

Agenda



1. Shedding light on the reclamation trade



2. Reuse Toolbox



3. Feedback from the field



4. Environmental Aspects



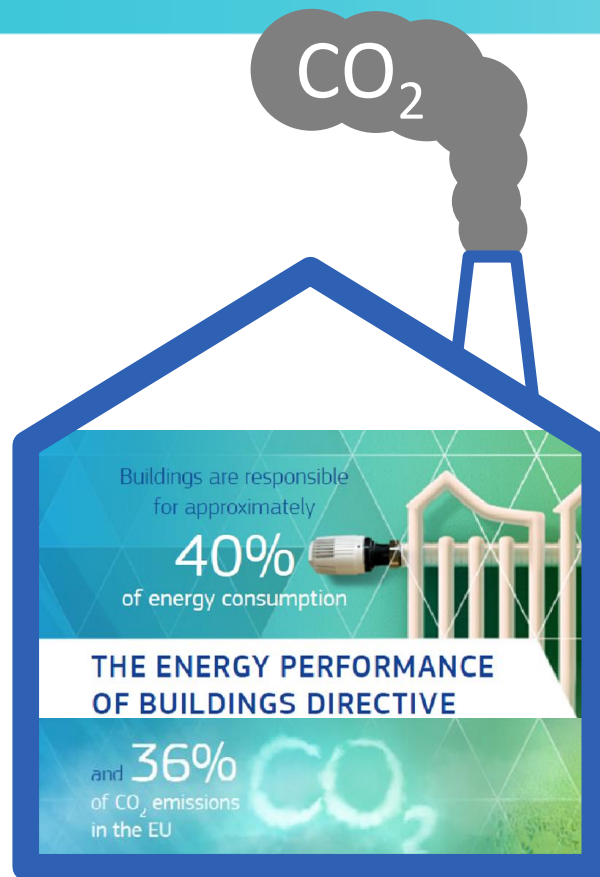
5. Perspectives

The environmental impact and benefits of reusing building materials: a life cycle analysis

