



The Sustainability Debates – Built Environment Exchange 2016

The Sustainability Debates – Built Environment Exchange 2016 aims to bring together professionals, students, industry and clients to address the challenges of sustainability in the built environment. The multi-disciplinary debates are formulated in a polarised manner to help focus reasoning and identify new lines of thought.

Debate summary Energy Efficiency V. Wellbeing

The interactive pre-debate poll showed that given the choice between wellbeing and energy efficiency in terms of which is currently more relevant for creating and maintaining a sustainable built environment, the audience was pro-wellbeing – with a score of 62% to 38% for energy efficiency. That being said, the audience participation cards collected after the event showed the consensus opinion was that both sides should be considered in synergy. Energy efficiency and wellbeing are not mutually exclusive this was the key lesson to take from the discussion surrounding this debate.

With the results of the pre-debate poll on their minds, the Energy Efficiency Team opened the debate. Tom Taylor of BRE hit the audience with an overview of the impacts of climate change and the built environment's contribution to it. He argued that energy efficiency in buildings is instrumental in addressing climate change and reducing CO₂ emissions. Tom stated that ultimately, climate change can have the greatest impact on global wellbeing and that 'the argument for prioritising energy efficiency is clear, as it is about people and humanity in the most fundamental way imaginable'.

Prof. Derek Clements-Croome introduced the argument for the Wellbeing Team by presenting his 'Flourish Model' which denotes the physical, perceptual and economic factors of health and wellbeing. Derek furthered his case by focusing on the notion and associated cost of poor productivity and absenteeism as a result of poor indoor environmental quality. Carine Guenand of Skanska continued by noting that office space for the most part still isn't purposely designed for maximum human productivity. Prof. Andy Ford of LSBU countered by arguing that increased productivity and creativity



is a component in tackling the greater climate change issue. Andy continued noting that wellbeing is a tactical response whereby energy efficiency should be the overarching strategy. Tom built on this, stating that wellbeing is a nice to have but it isn't fundamental to survival.

A major argument from the Energy Efficiency Team was that we still have a long way to go in terms of establishing true energy efficiency and thus it must remain the focus of our activities until we achieve it. The Wellbeing Team countered by arguing that we may have a long way to go but buildings that are not performing as designed lead to poor environments and are affecting occupants' health. New medical evidence about the

health impacts of poorly designed and managed space was raised by Derek and he noted that you cannot ignore this new data. Carine enhanced this point with several facts about the impacts of poor air quality on health. This was opposed by the Energy Efficiency Team who identified that many wellbeing factors such as thermal comfort, air quality, and lighting are all energy efficiency factors as well – and also haven't been mastered yet.

Prof. Andy Ford stated 'good design is about understanding what people want – we don't understand this yet'. Prof. Derek Clements-Croome reinforced the importance of Andy's statement referring to the Brundtland definition and noting that sustainability is about people and therefore wellbeing should be the priority. He continued to raise the issue of human behaviour and that the performance gap exists because we do not understand how people use space, agreeing with Andy. The post-debate poll results were quite a shock as the tables turned completely – energy efficiency won with 60% of the vote to 40% for wellbeing. Judging by the audience participation cards it seemed that the survival argument and the impact of climate

change on both people and the environment took precedence as the fundamental issue that needs to be tackled.

A holistic understanding and approach

Despite the poll result, it was interesting to see that the audience participation cards responses were either; "I choose energy efficiency because wellbeing follows on from this," or vice versa. This was also reflected in questions raised by the audience. The conflicted views imply that we lack a shared understanding of the two sides individually and holistically. The audience questioned if we should be aiming to achieve both and the panel answered unanimously with 'yes'. A timeline issue was raised by an audience member, noting that other countries such as Australia are ahead of the game in taking a holistic approach to energy efficiency and wellbeing in buildings. Resources, knowledge, evidence, skills and expertise are all required to help us implement this holistic approach to a sustainable built environment, we know what we want to achieve, we now just need to work together to make it a reality!

Which leads nicely onto the next debate in the Built Environment Exchange 2016 to be held this autumn – 'Learning for a sustainable built environment – the Generalist V. the Specialist' To deal with challenges of sustainability in the built environment, is deep and narrow knowledge more beneficial or is shallow and broad knowledge more desirable? We know that collaboration between disciplines is essential, but so is detailed understanding of technical issues. How do we create graduates and professionals who have the skills and knowledge to create and maintain a built environment that is environmentally, socially and economically sustainable?

With thanks to Jon Bootland from the Passivhaus Trust and Sustainable Development Foundation for being an excellent debate chair.

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