GTB Lab Meeting
Heerlen, June 2022

WiseBrick

Orchestrating tomorrow's waste-free, decarbonized and health-conscious ecosystem for the built environment.

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An Imminent Global Crisis

The Problem: We have surpassed 4 of the 9 critical planetary boundaries with climate change being the prominent one. There is No Economy without Ecology. A paradigm shift is needed.

Low Circularity

Our world is only 9% circular, leading to avoidable massive value leakage and waste.

Embodied Carbon Ignored

45% of CO_2 emissions are resulting from overuse or misuse of our materials, the remaining from energy use. By comparison, the former is rarely addressed.

Untenable Demands

1.7 Earths are needed to support humanity's demand on ecosystems, depleting resources unsustainably.

References
Earth Overshoot Day
Circularity Gap Report, Circle Economy
Completing the picture report: EmA Foundation and Material Economics

Zooming in to real estate..

The time is ripe for disruption of the real estate industry, amidst massive growth linked to urbanization trends and a massive carbon footprint.

38% of global CO2 emissions for built environment

Massive environmental impact of buildings & construction. A third of this, around 11% of total is embodied carbon linked to materials. With energy efficiency improving this % will increase.

90% Our time spent Indoors

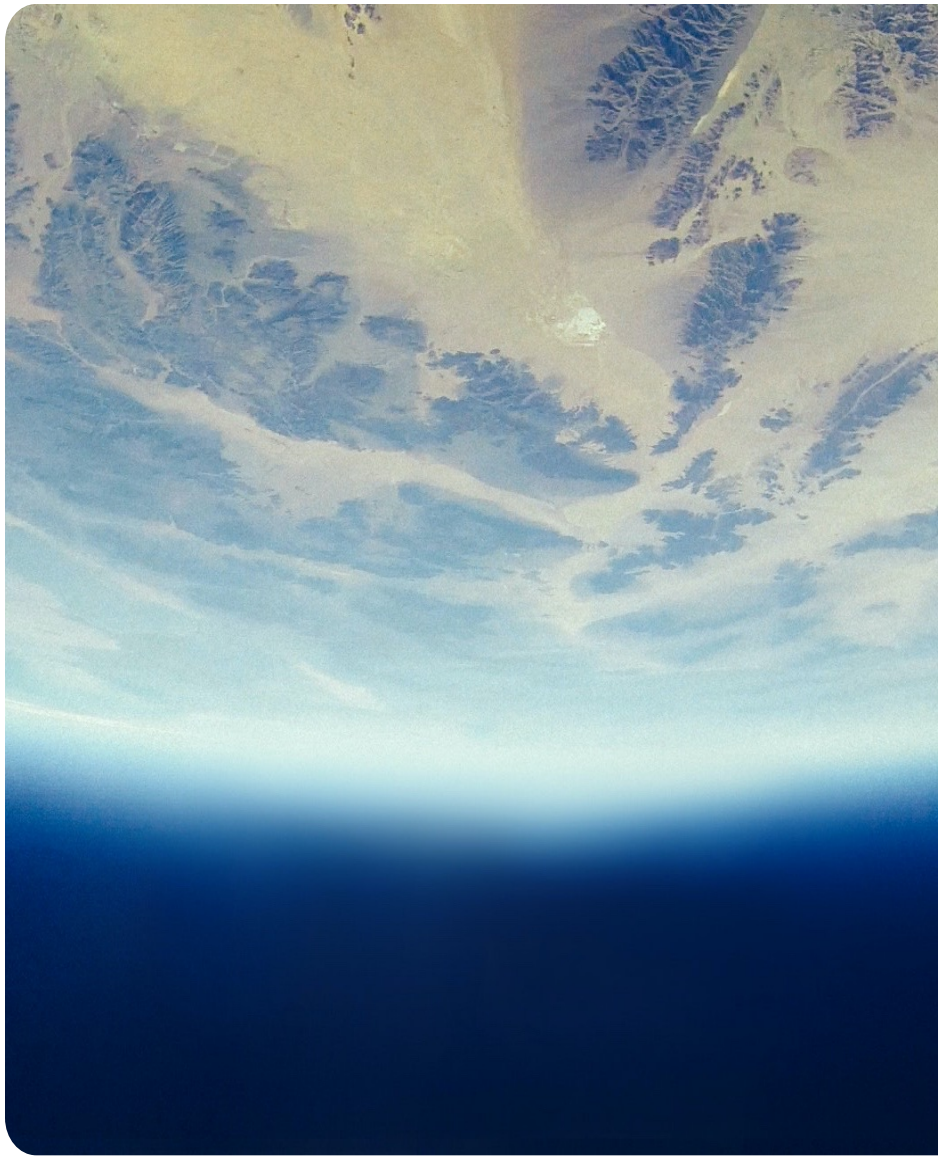
We need better buildings for humans: buildings need to actively contribute to our health, wellbeing and productivity.

