

Agenda



1. Shedding light
on the
reclamation trade



2. Reuse Toolbox



3. Feedback
from the field



4. Environmental
Aspects

5. Perspectives

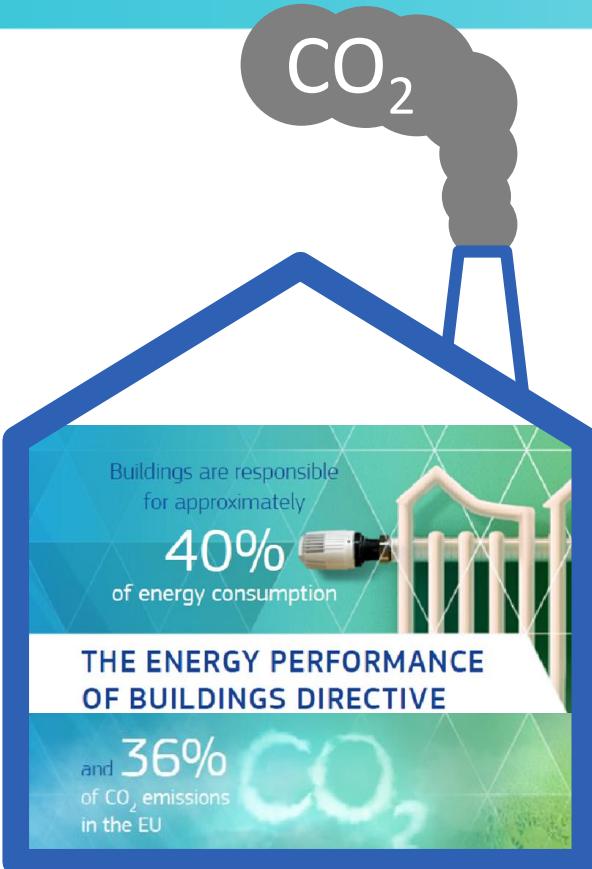


The environmental impact and benefits of reusing building materials: a life cycle analysis

