

FIS

FINISHES & INTERIORS SECTOR

Measuring and understanding sustainability within the project

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Troldekt® 
Acoustic Solutions since 1935
By Kingspan

Introduction – Flavie Lowres, FIS Sustainability Champion

How can we improve the measurement of project impact

Elina Grigoriou, Grigoriou Interiors

Why we need an agile approach to measuring impact

Nick Woodmore, Sustainability Design Manager, Overbury

The SKA Philosophy

Iain McIlwee, CEO, Finishes and Interiors Sector



Elina Grigoriou Grigoriou Interiors

How can we improve the
measurement of project impact



DESIGNING AND PRESERVING A BEAUTIFUL WORLD

Through improving projects' impact measurement.





WE ARE INTERIOR DESIGNERS, SUSTAINABILITY
CONSULTANTS AND EDUCATORS THAT CREATE SPACES
WITH WELLBEING AT HEART, CONTRIBUTING TO A
BETTER AND MORE BALANCED WORLD.



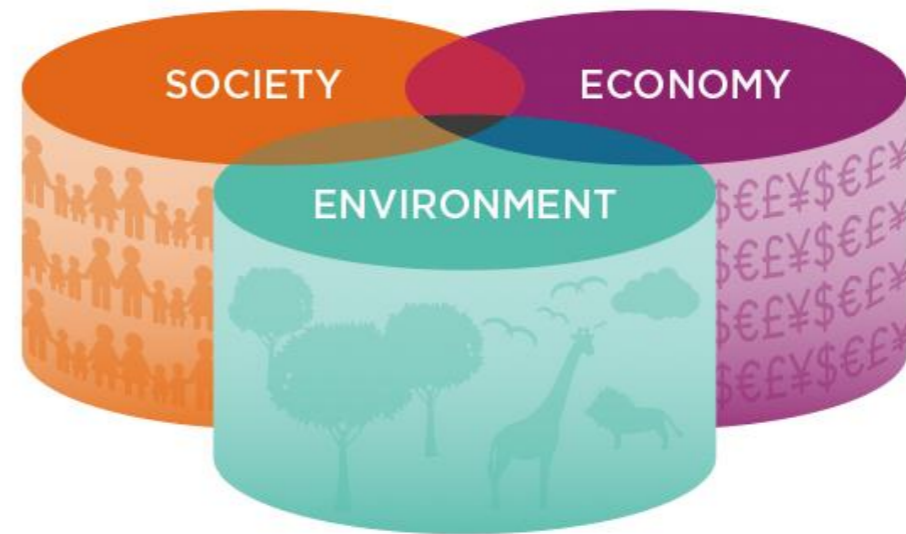


OUR APPROACH AND METHODOLOGY

3 PILLARS OF SUSTAINABILITY

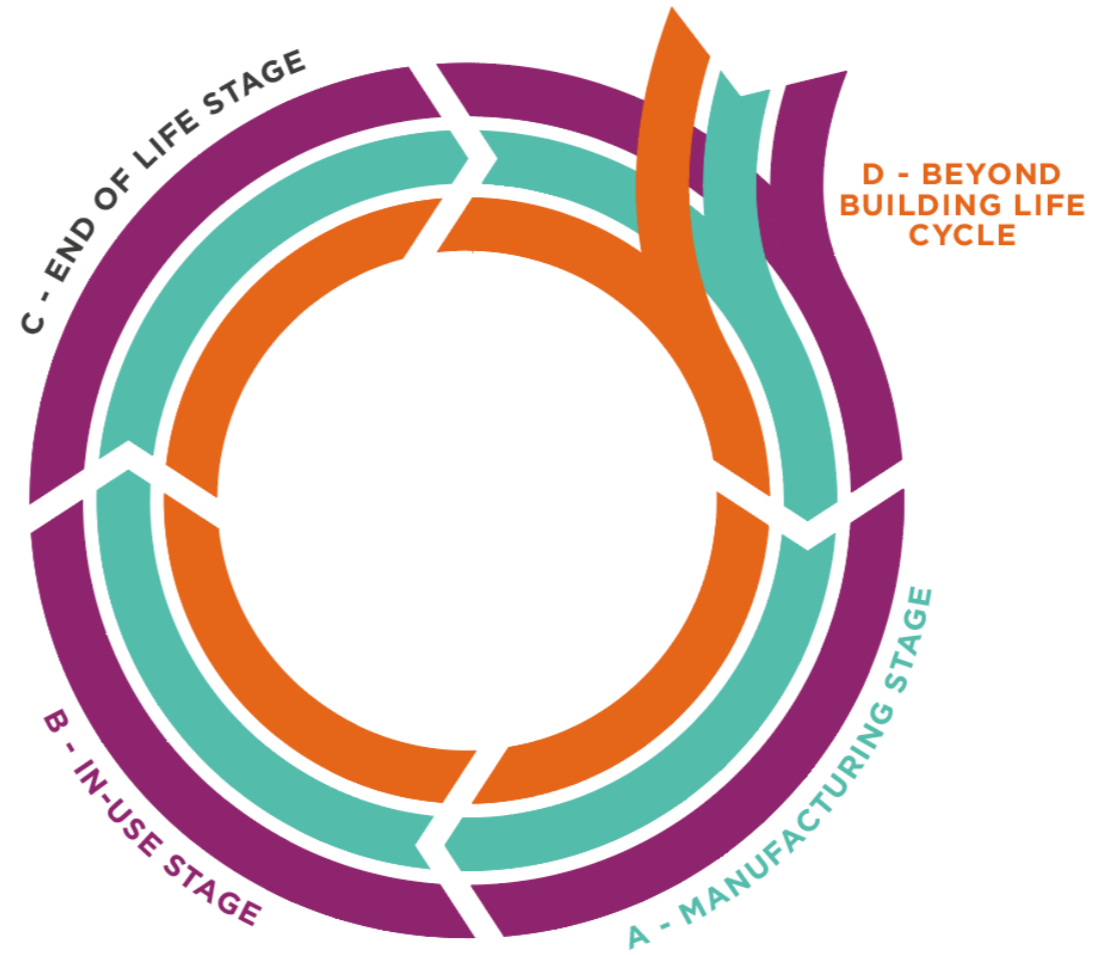
USER-CENTRED DESIGN

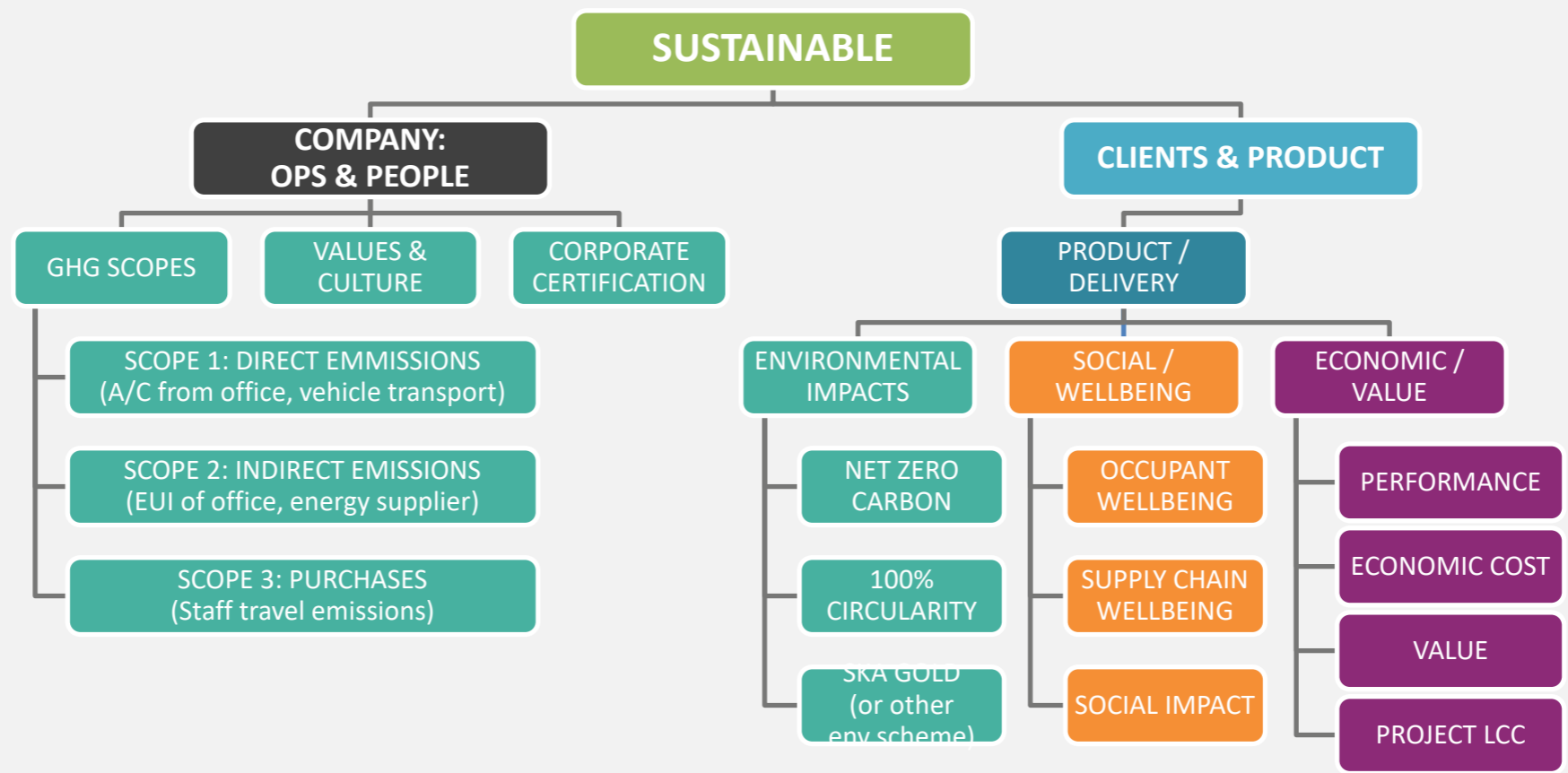
SYSTEMIC CHANGE





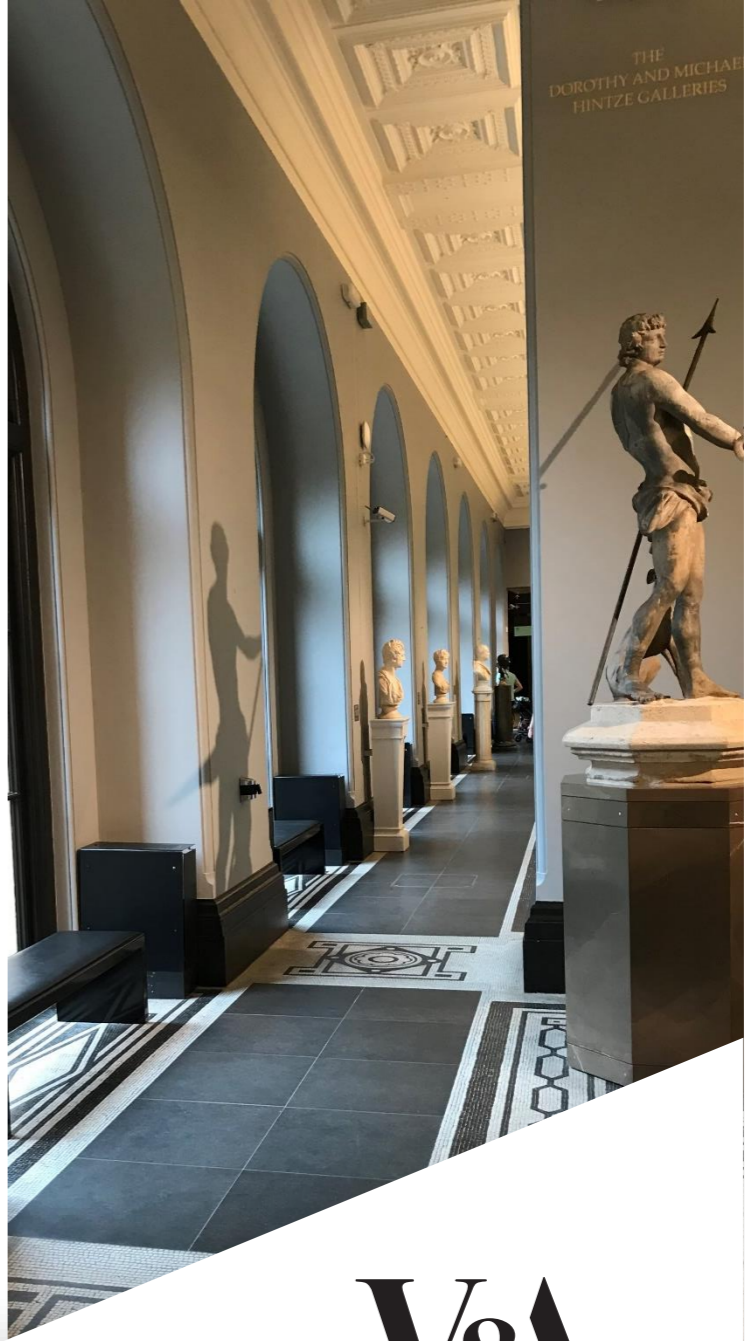
DESIGN SYSTEMIC LIFECYCLE THINKING







starwood
Hotels and
Resorts

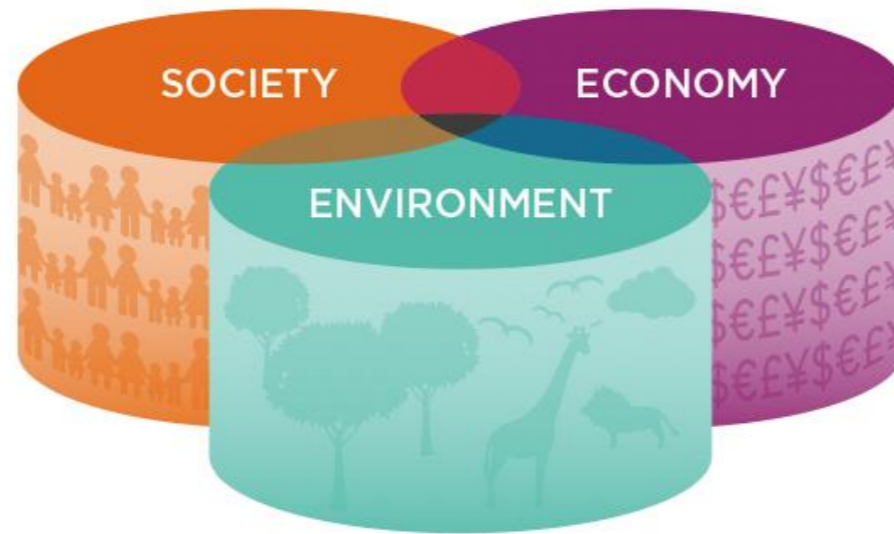


V&A



HOW CAN WE IMPROVE THE MEASUREMENT OF PROJECT IMPACT?

Fitwell
WELL
'a better place'



SROI
measurement
RICS Life-cycle
costing tool

SKArating

BREEAM

LEED

Whole Life Carbon Assessments

What is SKA rating?

