forward, continuous effort will be placed on improving the MEZeroE platform. This includes performing more validation and training activities, implementing ongoing improvements based on user feedback, and expanding the training materials. The **Success Stories** section will also be continually enriched with new examples to showcase best practices and the results achieved by nearly Zero Energy Building (nZEB) Enabler Envelope Solutions (nEES) brought to market through the MEZeroE ecosystem.