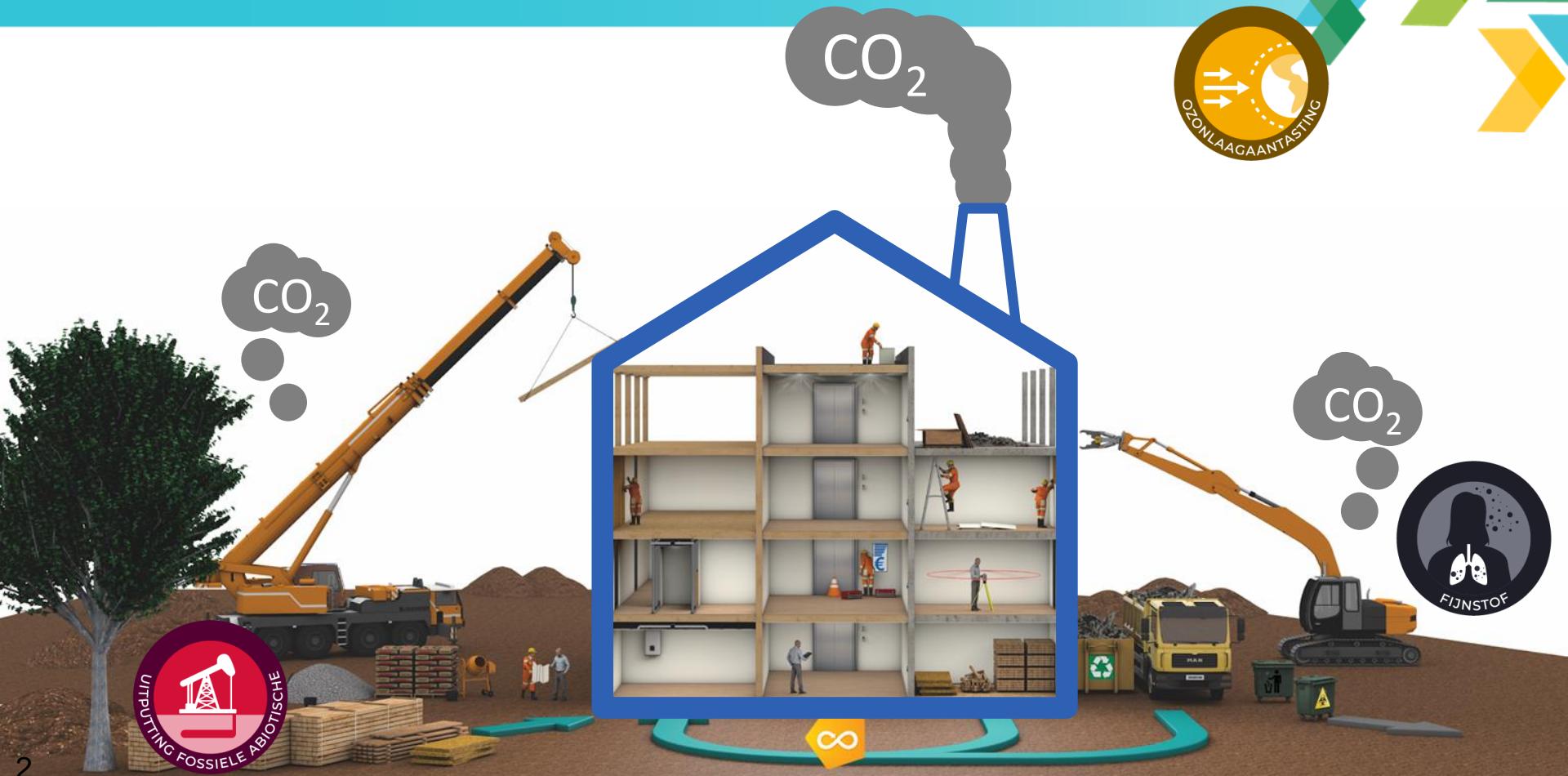


**Etienne
Douguet**
BBRI

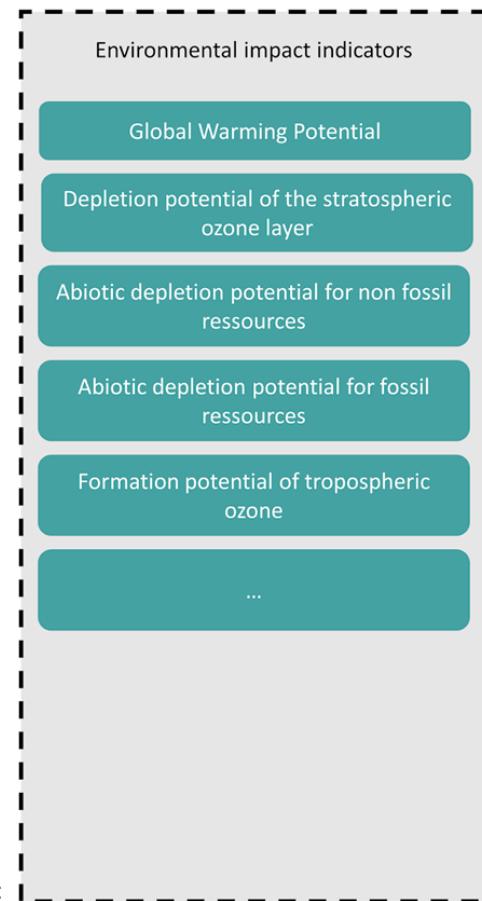
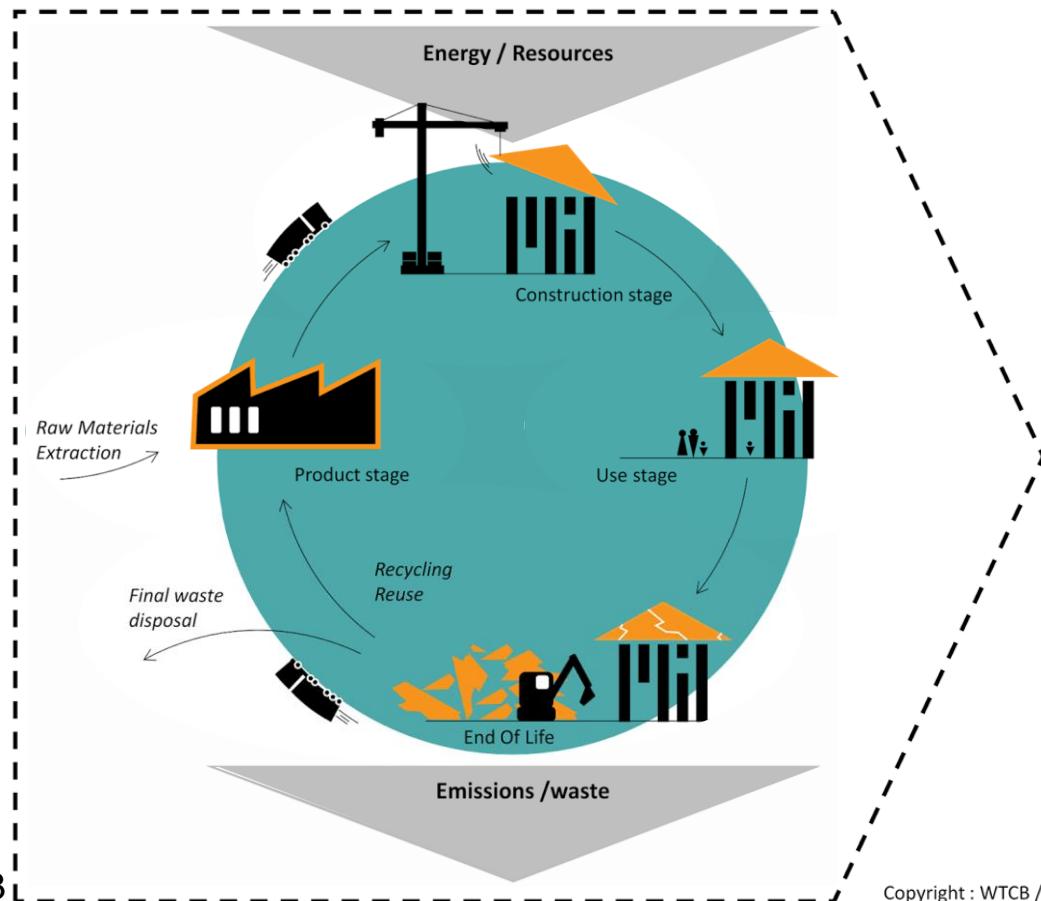
The ENVIRONMENTAL IMPACT of buildings



The ENVIRONMENTAL IMPACT of buildings



Life Cycle Analysis (LCA) ?

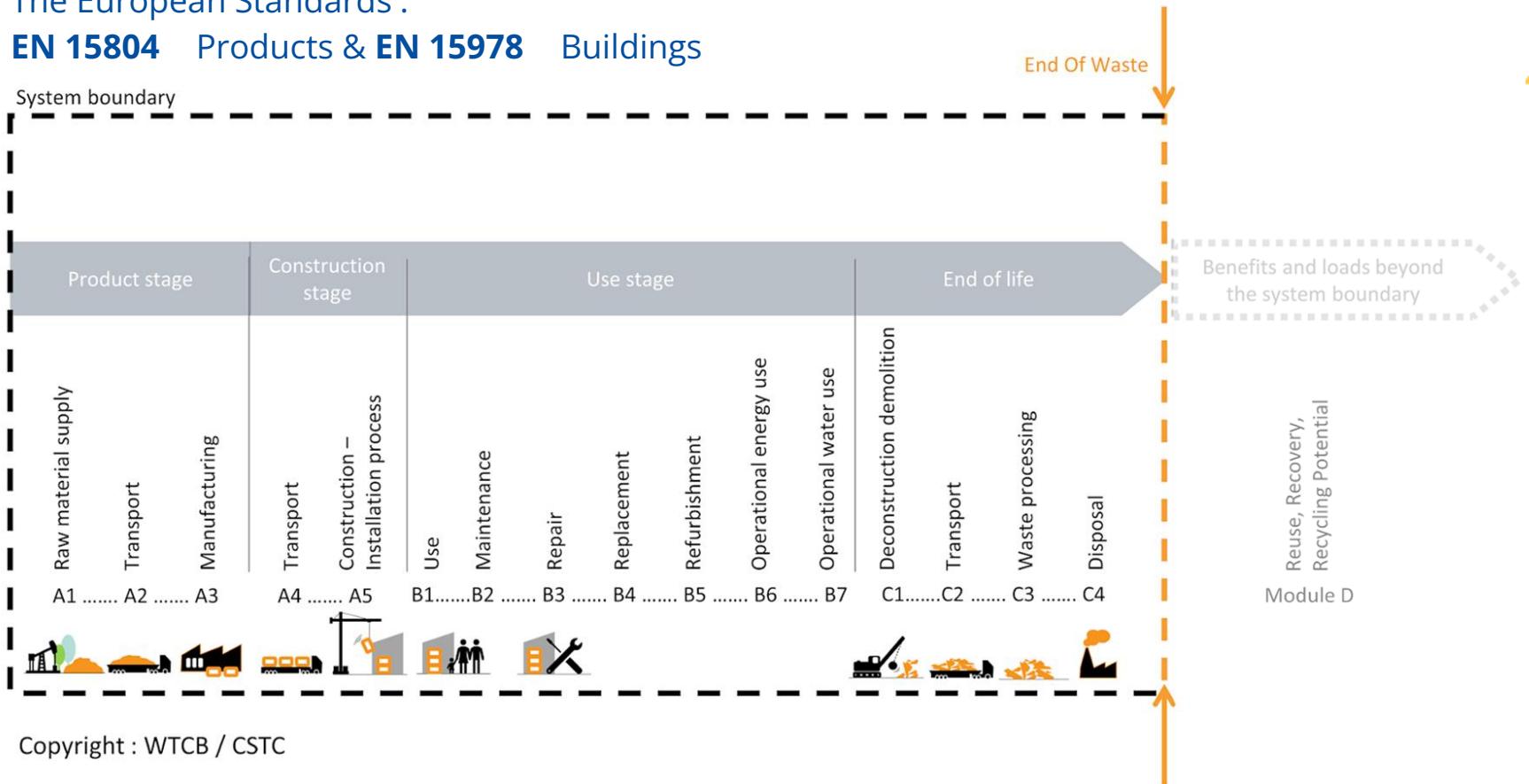


→ Single Score

STANDARDS and LCA

The European Standards :

EN 15804 Products & **EN 15978** Buildings



TYPES of materials : IMPACTS (BENEFITS) in LCA ?



