



ecological
BUILDING SYSTEMS

Naturally Better





Niall Crosson

Group Technical Manager

- Certified European Passivhaus Consultant
- Member of the Board of Directors of the Irish Green Building Council & provides input to a number of national standard committees including the NSAI and UKCMB
- Provided technical guidance on many award winning low energy projects in Ireland & the UK





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MISSION STATEMENT

"To **support** the construction sector in the creation of a better built environment through the **supply** of innovative, sustainable, ecological building materials and solutions to **deliver** quality, affordable products and training"

- 1906** Our parent company MacCann & Byrne founded. MacCann & Byrne successfully traded as an independent retail hardware merchant supplying hardware and timber products
- 2000** Ecological Building Systems launched
- 2002** pro clima wins the first of many awards at PLAN EXPO, SOLITEX PLUS breathable roofing underlay named Best Roofing Product
- 2006** Ecological Building Systems becomes the largest distributor of pro clima in Europe
Thermo Hemp Natural Insulation awarded Best Eco Product at the *Grand Designs Magazine Awards*
- 2007** Ecological Building Systems UK Ltd is established, based near Carlisle in Cumbria
- 2009** Centre of Knowledge training centre officially opened
- 2017** Diasen Thermal Plaster wins Best Energy Efficient Product at the SEAI Energy Show
- 2018** Pro clima INTELLO PLUS airtight system certified as a Passivhaus component achieves the best airtightness test results ever by any airtightness membrane system

One-day intensive nZEB course commended in the Best Services Provider category at the SEAI Energy Show

www.ecologicalbuildingsystems.com

Products & Systems with Sole Agency in the Ireland & the UK



pro clima air & windtight membranes, tapes & seals



Gutex wood fibreboards



Diasen cork lime thermal plaster



Calsitherm climate board



Thermo-Hemp Insulation



Wellhoefer insulated airtight attic hatches



Optime airtight downlighter Boxes



ELKA Strong Board – diffusion open racking board



Bosig Phonotherm 200 thermal bridge insulation



AURO Natural Paints



FINSA technical structural panels



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We are currently unable to deliver orders in Ireland due to the Corona Virus situation and suggest you don't place orders with us for the time being. Our technical service is still available, please feel free to [contact us](#). Read our [full statement here](#). We appreciate your patience at this difficult time, many apologies.



Region: IE



- Products
- Solutions
- Product Support
- Training and Events
- Project Gallery
- Blog

Your region is: **Ireland** Not right? [Change](#)



Naturally Better

Our leading range of ecological building products support healthy, low energy sustainable buildings.

Discover our solutions



Healthy Living



Damp & Mould Prevention



Renovation & Retrofit



Soundproofing



Heat/Cold Protection



EPD's – A Suppliers Perspective

24th September 2020



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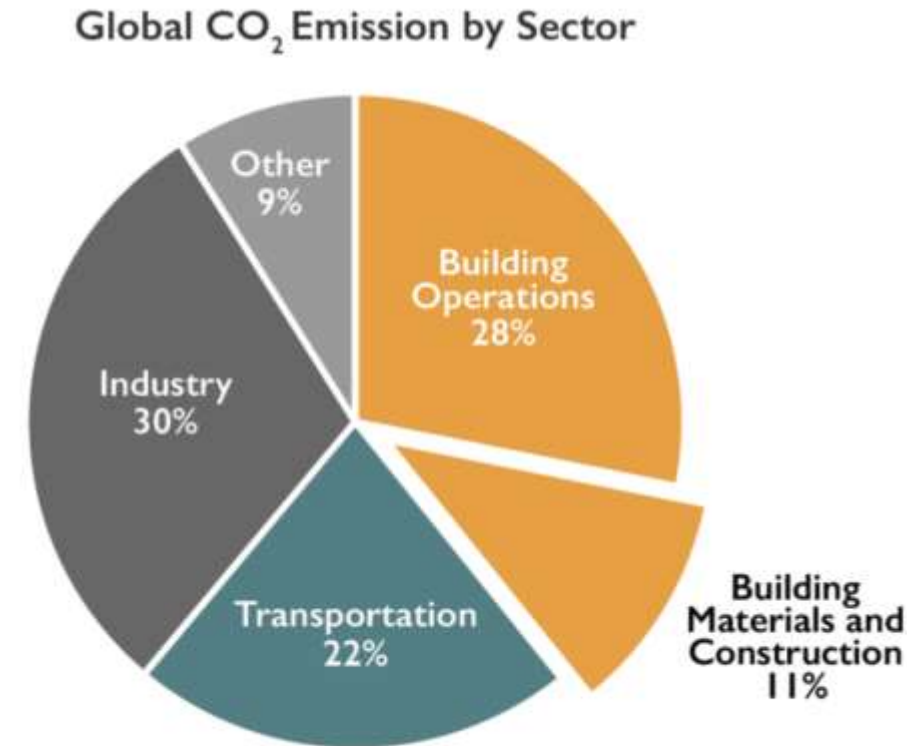
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Better*



