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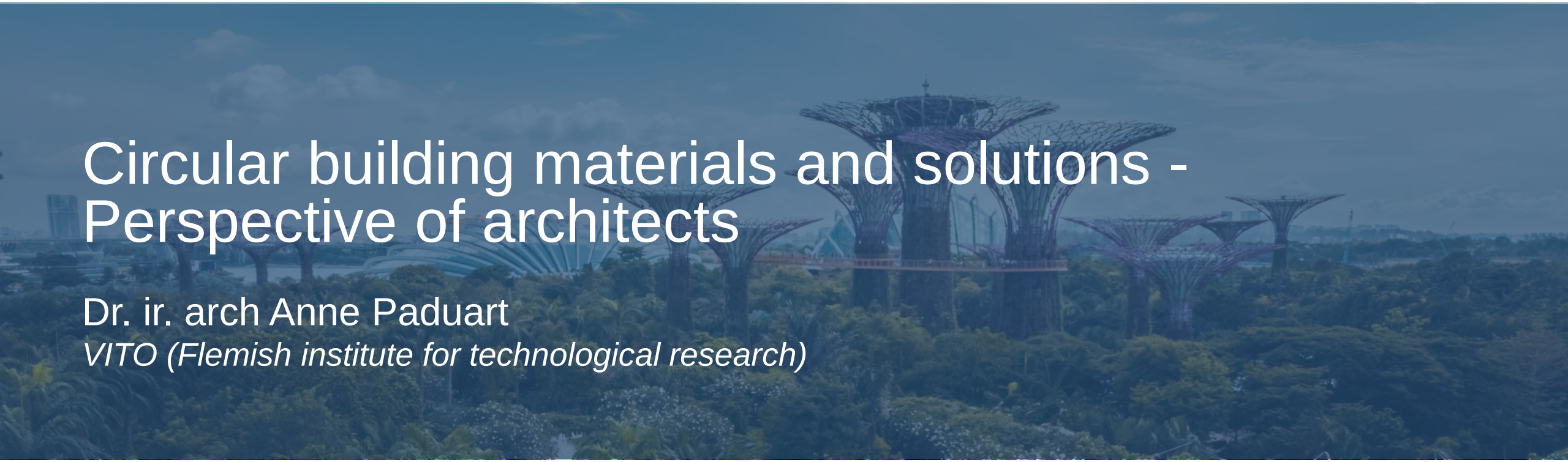
AMANAC WORKSHOP

BRUSSELS,BELGIUM | 03.07.2019

WHAT KIND OF BUILT ENVIRONMENT FOR FUTURE GENERATIONS?



Circular building materials and solutions - Perspective of architects

Dr. ir. arch Anne Paduart
VITO (Flemish institute for technological research)

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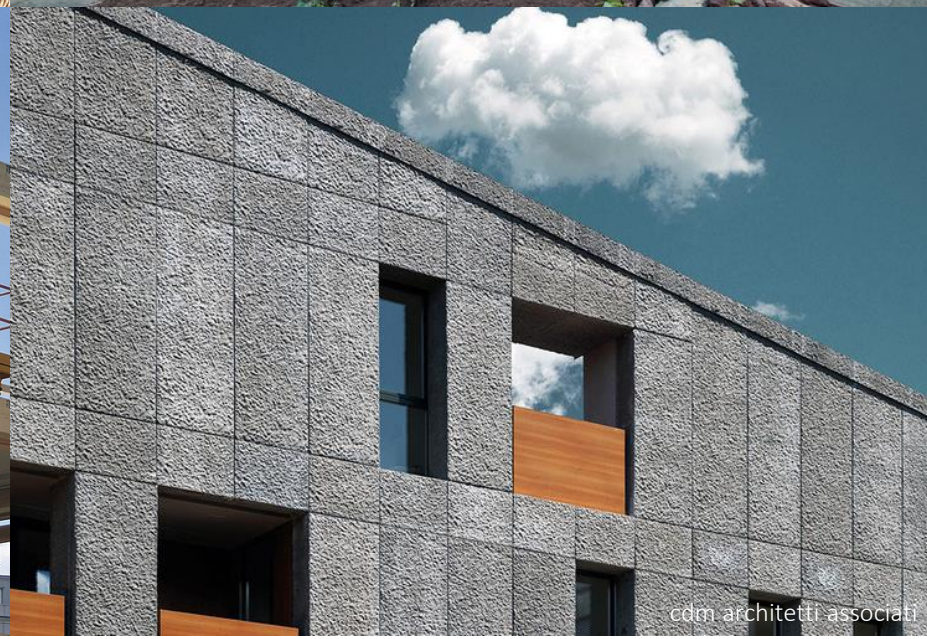
RESHEALIENCE
Ultra High Durability Concrete

