



CONSTRUCTION MATERIALS: BALANCING COST AND CARBON CHOICES ON PROJECTS

James Fiske

29th February 2024



AGENDA

Construction materials: balancing cost and carbon choices on projects

- ▶ Why do we need to do it?
- ▶ How can we do it?
- ▶ Panel Q+A

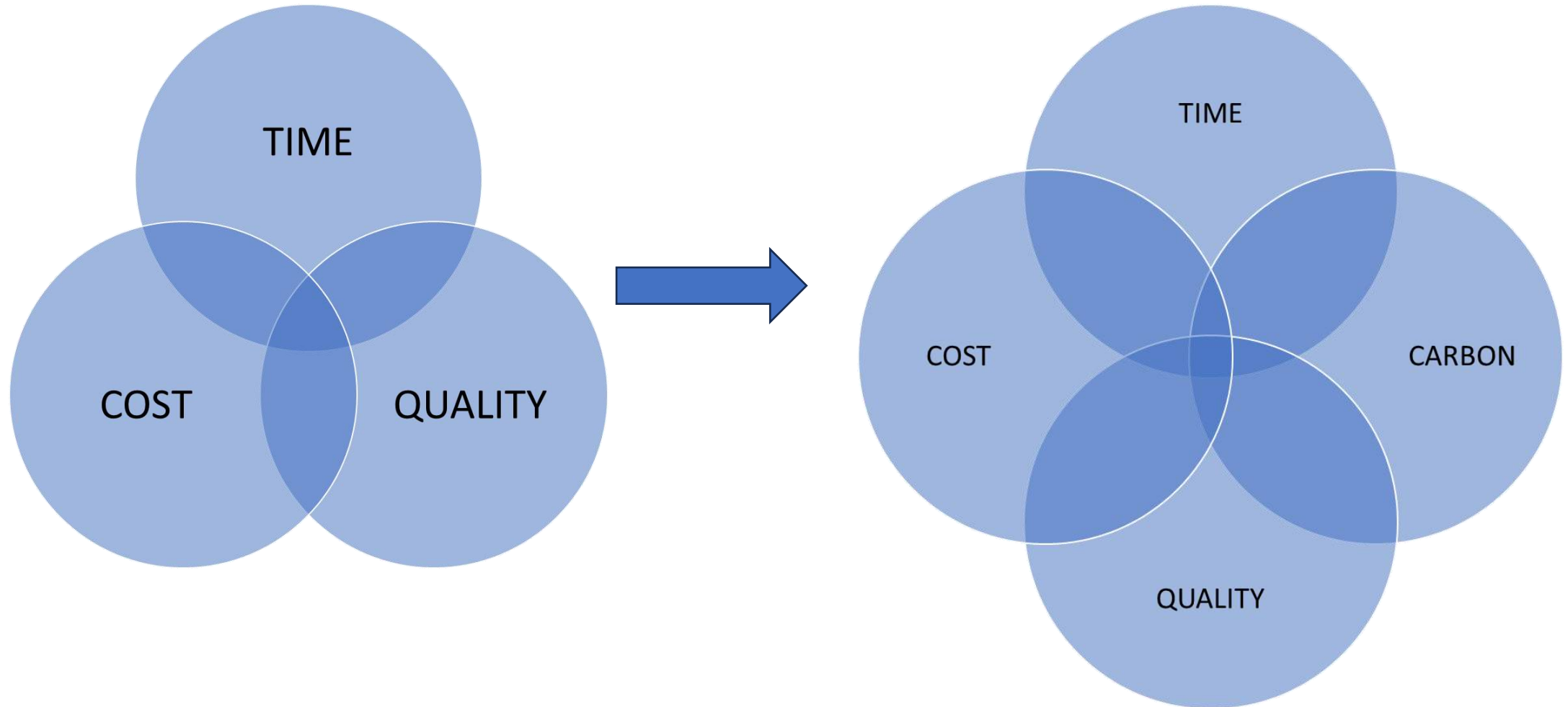
BALANCING COST AND CARBON: WHY?



40% of global greenhouse gas (GHG) emissions come from built environment and, if left unchecked, they're predicted to double by 2050

We know we need to change and decarbonise, but we also need to understand the cost impacts of lower carbon options

BALANCING COST AND CARBON: WHY?



THE CARBON DATA CHALLENGE – DATA AVAILABILITY

- ▶ We don't have a rich history of carbon data
- ▶ And we don't understand it or relate to it quite in the same way as say, costs
- ▶ EPDs are the best source of this data and we do not have a comprehensive set for all of the construction materials we use

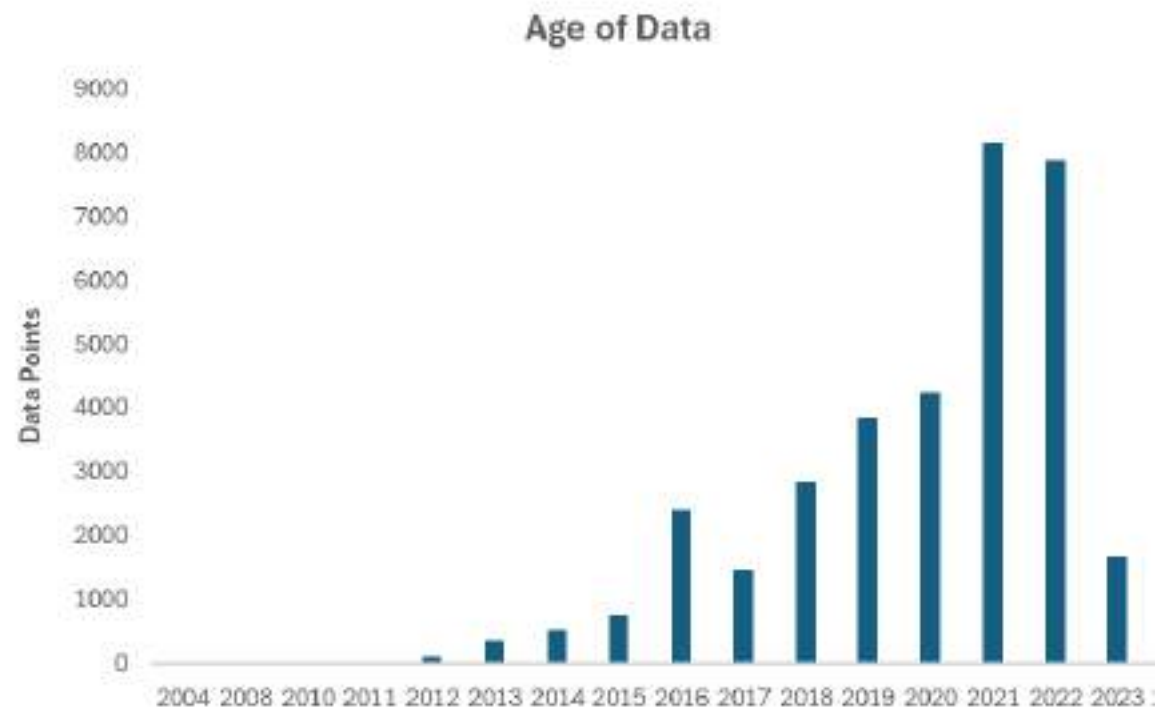
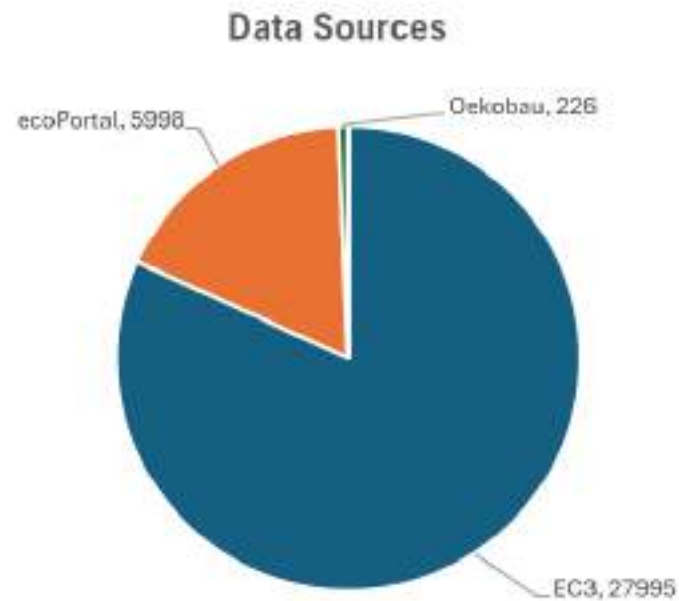
In the main we have three main challenges:

- ▶ Data Availability
- ▶ Data Quality
- ▶ Data Volatility



THE CARBON DATA CHALLENGE – AVAILABILITY OF DATA

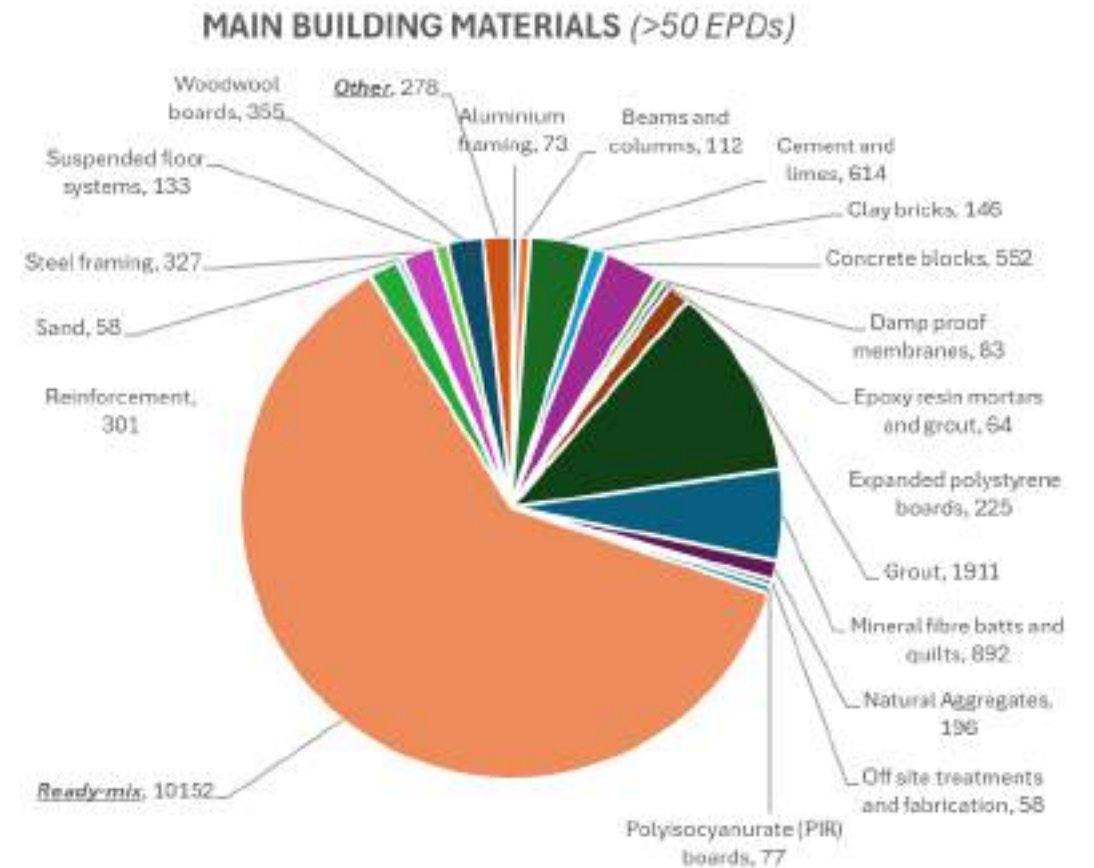
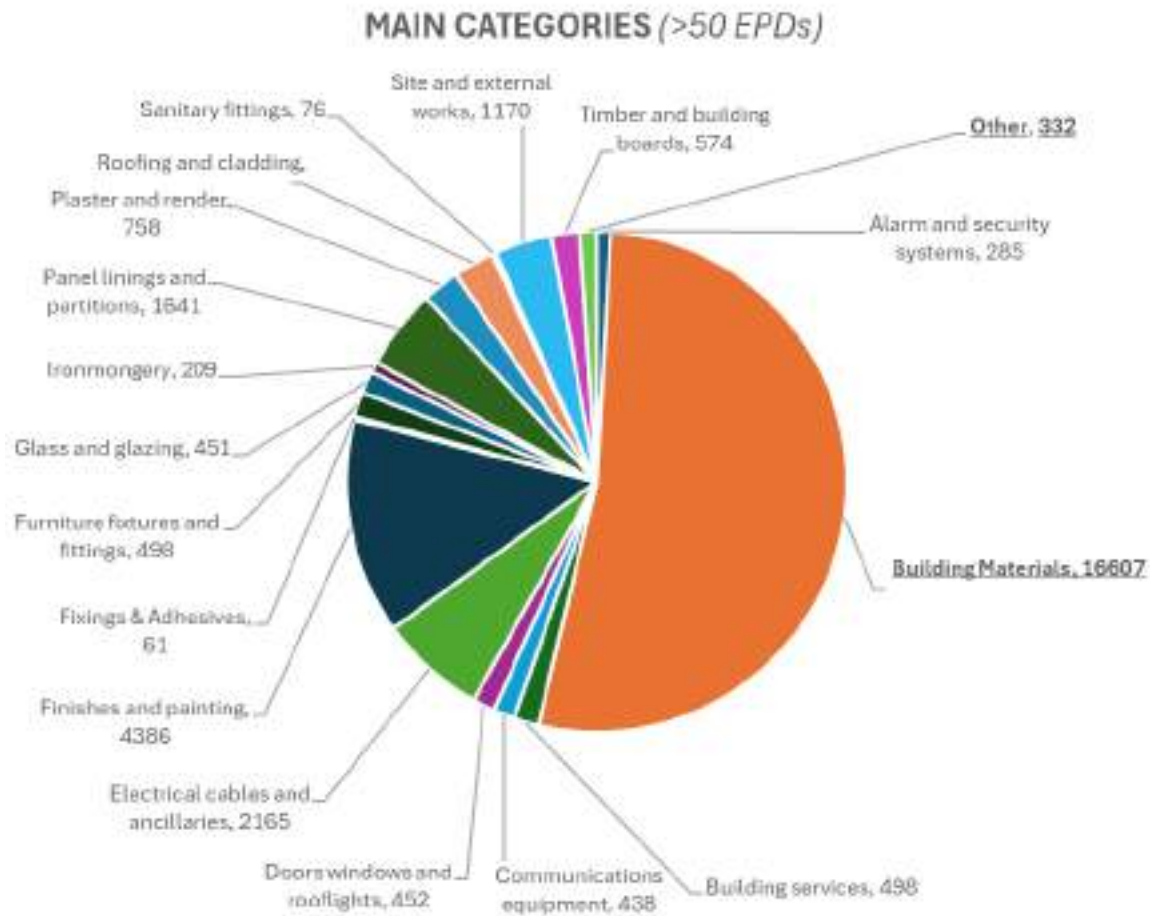
- ▶ We do not have a comprehensive set for all of the construction materials we use
- ▶ The good news is it is getting better
- ▶ We currently hold 34,000 product LCA's / EPD's



