

D2.3 Final Stakeholder engagement report

Enhancing User-Friendliness and Value of the BuiltHub Platform

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1. Introduction

1.1. Overview of the project

The "Dynamic EU Building Stock Knowledge Hub - BuiltHub" is a 4-year European Project funded under the Horizon 2020 program of the European Union. The project aims to develop a roadmap for continuously gathering and enhancing data required to inform building-related policies and business decisions through a community and its data hub. BuiltHub intends to positively disrupt policy and market decision-making by leveraging a continuously community-enhanced evidence base. The BuiltHub community, supported by an IT platform serving as a data analytics and knowledge exchange hub, will revolutionize the way knowledge about the EU building stock is developed and shared with stakeholders across Europe.

1.2. Aim and objective

BuiltHub aims to establish a continuous and reliable flow of building stock data at both the EU and national levels. The execution and testing of BuiltHub will be carried out through its data hub, which is an online platform equipped with powerful data analytics to deliver added value to stakeholders. Given the significant role of stakeholders in shaping the concept for the BuiltHub platform, the objective of this report is to capture and consolidate their feedback, outlining their needs and corresponding technical requirements for the platform.

1.3. Objectives of Task 2.3

- Establish a community of stakeholders: The task aims to create a network of stakeholders who will provide continuous feedback on the BuiltHUB platform throughout the project's duration. This community will serve as a valuable resource for gathering insights, perspectives, and suggestions.
- Collect feedback on platform usability and services: The primary goal is to gather feedback from stakeholders regarding the user-friendliness of the platform, available data, and services. This feedback will help identify areas for improvement and ensure that the platform aligns with the needs and expectations of its users.
- Inform WP3, WP4, and WP6: The collected feedback will directly inform the work packages WP3 (data collection and analysis), WP4 (service development), and WP6 (business model development). The aim is to incorporate stakeholder input into these work packages to enhance the platform's functionality, services, and overall value.
- Develop promotional material for potential users: The feedback collected from stakeholders will also be used to inform the development of promotional material for potential users, which will be carried out under WP7 (promotional activities). This will help showcase the platform's value proposition and attract more users.
- Encourage direct involvement and community development: The task seeks to foster a sense of community and encourage stakeholders' direct involvement. This includes engaging stakeholders in data provision, promoting word-of-mouth outreach, and generating interest in further developments related to the BuiltHUB platform.
- Strengthen the relationship between BuiltHUB and its community: By establishing a continuous dialogue with the main target users and stakeholders, the task aims to build stronger relationships between the BuiltHUB platform and its community. This interaction will

enhance collaboration, trust, and engagement among stakeholders, ultimately benefiting the platform's development and long-term success.

1.4. Scope of the report and integration with other tasks

Deliverable D2.3 focuses on describing the efforts and outcomes of stakeholder events, surveys, and other engagement actions carried out as part of Task 2.3. The goal of this deliverable is to provide a comprehensive account of the stakeholder engagement process and the valuable insights gathered from stakeholders. The report presents an update of the stakeholder analysis, building upon the analysis presented in D2.2, to ensure an up-to-date understanding of the stakeholder landscape.

The deliverable begins with an introduction that provides an overview of the project and outlines the specific objectives of Task 2.3. It then delves into recent developments and the current landscape of the BuiltHUB platform. The report describes the various feedback collection mechanisms employed, including the involvement of pioneer users, feedback from an external focus group, and insights gathered from EU workshops. Stakeholder dialogues play a significant role in this task, with thematic topics being selected and coordination efforts put in place.

Additionally, the deliverable highlights how stakeholder feedback is utilized in Work Package 3, which focuses on data assembly. It discusses the input and impact of various stakeholder groups, such as policy makers, researchers, utilities, designers, real estate developers, and civil society. By presenting the outcomes of these engagement actions, the report provides valuable information to inform the development of the BuiltHUB platform.

Finally, the deliverable concludes by summarizing the key findings and outcomes of Task 2.3, emphasizing the insights gained from stakeholders. While the report itself does not directly strengthen the relationship or foster continuous dialogue, it serves as a comprehensive account of the engagement efforts, providing transparency and facilitating ongoing communication between BuiltHUB and its stakeholder community.

This is the first draft of the report. The details for some of the stakeholder events are still being gathered and will be filled in the next version of this report.

2. Timeline and recent developments in the environment

2.1. Original task timeline

As a first draft the stakeholder events as described in the Grant agreement were distributed over the lifetime of the project in the following timeline illustration. It contains the following stakeholder engagement action types in different colors. The list shows where the details of these events are documented as they are not all included in this report.

- the surveys top dark green, 1st survey see D2.2
survey 2-3 this report
- the Expert interviews blue, see D2.2
- the stakeholder dialogues, light green, this report
- the pioneer user training orange, see D2.4
- the workshops and brown this report
- the Webinars dark green WP6

Table 1 Stakeholder engagement action list with color legend and documentation place

The Ambassador and Pioneer user programmes are described in detail in D2.4.