There are 3 live schemes:

- SKA Retail v1.0
- SKA Offices v1.2
- SKA HE v1.0
- Pilots

SKA is aimed at:

- Category A and category B fit-outs
- Light refresh of retail spaces
- Full owner-occupier refurbishments

SKArating®

SKArating®
gold

SKArating®
silver

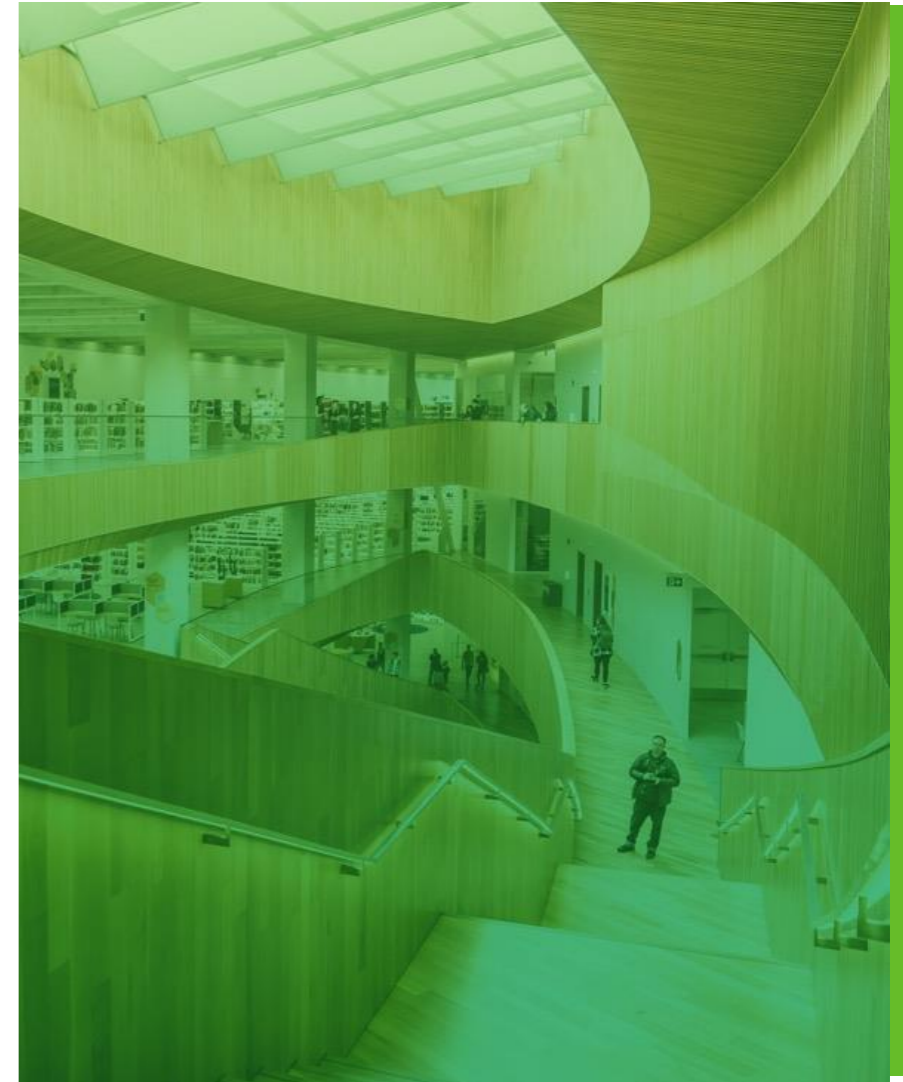
SKArating®
bronze

SKArating®
pilot

Key benefits

- ✓ Provide an effective and robust system to report environmental impacts.
- ✓ Reduce in real terms the negative impact of fit-out project delivery
- ✓ Create systemic change in design and delivery of fit-outs
- ✓ Create better Value for clients, true savings and better spaces in operation
- ✓ Enable CSR robust and credible reporting and align with new regulatory requirements and anti-greenwashing
- ✓ Increase asset value and retain value over time and multiple life cycles

SKArating®






To create Sustainable environments; **Environmental, Social and Economic impacts.**



To expand into **all sectors** of fit-out and refurbishment, and other **countries/geographies.**



To connect and align roles, organisations and initiatives along the **full life-cycle** of spaces.



Projects
Account
Help
Elina Grigoriou | [Log Out](#)

HE Training Assessors 1
Ska Higher Education 1.0
Design stage

Project details
Scope
Assessment
Rating
Report

All
Ecology
Energy & CO2
Materials
Pollution
Project Delivery
Transport
Waste
Water
Wellbeing

In scope **111 measures**

ID	Name	✘
D71	Soft landings - aftercare (fine tuning, seasonal commissioning and POE)	
D01	Energy efficient lighting	✘
E04	Energy efficient light fittings	✘
D02	Lighting controllability	✘
D72	Pre-refurbishment audit	
M05	Hardwoods	✘
M12	Soft flooring	✘
D22	Low-GWP insulation	✘
D60	Designing out waste	
D12	Reduce gypsum waste	✘
D23	Low impact refrigerants	✘
D69	Soft landings: design workshops	

Not in scope **20 measures**

+	ID	Name
	P10	Reduce lighting energy in use
	P08	Reduce water in use
	P11	Reduce small power energy in use
+	D28	Thermal comfort assessment
+	E14	Efficient taps
+	D30	Lighting design
+	D29	Acoustic design
+	D33	Ventilation rates
+	D39	Outside views
+	D14	Reduce floor finishes waste
+	D75	Reduce specialist workbench waste
+	E28	Secondary window treatments

SKA rating Philosophy

- Project Driven
- Incentivise Good Practice
- Robust scoring system
- Easy to use
- Free to use

SKArating®



Evolution of performance

SKArating[®]

Design for circular economy

Design for disassembly

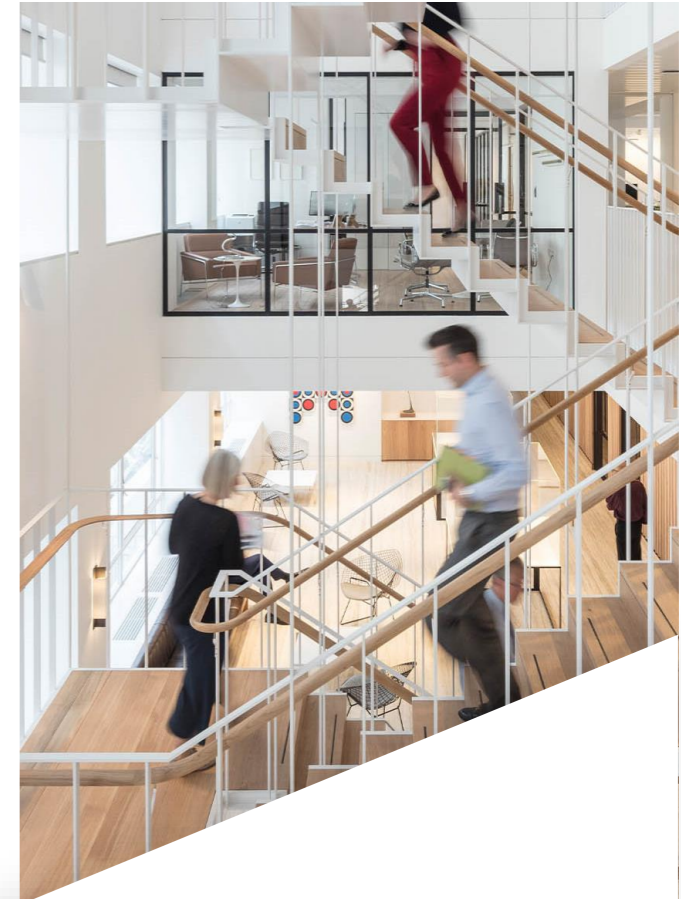
Framework logistics

Leasing v
purchasing

EPD



SUSTAINABILITY CONSULTING & SKA RATING ASSESSMENT



DERWENT
LONDON



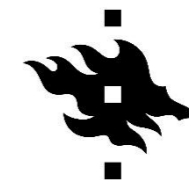
HUCKLETREE DESIGN CONCEPT & SKA RATING ASSESSMENT