Analysis provided by Circular Ecology

THE CARBON DATA CHALLENGE – AVAILABILITY OF DATA

Aligned to a BCIS classification system....



THE CARBON DATA CHALLENGE – DATA QUALITY

What have we noticed from the data so far:

- ▶ Even mandated fields are not always completed
- ▶ Assumptions made within EPDs are often inconsistent
- ▶ Although verified by a third party – the levels of verification appears to depend on the experience of the verifier
- ▶ Sometimes the source provider has attempted to change the functional unit (often inconsistently)
- ▶ Sometimes the data is uncertainty adjusted, so doesn't always match the EPD
- ▶ BUT the biggest challenge is the inconsistency of data (units of measure)

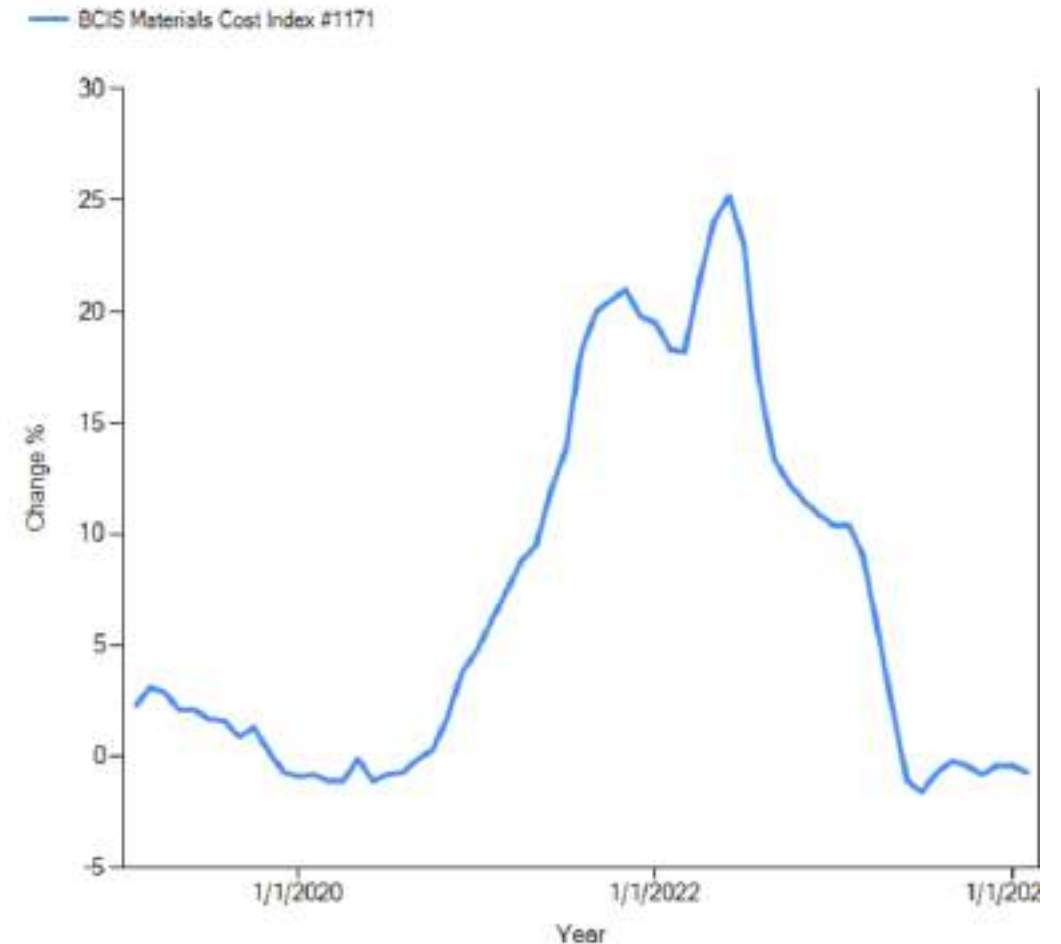
THE CARBON DATA CHALLENGE – DATA VOLATILITY

Costs of materials are volatile

To a lesser extent, so is carbon data

- ▶ Manufacturers change processes
- ▶ Decarbonisation of the grid
- ▶ EPD's expire and can be revised
- ▶ Sample sizes are rapidly changing

Making sure you are using the right data is going to become increasingly important



BALANCING COST AND CARBON: HOW?