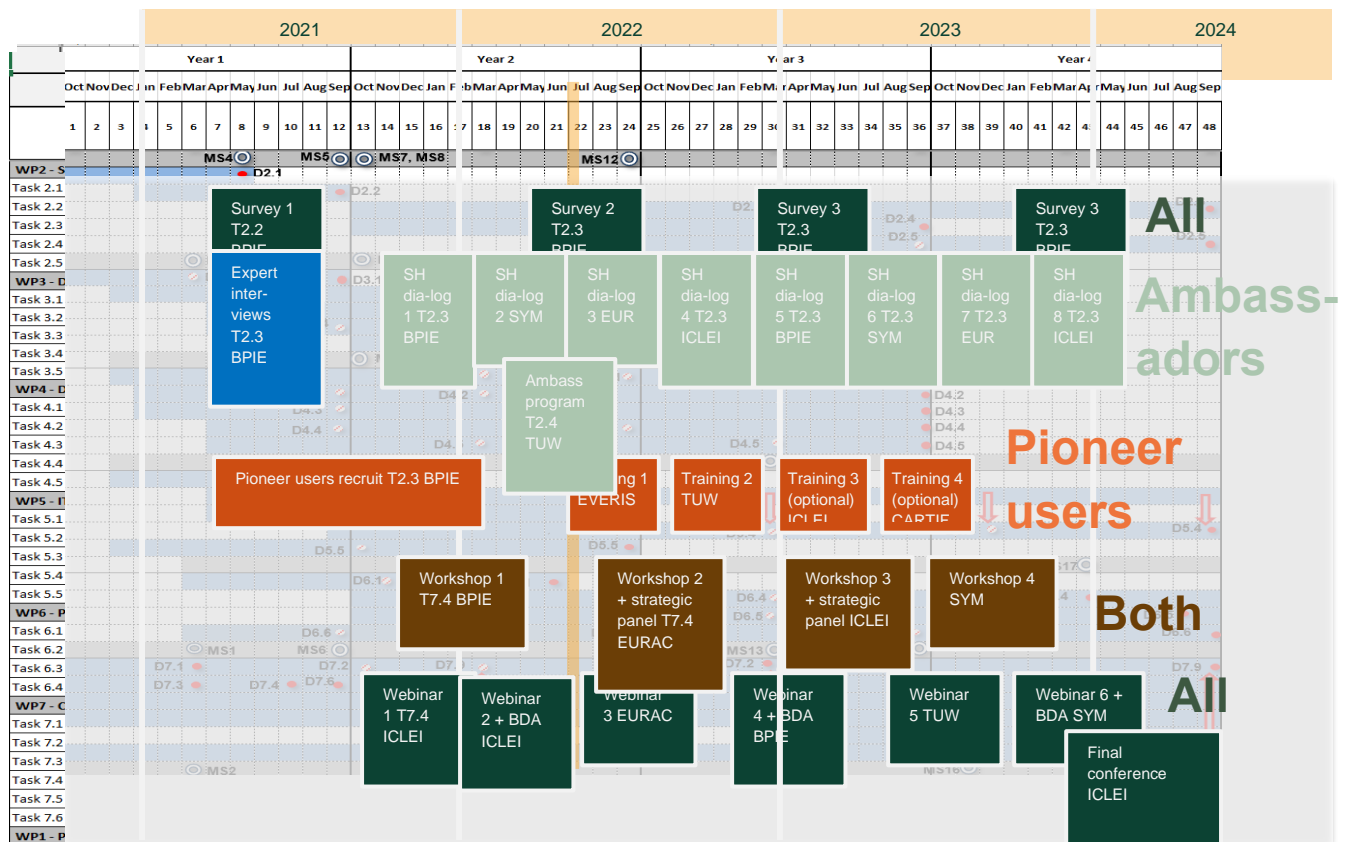


Figure 1 preliminary timeline (update in next version of this report)

During the project lifetime there were several events disrupting the timeline, such as the pandemic, the energy crisis, the Ukraine war, the EPBD recast and the new BSO project launch. While the first three

aspects led to managed delays due to external requests, the latter two are discussed in detail in the next section.

The launch of the platform has been delayed and therefore the stakeholder engagement action connected to it.

The following events were conducted:

- Webinar 1 2022 (ICLEI),
- Workshop 1 2022 (BPIE)
- Workshop 2 2022, (EURAC)
- Stakeholder dialog 2022, (BPIE)
- Webinar 2 (ICLEI)
- Webinar 3 (EURAC)
- Workshop 3 (ICLEI)

