

The European Association for Panels and Profiles



Sandwich Panels and Sustainability

Dr.-Ing. Ralf Podleschny

Circular Economy



Levels of the circular economy: 10 R - Principle

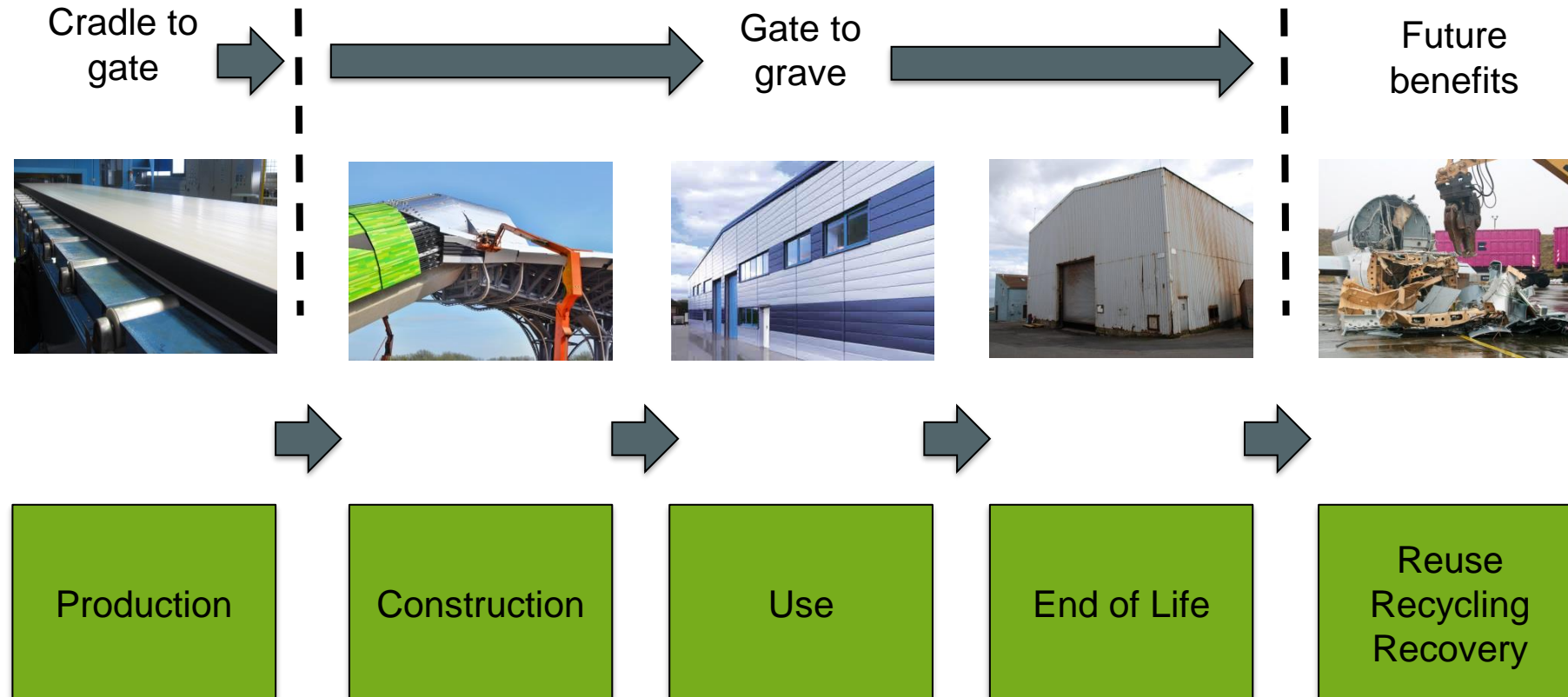
- **Refuse:** Avoid the use of raw materials
- **Reduce:** Reduce the use of raw materials
- **Renew:** Redesigning the product with a view to the closed-loop concept
- **Reuse:** Reuse product
- **Repair:** Product maintenance and repair
- **Refurbish:** Revitalise product
- **Remanufacture:** Produce a new product from second hand
- **Re-purpose:** Reuse product, but with a different function
- **Recycle:** Recovery of material streams with the highest possible value
- **Recover:** Waste incineration with energy recovery