GUTEX
NATURALLY MADE FROM WOOD

Embodied Carbon, The Blindspot of the Construction Industry

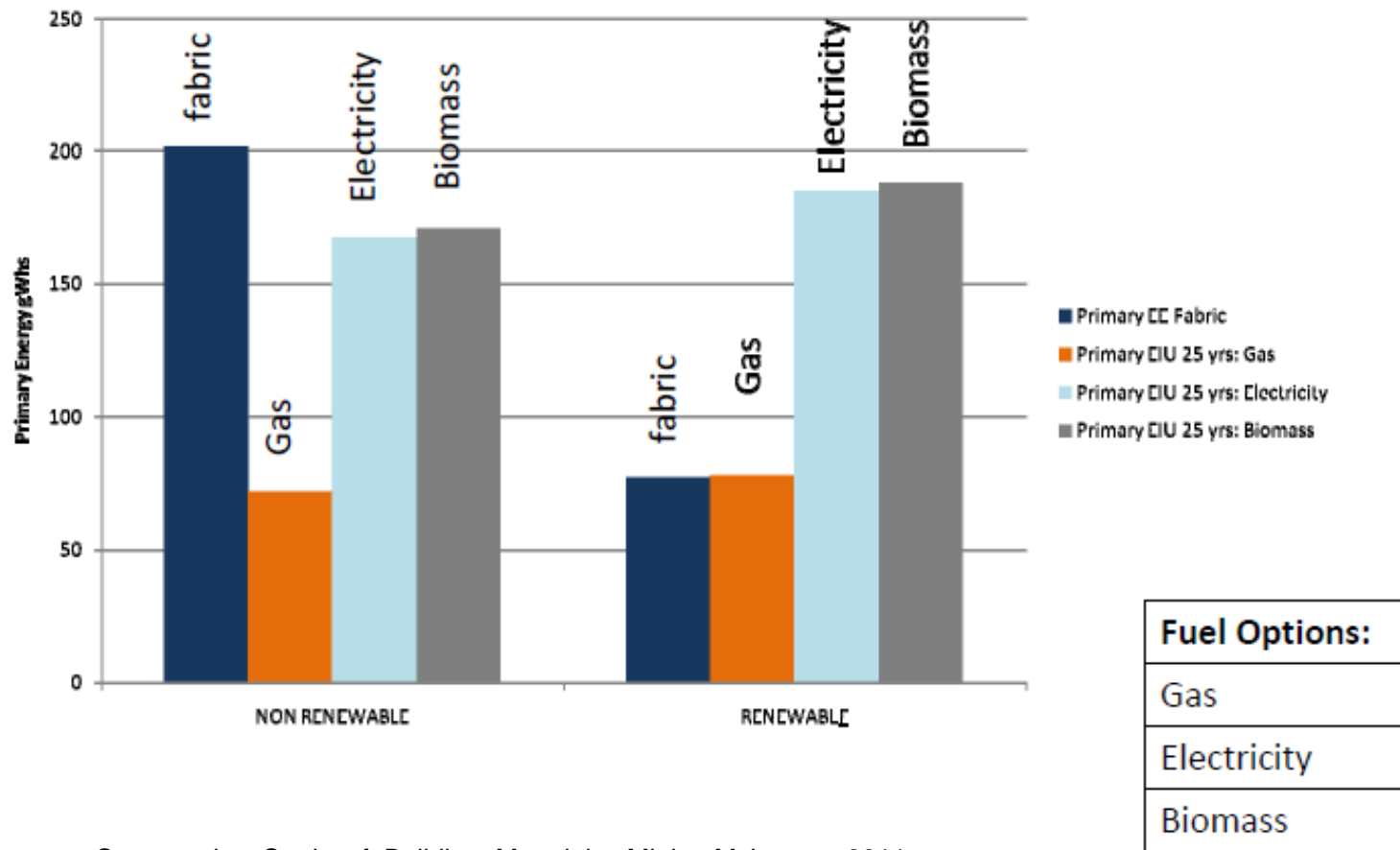
- Between now and 2060, the buildings industry is poised to add 230 billion m² of new construction worldwide.
- That means we will **double** the amount of buildings we currently have on the planet over the next four decades.
- To put this into perspective, we are constructing the equivalent of an entire New York City every month for the next 40 years.
- *“Embodied carbon will be responsible for **almost half** of total new construction emissions between now and 2050.” – (Architecture 2030)*