The projects have received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 760639 (EnDurCrete), 760824 (ReSHEALience) and 761072 (DACOMAT)

Architects have to face the complexity of an expanding market of ‘sustainable building products’



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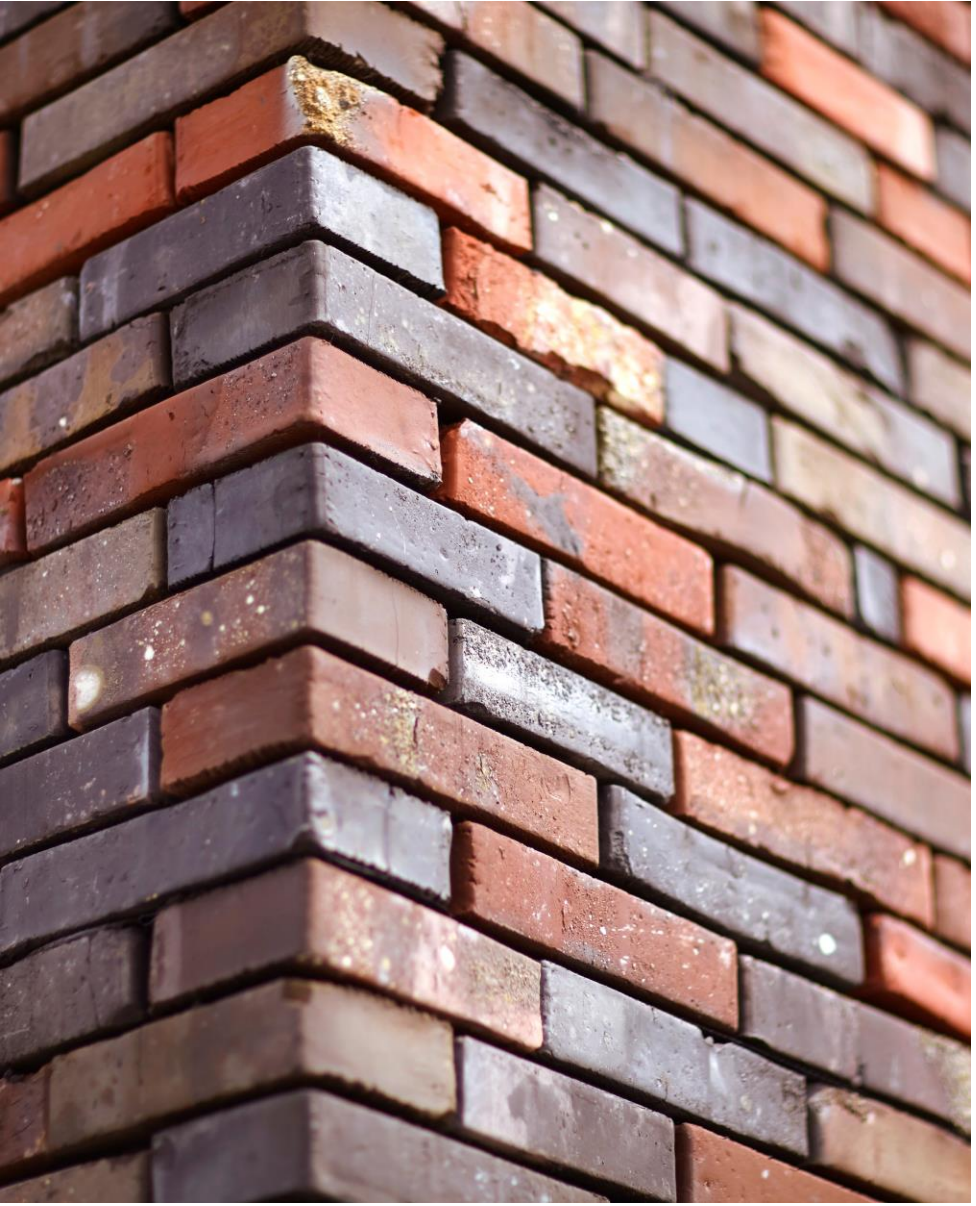

