Presentation RTS Finland

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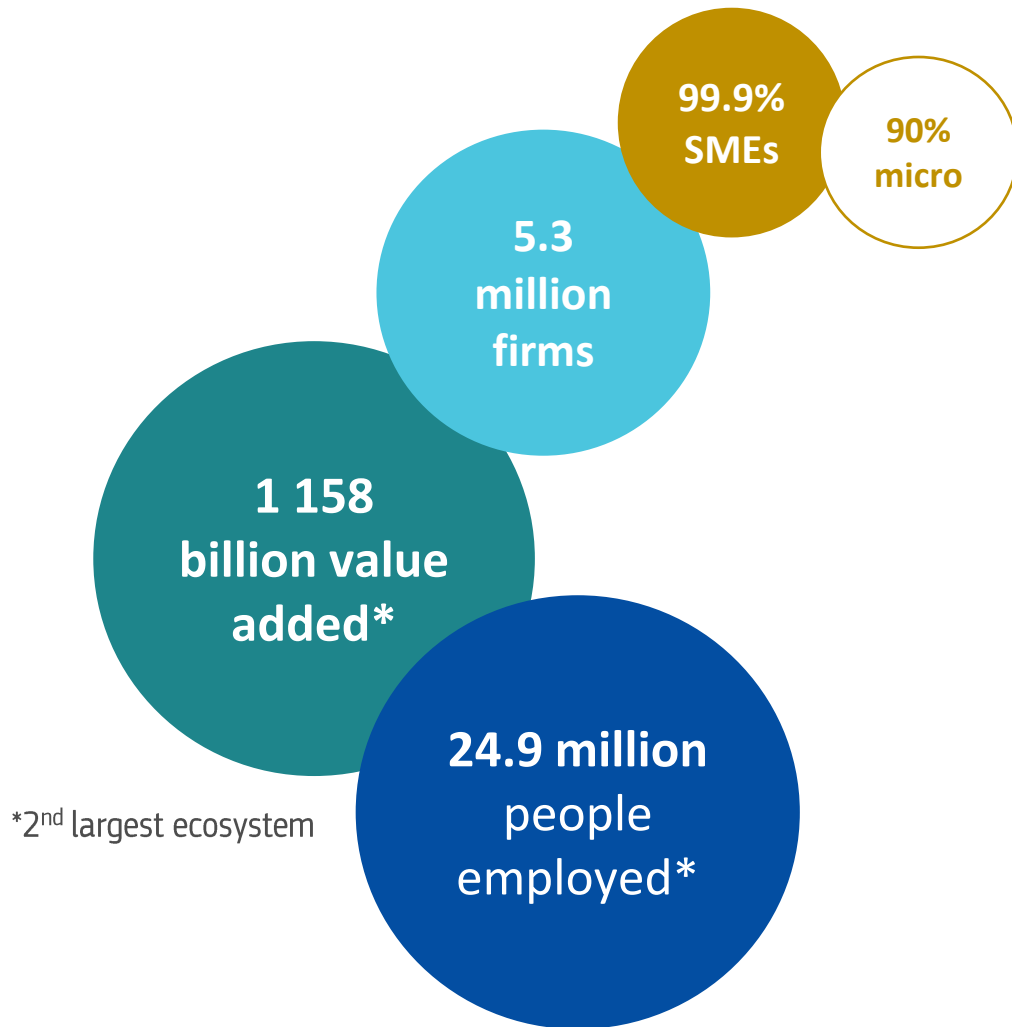
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1. Introduction: ecosystem - policy landscape – High Level Construction Forum

European Commission

The construction ecosystem

99.9% SMEs

90% micro

5.3 million firms

1 158 billion value added*

24.9 million people employed*

*2nd largest ecosystem

European Commission

The construction ecosystem

Trades materials, products and machinery

Provides design services

Responsible for the Affordable Housing Initiative

Manufactures energy-consuming products installed in buildings

Produces certain materials and products for construction

Requires support from construction for its infrastructure

Produces electronic products, services and tools

Provides certain materials and resources for construction

RETAIL

CULTURAL AND CREATIVE

PROXIMITY-SOCIAL ECONOMY AND CIVIL SOCIETY

CONSTRUCTION

ENERGY-RENEWABLES

ENERGY INTENSIVE INDUSTRIES

MOBILITY-TRANSPORT-AUTOMOTIVE

AGRI-FOOD

DIGITAL

European Commission

DG GROW - Policy landscape

FIT FOR 55

A package of proposals to make the EU's climate, energy, land use, transport and taxation **policies fit for reducing net greenhouse gas emissions by at least 55% by 2030**, compared to 1990 levels.