NEW ..

REUSABLE ..

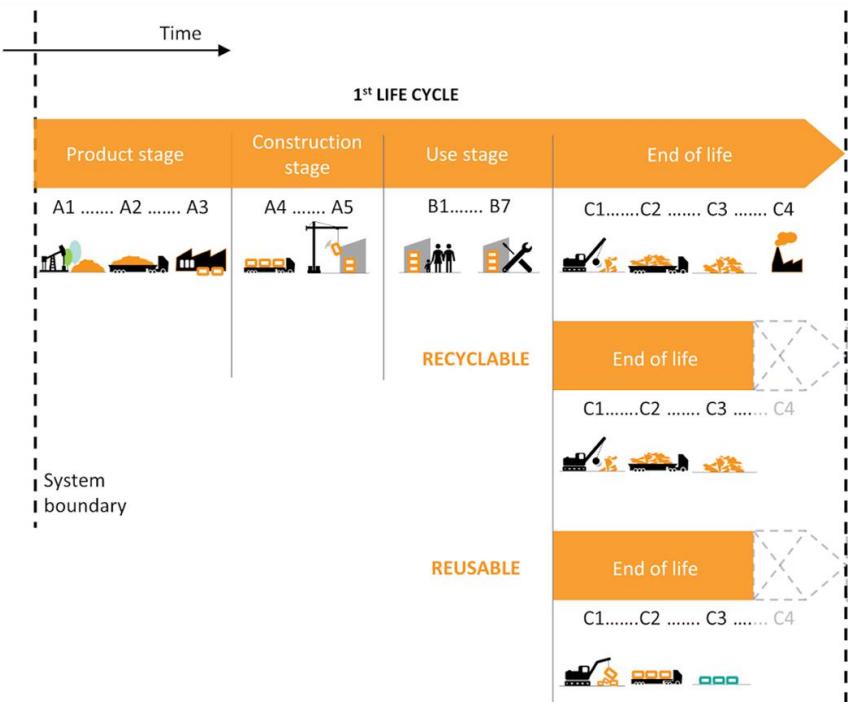
RECYCLABLE ..

RECYCLED ..

.. MATERIALS

REUSED ..

New .. Recyclable .. REUSABLE .. materials

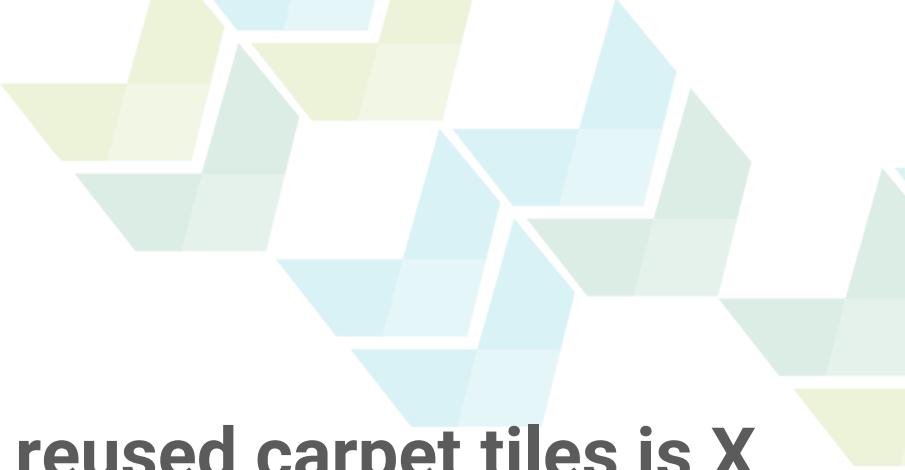


Hypothetical Second life cycle

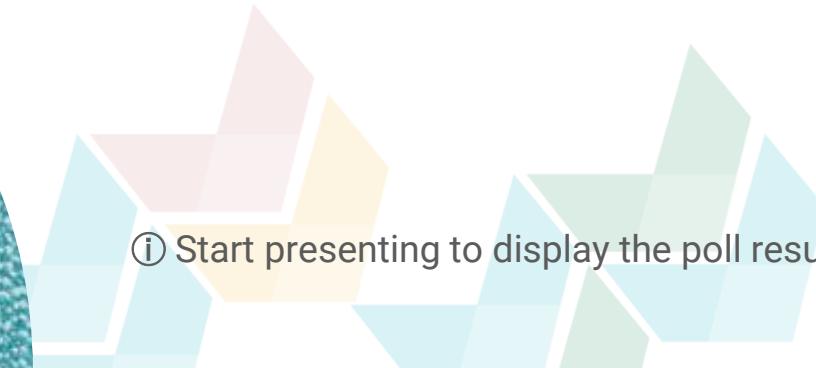


New .. Recycled .. REUSED .. materials



A large, textured teal carpet sample occupies the bottom left corner of the slide.A light blue circle containing three horizontal blue lines and three blue dots is positioned in the upper left area.

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

A smaller version of the abstract geometric shapes graphic from the top right is located at the bottom center.

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

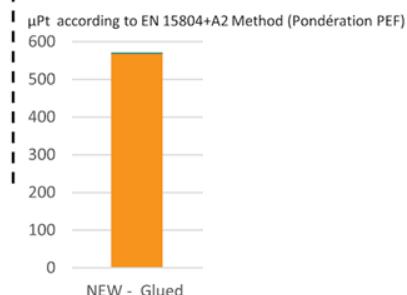
LCA of a building element : Floor CARPET tiles