Sustainable solutions: focus on initial construction stage concerning environmental impact and financial benefits

Material selection and assembly methods have a large impact on the future life cycle impacts of a building

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Total financial life cycle costs

mount up to 3-5 times

the initial investment cost

Buildings are responsible for

40% material use

40% waste streams

40% CO2 emissions

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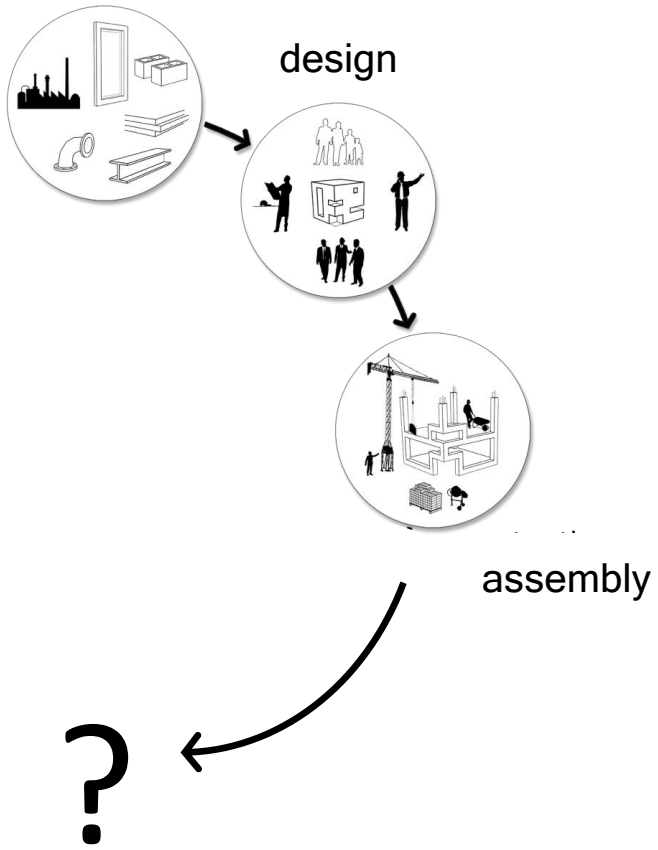

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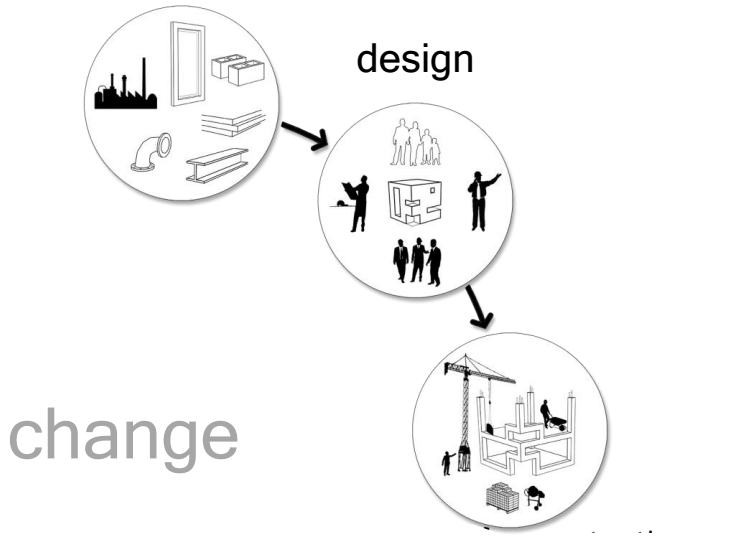