- ▶ Everyone in the industry should be doing their part to reduce emissions
- ▶ The most efficient way to balance cost and carbon is to link carbon measurement into existing measurement processes that already happen on construction projects. i.e. Cost estimating, reporting and control

The challenge

Aside from the carbon data challenges already discussed:

- ▶ The carbon standard is complicated and an extra thing to balance
- ▶ Carbon numbers aren't widely understood
- ▶ The units of measure for carbon data are often different – so they need to be converted

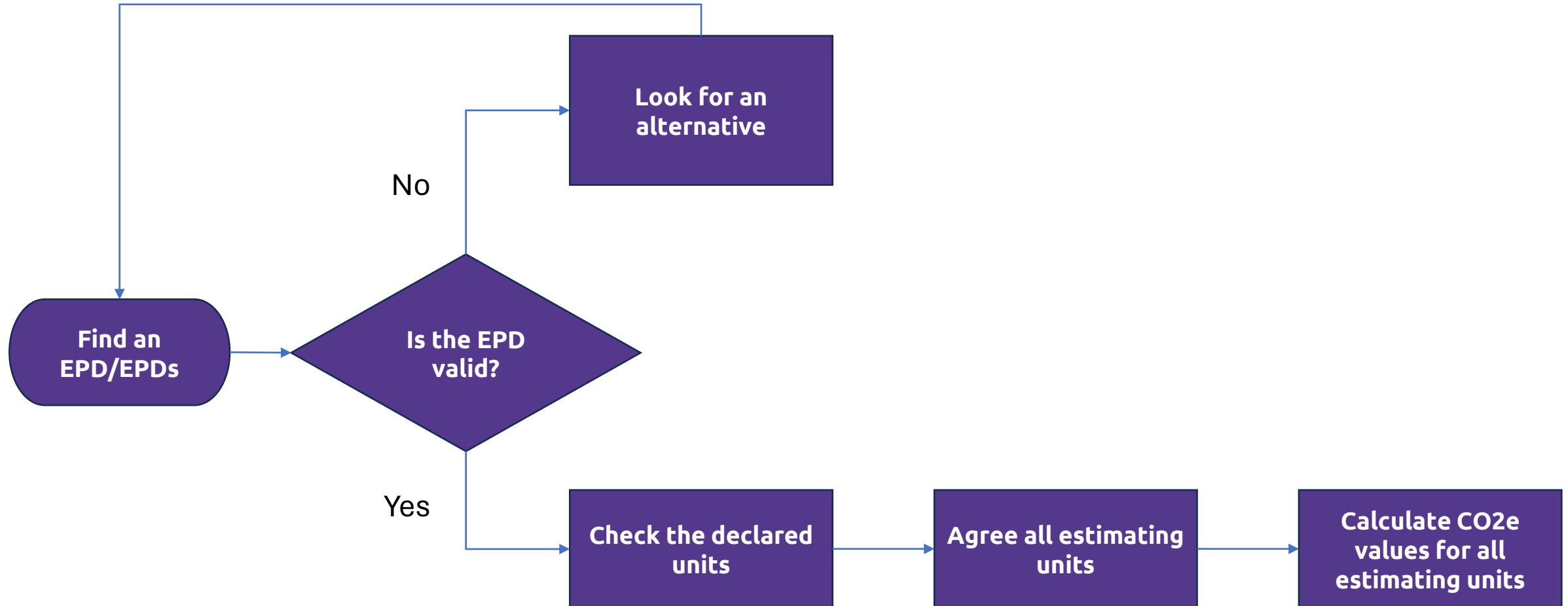
Challenges of working with EPDs



- Sonya Dancheva

Carbon workflow for estimating

sterling-dcs.com



What is involved in converting carbon data to the same units as costing would use?

EPDs are not always declared in the same units as we need in our estimating BoQ/rates = m² > Procurement process = Number



Declared unit for cavity blocks is 1990kg CO₂e per m³.



Estimators use measures such as m². Therefore, 100mm blocks = 105 blocks per m³. = 10/blocks/m² Equates to 188.25 kg/m²

Product Name
Standard Solid Concrete Block Products
Standard Cavity Concrete Block Products
High Strength 13N Solid Concrete Block Products
High Strength 13N Cavity Concrete Block Products
Aristocrat Concrete Block Products

Calculate for each product in the EPD as required.

* CO₂e – stands for all contributors to that figure, not only carbon

The BCIS Cost and Carbon Materials Database

Neil Barnett

Cost and Carbon Materials Database



100 mm Kingspan
Kooltherm K7
insulation



Glass fibre loft
insulation, 100 mm
thick (1.16 x 9.2 m roll)



PIR Polyisocyanurate
general purpose
foam sheet
insulation, 100 mm
thick

General

Supply price description	100 mm Kingspan Kooltherm K7 insulation	Glass fibre loft insulation, 100 mm thick (1.16 x 9.2 m roll)	PIR Polyisocyanurate general purpose foam sheet insulation, 100 mm thick
BCIS classification	Sheet foam insulation	Mineral fibre batts and quilts	Polyisocyanurate (PIR) boards
Uniclass classification	Pr_25_71_63_59	Pr_25_57_06_34	Pr_80_77_76_65
BCIS unit of measure	m2	roll	m2

Cost data

Material cost	26.07	15.8	20.47
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Materials

Note: Use the search box below to search for a material directly or browse using the BCIS Material Classification.

ORIGIN: BOSTON 1000

BCIS Material Classification



Aggregates



Architectural metalwork



Builders metalwork



Building Chemicals



Building services



Cement based materials



Chimneys and fireplaces



Concrete accessories



Disposal systems



Doors windows and rooflights



Epoxy resin mortars and grout



Finishes and painting



Fixings & Adhesives



Furniture fixtures and fittings



Glass and glazing



Insulation



Ironmongery



Lifts escalators conveyors and hoists





NEWS



GETTING STARTED



SUBMIT DATA



ABOUT



Aggregates



Architectural metalwork



Builders metalwork



Building chemicals



Building services



Cement based materials



Chimneys and fireplaces



Concrete accessories



Disposal systems



Doors windows and rooflights



Epoxy resin mortars and grout



Finishes and painting



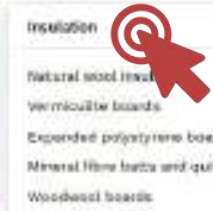
Fixings & Adhesives



Furniture fixtures and fittings



Glass and glazing



Insulation

- Natural wool insulation
- Vermiculite boards
- Expanded polystyrene boards
- Mineral fibre bats and quilts
- Woodwool boards
- Shoot foam insulation
- Polyisocyanurate (PIR) boards
- Vermiculite loose fill insulation
- Rigid cavity wall insulation



Joinery



Lifts escalators conveyors and hoists



Masonry



Mouldings edgings and trims



Panel linings and partitions



Plaster and render



Prefabricated structures



Proofing and jointing



Roofing and cladding



Sanitary fittings



Site and external works



Stair components



Stairs and balustrades



Structural metalwork



Structural precast concrete



Timber and building boards



Underground drainage and services



Vermin control



Home > Materials

Materials

Note: Use the search bar below to search for a material directly or browse using the BCIS Material Classification.



