

# D6.12 – Training plan and report (2nd version)

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**DATE: JUNE 2025** 









# **Technical References**

Project Acronym	BIO4EEB
Project Title	BIO insulation materials for Enhancing the Energy performance of Buildings
Project Coordinator	3L
Project Duration	48 months

Deliverable No.	D6.12
Dissemination level <sup>1</sup>	PU
Work Package	WP6
Task	Subtask 6.3.4
Lead Beneficiary	EBC
Contributing Beneficiaries	R2M, AIMPLAS, Sophia, INDRESMAT, INDRE, GOYER
Due date of deliverable	30 JUNE 2025 (M30)
Actual submission date	

<sup>&</sup>lt;sup>1</sup> PU – Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page)
SEN – Sensitive, limited under the conditions of the grant agreement

Classified R-UE/EU-R - EU RESTRICTED under the commission Decision No2015/444

Classified C-UE/EU-C – EU CONFIDENTIAL under the commission Decision No2015/444

Classified S-UE/EU-S – EU SECRET under the commission Decision No2015/444



# **Document history**

V	Date	Author (Beneficiary)	Description
V0.1	10/05/2025	G. Signoretto (EBC)	Table of Content (ToC)
V0.2	13/05/2025	G. Signoretto (EBC)	First draft
V0.3	05/06/2025	G. Signoretto (EBC)	Second draft
V0.4	10/06/2025	G. Signoretto (EBC)	Partners input integration into second draft
V0.5	13/06/2025	M. Maktabifard (R2M) & FS. Jiménez (EBC)	Second draft for review
V0.6	19/06/2025	G. Signoretto (EBC) & M. Maktabifard (R2M)	Final draft to internal reviewers
V0.7	23/06/2025	G. Signoretto (EBC)	Final version to Coordinator



# **Executive Summary**

This report presents Deliverable 6.12 – Training Plan and Report (2nd Version) (D6.12), the second in a series of three documents developed as part of the BIO4EEB project under Work Package 6. The focus of this deliverable is to support the use of bio-based thermal insulation materials in the construction sector through practical and accessible training.

D6.12 builds on the work done in D6.11, further developing the BIO4EEB training framework aimed at construction professionals, energy efficiency experts, and small and medium-sized enterprises (SMEs). It aims to improve understanding and skills related to bio-based building solutions, helping the sector move towards more sustainable practices. This version updates the training materials first introduced in D6.11. It includes improved resources such as videos and PowerPoints that are better aligned with industry needs.

The deliverable has been developed with input from partners R2M, EBC, SOPHIA, AIMPLAS, INDRE, and GOYER. The goal is to create easy-to-follow materials that help explain the benefits and use of bio-based materials in construction, supporting wider adoption across the industry.

D6.12 continues to lay the groundwork for a more sustainable approach to building and energy use. It is part of a larger effort to ensure the BIO4EEB training programme evolves in line with industry developments and practical experience. The final deliverable in this series, D6.13, is due in M42 (June 2026). It will build on both earlier versions, incorporating further feedback and offering more in-depth training content to complete the programme.

# **Disclaimer**

BIO4EEB is Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them.





# **Abbreviations and Acronyms**

Abbreviation*	Description
EBC	The European Builders Confederation
SMEs	Small and Medium Enterprises
PLA	Polylactic Acid
nZEB	Near Zero-Energy Building
OITBs	Open Innovation Test Beds
Deliverable 2.3– Socio- economic assessment and end users' segmentation	D2.3
Derivable 4.1 - Demo-cases contextualisation report	D4.1
Derivable 6.6–Plan for dissemination and exploitation report	D6.6
Deliverable 6.11-Training plan and report (1st version)	D6.11
Deliverable 6.12-Training plan and report (2nd version)	D6.12
WP6 – Dissemination and communication	WP6

\*The text of this deliverable contains a lot of abbreviations and acronyms. For practical reasons most of them are explained and described directly below in the text.



