Interreg CENTRAL EUROPE

Co-funded by the European Union

ReBuilt

D.3.2.1 – Workshops for development of Common Strategy for Circular and Digital Construction in Central Europe

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Contents

Summary

This report of deliverable D.3.2.1 summarises the outcomes of three stakeholder workshops conducted within the ReBuilt project to support the development of a Common Strategy Framework for Circular and Digital Construction in Central Europe. The workshops adopted a participatory, co-creation approach, involving 75 participants from public authorities, industry, academia, and NGOs to gather input, foster dialogue, and build consensus.

The main objective was to develop and validate the conceptual basis of the strategy, including the definition of key pillars, thematic areas, shared challenges, and guiding principles. The process is aligned with broader European Commission priorities on sustainability, digitalisation, and regional cooperation.

The workshops combined presentations, group discussions, breakout sessions, and digital tools such as Mentimeter to collect and organise input. The result is a proposed multi-level strategy framework comprising a vision, objectives, strategic pillars, thematic areas, and cross-cutting principles. A draft vision was formulated, aiming to accelerate the transition to a circular, sustainable, and digitally integrated construction sector in Central Europe through collaboration and innovation, supported by circular and digital hubs.

Seven core strategic pillars were identified:

1) Circular development and design; 2) Digitalisation and data interoperability; 3) Circular value chains and markets; 4) Governance and public procurement; 5) Skills, education, and awareness (MOOC); 6) Circular business models; 7) Circular and digital hubs.

Overall, the workshops established a structured and scalable foundation for developing a unified regional strategy.

1. Introduction

This deliverable presents the outcomes of three workshops conducted to support the development of a Common Strategy Framework for Circular and Digital Construction in Central Europe within the ReBuilt project. The workshops were designed as a co-creation and participatory process to gather expert input, foster transnational dialogue, and build consensus on the structural elements of the future common strategy.

The workshops focused on defining the framework conditions, structure, and thematic orientation that will guide subsequent strategy development. This included identifying key pillars, common priorities, shared challenges, and cross-cutting principles relevant to the transition towards a more circular and digitally enabled construction sector.

The process reflects broader European policy directions promoted by the European Commission, particularly regarding sustainability, digital transformation, regional cooperation, and development, and supports the transition to circular and digital construction.

We conducted workshops using different methodologies:
1. Workshop: 14 November 2025 (hybrid: in-person and online): 21 participants (collaborative discussion among all participants)
2. Workshop: 11 February 2026 (online): 33 participants (Mentimeter tool used by 20 participants, but all took part in the discussion)
3. Workshop: 18 February 2026 (online): 24 participants (Mentimeter tool used 17 participants, but all took part in the discussion)

We invited various stakeholders, including local, regional, and national governments, development agencies, business support organisations, NGOs, and higher education and research institutions.

The total number of participants was 75.

2. Objectives of the Workshops

The primary objective of the workshops was to co-create and validate the conceptual foundation of a common strategy framework. Specific objectives included:

- Establishing a shared understanding of circular and digital construction in the Central European context
- Identifying and structuring key strategic pillars and thematic areas
- Collecting stakeholder perspectives on challenges, opportunities, and needs
- Defining cross-cutting principles to guide the strategy
- Providing recommendations for the next phases of strategy development
- Including regional/national circular and digital construction hubs, which will promote circular construction in the Central Europe region.

The workshops also aimed to ensure that the framework reflects the diversity of regional contexts while enabling alignment across countries.

3. Methodological Approach

3.1 Workshop Design

The workshops were structured as interactive sessions combining:

- ZAG-led presentations to set the context
- Facilitated group discussions
- Breakout sessions for thematic deep dives
- Plenary validation and synthesis

Participants represented a broad range of stakeholders, including:

- Public authorities
- Construction industry representatives
- Digital technology providers
- Academic and research institutions
- Policy and sustainability experts

3.2 Data Collection and Processing

Inputs were collected through:

- Moderated discussions,
- Structured templates (e.g., pillar identification, challenge mapping),
- Visual tools (Mentimeter, digital tool).

All contributions were systematically analysed and synthesised into a coherent framework. In the hybrid workshop, based on the presentation of the starting points of the circular and digital construction strategy prepared by ZAG, the lead partner, we jointly defined key areas of the strategy. In the following two workshops, we further developed the content, formulated questions, sought answers together, and provided proposals for a strategy on circular and digital construction in Central Europe.

In the online workshops and guided discussions, we used the digital tool Mentimeter, which proved to be a highly effective tool for preparing the strategy.

4. Key Result: Strategy Framework Structure

The main outcomes of the workshops were the validated structure and content design for a unified strategy for circular and digital construction in Central Europe, with potential for expansion through the operation of circular and digital hubs established within the ReBuilt project framework.

4.1 Framework Architecture

Participants agreed on a multi-level structure comprising:

- Vision and objectives
- Strategic pillars
- Thematic areas under each pillar
- Cross-cutting principles

This architecture provides a logical and scalable approach to strategy development.

5. Draft Vision and Scope

The workshops produced a preliminary formulation of the strategy's vision, which aims to accelerate the transition towards a circular, sustainable, resource-efficient, and digitally integrated construction sector in Central Europe through coordinated action, innovation, and cross-border collaboration through circular and digital construction hubs.

The scope includes:

- The entire construction value chain (design, construction, operation, and deconstruction),
- Integration of circular economy principles (materials, products for secondary raw materials) and digital technologies,
- Regional focus on Central European cooperation,
- Circular and digital construction hubs as promoters of circularity of the construction industry in Central Europe.

6. Strategic Pillars of Circular and Digital Construction Strategy

A set of core strategic pillars was identified as the backbone of the framework. While subject to further refinement, the following pillars emerged consistently:

1. Circular Development, Pilots, Design
2. Digitalisation and Data Interoperability
3. Circular Value Chains and Markets
4. Governance and Public Procurement
5. MOOC -E-learning, Skills, Capacity and Awareness
6. Circular Business Models
7. Circular and Digital Hubs

Each pillar is supported by a rationale and initial thematic areas identified during discussions.

All responses received for individual pillars of the strategy are shown in Annex 1 and Annex 2.

7. Thematic Areas and Grouping

Within each pillar, participants first identified key themes representing priority areas for future action. These include:

- Traceability of materials and digital product passports
- Management of construction and demolition waste
- Standardisation of digital tools and processes
- Data exchange platforms
- Mechanisms for cooperation between the public and private sectors

These themes remain at a conceptual level and will be further defined in the next phase.

Cross-cutting principles

The workshops highlighted several principles that should guide all elements of the strategic framework:

- Circularity, sustainability and climate neutrality
- Life-cycle approach to construction industry
- Interoperability and standardisation of digital systems

- Stakeholder involvement and participation
- Regional cooperation and knowledge exchange

These principles ensure coherence and coordination across the pillars.

Challenges and Opportunities

Key Challenges

Participants identified several barriers, including:

- Fragmented regulatory frameworks across countries
- Limited adoption of digital tools
- Lack of standardised data systems
- Skills gaps in circular and digital areas
- Resistance from companies and the market to new business models

Key Opportunities

At the same time, important opportunities were identified:

- Increasing support for policies at the EU level
- Technological progress
- Growing demand for circular and sustainable construction
- Potential for cross-border cooperation
- Availability of financing mechanisms

8. Stakeholder Perspectives

The workshops revealed both alignment and divergence among stakeholder groups:

- Public authorities emphasised regulatory harmonisation and policy tools.
- Industry stakeholders highlighted practical implementation challenges.
- Technology providers focused on innovation and digital infrastructure.
- Academia stressed research, education, and knowledge transfer.

Despite differing perspectives, there was strong consensus on the need for an integrated approach combining circularity and digitalisation in the construction sector.

9. Recommendations for Next Steps

As the workshops focused on the framework level, several recommendations were made for the next phase:

- Further description of strategic pillars and themes
- Development of concrete measures and actions
- Definition of monitoring systems
- Development of a public dissemination strategy

A structured drafting process is recommended to transform the framework into a comprehensive strategy.

10. Conclusion

The workshops successfully delivered a shared and structured foundation for the development of a Common Strategy for Circular and Digital Construction in Central Europe. The resulting framework reflects a high level of stakeholder engagement and provides a clear direction for future work.

By establishing a common understanding, defining strategic pillars, and identifying key challenges and opportunities, this deliverable ensures that the next phase of strategy development can proceed on a solid and widely supported basis.

The framework represents an essential step toward achieving a more circular, sustainable, innovative, and digitally integrated construction sector across the region.