Source: © 2018 2030, Inc. / Architecture 2030. All Rights Reserved. Data Sources: UN Environment Global Status Report 2017; EIA International Energy Outlook 2017

Low Carbon Materials

Embodied Energy Comparison fabric & operational energy 25 yrs



Comparative_Study_of_Building_Materials,_Minka_McInerney 2011

Stored Carbon in new housing
development Bridport House

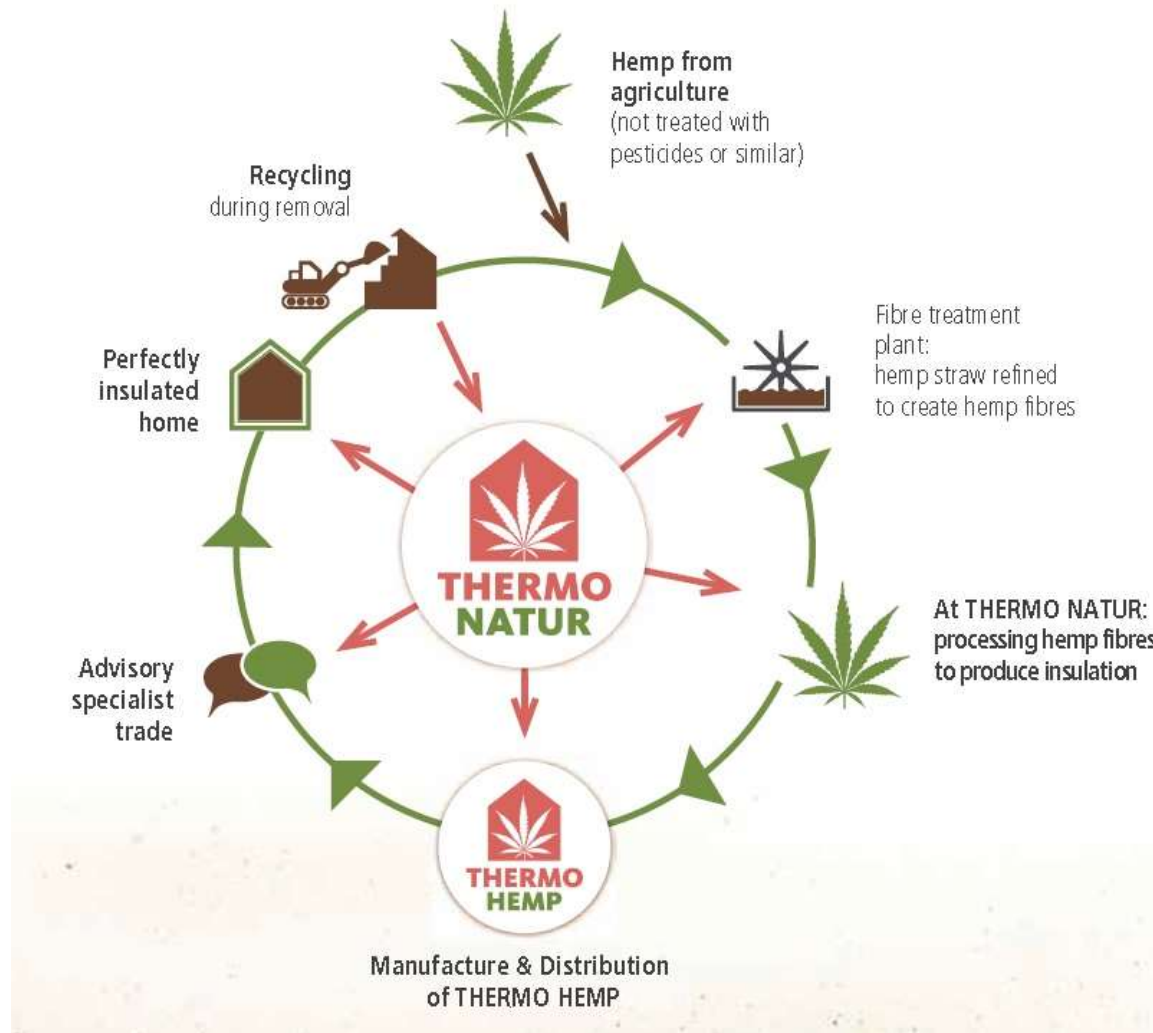


1,139,712 kg CO₂

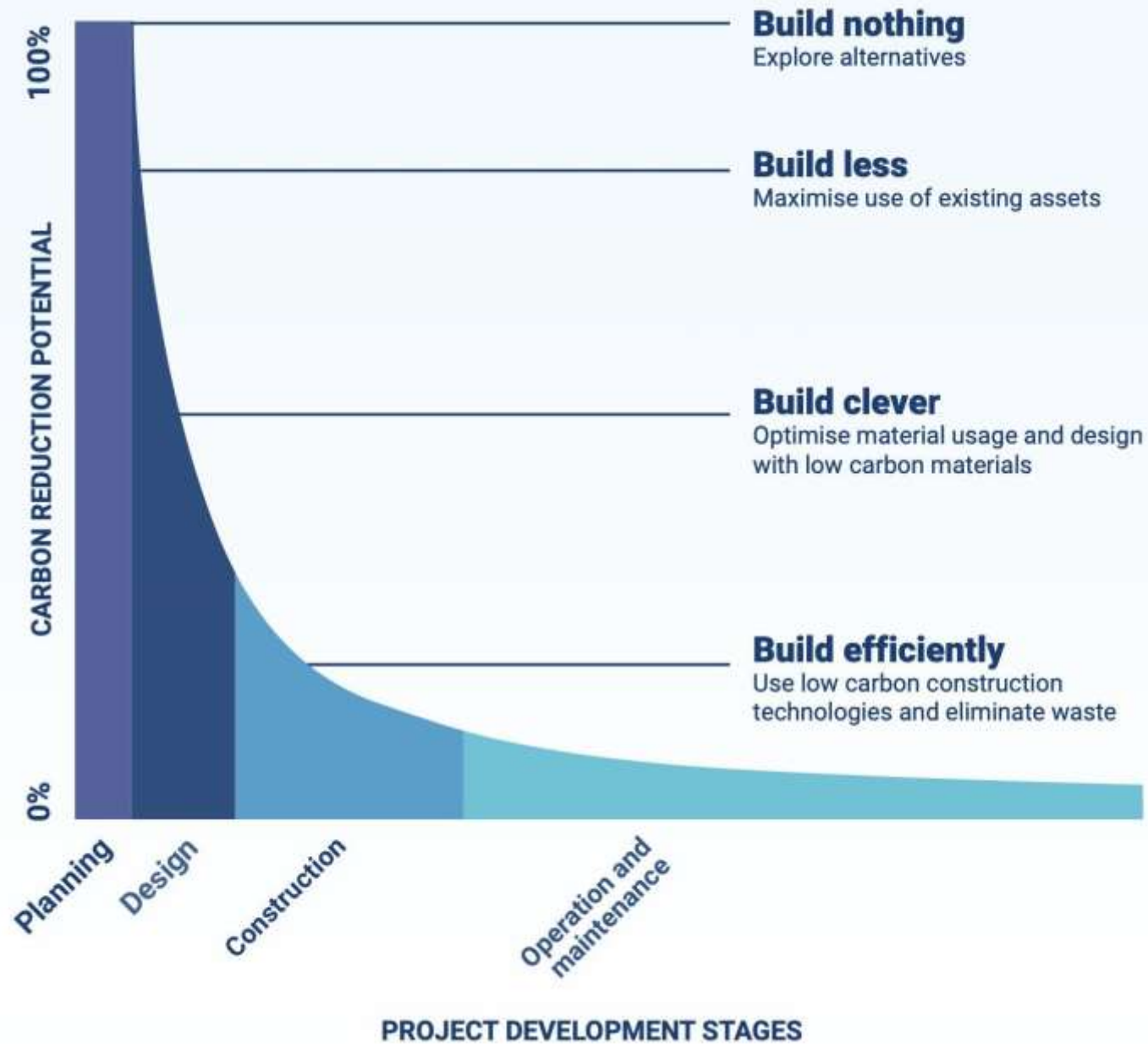
REF: <http://www.woodforgood.com/sustainability/build-with-carbon>

Low Carbon Materials

Thermo Hemp



- Basic raw material grown mainly by local farmers
- A renewable resource
- Low embodied energy
- Requires no pesticides or chemicals