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### 1 Introduction

### 1.1 Background

Deliverable 6.12, situated within Work package WP6 – Dissemination and communication (WP6) of the BIO4EEB project and supported by the European Commission under the Horizon Europe programme, is dedicated to developing a comprehensive training program under Subtask 6.3.4. Training. This deliverable focuses on transforming the extensive body of knowledge produced by the BIO4EEB project into actionable, user-friendly training materials. These materials are designed to promote the adoption and effective application of bio-based building materials, specifically those related to Posidonia-related insulation elements, addressing the urgent need for sustainable building practices.

### 1.2 Aims and objectives

The main objective of D6.12 is to catalyse a shift towards bio-based building materials to mitigate the impact of the current shortage in traditional insulation materials, a situation intensified by the energy crisis linked to the Russia-Ukraine war. The deliverable aims to equip stakeholders, particularly SMEs in the construction sector, with the knowledge and the tools, necessary to implement bio-based building solutions efficiently and sustainably.

### 1.3 Structure and Content of the Training Program

- Module Development: The training modules will detail the properties and advantages of biobased building materials, showcasing their application techniques and compliance with environmental standards. This will include the creation of short explanatory YouTube videos, guidelines and PowerPoints developed by BIO4EEB partners SOPHIA, AIMPLAS, INDRE, and GOYER leading the research and testing tasks of the project.
- Practical Applications: training sessions will be conducted to demonstrate the practical
  application of bio-based building materials in diverse environmental and architectural
  contexts. These sessions will be part of three physical information days organized across
  strategic EU countries.

## 1.4 Implementation Strategy

The training program will initially be tested among BIO4EEB project partners to refine methodologies and content based on direct feedback. Following successful internal testing, the refined training program will be extended to a broader audience throughout Europe, leveraging established networks and partnerships.

### 1.5 Evaluation and Future Adaptations

Feedback mechanisms and performance assessments will be integral throughout the training sessions to monitor and evaluate the effectiveness of the training modules. This continuous evaluation will inform necessary updates and adaptations to the training content, ensuring it remains aligned with the latest developments in bio-based building technologies and the evolving needs of the industry.





# 2 Introduction of the BIO4EEB technology

The training is designed to empower key industry stakeholders, enabling them to leverage biobased building solutions efficiently. Partners SOPHIA, AIMPLAS, INDRE, and GOYER will collaborate to produce a diverse range of training materials, including digital content and printed resources, to ensure comprehensive coverage and accessibility.

#### 1. Bio-based building Materials and Components:

- Posidonia Panels and Fibers: Utilized as core materials for insulation, these panels are made from the Posidonia oceanic seagrass, known for its natural insulation properties.
- Complex Polyelectrolytes (PECs) and Bio-Polyurethane: Developed for use in bio-based windows and as sprayable foam, offering improved insulation and reduced environmental impact compared to conventional materials.
- Prefabricated Façade Elements: These incorporate various bio-based materials to provide modular, easy-to-install solutions for building renovations.

#### 2. Digital and Analytical Tools:

- BIM (Building Information Modelling) Tools: Enhanced to support Circular BIM (C-BIM)
  practices, these tools help in planning and visualizing the construction process,
  integrating material circularity into the design and execution stages.
- Al and Blockchain Technologies: Used for robust identification and traceability of materials, ensuring the authenticity and quality of bio-based materials throughout the supply chain.
- Software Tools and Databases: Developed to support the analysis and decision-making processes related to material selection, building performance, and project management.

#### 3. Demonstrative and Validation Tools:

- Real and Virtual Demonstration Sites: Employed to test and showcase the practical application of developed materials and technologies in real-life settings and simulated environments.
- Analytical Instruments and Testing Rigs: Used for characterizing the thermal, mechanical, and fire-retardant properties of insulation materials; instruments like Thermogravimetric Analysis (TGA), Fourier-Transform Infrared Spectroscopy (FTIR), and mechanical testing setups are crucial for this purpose.



Figure 1-3D model of Lithuanian demo site







Figure 2- Extract of the 3D scan - French demo-site



Figure 3- Bio-based PUR formulation spraying



Figure 4- bio-based polyurethane window prototype

# 3 Analysis of the Target Audience

As already stated in D6.11, the training program is specifically tailored for a diverse group of stakeholders, including designers and architects, building material manufacturers and testing facilities, contractors and construction companies, public and scientific community, and researchers. These participants have been chosen due to their pivotal roles in the construction industry and their ability to directly influence and facilitate the adoption of bio-based building technologies.