11. Annexis

Annex No 1: 2nd Workshop: 11.2.2026

Annex No 2: 3rd Workshop: 18. 2. 2026

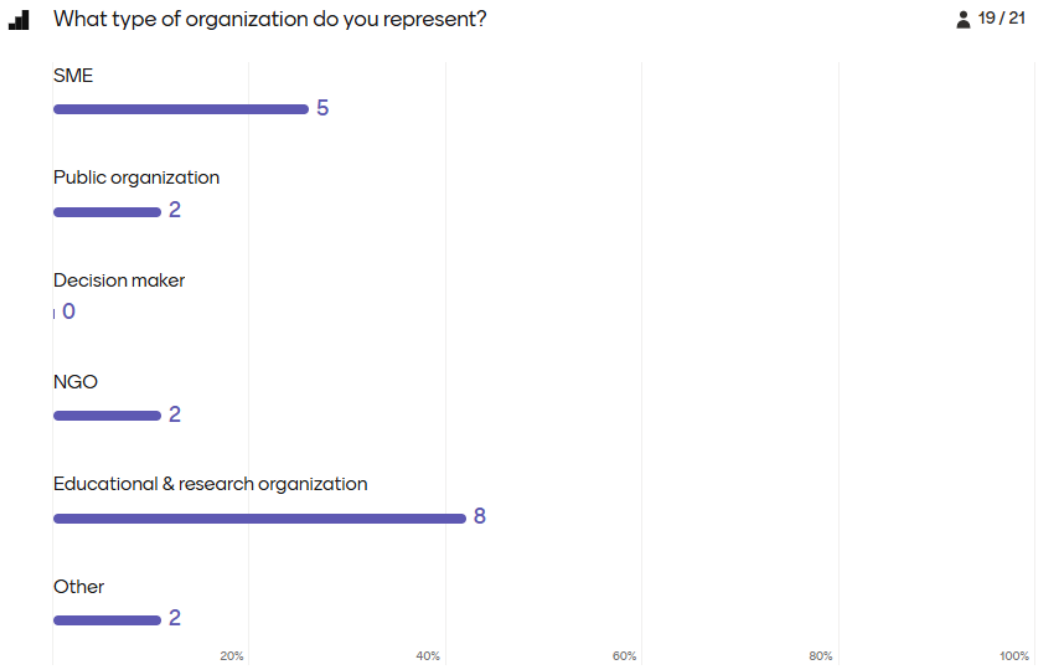
2nd workshop 11.2.2026

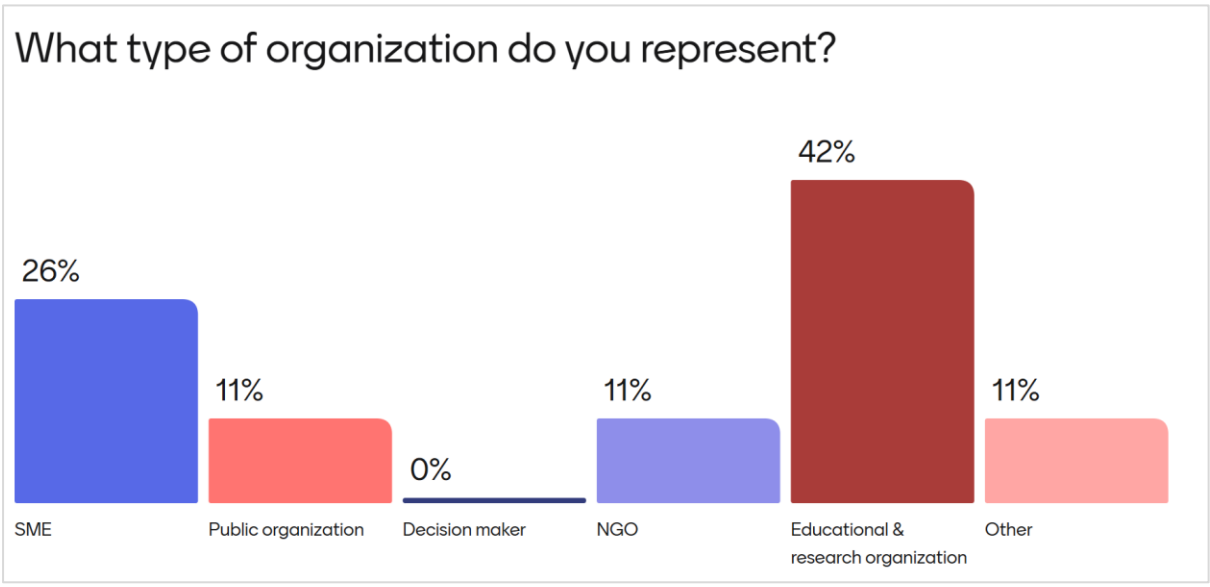
Participant: 33 (2 participants from the SI ministry)

Mentimeter – 20 participants

2 participants from 2 udeležinki z MOPE (Mateja Simčič in Ana Fabjan) sta bili prisotni, vendar nista uporabili mentimetra in sodelovali.

Mentimeter answers:


What type of organization do you represent?
19 / 21
SME
5
Public organization
2
Decision maker
0
NGO
2
Educational & research organization
8
Other
2
20%
40%
60%
80%
100%


What type of organization do you represent?
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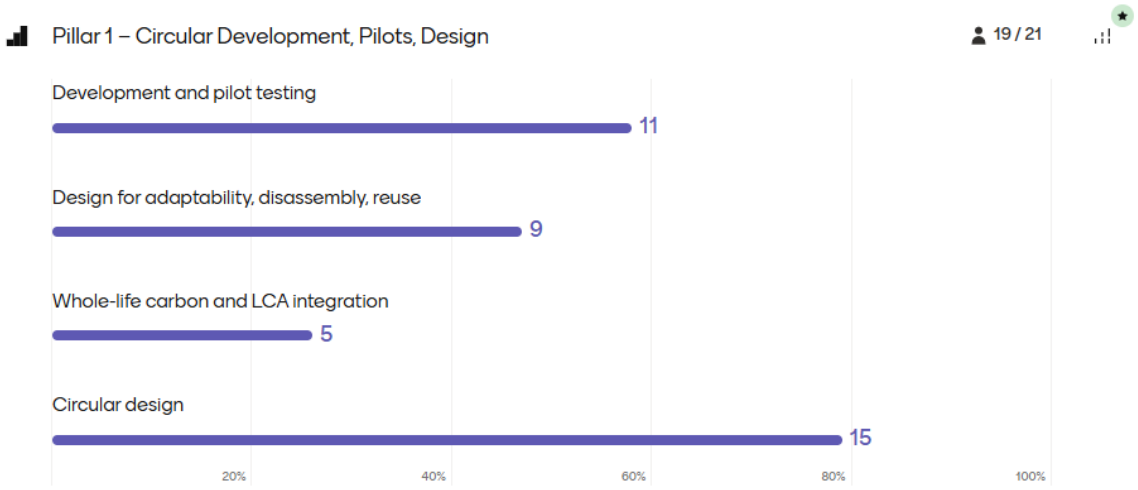
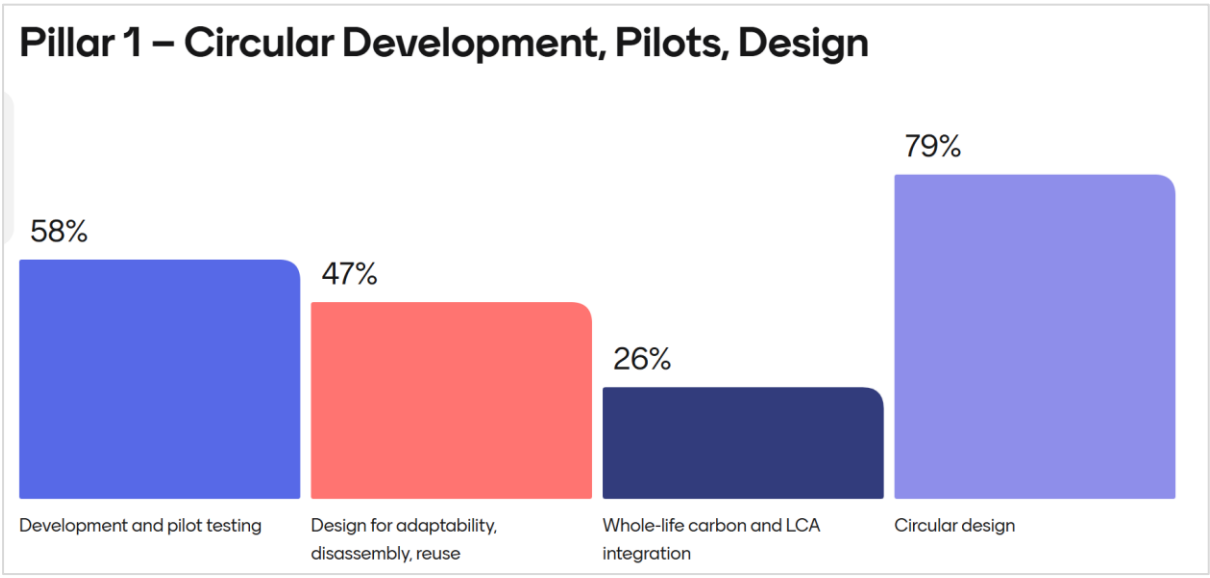
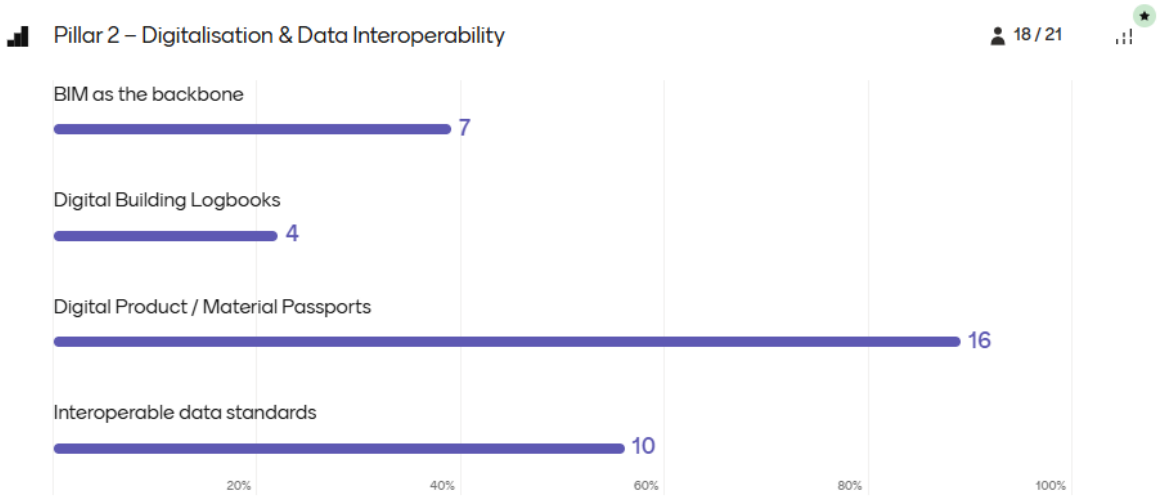
11%
0%
11%
42%
11%
SME
Public organization
Decision maker
NGO
Educational & research organization
Other

