Co-funded by the European Union

Funded by: Erasmus+ KA2 – VET

Project Agreement Number: 2023-1-EL01-KA220-VET-000158810

R.4.2

National Policy Report

BFW NRW gGmbH

Germany

November 2025

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.

Co-funded by the European Union

Funded by: Erasmus+ KA2 – VET

Project Agreement Number: 2023-1-EL01-KA220-VET-000158810

National Policy Report Germany

Project: BIM4D

Activity A.4.1 – Conducting Political Roundtable Discussions

Content

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.

Co-funded by the European Union

Funded by: Erasmus+ KA2 – VET

Project Agreement Number: 2023-1-EL01-KA220-VET-000158810

1. Introduction / Roundtable Details

- **Name of Partner Organization**: BFW NRW gGmbH – ABZ Kerpen
- **Country**: Germany
- **Date and Location**: November 14, 2025, ABZ Kerpen (physical event)
- **Number of Participants**: 66 (Group 1: 31, Group 2: 35)

  Profiles: Skilled workers and trainers from road construction, concrete/steel construction, masonry, civil engineering, pipeline/sewer construction, hydraulic engineering, and draftsmen. Functions: Foremen, supervisors, site managers, trainers, representatives of public clients.

2. Key findings

2.1 General Impressions and Introduction

The diversity of professional groups and functions represented contributed to a varied and practice-oriented discussion, bringing different perspectives on the challenges and opportunities of digitalization in construction. The exchange between trainers and practitioners provided valuable insights into the current application of BIM in end-of-life (EOL) processes and the requirements for future qualification measures. Participants showed great interest in digital transformation in construction and in sustainable EOL practices.

Quote:
"Digitalization in construction is long overdue – BIM4D is an important step in the right direction."

The BIM4D platform was perceived as an innovative tool with potential for increased efficiency and sustainability. The agenda was rated as practical and relevant.

2.2 Current Status of BIM in EOL

The event made it clear that digitalization in construction is both a technological and a cultural challenge. Many participants emphasized the need to change existing processes and mindsets to fully realize the potential of BIM in deconstruction. Close cooperation between construction companies, trainers, and public authorities is required to establish common standards and best practices.
BIM is currently used only sporadically in the deconstruction phase.

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.

Quote:
"We are still at the very beginning regarding the use of BIM in deconstruction. There are initial pilot projects, but it is not yet widespread."

Most companies are still in the early stages of integrating digital tools into EOL processes. However, initial pilot projects show that BIM can significantly improve the planning and documentation of deconstruction processes. In Germany, BIM is currently used in deconstruction only selectively, especially in large infrastructure projects. There is a lack of consistent digital as-built models, especially for older structures, and data quality is often inconsistent.

2.3 Benefits and Potential of BIM

The use of digital twins and material passports leads to a significant improvement in the traceability of materials. These technologies make it possible to transparently document the lifecycle of building materials, thus specifically promoting the reuse and recycling of components. Especially in the context of the circular economy, this represents a decisive step forward.
As one participant emphasized:

"With BIM, we can finally track where which materials have been used – this is a real gamechanger for the circular economy."

Furthermore, optimized planning and implementation of deconstruction projects using BIM leads to significantly higher efficiency. Digital modeling improves transparency in quantities and material flows, enabling more precise site logistics. Safety on the construction site is also increased through the integration of hazard markings in the model.
A key element for the successful use of BIM is knowledge transfer among all stakeholders – from draftsmen to site managers. The willingness for continuous training and the exchange of best practices was considered essential by participants to overcome existing entry barriers. In particular, the consistent involvement of all parties in training measures promotes acceptance and accelerates the implementation of digital processes in deconstruction.

2.4 Challenges and Obstacles in Implementing BIM in Deconstruction

Various challenges to the widespread introduction of BIM in deconstruction became apparent during the event. A central problem is the lack of uniform standards and interfaces between the software solutions used. The current fragmented software landscape means that different stakeholders work with different tools, making collaboration significantly more difficult. The lack of standardization was identified by participants as one of the biggest hurdles for BIM use:

"The biggest hurdle for us is the lack of standardization. Everyone works with different tools, which makes collaboration extremely difficult."

