



Commission initiatives for the modernisation of construction

1st European conference | BIM and energy performance of buildings

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25 June 2018



The context of modernisation: base of our actions

Challenges

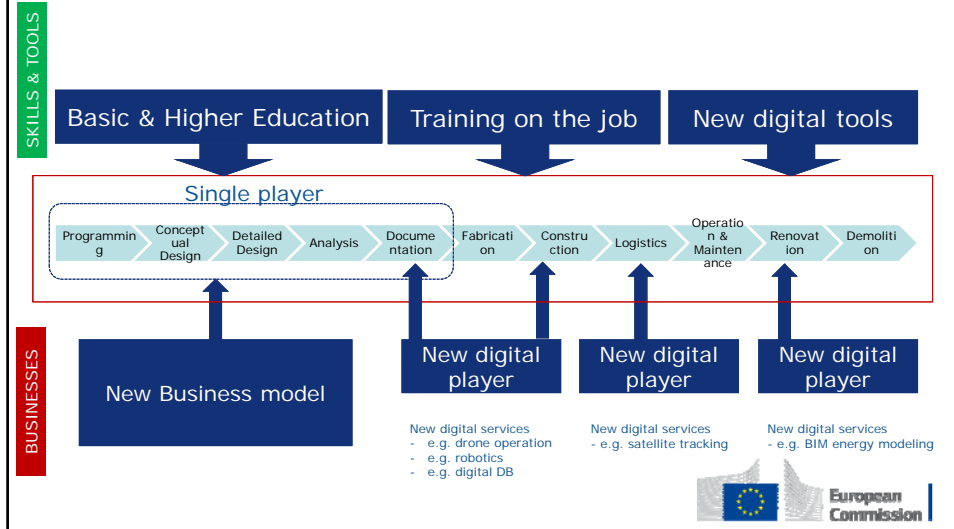
- *Ageing populations*
- *Migration*
- *Skills evolution*
- *Service orientation*
- *User-centric thinking*
- *Customisation*
- *Real-time*
- *Climate*
- *Natural resources*
- *Energy transition*
- *New business models/players*
- *Life-time approach to assets*
- *Innovative materials*
- *Increased usage of BIM*
- *Weight of the sector*

Approach

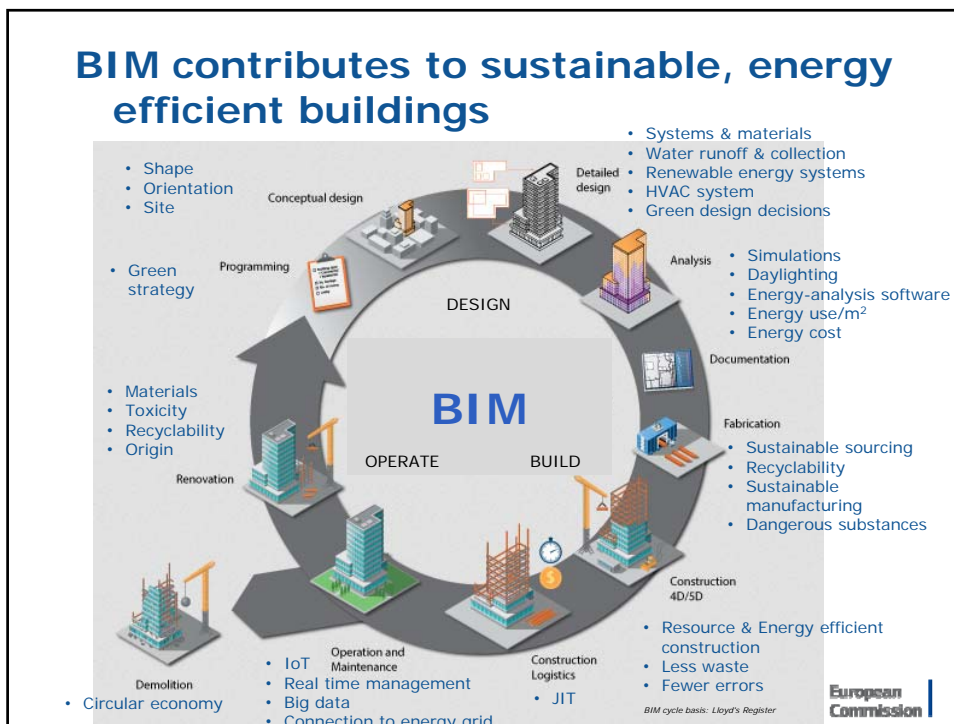
- *The Energy & Decarbonisation transition*
 - *The digital transition*
 - *The Circular Economy & industrialisation*
- ▼
- *Smart and sustainable growth and jobs*



Digital change in the construction value chain



BIM contributes to sustainable, energy efficient buildings



Commission initiatives & support



Thank you!