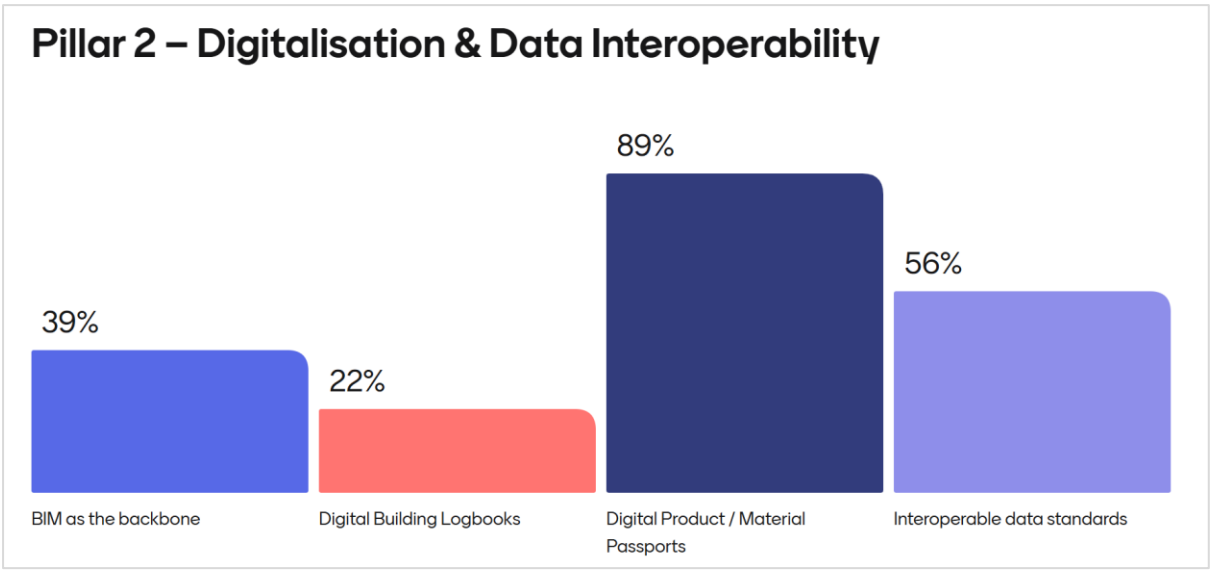




What additional contents should be included in Pillar 1 – Circular Development, Pilots, Design?

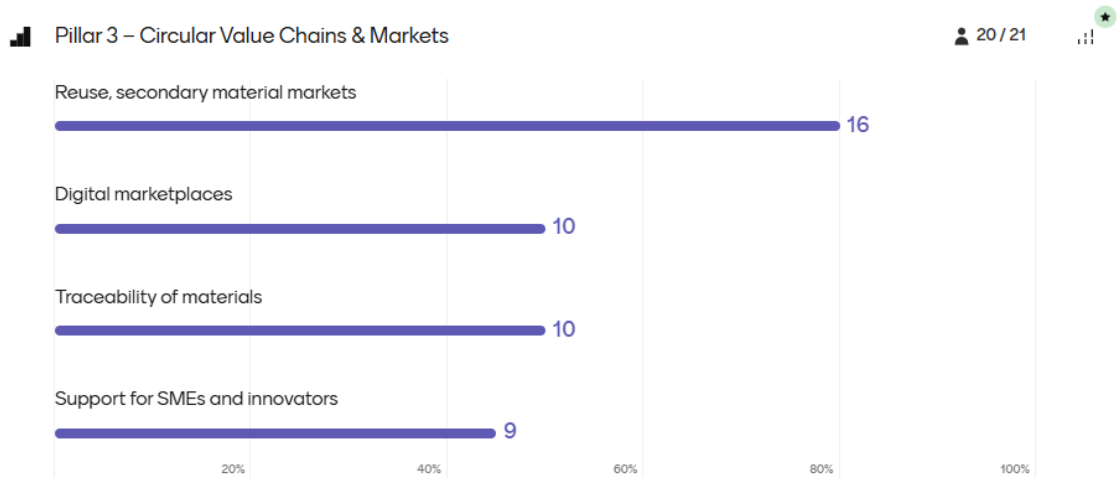
- material reduction
- saving ressourcesvin construction
- Circular Designs defined by technical standards to enable EU wide implementation.
- Dialogue between designers and developers of materials
- Modular Design

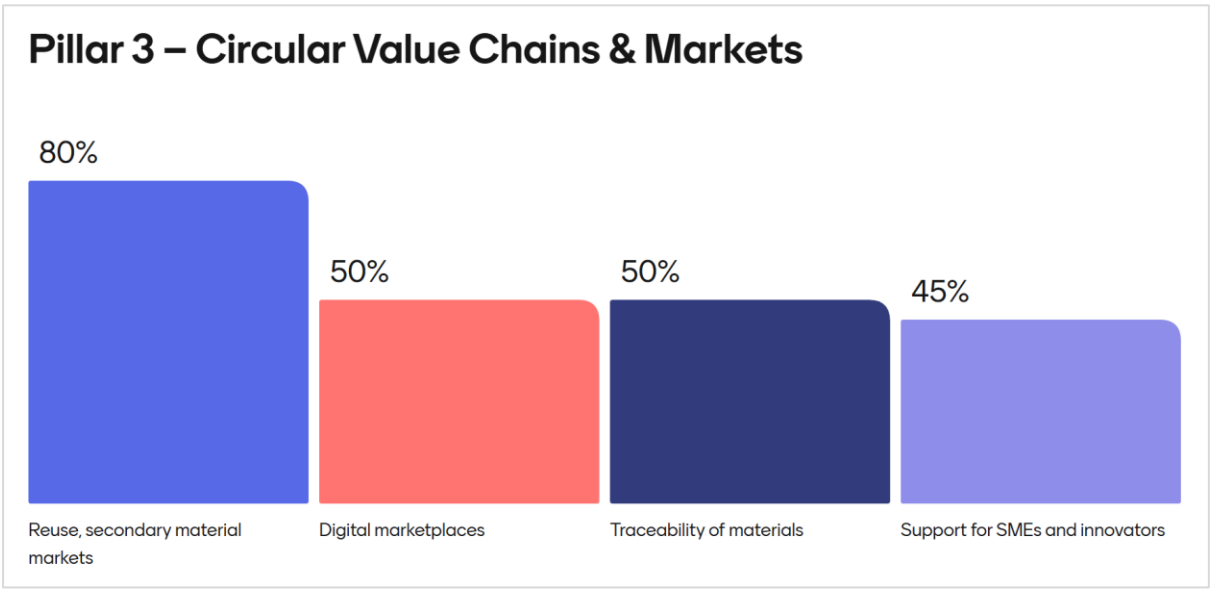




What additional contents should be included in Pillar 2 - Digitalisation & Data Interoperability?

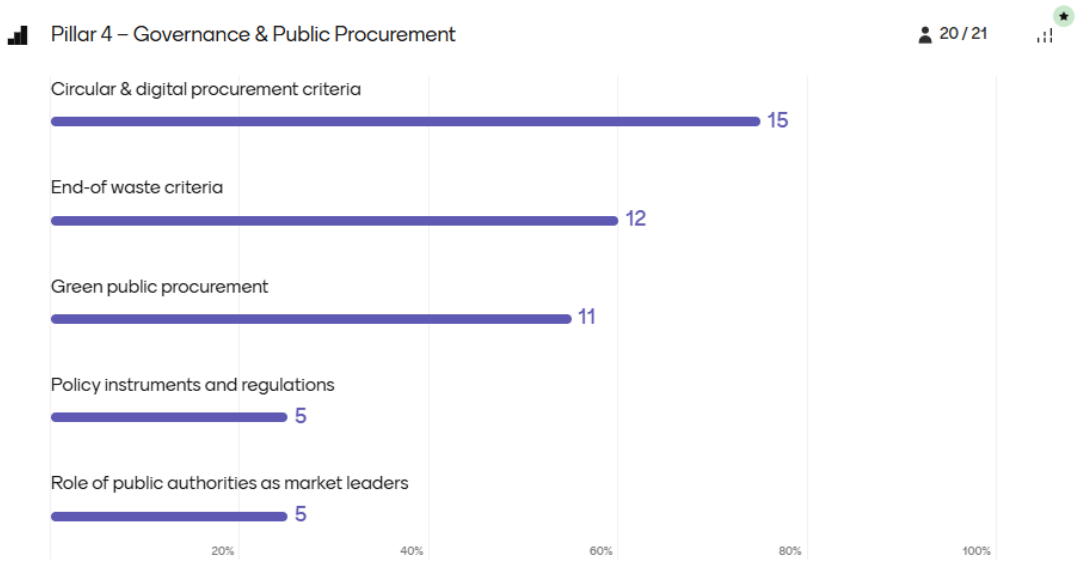
Digital market place	Open source BIM	Digital value chains
digital market for reuse	Digital permits	Database of DP products?


