Commitment Forum - April 2021

The following notes summarise the discussion held on the 'cost-related barriers to net zero carbon buildings' at the Commitment Forum on 29 April. The notes have been broken down into three challenges, eight specific barriers, and associated opportunities for how these barriers can be overcome.

This meeting was open to c. 42 UKGBC member signatories to the Net Zero Carbon Buildings Commitment, representing stakeholders from across the property and construction value chain. The notes are being made publicly available to help grow the knowledge pool on barriers and opportunities to delivering net zero carbon buildings at scale. If you would like to provide any feedback on these notes, please contact us at ANZ@ukgbc.org.

Challenge: Making the business case

	Barriers	**Opportunities**
1.	**Unavoidable cost uplift** - Including embodied carbon modelling (EPDs/LCAs), additional consultant fees, upskilling the team, certifications etc. - Including net zero new developments, fit outs, electricity procurement from heat pumps, low embodied carbon materials etc.	**Taking a whole life cost perspective** - Need more data, evidence and examples of cost savings from net zero strategies e.g. energy efficiency. Could produce an energy/cost matrix based on evidence and true cost assessment using £/kgCO2 saved. - Needs to view cost through a more holistic whole-life cycle lens, which understands that money is spent and saved in different life-cycle stages / times.
2.	**Lack of understanding on the potential value uplift** - Need a better understanding of the value improvement from net zero buildings to use as evidence that they are a worthy investment and that initial heighten costs will be worth it. - Need to understand the price of not doing something. The impact of the brown-discount as the green market grows.	**Using data/evidence to understand potential value** - Quantifying value makes the cost barrier easier to jump because it highlights the importance of investing now to capitalise on future profits. Tools to calculate value include the Construction Innovation Hub's new Whole Life Value Tool, CRREM pathways, and future resilience considerations. - Building up evidence of the additional value, which may already be available to landlords anecdotally in the market e.g. what is the true £/sqft rental value of a net zero building and how does it compare to a 'brown' building? **Communicate the additional value clearly** - Use the net zero aspect of buildings as a marketing tool for your organisation. Capitalise on the fact that net zero is a big selling point and many would purchase net zero buildings for a 'green' premium. - Develop a net zero verification/certification to help publicise net zero buildings within the market and amplify their value to ensure net zero and low carbon buildings are being recognised. Ensure ease of access to the verification scheme to make it available to the mass market.
3.	**Ensuring that net zero is a priority** - There are competing priorities for expenditure. - There are competing priorities within the sustainability field itself: health and wellbeing, Covid-secure etc. How do we ensure net zero carbon is at the top of the list?	**Pressure from the market** - Highlight that tackling carbon in real estate is an essential step to addressing an organisation's carbon emissions. This is becoming an increasingly important USP for investors, clients and employee engagement. - Social costs can be factored into financial modelling of net zero – the issues should not be an externality – for example, the cost of adaptation and resilience.

		- As completely as possible outline benefits along with costs - i.e. societal, reputation, employee retention, health benefits, ability to win work.

Challenge: Ensuring buy-in throughout the value chain

	Barriers	Opportunities
4.	**Increase in budgets** - Low embodied carbon materials are more costly in the short term. Increased costs across the board are not attractive to clients and may make profit margins unviable.	**Get net zero carbon into the project vision early** - Early engagement across the value chain will allow for any increase in budgets and associated instability to be better understood. This will also allow designers, engineers and architects more scope to innovate. - Looking at the whole-life costing and weaving in potential costs from retrofit early will highlight the importance of spending more from the start. **Industry-wide collaboration and knowledge-sharing** - Need for insurers to regulate and outline performance of low embodied carbon materials (e.g. CLT) to encourage investment and demystify myths around their risk. - Need for developers/contractors to leverage their combined power on the supply chain to ensure they are making available the demanded supply – e.g. industry wide initiatives such as SteelZero. - Need for the brief to be developed with the client from the outset to ensure net zero is embedded within the plan. - To encourage innovation and mitigate against risk organisations could work as partners on a number of projects to share/spread risk and minimise impact. - More openly accessible resources including a guide to the costs of net zero solutions or experiences from the industry would enable peer learning and reduce the feeling of uncertainty of the market.
5.	**Uncertainty in budget increase** - Increases in budget after initial investment means clients have to go back-and-forth with investors. - The costing of low carbon materials (e.g. CLT) is less defined than traditional building materials due to lack of availability from supply chain and support from insurers. These uncertainties mean project teams are building in large margins to their net zero plans to mitigate against risk of overspend. This is unattractive for developers and contractors who normally work on slim margins. - An innovative project needs to be prepared to fail. But as a developer you must prioritise the delivery of the project over the possibility of innovation.	

Challenge: Tackling inconsistent approaches across the market

	Barriers	Opportunities
6.	**Inconsistencies within policy** - Lack of guidance from local authorities means that net zero is not being mandated and only added in as a 'nice-to-have'. This means, in terms of cost, net zero buildings are not working on a level playing field compared to traditional buildings.	**Needs to be embedded in planning legislation – for everyone to take it seriously** - Need for clear incentives from government are needed as an indication of buy-in. If requirements change, the playing field will be equalised and net zero will come into the mainstream. Cost of net zero would be less of an issue across the value chain as it would become a requirement.
7.	**New builds vs. existing building stock** - There is a large variation between new build and retrofit of net zero carbon built environment	**Industry-wide collaboration and knowledge-sharing** - More openly accessible resources including on how to approach retrofitting old-stock and sharing experiences

	projects. These inconsistencies make it more difficult to predict costings. - Within retrofitting, there is a large variation of opportunities and limitations – some can be fit out to net zero while some heritage buildings would struggle to achieve interim energy targets. Retrofitting is a bespoke exercise which limits predictability of cost.	from the industry would enable peer learning and limit remaking mistakes. - An industry-wide carbon price / carbon offsetting guide would reduce confusion – e.g. UKGBC's Renewable Energy Procurement & Carbon Offsetting Guidance for Net Zero Carbon Buildings.
8.	**Carbon offsetting** - Inconsistencies on how much businesses/projects spend on carbon offsetting means equal claims can be made for very different actual carbon-savings. - Significant inconsistencies between organisations makes planning to offset a bespoke exercise. If the cost of offsets comes out higher than expected, this could discourage offset implementation.	

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