

# THE STORY BEHIND SUSTAINABLE INSULATION

Sustainability aims to strike a balance between economic and social development and environmental protection.

Insulation is a key tool to make buildings sustainable. But what about their embodied impacts?



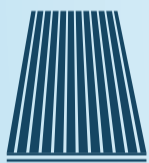
## CONSUMER CONFUSION

A lot of claims are being made with regards to how 'green' insulation products are. Consumers deserve a **clear objective, harmonised assessment**.



**Insulation** is not a stand-alone product, like for example a washing machine. Insulation is used in buildings/building components in combination with other materials.

PU BOARD



WOOD BEAMS



BRICKS

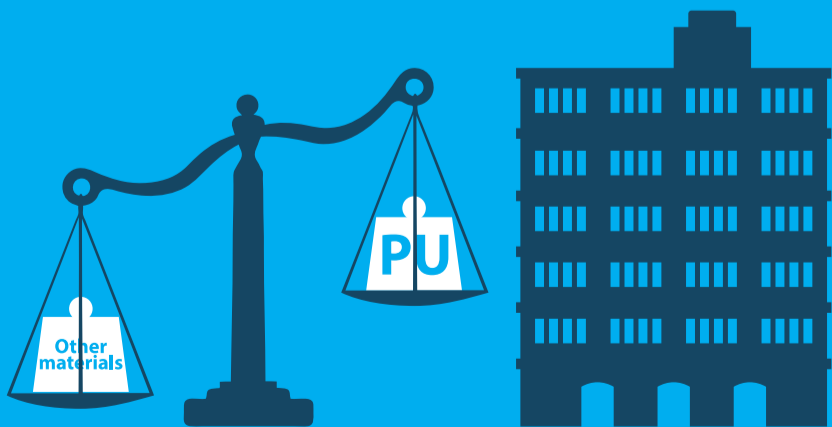


FIXING DEVICES



Hence, we have to look at end-use applications to make informed environmental choices

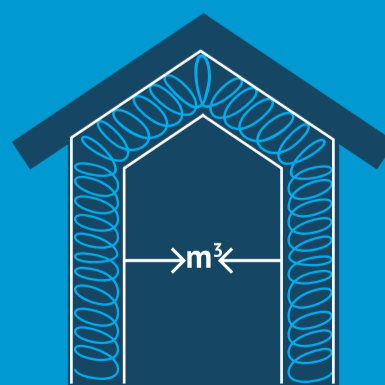
**PU INSULATION IS LIGHT AND REQUIRES LESS STRUCTURAL SUPPORT, THUS SAVING RESOURCES**



**PU INSULATION IS THINNER AND SAVES VALUABLE SPACE**

SOME OTHER MATERIALS

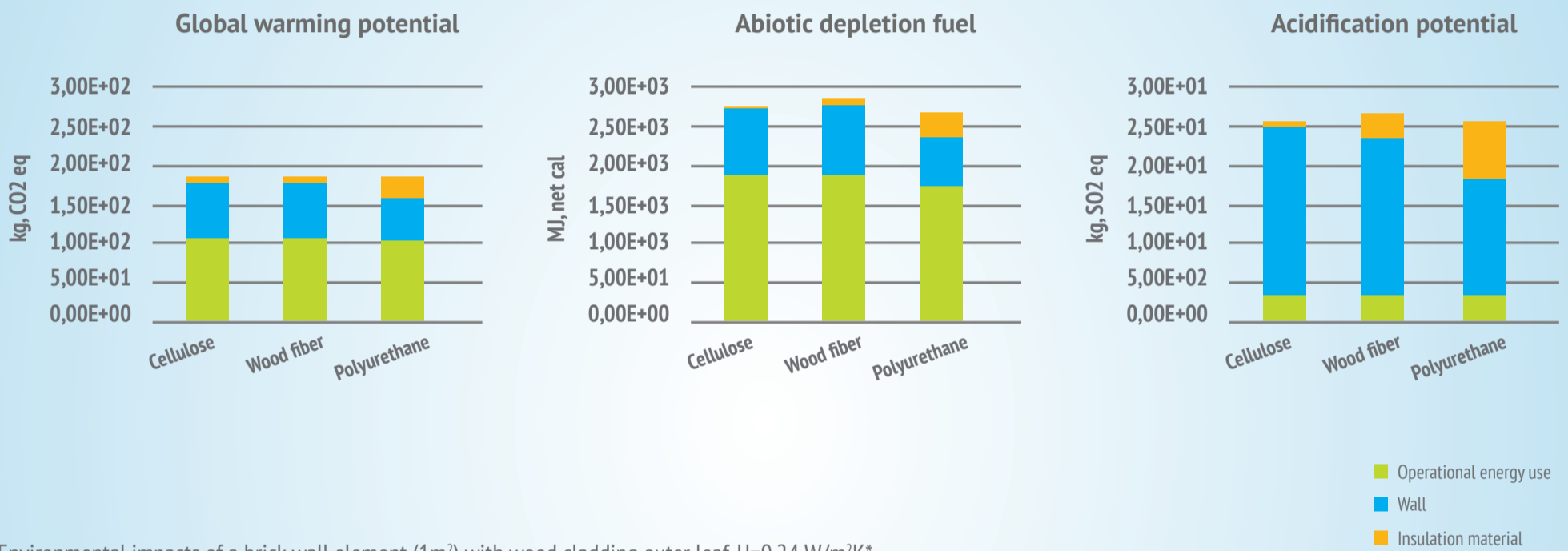
PU



## WHEN TAKING ALL ASPECTS INTO ACCOUNT, PU INSULATION SHOWS AN EXCELLENT ENVIRONMENTAL PERFORMANCE

Different materials have different thermal insulation capacities, densities and installation requirements.

PU may have a higher impact at product level but reduces ancillary material use and has a similar impact as natural insulants when assessed at the building (element) level.



Environmental impacts of a brick wall element (1m<sup>2</sup>) with wood cladding outer leaf, U=0.24 W/m<sup>2</sup>K\*

\*Vito for the Federal Public Service of Health, Food Chain Safety and Environment (Belgium): Final LCA background report: Task 2 – Life cycle assessment of thermal insulation materials for walls in the Belgian building context (N° DG5/PP/DD/11032)

### HOW TO INFORM PROFESSIONALS?

Multi-indicator building ratings based on EPDs allow for informed choices for LCA experts and architects.

### AND CONSUMERS?

Unfortunately, there is no satisfactory communication format today. This does however not justify claims that do not reflect real performance.



### BEYOND FACTORY GATES

When looking for the sustainability of insulation, one has to look **beyond the factory gates**.

How the product performs in the built environment, how much product is needed to achieve comparable energy savings and what **other savings can be achieved by saving space and weight should all be taken into account**.