Insulation



Insulation for 22 mm copper pipe, 13 mm thick - class O

Insulation for 22 mm copper pipe, 13 mm thick - class O

Insulation for 18 mm copper pipe, 13 mm thick - class O

Dyolow 30 Insulation kit for cold water roof system, 227 litres

Dyolow 30 Insulation kit for cold water roof system, 91 litres

PIR Polyisocyanurate general purpose foam sheet **insulation**, 165mm thickPIR Polyisocyanurate general purpose foam sheet **insulation**, 140 mm thickPIR Polyisocyanurate general purpose foam sheet **insulation**, 110mm thick8 mm Lightweight **insulation** panels, a polystyrene hard foam for the electric under wood heating foil system**insulation** and mesh adhesive (base coat render)PVCu starter track for solid wall **insulation** system, 100-160 mmGlassfibre **insulation** quilt 110 mm thick, 6.25 m2

Doors, windows and rooflights



Epoxy resin mortars and grout



Finishes and painting



Fixings & Adhesives



Furniture, fixtures and fittings



Glass and glazing



Insulation



Ironmongery



Lifts, escalators, conveyors and hoists



85 results

Filter

Product type

Adhesives (1)

Blown cavity wall insulation (1)

Caulifiers and cylinders (7)

Expanded polystyrene boards (8)

Insulation retainers (1)

Show more v

	Name/Description	Unit of Measure (EUM)	Cost/Unit	CO2 Carbon in 1/Unit
<input checked="" type="checkbox"/>	100 mm Kingspan Isotherm KT insulation	m ²	£26.07	81.350 kg CO ₂ e
<input checked="" type="checkbox"/>	100 mm xR Jafloor 70 sheet insulation	m ²	£15.85	6.632 kg CO ₂ e
<input type="checkbox"/>	25 mm PIR insulation board	m ²	£7.06	0.360 kg CO ₂ e
<input type="checkbox"/>	45 mm telex twopled glass fibre slab insulation (in 1200 x 400 mm sheets)	m ²	£5.58	0.412 kg CO ₂ e
<input type="checkbox"/>	60 mm Isotherm cavity wall insulation	m ²	£3.16	3.830 kg CO ₂ e
<input type="checkbox"/>	60 mm insulation board	m ²	£5.02	48.680 kg CO ₂ e
<input type="checkbox"/>	90 mm Kingspan Kooltherm KT insulation	m ²	£14.28	40.880 kg CO ₂ e
<input type="checkbox"/>	0 mm Lightweight insulation panels, a polystyrene hard foam for the electric under wood heating foil system	m ²	£5.64	Unknown
<input type="checkbox"/>	60 mm PIR insulation board	m ²	£21.69	13.678 kg CO ₂ e
<input type="checkbox"/>	0 mm insulation for 15 mm copper pipe	m	£1.99	0.800 kg CO ₂ e

Total 85 items < 1 2 3 4 5 ... 10 / Pages Go to

Compare



Materials

[+ Back to product type](#)

[Download PDF](#)



100 mm Kingspan Kooltherm K7 insulation



100 mm VR Jabfloor 70 sheet insulation



Cavity wall insulation 100 mm mineral wool batt (thermal conductivity 0.037 W/mK)



Flat roof insulation Kingspan Thermaroof TR20 100 mm thick

General

Supply price description ⓘ	100 mm Kingspan Kooltherm K7 insulation	100 mm VR Jabfloor 70 sheet insulation	Cavity wall insulation 100 mm mineral wool batt (thermal conductivity 0.037 W/mK)	Flat roof insulation Kingspan Thermaroof TR20 100 mm thick
BCIS classification ⓘ	Ma_001_040_010	Ma_001_040_003	Ma_001_040_006	Ma_001_040_015
Uniclass classification ⓘ	Pr_25_71_63_50	Pr_25_31_48_28	Pr_25_37_06_53	Pr_25_31_28_93
BCIS unit of measure ⓘ	m2	m2	m2	m2

Cost data ●

Material cost ⓘ	26.07	39.33	7.06	33.73
Past 12 months inflation % ⓘ	1.64	1.64	1.64	1.64
Future 12 months inflation (forecast) % ⓘ	2.5	2.5	2.5	2.5
Cost location (Country and/or Region) ⓘ	UK Average	UK Average	UK Average	UK Average
Currency ⓘ	GBP	GBP	GBP	GBP
Cost base date ⓘ	2024-01-01	2024-01-01	2024-01-01	2024-01-01

Representative carbon data ●

Future 12 months inflation (forecast) %	2.5	2.5	2.5	2.5
Cost location (Country and/or Region)	UK Average	UK Average	UK Average	UK Average
Currency	GBP	GBP	GBP	GBP
Cost base date	2024-01-01	2024-01-01	2024-01-01	2024-01-01

Representative carbon data

LCA name	Kooltherm Q7	Therma TT70	Glass mineral wool insulation ? 0.033-0.033 W/mK	Therma TR20 / Thermo TT40
REC'D dataset ID	BAHSF23-7341-42C6-CE49-06DC1C313CA1	0DCC0606-402A-4D1E-0042-06DC1C313CA2	3F06F7E4-9A5A-49BD-7A4E-08DC1C313CA1	F40FFD0C-A24B-4B1D-CE7A-06DC1C313CA1
URL link to LCA file	https://lca-data.com/resources/1271-9a71-4f6b-b2c1-2f5628eb131b?version=00.01.000	https://lca-data.com/resources/1271-9a71-4f6b-b2c1-2f5628eb131b?version=00.01.000	https://lca-data.com/resources/1271-9a71-4f6b-b2c1-2f5628eb131b?version=00.01.000	https://lca-data.com/resources/1271-9a71-4f6b-b2c1-2f5628eb131b?version=00.01.000
Recorded carbon value (A1-2)	8.12	10.16	1.06	10.12
LCA recorded unit	m2	m2	m2	m2
LCA base unit conversion, divide by	0.01	0.12	0.1	0.12
BCIS target unit conversion, multiply by	0.1	0.1	0.1	0.1
BCIS converted carbon value (A1-2)	81.2	8.433333	1.06	8.433333
Life expectancy (Years)	--	--	20	--
Mass of declared unit (kg)	4	--	1.8	--
Manufacturer	Kingspan Insulation	Kingspan Insulation	Knauf Insulation	Kingspan Insulation
Country of origin	NL	GER	US	GER
Factory location	--	--	Stafford Road, Saint Helen's	--
LCA date	2019-01-01	2023-01-01	2020-01-01	2022-01-01
Expiry date	2024-01-01	2025-01-01	2024-12-22	2028-01-01

Carbon data feedback

Carbon data feedback

Carbon data feedback

Carbon data feedback

[Collapse all sections](#)[Close](#)Process Data set: Kooltherm S7 (en) [en](#) [de](#)