Utilizing insights from a comprehensive stakeholder analysis previously conducted under WP6 in *D6.6–Plan for dissemination and exploitation report*; under WP2 in *D2.3 – Socio-economic assessment and end users' segmentation*; and under WP4 in *D4.1 - Demo-cases contextualisation report*; the training aims to equip these key groups with the knowledge and skills necessary to implement BIO4EEB solutions effectively. This prior analysis helps ensure that the content is highly relevant and directly addresses the specific needs and interests of each group.

### 3.1 Target audiences and key stakeholders

Based on D6.6, this section will expand upon the preliminary analysis of target groups by integrating insights from the detailed categorization of stakeholders identified in the original document. Here, the focus would be specifically on practitioners and SMEs within the construction sector, ensuring the training content and engagement strategies are directly applicable to their needs:

- Designers and Architects: For practitioners in design and architecture, BIO4EEB will
  demonstrate the practicality and environmental benefits of its products, enhancing their
  ability to incorporate sustainable materials in their projects.
- Building Material Manufacturers & Testing Facilities: BIO4EEB will work with SME manufacturers to foster the development and testing of bio-based building materials, highlighting their advantages in terms of performance and sustainability. This will support SMEs in adopting new materials that meet market needs and regulatory standards.
- Contractors and Construction Companies: The project will showcase how BIO4EEB innovations can be seamlessly integrated into current construction practices, emphasizing the operational and cost benefits for SMEs in the sector.
- Scientific Community and Researchers: Engaging with this group will be focused on collaborations that enable continuous improvement and innovation within SMEs practices. BIO4EEB will share insights on the sustainability indicators of construction products, facilitating research collaborations that can lead to advanced solutions suitable for SMEs adoption.
- Public, Community, and Civic Society: Although not the primary focus, engaging with
  the broader community will help practitioners and SMEs understand the societal demand
  and support for sustainable construction practices. BIO4EEB will highlight the long-term
  safety, affordability, and energy efficiency benefits of bio-based building materials.

# 3.2 Enhancing Stakeholder Engagement through Targeted Strategies

Steaming from insights from D6.6 and D4.1, this part will delve into understanding the motivations behind stakeholder actions and decisions, which is crucial for customizing engagement approaches. Stakeholders are driven by a variety of factors including economic benefits, regulatory compliance, social impact, environmental awareness and technological advancements.





#### **Targeted Engagement Strategies:**

- Regulatory Influencers: BIO4EEB will emphasize the project's alignment with new environmental regulations and potential for setting industry standards.
- Economic Actors: BIO4EEB will focus on the economic analysis of adopting bio-based materials, showcasing cost benefits and long-term savings.
- Community Advocates: BIO4EEB will highlight the environmental and social improvements the project brings, enhancing community well-being and ecological sustainability.
- Industry Innovators: BIO4EEB will present opportunities for adopting cutting-edge technologies and developing new products that open additional market opportunities.

#### **Specific Strategies:**

- Designers and Architects: BIO4EEB will focus on the integration and benefits of bio-based building materials within sustainable architectural designs.
- Building Material Manufacturers & Testing Facilities: BIO4EEB will provide in-depth knowledge about production processes, quality control, life cycle impacts of each developed solution and compliance with sustainability standards.
- Contractors and Construction Companies: BIO4EEB will show practical installation techniques and project management skills specific to bio-based building materials.

By aligning the stakeholder engagement strategies with detailed analysis of needs and training requirements, the project ensures that all parties are not only well-informed but also actively involved in promoting the adoption of sustainable building practices. This comprehensive approach guarantees that the training delivered is not only relevant but also practical, fostering a collaborative environment conducive to innovative and sustainable industry advancements.

# 4 Analysis of Training Needs

As already stated in D6.11, a significant component of the stakeholder engagement strategy revolves around targeting and educating distinct segments of the target audience, based on the detailed stakeholder analysis previously conducted under WP6. The training will thus be designed to meet the specific needs and bridge the knowledge gaps identified for various professional groups that are crucial in the application and advocacy of the BIO4EEB project's bio-based building innovations.