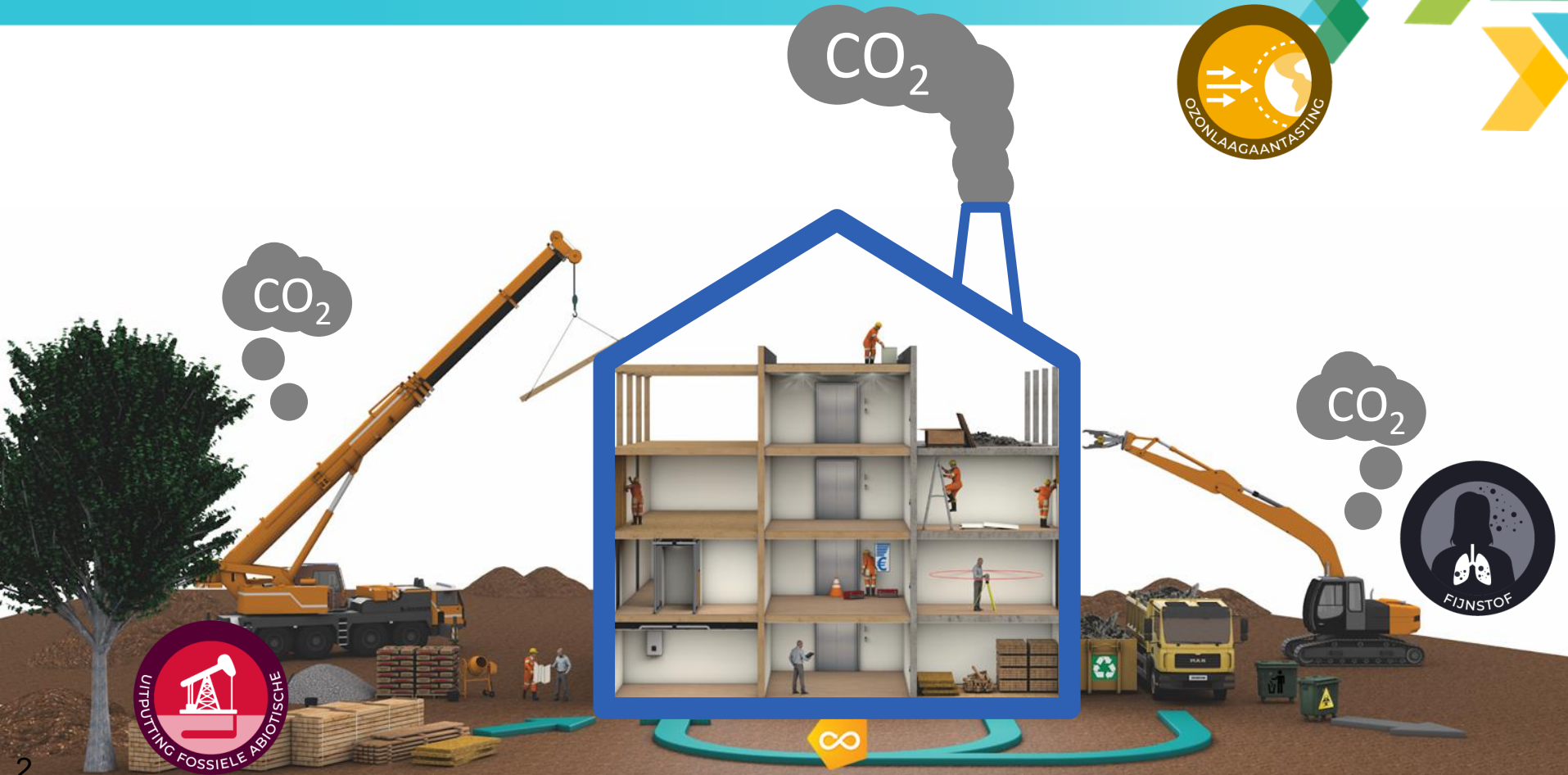


**Etienne
Douguet**
BBRI

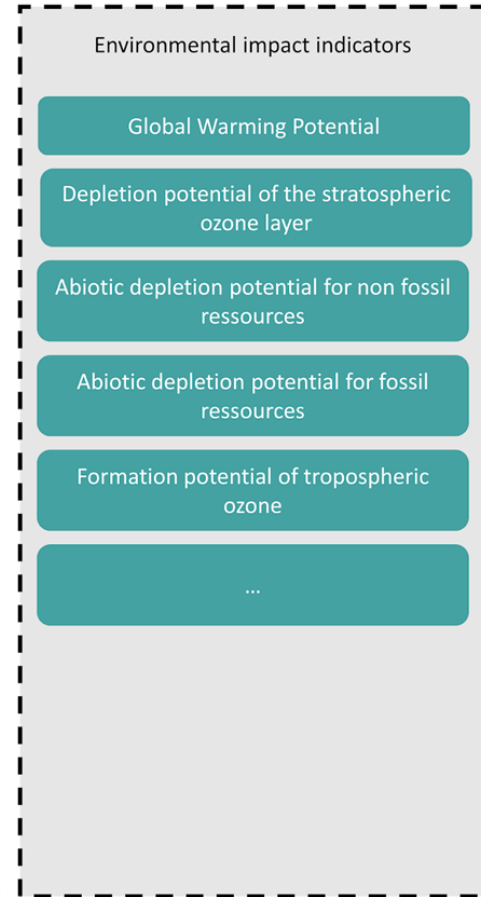
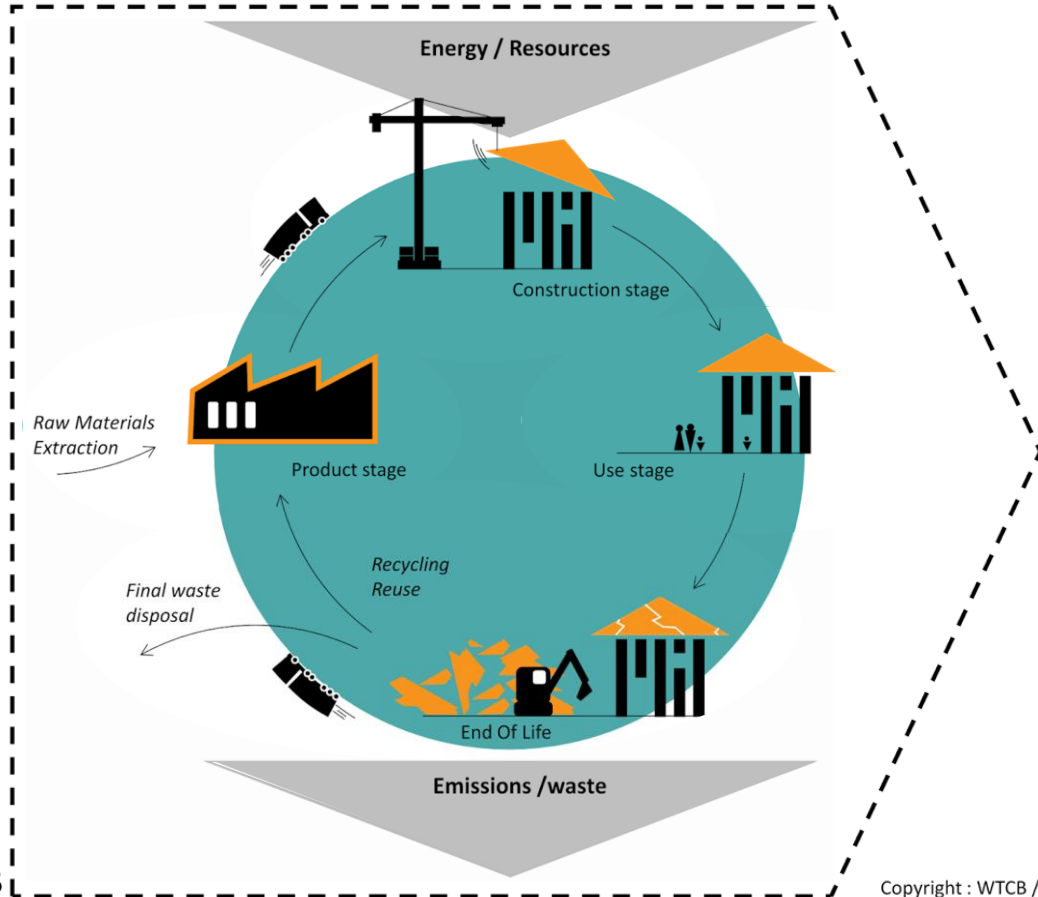
The ENVIRONMENTAL IMPACT of buildings



The ENVIRONMENTAL IMPACT of buildings



Life Cycle Analysis (LCA) ?



→ **Single Score**

TYPES of materials : IMPACTS (BENEFITS) in LCA ?



NEW ..

REUSABLE ..

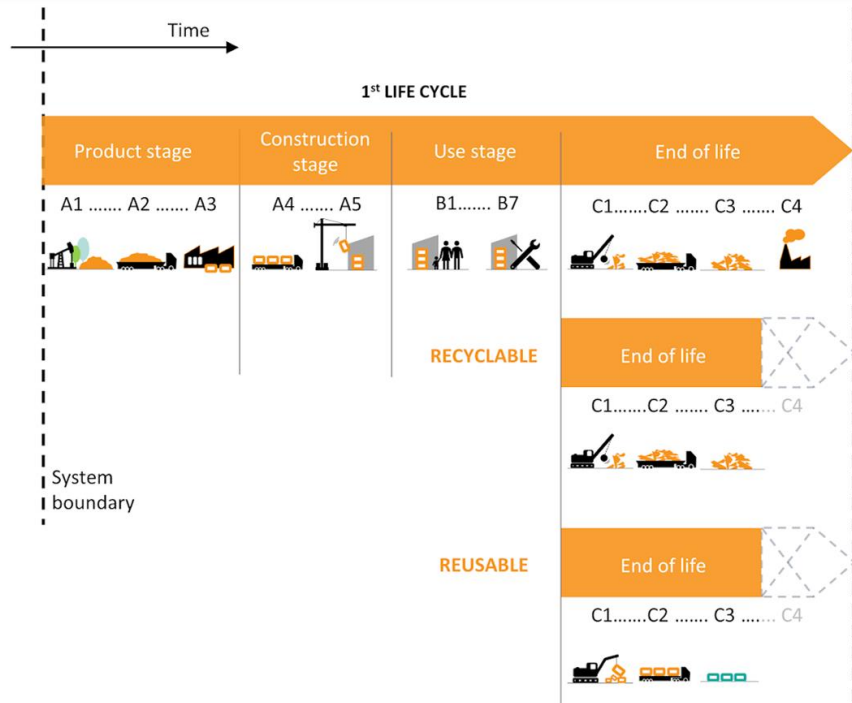
RECYCLABLE ..

