



CIRCULAR ECONOMY
APPROACHES IN
SOLID WASTE
MANAGEMENT

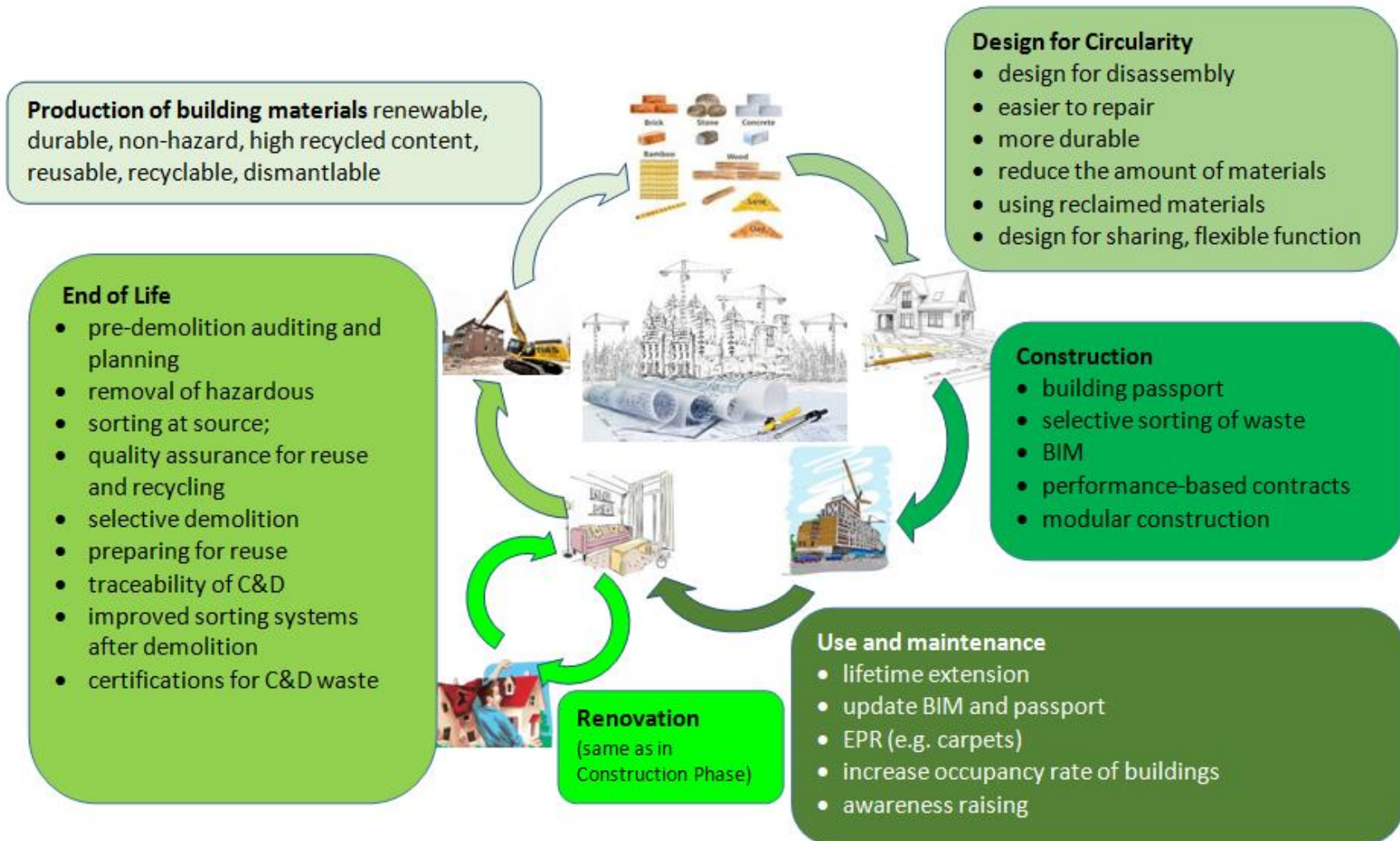


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REGIONAL WORKSHOPS ON CIRCULAR ECONOMY APPROACHES WITH FOCUS ON CONSTRUCTION SECTOR

CDW IN THE CONTEXT OF CE AND APPROACHES ALONG THE VALUE CHAIN

Introducing circular economy in construction sector



SUSTAINABLE PRODUCTION OF BUILDING MATERIALS

Concept: Durable, Renewable, Non-hazardous, Reusable/ Recyclable materials produced by Non-harmful production process

Implementation and good practices

Voluntary initiatives (“greener” trend)	Mandatory measures
Green Deals	Environmental performance assessment (EPD)
Environmental product declarations (EPD)	Tracking/ phasing out hazardous content (SCIP)
Material passports	Tax on raw materials
Bio-based Building Materials Catalogue “bio-based product” label	Eco-design of Construction Products
Communicating on hazardous substances	

DESIGN FOR CIRCULARITY

Concept: Less-material, Adaptive/flexible design (longevity), Modular and demountable, the least environmental impact

Implementation and good practices: Currently not many buildings have been constructed by applying circular design

Voluntary initiatives (higher residual value)	Mandatory measures
Best practice demonstration projects	Building codes/ Standards for D4D
Methodology for assessment of future value	Permitting if Environmental Performance is met
Green Deals	Target for material recovery and reuse
Certification systems	Compulsory deconstruction plan (in permitting)
	Direct grant/tax incentive for retrofit

Sustainable construction and renovation

Concept: construct by applying circular design and promote resource efficiency through information gathering, minimize CDW

Implementation and good practices

- Circular design is not widely applied.
- Currently focused on information

Voluntary initiatives	Mandatory measures
Building passports	Legal obligations for selective sorting
Building Information Modeling (BIM)	Green public procurement (GPP)

Sustainable USE and maintenance

Concept:

- Lifetime extension (repair, maintenance and retrofiting);
- adapting: for better use (e.g. flexible functionality at different times of the day – home office) or new ways of using (from residential into office afterlife)

Implementation and good practices

Voluntary initiatives	Mandatory measures
update Building passports	Performance-based contracts (in GPP)
update Building Information Modeling (BIM)	Extended Producer Responsibility
	Take-back obligation

END-OF-LIFE

Concept: to recover high-quality (pure) material fractions for recycling or reuse

Implementation and good practices: many mandatory measures are widely applied

Voluntary initiatives	Mandatory measures
Certification for secondary materials	Mandatory selective deconstruction and pre-demolition auditing and planning
	Landfill tax
	Construction/ commissioning permit if targets achieved
	End-of-waste criteria
	Minimum recycled content

Thank you!