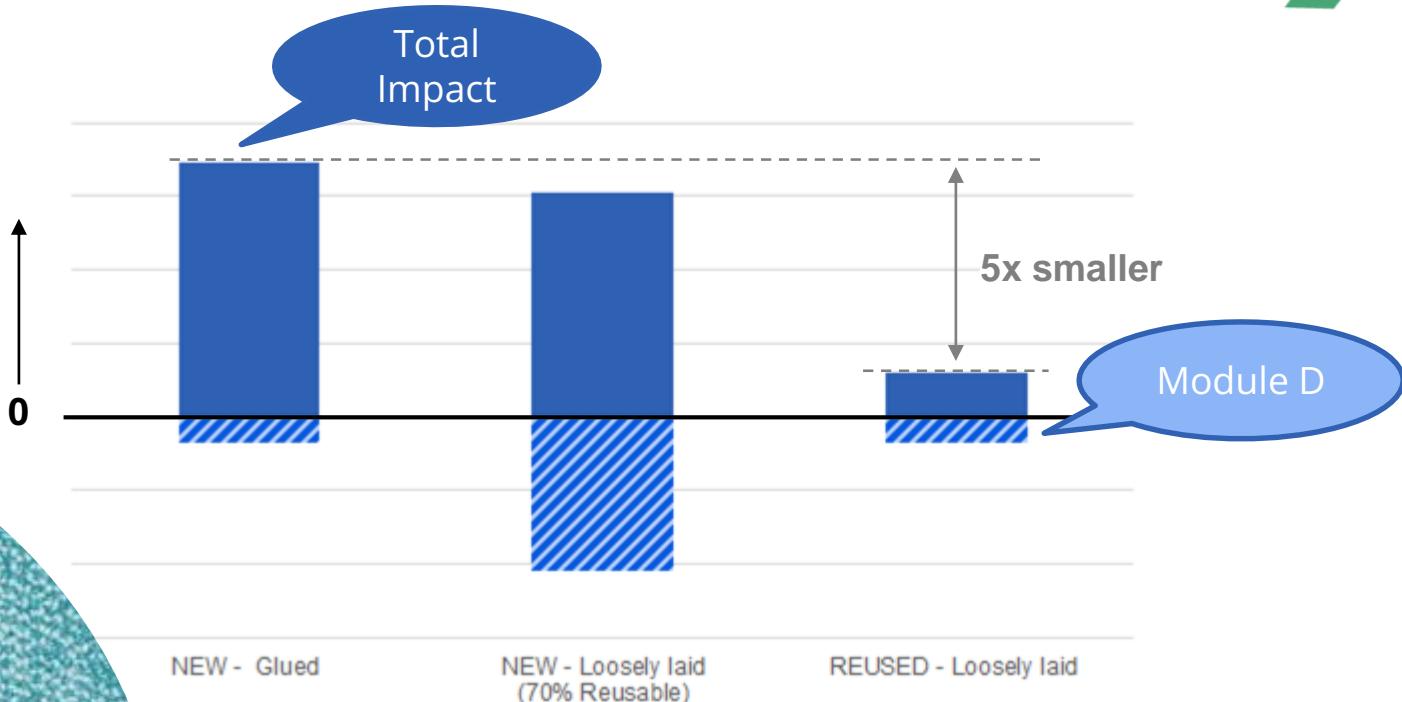
Copyright : WTCB / CSTC

System boundary

System boundary
(End Of Waste)



LCA of a building element : Floor CARPET tiles



Examples of building elements



slido



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 / CSCC

System boundary

System boundary
(End Of Waste)

Brick wall CYCLE 1

Product stage
A1 - A3

Construction stage
A4 - A5

Use stage
B1-B7

End of life
C1-C4

CYCLE 2

Benefits and loads beyond the system boundary

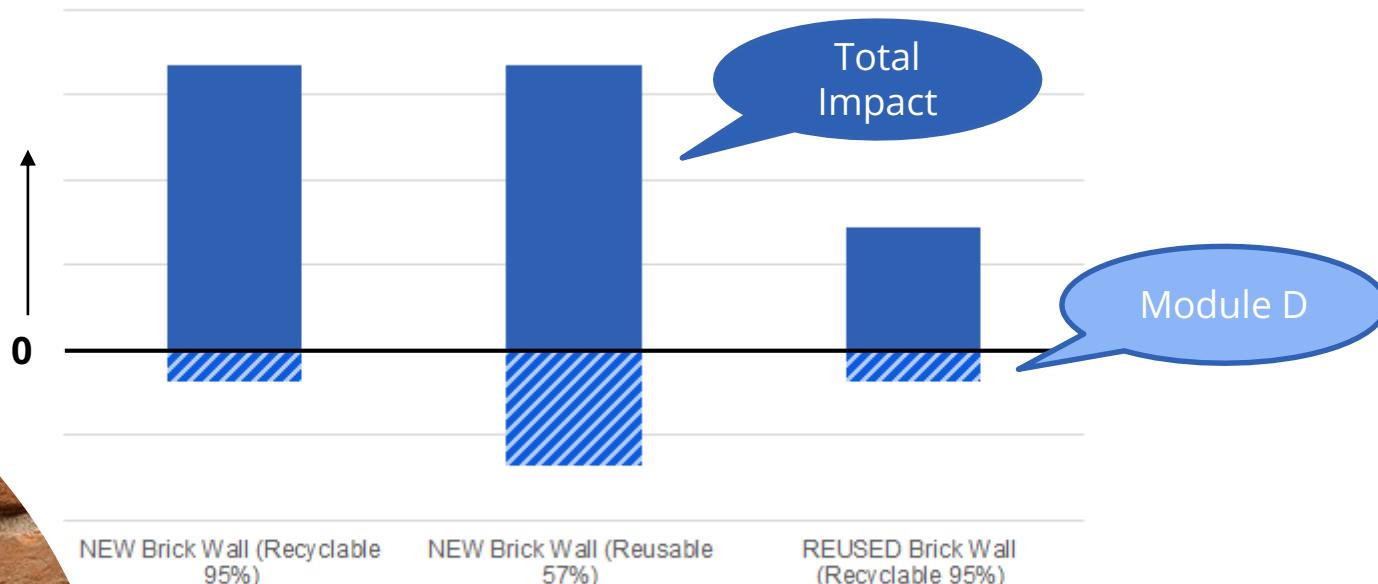
Module D

mPt according to EN 15804+A2 Method (Pondération PEF)