RECYCLED ..

.. MATERIALS

REUSED ..

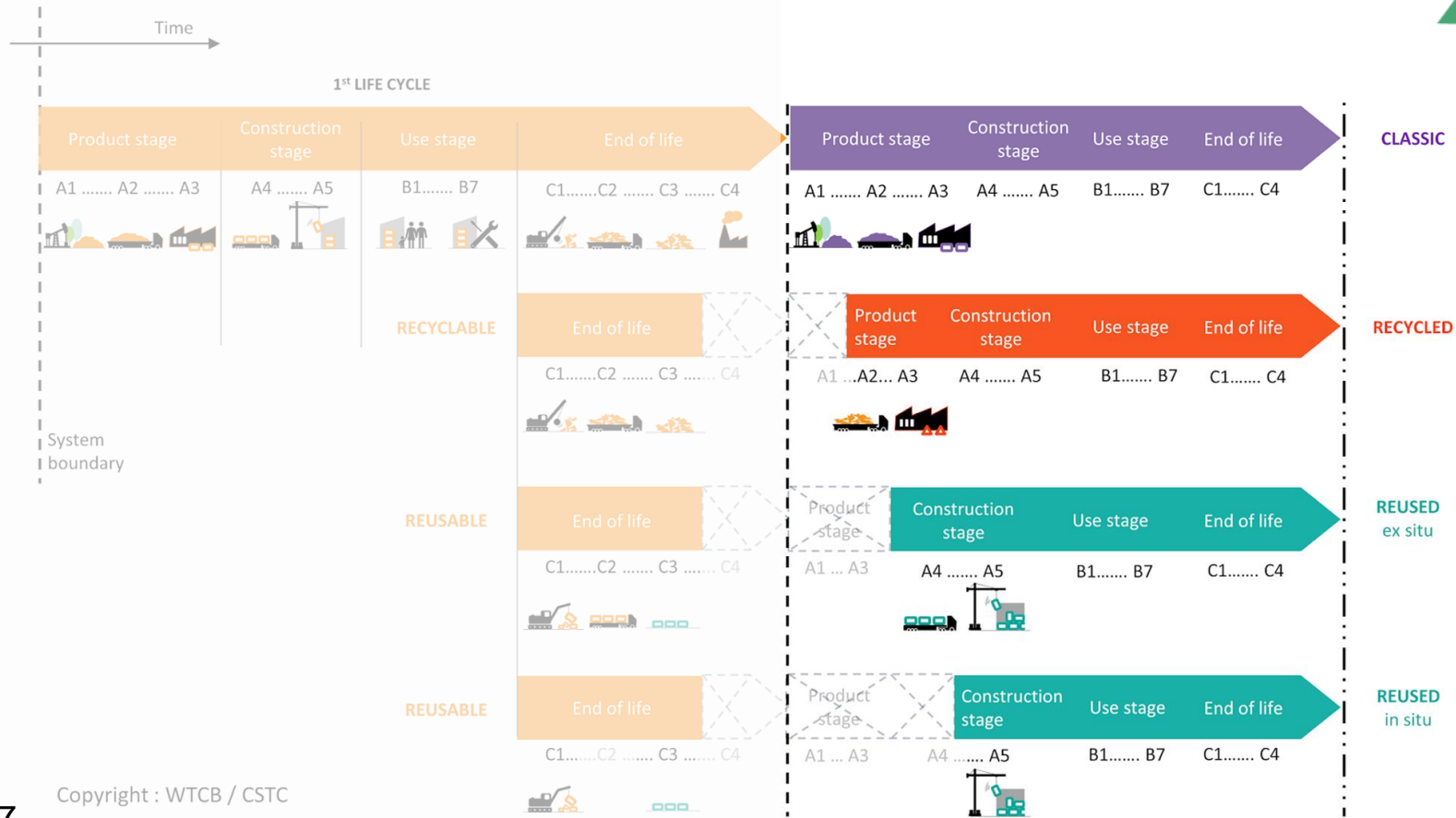
New .. Recyclable .. REUSABLE .. materials