HUCKLETREE



INTERIOR DESIGN & PERFORMANCE MEASUREMENT



UNIVERSITY OF HELSINKI



INTERIOR DESIGN & PERFORMANCE MEASUREMENT

STAGES

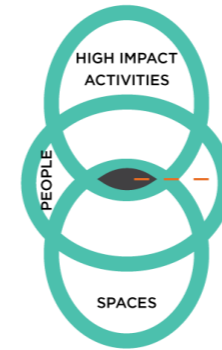
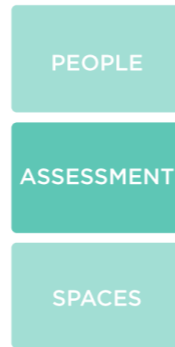
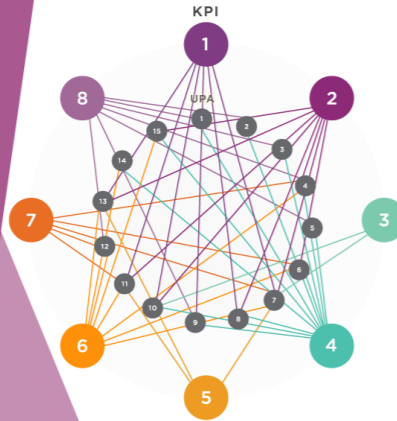
DEFINE
"OUR UNDERSTANDING"

DISCOVER
"OUR SKILL"

DEVELOP
"OUR KNOWLEDGE"

DELIVER
"OUR VALUE"

PROCESS



VALUE & METHODOLOGY

Organisational KPIs

High impact staff activities

Financial proxies

Deadweight and attribution proportion

Occupant hierarchy of needs and psychological type

Attribution of value to spaces and user groups

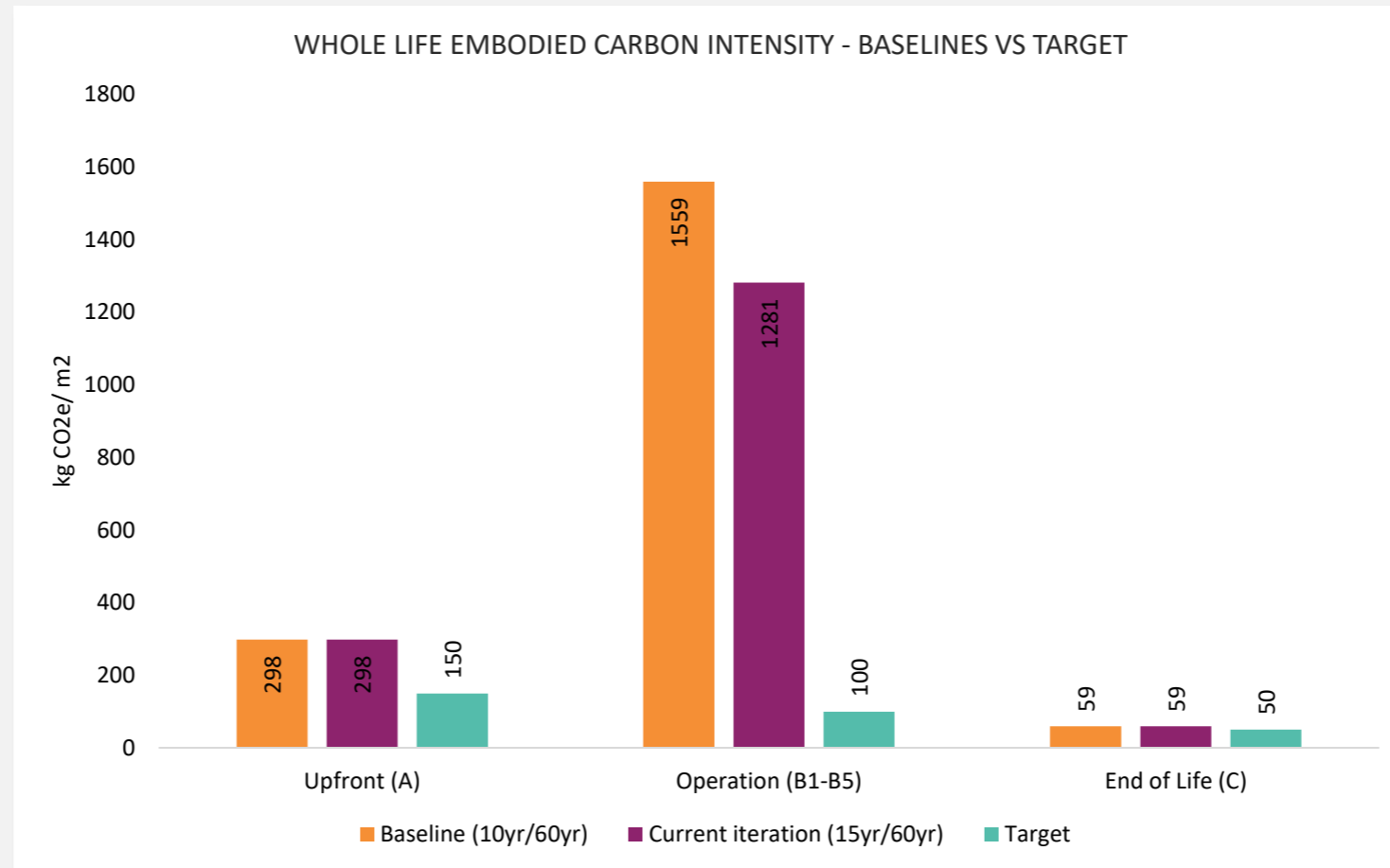
Projection of value improvements for each KPI, for each space, for each user group

Deliver clarity on:

- Which assets/spaces to invest in
- How much of an investment to make for a projected sustainable return
- Where to take action in order of priority

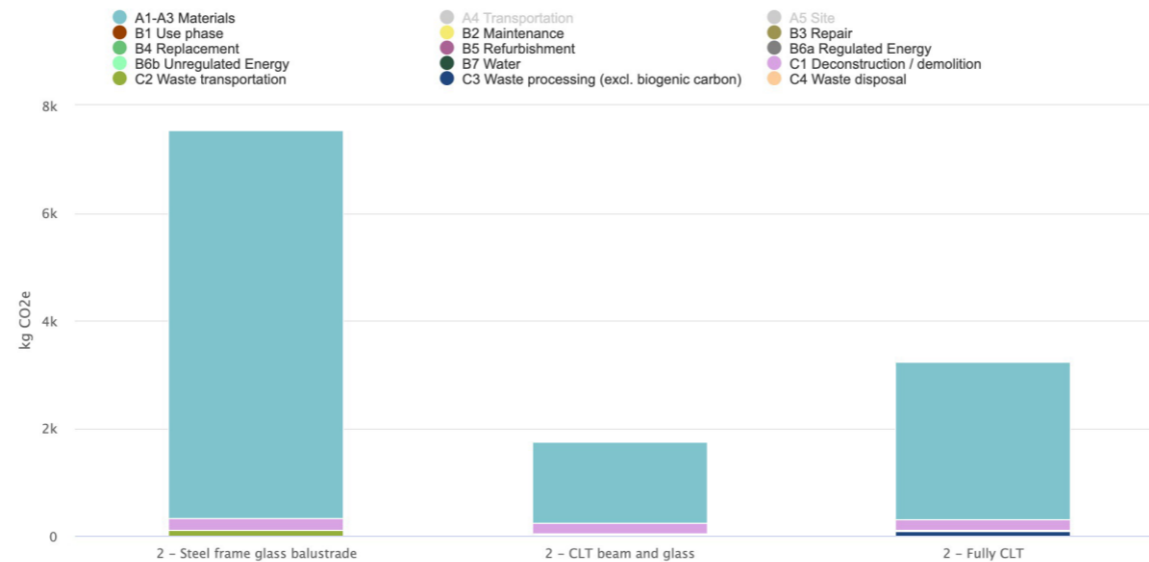


REAL ESTATE & PROJECT NET ZERO STRATEGY & WLC MEASUREMENT





REAL ESTATE & PROJECT NET ZERO STRATEGY & WLC MEASUREMENT



COMMENTARY & NOTES

1. Assumed 3no staircases in total and these figures shown are the total for all three.
2. Any timber elements are advised to be designed for disassembly to allow timber life extension beyond 2050.
3. Alternative option to 3 can also include a solid MDF/other reclaimed side solid baluster instead of CLT. Framing would still need to be considered.
4. All options include a stainless steel balustrade but this could also be a solid timber or rope material option that would reduce carbon further.
5. The impact from creating an opening in a floor slab is estimated around 1800 kgCO₂ to have as a reference when considering creating voids.