Bricks Mortar

LCA of a building element : Wall in BRICKS





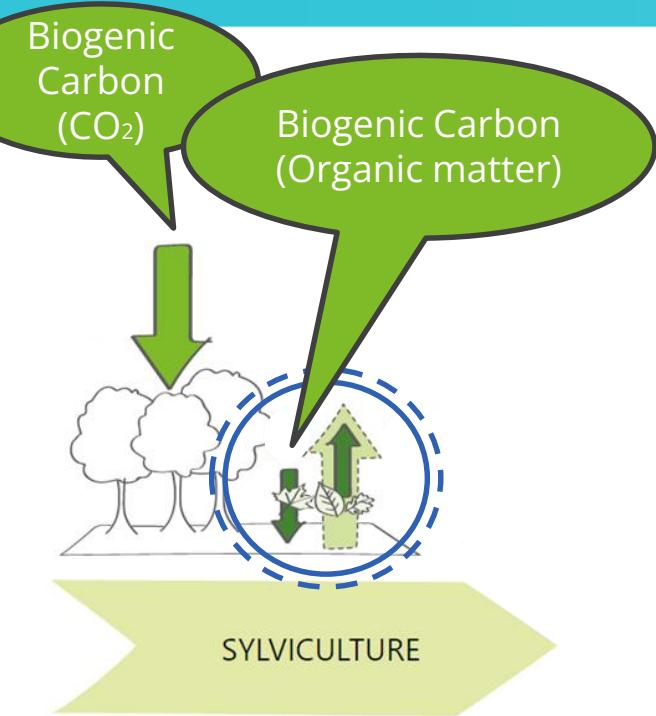
slido



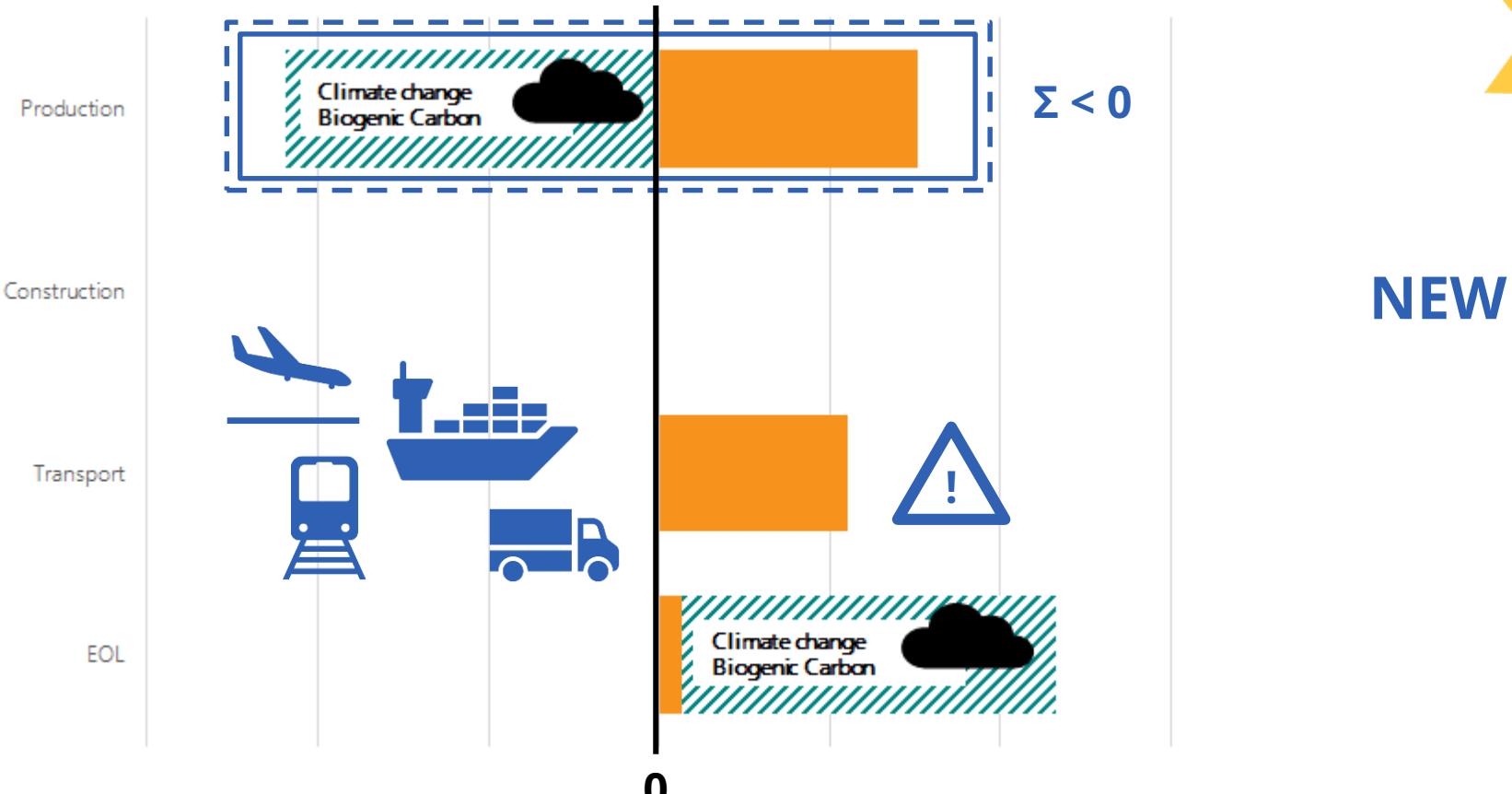
Reused biobased materials lead to a negative carbon footprint?