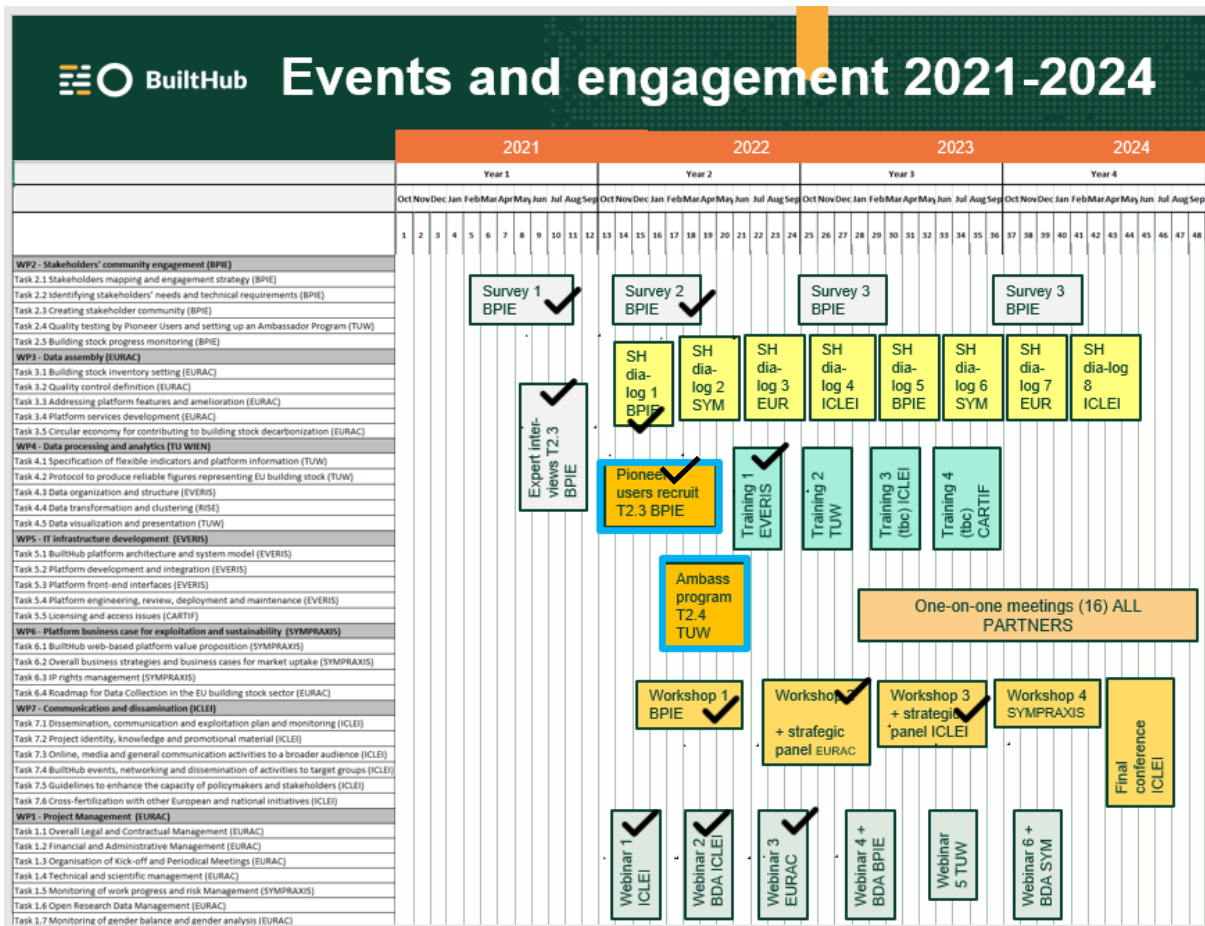


Figure 2 status of the stakeholder engagement actions (update in next version of this report)

Participation in events presenting BuiltHub

- EERAdata workshop 2022
- BDA (Big Data Alliance) 10 of June 2021
- Sustainable places EURAC 2021
- CA EPBD 2023

2.2. Recent developments and current landscape

In late 2022, a new project called "BSO II" was initiated with the aim of improving the BSO directly, including its user-friendliness, visualizations, and data quality. The data for BSO II are gathered through the BSO III project, which is time-consuming.

Simultaneously, the Energy Performance of Buildings Directive (EPBD) is undergoing a recast process. The EPBD was introduced in 2002, recast in 2010, amended in 2018, and is currently undergoing recasting in the triologue stage between the Commission, the Council, and the Parliament. The positions of these entities have been available since March of this year and contain an extensive list of indicators to be collected by EU Member States. The recast process is expected to conclude by September 2023, but delays are possible. If the requirement to collect these indicators remains in the EPBD recast, the indicators will serve as the data feeding into the BSO. However, Member States may require time to collect these data, and the EPBD recast may face delays. Moreover, Member States have historically delivered mandatory data late, and some may not deliver at all, as seen with the long-term renovation strategies and the National Energy and Climate Plans (NECPs).

Given these circumstances, the results of the BuiltHub project are highly relevant. They demonstrate an alternative approach to gathering building data by involving different stakeholders (smart communities, municipalities, local and regional actors), utilizing more recent data (unlike delayed national reporting), and providing deeper granularity at local, regional, and subnational levels instead of relying solely on national-level data for benchmarking purposes.

The primary output of the BuiltHub project is a roadmap on how to establish a continuous building data flow into a central platform, incentivizing data providers through value-added services.

However, stakeholders' attention has been diverted towards the BSO III project and the ongoing EPBD recast. To re-engage stakeholders and regain their attention for the planned launch of the BuiltHub platform in September, a survey will be issued to gather their input on the BSO III project and the EPBD recast.

3. Feedback Collection Mechanisms

3.1. Overview of the threefold feedback collection approach

In this section, we provide an overview of the threefold feedback collection approach employed within Task 2.3. The objective of this approach is to ensure continuous engagement with stakeholders and gather their valuable input to enhance the BuiltHub platform. The three components of the feedback collection approach are as follows:

1. Pioneer Users training and survey (external focus group survey)

Once the beta version of the platform is up and running at Month 24, a selection of pioneer users will be chosen from survey respondents and the project partners' direct contacts. These pioneer users, including signatories of a Letter of Intent (LoI), will have access to the beta version of the platform and will provide direct feedback (Task 2.4). Their insights and suggestions will be crucial in refining the platform's functionality, usability, and overall user experience.

2. EU Workshops

In close collaboration with Work Package 6 (WP6) and Work Package 7 (WP7), four EU workshops will be organized at different stages: during the establishment of the data hub, in the trial phase, and when the hub is fully operational. These workshops will involve selected lead and end-users. The primary objective of these workshops is to gain a deeper understanding of the needs and requirements of the community. By engaging stakeholders directly, the workshops will facilitate the identification of synergies among stakeholders and build upon the insights collected through the survey conducted in Task 2.2.