Hypothetical Second life cycle



New .. Recycled .. REUSED .. materials



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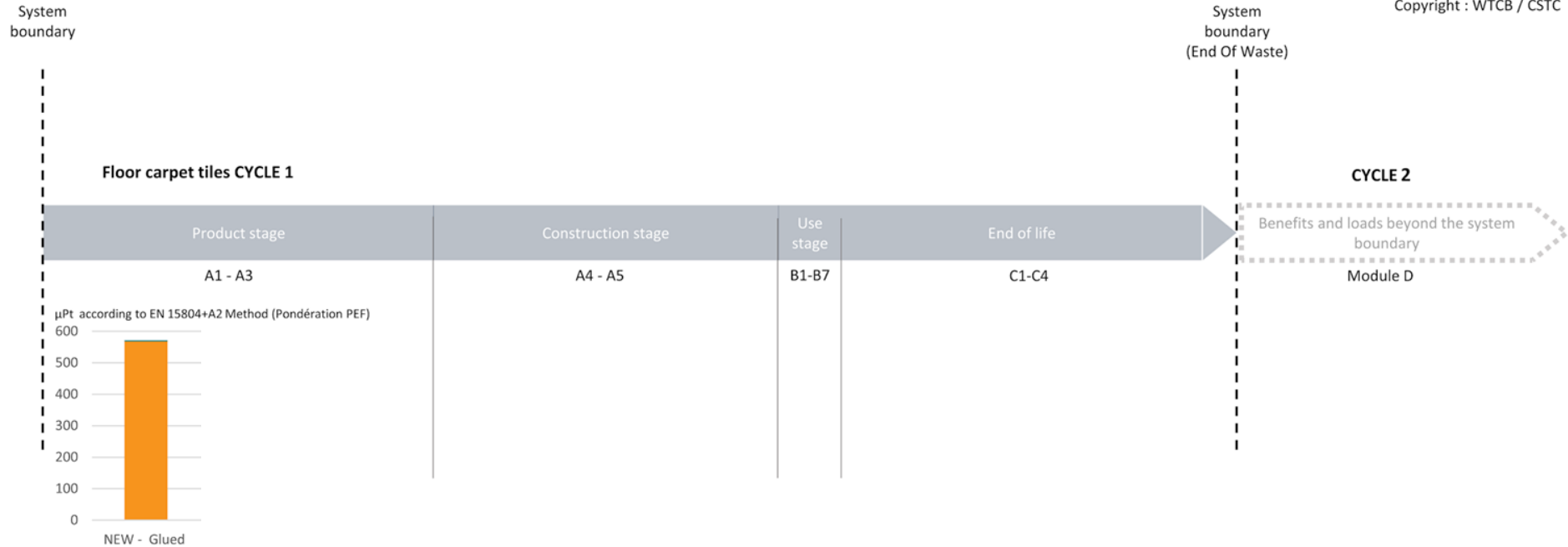
The impact of reused carpet tiles is X times smaller than the impact of new carpet tiles...

ⓘ Start presenting to display the poll results on this slide.

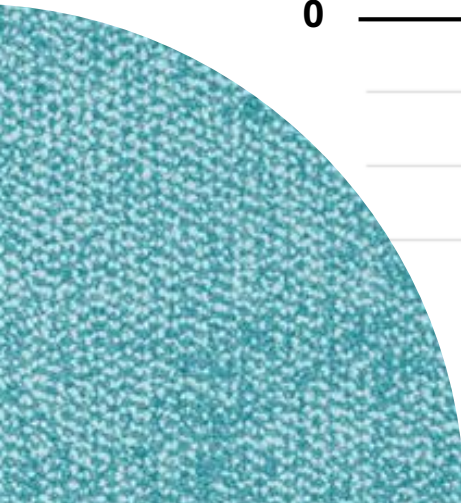
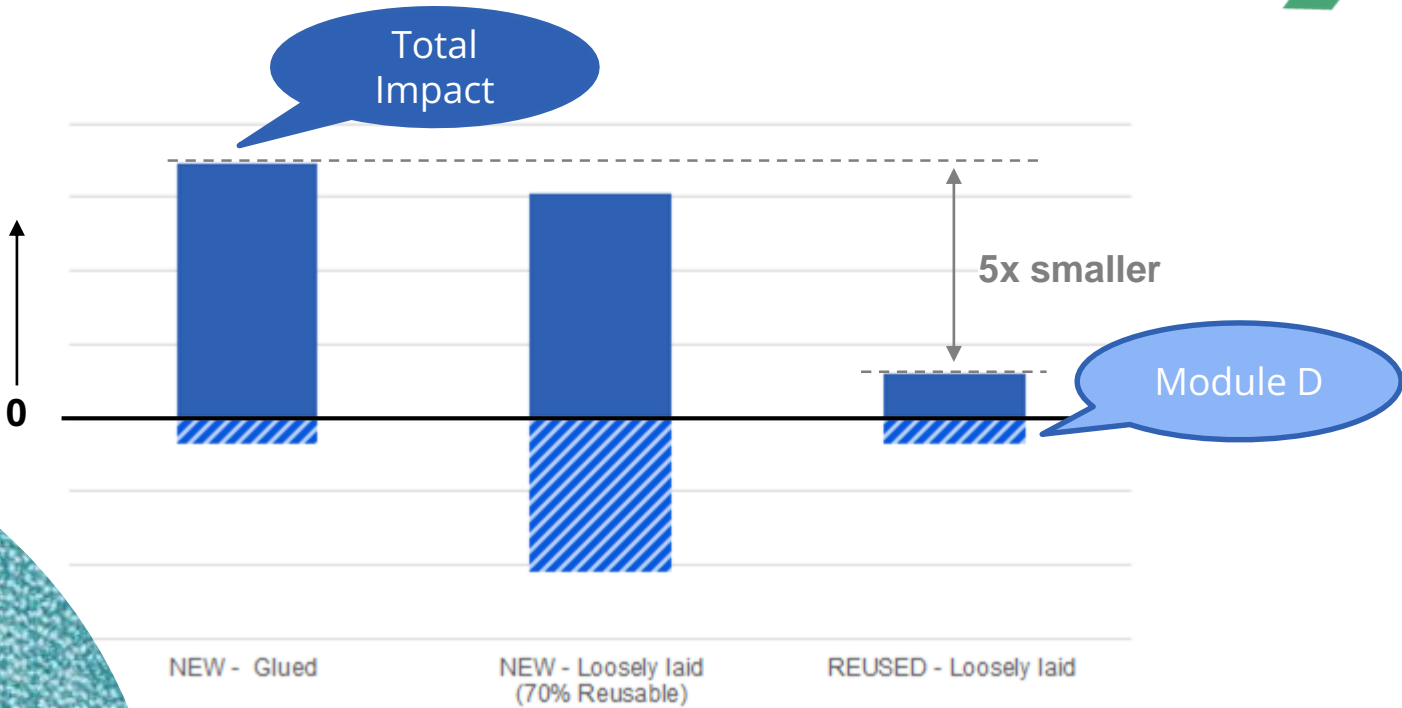
LCA of a building element : Floor CARPET tiles