• Process information

Key Data Set information

Location	NL	
Reference year	2019	
Name	Kooltherm S7	
Use advice for data set	<div><div><p>Scope: The insulation material Kooltherm, is produced by Kingspan Insulation B.V. at the manufacturing facility in Tiel, the Netherlands. A glass tissue based facing is autohesively bonded to the insulation core during manufacture.</p><p>System boundary: The following processes are included in the A1-A3 production stage of Kooltherm: Manufacture of preliminary products (Resin, additives, blowing agent)</p><p>-Transportation of raw materials and preliminary products to the plant</p></div><div><p>- Manufacturing process in the plant including energy, water consumption, disposal of residual materials and consideration of direct VOC emissions to air</p><p>- Manufacture and transport of packaging materials.</p><p>The following processes are included in the C3 and D stage of Kooltherm:</p><p>- End of life scenario (Incineration in a waste incineration plant with energy recuperation)</p></div></div>	
Technical purpose of product or process	Due to its high insulating value the Kooltherm S7 is suitable for use as insulation for tiled or slated pitched warm roofs.	
Classification	<p>Class name: Hierarchy level</p> <ul style="list-style-type: none">• OEKOBAD DAT 2.5 01 Dämmstoffe / Phenolharz-Hartschaum (PF) / PF-Platten• IBUCategories: 02 Bauprodukte / Wärmedämmungsprodukte / Dämmstoffe aus Schaumkunststoffen	
General comment on data set	The Kingspan Kooltherm ® S7 is a rigid thermoset cellular insulation material faced on both sides with a glass tissue based facing. The product is available in variable thicknesses from 20mm up to 200mm. This EPD covers one of the most commonly	sold thickness of 100mm with an R-value of 5,0 m² K/W.
Copyright	Yes	
Owner of data set	Kingspan Insulation	
Quantitative reference		
Reference flow(s)	1 m², 100mm Dicke - 1.0 * 1.0 qm (Area)	
Material properties of the reference flow	<ul style="list-style-type: none">• conversion factor [mass/declared unit]: 4.0 -• gross density: 40.0 kg/m³• grammage: 4.0 kg/m²• layer thickness: 0.1 m	
Time representativeness		
Data set valid until	2024	

Carbon data feedback

Carbon data feedback

Carbon data feedback

LCA Record Match

Current Name

Kooltherm S7

Current BECD Dataset UID

89CA505A-CB8C-48BB-EE4F-08DC2728B6A2 [Copy](#)

Access the BECD portal [click here](#)

Preferred BECD Reference

Q

Copy the BECD UID using the button above and then open the BECD portal with the above link to search. Proposed BECD Dataset UID or better matches can be found beneath the selected EPD in the BECD Portal.

Comments

Leave us your comments

Unit of Measure Conversion

Current

Divide by 'Base unit' conversion 0.01 and multiply by 'target unit' conversion 0.1

Proposed

Q

Base unit conversion note: 10mm @ 1m2 as per EPD
Target unit conversion note: —

Comments

Search product LCA dataset

Search
89CA505A-CB8C-48B9-EE4F-08DC272BB6A2

Filters

Dataset type

Dataset subtype

Product location

Reference year

Start year

End year

Valid until

Start year

End year

Data location

Access

RESET FILTERS

Dataset type	Dataset name	Dataset subtype	Owner	Product location	Ref
EPD	Kooltherm S7	Average EPD	Kooltherm Insulation	NL	

LCA Record Match

Current Name

Kooltherm S7

Current BECD Dataset UID

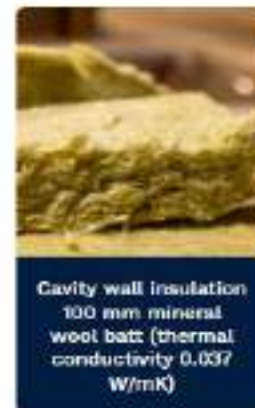
89CA505A-CB8C-48B9-EE4F-08DC272BB6A2 [Copy](#)

Access the BECD portal [click here](#)

Details of the selected dataset: Kooltherm S7

Compliance system name	EN 15804; ISO 14025
Material properties	
Product density (kg/m3)	
Mass of functional unit (kg)	4.00
GWP Fossil (A1-A3, in kgCO2eq)	
GWP Biogenic (A1-A3, in kgCO2eq)	

Cost and Carbon Materials Database



General

Supply price description	100 mm Kingspan Kooltherm K7 Insulation	100 mm VR Jabfloor 70 sheet Insulation	Cavity wall insulation 100 mm mineral wool batt (thermal conductivity 0.037 W/mK)
BCIS classification	Ma_001_040_015	Ma_001_040_003	Ma_001_040_006
Uniclass classification	Pr_25_71_63_59	Pr_25_31_48_28	Pr_25_57_06_53
BCIS unit of measure	m2	m2	m2

Cost data

Material cost	26.07	15.15	7.66
Past 12 months inflation %	1.64	1.64	1.64

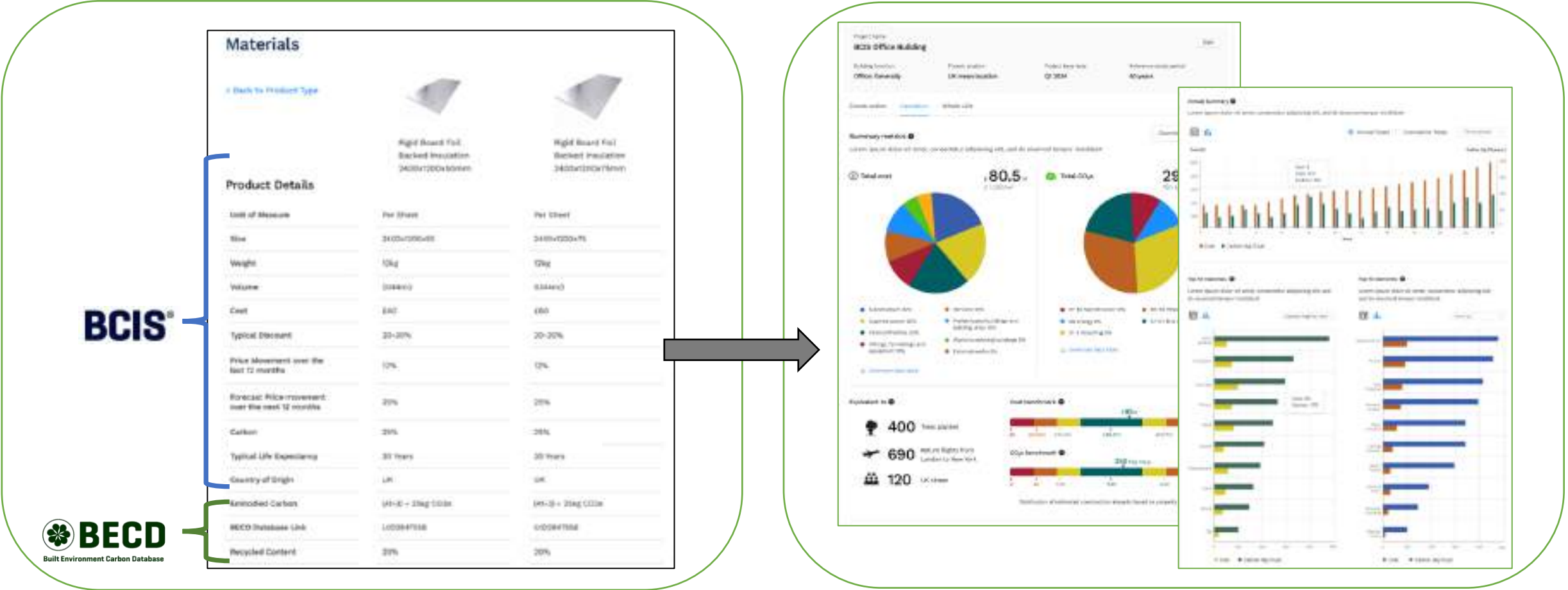
A sneak preview of what's to come...