POLICY LANDSCAPE FOR CONSTRUCTION

- Competitiveness and resilience at the center of DG GROW work

- Implementation of Green Wave for construction

- Implementation of Digital Strategies for construction
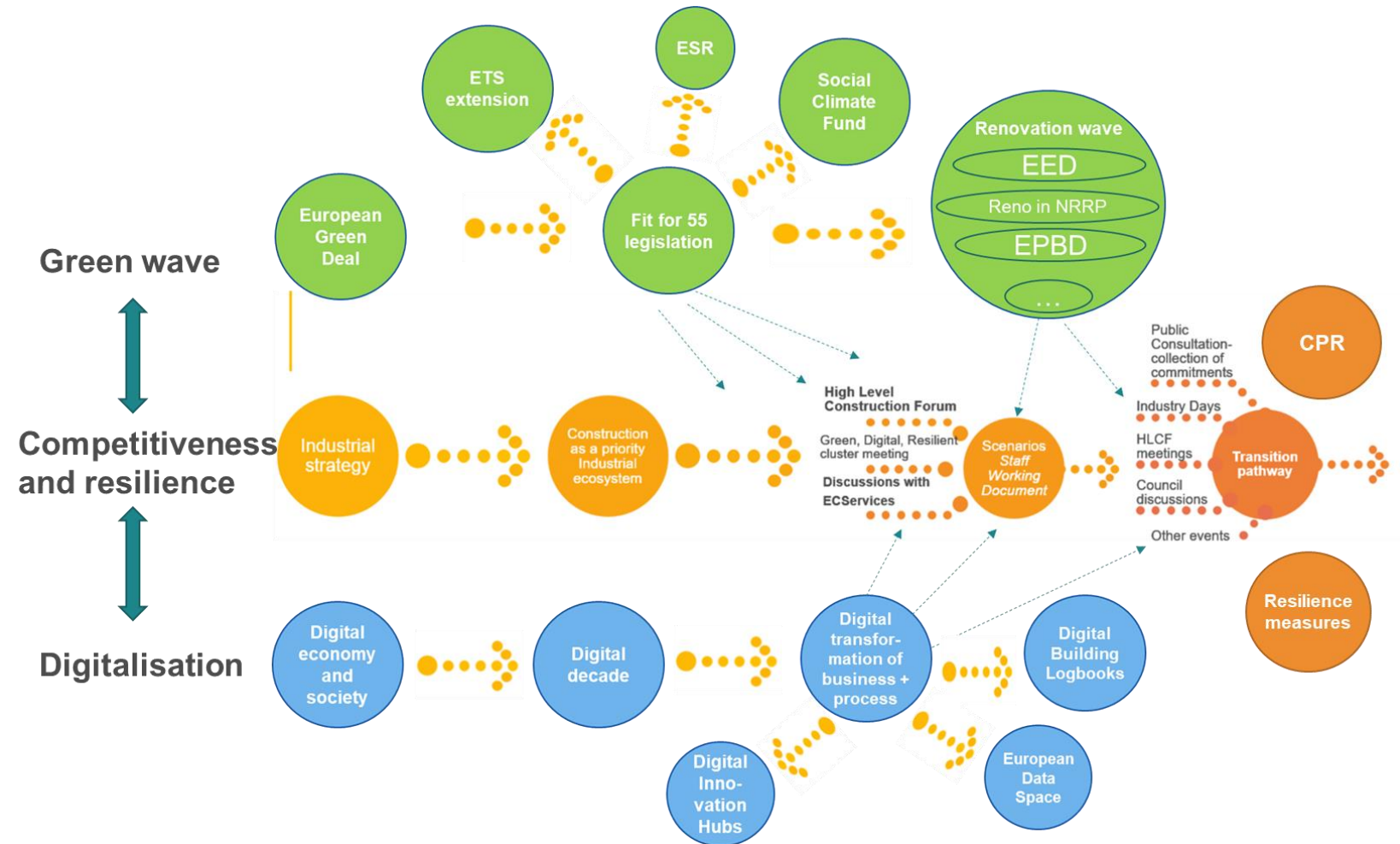
DG GROW – Policy – Transition Pathway

- Process in **co-creation** with industry, Member States and other stakeholders
- Further elaboration of the Industrial Strategy
- Via the framework of the **High Level Construction Forum**
- Developing a non-binding but coherent **policy framework** to
  - Test/validate EC policies
  - Encourage all stakeholders to continue working in co-creation towards a transition of the sector
- "**Living document**":
  - 2021-2022 First Staff Working Document : general views
  - March 2023: current document with visions and **recommended actions** for EC, MS and industry
  - 2023-2024: **further pledges** from industry
  - 2024-… **monitoring** and further follow-up

High Level Construction Forum

A **platform to communicate** with stakeholders and Member States

+**700** construction **stakeholders** registered

Enabling co-creation for the **transition pathway**

1-2 plenary meetings per year

9+ thematic meetings per year

Newsletter with updates, invitations, events
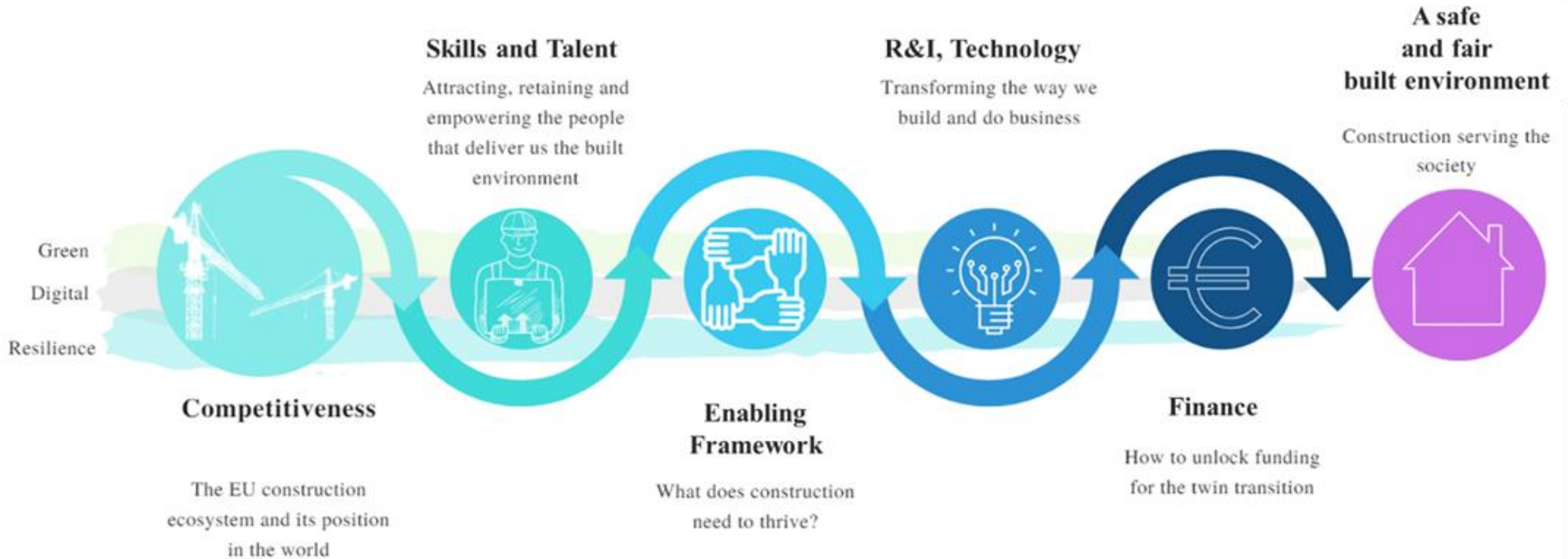

Join the HLCF and receive the newsletter:
https://ec.europa.eu/eusurvey/runner/d5823bdd-cd51-798d-ad6d-3807202c4903

European Commission

DG GROW – High Level Construction Forum

- Recent work from the HLCF

  - October 2023: webinar on "Skills in construction"

  - November 2023: webinar on prefabrication, innovative technologies and AI

  - March 2024: webinar organised on Artificial Intelligence, Digital Building Permits and Digital Building Logbooks

  - 24 April 2024: new plenary HLCF on

    - monitoring the actions

    - new pledges received from stakeholders

    - general evolutions on the different topics

European Commission

2. Transition Pathway Document – March 2023

Transition Pathway Document

Skills and Talent

Attracting, retaining and empowering the people that deliver us the built environment

R&I, Technology

Transforming the way we build and do business

A safe and fair built environment

Construction serving the society

Green

Digital

Resilience

Competitiveness

The EU construction ecosystem and its position in the world

Enabling Framework

What does construction need to thrive?