The focus is on equipping each group with tailored knowledge and skills that align with their professional roles and influence over the adoption of new technologies. Designers and Architects are provided with insights into the design integration of bio-based building materials, emphasizing the aesthetic and functional benefits. Material manufacturers are educated on production processes and quality control to enhance the standard and compliance of bio-based building materials. Construction entrepreneurs and workers receive training on practical installation techniques and site management to ensure effective implementation. Scientific





Community and Researchers delve into detailed scientific data and potential research areas to foster innovation within the sector.

This approach ensures that each stakeholder group is engaged effectively according to their capacity to influence and utilize BIO4EEB technologies, making the dissemination of the training, both strategic and impactful. The methods employed include feedback from pilot projects, consultations with experts, and adherence to industry standards, allowing the training to be dynamic and responsive to the needs and insights of the industry stakeholders. This ensures that the training is comprehensive, up-to-date, and directly beneficial for all participants, fostering a broad acceptance and successful integration of bio-based solutions in the market.

# 5 Scope Training Program and Modules

The training program developed for D6.12 of the BIO4EEB project is structured into modular segments, each focusing on specific tools and techniques that have been developed as part of the BIO4EEB solutions. The modular design of the training program ensures that each unit can stand alone, allowing participants the flexibility to select topics that are most relevant to their needs, while still maintaining a cohesive curriculum that builds a comprehensive understanding of bio-based building materials.

Each module is crafted to cover different aspects of the BIO4EEB technologies—from the basic properties and benefits of bio-based building materials to advanced installation techniques, compliance with environmental standards, and integration into existing legal and market frameworks. The delivery method for each module varies to best suit the content and target audience, incorporating a mix of lectures, workshops, and digital resources, such as interactive webinars and instructional videos. This approach ensures that learning outcomes are maximized, providing participants with a practical understanding of how to apply these innovative solutions within their own work environments, thus promoting the effective and widespread adoption of bio-based building solutions. The training will be delivered through a combination of in-room and web-based formats to accommodate a broader audience and ensure interactive participation.

During this period, we decided to merge the originally separate Modules C (Comprehensive Guide to Bio-Based Materials and BIO4EEB Technology) and D (Practical Applications and Pilot Projects) into a single, integrated training module to ensure a more coherent and effective learning experience for participants. Given the intrinsic link between the development of bio-based materials and their application in real-life construction scenarios, it was both logical and beneficial to present these aspects together. Combining the theoretical foundation with practical demonstrations allows participants to directly connect the material properties, technical solutions, and environmental benefits of BIO4EEB innovations with their implementation in pilot projects across Europe. This integrated approach supports a more holistic understanding of the BIO4EEB value chain—from material development to installation and performance evaluation—while avoiding redundancy and compartmentalization. This structure is particularly valuable for training stakeholders who require both conceptual insights and practical competence, such as





building professionals, policymakers, and educators involved in sustainable construction practices.

All training materials, including PowerPoint presentations, recorded demonstrations, videos, and visual content from pilot projects, will be made available under Resources tab on BIO4EEB website. A training section has been created specifically to present the BIO4EEB training programme (Figure 5).

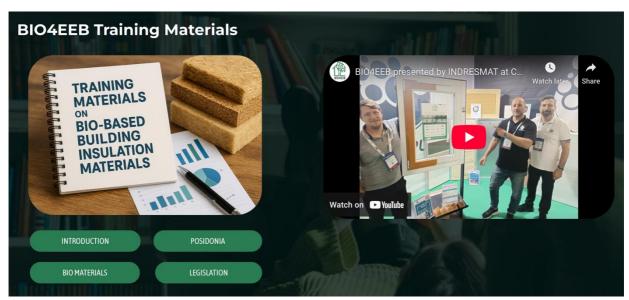


Figure 5 - BIO4EEB training materials disseminated on the website

As presented in Figure 5, and at the time of writing this report, the following materials has been made available to public audience on our website:

- Introduction to BIO4EEB (link here)
- Posidonia panels by Sophia & Starcell (<u>link here</u>)
- Bio-materiasl by AIMPLAS (link here)
- Legislative framework by EBC (<u>link here</u>)

Furthermore, a recording of BIO4EEB presented by INDRESMAT at Construmat 2025 is made available on BIO4EEB YouTube channel and Website (link here).