Commission initiatives for innovation in construction (1/4)

Support public sector take-up & PP

- EU BIM Task Group

- **23 member states: how to introduce BIM in the public sector: handbook in 18 languages.**

→ *Common framework: encourage alignment on the understanding of BIM*



Free download at www.eubim.eu



Commission initiatives for innovation in construction (2/4)

Support the construction value chain and SMEs

- Study: support digitalisation of construction and SMEs:

May 2018 – March 2019

- **Digitalisation gap analysis:** desk research
 - **Expert interviews**
 - **Recommend 2-4 EC actions:** Technical, Skills & HR, Policy, Monitoring → synergy with other/existing actions
 - **Roll-out plan**
- Smart CE marking: Digitising construction product performance data: with CPE and CEN TC 442.



Commission initiatives for innovation in construction (3/4)



Create momentum around digitalisation of construction

- Thematic Group 1: High level Group on Construction
- LinkedIn Group: Construction 4.0 Europe



Support horizontal activities

- BIM standardisation: with CEN/Cenelec TC 442
- Digital industrial platform for the construction sector: Call – need for and potential content of a digital industrial platform for construction



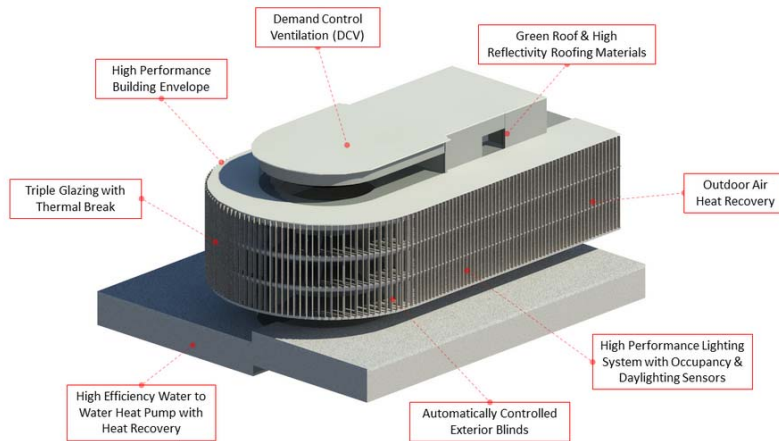
Commission initiatives for innovation in construction (4/4)

Support Research & Innovation

- *H2020 & Horizon Europe*
 - Smart buildings, data, IoT, AI, age friendly housing and robotics in construction.
 - PPPs, research on smart building materials, BIM in renovation and energy efficiency in buildings, pre-fabrication, etc.



A sustainable building



Public procurement & digitalisation of construction



- *Public Procurement = a major share* of total construction expenditure*
→ *Objective: Shaping the market from the demand side.*
- *The PP directive sets out the recourse to digital tools in the tendering process.*
→ *Challenge: Coherent and timely implementation in Member States*

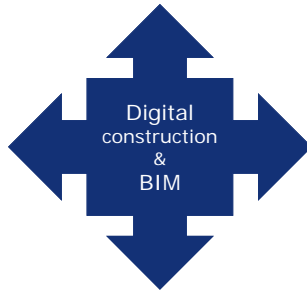
*e.g. Germany 44%, BCG - 2012 figure



Aspects of digital construction

Improve planning, construction & renovation processes
Robots, 3D printers, scanners, satellite imaging, drones,
prefabrication

Sustainability,
energy &
environment
Smart
materials,
circular
economy,
storage



Improve
operation &
maintenance
of buildings
Sensors, IoT

Smart analysis
Big data