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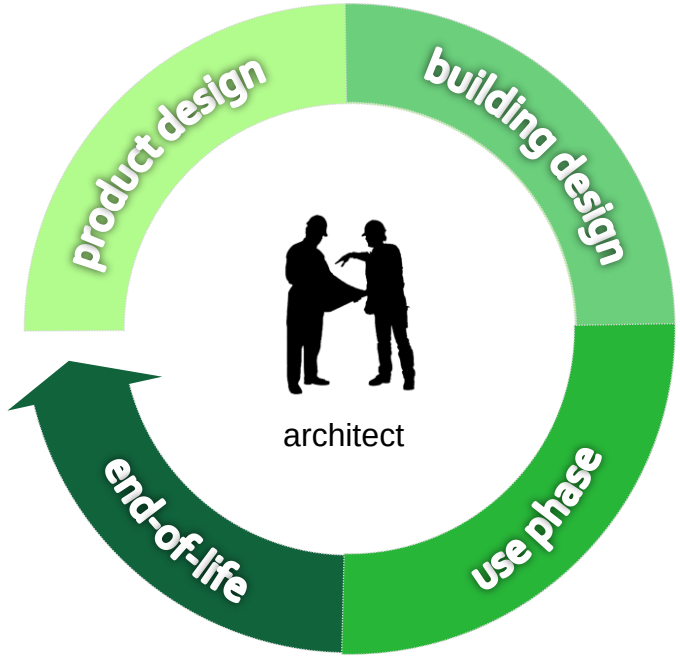
BAMB
BUILDINGS AS MATERIAL BANKS



1. Materials Passports
2. Reversible Building Design
3. Data management (including BIM)
4. Business Models
5. Policies and Standards
6. Case Studies and Pilots

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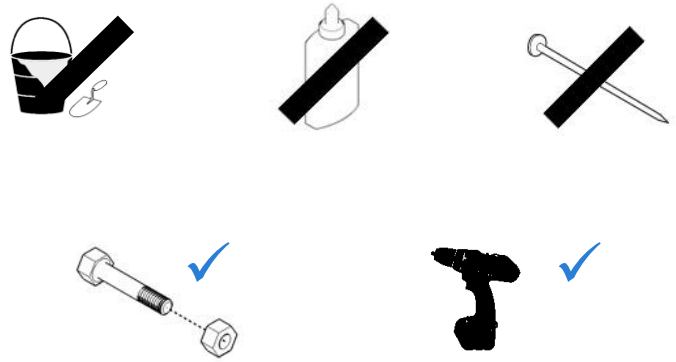
BUILDINGS AS MATERIAL BANKS

2.
Reversible Building Design

Introduce reusable and compatible building systems with reversible connections for future adaptation and recuperation



