

Sustainable Design Collective

Thursday 24th March 2022 – Shaw Contract showroom

Core Team:

Harsha Kotak, WOD; Joanna Knight, WOD; Ella Fathi, Oktra;
Georgia Elliott-Smith, Element 4

Collective Members:

Angela Dapper, Grimshaw; Laura Wardrope, JLL; Asif Din, Perkins & Will;
Rhiannon Laurie, Gensler; May Fawzy, MF Studio / BIID; Dicky Lewis, White Red Architects;
Lucy Bagshaw, TP Bennett; Emily King, BDP; Gurvinder Khurana, M Moser;
Natasha Hewlett, Peldon Rose; Ana Rita Martins, Woodalls Design; Nigel Tresise, Align;
Deepak Parmar, MCM; Fritha Selwyn-Jones, Sketch Studios;
Jennie GreenWalker, MAA Architects.

Supporters: Shaw Contract; Steelcase; Sedus UK; Orluna LED; Workplace Insight

Purpose:

A 'think tank' group committed to acting as a collective within the workplace design community to identify developments and 'best practice' relating to sustainability.

This report highlights some of the points raised during the two hour discussion. We have also flagged some key potential outcomes for the future.

Meeting Two: Eco Design

This meeting was focussed on 'Eco Design' – although all agreed this term can be misleading and subject to a very varied interpretation.

“Eco design involves designing or redesigning products, services, processes or systems to avoid or repair damage to the environment, society and the economy.”



The Three 'P's

Places:



“Fitout has been late to the party in terms of understanding and implementing change in relation to carbon impact.”

“Furniture, for example, represents at least 30% of the total carbon impact during the life of a building.”

“We are now undertaking an LCA (Life Cycle Assessment) at Stage 2 – whether the client wants it or not!”

“Within the D&B sector, we are rarely asked to undertake embedded carbon calculations. This must change.”

“Simply collecting EPDs is a ‘useless sport’ – we must look at the data and understand the impact.”

“Carbon calculations must be undertaken much earlier in a project. Material passports must be implemented and we, as an industry, have the opportunity to influence this.”

“The building manager does not generally get involved until the point of occupation. They need to be involved ‘early doors’ during the design and implementation phases.”

“We need legislation to ensure materials will be handled appropriately at end of life.”

“Pre-demolition audits can help quantify what can be reused in the future.”

“Design life of a building is limiting reuse of the building itself. Who is responsible and will guarantee the integrity of a building beyond its design life?”

Products / Materials:

Where is the accountability for reuse? “Passporting will ensure future designers have the necessary information to maximise reuse.”

“We have built comprehensive O&Ms (Operations and Maintenance) and are trialling within our own workplaces.”

“Building standards could impose the inclusion of O&Ms including carbon data.”

“Revit files can be used as a material ‘store area’.”

A Revit-based tool was highlighted: H/B:ERT is an open source Revit-based tool that enables design teams to analyse and visualise the embodied carbon emissions of different building components and construction material options at any time during the design process.



<https://www.hawkinsbrown.com/services/hbert>

“We are asking the QS team to look at remaining assets for reuse opportunities.”

“We need better ‘buy in’ from the client. We need to help educate our clients in terms of the carbon savings through reuse.”

“Reuse of existing, residual assets can be difficult. The client frequently doesn’t like what’s there!”

“We, as designers, need to show the client how to reuse assets. We can tell the story and ‘sell’ through our creativity the reuse opportunities to the client.”

“Consider the fashion industry – no one needs to be convinced that vintage is cool!”

“We will always find a ‘second home’ for assets including donations.”

People:

All agreed that collaboration in the spirit of non-competition is an essential ingredient in achieving greater focus on environmental impact and reducing carbon. Goal 17 of the UN's Sustainable Development Goals states "*strengthen the means of implementation and revitalize the global partnership for sustainable development.*"

A sustainability manager can't be solely responsible. "They can be a custodian, but it has to be everyone's job to enquire and investigate impact."

"Senior management must support the sustainability commitment otherwise it's not within the DNA of the business."

"It's important for staff to have ownership and responsibility. We have now introduced the subject into performance reviews. Measurements include, for example, attendance of CPDs."

Certification and membership of BCorp, for example, requires an amendment to a company's Articles of Association to reflect a commitment to a material positive to society and the environment. "Environmental and social impact have equal status."

INNOVATIVE PROJECT EXAMPLE



Structural engineers, Elliott Wood, joined the SDC to describe the development of the Carbon Calculator tool and, most importantly, why they have chosen to release it on an 'open source' basis.

The Structural Carbon Tool, developed with the Institution of Structural Engineers, is an open-source carbon estimator that Elliott Wood created to help structural engineers minimise the use of new materials in projects. The practice donated the tool to the industry for free because they wanted to help shift the industry towards making embodied carbon calculations the norm, and to empower smaller engineering firms to reduce the embodied carbon of their designs.

Since its launch, it's been downloaded over 6000 times by designers around the world, making it the IStructE's most downloaded resource of 2021. The tool is has been upgraded in line with revisions to the 'How to Calculate Embodied Carbon' guide and is available at <https://www.istructe.org/resources/guidance/the-structural-carbon-tool/>.

OUTCOMES

Should we as an industry be lobbying for change?

Should there be legislation to ensure materials are handled appropriately at end of life?

Should there be legislation to limit waste?

Would a carbon tax accelerate change?"

Should the polluter pay? <https://www.zeroc.org.uk>

Should we be encouraging trade associations to work collaboratively to develop and implement viable and affordable product measurement and certification schemes as well as practical guidelines and standards?

Could building certification standards include further measures, such as O&Ms, to facilitate greater future reuse?



FOOTNOTE:

The Sustainable Design Collective will meet every two months between January and September 2022. Each meeting will address different initiatives designed to tackle the impact on our environment.

A summary document will be published after each meeting which will be hosted on the Sustainable Design Collective's web site – an example of knowledge sharing.

www.woduk.com/sdc