#### **Training modules:**

a) Module A: Introduction to BIO4EEB and Sustainable Building Materials Objective: Introduce the BIO4EEB project, its goals, and the importance of bio-based building materials in sustainable construction.

#### Material prepared by R2M and EBC:

 PowerPoint presentation providing an overview of the BIO4EEB project and the main trends on bio-based building materials in the EU (link here).





This presentation provides an overview of the BIO4EEB project, which is focused on transforming the European building and construction sector through the application of innovative, bio-based materials. The project seeks to support exceptional performance at the building, component, and material levels, primarily using sustainable resources such as Posidonia and various bio-based foams. The slides outline the project's scope, mission, and objectives, which include developing cost-effective insulation materials, enhancing building envelopes, and demonstrating circular economy practices through real-world case studies across several EU countries. Notably, the project addresses both technical and socio-economic challenges, advocating for policy support, industry engagement, and increased stakeholder awareness. Several pilot demonstrations and public outreach events across Europe illustrate its practical application and community engagement efforts. The aim is to enhance energy efficiency, reduce environmental impact, and strengthen the market viability of bio-based construction solutions.

#### b) Module B: Legislative Framework

Objective: Educate participants on the international legislative and regulatory frameworks that govern the use of bio-based building materials in the construction industry, specifically focusing on the directives and initiatives related to the BIO4EEB project. This module aims to ensure participants understand how to navigate and comply with these regulations, thereby promoting sustainable construction practices and contributing to the EU's energy efficiency and environmental goals.

#### **SPECIFIC SESSIONS:**

- European Green Deal and the Renovation Wave:
- Energy Performance of Buildings Directive (EPBD) (2010/31/EU, revised in 2024):
- Energy Efficiency Directive (EED) (revised in 2023):
- <u>EU Taxonomy Regulation:</u>

#### Material prepared by EBC:

• PowerPoint presentation providing an overview of the Legislative Framework (<u>link</u> here).

This presentation focuses on the legislative and regulatory context relevant to the BIO4EEB project, offering insight into how its aims align with major EU policies and directives. It begins by referencing the European Green Deal and the Renovation Wave initiative, highlighting how BIO4EEB supports these ambitions through energy-efficient renovation and circular economy practices. The slides examine key legislation, such as the Energy Performance of Buildings Directive (EPBD), the Energy Efficiency Directive (EED), the EU Taxonomy Regulation, and the Construction Products Regulation (CPR). Each policy is analysed in terms of its relevance to sustainable construction, the promotion of bio-based materials, and the regulatory mechanisms enabling their market access, such as European Technical Assessments (ETAs). The presentation is designed to contextualise BIO4EEB's technical work within a broader European legal framework, ensuring compliance and facilitating the project's contribution to a climate-neutral and resource-efficient built environment.



# c) Module C: Bio-Based Materials, Technologies, and Practical Demonstrations in BIO4EEB

**Objective:** Equip participants with a comprehensive understanding of bio-based building materials and technologies developed within the BIO4EEB project, including their environmental benefits, technical characteristics, and practical application in real-world settings through pilot demonstrations.

Material prepared:

#### 1. PowerPoint created by AMPLIAS (<u>link here</u>):

The PowerPoint presentation contains a general introduction to the BIO4EEB project, as well as the biomaterials and some examples of them. Following this, the presentation focuses on the materials developed in the project. Specifically, it delves deeper into the materials developed at AIMPLAS, which include PEC-based coatings and PLA-based foams, explaining their development and results.

#### 2. Video created by INDERSMART (<u>link here</u>):

As part of the BIO4EEB project's training and dissemination actions, INDRESMAT participated in Construmat 2025 in Barcelona, one of the leading trade fairs for sustainable construction in Southern Europe. This event provided a key platform to showcase two major innovations developed within the BIO4EEB project:

- The bioPolyurethane spray foaming solution for insulation, and
- The KLIMA-PUR® bioPolyurethane Window, a circular, high-performance window system now officially certified by PassivHaus.