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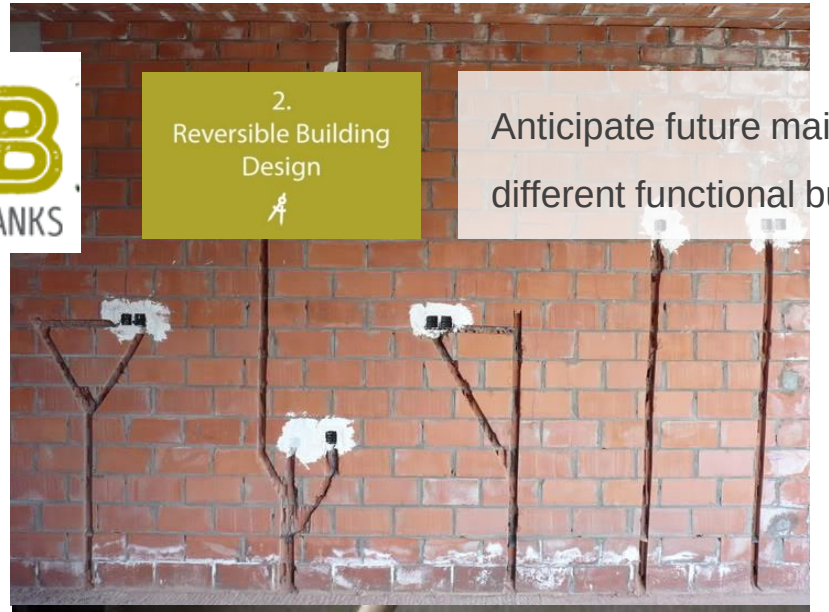
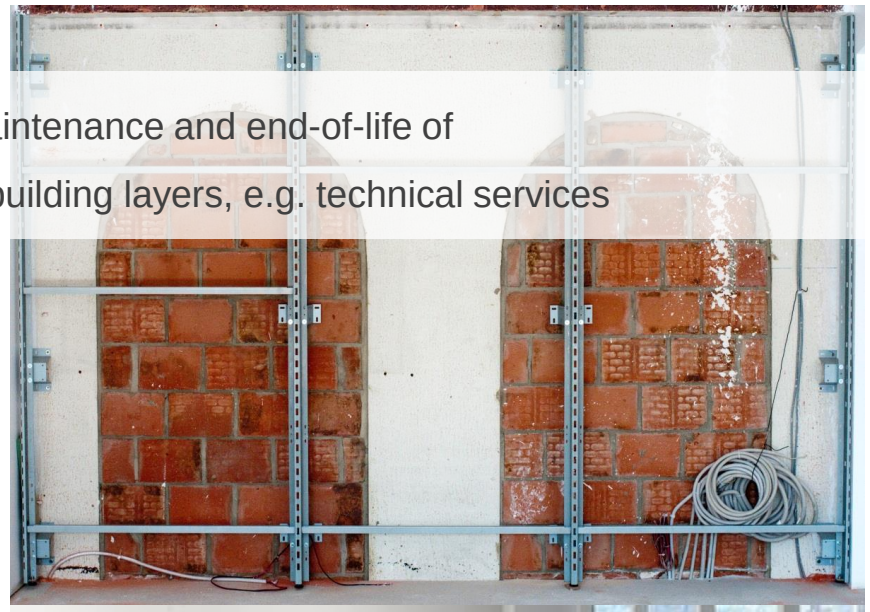
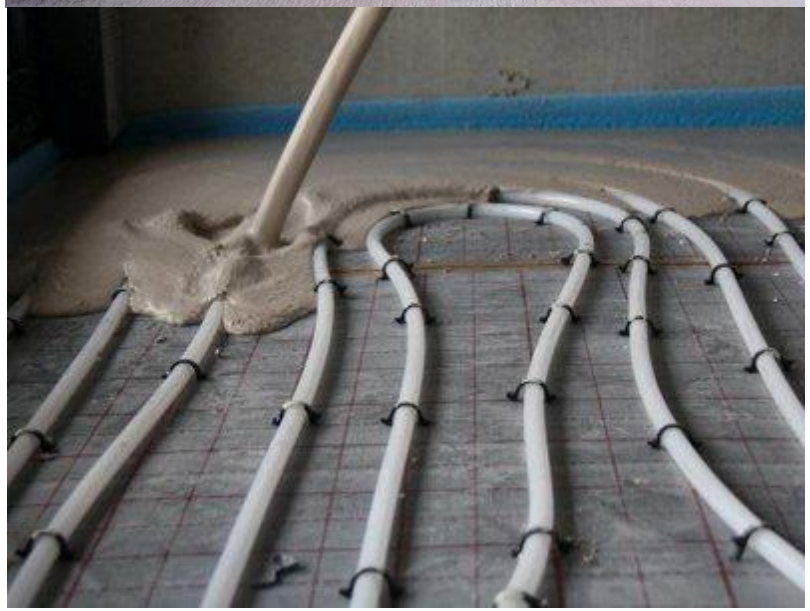
2.
Reversible Building Design

Anticipate future maintenance and end-of-life of different functional building layers, e.g. technical services







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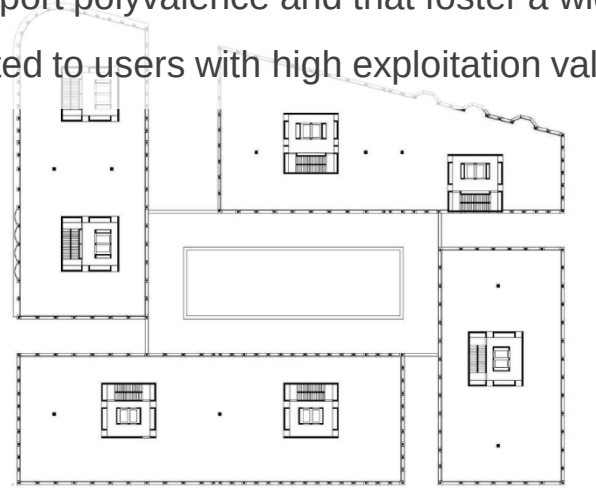
2. Reversible Building Design

Design building structures that support polyvalence and that foster a wide range future possibilities of change adapted to users with high exploitation value



Solids I, IJburg, Amsterdam

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1.
Materials Passports

Gathered data sets with information about the technical properties, the service life, environmental and financial life cycle of building elements, etc.