- After cultivation the ground is loose and weed free.



PROJECT DEVELOPMENT STAGES

World Green Building Council

Why EPD?

- **Gain competitive advantage:** Publishing an EPD, produces documented and certified proof of the environmental performance of your product over its life cycle.
- **Adhere to company mission to provide more sustainable alternatives on the market:** Specifiers earn points under green building and infrastructure rating systems when they use our products. (e.g. BREEAM, LEED, Home Performance Index).
- **Implement EPD in marketing strategies:** Communicate your product's environmental performance to stakeholders and talk about your EPD results in your marketing campaigns using verified data.
- **Improve supply chain management systems:** Environmental Product Declaration supports International Standards (ISO 14001) Certification by demonstrating Life Cycle thinking.
- **Effective benchmarking against competitors**
- **Increase visibility on international markets**

Why EPD?



EPD[®] ENVIRONMENTAL PRODUCT DECLARATION

DIATHONITE Evolution,
DIATHONITE Acoustix,
DIATHONITE Deumix.
Cork-based, natural plasters for
thermal and acoustic insulation



Declaration Holder	Diaseen S.r.l.	
Date of issue	26/01/2017	
Rev.	02	
Validity:	24/01/2022	Geographical scope: Worldwide
CPC Code :	37410 - Plasters	Registration No.: SP-0008
Date of approval:	24/01/2017	