3. Stakeholder Dialogues:

In addition to the pioneer users and EU workshops, stakeholder dialogues will be organized to shed light on various thematic topics related to the BuiltHub platform. A maximum of eight stakeholder dialogues will be arranged, focusing on subjects such as standardization, policy and regulation, and innovation. These dialogues will be by invitation only, limited to a maximum of 15-20 participants. The aim is to create a conducive environment for in-depth discussions and detailed exploration of the platform's features. BPIE will coordinate these dialogues in collaboration with partners such as EURAC, ICLEI-EURO, Sympraxis, and EVERIS. The content for each dialogue will be developed by the partner(s) with the highest expertise in the respective thematic topic.

The feedback collected through these three channels—the pioneer users, EU workshops, and stakeholder dialogues—will play a vital role in the continuous improvement of data collection, service development, and business models within Work Packages 3, 4, and 6. Furthermore, the insights gathered from these feedback channels will be integrated into the final stakeholder report (D2.4) and contribute to the "Roadmap and Vision for Data Collection 4.0" in WP6. The engagement with stakeholders through these channels ensures a collaborative approach, fosters a sense of ownership among users, and aligns the platform with their needs and expectations.

3.2. Pioneer Users

In this section, we outline the plan for testing pioneer users and provide details on the activities that will be carried out by the project consortium. The pioneer users testing aims to gather valuable feedback and insights from selected users to improve the BuiltHub platform. The following subsections describe the key aspects of the pioneer user testing:

The action points include recruiting pioneer users, defining the beta version testing date and location, identifying two demo-cases for testing, developing the training program, and creating the necessary training materials.

Recruiting of Pioneer Users

Based on the stakeholders' expressed interest in becoming BuiltHub's pioneer users, BPIE has identified potential users from the first survey, Workshop 1, and the initial stakeholder dialogue. The list currently includes individuals from academia, consultancy, energy agencies, industry, non-profit/associations/lobby, and public bodies. ICLEI, the partner organization, will contact these users and request their official registration via the BuiltHub website. The target of 10 pioneer was achieved.

Training: Period and Format

The training sessions for pioneer users consisted of 2 to 4 physical workshops, each comprising a full-day workshop divided into two parts. The first part provided a general introduction to the BuiltHub platform, while the second part focused on training for the demo-cases. The training sessions took place in January 2023 in Sweden (demo case 1) and February 2023 in Vienna (demo case 2). The decision on the training format (physical or virtual) was based on the location and availability of the pioneer users, with a preference for virtual workshops to minimize travel in consideration of climate and energy-related concerns. The budget allocated for the training activities covered room rental, travel costs for external pioneer users, and catering expenses.

Training Demo-Cases

As stipulated in the Grant Agreement, at least two demo-cases were defined to showcase the usage of the BuiltHub platform and its data. The first demo-case was based on a workflow implementation and data transformation example for Sweden, as detailed in Deliverable D4.4. The second demo-case involved applying similar methods to other datasets, such as those provided by the state of Flanders in collaboration with the BEreel! project.

Through the pioneer user testing, valuable feedback and insights were gathered, allowing the BuiltHub project to evaluate the platform's performance and make continuous improvements to meet the needs of stakeholders and users.

Deliverable D2.4 details the testing plan and results.

3.2.1. Feedback from the external focus group

The external focus group survey aimed at improving the platform services and was conducted within Task 3.3 in 2022. Out of the identified **pioneer users** asked to participate in the survey 11 tested the platform and gave their feedback.

Feedback from the external focus group survey on the BuiltHub platform, covers various aspects such as platform registration, graphical design, platform selection system, data representation, metadata provision and download, and the SPARQL entry point. Overall, the platform registration procedure was rated positively, but some participants experienced issues receiving the verification email. The graphical design received positive feedback, although some participants found navigation and loading times problematic. The platform selection system was generally well-received, but a few participants had issues with the filtering system and mobile device usability. Data representation was considered clear and easy to navigate, but participants mentioned limited data availability and poor metadata provision. Specific feedback was provided for tabular, graphical, and geographical representations. The possibility to download data was positively rated, although the download button's visibility was criticized. The SPARQL entry point was appreciated for its flexibility but was deemed difficult to use for less experienced users. The report concludes that feedback from both internal and external focus groups helped shape the platform's development and improve its strengths and weaknesses. The results and suggestions were communicated to the platform developers for implementation.

Purpose of the Stakeholder Dialogues

The stakeholder dialogues within the BuiltHub project serve multiple purposes, which include building a core group of multipliers, identifying further stakeholder needs and interests, and obtaining feedback on the business model ideas. These objectives are essential for ensuring the successful development and implementation of the BuiltHub platform.

1. Building a Core Group of Multipliers:

One of the primary aims of the stakeholder dialogue is to establish a core group of multipliers. These are influential stakeholders who can act as advocates and disseminators of the BuiltHub project's goals, activities, and outcomes. By engaging key stakeholders and gaining their support, the project can enhance its visibility, credibility, and reach within the building sector and related domains. The stakeholder dialogue provides an opportunity to cultivate relationships, foster collaboration, and forge partnerships that can facilitate the project's long-term success.