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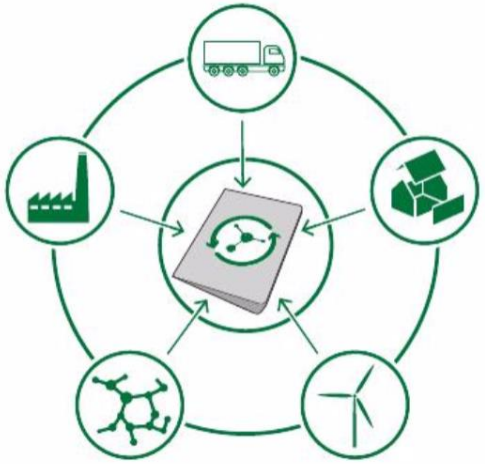

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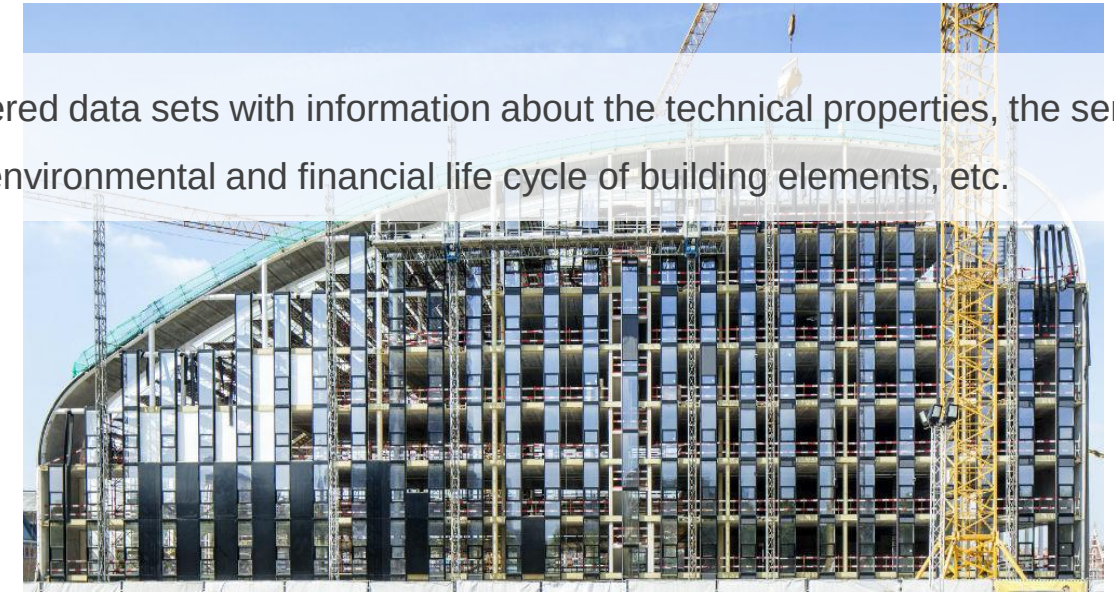

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5.
Policies and Standards

Policy pushing the transition towards a circular use of building systems

Certification of circular / reused building materials, …

be circular
be.brussels

natureplus
VIBE
2012 bio-ecologische bouwpartner
CERTIFIED
cradle to cradle
SILVER
CE

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6.
Case Studies
and Pilots

Collaboration between all building stakeholders for the development of new and retrofitted circular buildings; inspire more architects!