At INDRESMAT's booth, professionals and stakeholders witnessed a live demonstration of spray foaming application, highlighting how biobased rigid foams can be applied on-site to improve the energy performance of façades. This solution exemplifies BIO4EEB's ambition to develop low-intrusiveness renovation techniques using sustainable materials, improving thermal and acoustic performance while minimizing environmental impact.

The spotlight was also on the KLIMA-PUR® bioPolyurethane Window, developed within the project and recently certified by the PassivHaus Institut, confirming its suitability for ultra-low energy buildings. This window is made with biobased, recyclable materials and provides 32% better thermal insulation and 55% superior acoustic damping compared to conventional alternatives. It is also lightweight, durable, and designed for circularity—all aligning with BIO4EEB's vision for the next generation of building components.

To further support outreach and education, a video was filmed during the event capturing real-time demonstrations and interactions. This video is now available to the public on YouTube: <a href="https://youtu.be/L4pXbC\_c4MQ">https://youtu.be/L4pXbC\_c4MQ</a>

INDRESMAT's participation in Construmat strengthened the BIO4EEB project's impact by combining on-site training, technical demonstration, and certified innovation, contributing to the acceleration of biobased and circular renovation solutions across Europe.

3. PowerPoint created by SOPHIA and STARCELL (link here):





The presentation aims to inform the participants about the main features of the product developed and patented by Sophia and Starcell: a compact natural fiber insulating panel (a blend of Posidonia and rice straw) designed for sustainable construction.

The presentation outlines the raw materials used and the environmental impact of their use. It also highlights the key features of the panel, both in terms of thermo-mechanical performance and its ease of handling and installation. A comparison chart of traditional products currently on the market is also included.

#### Partners involved:

This module will be developed collaboratively by the partners responsible for the development and demonstration of BIO4EEB solutions (as listed in Section 3), under the coordination of the Training task leader (EBC) and the Dissemination and Communication work package leader (R2M FR). AIMPLAS will contribute by producing PowerPoint materials and short educational videos on the properties and use of bio-based construction products. Sophia will support the creation of recorded demonstrations, particularly related to the installation of Posidonia panels and other BIO4EEB systems, in collaboration with demo-site leaders. INDRESMAT will provide further video content showcasing the practical use of the bio-based solutions during installations and pilot testing.

A panel discussion with project managers and stakeholders involved in the pilot projects will also be proposed during this module.

# 6 Three physical information days

The three physical information days organised as part of the BIO4EEB project's Subtask 6.3.4 are designed to support the effective dissemination of training materials and foster engagement with key stakeholders from across the European Union. These events are intended to reach regions with significant construction activity and strong potential for adopting bio-based materials.

The first of these information days is scheduled for 9th December 2025 and will take place at the EBC premises in Brussels. This half-day workshop, titled "Towards More Circularity in Construction – A Collaborative Approach from EU-Funded Research Projects", will bring together three Horizon Europe projects—BIO4EEB, <u>SUM4RE</u>, and <u>DISCOVER</u>—to showcase their contributions towards circular practices in the built environment.

The workshop is structured around three key themes:

- Material innovation (led by BIO4EEB), focusing on bio-based insulation materials such as the renewable Posidonia core panel and fibres, including demonstrations of their application and benefits.
- Data acquisition and urban mining (SUM4RE), highlighting technologies for tracking materials on-site and creating material banks to support future reuse.





• Digital reuse tools (DISCOVER), featuring the application of digital twins to model and simulate reuse scenarios for construction components.

The event aims to provide a practical, hands-on introduction to circular construction strategies, backed by technical presentations, case studies, and interactive discussions. Participants will have the opportunity to network, ask questions, and explore potential collaboration avenues.

The European Builders Confederation (EBC) is coordinating these events, ensuring consistency in content and quality. Following this December session, two additional information days are planned for 2026, with locations to be confirmed. These will continue to build on the project's evolving training materials and will take into account feedback and insights gathered during the Brussels event. Each information day is designed to offer live demonstrations, engaging formats, and clear, user-friendly resources as PowerPoint presentations and video materials. Feedback from participants will play a key role in refining the training content and approach, helping to shape future modules and maximise the value of the programme.