Finance

How to unlock funding for the twin transition

Document published in March 2023
https://ec.europa.eu/docsroom/documents/53854

European Commission

Building Block 1: Competitiveness

- Construction: main **challenges** and opportunities

- Construction **start-ups**

- **Strategic dependencies** challenging construction resilience

- General **availability of raw material** as a prerequisite for a thriving industry

  - Importance of wood supply chains, not only for construction but for furniture industry, panel industry, paper industry,…

European Commission

Building Block 2: Skills and talent

- A coordinated effort to **upskill** construction professionals

  - **Blueprint** for Sectoral Cooperation on Skills (2019-2023)

  - **Pact for Skills**: launched in 2022 by the EU social partners FIEC and EFBWW in cooperation with EBC. Detailed activities are under preparation. Any construction stakeholder can join the Pact with its own commitment.

  - Since 2011, the Commission has been supporting the upskilling of construction professionals on energy efficiency and sustainability as part of the **BUILD UP Skills** initiative

- Diversity and **attraction of talent**

  - Women represented 10.0% in 2018, a slight increase compared to the 2010 share (9.6%)

  - Still barriers for women towards jobs in construction industry (real and perceived)

European Commission

Transition Pathway – Building Block 3: Enabling framework

- Enabling the **digital transition** – the digital transition as lever to resilience

  - Cyber-security as a significant concern for SMEs to digitalise

  - Artificial Intelligence Act (Commission proposal)

  - A construction Data Space

  - Revised Construction Products Regulation

  - Digitalisation of construction SMEs

  - Digitalisation of building permit processes

  - Standardisation

European Commission

Building Block 3: Enabling framework

- **Standardisation as enabler of digitalisation and as a strategic element of the green transition**, including the concept of digital sobriety.

  - **OpenBIM** should allow the integration of a digital work assuring access and usability throughout its life cycle without depending on a specific proprietary tool.

  - **Open standards** require a commitment and structural support from the public sector. To ensure access to and control over data, tools, and data processes open standards should remain in place to ensure data ownership.

  - The **Construction Products Regulation** provides the necessary instruments and will ensure the exchange of compatible data in BIM systems. To achieve this goal the future CPR is expected to provide a database or system to be used as data source for the assessment of buildings.

European Commission

Building Block 3: Enabling framework

- **Standardisation as enabler of digitalisation and as a strategic element of the green transition**, including the concept of digital sobriety.

  - The **work of CEN/TC 442 dealing with BIM** is another key element able to ensure a homogeneous implementation across Europe. Issues such as language, different construction traditions and terminology, process and regulatory approaches need to be taken into consideration for the development of European standards related to BIM.

  - The European Commission is working on **harmonization of Digital Building Logbooks.** For the time being mainly through soft policy and through the creation of guidelines for more harmonized use, with an objective to create better interoperability

European Commission

Building Block 4: Research, Innovation, Technology

- R& I in a fragmented ecosystem
- Research, innovation and technology as enablers of the twin transition
    - European Research Area: industrial technology roadmap for circular technologies
    - Horizon Europe Programme
    - European Innovation Council supports entrepreneurs bridging the gap between scientific excellence and market adoption

European Commission

Building Block 5: Funding

- The private investment environment

- EU funding schemes and national/regional programmes

European Commission

Building Block 6: Towards a fair and safe built environment

- Fair housing

- Safe buildings

3. Digitalisation of construction: policies and projects

Digitalisation of construction: benefits

Digitalisation is not the goal but one of the means *towards a greener and more resilient and competitive construction ecosystem. Digitalisation has significant* *potential and transformative implications*

- the **greening** of the construction sector

- the **greening** of the built environment

- **urban planning** and building management.

- Increases **transparency** (eg in public procurement)

- supports the **international competitiveness** of the European construction sector

- connects **the separate parts of the value chain** as well as users

- it can help to **create trust**, transparency and **improve decision-making**.

- It helps to **overcome challenges** posed by the pandemic, supply chain crisis, energy crisis, climate crisis,…

➔ **70% of construction executives mentioned new production technologies and digitalisation as the drivers of change in the sector.**

European Commission

Digitalisation: landscape and policy

Digitalisation of the ecosystem

Fin. Inst.

Contractors

Product manufacturers

Architects

Investors

HVAC installers

Occupants

Waste mgmt
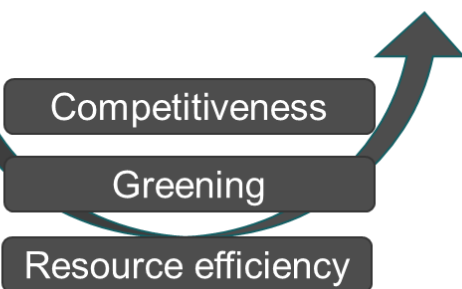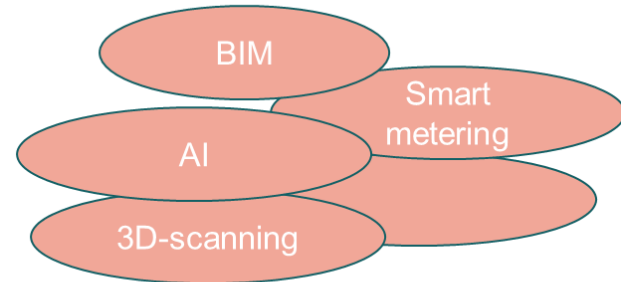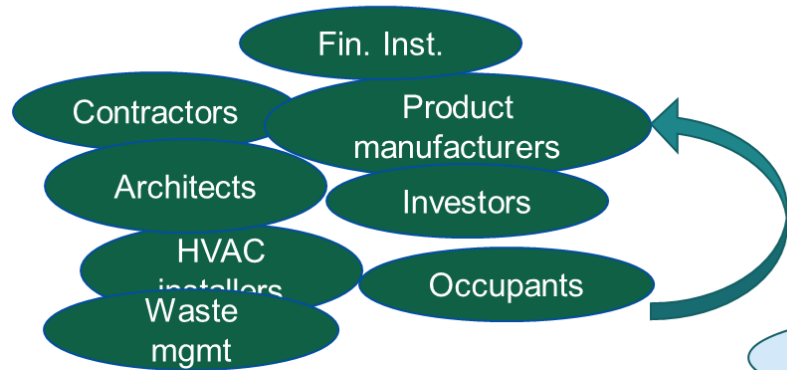
Data framework
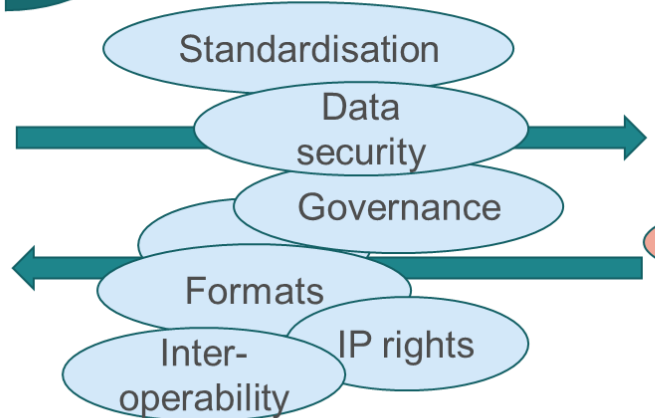
Digitalisation of public authorities