€96B High-Growth Market for ‘Smart Building’ Tech

The level of technology adoption in buildings is low and fragmented, targeted for specific use only. The ‘Smarter Building’ technologies are growing at CAGR of 12% to €96B by 2025.

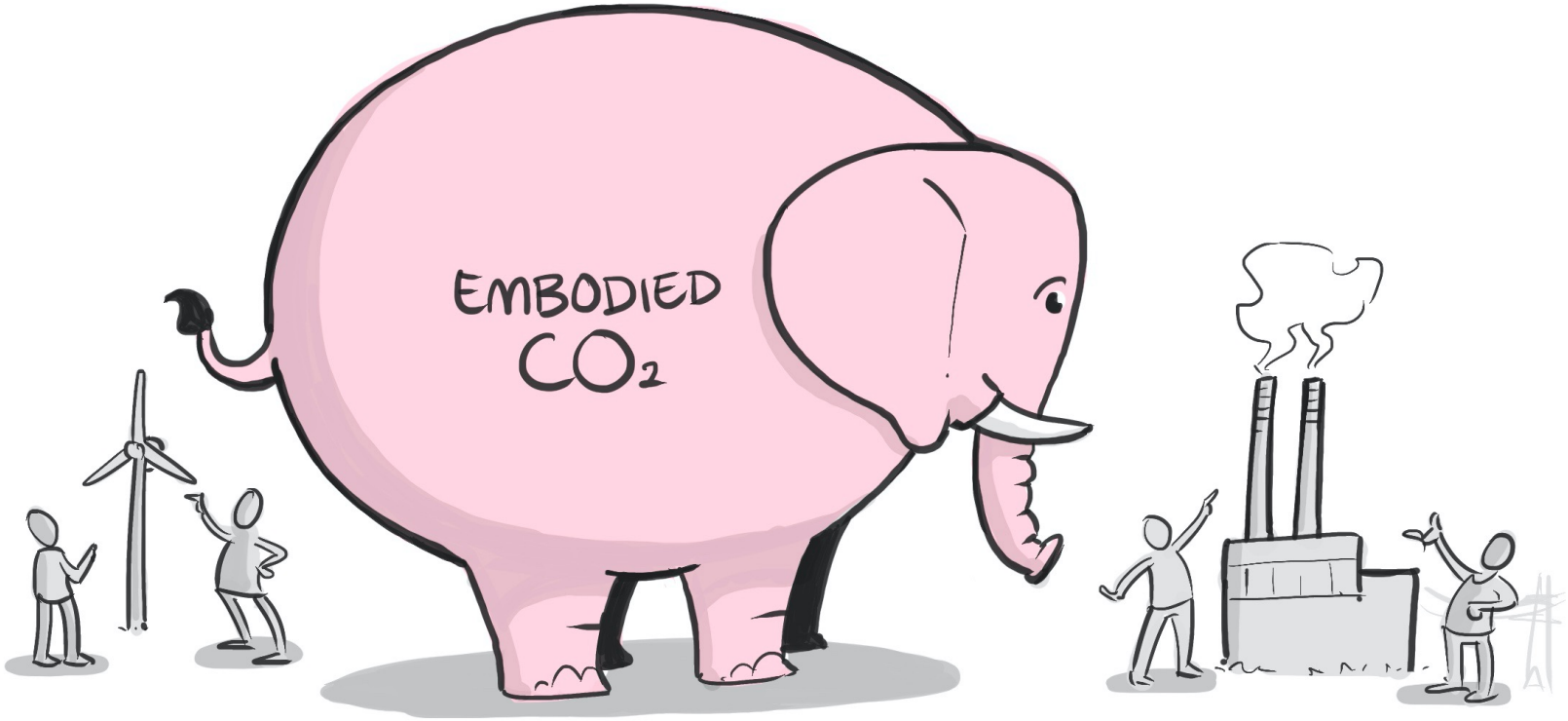
€113B Untapped market for Reuse Materials

European reuse value potential lost due to lack of trusted data around asset conditions to facilitate professional reuse marketplace at scale.



Source: EPA, Smart Building Reports by Markets & Markets, Decarbonizing construction by WBCSD, IBM-BAM Market study.

Embodied emissions: The carbon Elephant in the room that can be no more neglected to reach Net Zero...



(*) Source: Decarbonizing construction by WBCSD.

Translated for our stakeholders.

The Problem: No map and tools for real estate owners, investors and developers to steer towards a net zero and health-conscious built environment industry by 2050.

It's clear the planet is facing challenges, but what does this mean for WiseBrick's stakeholders?

The Building Owner/Investor

- Huge residual value leakage
- Risk in neglecting net zero targets and scope 3, forming 85% of total emissions (mainly supply chain related, embodied emissions)
- Falling Yields

The Developer

- Increasing difficulty in meeting regulatory standards and goals
- Increasing difficulty in staying relevant in a market with growing concern for health, sustainability and climate change.