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.

Another major obstacle is the high investment costs associated with introducing BIM systems. Especially for smaller companies, the purchase of software and necessary training represents a significant financial burden:
“For smaller companies in particular, the costs for BIM software and training are a real challenge.”
There is also currently a lack of sufficiently qualified personnel with specific BIM skills in deconstruction. The requirements for BIM expertise in this area are increasing, but the available skilled personnel are still limited.
Uncertainties regarding legal frameworks and liability issues also slow down the implementation of BIM in deconstruction. In particular, responsibilities are often not clearly regulated when passing on data, leading to further uncertainties.
Additionally, inconsistent requirements from clients and missing interfaces between the digital model, tendering and awarding processes (AVA), and disposal partners hinder the continuous flow of information. These factors mean that the integration of BIM into deconstruction processes is progressing only very slowly.

2.5 Skills, Competencies, and Personnel Development

A central obstacle to implementing BIM in deconstruction is the lack of competencies in key application areas. There is a particular need to catch up in model-based quantity determination, coordination of IFC models, and legally compliant documentation of hazardous substances. In addition, the use of mobile devices on construction sites is still not widespread enough. These gaps make the efficient and legally compliant application of BIM methods in the deconstruction process more difficult.
To address these challenges, there is a clear need for targeted training measures for foremen, supervisors, and site managers. Only through consistent promotion and qualification of site personnel can existing deficits be reduced and the prerequisites for successful BIM use be created.

2.6 Training Needs and Improvements

To enable the successful implementation of BIM in deconstruction, there is a considerable need for targeted training offers for engineers and site managers. Especially in the area of BIM and sustainability, it is necessary to develop practical training that is oriented towards real requirements on the construction site. Participants emphasized that only tailored and application-oriented training can ensure effective qualification of personnel.
The need for practical training is summed up as follows:
“We urgently need more practical training that is oriented towards the real requirements on the construction site.”

With the ongoing digitalization and increasing BIM application in deconstruction, new job profiles are also emerging, such as the “BIM Deconstruction Coordinator.” The development of such roles requires targeted training to address the specific requirements in deconstruction.

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.

The need to adapt to new fields of activity and competencies was explicitly emphasized by participants:
"New roles such as the BIM Deconstruction Coordinator are emerging – we need to prepare for that."

Another important aspect is the promotion of interdisciplinary skills. Professionals with both solid knowledge in civil engineering and IT skills are particularly in demand. The intersection of these two areas is crucial for the successful implementation of BIM processes in deconstruction.

Therefore, training measures should specifically focus on combining technical and digital skills.

The need for practical training is also evident in the specific content: In addition to basic BIM knowledge for deconstruction, practical exercises on model views, mobile data capture (e.g., photos and geo-tags), and the use of interfaces to AVA systems and disposal service providers are considered particularly relevant. The WP3 modules developed as part of the project are generally considered helpful, but there is a desire to align them even more closely with real construction site scenarios to ensure the highest possible practical relevance.

2.7 Financial Considerations and Obstacles

The introduction of BIM in deconstruction is associated with significant financial challenges. The biggest obstacles include high initial investments and ongoing license costs for BIM software. Small and medium-sized enterprises (SMEs) in particular often find themselves unable to take the necessary steps towards digitalization. The lack of specific funding programs for SMEs exacerbates this problem.

A participant summed up the situation succinctly:
"Without government funding, many companies will not be able to take the step towards BIM."

This results in a clear desire for government support and tax incentives to make digitalization in construction accessible to companies of all sizes.

In addition to software costs, there is also a need for investment in new hardware. There are currently no appropriate remuneration models for digital services, which further reduces the economic incentive to switch to digital processes. There is therefore an urgent need for funding programs that support both the purchase of equipment and targeted training. Support programs in these areas are essential so that SMEs in particular can overcome the hurdles in implementing BIM.

2.8 Collaboration and Value Chains

The use of BIM offers significant potential for optimizing collaboration along the entire value chain in deconstruction. Improved coordination and communication between construction companies, deconstruction companies, and recycling companies are particularly emphasized. Through the digital networking of all stakeholders, processes can be made more efficient and

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.

information losses minimized. A central basis for this is the establishment of shared data platforms on which relevant project data can be exchanged transparently and in real time.