The events also aim to establish an ongoing relationship with stakeholders through follow-up communications and further training opportunities. This sustained engagement supports the wider goal of building a community of practice around bio-based and circular construction methods.

# 7 The Digital BIO4EEB Platform and Its Utilization in Training

The Digital BIO4EEB Platform (figure 6) is an advanced digital tool designed to enhance the adoption and application of bio-based building products, in alignment with the EU's decarbonization goals. It serves as a comprehensive resource for the various stakeholders involved in the BIO4EEB project, including designers, architects, construction entrepreneurs, material manufacturers and researchers.

#### Features of the Platform:

- Resource Repository: The platform acts as a central hub for detailed information on biobased products, offering functionalities such as product comparisons and selection guidance based on performance criteria and sustainability metrics.
- Interactive Tools: Features interactive tools for scenario simulation, which help users visualize the implications of their choices in terms of energy efficiency and environmental impact.
- User-Friendly Interface: Designed to be accessible for all user groups, ensuring that even stakeholders with limited technical skills can benefit from the resources available.

#### **Utilization in Training:**

 Training Resource: The platform can be used as a key resource in training sessions, providing users with hands-on experience in selecting and applying the right bio-based building materials for different construction scenarios.





- Enhanced Learning Experience: Interactive tools and a comprehensive resource repository make it easier to explain complex concepts and demonstrate the benefits of bio-based materials in a tangible way.
- Feedback and Adaptation: It allows for real-time feedback during training sessions, which can be used to adapt the training content to better meet the learners' needs.

The Digital BIO4EEB Platform plays a crucial role in connecting the sustainability and digital transition expected from the construction sector. This platform supports the project's goals by facilitating better decision-making in material selection, which directly enhances the energy performance of buildings using bio-based building materials. Additionally, it acts as a bridge between different stakeholders, promoting an understanding of the practical and environmental advantages of bio-based building materials. This integration fosters cohesive stakeholder engagement and ensures alignment with the project's sustainability objectives.

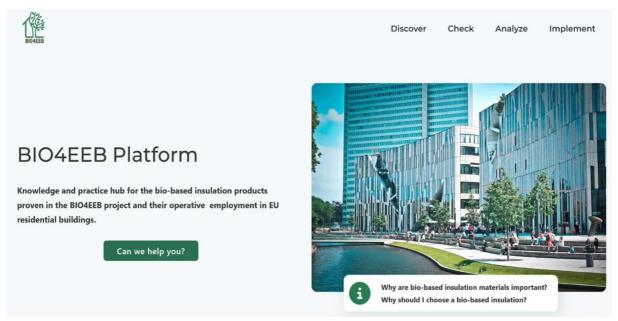


Figure 6 - BIO4EEB platform landing page



### 8 Conclusions

This second version of the BIO4EEB training plan represents a significant advancement in the project's ambition to promote sustainable construction through the adoption of bio-based insulation materials. By tailoring training content to the specific needs of various stakeholders—including architects, contractors, SMEs, researchers, and public institutions—the programme enhances both awareness and practical capabilities across the sector.

Through structured modules, physical information days, and the integration of digital tools such as the BIO4EEB website and platform, the project not only delivers knowledge but also fosters engagement and collaboration among key industry actors. The incorporation of practical demonstrations and feedback mechanisms ensures the training remains relevant, effective, and adaptable to emerging needs. The current report presented the first series of BIO4EEB materials that has been made public through the project's website. This archive will keep to be developed and completed in the final version of the Deliverable (D6.13).

The emphasis on circularity, environmental performance, and regulatory alignment reinforces BIO4EEB's contribution to EU decarbonisation objectives. Although final refinements of the training modules are ongoing, this deliverable lays a strong foundation for their development and future deployment.

Moving forward, continued partner collaboration and systematic evaluation will be key to ensuring the training remains robust and forward-looking. The final deliverable in this series, D6.13, will build upon this framework, drawing on the lessons learned and further strengthening the impact of the BIO4EEB training initiative.



# References

[1] Dunphy Niall P., Morrissey John E., & MacSweeney Rosemarie D. (2014). Analysis of Stakeholder Interaction within the Building Energy Efficiency Market.