Pillar 3 – Circular Value Chains & Markets
20 / 21
Reuse, secondary material markets
16
Digital marketplaces
10
Traceability of materials
10
Support for SMEs and innovators
9
20%
40%
60%
80%
100%

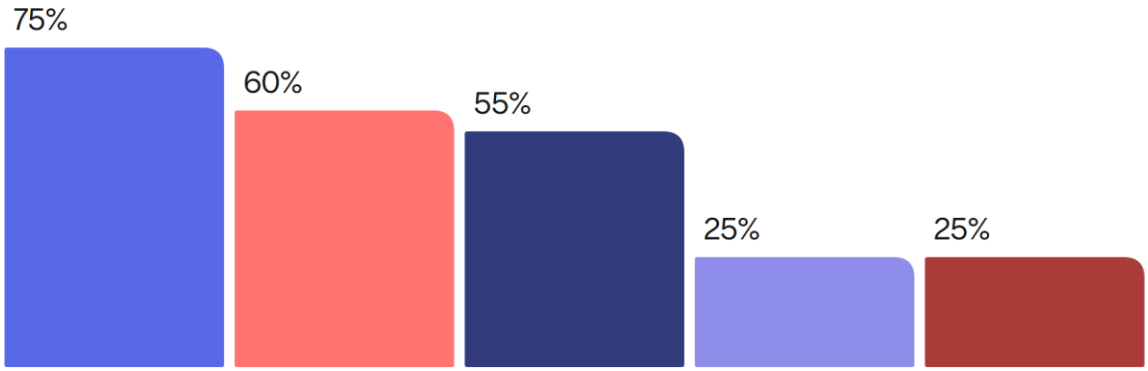

Pillar 3 – Circular Value Chains & Markets
80%
50%
50%
45%
Reuse, secondary material markets
Digital marketplaces
Traceability of materials
Support for SMEs and innovators

What additional contents should be included in Pillar 3 – Circular Value Chains & Markets

- Business support
- legal support
- legislation should be harmonized
- Holistic support to industry
- Market enablers: demand-side instruments. Circular product rules: eco-design, durability/repairability,
- cross-national value chains
- Gpp
- One stop entrance for construction sector
- analysis of local barriers - e.g. lack of storages for re-usable products/materials
- Regional, local, national promotes of circular digital construction
- Data of Global Warming Potential and Taxonomy impact of reusable materials can be more prominent in the phase of material acquisition.
- Bill of materials on national level
- Clear strategy regarding. Reuse

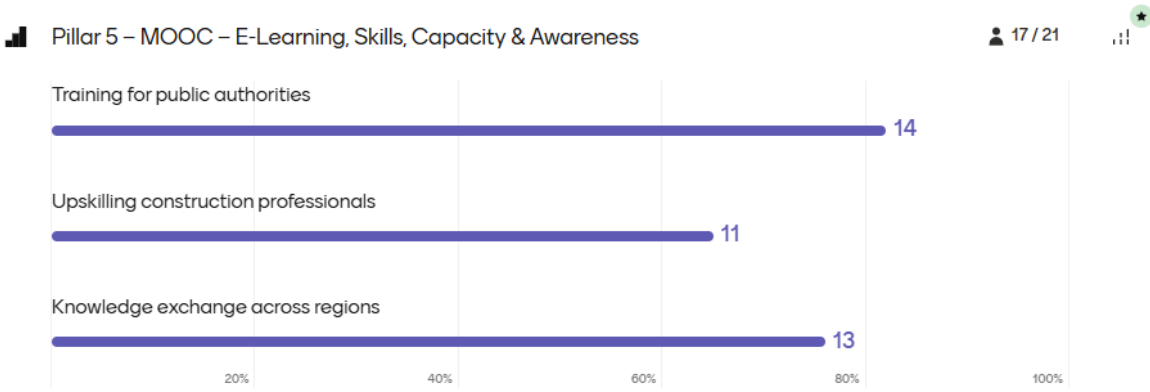


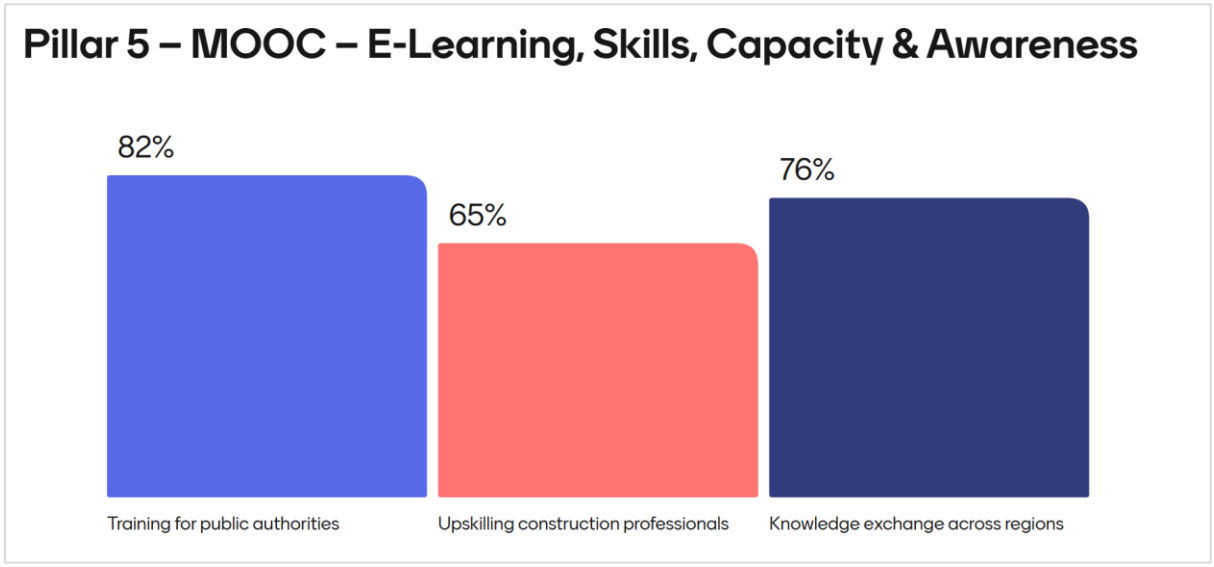
Pillar 4 – Governance & Public Procurement



What additional contents should be included in Pillar 4 – Governance & Public Procurement

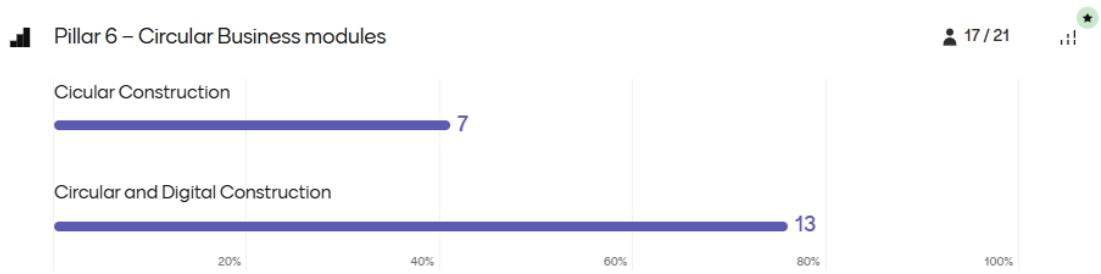
- Not just public but also private green procurement
- GPP in some cases need to be obligatory
- Lowest price criteria in public procurement should not be used
- Clear and transparent procurement criterias based on e.g. Global Warming Potential or overall LCA on material level.
- Leadership from top governance to local governance for construction sector
- Ministry of construction in every country of ce
- Ausditors for pre-demolishing
- Certified auditors for predemoshing audit
- Compliance and enforcement: audit capacity, sanctions, market surveillance, anti-greenwashing controls.
- From legal point of view, somehow the costs of recycling should be covered in GPP approach



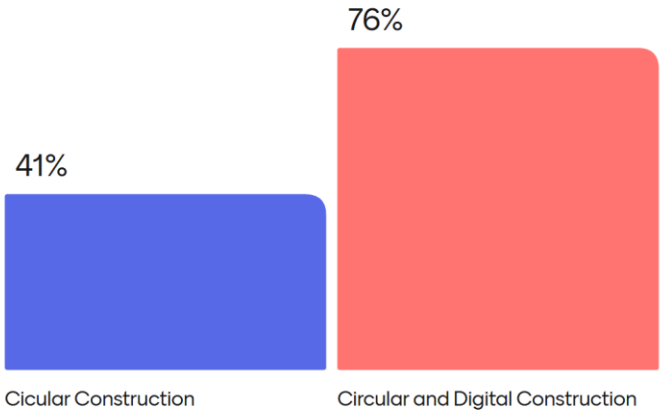


What additional contents should be included in Pillar 5 – MOOC – E-Learning, Skills, Capacity & Awareness

- awareness of circular materials by wide public
- Train the trainer programs
- Inspire contributions from users of the online platform
- Bringing together knowledge in the whole value chain (designers, investors, construction company, decision makers, end-user).
- Regional Central European university of circular and digital construction would be a wild dream come true
- Getting on the same level different education activitie
- monitoring and keep the platform up to date
- Microcertification via local engineering chambers
- Quality, updating: expert review, regular updates aligned with EU law and standards.