Member States

Regional authorities

Municipalities

Big Buyers

BIM

Smart metering

AI

3D-scanning

Standardisation

Data security

Governance

Formats

Inter-operability

IP rights

BIM in public procurement

Building Logbooks

Digital permit systems

Automated processes

Dig. Twin of Built Env.

Competitiveness

Greening

Resource efficiency

Efficiency

Better policy making

Long term planning

European Commission

DG GROW Project: Digitalisation of SMEs

Objective: accelerate digitalisation by SMEs

- **Maturity scans**

- **50 company cases**

- **Handbook** on different technologies

  - BIM

  - Robots

  - Drone

  - 3D-printing

  - 3D-scanning

  - Mobile Devices

- **Trainings**

  - Specific technologies

  - Digital company culture

  - Digital transformation strategy

  https://digital-construction.ec.europa.eu/

European Commission

DG GROW Project: Digital Building Logbooks

Aim: development of an EU model for digital building logbooks

"A digital building logbook is a common repository for all relevant building data. It facilitates transparency, trust, informed decision making and information sharing within the construction sector, among building owners and occupants, financial institutions and public authorities."
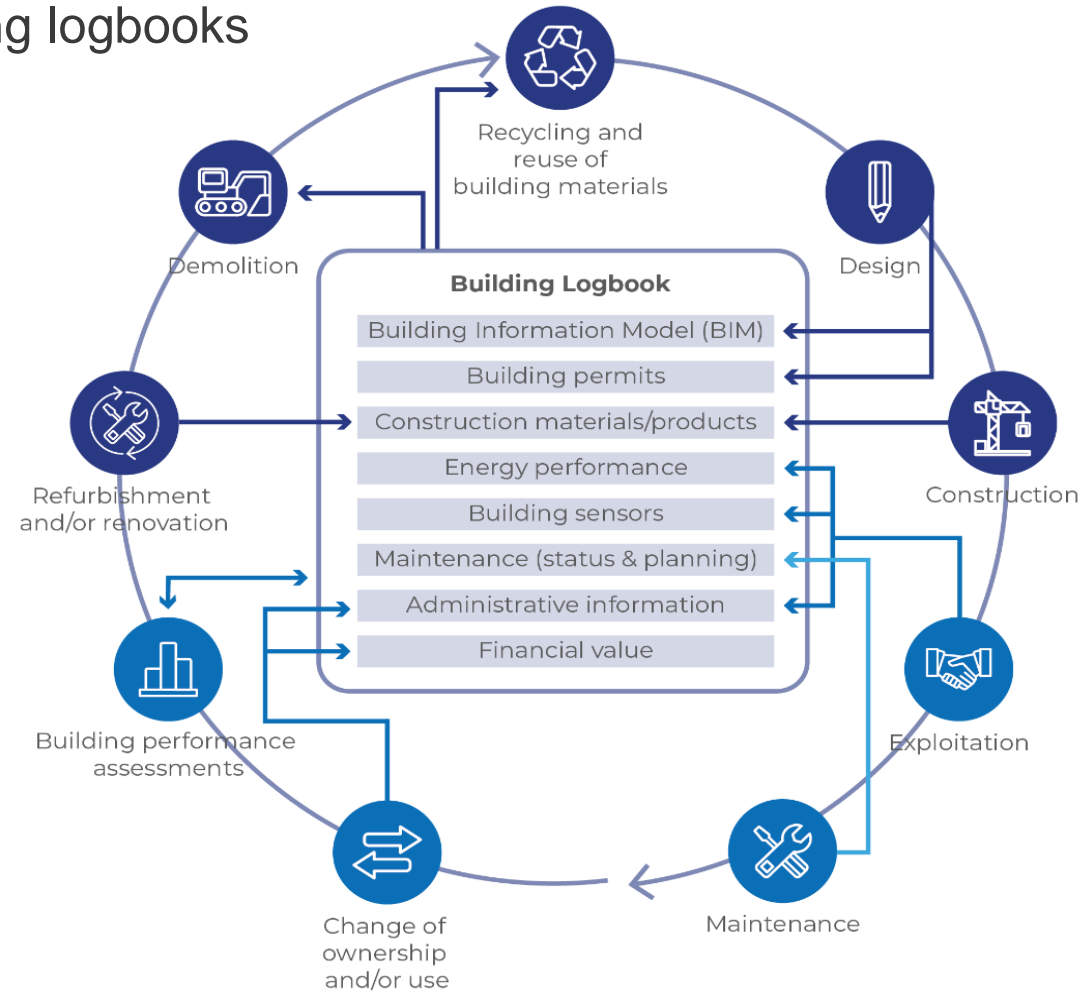
Source: Study on the development of a European Union Framework for Digital Building Logbooks (2020)

Building Logbook
- Building Information Model (BIM)
- Building permits
- Construction materials/products
- Energy performance
- Building sensors
- Maintenance (status & planning)
- Administrative information
- Financial value