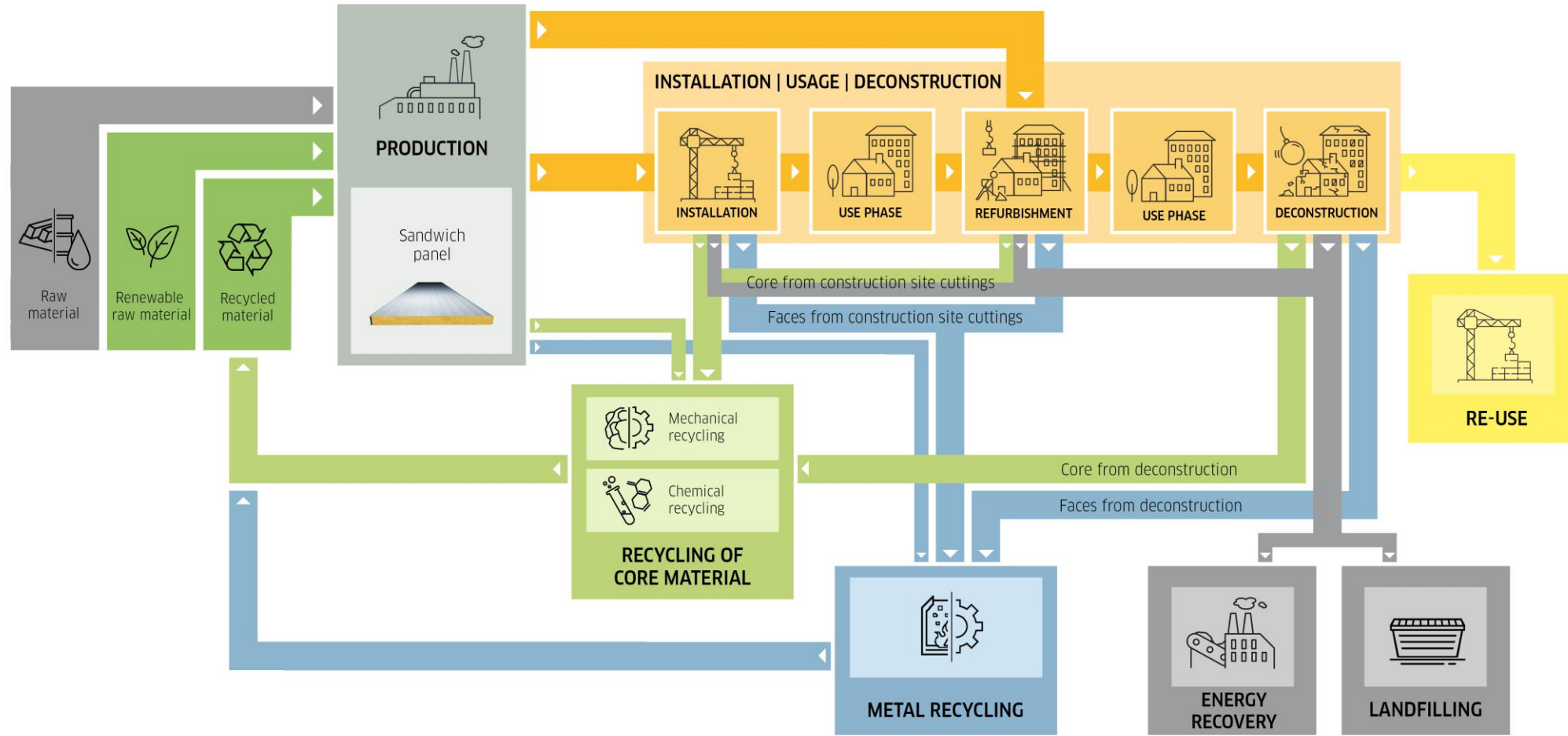
Order of priority
High

Low

3 R - Principle

Life Cycle according to EN 15804 (EPDs)