Copyright : WTCB / CSTC



LCA of a building element : Floor CARPET tiles





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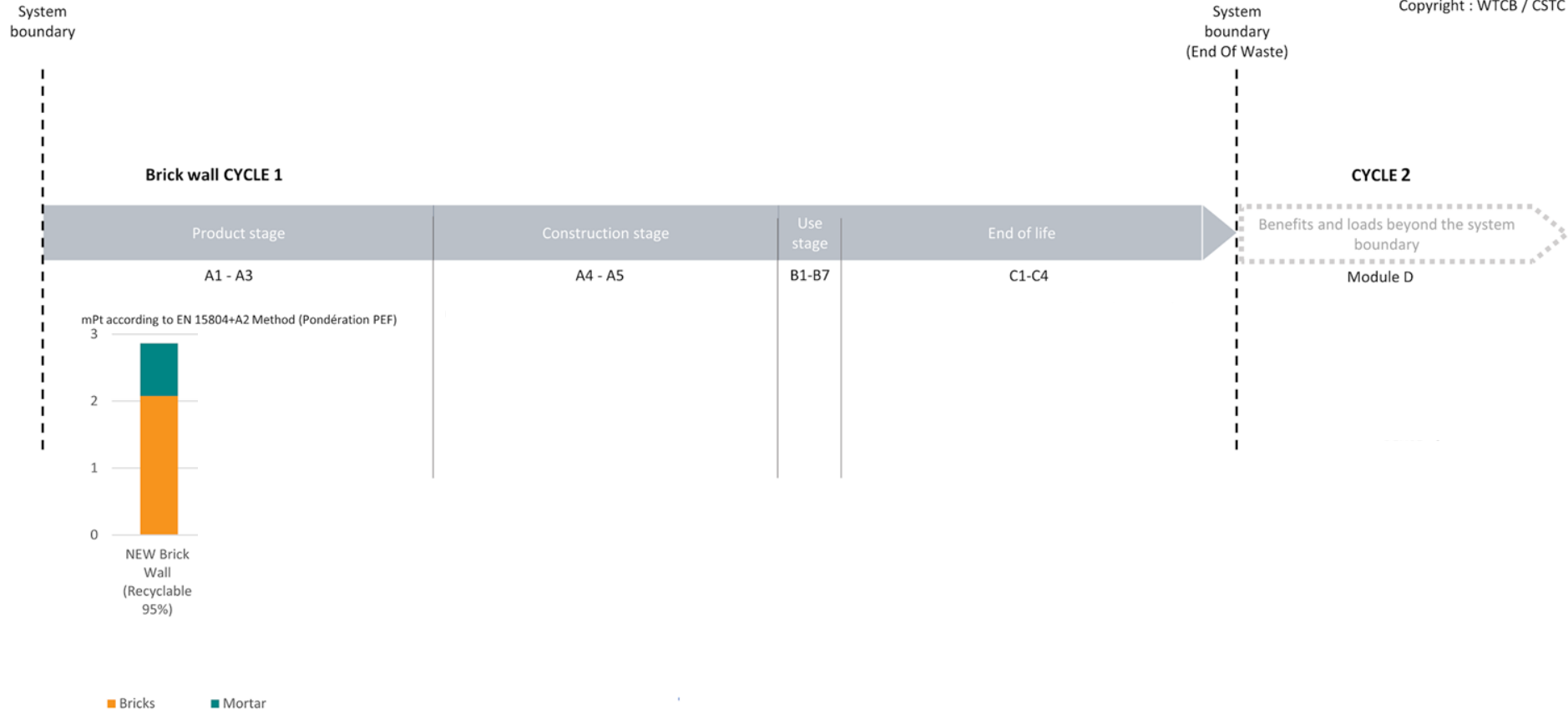
The **EOL** impact of **reusable** bricks is **much smaller** than the **EOL** impact of **new** bricks ?



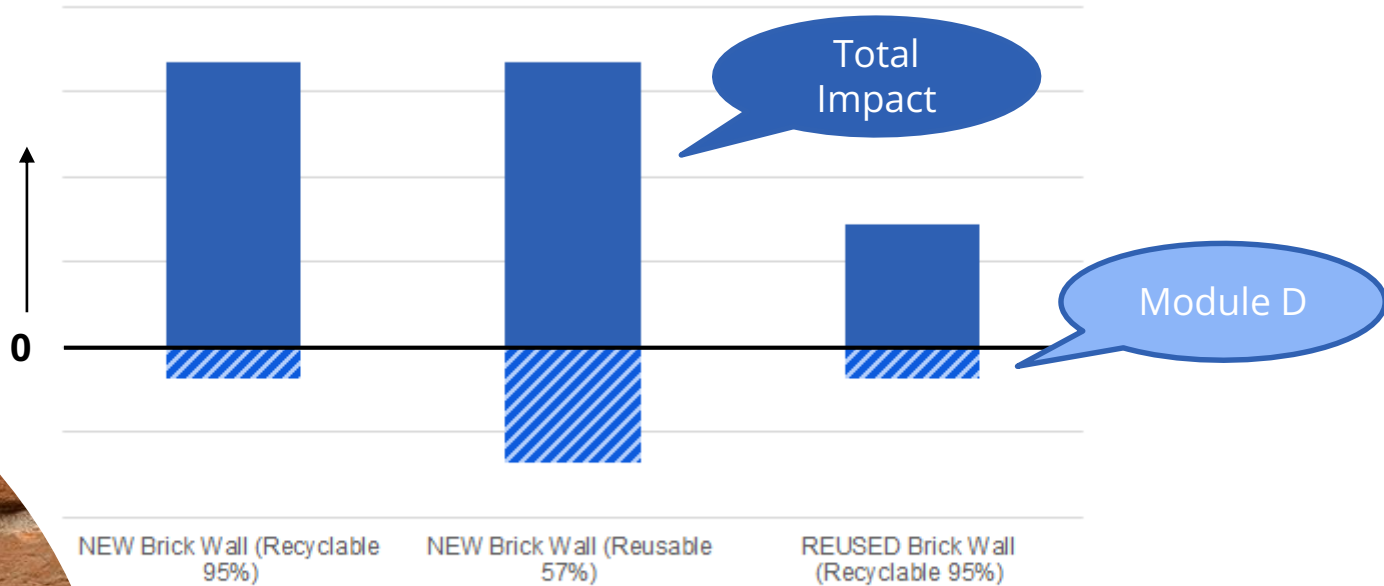
① Start presenting to display the poll results on this slide.