Recycling and reuse of building materials

Demolition

Design

Refurbishment and/or renovation

Construction

Building performance assessments

Exploitation

Change of ownership and/or use

Maintenance

DG GROW Project: Digital Building Logbooks

- **Basis:** Definition of the Digital Building Logbook

  - Understanding of **functionalities** prioritisation

  - Great understanding of **benefits**

  - Insights in the relationships between **stakeholders**

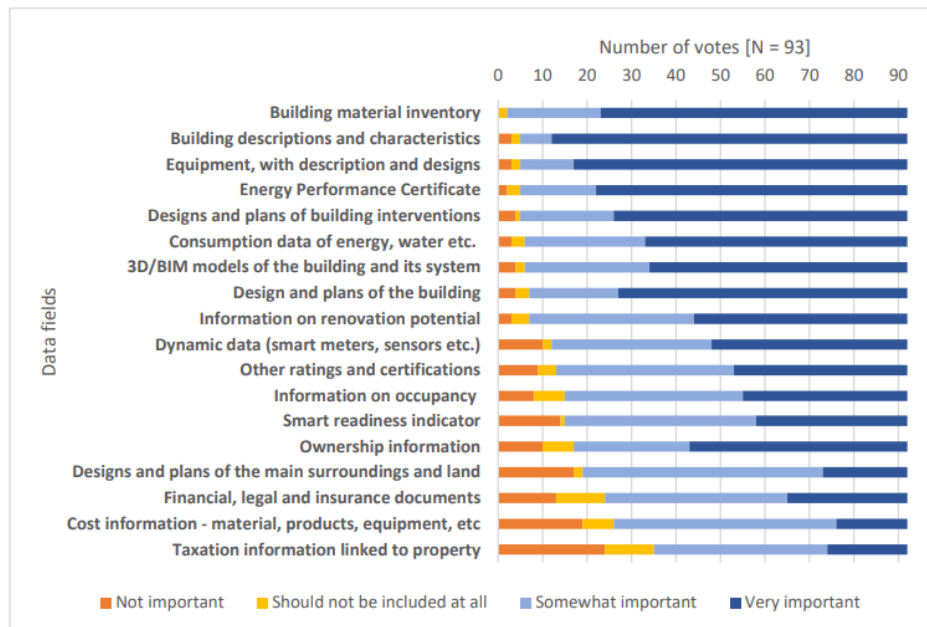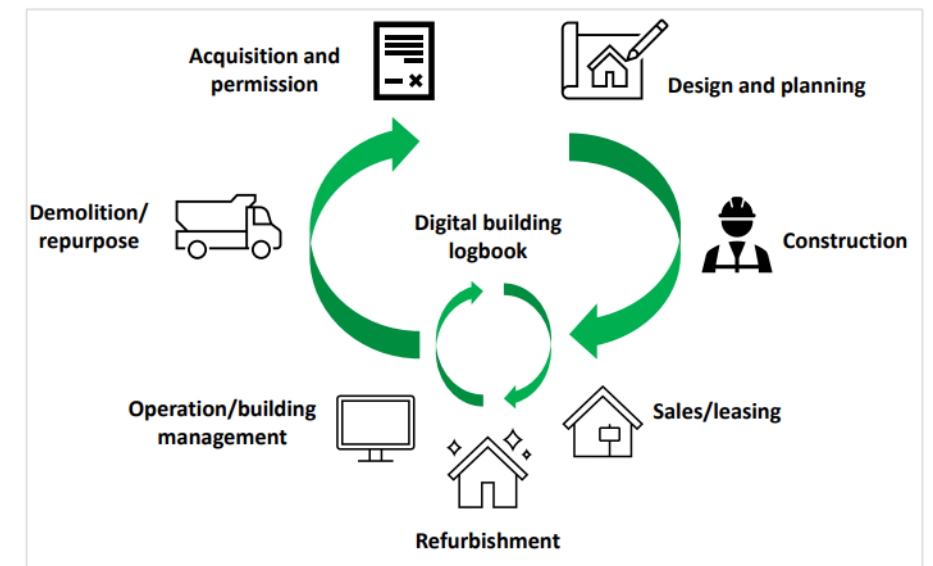 - First steps towards implementation of a **framework at European level**

Figure 5. Survey - data fields

DG GROW Project: Digital Building Logbooks

- Data mapping of existing resources and existing DBLs
- **Creating a framework** for a EU Digital Building Logbook, with a semantic data model and dictionary
  - Semantics and functionalities
  - Interoperability with other systems
  - Interoperability with other databases: DPP (indirect), CPR (indirect), EPC, EPBD,…
- Design and visual identity for an on-line portal
- **Costs and benefits** from the point of view of implementing this framework by Member States:
  - Estimations of the resource needs for MS
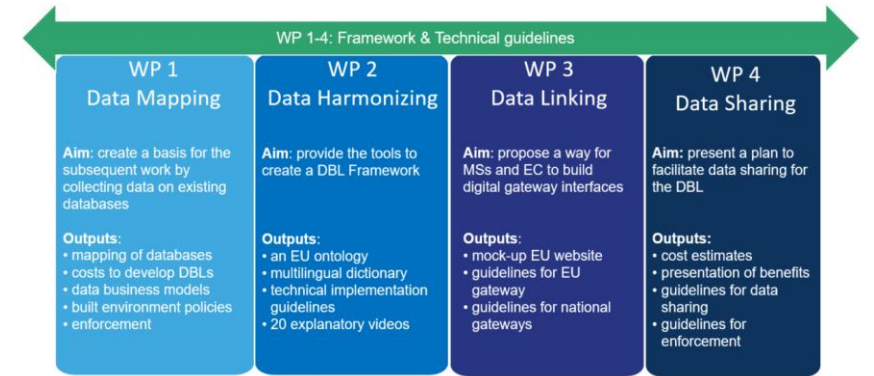 - Guidelines for MS
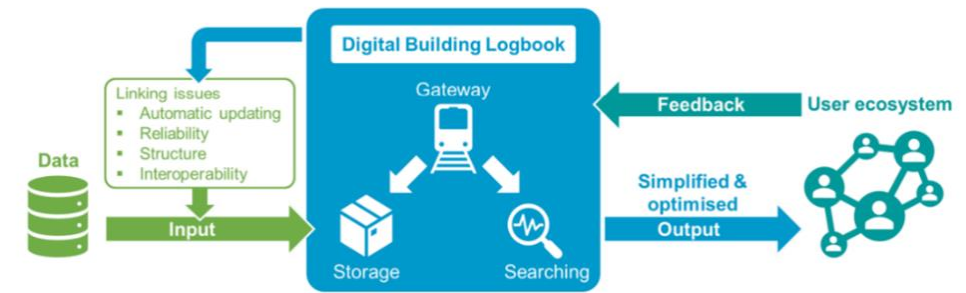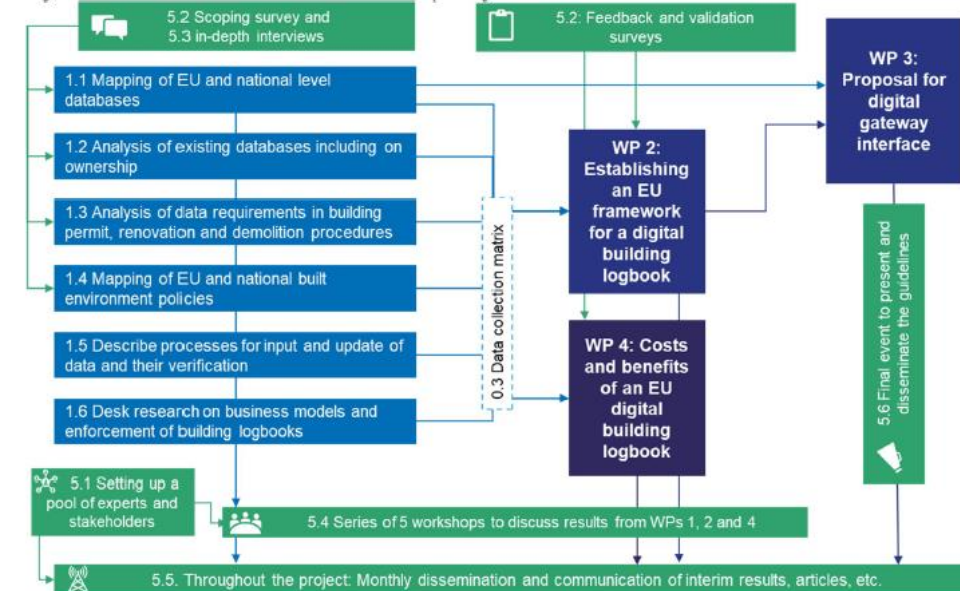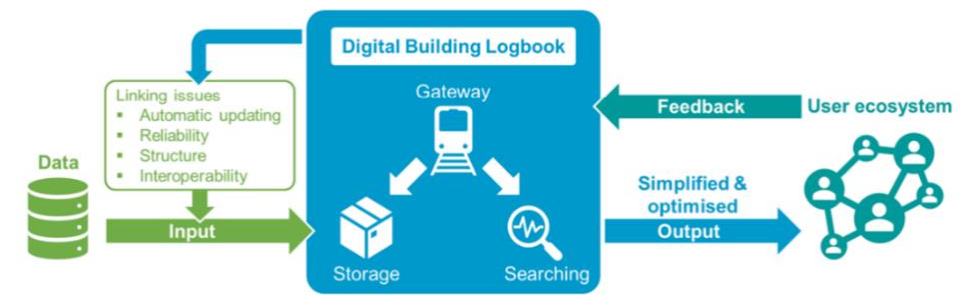 - Risks during implementation phase