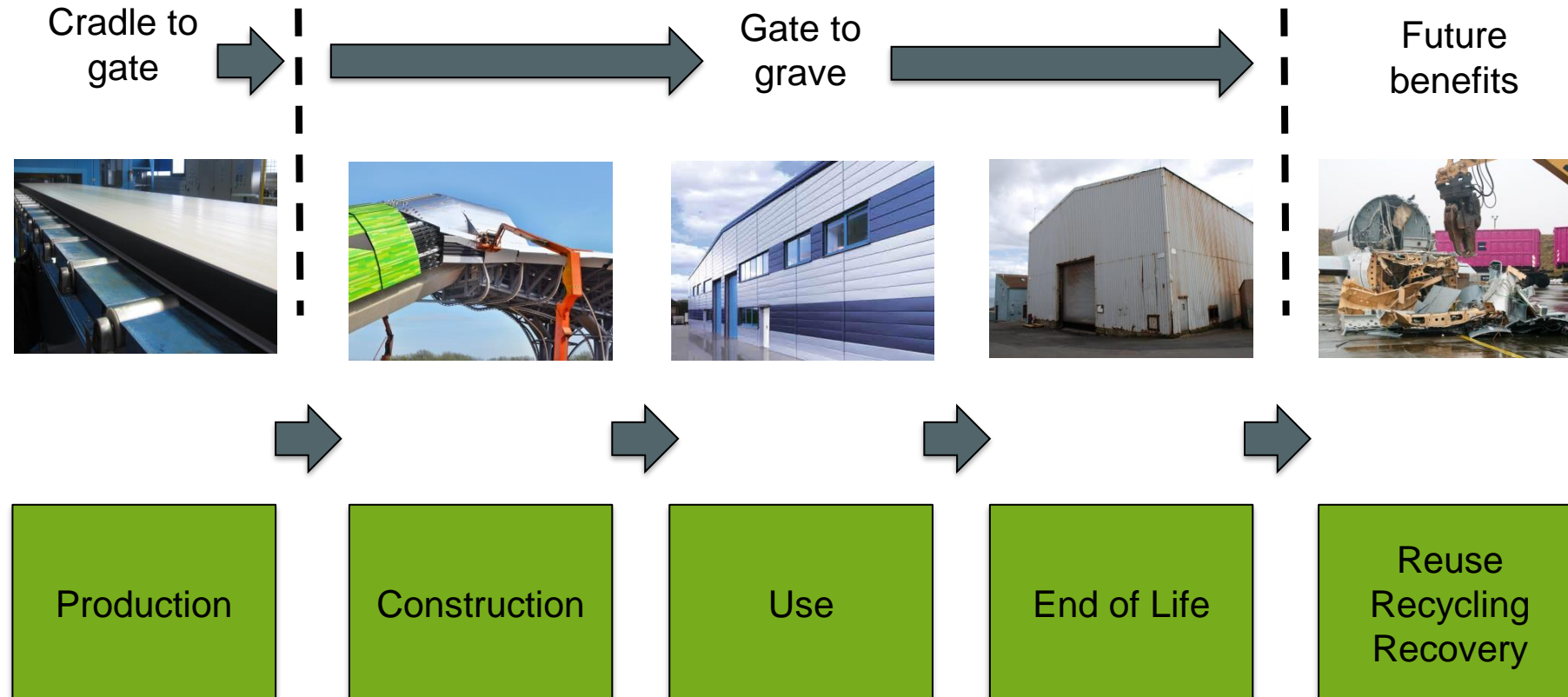








Life Cycle according to EN 15804 (EPDs)