BCIS – SNEAK PREVIEW

COST AND CARBON MATERIALS DATABASE

LIFE CYCLE COST AND CARBON CALCULATOR

ALIGNS COST AND CARBON MEASUREMENT AND REPORTING – MAKING IT MUCH EASIER
PRODUCE COST AND/OR CARBON COMPLIANT REPORTS USING BCIS AND BECD DATA



BCIS – SNEAK PREVIEW

The BCIS data, the one source of truth, will also fuel other software products when you need that extra functionality....

Viewed
within
Sterling

A1-A3

A4

Sterling

sterling-dcs/resources

Projects > Libraries

Resources

LABOURPLANTMATERIALSUBCONTRACTOTHER COSTS

ColumnsDensityFiltersWrap textLevels

ExportAdd Root Item

Code	Title	Note	Unit Rate	Unit	Resource Type	Tons/UoM	Distance to Site 1 Way	Embodied CO ₂ e Rate	Sequestration CO ₂ e Rate	Vehicle Load Size	Transport CO ₂ e Rate	Transport CO ₂ e Rate	Waste Processing CO ₂ e
30	MATERIALS												
30.01	Groundworks												
30.02	Concrete work												
30.03	Masonry bricks, accessories and sund...												
30.03.00	Sand												
30.03.01	Mortars												
30.03.02	Common bricks												
30.03.03	Engineering bricks												
30.03.04	Facing bricks												
30.03.05	Air brick												
30.03.06	Concrete blocks												
30.03.06.000	100mm concrete blocks 3.5N solid		£12.07	m2	Concrete PC	0.06	50.00	14.08	0.00	36.00	0.00	0.00	0.00
30.03.06.005	140mm concrete blocks 3.5N solid		£17.24	m2	Concrete PC	0.09	50.00	18.71	0.00	36.00	0.00	0.00	0.00
30.03.06.010	150mm concrete blocks 3.5N solid		£19.76	m2	Concrete PC	0.09	50.00	21.12	0.00	36.00	0.00	0.00	0.00
30.03.06.015	200mm concrete blocks 3.5N solid		£28.06	m2	Concrete PC	0.12	50.00	28.16	0.00	36.00	0.00	0.00	0.00
30.03.06.020	215mm concrete blocks 3.5N solid		£29.75	m2	Concrete PC	0.13	50.00	30.27	0.00	36.00	0.00	0.00	0.00
30.03.06.025	100mm concrete blocks 3.5N hollow		£11.79	m2	Concrete PC	0.00	50.00	7.04	0.00	36.00	0.00	0.00	0.00
30.03.06.030	140mm concrete blocks 3.5N hollow		£17.06	m2	Concrete PC	0.06	50.00	9.86	0.00	36.00	0.00	0.00	0.00
30.03.06.035	150mm concrete blocks 3.5N hollow		£17.06	m2	Concrete PC	0.07	50.00	10.56	0.00	36.00	0.00	0.00	0.00
30.03.06.040	200mm concrete blocks 3.5N hollow		£22.65	m2	Concrete PC	0.09	50.00	14.08	0.00	36.00	0.00	0.00	0.00
30.03.06.045	215mm concrete blocks 3.5N hollow		£24.32	m2	Concrete PC	0.10	50.00	15.14	0.00	36.00	0.00	0.00	0.00
30.03.06.050	60mm concrete blocks 7N solid		£7.73	m2	Concrete PC	0.04	50.00	10.75	0.00	36.00	0.00	0.00	0.00

Items: 5007

BCIS Cost and Carbon Materials Library

Projects > Libraries

Resources

LABOURPLANTMATERIALSUBCONTRACTOTHER COSTS

ColumnsDensityFiltersWrap textLevels

ExportAdd Root Item

Code	Title	Note	Unit Rate	Unit	
> 30	STERLING MATERIALS		0.00		
▼ Ma	BCIS MATERIALS		0.00		
▼ Ma.001	Building Materials		0.00		
▼ Ma.001.132	Site and external works		0.00		
> Ma.001.132.003	Ground engineering		0.00		
> Ma.001.132.006	Roads and paving		0.00		
> Ma.001.132.009	Kerbs and channels		0.00		
▼ Ma.001.132.012	Street furniture		0.00		
▼ Ma.001.132.012.002	Planters		0.00		
Ma.001.132.012.002.001	External works; Mono Boulevard planter 700 mm	Price base date: 01-02-2024	893.68	Nr	
Ma.001.132.012.002.002	External works; Mono Boulevard precast concrete planter circular 1200 mm	Price base date: 01-02-2024	1,030.71	Nr	
Ma.001.132.012.002.003	External works; PC sum Tree planter, stainless steel body on galvanised steel plinth, treated hardwood surroun...	Price base date: 01-02-2024	2,388.82	Nr	
Ma.001.132.012.002.004	External works; PC sum Tree/flower planter, galvanised steel, 802 mm x 802 mm x 750 mm high (Y1275)	Price base date: 01-02-2024	484.84	Nr	
Ma.001.132.012.002.005	External works; Tree planter, stainless steel body on galvanised steel plinth, treated hardwood surround/bench,...	Price base date: 01-02-2024	2,808.00	Nr	
Ma.001.132.012.002.006	External works; Tree/flower planter, galvanised steel, 1000 mm x 1000 mm x 750 mm high	Price base date: 01-02-2024	518.11	Nr	
> Ma.001.132.012.004	Bollards		0.00		
> Ma.001.132.012.006	Bicycle stands		0.00		
> Ma.001.132.012.008	Tree grilles and tree guards		0.00		
> Ma.001.132.012.010	Litter bins		0.00		

Resources with EPD link and carbon calculator

Sterling x +

← → ↻ 🏠 sterling-dcs/libraries/resources

Projects > Libraries

Resources

LABOUR PLANT MATERIAL SUBCONTRACT OTHER COSTS

Columns Density Filters Wrap text Levels

Export Add Root Item

Code	Title	Note	Unit Rate	Unit	Resource Type	Tons/UoM	Distance to Site 1...	Embodied CO ₂ ...	Sequestration CO ₂ ...	Vehicle Load SI...	Transport CO ₂ ...	Fuel Consumption	Site
▼ MAT.03	Masonry	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
> MAT.03.01	Mortar based materials	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
> MAT.03.02	Mortar mixes	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
▼ MAT.03.03	Bricks	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
> MAT.03.03.01	Common bricks	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
> MAT.03.03.02	Engineering bricks	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
> MAT.03.03.04	Facing bricks	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
> MAT.03.03.05	Air brick	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
▼ MAT.03.04	Blocks	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
▼ MAT.03.04.03	Concrete blocks	+	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	✎
MAT.03.04.03.000	100mm concrete blocks 3.5N solid	—	12.37	m²	Concrete PC	0.06	50.00	14.08	0.00	36.00	0.00	0.00	✎ 🗑