DIATHONITE
EVOLUTION

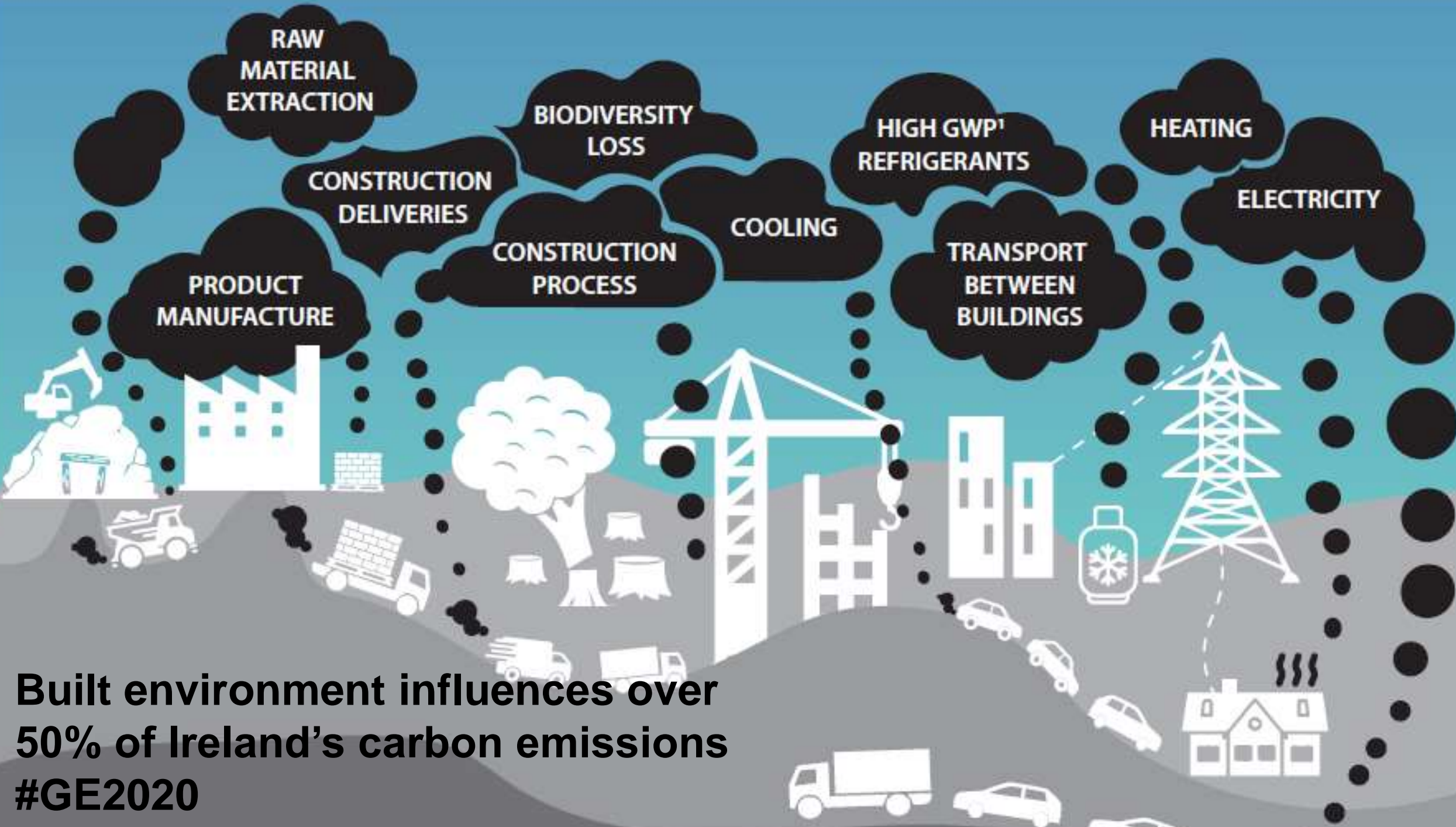


How do we encourage partners to develop EPD's?