PPA-Europe - EPDs

Publication on 14th September 2018 (valid until 03/2024)

ENVIRONMENTAL PRODUCT DECLARATION
as per ISO 14025 and EN 15804

Owner of the Declaration: European Association for Panels and Profiles e. V. (PPA-Europe)
Programme holder: Institut Bauen und Umwelt e. V. (IBU)
Publisher: Institut Bauen und Umwelt e. V. (IBU)
Declaration number: EPD-PPA-20180075-GR01-TN
Issue date: 14/09/2018
Valid to: 13/09/2023

Double skin steel faced sandwich panels with a core made of mineral wool

European Association for Panels and Profiles (PPA-Europe)

www.ibu-epd.com / <https://epd-online.com>

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Double skin steel faced sandwich panels with a core made of polyurethane

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Profiled sheets made of steel for roof, wall, deck and ceiling constructions

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Profiled sheets made of aluminium for roof, wall and ceiling constructions

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Types of EPD with respect to life cycle stages covered and life cycle stages and modules for the building assessment

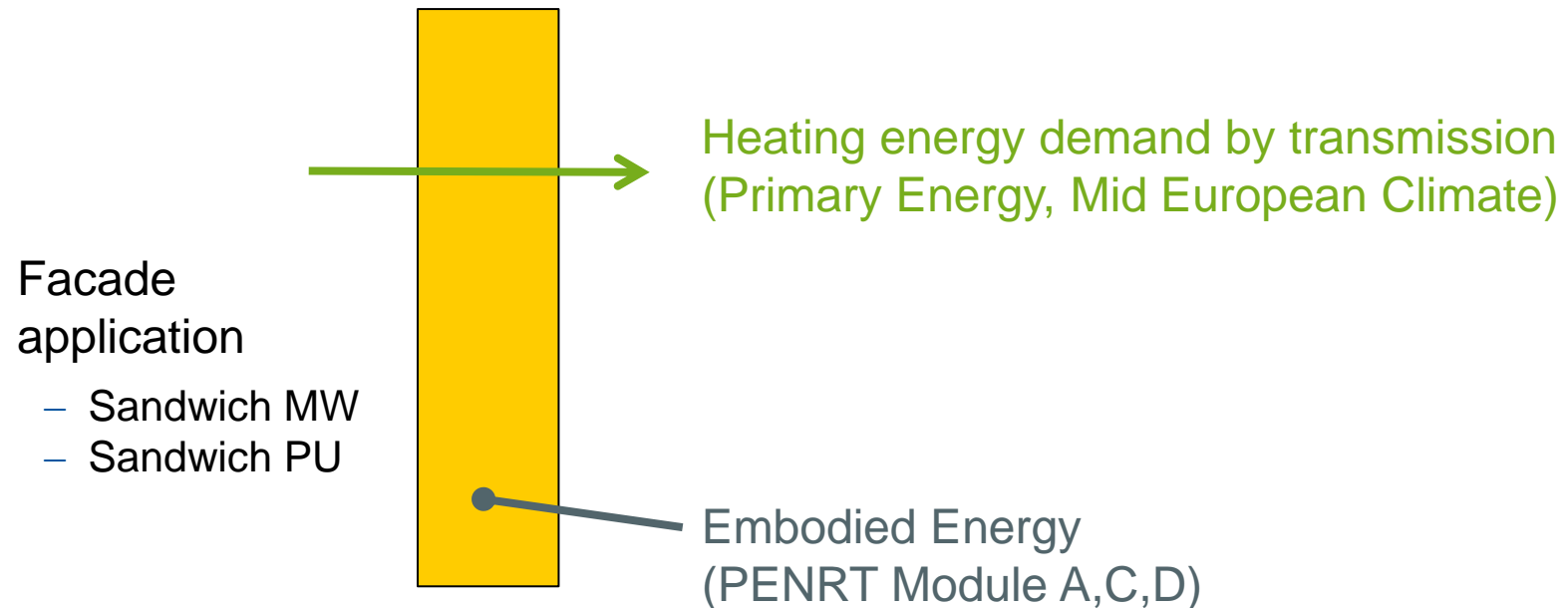
Building Assessment Information																	
Building Life Cycle Information																Supplementary Information Beyond the Building Life Cycle	
Stage	Product			Construction Process		Use							End of Life				Benefits and Loads beyond the System Boundary
Scenario	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
	Raw material supply	Transport	Manufacturing	Transport	Construction-Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Destruction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
EPD																	
Cradle to gate	■	■	■										■	■	■	■	■
Cradle to gate with option	■	■	■	□	□	□	□	□	□	□	□	□	■	■	■	■	■
Cradle to grave	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	□