A. STEEL FRAME + TREADS & GLASS



B. CLT FRAME + TREADS & GLASS

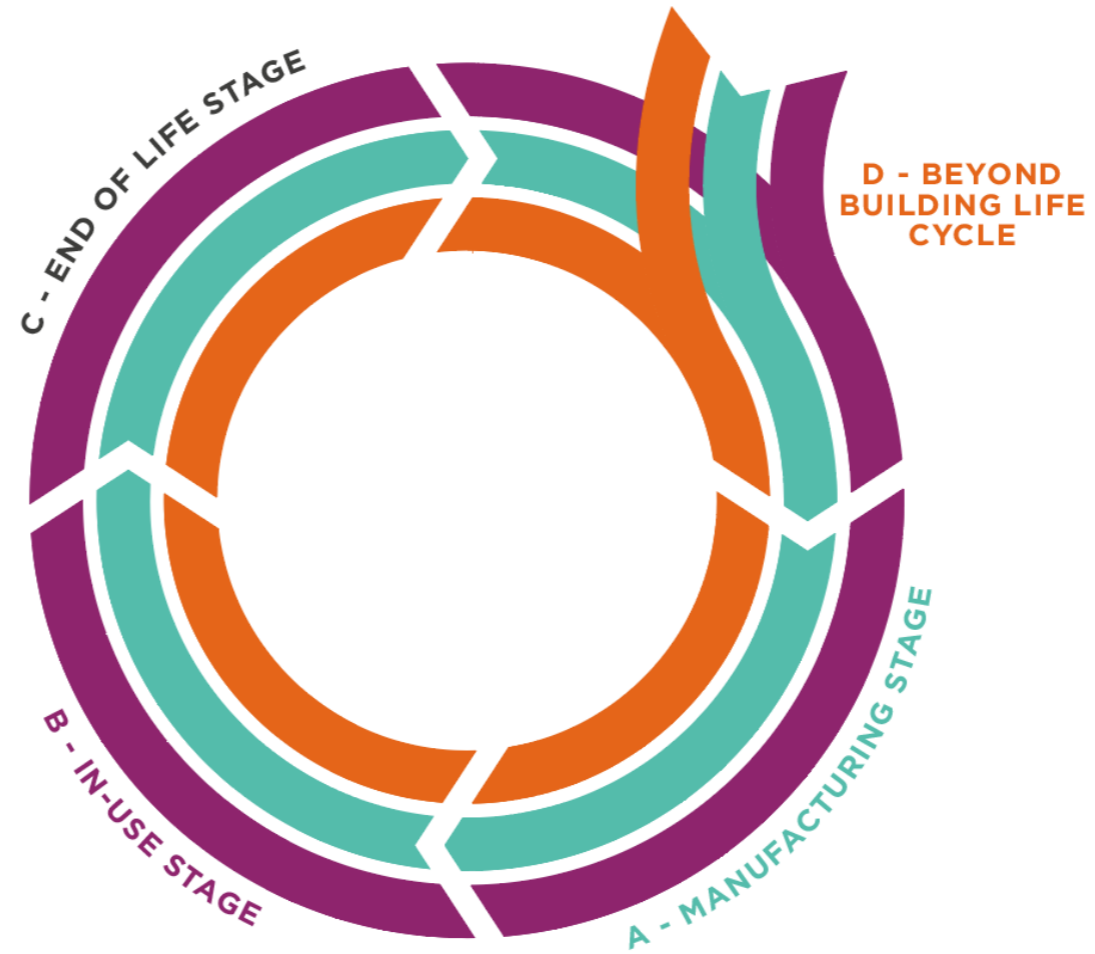


C. CLT WHOLE BODY





DESIGN SYSTEMIC LIFECYCLE THINKING



Thank you!

Elina Grigoriou

Elina@grigoriou.co.uk

T +44 (0)207 580 0611

www.grigoriou.co.uk



Nick Woodmore

Sustainability Design Manager
Overbury

Why we need an agile approach
to measuring impact



Why we need an agile approach to measuring impact

Nick Woodmore

Sustainability Design Manager

28/02/20234

[overbury.com](https://www.overbury.com)

A modern office interior featuring a large, vibrant green living wall on the left, a white geometric chandelier hanging from the ceiling, and a series of glass-walled meeting rooms on the right. The floor is a light-colored, textured material.