LCA of a building element : BRICK wall

Copyright : WTCB / CSTC



LCA of a building element : Wall in BRICKS





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**Reused biobased materials
lead to a **negative carbon
footprint?****



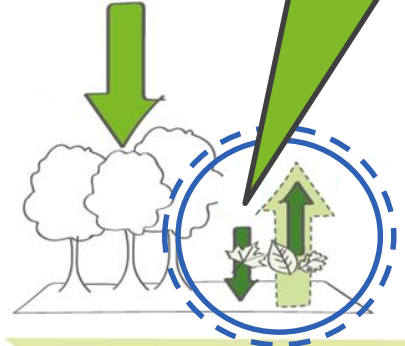
ⓘ Start presenting to display the poll results on this slide.

BIOGENIC Carbon



Biogenic Carbon
(CO₂)

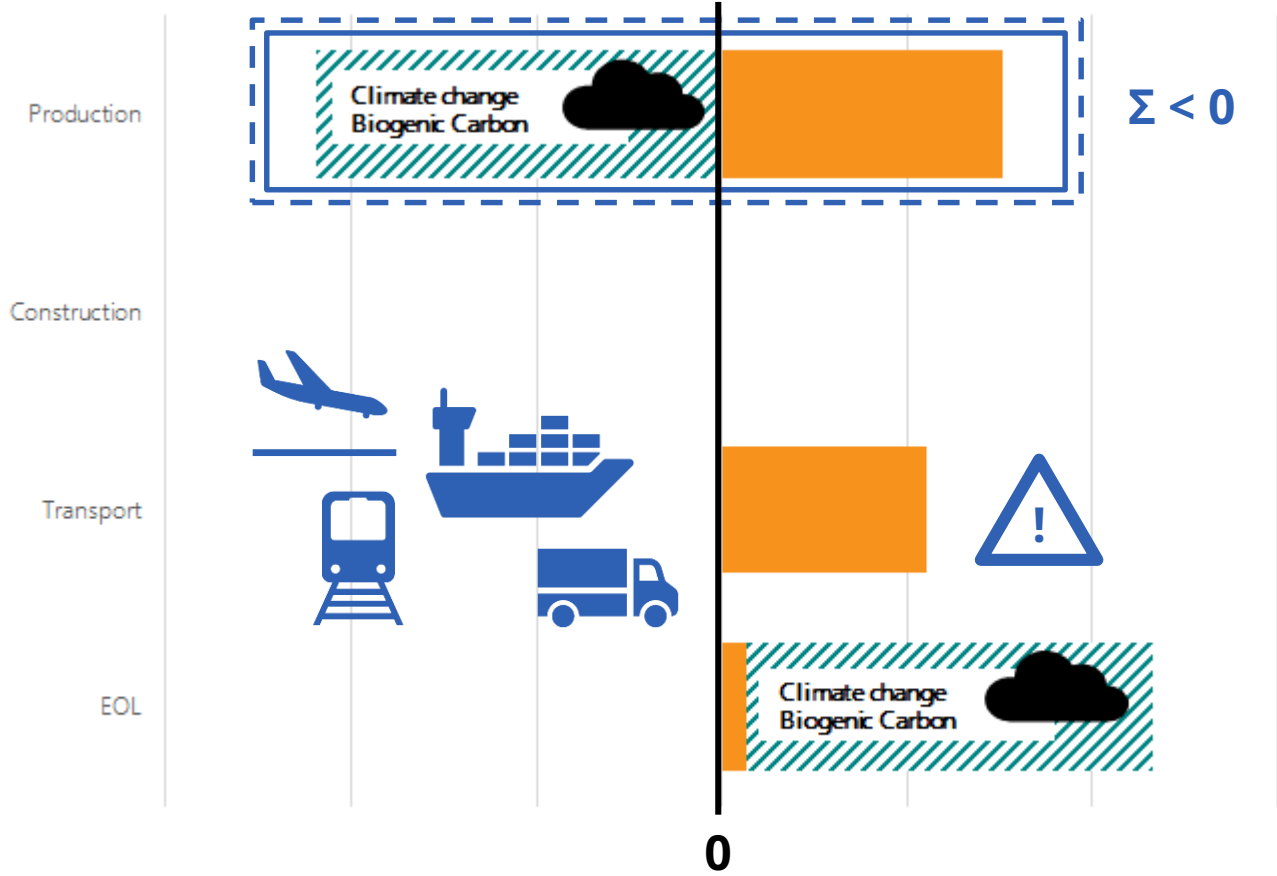
Biogenic Carbon
(Organic matter)



