



BIM based fast toolkit for
Efficient rEnovation in Buildings

D10.12 Demonstration workshops



This project has received funding from
European Union's H2020 research and innovation programme
under grant agreement N. 820660

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| | |
|--------------------------------|---|
| Programmes | H2020 |
| Call for Proposal | LC-EEB-02-2018 Building information modelling adapted to efficient renovation |
| Project Title | BIM based fast toolkit for Efficient rEnovation in Buildings |
| Acronym | BIM4EEB |
| Project Grant Agreement | 820660 |

D10.12 Demonstration workshops

| | |
|--------------------------------|------------------------------------|
| Work Package | WP 10 |
| Lead Partner | ACE-CAE |
| Contributing Partner(s) | PROCHEM, VTT, POLIMI |
| Dissemination Level | Public |
| Type | DEC Websites, patent filings, etc. |
| Due date | 30/06/2022 |
| Date | 18/06/2022 |
| Version | 1.0 |

DOCUMENT HISTORY

| Version | Date | Comments | Main Authors |
|---------|------------|---|--|
| 0.1 | 15.12.2021 | Table of Content send to POLIMI, VTT, PROCHEM | Larissa De Rosso (ACE) |
| 0.2 | 30.04.2022 | Contributions from POLIMI, VTT and PROCHEM | Andrea Giovanni Mainini (POLIMI), Teemu Vesanen (VTT), Aleksander Bartoszewski (PROCHEM) |
| 0.3 | 02.06.2022 | Document internal review | Larissa De Rosso (ACE), Gabriele Canzi (FPM/POLIMI), Regione Lombardia |
| 0.4 | 09.06.2022 | Final version after comments. WP Leader's approval | Larissa De Rosso (ACE) |
| 1.0 | 18.06.2022 | Final and formal review, plagiarism check, submission | Bruno Daniotti, Martina Signorini (POLIMI), Gabriele Canzi (FPM/POLIMI) |

Statement of originality:

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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EXECUTIVE SUMMARY

This deliverable reports the activities performed for the demonstration workshop run at the Italian, Finnish, and Polish demonstration buildings. The workshops aim to disseminate the results and best practices, and train the national stakeholders interested in the innovative renovation approaches performed by the project in the respective demonstration sites.

The demonstration workshops activities were led by ACE and implemented by Regione Lombardia, ALER, VTT, Caverion and PROCHEM in the demonstration sites' country. The workshops were delivered online and in hybrid format in January and February 2022. The presentations and tools demonstration were delivered by the tools' developers and sites' responsible. The workshops were recorded and made available at [BIM4EEB YouTube channel](#) together with a series of ["overview" videos](#) about the six tools and the BIM Management System (BIMMS) ensuring the sustainability of this activity.

This task is closely related to WP8 Demonstration in relevant environment and WP9 exploitation of the project results as it disseminates the demonstration results of WP4, WP5, WP6 and WP7 focusing on potential users of BIM4EEB toolkit.

PUBLISHING SUMMARY

This is a report on the demonstration workshop run in the Italian, Finnish, and Polish demonstration buildings. The workshops aim to disseminate the results and best practices and train the national stakeholders interested in the innovative renovation approaches performed by the project in the respective demonstration sites.

The workshops were delivered online and in hybrid format in January and February 2022. The presentations and tools demonstration were delivered by the tool developers and site's responsible. The workshops were recorded and made available at [BIM4EEB YouTube channel](#) together with a series of ["overview" videos](#) about the six tools and the BIM Management System (BIMMS) ensuring the sustainability of this activity.

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1 Introduction

- Objectives

The workshops aim to disseminate the results and best practices and train the national stakeholders interested in the innovative renovation approaches performed by the project in the respective demonstration sites, i.e. real estate clients, public authorities, and professionals from all disciplines (architects, structural and HVAC engineers, construction firms –involving both white- and blue-collar workers) and the external advisory board.

- Relation with other tasks

This task is closely related to WP8 Demonstration in relevant environment and WP9 exploitation of the project results as it disseminates the demonstration results of WP4, WP5, WP6 and WP7 focusing on potential users of BIM4EEB toolkit.

- Relation with partners

The partners relationship was summarized below:

ACE was the task leader managing the activities.

Region Lombardy and ALER were responsible for the implementation of the Italian workshop.