- In order to gain market acceptance
- To strengthen specification
- As a requirement from specifiers seeking LEED, BREEAM or HPI certification
- As more and more specifiers, developers and construction companies commit to EPD's

Commitment Signatories





Built environment influences over 50% of Ireland's carbon emissions
#GE2020

Bringing embodied carbon upfront

Coordinated action for the building and construction sector to tackle embodied carbon



WORLD
GREEN
BUILDING
COUNCIL

ADVANCING
NET ZERO

Definition:

Net zero **embodied carbon** should be pursued as part of a whole lifecycle approach to carbon reduction that includes net zero **operational carbon**.
Our definition of net zero embodied carbon in practice:

A net zero **embodied carbon** building (new or renovated) or infrastructure asset is highly resource efficient with **upfront carbon** minimised to the greatest extent possible and all remaining **embodied carbon** reduced or, as a last resort, offset in order to achieve net zero across the lifecycle.

Vision:

By 2030, all new buildings, infrastructure and renovations will have at least 40% less **embodied carbon** with significant **upfront carbon** reduction, and all new buildings must be net zero **operational carbon**.

By 2050, new buildings, infrastructure and renovations will have net zero **embodied carbon**, and all buildings, including existing buildings, must be net zero **operational carbon**.



Bringing embodied carbon upfront

www.worldgbc.org/embodied-carbon



**ADVANCING
NET ZERO**

LEVEL(s) FRAMEWORK FOR SUSTAINABLE REPORTING



- A first step towards a Sustainable Performance of Buildings directive in Europe
- Includes Life Cycle Assessment and Life Cycle Costing.
- Piloted across Europe over the past two years
- Intended for use in Green Public Procurement and regulations across Europe
- IGBC supporting industry through Life for Level(s) with 8 other GBCs to mainstream the use of LCA and LCC over the next 3 years.



Current data and trends

- *12 apartment developments [in the UK](#) and Ireland [embodied carbon](#) ranged from 355 - 2600kgCO₂m² [per home](#), with an average of **915.5kgCO₂m²**.
- This embodied carbon is equivalent to 114 years of operating the homes built to the current regulations A2 standard Home (**8kgCO₂m²/annum from regulated energy**) .
- The one Irish apartment development included in study had an impact of 1567.5kgCO₂m² or equivalent to 195years operating at the current standard.
- The figures provided for Nordic countries, [\(Sweden, Norway and Finland\)](#) based on 127 apartment developments had a much lower average of **365kgCO₂m²**.
- **This demonstrate a very large potential for improvement.**

*Based on data provided to IGBC in July 2020 by the [One Click LCA Carbon Heroes embodied carbon benchmark programme](#)
All figures based on EN15978 modules A1-4, B4-5 and C1-3.

www.epdireland.org



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HOME

EPD IRELAND PROGRAMME

WHAT IS AN EPD?

EPD SEARCH

EPD UPLOAD

PROGRAMME FEES

Ireland's EPD Platform

Transparent, Responsible and Healthy

What is EPD Ireland?

The EPD Ireland programme allows manufacturers of construction products to provide 3rd party verified transparent information on the environmental impacts of their products. It provides a platform for specifiers to source products with Environmental Product Declarations and other information such as responsible procurement or declaration of healthy ingredients.

www.epdireland.org



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- WHAT IS AN EPD?
- EPD CAMPAIGN
- EPD SEARCH
- EPD UPLOAD
- PROGRAMME FEES
- UPDATES

EPD Search

Product name	ecological	Product Type	Publisher
EPD compliance <input type="checkbox"/> ECO Platform EPD <input type="checkbox"/> EN 15804 <input type="checkbox"/> ISO 14025		EPD Language <input checked="" type="radio"/> All <input type="radio"/> English <input type="radio"/> Other	
		Reset Form	
Phonotherm® BOSIG Baukunststoffe GmbH	Ecological Building Systems	Building products > Structural bearings	IBU - Germany
Daemstatt Cellulose fibre insulation	Ecological Building Systems	Building products > Thermal insulation products	Other
Warmcel Cellulose Fibre Insulation	Ecological Building Systems	Building products > Thermal insulation products	Other
DIASEN Cork Based Natural Acoustic and Thermal Plasters	Ecological Building Systems	Basic Materials and Precursors > Cement, building limes and other hydraulic binders Building products > Masonry and other related products	International EPD

www.epdireland.org



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HOME EPD IRELAND PROGRAMME WHAT IS AN EPD? EPD CAMPAIGN EPD SEARCH EPD UPLOAD PROGRAMME FEES UPDATES