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

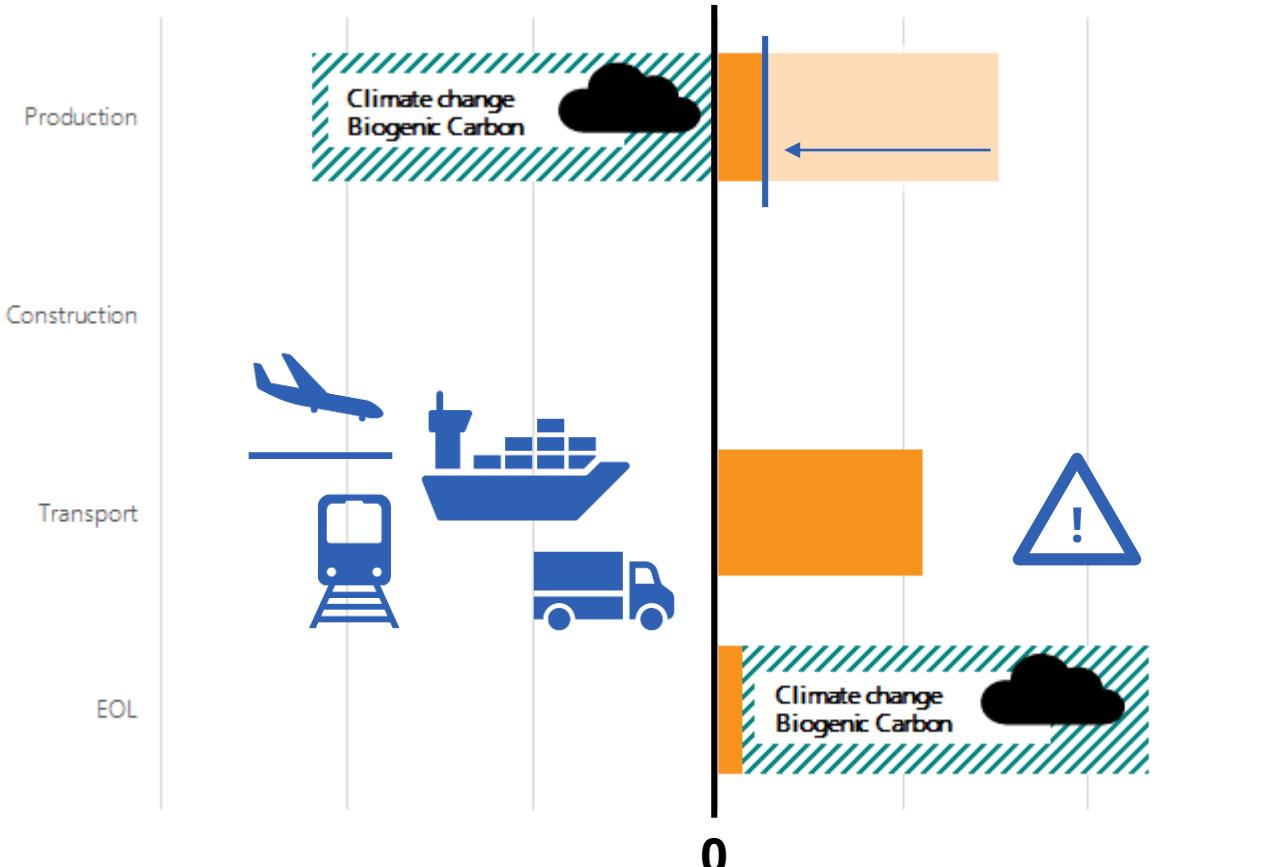
BIOGENIC Carbon



REUSE of biobased materials

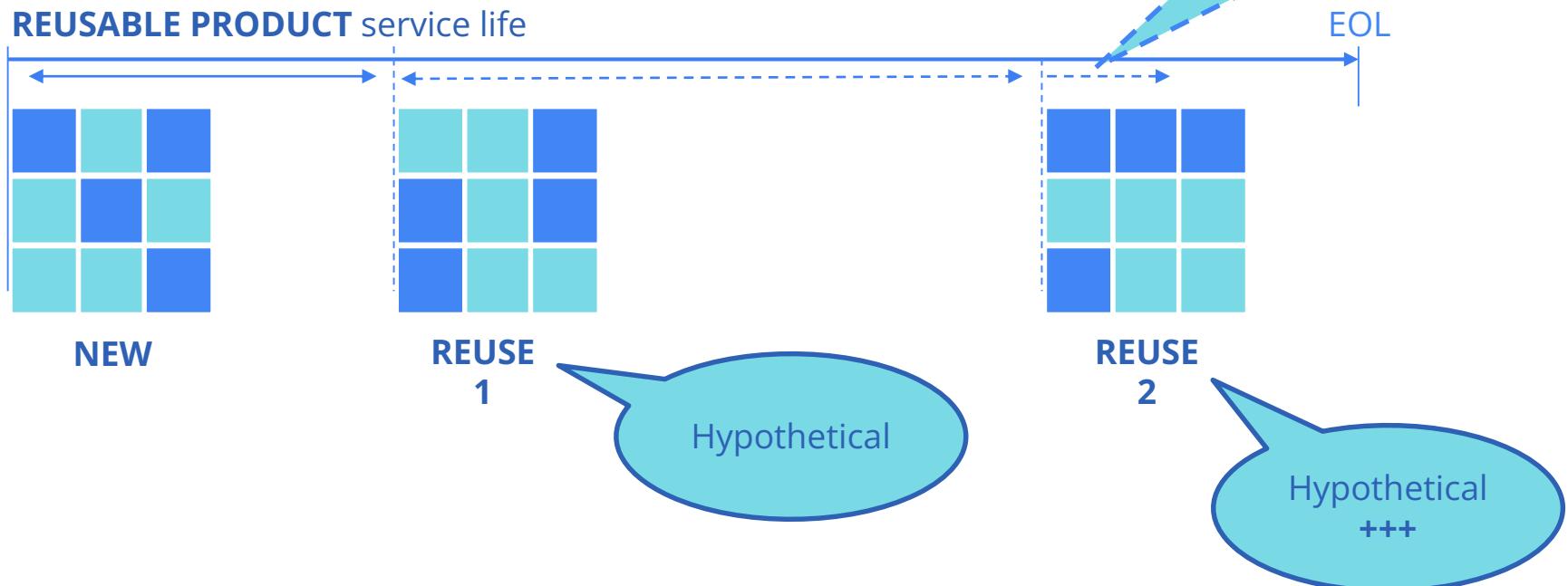


REUSE of biobased materials

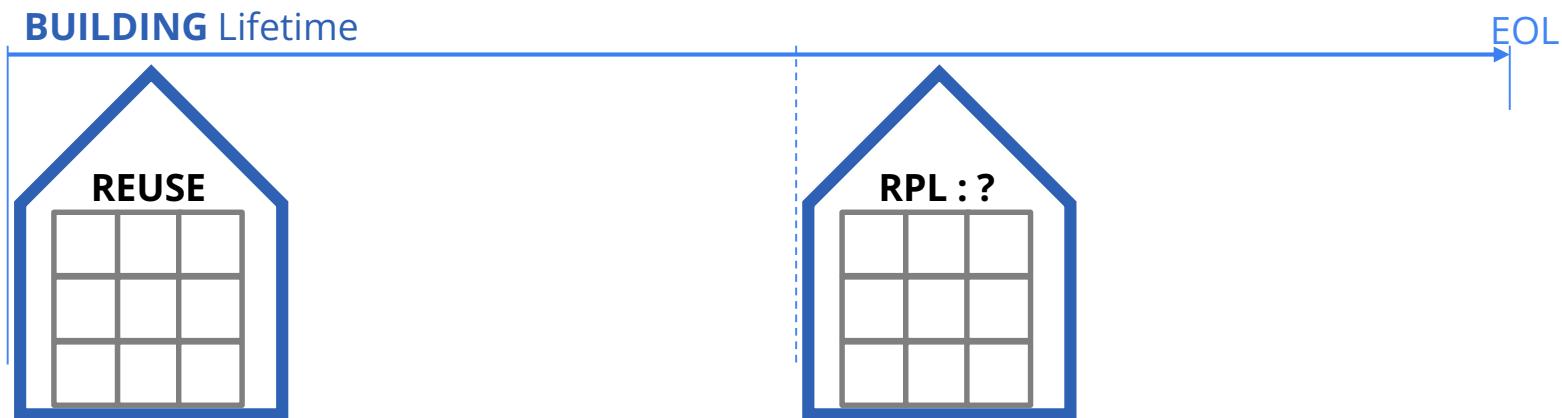


NEW
REUSED

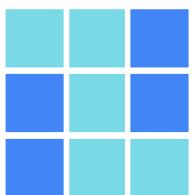
MULTIPLE reuse of construction products



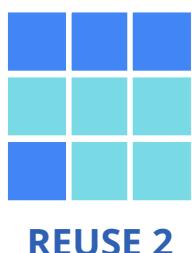
MULTIPLE reuse of construction products



Which
REUSE
?

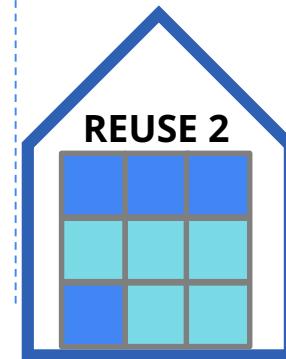
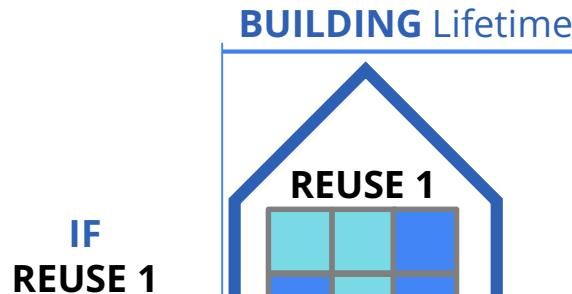