The Building User

- Uncertainty on health impact during usage
- No insights or steering possibility of environmental impact of building (including embodied CO2)

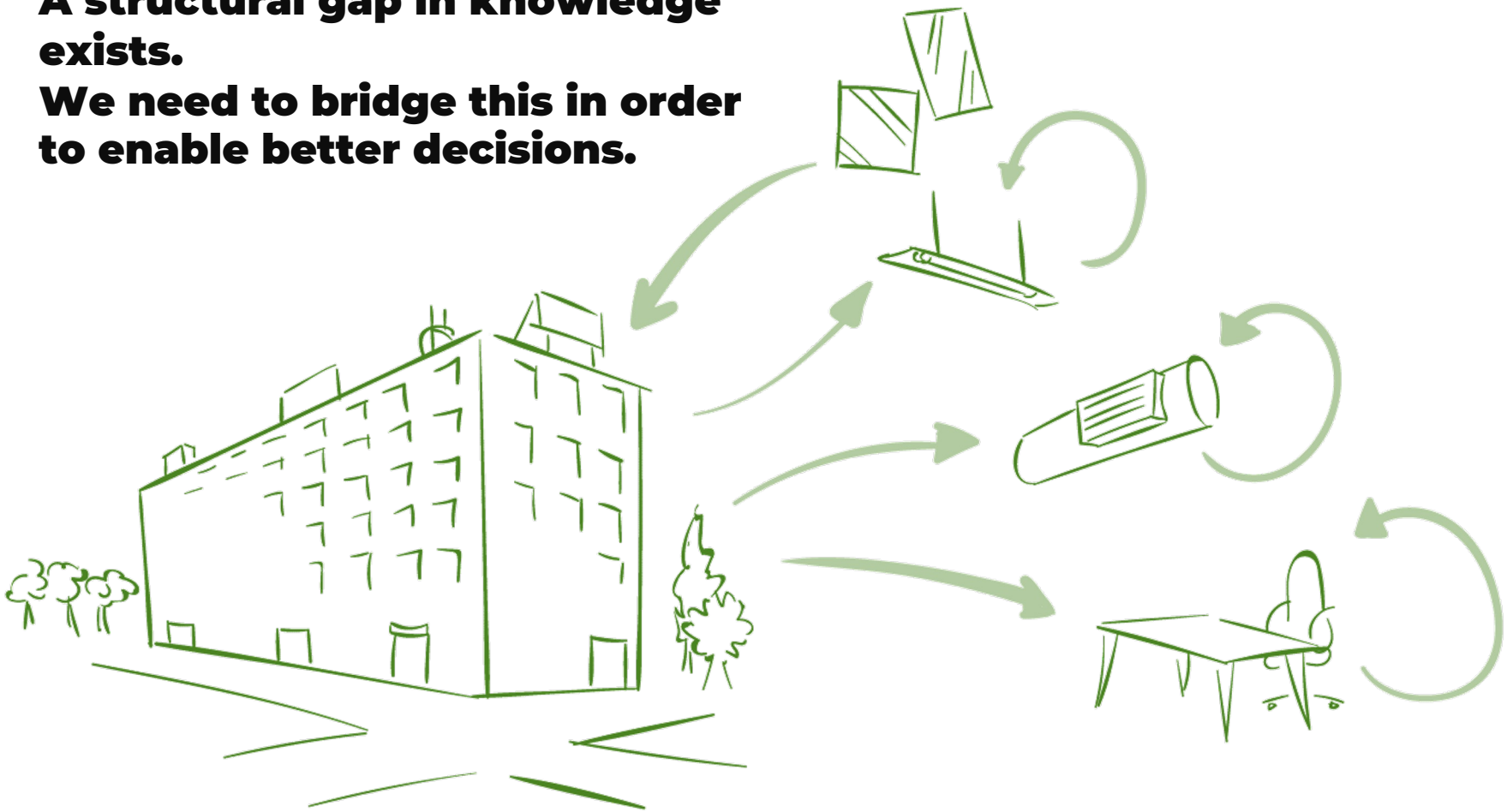
The Building Manager

- Undervalued outgoing materials and components
- Costlier refurbishments
- Pain point in lack of instant access to building centric data

What's the major obstacle in progressing towards a waste-free, decarbonized and health-conscious built environment?

Data.

A structural gap in knowledge exists.
We need to bridge this in order to enable better decisions.



What

Where

When

Risk

CO2e

Shadow cost

Value

Health

How we can solve this

From unstructured data, to actionable insights that unlock value across building lifecycle.

Value release, risk reduction, structural environmental impact, job creation.

Actionable Insights

Effective identification and inventorisation

Structure data in an asset-centric data model

Define and Extract Relevant Data