SYLVICULTURE

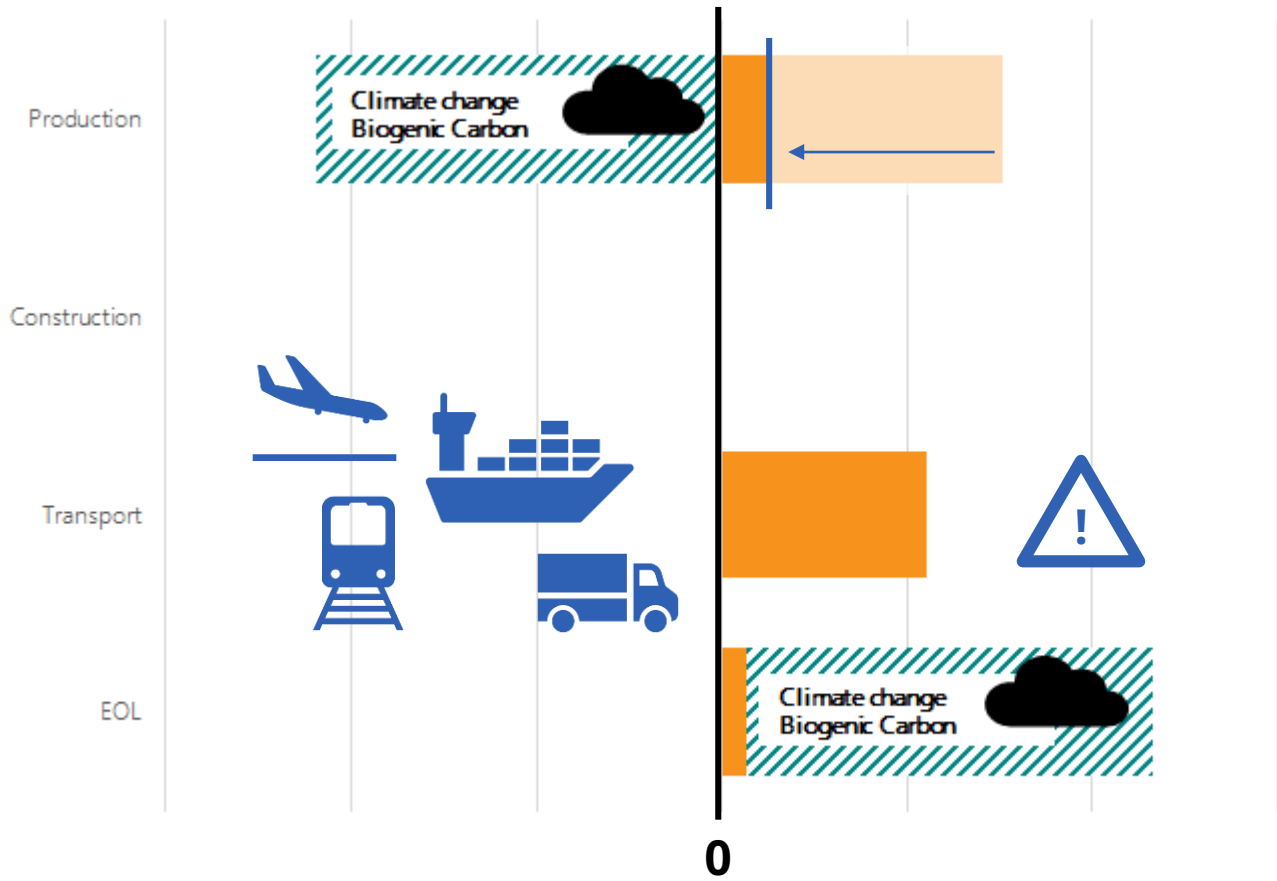


REUSE of biobased materials



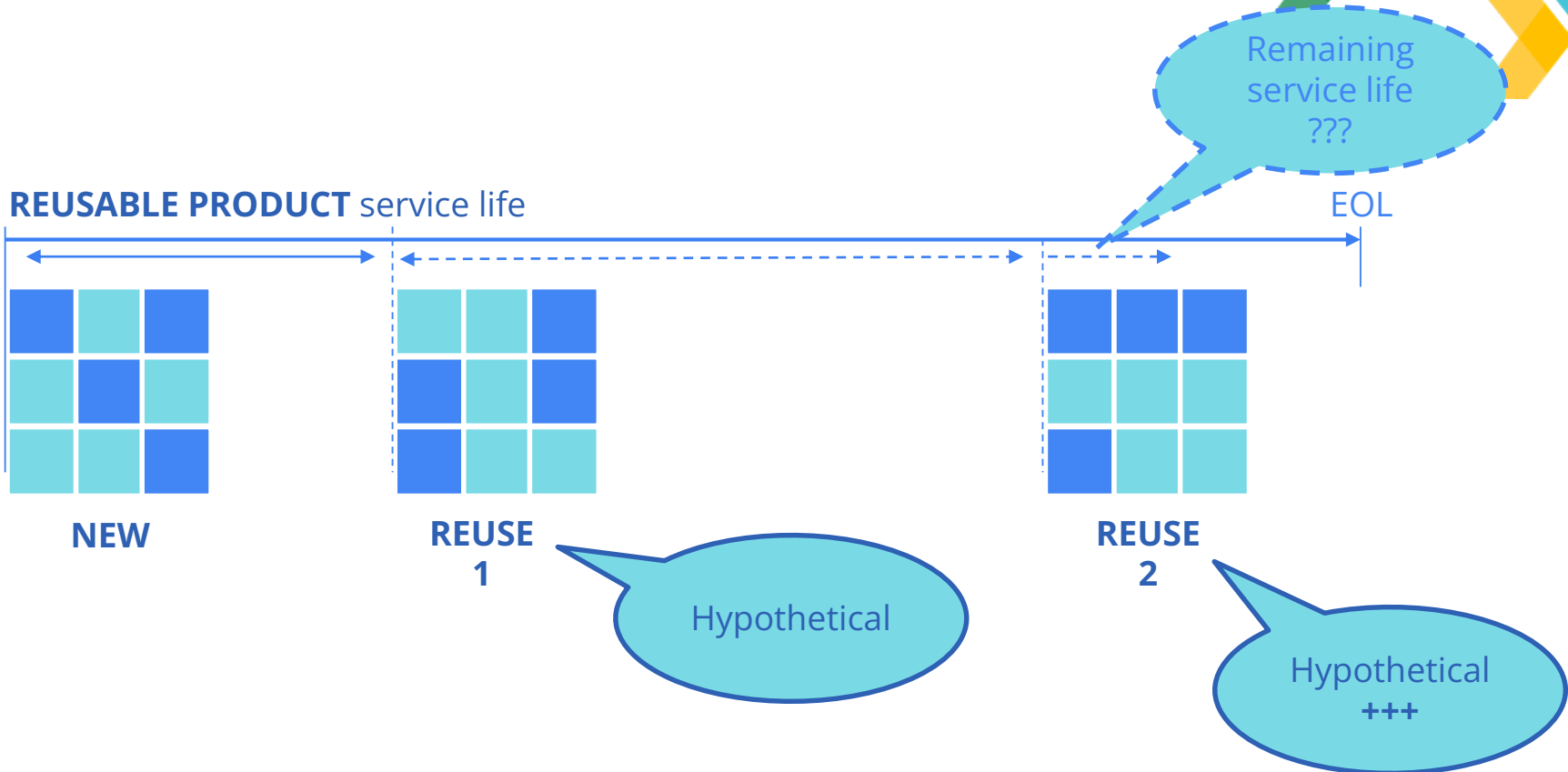
NEW

REUSE of biobased materials

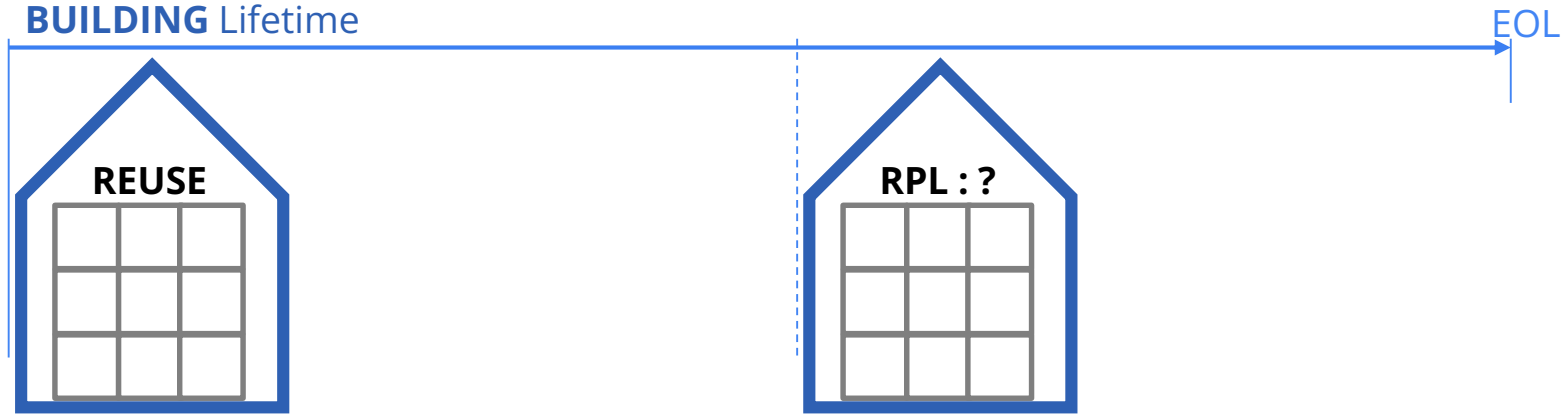


~~NEW~~
REUSED

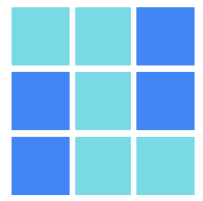
MULTIPLE reuse of construction products



MULTIPLE reuse of construction products

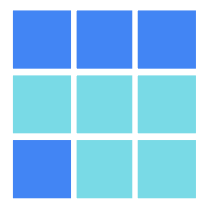


Which REUSE ?



REUSE 1

OR



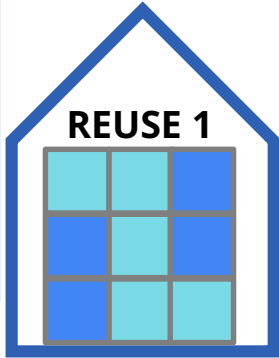
REUSE 2

Consequences on impacts

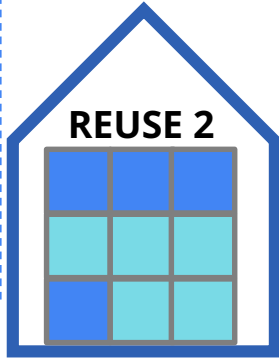
MULTIPLE reuse of construction products



BUILDING Lifetime



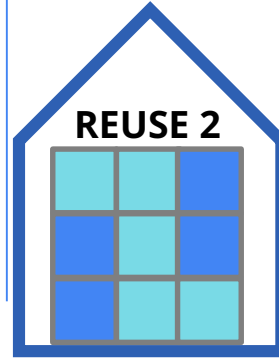
REUSE 1



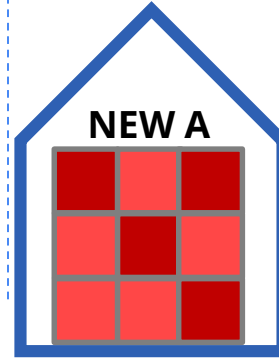
REUSE 2

EOL

BUILDING Lifetime



REUSE 2



NEW A

EOL

Significant impact differences

IF REUSE 1

IF REUSE 2

To remember



REUSE = High potential to **reduce production stage impacts**

REUSE = strategy to **maximise the storage of biogenic carbon** in biobased materials

REUSABLE product = **uncertainty** about the effective reuse

MULTIPLE REUSE = In practice, are there products that can be **reused more than once** ?

LCA methodology for REUSED materials **needs further development**

Thank you for your attention !!