OR

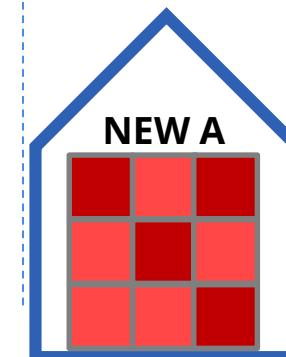
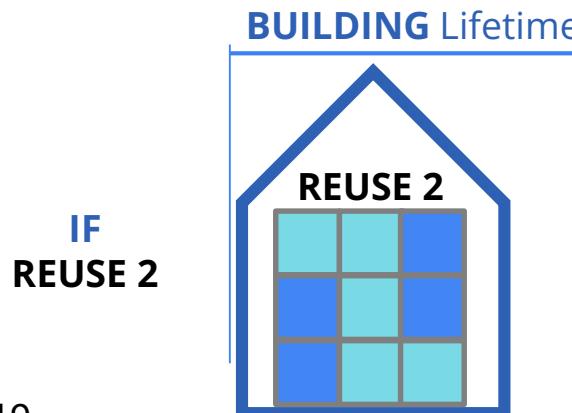


Consequences
on impacts

MULTIPLE reuse of construction products



EOL



EOL

Significant impact differences

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 !!

A large yellow triangle is positioned in the upper left corner, overlapping a white triangle below it. A smaller yellow triangle is located in the top right corner.