POLIMI supported Region Lombardy and ALER in the Italian workshop and assisted ACE in the activity's management.

VTT was responsible for the implementation of the Finnish workshop and delivered presentation on BIMeaser and BIMPlanner in the relevant workshops.

Caverion was responsible for the Finnish demonstration site.

Technische Universität Dresden, RISE, UCC IERC, CGI, One Team, Suite5, delivered presentations about BIMMS, BIM4occupant, AUTERAS, Fast mapping toolkit and BIMcpd in the relevant workshops.

PROCHEM was responsible for the implementation of the Polish workshop and for the Polish demonstration site.

2 Italian demonstration workshop

2.1 Introduction

The Italian demonstration workshop presented the work developed in the building for the testing and validation of the BIM4EEB tools developed by the project partners. The Italian demonstration site was identified in a building dating back to the early 1980s, intended for the public housing services of ALER VCM. The building is representative of the residential assets of the ALERs which, for the most part dating back to the same period and despite the numerous investment programs activated with ministerial and regional funds, still had a significant need for redevelopment interventions. The demonstration building encompasses 65 apartments in 8 floors. Regione Lombardia has collaborated with ALER in the renovation works done as part of the BIM4EEB tools validation. The renovation works aimed to improve the energy performance of the building, reduce execution times, with positive effects on both the containment of construction costs and the inconvenience caused to tenants. An extensive description of the building renovation works and the tools validation can be found on the deliverable D8.2 Report on Demonstration in Italy.

2.2 Agenda

The Italian workshop was organized by Regione Lombardia with the support of ALER and POLIMI. The hybrid event took place on the 19th January 2022 at the Palazzo Lombardia in Milano and was also live streamed in English and Italian language. The aim of the event was

- to illustrate the progress of the BIM4EEB project and in particular the Italian pilot site;
- to present the tools (toolkits) developed by the partnership and illustrate their experimentation on the Italian demonstration site;
- to discuss, also with the representatives of the Advisory Board and stakeholders on the progress of activities and results achieved so far.

The event had the participation of 16 speakers from all organizations involved in testing and validation works in the Italian demonstration site. The final part dedicated surveys were collected among the workshop participants. The detail agenda of the workshop is shown below (Figure 1).



BIM4EEB
BIM based fast toolkit for
Efficient rEnovation in Buildings

BIM4EEB
Progetto Horizon2020
BIM based fast toolkit for Efficient rEnovation of residential Buildings
www.bim4eeb-project.eu
Workshop Internazionale
La metodologia BIM per la riqualificazione energetica nell'edilizia residenziale pubblica: l'esperienza di HORIZON2020 - BIM4EEB
19 gennaio 2022 dalle ore 9:30 alle 13:30
Palazzo Lombardia, Piazza Città di Lombardia 1, 20124 Milano
Auditorium Giovanni Testori, Piazza Città di Lombardia
Il workshop sarà accessibile in presenza e fruibile in remoto previa registrazione.

REGISTRAZIONE PARTECIPANTI: dalle ore 09:00

Programma:

09:30 - 10:30: Saluti di benvenuto:

- Alessandro Mattinzoli, Assessore regionale alla Casa e Housing sociale,
- Donatella Sciuto Prorettore Vicario del Politecnico di Milano,
- Stefano Capolongo, Direttore dip. ABC del Politecnico di Milano,
- Regina De Albertis, Presidente ANCE Milano,
- Luigi Perrisich segretario generale Federcostruzioni,
- Pietro Baraton, Ministero delle Infrastrutture e della Mobilità Sostenibili
- Dimitrios Biliouris Project Officer per La E.U.

10:30 - 11:15: Il progetto di ricerca BIM4EEB:

- Presentazione iniziativa: Immacolata Vanacore, Regione Lombardia;
- Presentazione del progetto europeo Horizon2020 BIM4EEB e stato di avanzamento: Bruno Daniotti, Politecnico di Milano;
- Il caso pilota di Via della Birona 47, Monza: Roberto Lenzo, ALER Va-Co-MB-BA; Andrea Mainini, Politecnico di Milano;

11:15 -13:00: Presentazione del Toolkit sviluppato da BIM4EEB e delle attività dimostrative sul caso pilota:

- **BIMMS**, BIM Management System (OneTeam)
- **Fast Mapping Tool**, Mapping and AR (RISE-CGI)
- **BIMeaser**, Decision support tool for Energy Savings (VTT)
- **BIMcpd**, HVAC Design and Performance Evaluation (UCC)
- **BIMplanner**, Renovation works' management (VTT)
- **BIM4Occupants**, Occupants' Profiling Mechanism (Suite5)

13:00 - 13:30: Conclusioni e presentazione del video sul demo case

Per comunicazioni: bim4eeb@regione.lombardia.it





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Figure 1 BIM4EEB Italian Demonstration workshop - Detailed agenda

2.3 Target Audience

Some invitations have been done to involve participants before the workshop. The whole AB has been invited by the coordinator; Regione Lombardia had spread the possibility to attend the workshop towards its General Directions and to the ALERs of the whole region, especially to the technicians involved in the BIM training course organized by Regione Lombardia; another invitation has been done to the local administrators of Lombardy; two web pages have been set up in the Regione Lombardia's website (<https://eventi.regione.lombardia.it/it/building-information-modeling-bim4eeb>, <https://eventi.regione.lombardia.it/it/attachments/file/view?hash=d3aa10f42f4e37f8dec4845027d766ef&cAnCache=0>); streaming in Italian is available at the link <https://mediaportal.regione.lombardia.it/embed/live/13639%C2%A0>; in English at: <https://mediaportal.regione.lombardia.it/embed/live/13642%C2%A0>; Politecnico di Milano has organized a special newsletter (<https://a3c7e5.mailupclient.com/f/rnl.aspx/?ffe=vtxx&x=pv&&ji=rx.f=y/5.3.a=&14e.9a5257co9&x=pp&sy:dc43m.dc52cfa--&2.i/96f=vyNCLM>) and a landing page in the website (<https://a3c7e5.mailupclient.com/f/rnl.aspx/?ffe=vtxx&x=pv&&ji=rx.f=y/5.3.a=&14e.9a5257co9&x=pp&sy:dc43m.dc52cfa--&2.i/96f=vyNCLM>), LinkedIn (Figure 5, Figure 4 and Figure 6) and Twitter (Figure 2 and Figure 3) posts were done before after and on the day of the event with an open link to the workshop.

A media partner (ingenio-web.it) has been involved to organize some interview and a Facebook direct view of the event. The full news about the event in Italian language can be found in the link below. <https://www.ingenio-web.it/33318-rigualificazione-energetica-degli-edifici-meno-costi-e-tempi-ridotti-con-la-piattaforma-bim-di-bim4eeb>.

A dedicated webpage at BIM4EEB website was created for the event (<https://www.bim4eeb-project.eu/news/finnish-and-italian-workshop.html>)



Figure 2 Tweet invitation to the Italian Demonstration workshop



Figure 3 Tweet about the Italian demonstration workshop

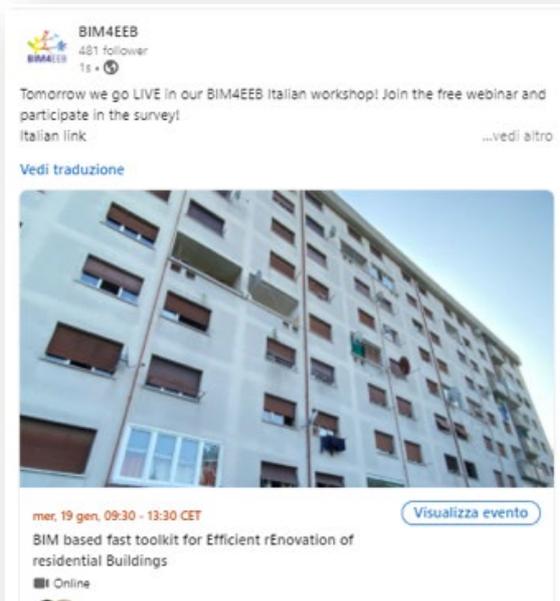


Figure 4 LinkedIn Invitation to the Italian demonstration workshop



Figure 5 LinkedIn invitation for the live streaming of the Italian demonstration workshop.



Figure 6 LinkedIn post about the recordings of the Italian demonstration workshop

2.4 Main Outputs

Owing to Covid-19 restriction, many of the participants preferred to follow the event in streaming and the site visit was cancelled, due to the low numbers of participants; these are the results:

- 36 people in presence,
- a total of 124 enregistered people.