Figure 3.2 Overview of links between the five work packages

DG GROW Project: Digital Building Logbooks

- **Continuation after the end of the project (November 2023)**
  - Series of short videos on DBL
  - creating an actual EU portal on DBL – will also make all deliverables from the project available
  - interaction with MS / target users regarding the use of the deliverables and guidelines
  - Further follow-up of **Horizon Projects** and their links with the framework and guidelines
  - further follow-up of Commission developments regarding building-related data: Building Renovation Passport, CPR Revision, EPBD Database, Building Stock Observatory
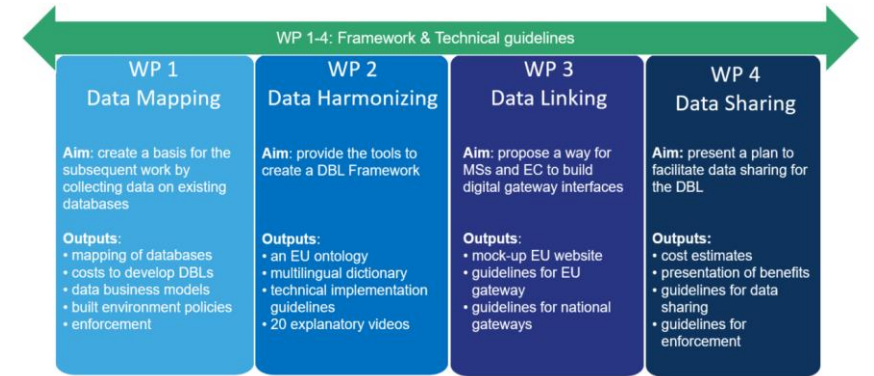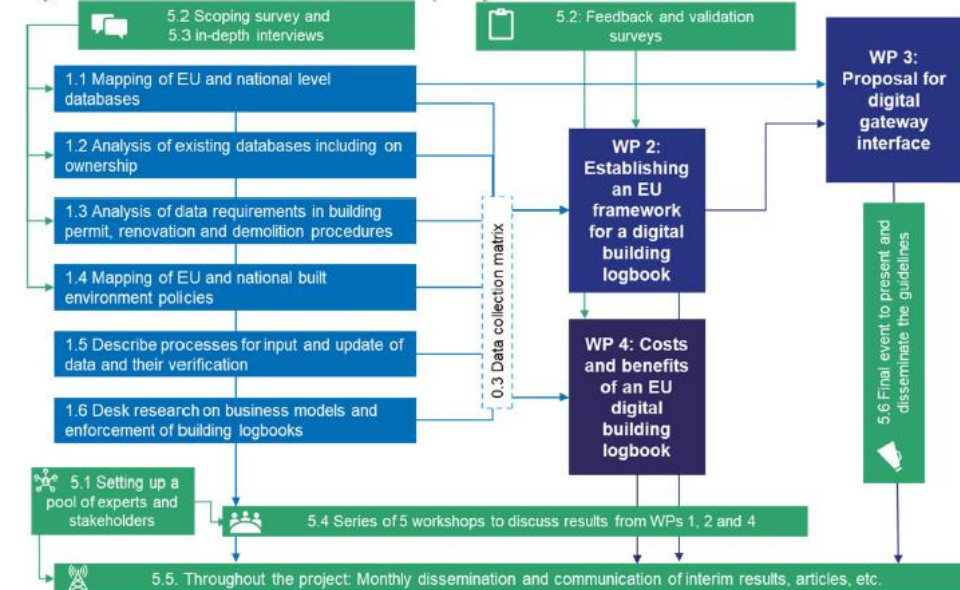 - linking initiatives at EC level and MS level to the EU framework

DG GROW Project: Digital Building Permits

- Mapping of the **state of play** of the take up of building permit system automatisation in the EU

- Analysis of **international front runner cases**

- Proposal for a **matrix categorisation** of the existing systems in place. Identification of the gaps in these systems and proposal for actions to take

- A **toolbox** geared towards public authorities in order for permit systems to be further digitalised and automated

- **Trainings** geared towards local public authorities in each of the 27 Member States – provided in Mar-Apr 2024