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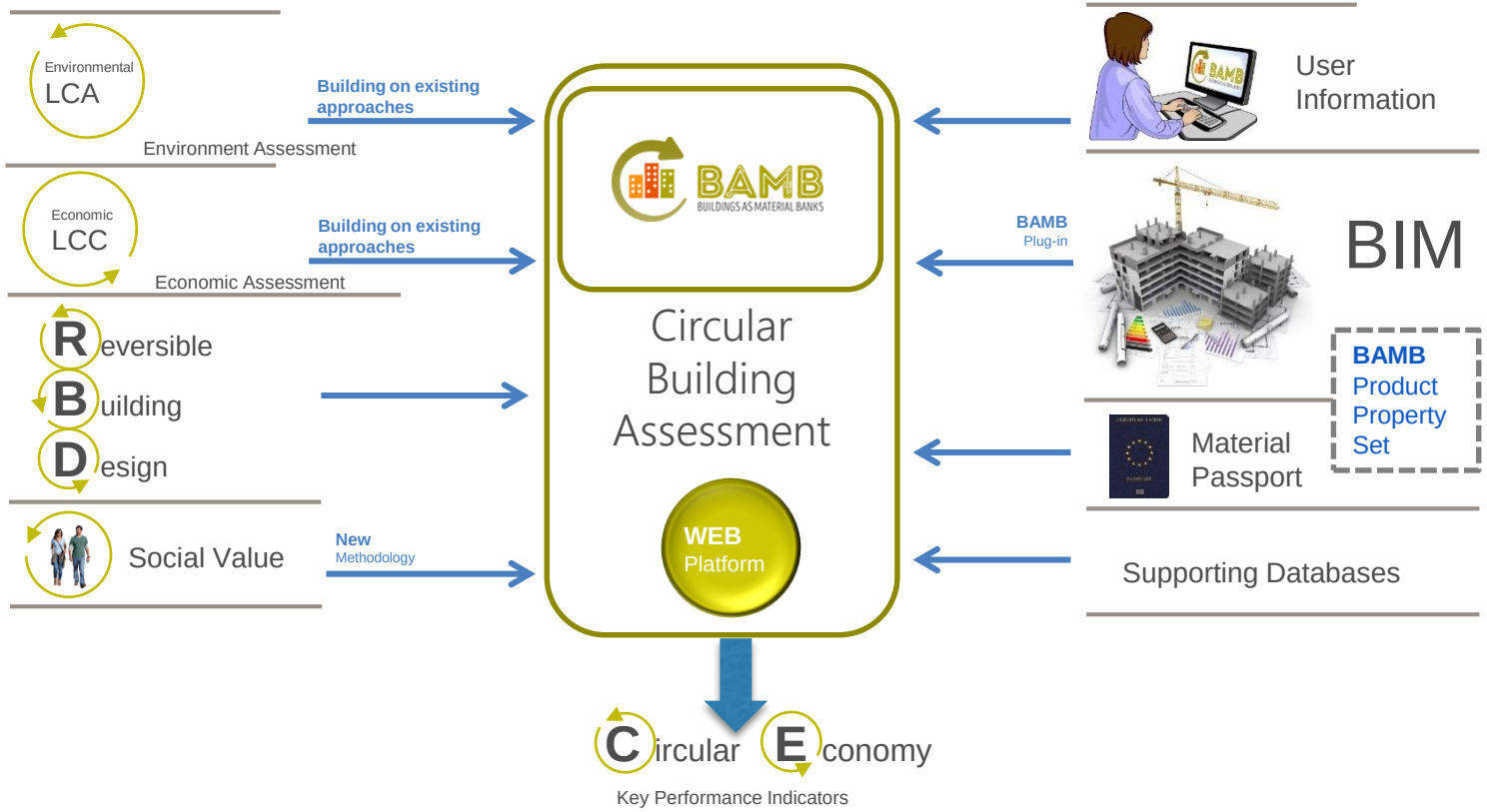
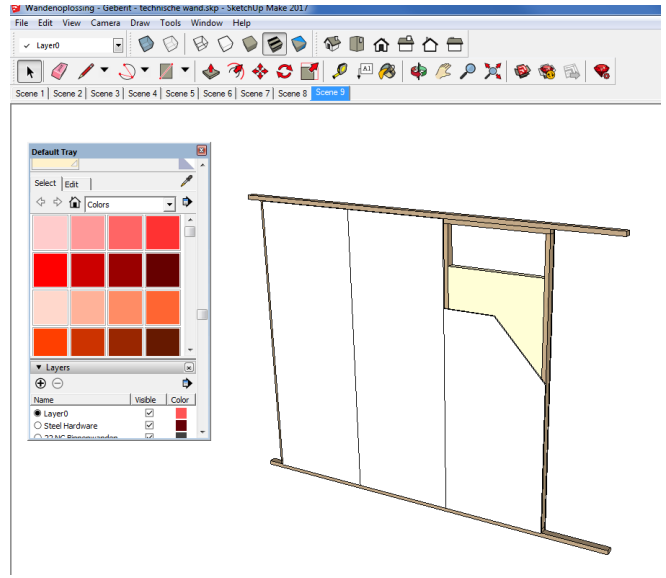
3.
Data management
(including BIM)

Development of tools that enable to guide architects and users towards a circular building and enable to evaluate the circularity of buildings

CIRCULAR BUILDING ASSESSMENT





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Keep in contact!

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vision on technology

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