To maximise visibility and participation, the links to watch online the project event were published shortly before the beginning of the workshop. As for the streaming sessions results are the following:

- Italian: 206 connections
- English: 112 connections

The ingenio-web news about BIM4EEB event have been viewed by 5.357 people. The 6 video interviews done for the news had 607 visualizations on ingenio-web YouTube.

The BIM4EEB YouTube channel also hosts the full Italian demonstration building recording (52 viewers), the 6 video interviews done by ingenio-web and two short pieces of videos about the Italian building and the validation work with the residents (15 and 10 viewers respectively). (<https://www.youtube.com/watch?v=cWGIPIQ8Jc&list=PL6z7F20dLJpA0Nd7f8iverHCQv2nOGyFj>).

All the materials have been shared and published in a web page by Regione Lombardia and BIM4EEB project webpage and social medias.

A feedback survey was spread during the workshop and results are shared in Chapter 6 in Deliverable D8.2 Report on Demonstration in Italy as a result of the evaluation of the Social KPIs of the project.

3 Polish demonstration workshop

3.1 Introduction

The demonstration case in Poland is owned by Solintel and it is located at the center of Chorzow in the Silesian Region. The building was constructed in 1902 and encompasses 12 apartments, 3 commercial areas in 5 floors. A detailed description of the Polish demonstration building and the testing and validation activities performed in the building can be found in the deliverable D8.3 Report on Demonstration in Poland.

The Polish workshop presented the demonstration process carried out at the Polish pilot residential building in Chorzow town, performed with BIM4EEB toolkit developed. Activities carried out with Fast mapping toolkit, BIMMS platform, BIM4Occupants and BIMcpd were presented to the audience. The scope of operation and possibilities of individual tools were presented by the tool's owners.

3.2 Agenda

The Polish workshop was organized by Prochem in English language, the partners responsible for the demonstration activities. Due to limitations related to Covid-19, the event was held in the form of an on-line conference and delivered in English. It took place at February 15, 2022 (14-16 CET). During the meeting, six speakers presented, among others, the scope and objectives of the BIM4EEB project, involved partners, characteristics of the Polish pilot building and demonstration activities performed. In the second part, demonstrated tools were presented by tools owners. During the workshop, the possibility of asking questions and expressing opinions was allowed. In the final part dedicated surveys were collected among the workshop participants. The detail agenda of the workshop was as follows:

- 14:00 -14:20 Welcome, introduction to the project
 - Aleksander Bartoszewski, Prochem
 - Bruno Daniotti, Politecnico di Milano
- 14:20 – 14:30 Polish pilot site presentation
 - Aleksander Bartoszewski, Prochem
- 14:30 – 15:40 Demonstrated tools presentation
 - BIMMS platform, Davide Madeddu, One Team
 - Fast mapping toolkit, Eva-Lotta Kurkinen, Rise
 - BIM4Occupants, Kostas Tsatsakis, Suite5
 - BIMcpd Eoin O'Leidhin, UCC
- 15:40 – 15:50 Surveys collection
- 15:50 – 16:00 Conclusions

WORKSHOP AGENDA:
• February 2, 2022 (14-16 CET)

| Start | End | | Presenter |
|-------|-------|---|-----------------------------------|
| 14:00 | 14:20 | 1. Welcome, introduction to the project | Aleksander Bartoszewski (PROCHEM) |
| 14:20 | 14:30 | 2. Polish pilot site presentation | Aleksander Bartoszewski (PROCHEM) |
| | | 3. Demonstrated tools presentation: | |
| 14:30 | 14:50 | • BIMMS platform | Davide Madeddu (One Team) |
| 14:50 | 15:10 | • Fast mapping toolkit | Eva-Lotta Kurkinen (Rise) |
| 15:10 | 15:30 | • BIM4Occupants | Kostas Tsatsakis (Suite5) |
| 15:30 | 15:50 | • BIMcpd | Eoin O'Leidhin (UCC) |
| 15:50 | 15:55 | 4. Surveys collection | |
| 15:55 | 16:00 | 5. Conclusions | |

PROCHEM

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Figure 7 Polish workshop presentation

3.3 Target Audience

The main target audience, in addition to the BIM4EEB partners, was the Polish demonstration site stakeholders, mainly architects, engineers, site owner and building administrator. The invitation was shared inside and outside Prochem organization. On the meeting the Polish Advisory Board member was also present.