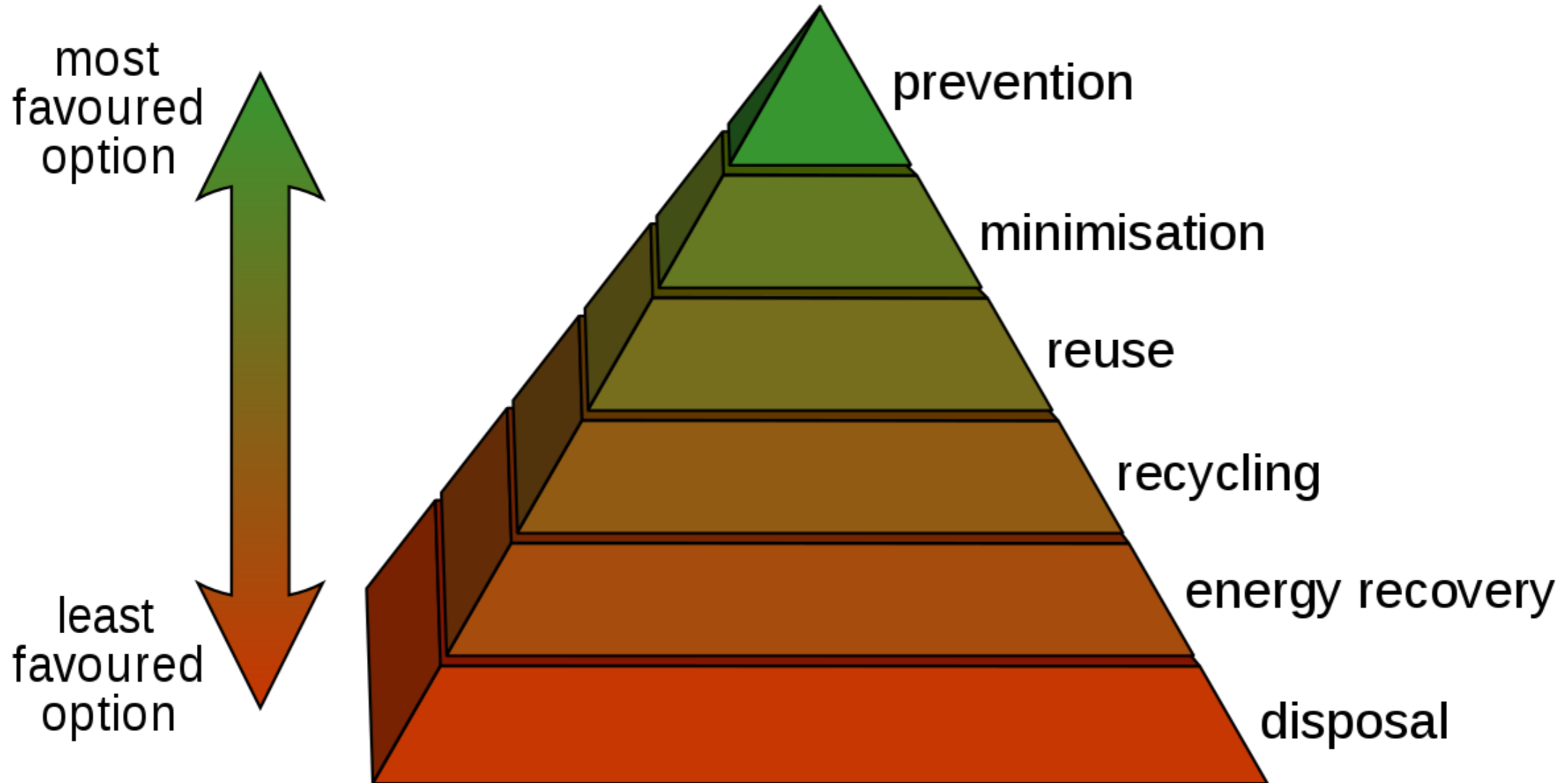
Agenda

- Why we must be agile in Fit Out
- Data led decisions
- Industry drivers
- Key takeaways

Why is important that we're agile?



Establish a hierarchy





Data, data, data!

Why is Carbon a key focus?

- **2023 World Economic Forum report – 6 of top 10 risks to investment were related to climate, and the top was climate action failure.**
- **Based on different scenarios, we risk seeing temperatures rise in the 21st century by between 1.8 and 4C.**
- **UK Government committed to Net Zero by 2050.**
- **60 of the FTSE100 companies have signed up to the United Nation's Race to Zero campaign**
- **2021: EU committed to cut carbon emissions by at least 55% by 2030, compared with 1990 levels.**
- **2021: US to cut carbon 50-52% below 2005 levels by the year 2030.**
- **The built environment contributes around 40% of total carbon emissions in UK.**
- **80% of the 2050 building stock already exists today**

Scope 1, 2 and 3 Emissions

Scope 1

- Fuel combustion
- Company vehicles
- Fugitive emissions

Scope 2

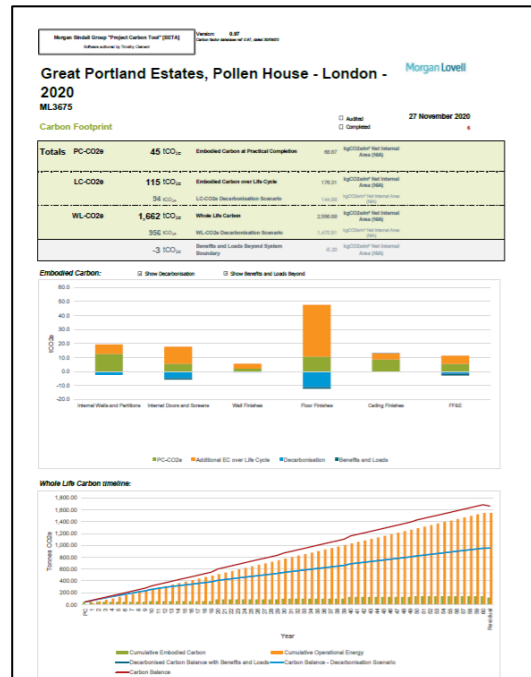
- Purchased electricity, heat and steam

Scope 3

- Purchased goods and services
- Business travel
- Employee commuting
- Waste disposal
- Use of sold products
- Transportation and distribution (up- and downstream)
- Investments
- Leased assets and franchises

Carbon Tool

- We have developed a carbon tool that can calculate the embodied carbon of a project - Carbon/ca
- Using the quantities of all materials and products going into a project; waste info, energy used on site etc
- Written in line with RICS Whole life carbon guidance.



Outputs and Project Scope

Mandatory (RICS) Scope 3 Total	YES S1	NO S2	YES S3	YES S4	YES S5	YES S6	YES S7	YES S8	NO S9	NO S10	NO S11	YES S12	NO S13	NO S14	NO S15	NO S16	NO S17	NO S18	NO S19	NO S20	
Product	AS-13	(A1)	AS-14	AS-15	AS-16	AS-17	AS-18	AS-19	S1-23	S4	(S4)	(S4)	ES	ES	ES	ES	ES	ES	ES	ES	ES
Product Category	Cat 1	Cat 1	Cat 4	Cat 5	SCOPE 1 and 2	SCOPE 1 and 2	SCOPE 1 and 2	SCOPE 1 and 2	Cat 10	Cat 11	Cat 11	Cat 11	Cat 11	Cat 11	Cat 11	Cat 11	Cat 11	Cat 11	Cat 11	Cat 11	
Product Description	Purchased Goods and Services	Transportation and Distribution	Waste generated in operations	Processing of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	Use of solid products	
Comments	Includes off-site production	100% Regenerative																			
Internal Walls and Partitions	1.5	0.0	0.3	10.7	0.0	0.0	0.0	0.0	N/A	4.3	1.9	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.4	0.0
Internal Doors and Screens	5.5	-0.4	0.1	0.3	0.0	0.0	0.0	0.0	N/A	11.6	6.8	-0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.4	-0.9
Wall Finishes	6.9	-0.3	0.2	3.8	0.0	0.0	0.0	0.0	N/A	3.3	2.7	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1	0.0
Floor Finishes	6.9	0.0	0.0	3.8	0.0	0.0	0.0	0.0	N/A	36.2	25.0	-1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.4	-1.1
Ceiling Finishes	0.8	0.0	0.1	7.7	0.0	0.0	0.0	0.0	N/A	3.1	3.3	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.4	0.0
FF&E	6.1	-1.0	0.0	0.2	0.0	0.0	0.0	0.0	N/A	4.0	2.0	-1.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.9	-1.4
Services (Building Integrated)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1339.9	0.0	654.6	207.3	0.0
TOTAL ALL:	21.4	-1.8	0.8	24.3	0.0	0.0	0.0	0.0	62.6	42.1	-3.4	0.0	1339.9	0.0	654.6	207.3	10.7	-3.4			

Scope 9 (GHG Category)	CO2e	CO2e	CO2e	CO2e	CO2e	CO2e
Total	20	1	0	1,808	7	
Limit	1000e	1000e	1000e	1000e	1000e	1000e