2. Identifying Further Stakeholder Needs and Interests:

The stakeholder dialogue also serves as a platform for understanding and addressing the needs and interests of various stakeholders. By engaging in active discussions and soliciting feedback, the project can gain insights into specific requirements, expectations, and challenges faced by stakeholders. This understanding is crucial for tailoring the design and functionality of the BuiltHub platform to effectively meet the diverse needs of its user community. Additionally, the stakeholder dialogue enables the project team to identify potential gaps, opportunities, and emerging trends within the building sector, ensuring that the platform remains relevant and responsive to changing stakeholder needs over time.

3. Obtaining Feedback on Business Model Ideas:

The stakeholder dialogue provides an invaluable opportunity to gather feedback on the business model ideas proposed for the BuiltHub project. Stakeholders, including policy makers, authorities, energy agencies, industry experts, and researchers, can provide valuable insights and perspectives on the feasibility, viability, and desirability of different business models. Their feedback can help refine and optimize the proposed models, ensuring that they align with stakeholder expectations, create value, and contribute to the long-term sustainability of the BuiltHub platform. By incorporating stakeholder feedback, the project can enhance the attractiveness and effectiveness of the business models, increasing the likelihood of their successful implementation.

Overall, the stakeholder dialogues serve as a collaborative forum where ideas are exchanged, relationships are nurtured, and the needs and aspirations of stakeholders are considered. Through this dialogue, the BuiltHub project can create a shared vision, foster stakeholder engagement and ownership, and maximize the impact and value of the platform within the building sector and beyond.

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4. Stakeholder events documentation

Will be updated in the next draft.

4.1. Webinars

#	Who	When	Why - purpose	Outcome
1	ICLEI	01/2022	Introduce BuiltHub, Engage to NL, following WS,SD	More inscriptions for NL, WS, SD
2	Cartif, NTT, ICLEI	11/2022	Please fill	Please fill
3	EURAC		Please fill	Please fill
4	BPIE	tbd	tbd	tbd
5	TUW	tbd	tbd	tbd
1	BDA, SYM	tbd	tbd	tbd

4.1.1. Webinar 1 – Building a sustainable and meaningful data flow of the EU building stock

Objective: Introduce the BuiltHub project

Partner: ICLEI, contact: Emily

Time: January 2022

Outcome: more inscriptions to the BuiltHub newsletters, workshops, stakeholder dialogue

Description of the webinar content

Participants followed the journey through the lens of practical and tangible examples. They discovered how building-related and energy-related data could serve as a transmission piece between building and renovation policy, and implementation at all building levels and explored the future of smart building in Europe and learn about opportunities for involvement.

The session was structured as follows:

Part 1: The European building data landscape was discussed.

Part 2: The role played by the BuiltHub project was presented.

Part 3: A panel discussion on "Big data in a climate-neutral building sector: ways forward" took place

Part 4: The Big Data Alliance was introduced, along with information on how to get involved.

Throughout the session, the audience was encouraged to actively participate and the discussion was guided using virtual tools such as polls and live interventions.

The session was facilitated by Roman Mendle, from the Sustainable Resources, Climate and Resilience team at ICLEI Europe.

The speakers and panelists included:

Ulrich Filippi Oberegger · Senior Researcher Institute for Renewable Energy · EURAC Research

Roel Vermeiren · Renovation Strategy advisor · Flemish Energy Agency

Maria Soderlind · Project Manager for Open-data Platform · Umeå Kommun

Daniela Bachner · Project Adviser LIFE Energy · CINEA

Andrew Knight · International Data Standards Director · RICS

Questions raised to the audience and their answers:

To be described.

Questions raised by the audience:

To be described.

Follow up with participants

The participant received a follow up email with the invitation to the next events

Information sharing within the project:

The participant list was shared with Work Package 2 for the purpose of stakeholder analysis.

Participation:

A Stakeholder analysis for this workshop will be part of the next version of this report.

4.1.2. Webinar 2 –Information session on IA energy services and European housing stock data (Spain)

Objective: Introduce the BuiltHub project
Time: 11/2022
Partner: BDA, ILCEI
Outcome: more inscriptions by spanish stakeholders to the BuiltHub newsletter

Description of the webinar content

To be described.

Questions raised to the audience and their answers:

To be described.

Questions raised by the audience:

To be described.

Follow up with participants

To be described.

Information sharing within the project:

The participant list will be shared with Work Package 2 for the purpose of stakeholder analysis.

Participation:

If the participant list is shared a Stakeholder analysis for this workshop will be part of the next version of this report.

4.1.3. Webinar 3 –SWED conference

Objective:
Time:
Partner: EURAC
Outcome:

Description of the webinar content

To be described.

Questions raised to the audience and their answers:

To be described.

Questions raised by the audience:

To be described.

Follow up with participants

To be described.

Information sharing within the project:

The participant list will be shared with Work Package 2 for the purpose of stakeholder analysis.

Participation:

A Stakeholder analysis for this workshop will be part of the next version of this report.

4.2. Workshops

#	Who	When	Why - purpose	Outcome
1	BPIE	Mar 2022	feedback on data, visualisations and the platform idea	guidance for data, platform and visualisations
2	EURAC	2023	Please fill	Please fill
3	ICLEI	2023	Please fill	Please fill
5	SYMPRAXIS	Tbd June 2024	Tbd Energy Efficiency Conference	tbd

4.2.1. Workshop 1 – Co-creating an impactful and user-friendly platform

Objective: gather feedback on data, visualisations and the platform idea

Time: 24 March 2022

Partner: BPIE

Outcome: guidance for data, platform and visualisations

BuiltHub Join March 24th 10am Workshop #1

Panellists

Get to know BuiltHub!