A dedicated news at BIM4EEB webpage was created for the Polish workshop (<https://www.bim4eeb-project.eu/news/the-polish-workshop.html>) and a registration page in Teams was shared. The news and the possibility of registering to participate in the event was also shared through the project newsletter (<https://a3c7e5.mailupclient.com/f/rnl.aspx/?ffe=vtxx&x=pv&&ji=rx.f->

=z/5.3.a=&14e.9a5257co9&x=pp&sy:dc43m.dc52cfa--&2.i/96f=wsNCLM).

The invitation was also shared on BIM4EEB social media (Figure 9 and Figure 8).

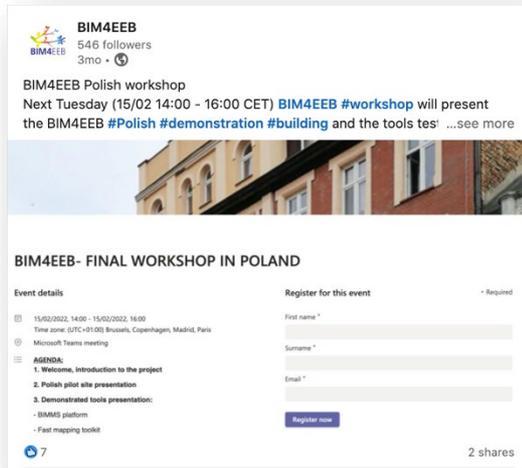


Figure 9 Invitation on LinkedIn to the polish workshop.

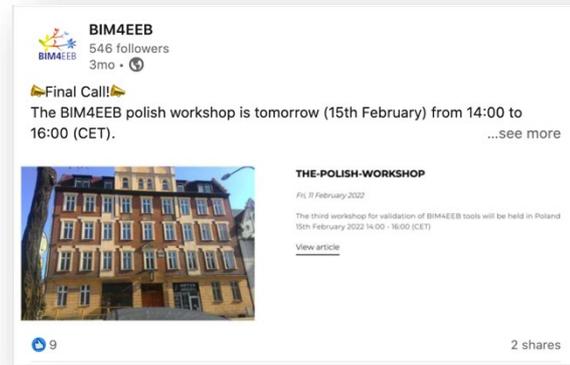


Figure 8 Last call post on LinkedIn about the Polish Workshop

3.4 Main Outputs

The meeting was conducted as an on-line conference:

- 23 participants attended

The dedicated feedback survey has been spread during the workshop. Demonstration workshop recording was published on the BIM4EEB YouTube channel: <https://youtu.be/M2q9xGd2stU> and had so far 18 visualizations. The recording was also shared at BIM4EEB social media (Figure 10).

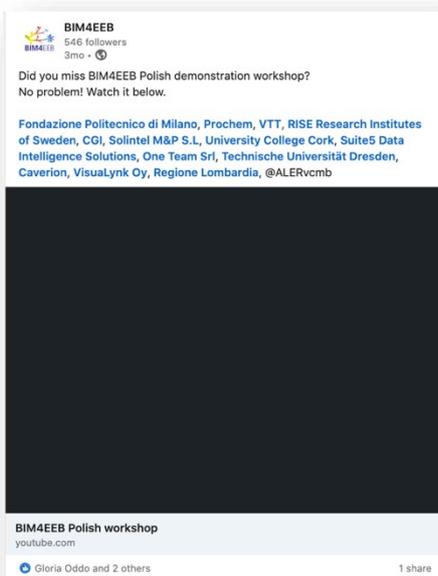


Figure 10 Polish workshop - recording available. LinkedIn post.

4 Finnish demonstration Workshop

4.1 Introduction

Finnish demonstration workshop presented the activities in the two pilot sites. The first one which was used to demonstrate the use of BIMeaser tool and the second one for other tools. The first pilot site was located in Epila in the city of Tampere and it was built in 1998. The building encompasses 52 apartments in 5 floors. The second pilot building is located in the city of Espoo and was built in 1992. It encompasses 43 apartments and commercial spaces in the ground floor. The pilot site was changed during the project as the first one was shown unfeasible. A longer description of the change and both sites is included in the report describing the demonstrations in Finland (D8.4).