Yours Truly Reclaimed



Sara Morel
Salvo





Price





Price



Sustainability



Price

Sustainability

Heritage



Price

Sustainability

Heritage

Uniqueness

Price

Sustainability

Look

Heritage

Uniqueness

Sal Vage

Save



Photo courtesy of the Imperial War Museum



REPAIR
SHOES,
PAINT



Photos courtesy of SETTLE Norfolk

“ I just have to touch it ”


“ that wood is
talking to me ”

“ People’s wish
to stroke it ”



Photos courtesy of Foster + Partners: Cunningham Captures, Retrouvius: Tim Fallon, The Vintage Fridge Company





“Reclaimed wood is not artificial, it’s genuine, honest and real, and that connects to customers on a human level”

Matheny, R.
Reclaimed Wood in Retail Environments: Creating an Emotional Connection for Product Longevity



Creative Commons photo by Joe Mabel









“Heritage”

“Olde”

“Antique”



“Heritage”

“Olde”

“Antique”

“Reclaimed”







Owners





Owners

Specifiers





Owners

Specifiers

Designers





Owners

Specifiers

Designers

Visitors





SALVO
CODE
EST
1995



SALVO
CODE
EST
1995









Photo courtesy of Foster + Partners: Cunningham Captures



Far left photo courtesy of Stella McCartney; Hufton + Crow



Photo courtesy of Heatherwick Studio: Hufton + Crow