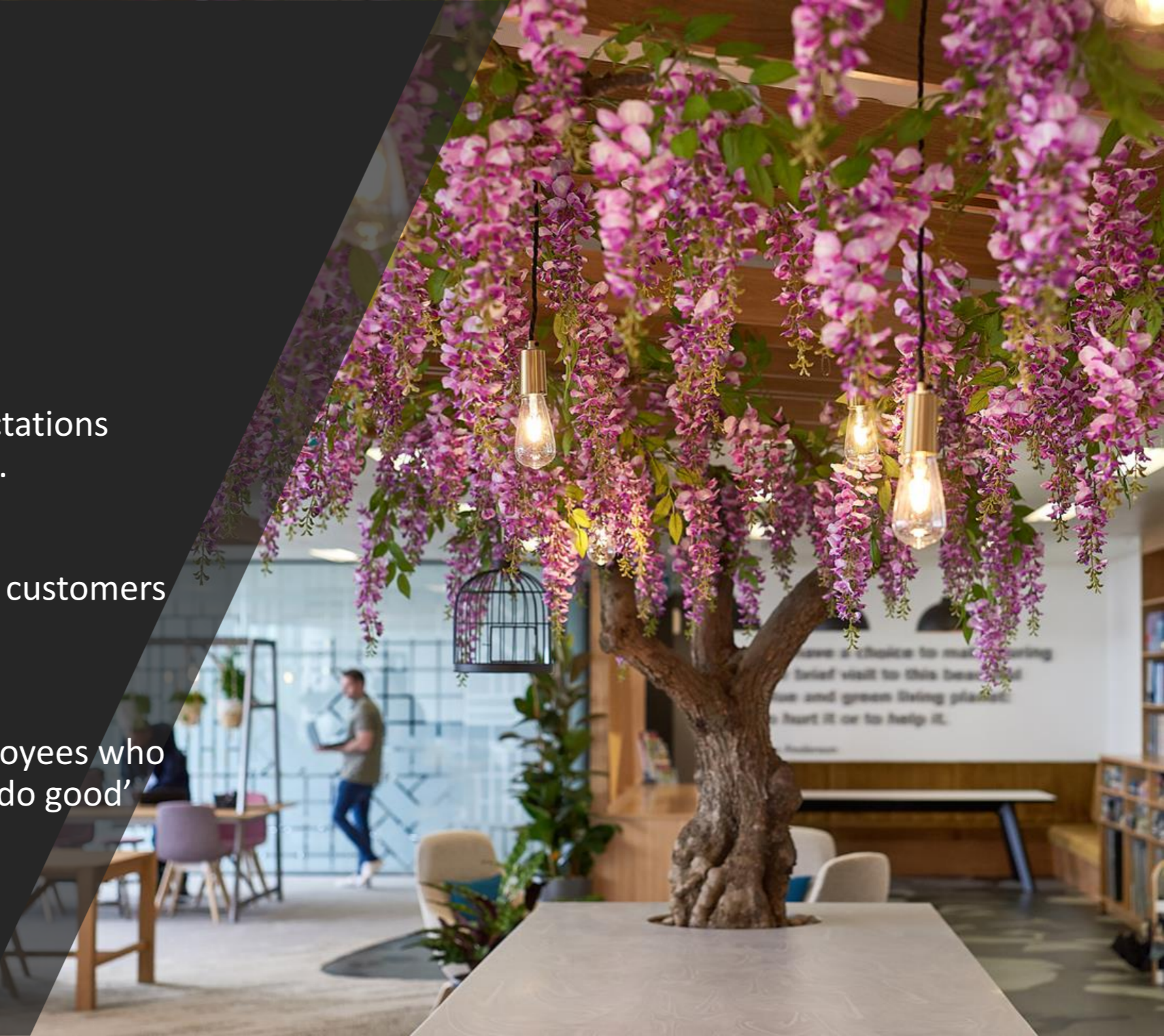
Site Waste	Total	17 01 01 Mixed packaging	Construction and demolition waste	Concrete, brick, stone and ceramics	17 02 01 Wood	17 02 02 Glass	17 02 03 Plastics	17 02 04 Hazardous materials	17 04 01 Mixed metals	17 04 02 Hazardous materials	17 04 03 Organic materials	Hazardous waste (excluding asbestos)	17 04 05 Other	17 04 06 Hazardous soils and stones	Hazardous soils and stones
Theoretical Tc	3,119	1,880	0,073	0,008	0,364	0,102	0,000	0,000	0,000	0,000	1,147	0,000	0,000	0,000	0,000
Actual Tc	56,206	0,700	4,420	0,000	0,000	0,000	0,000	0,000	0,000	0,000	49,806	0,000	0,000	0,000	0,000
Theoretical TCO2e	6,364	4,613	0,085	0,034	-0,023	0,202	0,000	0,000	0,000	0,000	0,036	0,351	0,000	0,000	0,000
Actual TCO2e	18,881	1,957	7,868	0,000	0,000	0,000	0,000	0,000	0,000	0,000	9,937	0,000	0,000	0,000	0,000

Totals / Metrics	Total	Metric 1	Metric 2	Metric 3	Total (Decarbonized)	Metric 1	Metric 2	Metric 3	Total	Metric 1 (RICS)	Metric 2 (RICS)	Metric 3	Total (Decarbonized)	Metric 1 (RICS)	Metric 2 (RICS)	Metric 3	Operational Energy Metrics
PC-CO2e - Embodied Carbon at Practical Completion	44.73	55.57		4,475.45	44.73	55.57		4,475.45	0.00	0.00		0.00	0.00	0.00		Annual emissions (tCO2e) by report	
LC-CO2e - Embodied Carbon over Life Cycle	114.60	170.31		11,460.15	114.60	170.31		11,460.15	0.00	0.00		0.00	0.00	0.00		Operational Energy Metrics	
WL-CO2e - Whole Life Carbon	1,667.04	2,350.00		166,104.41	1,667.04	2,350.00		166,104.41	0.00	0.00		0.00	0.00	0.00		Operational Energy Metrics	
Benefits and Loads Beyond System Boundary	-3.36	-5.30		-336.14	-3.36	-5.30		-336.14	N/A	N/A		N/A	N/A	N/A		Operational Energy Metrics	

The occupier is key

3 key drivers:

1. Investors - Increased pressure/expectations from investors/funds on ESG metrics.
2. Customers- Increased pressure from customers for brands who act responsibly.
3. Staff - Increased pressure from employees who want to work for organisations that 'do good' and/or 'have purpose'.



Certifications are vehicle for clients to relay what's important

1. Environmental

- BREEAM
- LEED
- SKA (Fit out only – Offices, Retail or HE)





2. Wellbeing

- WELL Building
- Fitwel

3. Energy / Operational Carbon

- BREEAM In Use
- NABERS (performance)
- EPC (Design only)

What if Eutrophication became the key focus tomorrow?

Parameters	Product stage
	A1 / A2 / A3
 Global Warming Potential (GWP 100) - kg CO ₂ equiv/FU	1.89
 Ozone Depletion (ODP) kg CFC 11 equiv/FU	5.38E-08
 Acidification potential (AP) kg SO ₂ equiv/FU	7.17E-03
 Eutrophication potential (EP) kg PO ₄ ³⁻ equiv/FU	2.71E-03



ENVIRONMENTAL IMPACTS EN 15804 + A1		Unit	A1 - A3
Global warming potential	GWP	kg CO ₂ -eq	2.86E+00
Depletion potential of the stratospheric ozone layer	ODP	kg CFC11-eq	3.18E-07
Acidification potential of land and water	AP	kg SO ₂ -eq	7.63E-03
Eutrophication potential	EP	kg PO ₄ ³⁻ -eq	1.14E-03

Key Takeaways

- **Establish a hierarchy**
- **Look to gather data before it's needed**
- **Market drivers are key, we need to predict trends early**