4.2 Agenda

The Finnish workshop was organized by VTT with support of Caverion, the partners responsible for the pilot site. As Covid-19 imposed limitations for face-to-face meetings, this workshop was held as a webinar and took place on January 18, 2022 (13-15 CET). The webinar was delivered in English language. The agenda gathered six speakers, and covered the BIM4EEB project overview, the presentation of the Finnish demonstration sites and the explanation of the testing and validations activities performed in the sites. In the final part, a discussion and feedback were allowed between the participants and a feedback survey was shared. The detail agenda of the workshop was as follows:

Agenda:

- Welcome and introduction to the project, Teemu Vesanen, VTT
- pilot in Finland, Olli Nummelin, Caverion
- BIM4EEB-tools in the pilot:
 - BIMMS, Davide Madeddu, Oneteam
 - Fast Mapping Toolkit, Eva-Lotta Kurkinen, Rise
 - BIMeaser, Teemu Vesanen / Jari Shemeikka, VTT
 - BIMPlanner, Markku Kiviniemi, VTT
- Discussion, feedback and development ideas
- Conclusions

4.3 Target Audience

The workshop was mainly targeted to the stakeholders of the Finnish pilot site and the Nordic advisory board of the project. However, the invitation was also shared publicly.

Invitations were share at BIM4EEB social media (Figure 11). The event was also promoted through the project newsletter (<https://a3c7e5.mailupclient.com/f/rnl.aspx/?ffe=vtxx&x=pv&&ji=rx.f=y/5.3.a=&14e.9a5257co9&x=pp&sy:dc43m.dc52cfa--&2.i/96f=vyNCLM>).

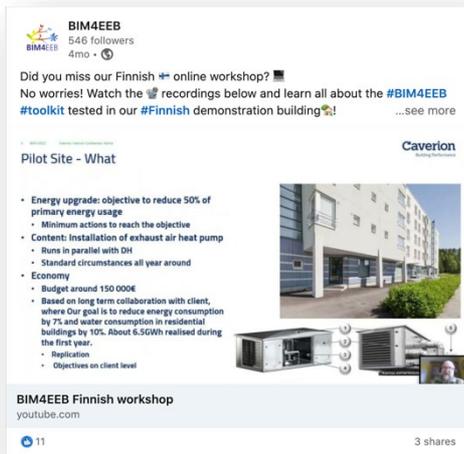


Figure 11 Workshop recordings shared on LinkedIn

4.4 Main Outputs

Including the presenters, 25 persons attended the workshop. The recording was made available on BIM4EEB YouTube channel ([https://youtu.be/ cWGIPQ8Jc](https://youtu.be/cWGIPQ8Jc) - 60 views) and a dedicated news at BIM4EEB website was published (<https://www.bim4eeb-project.eu/news/finnish-and-italian-workshop.html>)

The feedback results can be found on the D8.4 Report on demonstration in Finland section 5.2.

5 Conclusion

This report registers the work developed for the development of three workshop in each of the BIM4EEB demonstration buildings. The aim of this action is to disseminate the results and best practices, and train the national stakeholders interested in the innovative renovation approaches performed by the project in the respective demonstration sites.

The demonstration workshops activities were led by ACE and implemented by Regione Lombardia, ALER, VTT, Caverion and PROCHEM in the demonstration sites' country. The Finnish workshop was delivered on the 18th January 2022, the Italian was delivered in 19th January 2022 and the Polish was delivered on the 15th February 2022. The Finnish and Polish workshops were held in the format of a webinar in English due to Covid restrictions in their countries. The Italian workshop was delivered in a hybrid format, in presence, in a very large auditorium, with reduced accessibility due to Covid-19 rules, and in streaming, providing simultaneous translations in English and in Italian for people in presence and in streaming. National stakeholders, Advisory Board Members have participated in all events.

The workshops were communicated in the BIM4EEB social medias and website. The recordings were made available at [BIM4EEB YouTube channel](#) together with a series of "[overview](#)" videos about the six tools and the BIM Management System (BIMMS) ensuring the sustainability of this activity.

In total, 402 people attended to the 3 workshops, 366 online and 36 people in presence. The workshop recordings were viewed by 155 people. The news on the ingenious-web was viewed by 5.357 people and the video interviews watched by 607 people.