Pillar 6 – Circular Business modules



What additional contents should be included in Pillar 6 – Circular Business modules

It is difficult because circular construction has long revenue returning period

Also despite the efforts in past decade it mostly works only if you forced to implement it

Use of EU Taxonomy for circular economy - buildings and renovations

ressource saving

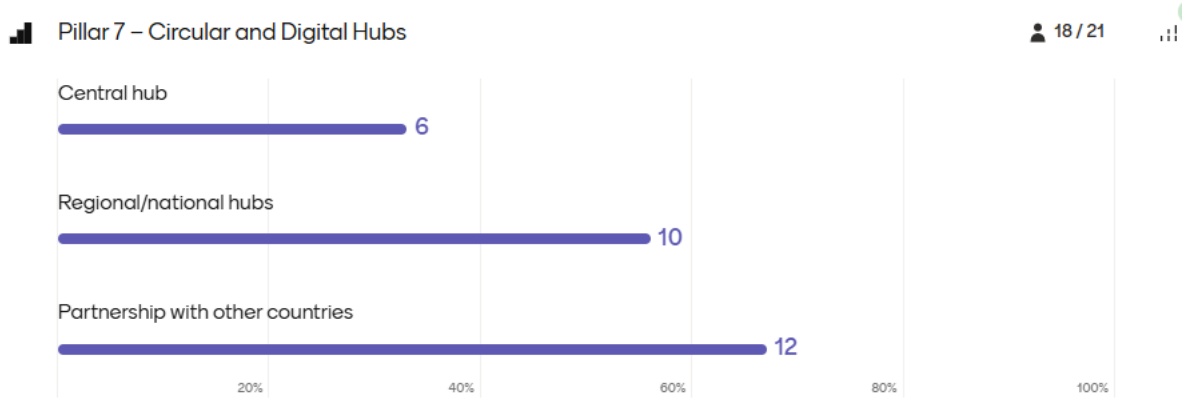
supply chains are very important

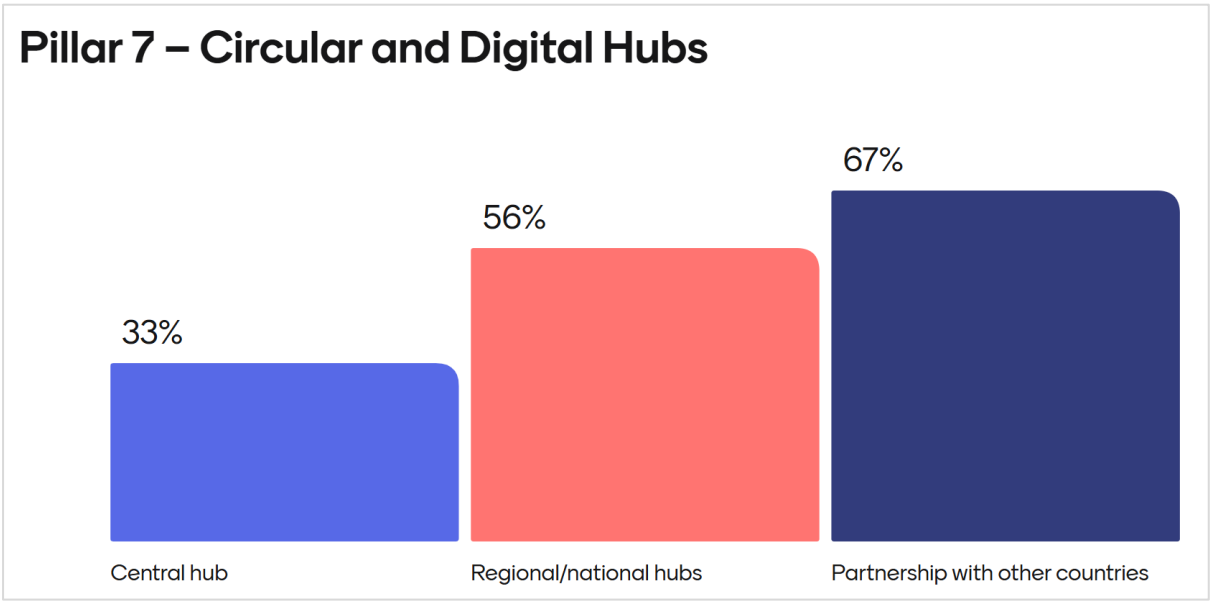
building circular business ecostystems - not only within one company but going beyond to other value chain staekholders

LCC for circular models

First is to have good quality material which also have sustainability part

Regulatory compliance - EU product regulations, EPR obligations, environmental claims, EU reporting.





What additional contents should be included in Pillar 7 – Circular and Digital Hubs

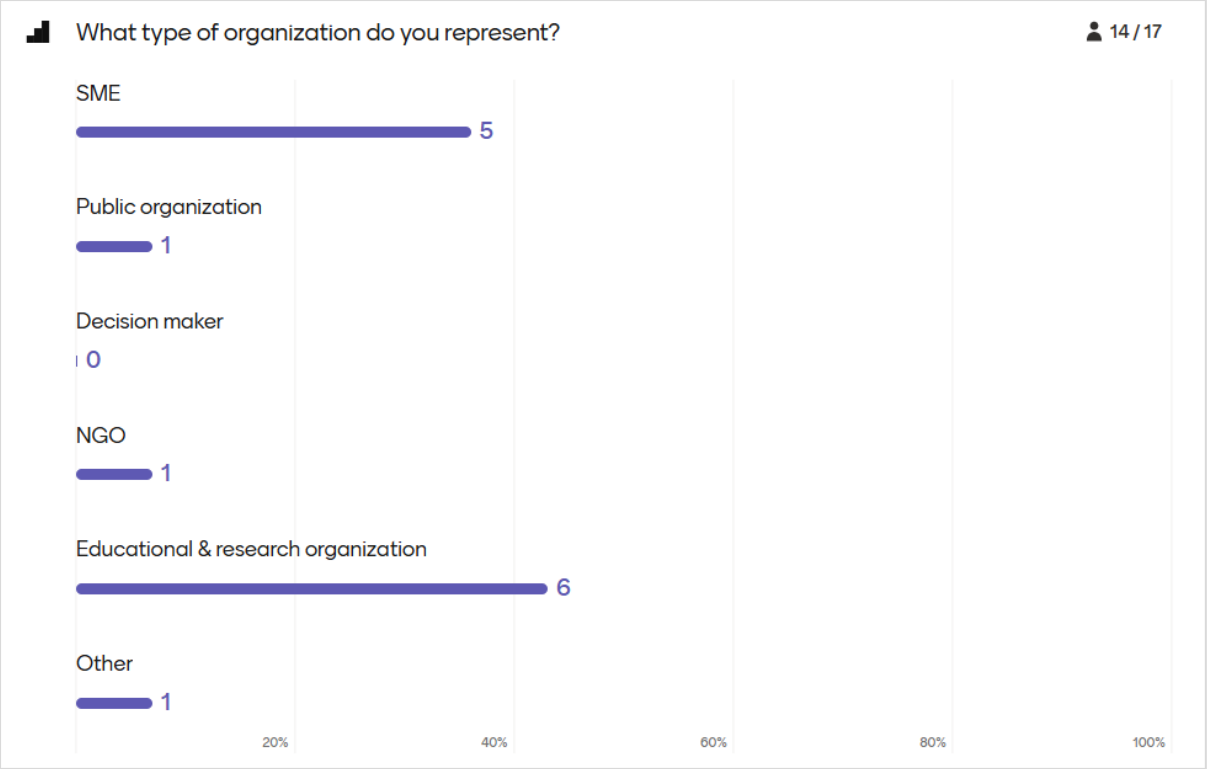
- Funding of these hubs also in the future in order to offer strong support and to overcome barriers
- Include index of other Horizon and Interreg projects on same topic. And yes, sustainability after project completion.
- national Newsletter platform conserning legal or other changes regarding circular economy (e.g. in AT decided to ban gypsum boards as a waste product - it needs to be recycled)
- Demonstrators for circular solutions
- Danube project Circular DigiBuild is preparing something similar.
- we have to learn stakeholders what Digital Hubs are

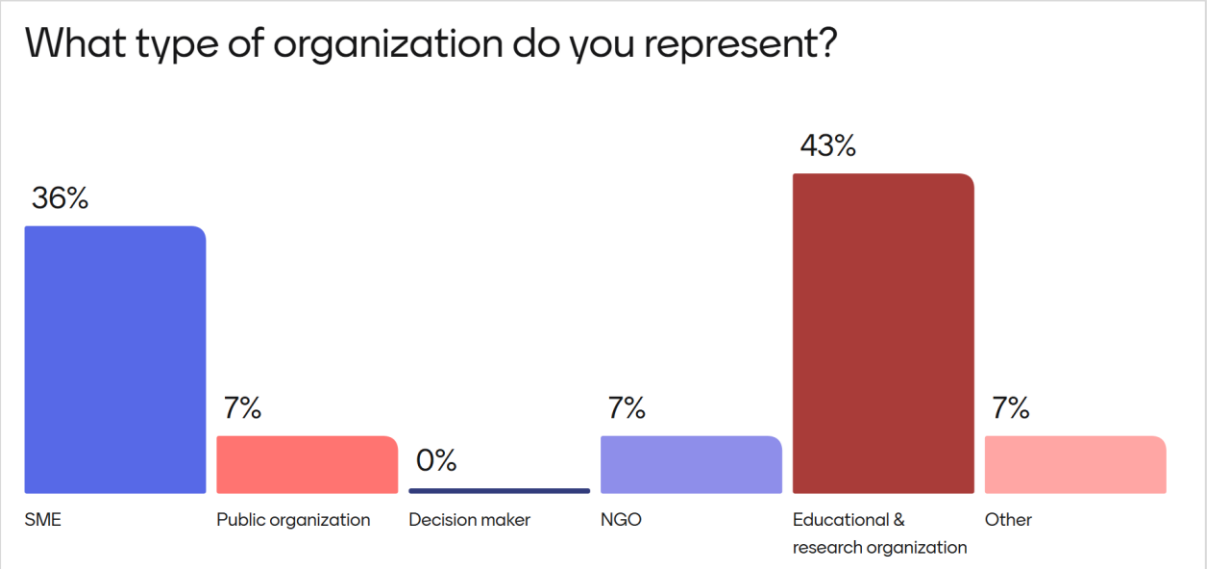
3rd workshop 18.2.2026

24 participants

Mentimeter participants:

17


What type of organization do you represent?
14 / 17
SME
5
Public organization
1
Decision maker
0
NGO
1
Educational & research organization
6
Other
1
20%
40%
60%
80%
100%


What type of organization do you represent?
36%
7%
0%
7%
43%
7%
SME
Public organization
Decision maker
NGO
Educational & research organization
Other

Describe Circular Construction with 3 Words

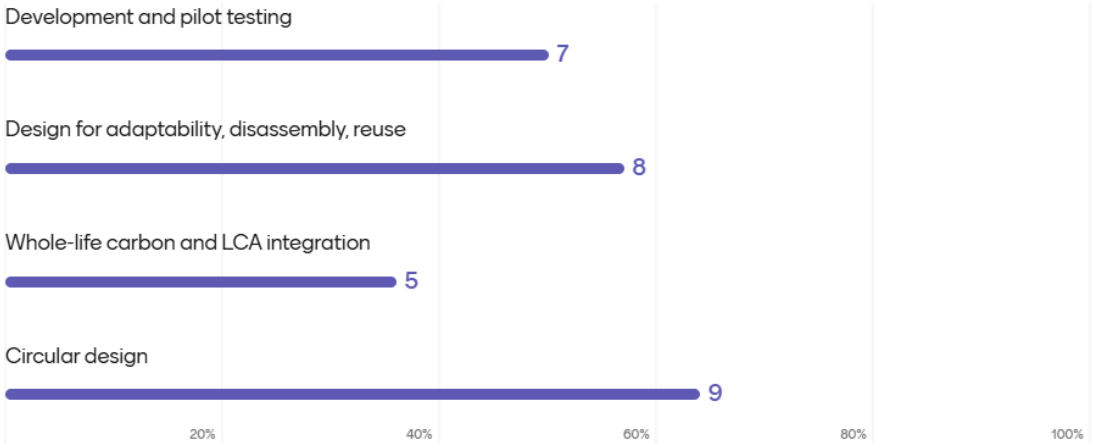
Describe Digital Construction with 3 Words

Share your Vision of the Circular and Digital Construction Strategy

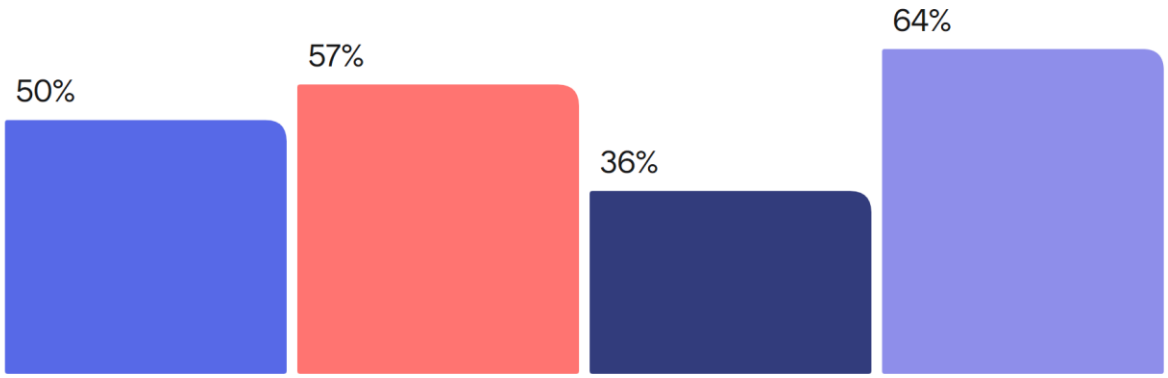
- Closed-loop in the whole construction value chain.
- Create a platform that enables people to improve local circular strategies
- Reduce Workload
- Hopefully chelps change attitūdje and facilitates the transition
- A digitally enabled construction ecosystem where circular principles are embedded across the entire lifecycle.
- enable material traceability and closed the loop use
- Circular construction with successive business models an d added value along the value chain
- Fair and green
- obligatory DPP for construction elements
- Mapping of needs, mapping of existing and thinking of circularity together with economical benefits
- Interoperability
- Verified materials
- Sustainable and secure
- A built environment where materials circulate at their highest value, decisions are data-driven across the full lifecycle, every asset is designed for adaptability, traceability, and net-zero impact.
- Fair, green, affordable and durable roads and houses
- Through education of designers and building functional networks in the industry converting linear into circular.

Pillar 1 – Circular Development, Pilots, Design

14 / 17



Pillar 1 – Circular Development, Pilots, Design

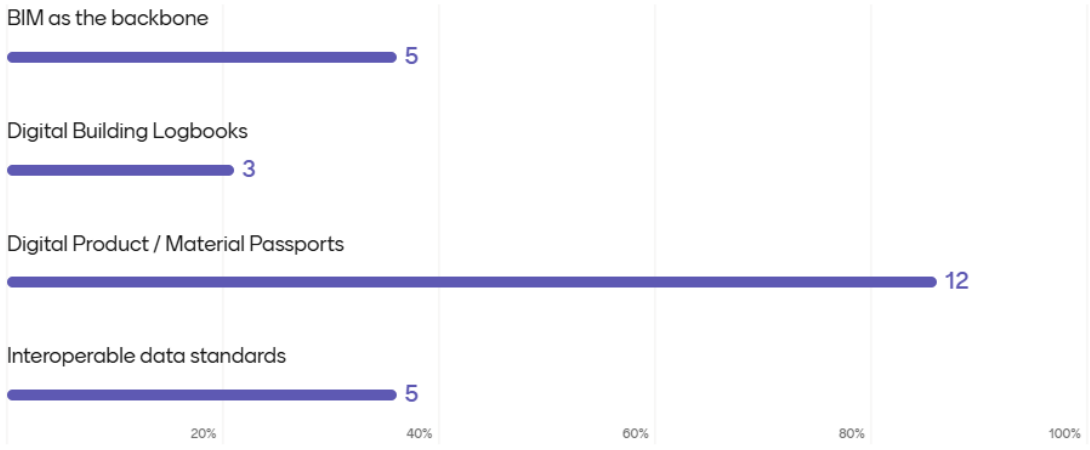


What additional contents should be included in Pillar 1 – Circular Development, Pilots, Design?

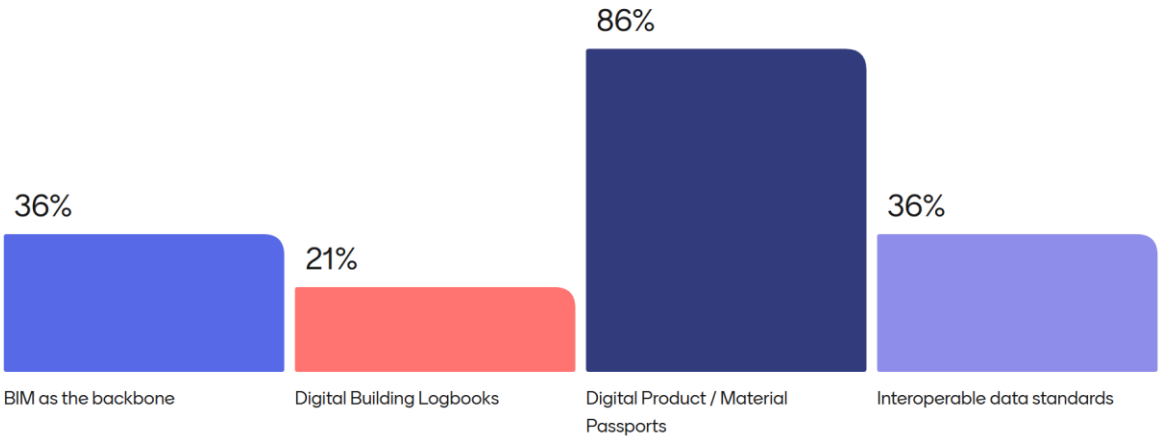
- Technical regulations
- Clear technical standards, structured pilot methodology, financial instruments, risk management and market linkage mechanisms.
- Education of investors
- Digital passporting of buildings
- Digital tools
- Education of designers
- cooperation with recyclers and architects
- Design with Bim with info on materials and environmental impact
- BIM integration of LCA of the used materials to visualize the circularity. In that way calculations for the buildings would also be much more easier.
- Harmonization of national laws
- GPP which includes sustainable indicators based on levels, Lca and epd

