



Keep buildings we have and use them better

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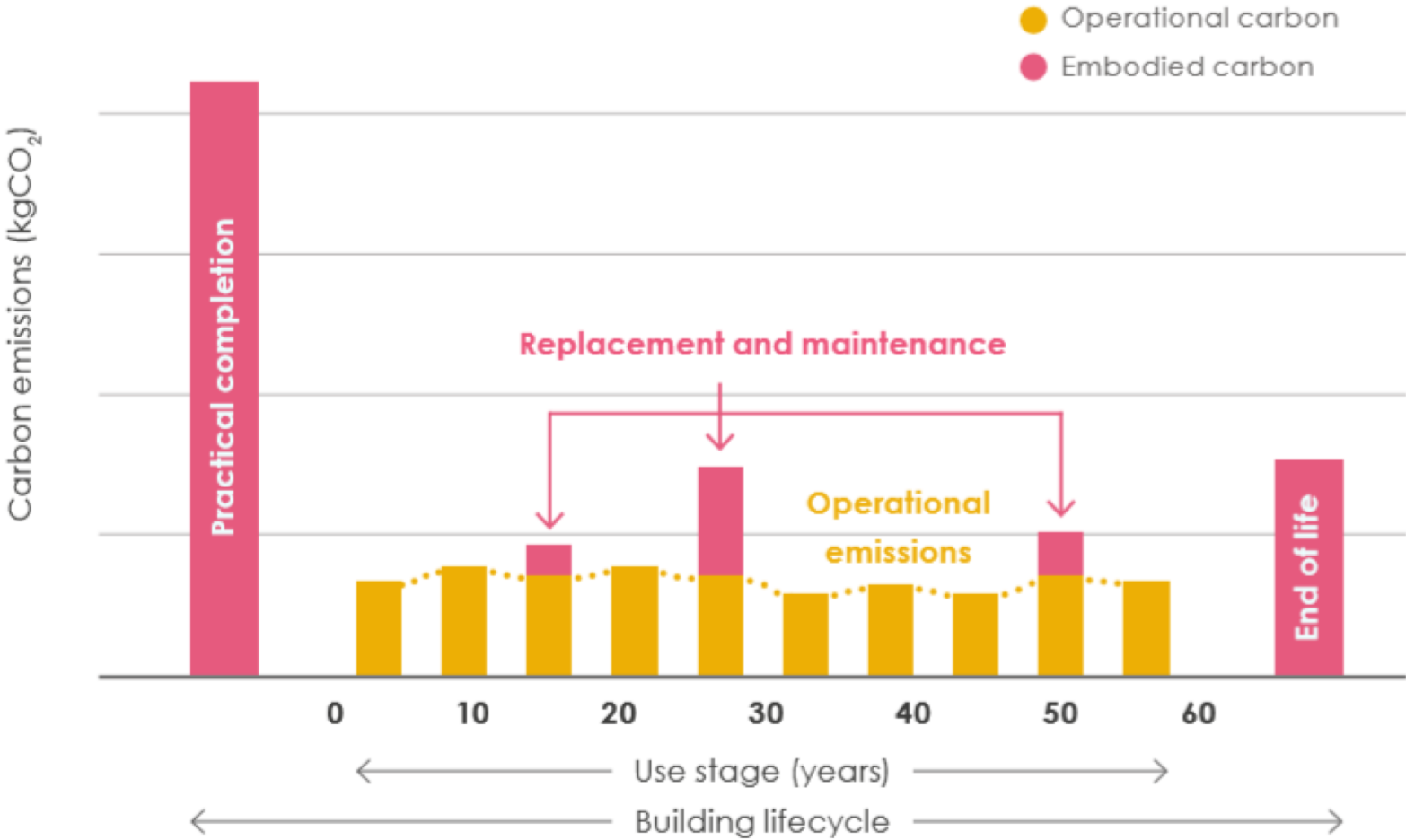
Circular Economy, Sustainable Production And Consumption, DG Environment

Building sector a big consumer of resources

40%

- of extracted materials in the EU is consumed by the sector
- of all EU waste is construction/demolition waste
- of all EU greenhouse gas emissions come from the building stock (operational and embodied)
- of all buildings in the EU are under-used

GHG emissions at building level



**Better
building
use**

**Transform/
renovate**

**Reuse/
recycle
material**

Use buildings for different activities at different times

Fight long-term vacancies (un- and under-occupied buildings)

Extend lifetime of buildings to meet demand

Keep as much as possible of existing building

**Analyse building and its material before taking it down.
At deconstruction, prioritise reuse of material**

→ Reduce emissions in the most efficient order

Sufficiency benefits and drivers

- Less land take for buildings and necessary infrastructure
 - positive for biodiversity and climate resilience
- Less need of material
 - material independency
 - reduce embodied carbon emissions
 - reduce waste
- Potential for affordable housing and shared spaces
 - Less m² to heat/cool
 - Less isolation/ more co-creation



Example 1: Göteborg -90% GHG by 2030

- Göteborg, second biggest city in Sweden.
- Public owner provides 25% of inhabitants with housing. In charge of 60% of all new built.
- 2020-2025 target: each building project halving its climate impact.
- To reach -90% by 2030 for entire stock, actions on each project is not enough. Fewer new projects are needed, instead new ways of thinking are required.



Example 2: School transformation in Halland

- County on west coast of Sweden.
- Case study assessments of different transformation scenarios.
- Calculated reduction of GHG and waste generation.
- Scaled up case study results to schools in whole county → representing yearly reduction of 7% of GHG from all building activities.



GHG and waste savings – vs new built



Scenario 1

Bevarande vid en enklare renovering innebär i medel

91% lägre klimatpåverkan än nybyggnation av motsvarande byggnad

Klimatbesparing
330 kg CO₂e/m² BTA

Minskad avfallsmängd
1380 kg/m² BTA



Scenario 2

En ombyggnation där man behåller stommen kan ge **60%** lägre

klimatpåverkan än nybyggnation av motsvarande byggnad.

Klimatbesparing
218 kg CO₂e/m² BTA

Minskad avfallsmängd
1105 kg/m² BTA



Scenario 3

Endast bottenplattan/källarplanet behålls

innebär i medel **30%** lägre klimatpåverkan.

Klimatbesparing
110 kg CO₂e/m² BTA

Minskad avfallsmängd
618 kg/m² BTA

Commission Initiatives

- Horizon Europe and other funding
- New European Bauhaus
- Roadmap for the decarbonisation of buildings
- Level(s)
- Affordable Housing Plan



Thank you

Visit the Level(s) website:

ec.europa.eu/environment/levels

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