Iain McIlwee
Chief Executive, FIS

The SKA philosophy

The SKArating Philosophy

28 February 2023, Iain McIlwee

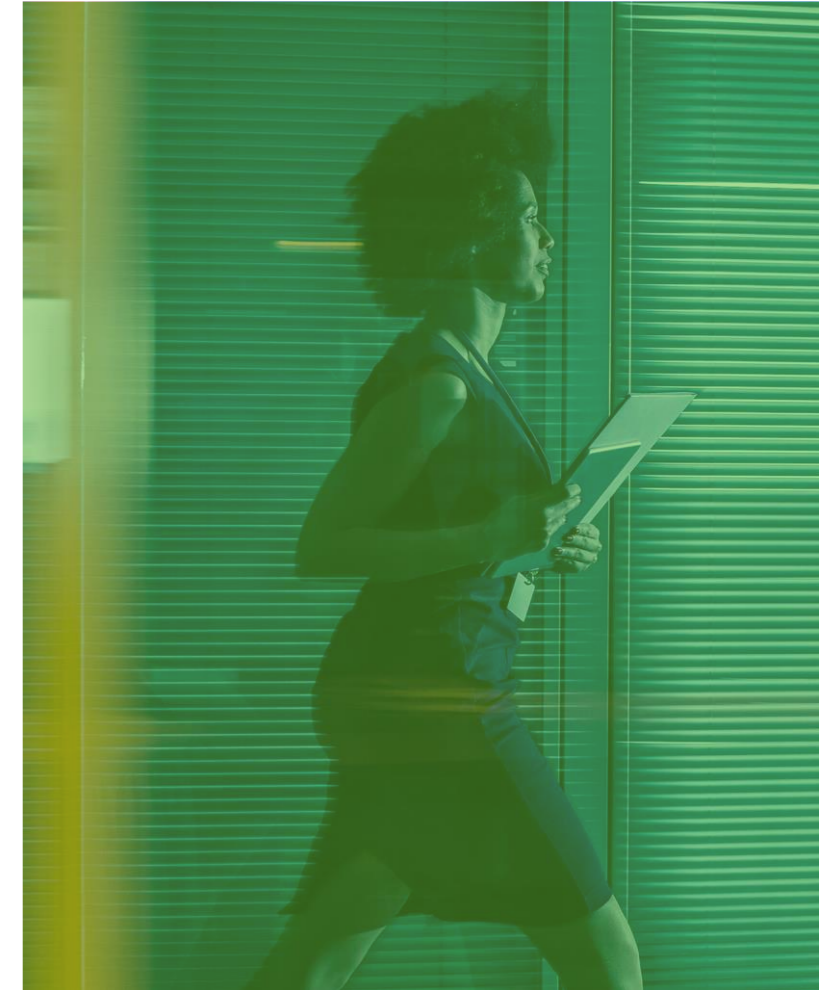




Why SKArating?

Our Purpose

- **To reduce** the negative environmental impact, and increase the positive economic and social impact of the fit-out sector.
- **To operate** a sustainability rating tool owned by the fit-out industry for the fit-out industry.
- **To promote good practice** across the sector and evolve SKA Rating to meet changing sustainability requirements´
- **To reinvest revenue** generated in developing the tool and its impact



Ska Rating



Good Practice Measures for Offices

Ska Offices 1.2



Contents

The Good Practice Measures for Offices are arranged by issue alphabetically and within each issue by Ska rank from highest to lowest.

An alternative contents list follows that presents the Good Practice Measures for Offices in order of Ska rank from highest to lowest.

Issue	Ska rank	Ska ID	Good Practice Measure	Page
Energy & CO₂				
1		P10	Reduce lighting energy in use	9
2		P11	Reduce small power in use	12
4		D01	Energy efficient lighting	14
5		D02	Lighting controllability	15
6		E01	Lighting controls	16
10		E02	Energy efficient lamps	17
18		E05	Energy efficient heat pumps	19
27		E07	Pipework insulation	20
28		E08	Tenancy sub-metering	21
29		E04	Energy efficient light fittings	23
30		E06	HVAC zone controls	25
41		E09	End-use sub-metering	26
44		E22	IT and comms room energy consumption	28
48		D03	Energy efficient HVAC	30
49		D66	Energy modelling	32
59		D53	Electrical management	33
68		E11	Efficient boilers	35
69		D04	Daylighting	36
70		E24	Energy efficient hand-dryers	37
71		D05	Energy efficient DHW	38
86		P01	Reduce fit-out energy use	40
105		P09	Display Energy Certificates (DECs)	41
Materials				
11		M05	Hardwoods	42
21		D20	Timber	44
35		M07	Raised flooring systems	46
45		M01	Blockwork	48

SKArating®



Daylighting

Criteria

Average daylight factor is 2% or greater.

Scoping

This measure applies if alterations are made to the building façade, with the opportunity to redesign glazing.

The criteria apply only to occupied floor spaces such as office/workshop spaces. The criteria do not apply to circulation spaces or non-occupied spaces such as toilets and store rooms.

Assessment

At design stage: obtain calculations demonstrating the daylight factor achieved, supported by elevations and floor plans.

At handover stage: review the as-built drawings to ensure that the designs have been implemented. If the as-built drawings are not the same as the design, then the contractor may need to provide updated calculations to demonstrate that the installed glazing still meets the criteria.

At occupancy stage: this measure is not assessed. The measure is achieved by default if it was achieved at handover stage.

Rationale

Effective use of available daylight reduces the need for artificial lighting and provides a more natural environment for building occupants. Although there is no maximum daylight factor it should be recognised that 'flooding' natural light into a workspace is not good practice.

Guidance

Lighting for buildings. Code of practice for daylighting, BS 8206-2:2008, BSI, 2008.

Lighting Guide 10: Daylighting and Window Design, CIBSE, 1999.

Fit-out
Benchmark &
Assessment
Tool

Energy and CO₂

Issue

ID **D04**

Rank **69**

Ska Offices
Version **1.2 2013**

www.rics.org/ska

lease email s




Design and Planning

Delivery and construction


Occupancy Assessment

Our Values




Integrity and robustness

SKArating's principle client is the planet. We will use our influence to nudge the industry by constantly evolving good practice. We won't just do what the industry asks of us.



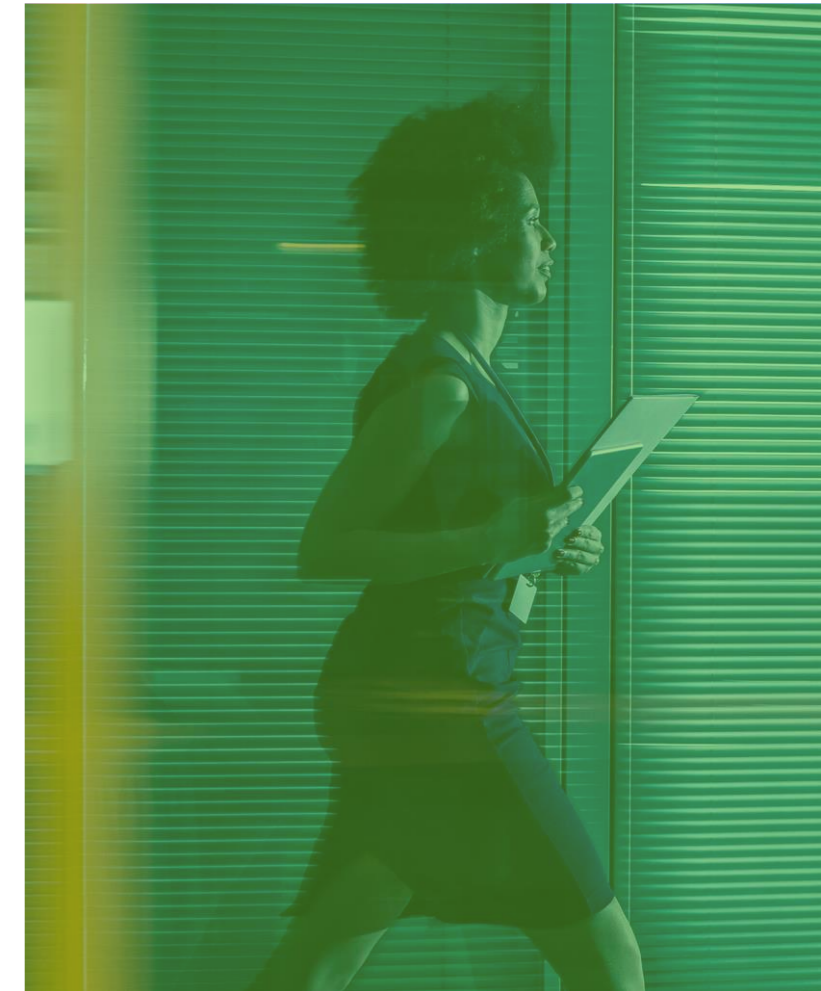
Transparency

SKArating Ltd will be fully transparent on who is providing funding, what we are doing with the funding and what we are doing the with insights we collect.



Shared benefit

We want everyone to get something from SKArating



FIS

FINISHES & INTERIORS SECTOR

Panel Debate

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Trolldtekt® 
Acoustic Solutions since 1935
By Kingspan

FIS

FINISHES & INTERIORS SECTOR

We'll be right back

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