

## ESG - 3 Pillars



### Legislative

Manage legislative sustainability requirements such as EU Taxonomy alignment, SFDR reporting and EPCs.



### Commercial

Create ESG KPIs, assign and track responsibility for submitting and reviewing important data and workflows. Manage upgrade projects and track evidence for future due diligence and auditing.



### Ethical

Measure performance against predefined social and governance targets. Create bespoke social indicators and scoring systems to manage UN SDGs and other worthy pursuits.

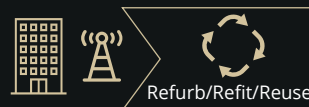
*Credit - i3pt*

## CARBON IN CONSTRUCTION - WHAT IS IT?

### Cradle to Gate Embodied Carbon



### Operational Carbon

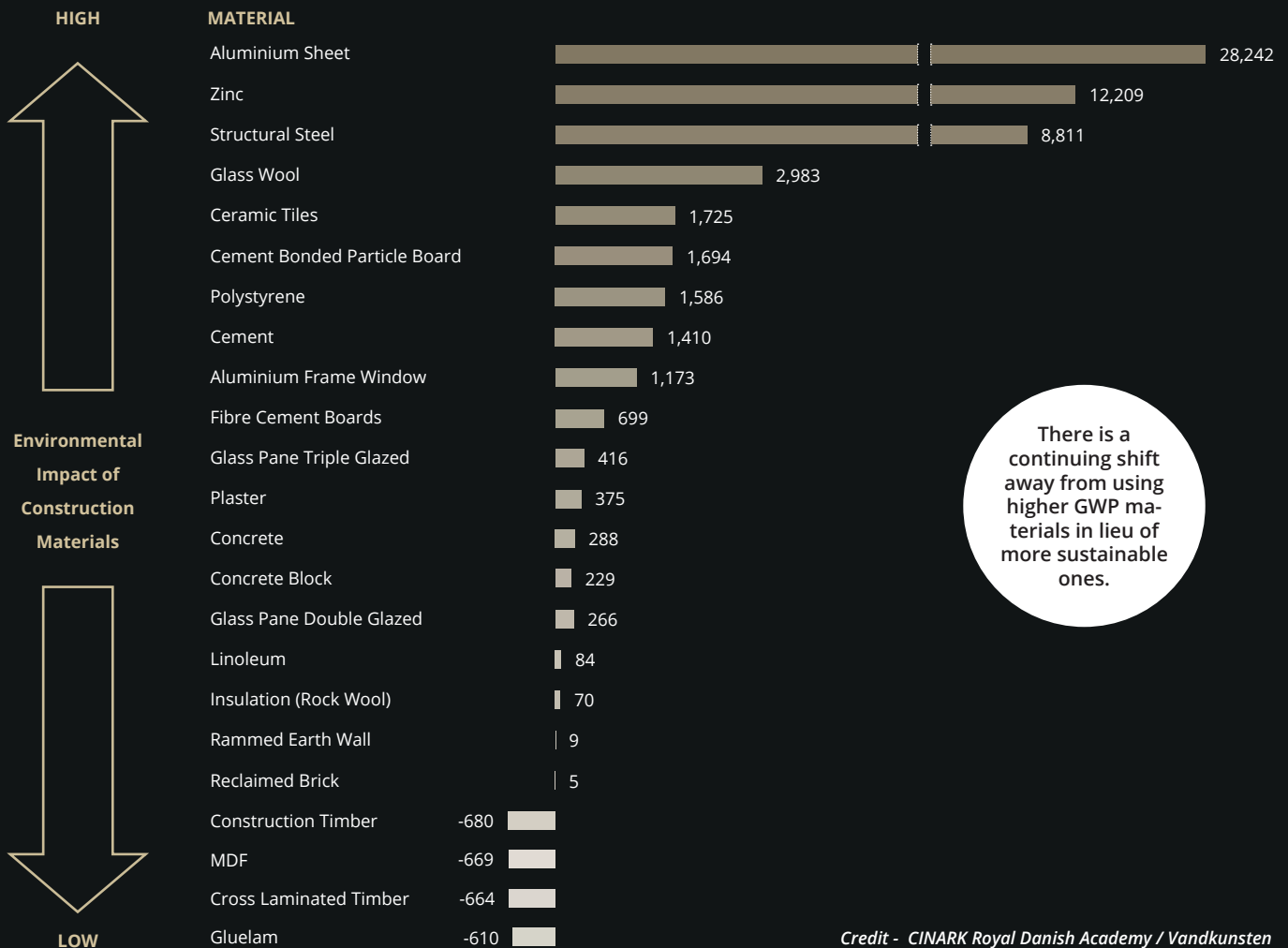


### End of Life Carbon



Embodied Carbon refers to the greenhouse gas emissions (GHG) associated **with all the activities involved in the creation and demolition of a building**. It is the total life cycle carbon less the operational carbon impact.