EpD Search > DIASEN Cork Based Natural Acoustic and Thermal Plasters

DIASEN Cork Based Natural Acoustic and Thermal Plasters

Since 2007 DIASEN have carried out a certified Environmental Management System in compliance with the standard EN ISO 14001, in order to prevent pollutions and to minimise the environmental impacts of its own activities and its own products. DIASEN pay attention to each process and our meticulous internal organisation, which is always keep up with the latest environmental laws, allows us to pursue LEED mapping for 14 key products. Product environmental performance was assessed using the Life Cycle Assessment (LCA) method, in accordance with the EN ISO 14044:2006 standard, and the Life Cycle Impact assessment (LCIA) method, in accordance with standard UNI EN 15804:2014, served as the core PCR. The study was conducted in accordance with Product Category Rules (PCRs) approved by the Technical Committee of the International EPD System, PCR CPC 54- CONSTRUCTION PRODUCTS AND CONSTRUCTION SERVICES 2012:01 Version 2.01. The PCR complies with the General Programme Instruction of the International EPD® System version 2.5 dated 2015-05-11, when applicable, as well as UNI EN 15804:2014.

EPD Type:
Product specific EPD

Registration date:
24 January 2017

Valid until:
24 January 2022

EPD Publisher:
International EPD

EPD Verifier:
Rina Services S.p.A.



Download

Additional Files

Responsible Procurement



Healthy Materials



No files included

No files included

EPD Ireland has already published...



Benchmarks in Home Performance Index

- Discourages oversized homes
- Sets out Zero Carbon Definition aligned with International Living Futures Institute < 500kg/CO2 eq/m²
- Two benchmarks for Embodied carbon
- Encourages use of EPD
- Construction waste targets
- Starting integration of Level(s) reporting method



THE HOME PERFORMANCE INDEX
Know that your house is a home.

www.homeperformanceindex

www.igbc.ie

www.epdireland.org



2017



SUMMARY

- EPD's provide complete and fully transparent information to reduce "green washing"
- EPD is not an evaluation of a construction material
- An EPD is a source for a materials ingredients and environmental impact over its entire life cycle
- Issued based on a harmonised standard by a 3rd party
- As markets evolve, specifiers will demand EPD's for building materials driving manufacturers to develop EPD's
- This will lead to greater transparency and aid those key decision makers to make informed specifications with lower environmental impact
- The development of EPD's will encourage manufacturers to develop more sustainable supply chains, reduce waste and improve efficiency



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We can help you

- Full technical support for our products and systems
- U-value calculations
- Dew point calculations
- Thermal bridge assessments
- WUFI hygrothermal modelling
- Advice on achieving Building Regulations
- Tool Box Talks on site
- Airtightness specification clauses and installation videos
- Nationwide product delivery
- In-house training – CPDs
- Virtual - CPDs
- **Virtual one to one design reviews –**
info@ecologicalbuildingsystems.com

Your region is: **Ireland** Not right? [Change](#)



Home
CPDs



Virtual Airtightness & Active Moisture Management using Intelligent Vapour Checks

[VIEW DETAILS](#)



Virtual New Build Construction Using Wood Fibre Insulation

[VIEW DETAILS](#)



Virtual Insulating and Achieving Airtightness with Cross Laminated Timber (CLT)

[VIEW DETAILS](#)



Virtual Breathable Internal Wall Insulation Systems for Single Leaf Masonry Walls

[VIEW DETAILS](#)





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THANK YOU

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