EPBD revision, upcoming BSO call

1st observatory of housing and energy renovation data

Ulrich Filippi Oberegger
EURAC

Dimitrios Athanasiou
DG Energy

Jonathan Villot **Maximilien Brossard**
Urban Retrofit Business Services

Description of the content

The objective of the first workshop in the BuiltHub project was to present the initial version of the BuiltHub platform, provide an overview of the collected data, and offer a preview of the first visualizations. The workshop aimed to strongly consider the needs and values of users, emphasizing the importance of co-creating the platform for its success.

The workshop was divided into two parts. Firstly, a plenary session was conducted to introduce attendees to the project and set the stage for further discussions. Subsequently, breakout groups were formed, allowing participants to engage in more focused conversations about Data, Visualisations and the Platform. Finally, all attendees gathered to share their final impressions and insights.

Questions raised to the audience and their answers:

Discussions were guided by the following questions.

Data	Platform	Visualisations
What is the scope of the data in BuiltHub?	What is the goal of the platform?	What is the idea behind the visualizations in BuiltHub?
What is the goal of the BuiltHub data research?	Why is it important for the stakeholder to take part in the external focus group that performs the pilot testing of the platform?	Why is the way we visualize important for the stakeholder to contribute to?
What data sources have we found, (examples/partially)?	What functionalities does the platform aim to provide?	

The presentation of the visualisations stirred up discussions about which visualisation was good and what made it good, and which visualisation would need improvement and why. We also received feedback about some visualisation ideas that were not liked. These results were taken up in deliverable 4.5.

Questions raised by the audience:

The stakeholders had questions about the visualisations that helped their understanding and us to identify where more clarity is needed. Specifically positive was mentioned that the Metadata given in the visualisations are very helpful, to understand for example the source and what exactly is shown.

Follow up with participants

A follow up email was send to the participants inviting them to the next workshop.

Information sharing within the project:

The outcomes of the workshop were shared with the work packages, in the monthly WPL meetings.

Participation:

Stakeholders with an interest in a European building data platform, including policy makers, local or national authorities, energy agencies, and experts/researchers from the construction and renovation industry, were invited to attend the workshop. The objective was to foster collaboration and gather input from a diverse range of stakeholders to shape the development and future direction of the BuiltHub platform.

A Stakeholder analysis for this workshop will be part of the next version of this report.

4.2.2. Workshop 2 – Supporting building stock transformation and a circular economy

Objective: IA applications, CDW results
Time: 25 May 2022
Partner: EURAC,
Outcome: to be described

Description of the content

In the second workshop for the BuiltHub project, participants had the opportunity to receive an update on the BuiltHub data platform and gain insights into the data collected thus far. The workshop focused on exploring machine-learning methods for data prediction and analyzing construction and demolition waste data for a circular economy.

The objective of this workshop was to gather valuable insights from stakeholders regarding the presented results and findings. The aim was to understand which aspects of the results were particularly interesting to the stakeholders and to identify any additional analysis or questions that emerged as a result. Additionally, the workshop sought to explore the potential for further applications of machine-learning techniques in the context of the BuiltHub project. By engaging with stakeholders, the workshop aimed to foster a collaborative environment where new ideas, perspectives, and possibilities could be discussed, ultimately shaping the future direction of the project and identifying innovative opportunities for leveraging machine learning in the building data domain.

During the workshop, the needs and values of users were strongly considered, as the goal was to create a valuable resource for all platform users. The concept of co-creating the platform was emphasized, as it was believed to be a crucial factor for its success.

The workshop was organized in two parts. Firstly, a plenary session set the stage and provided updates about the project. Secondly, attendees actively participated in two workshop sessions, which involved exploring machine-learning methods for predicting building data and discussing available construction and demolition waste data. The workshop concluded with the sharing of findings and impressions.

Workshop session #1: Machine learning methods to predict building data

Featuring: - Mikael Mangold, Tim Johansson and Pei-Yu Wu from the Research Institutes of Sweden (RISE)

Workshop session #2: Construction & demolition waste data analysis to support a circular economy

Featuring: - Gianluca Grazieschi and Simon Pezzutto from Eurac Research, Institute for Renewable Energy (EURAC)

Questions raised to the audience and their answers:

Machine learning methods to predict building data : To be described.

Construction & demolition waste data analysis to support a circular economy : to be described.

Questions raised by the audience:

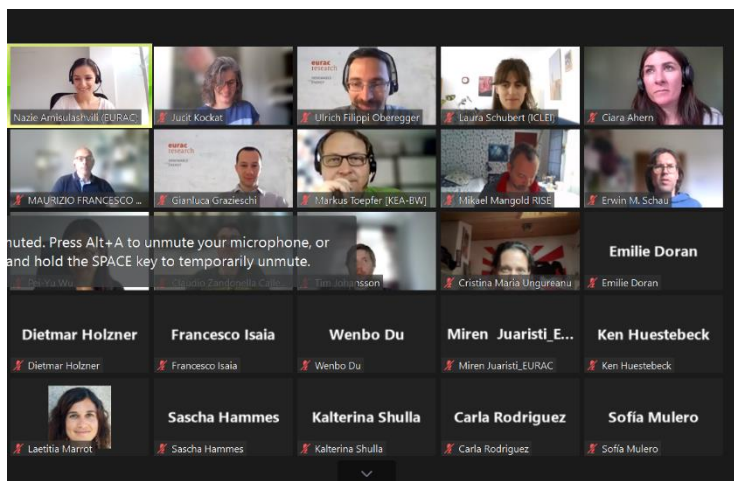
Machine learning methods to predict building data : To be described.