Yours Truly Reclaimed



Sara Morel
Salvo





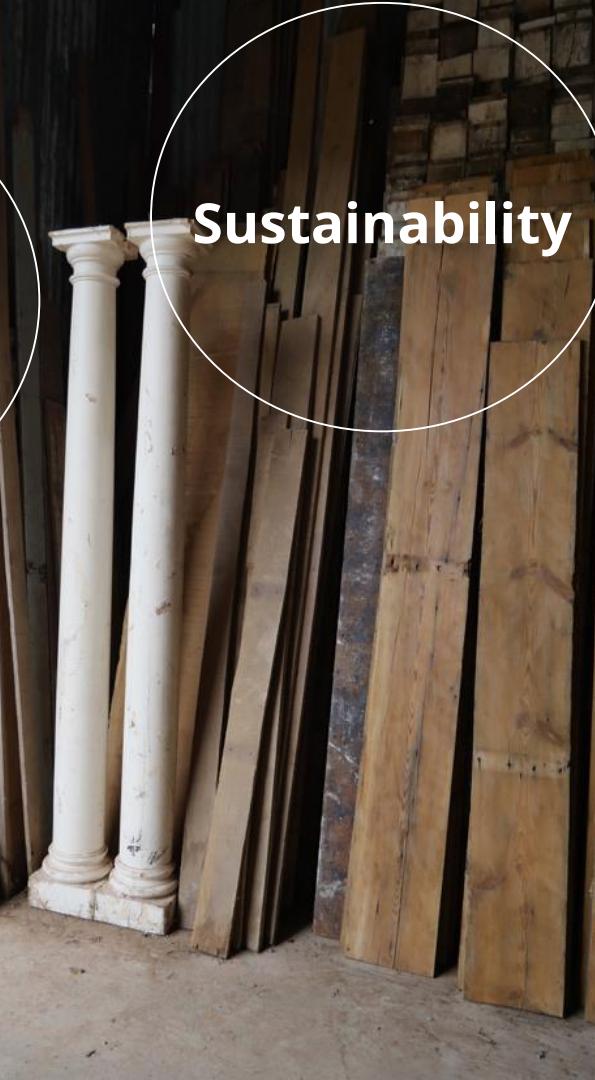


Price





Price



Sustainability





Price



Sustainability

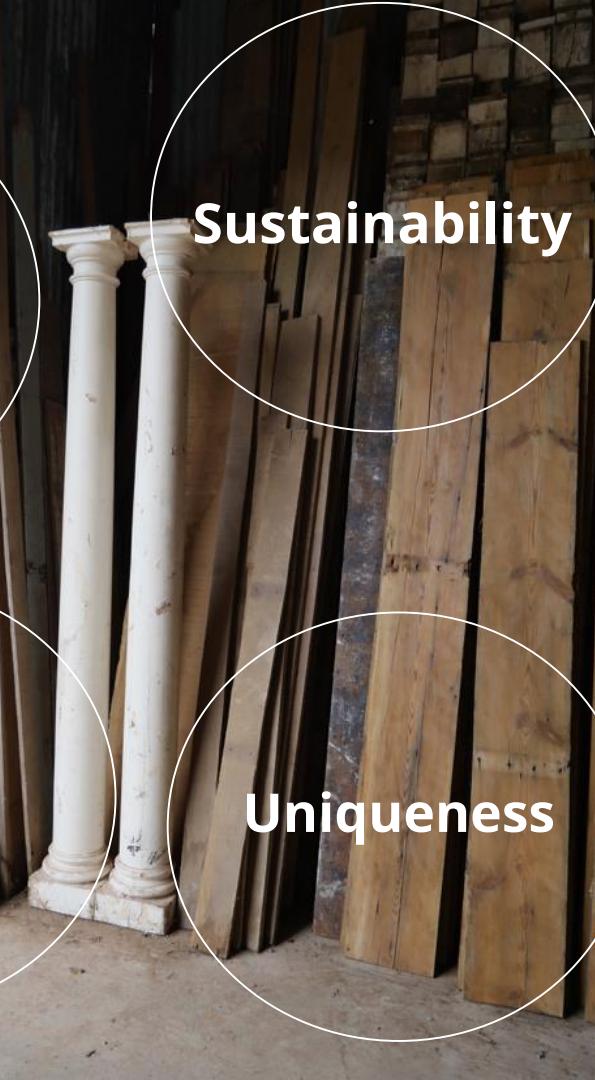


Heritage





Price



Sustainability



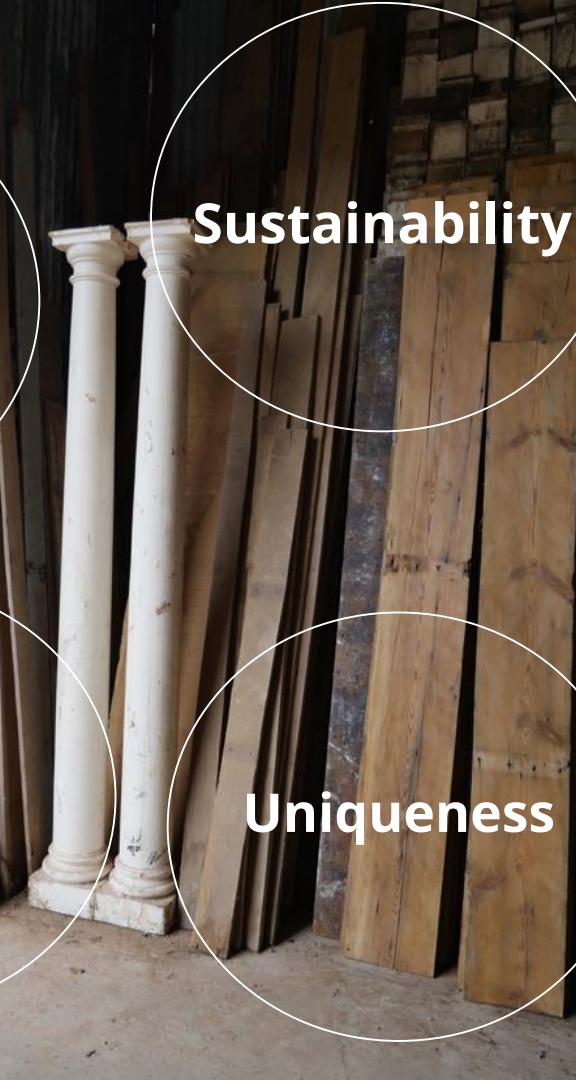
Heritage



Uniqueness



Price



Sustainability



Heritage



Uniqueness



Look

SalVage SaVe



Photo courtesy of the Imperial War Museum



BRASS, BRONZE &
PAPER

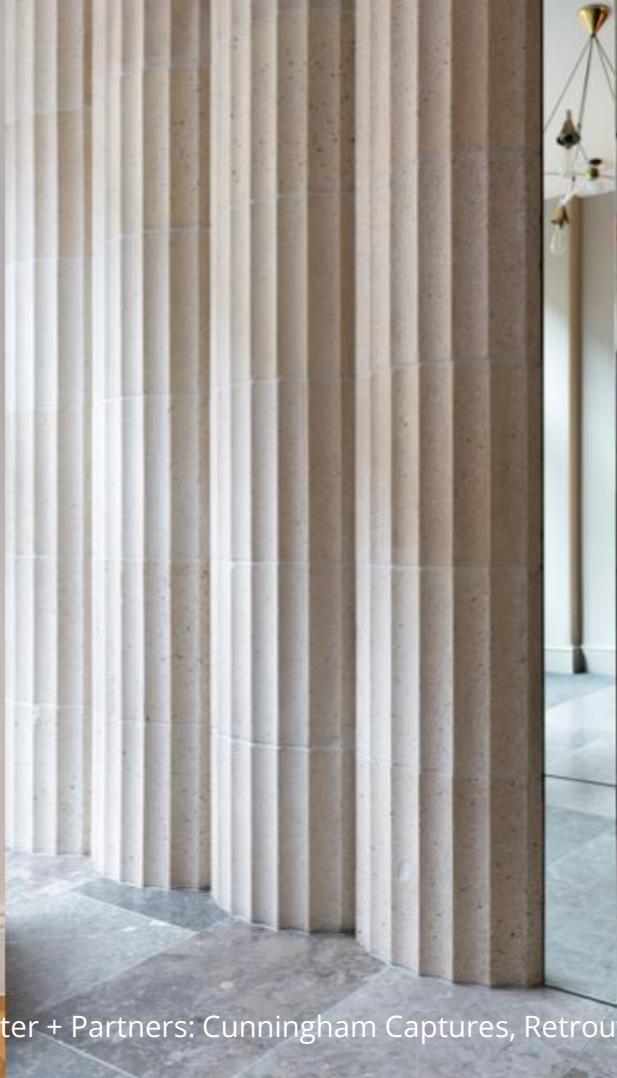


Photos courtesy of SETTLE Norfolk

“ 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



A large stack of reclaimed wooden planks of various sizes and finishes, creating a textured background.

“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”

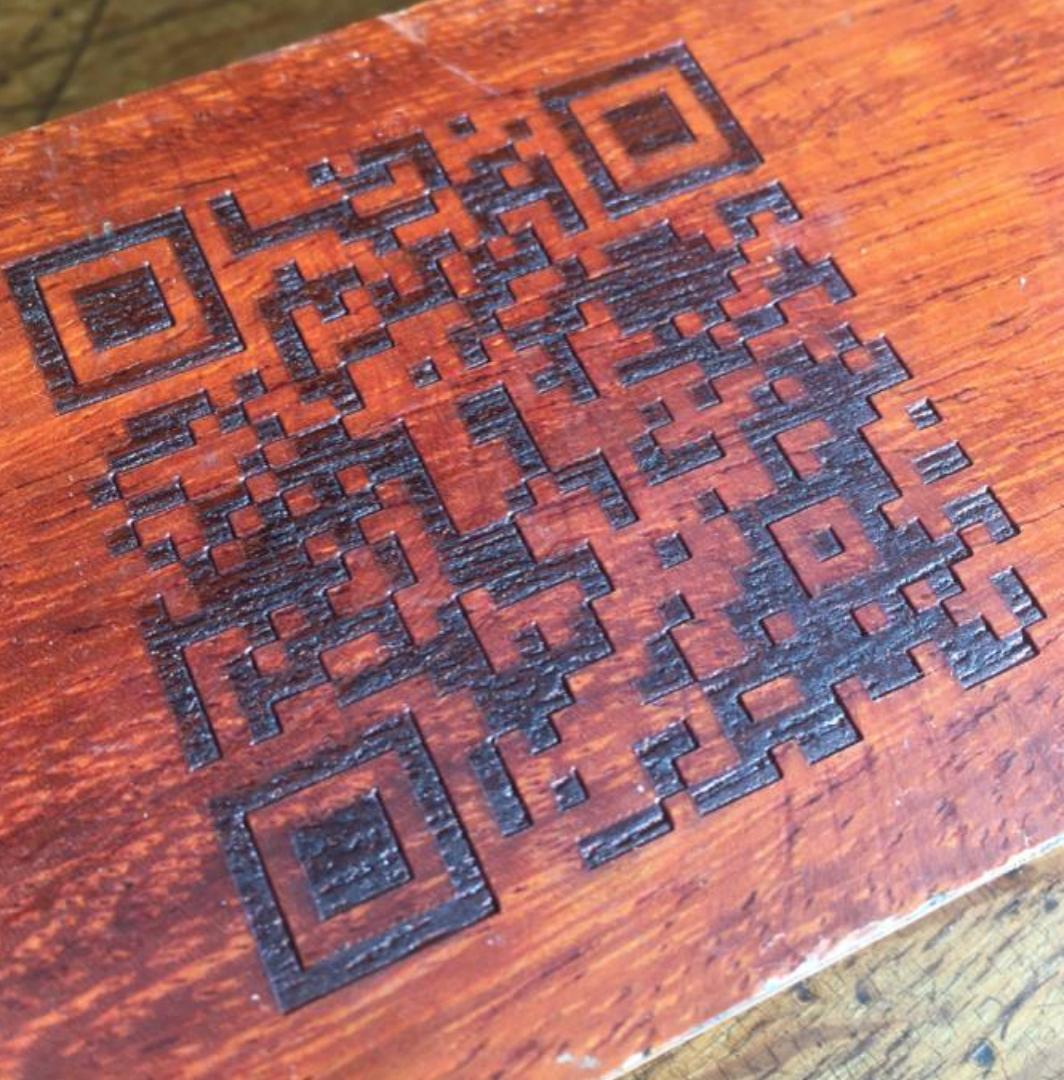
“Olde”

“Antique”

“Reclaimed”



McDonald's





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