Pillar 2 – Digitalisation & Data Interoperability

14 / 17

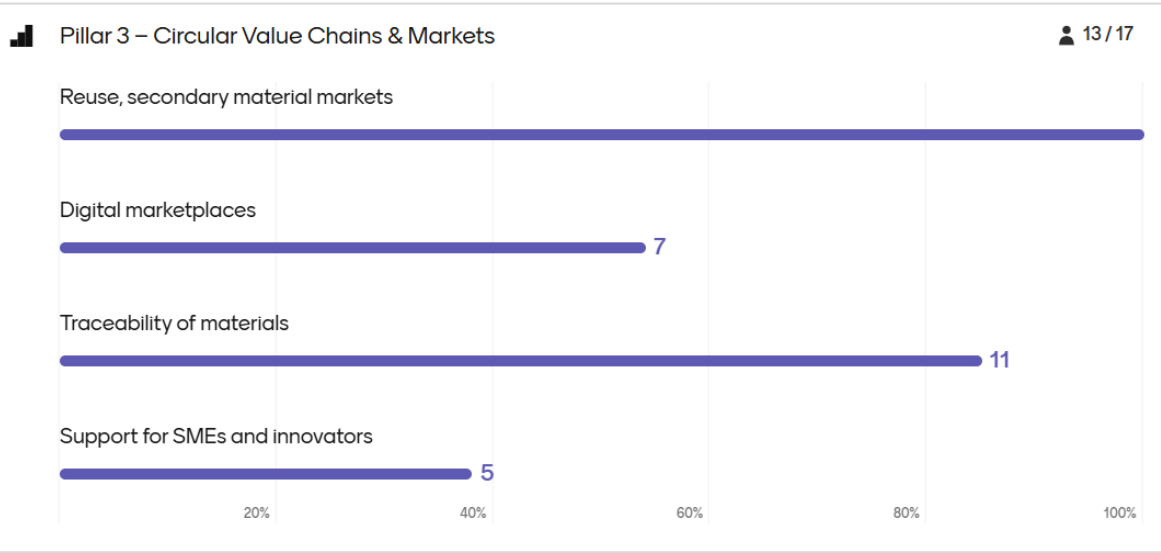


Pillar 2 – Digitalisation & Data Interoperability

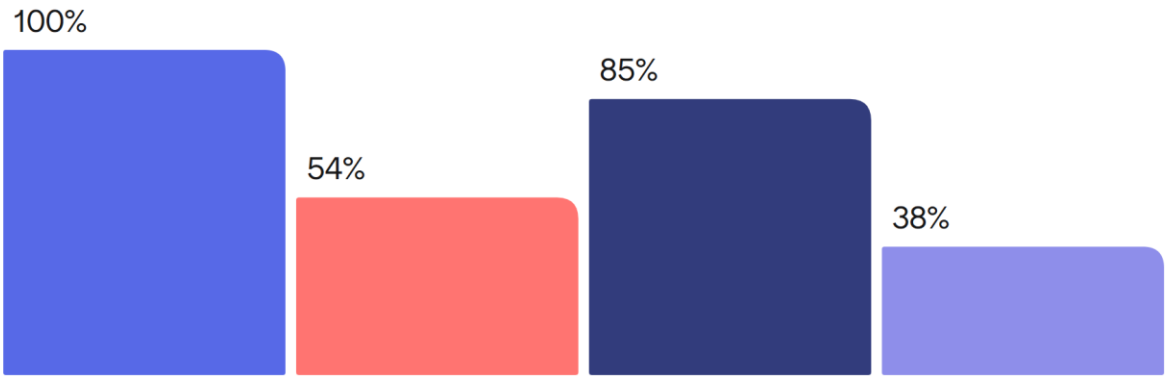


What additional contents should be included in Pillar 2 - Digitalisation & Data Interoperability?

- Gaiax trusted framework
- training and digital skills development
- EU-wide data interoperability
- Harmonizing diffrent tools
- ISO standards, CEN/CENELEC
- implementation of AI
- Clear data standards, lifecycle integration, verification mechanisms and enforceable procurement requirements.
- Robotisation and automatisation to save time of construction



Pillar 3 – Circular Value Chains & Markets

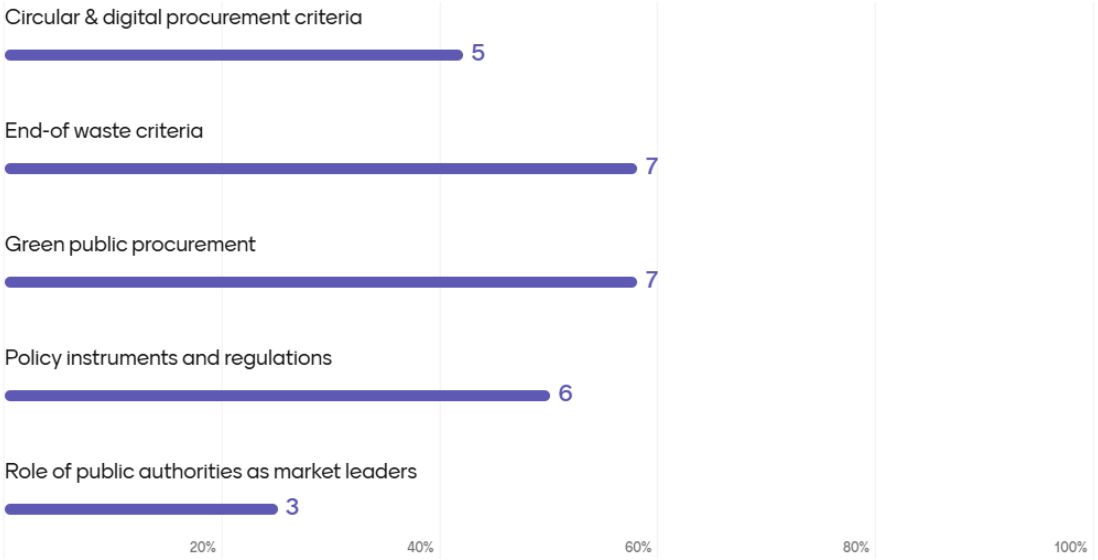


What additional contents should be included in Pillar 3 – Circular Value Chains & Markets

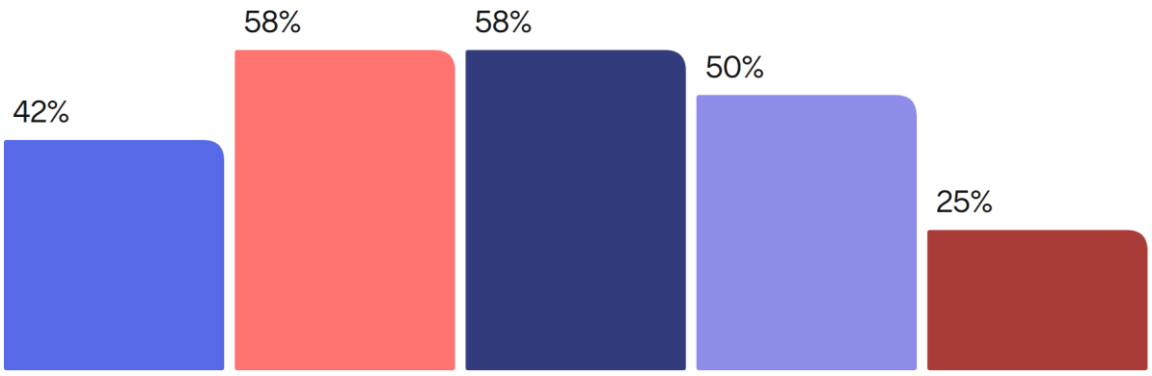
- end of waste criteria
- regional material banks
- Tool for an estimation of EU tax reduction when using circular materials
- Yes. Secondary materials centres for construction
- The issue need to be combined with GPP
- Demand-side measures, reverse logistics infrastructure,
- Mostly local due to the costs and impacts of transport but cross boarder and in some cases also longer are possible
- digital tool for estimating value of materials incorporated into buildings
- cooperation with municipalities and NGOs

Pillar 4 – Governance & Public Procurement

12 / 17



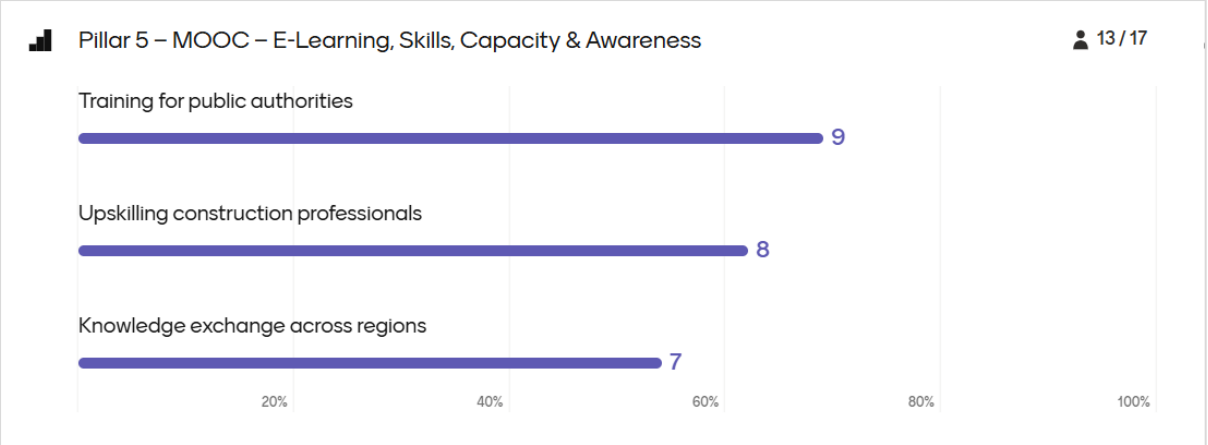
Pillar 4 – Governance & Public Procurement