■ Mandatory

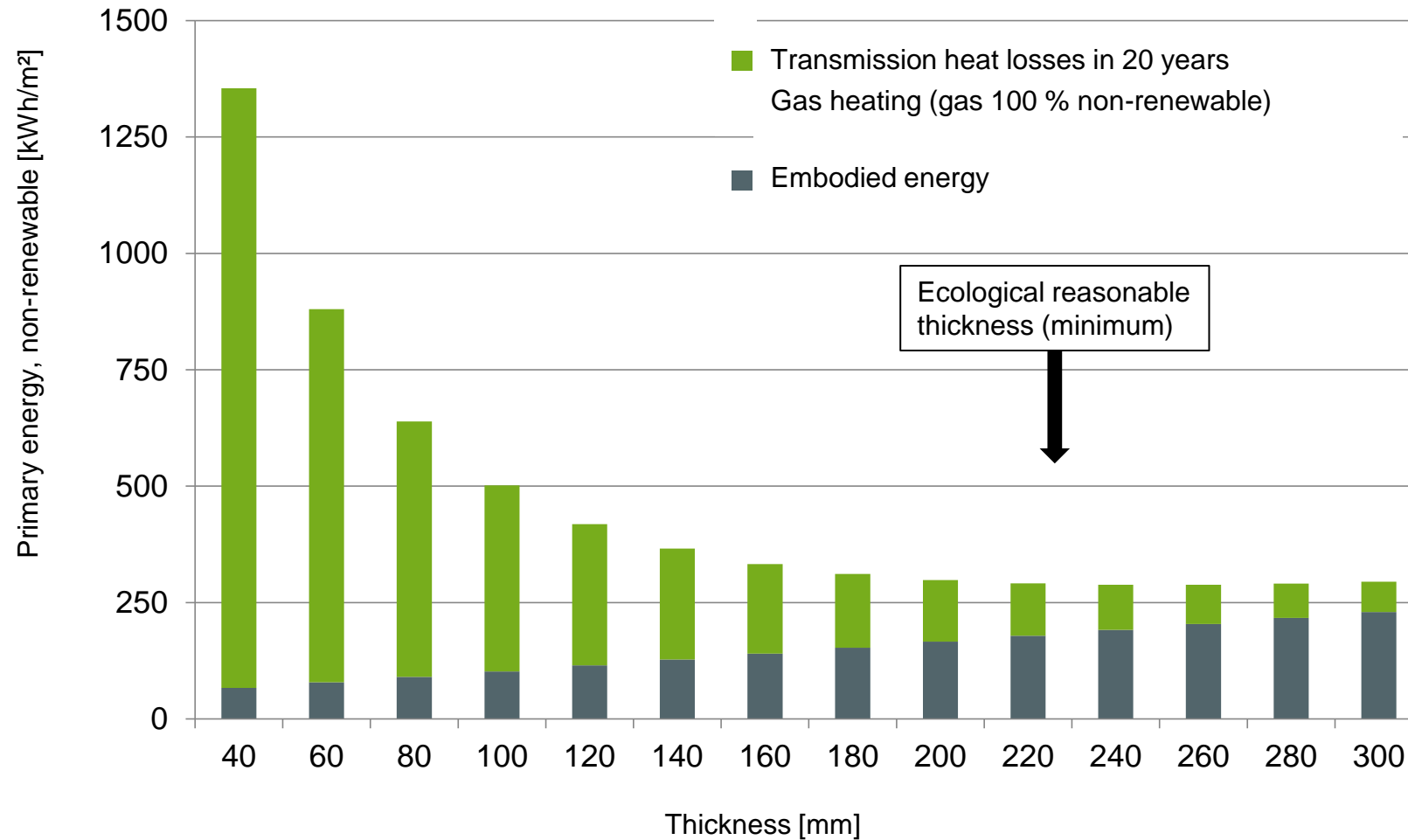
□ Inclusion optimal

EPD based assessment of lightweight metal constructions