Calculated as **Global Warming Potential (GWP)** and expressed in carbon dioxide equivalent units.



*Credit - CINARK Royal Danish Academy / Vandkunsten*

## SOME THINGS TO LOOK OUT FOR IN 2023...



Engaging ESG Consultants early in the design process



The potential financial impact of non-compliance



Changing legislation



Tenant / Investor Requirements



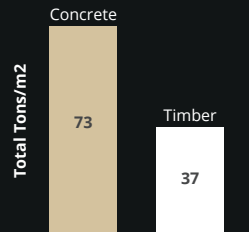
Carbon Reporting / Audits



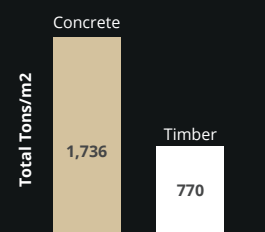
Exploring Modern Methods of Construction

## IMPACT OF DESIGN ON THE EMBODIED CARBON OUTPUT OF A DEVELOPMENT

**Housing scheme 3 bed semi detached  
c. 120m<sup>2</sup> Insitu-concrete vs Timber  
Frame Construction**



**Apartment scheme 5 Floors (3,500m<sup>2</sup>)  
Insitu-concrete vs Timber Frame  
Construction**



## EU TAXONOMY - WILL IMPACT...

### What?

- Construction of new buildings
- Renovation of existing buildings
- Acquisition of buildings
- Individual renovation measures, installation of renewable on-site and professional, scientific and technical activities

### Who?

- Financial market participants offering financial products in the EU
- Large companies who are already required to provide a non-financial statement under the Non-Financial Reporting Directive
- The EU and Member States, when setting public measures, standards or labels for green financial products or green (corporate) bonds

## 6 ENVIRONMENTAL OBJECTIVES

### SUBSTANTIAL CONTRIBUTION

1

#### Climate Mitigation



Primary Energy Demand 10% lower than Nearly Net Zero Energy Building (nZEB)

Buildings > 5000 sqm

- Life Cycle Assessment (LCA) and Global Warming Potential disclosure
- Air-tightness and thermal integrity disclosure

Using clean energy sources, new technologies, climate friendly materials and processes and renovating old stock.

2

#### Climate Adaptation



Refers to the actions taken to lower negative consequences of climate change

Anticipating and reducing the impact of climate change on a development. Robust climate risk and vulnerability assessment.

The energy performance of the building resulting from the construction, does not exceed the threshold set for the nearly zero-energy building (NZE) requirements

### DO NO SIGNIFICANT HARM

3

#### Transition to a Circular Economy



At least 70 % (by weight) of the non-hazardous construction and demolition waste generated on the construction site is prepared for reuse, recycling and other material recovery.

4

#### Pollution Prevention and Control



Limit Formaldehyde emissions less than 0,06 mg of formaldehyde per m3 of material or component,

Contaminants to be investigated on brownfield sites for new construction.

Measures are taken to reduce noise, dust and pollutant emissions during construction.

5

#### Water Resource Management



Adherence to specific water usage for appliances: - Wash hand basin taps and kitchen taps have a maximum water flow of 6 litres/min;

- Showers have a maximum water flow of 8 litres/min;
- WCs, including suites, bowls and flushing cisterns, have a full flush volume of a maximum of 6 litres and a maximum average flush volume of 3,5 litres;
- Urinals use a maximum of 2 litres/bowl/hour. Flushing urinals have a maximum full flush volume of 1 litre.

6

#### Protection and Restoration of Biodiversity and Ecosystems



No new construction on the following:

- Arable land and crop land (referred to the EU LUCAS survey);
- Greenfield land of recognised high biodiversity value - habitat of endangered species (European Red List or the IUCN Red List);
- Forest land (FAO definition of forest.)

## How will the EU Taxonomy impact the property sector?

### Sustainable Investment

The ability to demonstrate alignment with the technical screening criteria set out by the EU Taxonomy will protect clients against claims of "green-washing". Central Banks have been very clear that they intend to clamp down on funds making unsubstantiated claims of sustainable investment. Science-based targets and disclosures are also more prevalent, but caution is urged where data is unknown.

### Digital Technology

The requirement to report accurately on the environmental performance of portfolios under SFDR is driving investment in smarter buildings and robust reporting software. Data quality is essential, as non-financial reports will be subject to audit in the very near future.

### Valuations

Asset values will increasingly be dictated by the ESG credentials and "true performance" of a building. The risk of becoming a "stranded asset" may translate into loss of asset value as technical due diligence becomes more sophisticated.

For an ESG 'Jargon Buster' We recommend you visit IGBC website - [www.igbc.ie](http://www.igbc.ie)



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