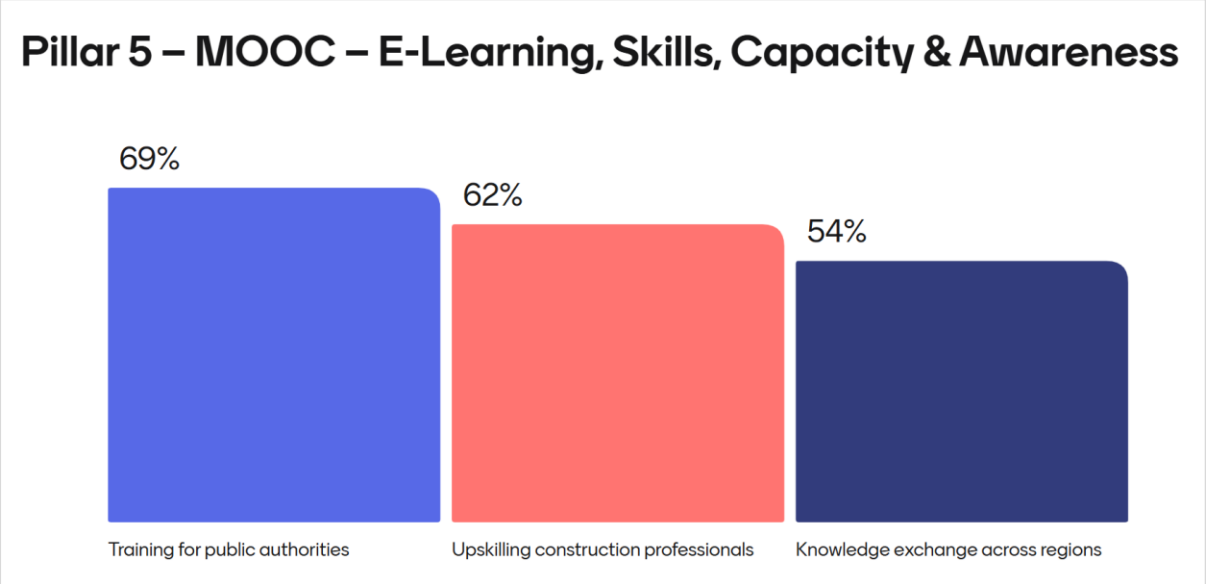


What additional contents should be included in Pillar 4 – Governance & Public Procurement

- mandatory minimum criteria for circularity
- Capacity building on all levels of decision maling
- Legal alignment matrix
- LCA and EPDs
- Clear GPP guidance
- Introduction of incentives
- renovations instead of new-builts as a criterion
- Support it investors for Gpp
- mandatory minimum criteria for circularity
- Levels
- preference for low-emission materials
- whole life carbon calculation
- re-use and recycling rates as part of procurement criteria
- Audit procedures

Press SPACE to group responses

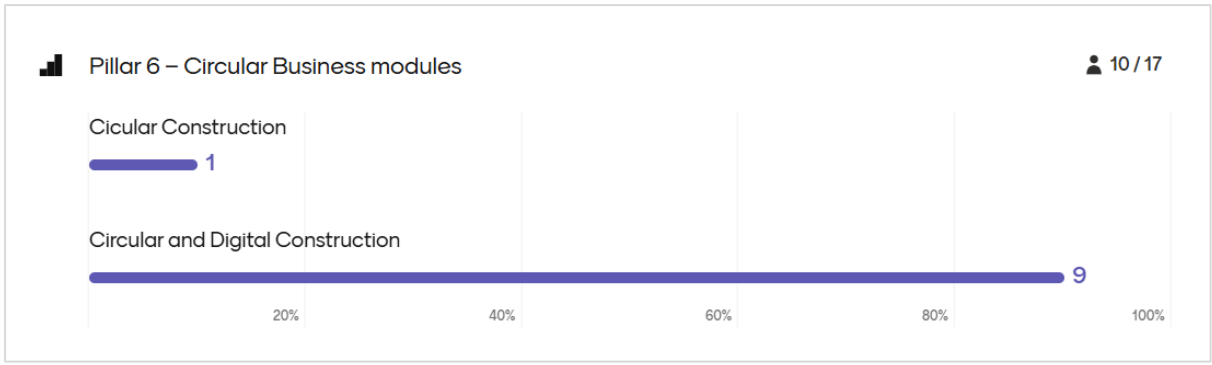




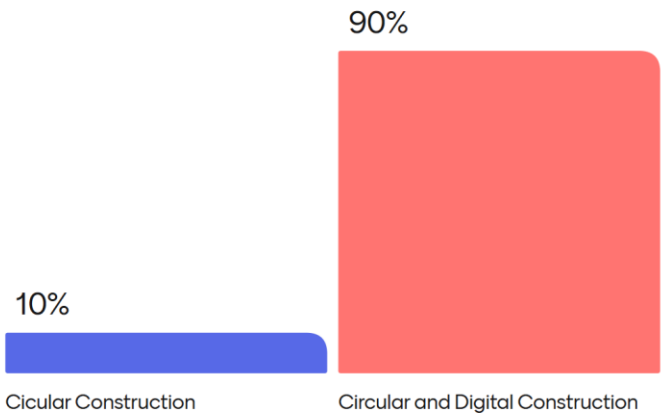
What additional contents should be included in Pillar 5 – MOOC – E-Learning, Skills, Capacity & Awareness

- Scitizen science tools
- Circular Business modelling support tools
- Neb?
- Participating in a MOOC should enhance users' qualifications, meaning they can be referenced in job applications, for example, in the construction industry.
- Enable content contributions from participants
- Integration into existing systems
- Define skill levels (basic → advanced → expert) for Circular design, BIM and data interoperability, circular procurement, deconstruction, reuse engineering.
- Having fresh content
- Incorporate the circular construction skills framework developed under the Horizon 202 project BUS Go-Circular.
- Include material for children
- New European Bauhaus

Press SPACE to group responses

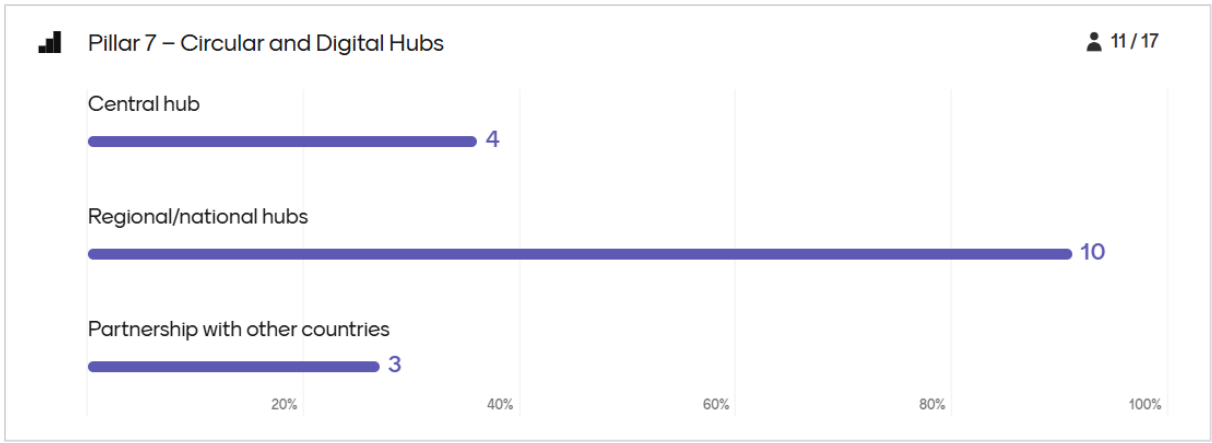


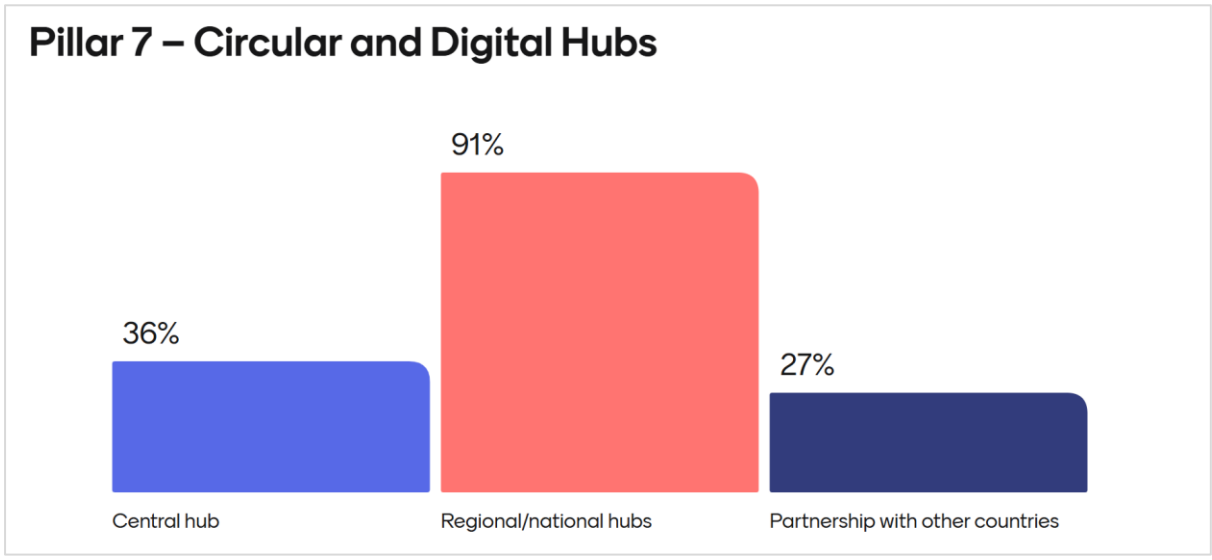
Pillar 6 – Circular Business modules



What additional contents should be included in Pillar 6 – Circular Business modules

- Good practices - CinderOSS
- BIM
- support from the EU and governments
- Possibility to purchase cheaper energy for C&D waste recyclers
- financial incentives for implementing circular buisness models
- Really persuading cases
- Implementation of EU guidelines for selective deconstruction and predemolish audit
- Use of digital material exchanges for reuse and recycling
- Innovation
- Project lifecycle economic return on circular construction practices





What additional contents should be included in Pillar 7 – Circular and Digital Hubs

- Integration with existing hubs
- Issue is when you have manny clusters competing
- Clear line of information
- Also in case of Interreg projects - we develop a lot!
- legislation
- events
- Regional Material Information – urban mining database, mapping of future demolition streams, secondary materials inventory platform, etc.
- Tools that not operate in isolation
- How to support the long term opration of hubs