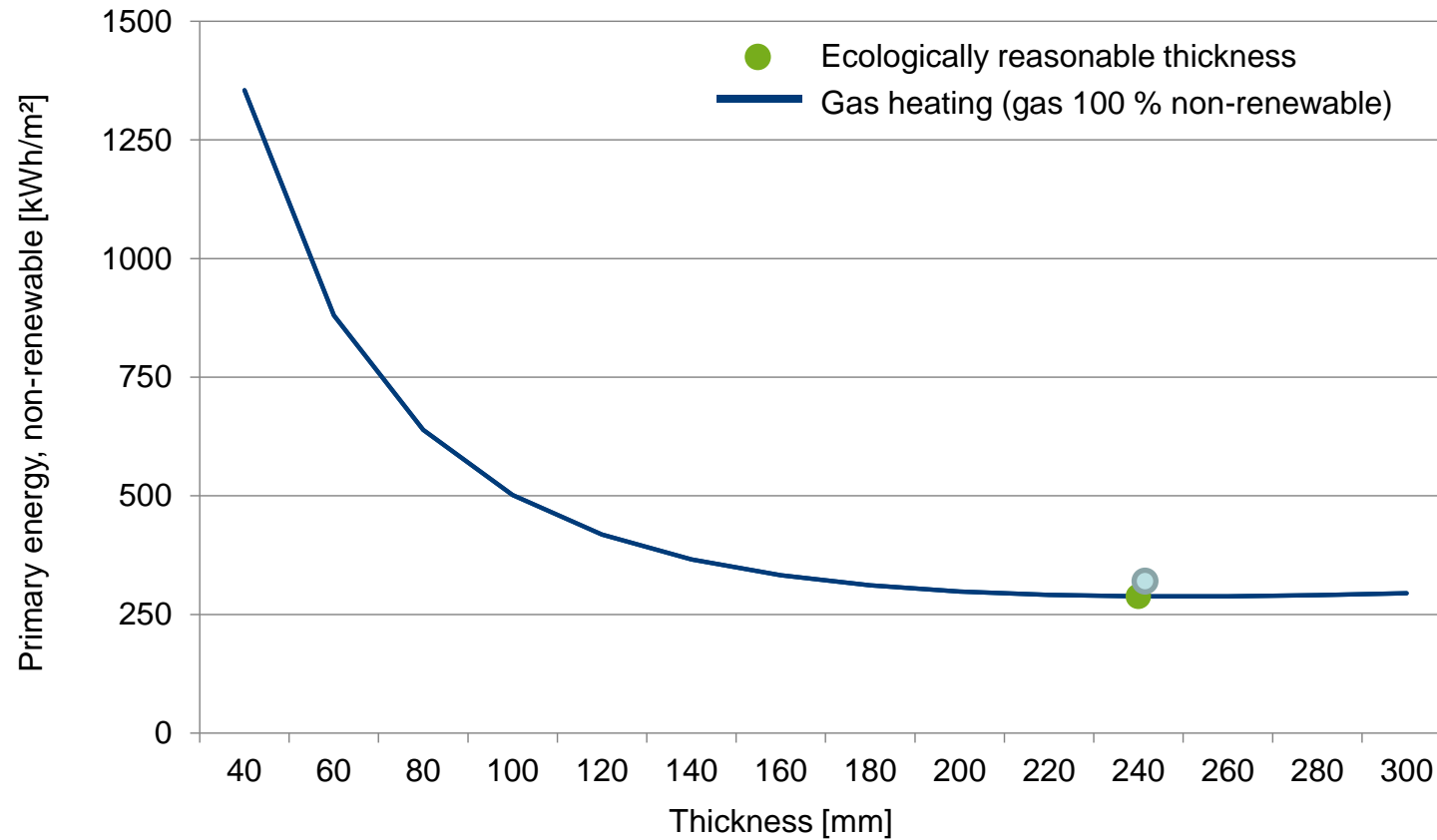
Calculation of embodied energy and heating energy demand by transmission according to European standards