EPD Details

Columns Density Filters

Export Add Item

											A Rates		B Rates		C Rates				D Rates			
Code	Title	Manufacturer	Manuf. Description	Registration Nr.	Link to EPD	Valid to date	Unit	Embodied CO ₂ e	Transport CO ₂ e Rate	Site CO ₂ e Rate		C1	C2	C3	C4	D1	D2					
100.01.02	Concrete Blocks	Roadstone	Belgard Concrete Block Products	S-P-04244	https://api.environd...	7th June 2027	m2	94.8				3.21	7.5	0	0	-14.7			✎ 🗑			
																			✎ 🗑			
																			✎ 🗑			
MAT.03.04.03.005	140mm concrete blocks 3.5N solid	+					17.24	m²	Concrete PC	0.09	50.00	19.71	0.00	36.00	0.00	0.00			✎ 🗑			
MAT.03.04.03.010	150mm concrete blocks 3.5N solid	+					19.76	m²	Concrete PC	0.09	50.00	21.12	0.00	36.00	0.00	0.00			✎ 🗑			
MAT.03.04.03.015	200mm concrete blocks 3.5N solid	+					28.06	m²	Concrete PC	0.12	50.00	28.16	0.00	36.00	0.00	0.00			✎ 🗑			
MAT.03.04.03.020	215mm concrete blocks 3.5N solid	+					29.75	m²	Concrete PC	0.13	50.00	30.27	0.00	36.00	0.00	0.00			✎ 🗑			
MAT.03.04.03.025	100mm concrete blocks 3.5N hollow	+					11.79	m²	Concrete PC	0.00	50.00	7.04	0.00	36.00	0.00	0.00			✎ 🗑			
MAT.03.04.03.030	140mm concrete blocks 3.5N hollow	+					17.06	m²	Concrete PC	0.06	50.00	9.86	0.00	36.00	0.00	0.00			✎ 🗑			
MAT.03.04.03.035	150mm concrete blocks 3.5N hollow	+					17.06	m²	Concrete PC	0.07	50.00	10.56	0.00	36.00	0.00	0.00			✎ 🗑			
MAT.03.04.03.040	200mm concrete blocks 3.5N hollow	+					22.65	m²	Concrete PC	0.09	50.00	14.08	0.00	36.00	0.00	0.00			✎ 🗑			
MAT.03.04.03.045	215mm concrete blocks 3.5N hollow	+					24.32	m²	Concrete PC	0.10	50.00	15.14	0.00	36.00	0.00	0.00			✎ 🗑			

Total Rows: 1

Sterling

sterling-dcs/cost-plan

Projects > Hospital

Cost Plan

PRICING TAKE-OFF

Columns

Density

Filters

Wrap text

CO₂e

Levels

Select structure

Snapshot

Export

Simple BOQ with WBS

Item Code

Item Code

Title

Labour

Plant

Material

Subcontract

Other Costs

Net Rate

Gross Rate

Net Total

Gross Total

01	01	1: Substructure	£258.20	£607.01	£204.51	£110.22	£128.88	£1,308.82		£1,280,408.48	
01.01	01.01	1.1: Substructure	£258.20	£607.01	£204.51	£110.22	£128.88	£1,308.82		£1,280,408.48	
01.01.04	01.01.04	Basement excavation - Definition: Bulk e...	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00		£460,533.68	
01.01.03	01.01.03	Lowest Floor construction	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00		£307,844.73	
01.01.02	01.01.02	Specialist foundations - Definition: - Loa...	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00		£384,341.36	
01.01.01	01.01.01	Standard foundations - Definition: Stand...	£133.75	£1,117.85	£389.93	£60.99	£0.00	£1,702.52		£127,688.71	
01.01.01.02	01.01.01.02	Isolated pad foundations: details, includi...	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00		£116,634.95	
01.01.01.01	01.01.01.01	Strip foundations: details, including dept...	£18.96	£65.02	£55.64	£7.76	£0.00	£147.38		£11,053.76	
01.01.01.03.0260	01.01.01.03.0260	Formwork Rough finish all sides, Plain for...	£15.00	£0.00	£30.00	£35.00	£0.00	£80.00	£93.67	£1,035.00	£1,211.89
01.01.01.03.0270	01.01.01.03.0270	Reinforcement as specified, NBS E30	£121.60	£3,560.00	£1,067.67	£0.00	£0.00	£4,749.27	£5,560.96	£4,654.28	£5,449.74
01.01.01.03.0280	01.01.01.03.0280	In-situ concrete (750mm) as specified, N...	£13.35	£1.57	£240.16	£0.00	£0.00	£255.08	£298.67	£2,084.04	£2,440.22

Resources

Columns

Density

Filters

Export

Add Item

Code	Title	Type	Resource Rate	BoQ Quantity	Productivity	Qty/Unit	Gang Size	Waste Factor	Factor	Quantity	Unit	Total Cost	Resource Type
30.02.01.015	Concrete c25: 14mm aggregate	Material	£77.47	8.17	1.00	1.00	1.00	1.00	1.00	8.17031247876693	m3	£632.95	Concrete
30.02.01.025	Concrete c35: 14mm aggregate	Material	£80.24	8.17	1.00	1.00	1.00	1.00	1.00	8.17031247876693	m3	£655.59	Concrete
30.02.01.030	Concrete c40: 14mm aggregate	Material	£82.45	8.17	1.00	1.00	1.00	1.00	1.00	8.17031247876693	m3	£673.64	Concrete
												£1,962.18	

Total Rows: 4

01.01.01.03.0290	01.01.01.03.0290	Strip formwork to cast In-situ concrete as specified, NBS E20	£75.00	£106.00	£60.00	£10.00	£0.00	£251.00	£293.90	£3,247.94	
01.01.01.03.0300	01.01.01.03.0300	Surface finish to In-situ concrete as specified, NBS E41	£2.67	£0.31	£0.00	£0.00	£0.00	£2.98	£3.49	£32.50	
00	00	0: Facilitating works	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00		£0.00	
		Unassigned	£0.00	£0.00	£0.00	£0.00	£0.00			£2,500.00	
										£3,547,334.74	

Total Rows: 6

Thank You


Sterling
 Driving Net Zero Construction



QUICK SUMMARY AND QUESTIONS



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This webinar is now over. Thank you for joining!