Construction & demolition waste data analysis to support a circular economy : to be described.

Follow up with participants

To be described.

Information sharing within the project:



The information was received directly by the people that need the information to include them in deliverables 3.4. Also the responsible for the stakeholder engagement Task 2.3 was present.

Participation

All stakeholders with an interest in a European building data platform were invited to attend the workshop. This included policy makers, local or national authorities, energy agencies, and experts/researchers from the construction and renovation industry.

The participant list was shared with Work Package 2 for the purpose of stakeholder analysis. A Stakeholder analysis for this workshop will be part of the next version of this report.

4.2.3. Workshop 3 – Workshop and strategic panel

Objective:

Time:

Partner: ICLEI

Outcome:

Description of the content

To be described.

Questions raised to the audience and their answers:

To be described.

Questions raised by the audience:

To be described.

Follow up with participants

To be described.

Information sharing within the project:

The participant list will be shared with Work Package 2 for the purpose of stakeholder analysis.

Participation

All stakeholders with an interest in a European building data platform were invited to attend the workshop. This included policy makers, local or national authorities, energy agencies, and experts/researchers from the construction and renovation industry.

A Stakeholder analysis for this workshop will be part of the next version of this report.

4.2.4. Workshop 4 – to be planned

Objective:

Time:

Partner: SYMPRAXIS

Outcome:

Description of the content

To be described.

Questions raised to the audience and their answers:

To be described.

Questions raised by the audience:

To be described.

Follow up with participants

To be described.

Information sharing within the project:

The participant list will be shared with Work Package 2 for the purpose of stakeholder analysis.

Participation

A Stakeholder analysis for this workshop will be part of the final version of this report.

4.3. Stakeholder Dialogues

#	Who	When	Why - purpose	Outcome
1	BPIE	May 2022	Build group	guidance on value proposition and business model
5	BPIE	2024	tbd	tbd
2	EURAC	2023	tbd	tbd
6	EURAC	2023	tbd	tbd
3	ICLEI	2023	tbd	tbd
7	ICLEI	2024	tbd	tbd
4	SYMPRAXIS	2023	tbd	tbd
8	SYMPRAXIS	2024	tbd	tbd

4.3.1. Stakeholder dialogue 1 – Co-creating an impactful and user-friendly platform

Objective: gather feedback on data, visualisations and the platform idea

Time: 24 March 2022

Partner: BPIE

Outcome: guidance for data, platform and visualisations



Description of the content

The objective of the first stakeholder dialogue was to build a core group of multipliers, identify their needs and get feedback on the business model ideas.

The first stakeholder dialogue brought selected stakeholders together that have shown a high interest through their intense participation in the previous engagement actions. The dialogue

focused on understanding each stakeholder’s idea of their use of the platform and community. Stakeholders introduced themselves and their data, interest, and perspectives. Followed by a short presentation on different options for the BuiltHub business model (WP6 Sympraxis) we discussed the options and collected stakeholder preferences and arguments. This feedback and the insights into the different stakeholder perspectives and needs shall contribute to developing the pilot cases.

Questions raised to the audience and their answers:

Which business model would you prefer: stakeholders preferred the expert model. What value proposition would you consider interesting: benchmarking, scenario results. More details can be found in deliverable D6.1.

Questions raised by the audience:

When will it be available?

Follow up with participants

A follow up email was send to the participants inviting them to the trainings and surveys.

Information sharing within the project:

The outcomes of the workshop were shared with the work packages, in the monthly WPL meetings.

Participation:

Stakeholders with an interest in a European building data platform, including policy makers, local or national authorities, energy agencies, and experts/researchers from the construction and renovation industry, were invited to attend the workshop. The objective was to foster collaboration and gather input from a diverse range of stakeholders to shape the development and future direction of the BuiltHub platform.

A Stakeholder analysis for this workshop will be part of the next version of this report.

4.3.2. Future Stakeholder dialogue template

Objective:

Time:

Partner:

Outcome:

Description of the content

To be described.

Questions raised to the audience and their answers:

To be described.

Questions raised by the audience:

To be described.

Follow up with participants

To be described.

Information sharing within the project:

To be described.

Participation:

To be described.

5. Utilizing Stakeholder Feedback in Work Package 3: Data Assembly

This chapter focuses on how the results from the first survey conducted with stakeholders have been utilized to inform the development of Work Package 3 (Data Assembly) within the BuiltHub project. The survey responses were analyzed qualitatively and categorized into different stakeholder groups, namely policy makers, researchers, utilities, designers, real estate developers, and civil society. The feedback and needs expressed by each stakeholder group have been taken into consideration to shape the services and functionalities provided by the BuiltHub platform.

5.1. 1. Policy makers' (End user) input and its impact on data collection and analysis

Policy makers were identified as key stakeholders, and their feedback emphasized the importance of a user-friendly platform for data collection and analysis. The BuiltHub platform aims to cater to this need by offering a wide range of indicators organized in a clear and comprehensive manner. The platform provides both tabular and graphical/geographical representations of data, allowing policy makers to compare different indicators and generate future scenarios. Additionally, the platform ensures the findability, accessibility, interoperability, and reusability (FAIRness) of data, supporting policy makers in research, analysis, and policy impact assessment.