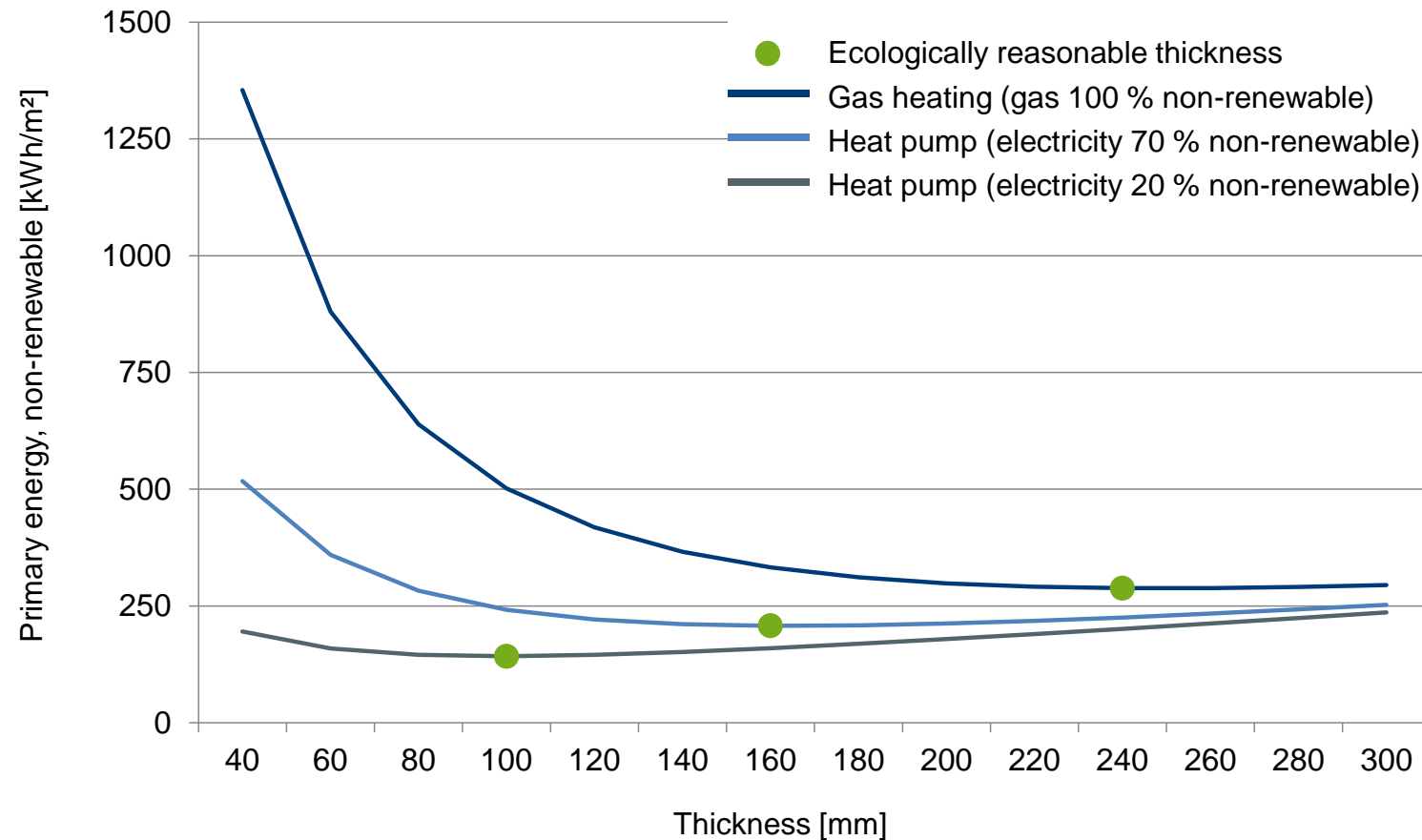
Metal Faced Sandwich Panels



Metal Faced Sandwich Panels

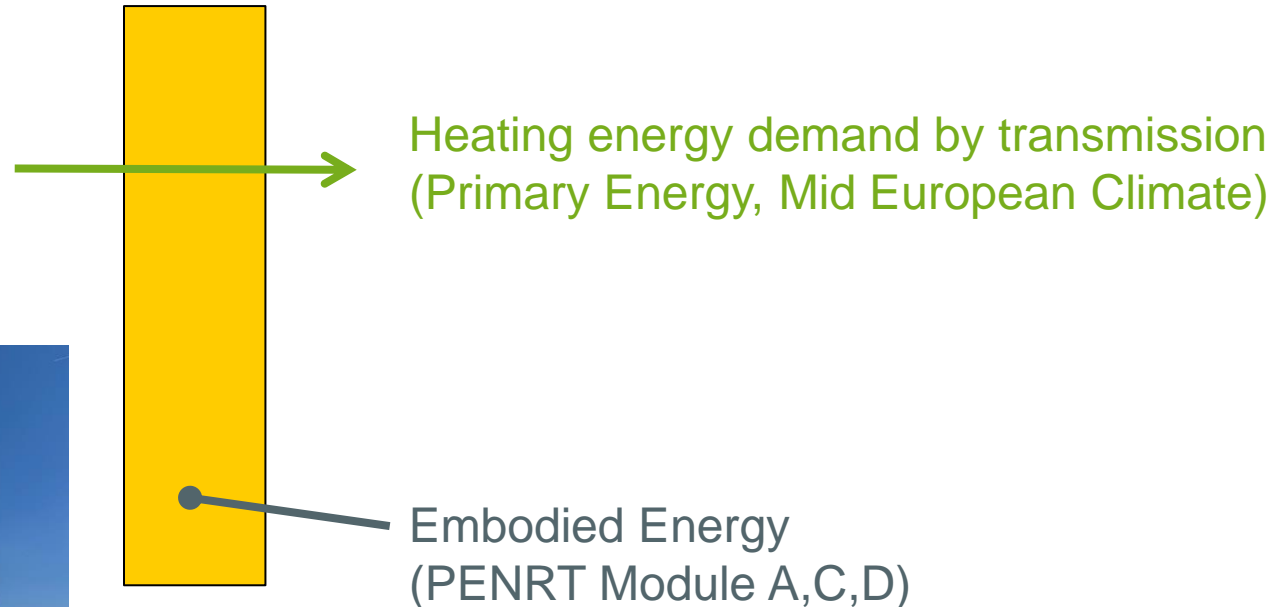


Metal Faced Sandwich Panels



EPD based assessment of lightweight metal constructions

Calculation of embodied energy and heating energy demand by transmission according to European standards



End