This not only promotes collaboration but also creates a reliable data basis for all stakeholders. Close cooperation between clients, construction companies, the waste management industry, and inspection bodies is also crucial. Participants see a clear need for the development and introduction of uniform standards to facilitate communication and data exchange between the various stakeholders. Joint pilot projects are considered an important tool for gaining practical experience and strengthening cooperation between the parties involved. This helps to fully exploit the potential of BIM and sustainably improve the value chain in deconstruction.

2.9 Political Gaps and Institutional Support

There is currently a lack of binding requirements for the use of BIM in public tenders and of national and European standards in the field of deconstruction. Participants emphasize that clear political guidelines and uniform standards are essential to bring BIM out of its niche and advance digitalization in construction comprehensively. Funding programs that support the development and application of uniform data formats and attribute sets are particularly in demand.
Despite the obvious advantages that BIM offers in deconstruction, there is still a clear lack of clear political frameworks and specific institutional support. Binding legal requirements and targeted funding measures are still lacking, making the widespread introduction of BIM considerably more difficult. The lack of national strategies that clearly regulate the use of BIM in deconstruction and create incentives for companies to make the necessary investments is particularly criticized.
Furthermore, the role of professional associations and public institutions is considered central to the dissemination of BIM. Participants expressed the desire for greater involvement of these actors, for example through the development of industry-specific guidelines, the organization of information events, and the provision of consulting services for companies. Only through coordinated political and institutional support can the transition to digitalized processes in deconstruction be successfully shaped.

3. Summary

Insights from the Roundtable Discussions and Recommendations for Implementing BIM in EOL Processes

The evaluation of the roundtable discussions confirms and deepens the results from the needs analysis (WP2) and the development of training modules (WP3). A significant qualification need for the use of Building Information Modeling (BIM) in end-of-life (EOL) processes was identified. The WP3 training modules already developed are generally considered relevant by participants, but there is a desire for greater practical orientation and flexibility in the design of these modules.

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.

Perceptions and Opportunities of BIM

BIM is seen by stakeholders as a significant opportunity for increased transparency, greater safety, and improved circular economy in the deconstruction process. However, risks are seen, particularly due to a lack of standards and high investment costs. While large companies are more likely to take advantage of BIM's potential, the particular challenges for small and medium-sized enterprises (SMEs) are highlighted. There is a need for targeted support measures for this target group.

Political and Institutional Frameworks

A central obstacle to the widespread introduction of BIM in EOL processes is the lack of binding political requirements and suitable funding instruments. Participants emphasize that stronger institutional support is necessary to accelerate the introduction and application of BIM in deconstruction. There is a lack of clear national guidelines and targeted funding programs that would make it easier for companies to make the necessary investments.

Training and Continuing Education Needs

The BIM4D training program is generally rated positively, but continuous development and an even stronger focus on practical content are required. The platform is seen as a good starting point, but regular updates and close alignment with actual practice requirements are needed.

Recommendations from Stakeholders

- Introduction of binding BIM standards for deconstruction projects, especially regarding IFC, LOD, and attribute sets.
- Expansion of government funding programs to support digitalization and training in the sector.
- Development of industry-specific training offers tailored to the needs of different stakeholders.
- Promotion of pilot projects and best-practice examples to facilitate transfer into practice and create acceptance.

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.

Conclusion

The panel discussions and roundtable talks clearly demonstrate the great potential of BIM in deconstruction, but also point to existing challenges such as qualification needs, lack of standards, and insufficient political support. To successfully advance the digital transformation in construction, participants advocate for close cooperation between politics, business, and education. The digitalization of deconstruction is seen as key to sustainable construction processes. The BIM4D platform – supported by targeted training and political recommendations – can make a decisive contribution to the successful implementation of BIM. Stakeholders also recommend intensifying knowledge transfer between research and practice to bring innovations into application more quickly. The establishment of networks and exchange formats between companies, authorities, and educational institutions can help to reduce existing information deficits and create synergies.

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 the State Scholarships Foundation (IKY). Neither the European Union nor the granting authority can be held responsible for them.