5.2. 2. Researchers' (Lead user) feedback and its influence on community building and data sharing

The survey responses from researchers highlighted their interest in community building, data exchange, and connections with industry. The BuiltHub platform addresses these needs by integrating a forum where stakeholders can engage in discussions related to the data presented on the platform. Researchers can utilize the platform's diverse data sources for analysis, validation, benchmarking, and cross-referencing. The platform ensures the availability of FAIR data and comprehensive metadata, offering reliable information for researchers. Future scenarios and a variety of data formats facilitate further analysis and research.

5.3. 3. Utilities' (Lead user) requirements and their implications on data accessibility and formats:

Utilities expressed interest in accessing and analyzing various types of data related to socio-economic, environmental, and health aspects. The BuiltHub platform provides utilities with a range of data that can be displayed, reorganized, and downloaded in multiple formats for easy access and analysis. The open-mode forum enables interaction with other community members, fostering knowledge sharing and collaboration. While the platform covers environmental aspects well, it aims to expand its focus on health and well-being aspects by incorporating more data.

5.4. 4. Designers' (End user) perspectives and their influence on data platform functionalities

Designers emphasized the need for a single data platform that facilitates engagement with the data community. The BuiltHub platform meets this requirement by offering a wide variety of data indicators at a granular level, when available. Cross-sectoral data from multiple sources allows designers to analyze, compare, benchmark, and evaluate building performance. The platform provides guided graphical representations and flexible data download options, supporting designers in energy efficiency solutions, life cycle analysis, and environmental decision-making.

5.5. 5. Real estate developers' (Lead user) needs and their impact on data sharing and services:

Real estate developers expressed interest in a platform that not only provides data but also enables relationship building with other data users and providers. The BuiltHub platform encourages interaction through a forum, allowing users to comment, discuss, and share feedback on the provided data and services. The platform offers visualizations of uploaded datasets, flexible graphical representations, and access to data through SPARQL entry points. The ability to download data in multiple formats, along with the provision of agreements, intellectual property protection, and reserved services for data providers, fosters collaboration with real estate developers.

5.6. 6. Civil society's (End user) input and its effect on user-friendly features and data availability

Civil society end users value user-friendly platforms that facilitate data exchange, community participation, and partnerships. The BuiltHub platform ensures easy access to data through user-friendly features such as user stories, comprehensive infographics, and a data search system. The platform provides data on national and municipality levels, addressing topics such as building stock characteristics, energy poverty, indoor environmental quality, and financing schemes. The reliable data and metadata available on the platform support training, education,

6. Conclusion

Recap of the importance of stakeholder feedback:

Stakeholder feedback plays a crucial role in the BuiltHub project, especially considering the recent break in stakeholder engagement caused by the launch of the BSO III project and the ongoing recast of the Energy Performance of Buildings Directive (EPBD). The input and perspectives of stakeholders are invaluable in shaping the direction and outcomes of the project. By actively involving stakeholders, we can ensure that the BuiltHub platform and its services align with their needs, priorities, and expectations.

Despite the diversion of stakeholders' attention towards the BSO III project and the EPBD recast, it is vital to re-engage them and reestablish the stakeholder dialogue. The insights and expertise of stakeholders are essential in refining the project's roadmap and ensuring its relevance in the evolving landscape of building data management and policy-making.

Expected outcomes and benefits of continuous dialogue with stakeholders:

By maintaining a continuous dialogue with stakeholders, even after the break caused by the BSO III project and the EPBD recast, we can harness their expertise, address their needs, and refine our project's roadmap and business model. This engagement will contribute to the success and impact of the BuiltHub platform as a valuable resource for building data management and decision-making in the European building sector.

Summary of the stakeholder feedback

Stakeholders recognize the crucial role of data in supporting the transformation of the building stock in Europe to address social, economic, and environmental challenges. Compliance with European legislation, including the EPBD, RESD, and EED, requires a significant amount of data to achieve their objectives. Participants in surveys and interviews emphasized the importance of a harmonized approach to data collection and analysis to facilitate compliance with national goals and alleviate the burden on public authorities.

The stakeholders expressed interest in engaging in a community that supports building stock transformation through data. They value services such as data collection, storage, processing, analysis, benchmarking, visualization, sharing, and exchange. Comparative data and analysis are particularly sought after. Harmonizing indicators and metrics for the building stock is seen as a crucial step in this direction.

Stakeholders have a strong need for building stock-related data, including energy consumption, emissions, certifications, financing, investments, socio-economic data, and performance of building envelope, systems, technological solutions, and decarbonization pathways. They are willing to share data with BuiltHub, especially in exchange for access to more information rather than financial incentives. Local stakeholders, such as construction companies and utilities, are potential sources of regional building stock data. However, concerns about inconsistencies in building stock data and compliance with laws, scientific agreements, security, and privacy affect stakeholders' willingness to share data.

The participation of policymakers in the BuiltHub community is crucial for its impact. Policymakers require clear and uniform analysis at different levels, supported by maps and visualizations, to inform policy and decision-making in Europe. Integration of policymakers as lead-users, targeted outreach, awareness, training, and the establishment of a common reliable format for data exchange would enhance the effectiveness of BuiltHub. Creating a caring community, sharing data internationally, collaborating with existing EU projects, supporting initiatives like the New European Bauhaus, and forming alliances with universities, energy agencies, and professional organizations are key steps to advance the project.