➔ Within the framework of **Horizon Europe**, 3 other projects on digitalisation of building permit processes have been awarded, with a focus on automated checks
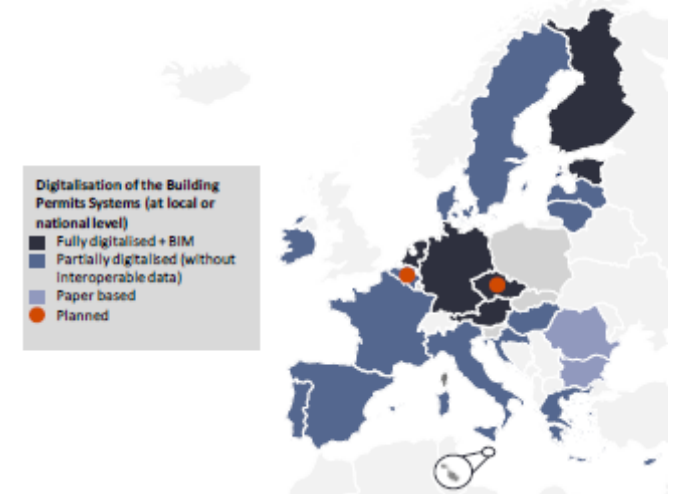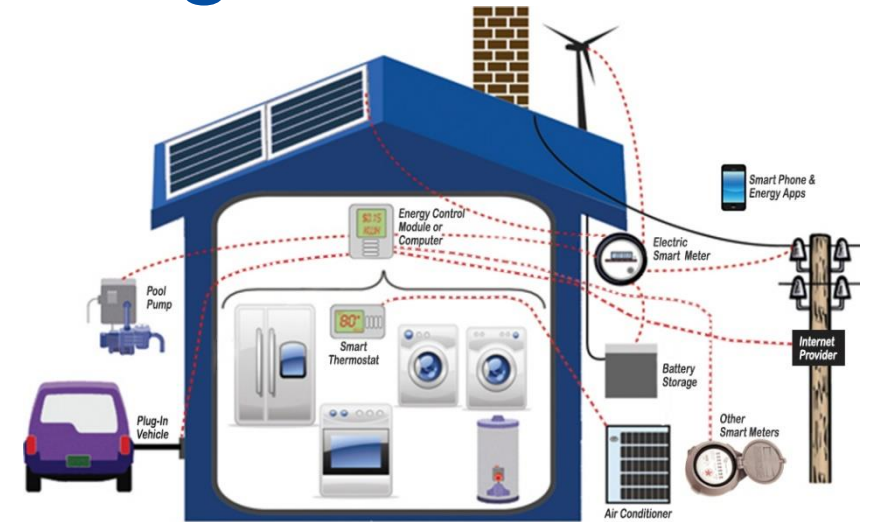
DG GROW Project : BIM use cases

- A detailed analysis of the State of Play of **BIM uptake in the 27 EU MS**
- A **matrix categorisation** of the maturity levels in terms of BIM uptake, based on a clear methodology with possibility for auto-evaluation
- Collection and analysis of **30 use cases for BIM** with a focus on life cycle assessment and circular economy
- **Guidance** for public authorities
  - Implementation of higher levels of BIM
  - Implementation of higher levels of digitalised/automated digital building permit systems
  - Inspiring practices

National strategy

Public Procurement

Standards, protocols and classification systems

Funding schemes

Education and professional skills

Lifecycle BIM

Collaboration with the industry

DG GROW Project : BIM use cases

- **Lessons learnt** from the country reports

  - Still large **differences** between different Member States

  - In general a strongly increased uptake of BIM in **public projects**; in an increasing number of Member States BIM in public procurement has become largely **mandatory**

  - Increased uptake of BIM in **infrastructure** projects

  - Increased use of BIM with the specific purpose of **lifecycle assessments**

  - Many good examples of Member States investing heavily in providing **training** to local authorities and public buyers, or investing in **upskilling** AECO professionals, with demonstrated impact from these educational programs

  - A strong need for **scaling up** from the level of local authorities: cooperations, BIM-platforms, coordination on formats,…

- **Final event on May 23rd:** https://ec.europa.eu/eusurvey/runner/DigitalisationBIM_Athensevent2024

National strategy

Public Procurement

Standards, protocols and classification systems

Funding schemes

Education and professional skills

Lifecycle BIM

Collaboration with the industry

The EU BIM Task Group

- Continued **support by European Commission**
- Presided by Jaan Saar (EE) – to be taken over by Milena Feustel (DE)
- Creates **deliverables** that support the uptake of BIM by all stakeholders in EU
- **Promotes** the use of BIM in EU MS through various channels, such as participation in events, developing BIM-related strategies / visions / position papers,…
- http://www.eubim.eu/
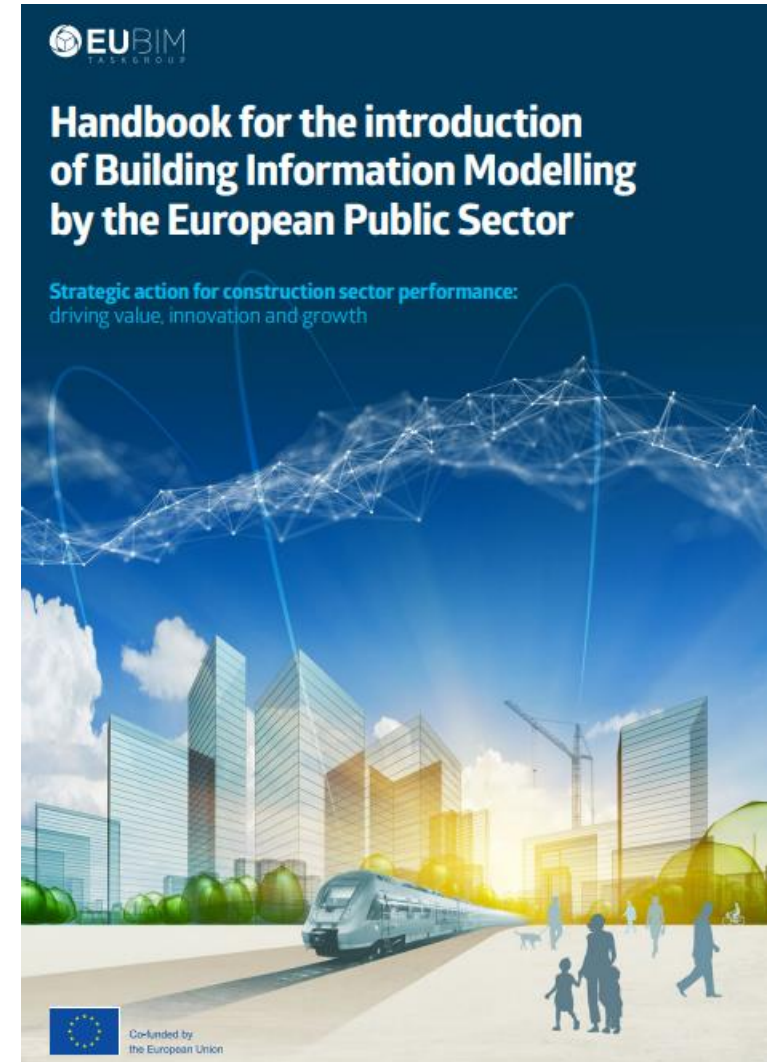
DG GROW Project : Platform on "BIM in Public Procurement"

Part of the Public Buyers Community

1. **Overview** of documents, tools and cases via a classification system in order to find information on specific projects, Member States or type of information (legal information, formats, strategies, tools,…)

2. **Reachability / accessibility** of the various members in order to **learn** more from each other
   ➔ discussions among peers
   ➔ inputs, news items and events to be accompanied by clear contact information

3. A **tool for the Commission** to reach stakeholders and communicate about trainings, events, webinars on the topic + a tool to make connections to other DGs

European Commission
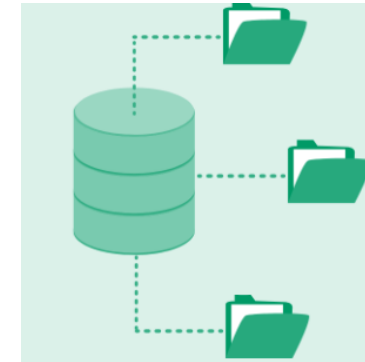
DG GROW Project: Platform on "BIM Public Procurement"

1. Tools

2. Strategies, cases and best practices

3. Activities

4. News

5. Questions and contacts

➜ Many deliverables of the project "Digitalisation of the Built Environment" will be very suitable as input for the community

https://public-buyers-community.ec.europa.eu/communities/bim-and-public-procurement

Webinar 21st May to give new impetus: https://public-buyers-community.ec.europa.eu/news/webinar-introduce-building-information-modelling-bim-procurement-procedures
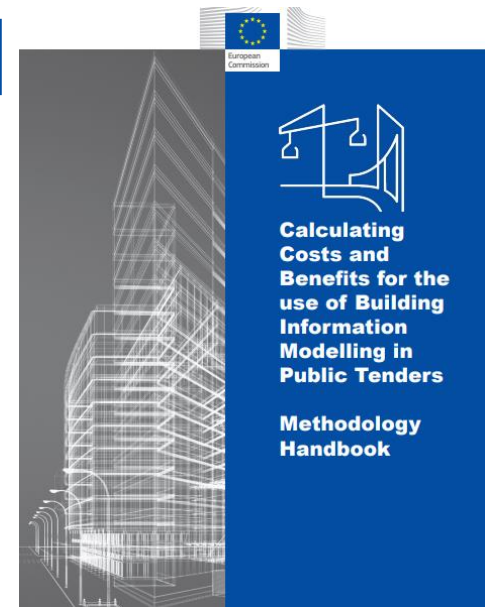
DG GROW Policy: Construction Products Regulation

Revision of the Construction Products Regulation (CPR)

- Commission proposal from June 2022

- Recently adopted by European Parliament (April 2024)

- Key objectives

  - Introduce product requirements for construction products to improve health, safety and environment

  - Improve functioning of the internal market

  - Enhance the sustainability of contruction products

What will the new rules bring?

Requirements for greener and safer construction products

Improved digital product information for citizens, businesses and others

Easier delivery of harmonised standards on the performance of construction products

Rules to facilitate innovative business models such as 3D printing

European Commission

DG GROW Policy: Construction Products Regulation

The CPR

- lays down **harmonised rules** for the marketing of construction products in the EU

- provides a **common technical language** to assess the performance of construction products

- ensures that **reliable information** is available to professionals, public authorities, and consumers

➔ *First goal is about transparency on product level; of course this regulation adds to the digitalisation of the sector and could lead to wider benefits (at building level) in the longer term*

https://single-market-economy.ec.europa.eu/sectors/construction/construction-products-regulation-cpr_en

Other project: Building Stock Observatory

- A **web tool** to monitor the energy performance of buildings across Europe

- Renewed and **improved version** since November 2023: new interface, more user-friendly, better data quality

- Broad set of **data** on building stocks, energy consumption, energy performance certificates, renovation rates,…

- Historic data and MS-level data

- Member State **factsheets** of the most important indicators

- Will be updated and **upgraded** regularly

- https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/eu-building-stock-observatory_en

European Commission

Thank you!

✉ Pieter.staelens@ec.europa.eu

More information

- EU Industrial Strategy: https://europa.eu/!qD43rd
- Transition Pathway for Construction: https://ec.europa.eu/docsroom/documents/53854
- The Transition Pathway for Construction Process: https://single-market-economy.ec.europa.eu/sectors/construction/construction-transition-pathway_en
- Join the High Level Construction Forum: https://ec.europa.eu/eusurvey/runner/d5823bdd-cd51-798d-ad6d-3807202c4903
- Digitalisation of Construction SMEs: https://digital-construction.ec.europa.eu/
- Digital Building Logbooks
  Definition https://op.europa.eu/en/publication-detail/-/publication/cacf9ee6-06ba-11eb-a511-01aa75ed71a1/language-en/format-PDF/source-179394366
- State of play of existing initiatives https://op.europa.eu/en/publication-detail/-/publication/58580f81-06b7-11eb-a511-01aa75ed71a1/language-en/format-PDF/source-179394366
- Project on creating an EU Framework: https://www.ecorys.com/netherlands/our-work/technical-study-development-and-implementation-digital-building-logbooks-eu
- Construction and built environment
  https://ec.europa.eu/growth/sectors/construction/competitiveness_en
- European Construction Sector Observatory
  https://ec.europa.eu/growth/sectors/construction/observatory_en
- DigiPLACE Project- Towards a Framework for a Digital Platform for Construction
  https://www.digiplaceproject.eu/
- Renovation Wave
  https://ec.europa.eu/info/news/preparing-future-renovation-wave-initiative-have-your-say-2020-jun-12_en
- Digital Innovation Hubs
  https://ec.europa.eu/digital-single-market/en/digital-innovation-hubs