



CAN WE STILL AFFORD SUSTAINABILITY?

A round table debate hosted by Building and Altro



THE WAY AHEAD

The sustainability agenda can no longer be seen as an optional extra – but can we afford to make it a reality? This was the question put to 10 experts at a round table discussion supported by Altro

As one of the most over-used words of recent times, sustainability means many things to many people. The one perception most people would probably share is that it costs more. Designers may argue that there is much that they can do in terms of passive ventilation, careful orientation or clever shading, but that only goes so far. To achieve the higher echelons of BREEAM accreditation involves embracing new technologies, difficult-to-source materials and expensive logistical challenges onsite. This means a bigger bill for the client, just when they can least afford it.

Contractors, consultants and architects have long argued that their influence over the eventual sustainability of a building is limited to what the client can be persuaded to pay for. As sustainability continues to cross over from a specialist to a mainstream concern, the argument has become easier – particularly as government guidance, building regulations and local planning committees throw their weight behind the cause.

But cash-strapped housebuilders and developers are caught between a rock and a hard place as finance dries up and sales dwindle.

So what does this mean for sustainability? Building and flooring and walling specialist Altro invited sustainability experts from across the industry to discuss where we go from here. 



WHO WAS ON THE PANEL

- Paul Davies** group carbon manager, Wates Group
- David O'Rourke** managing director, Eight Associates
- Andrew Mellor** group director, PRP Environmental
- Katherine Leat** architect, Architecture PLB
- Jon Mussett** head of building design consultancy, BRE
- Dan Jestico** head of research and development, Hilson Moran
- Tracy Perry** quality, environment and sustainability specialist, Altro
- Martyn West** specification manager, Altro
- Denise Chevin** editor, Building
- Phil Clark** sustainability blogger, Building



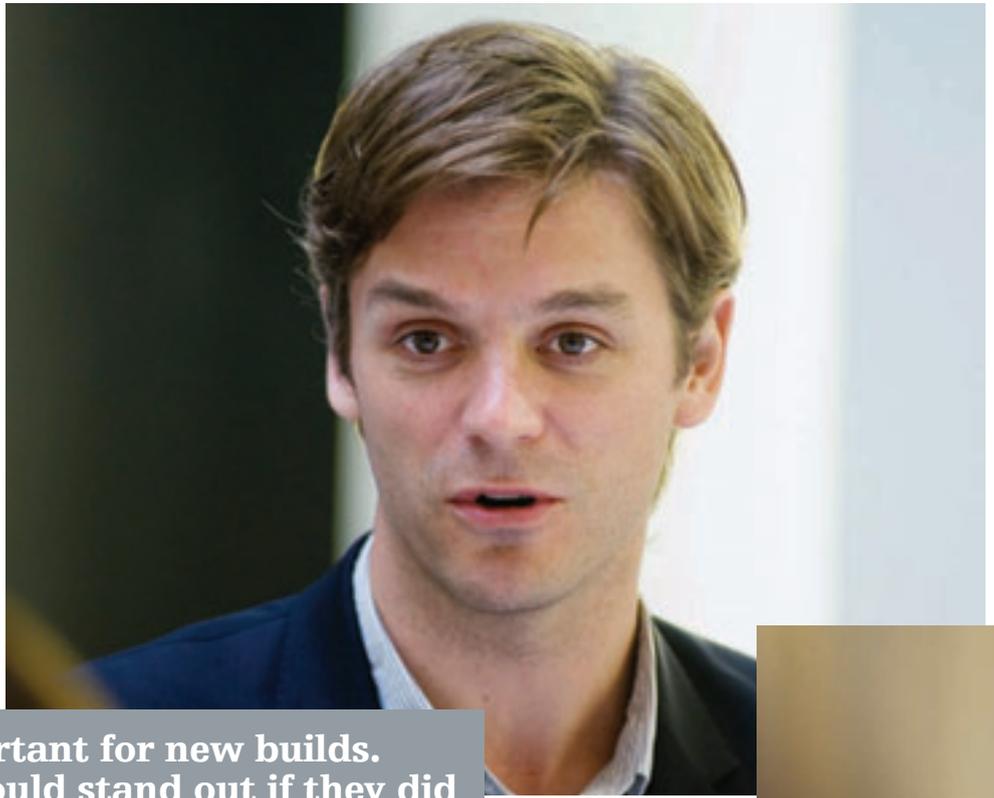
TOPIC 1: What impact has the current market had on sustainability?

Sustainability gained ground in the later years of the building boom. But mitigating the environmental impact of a project is a moot point when it's struggling to get off the drawing board. And with a desperate shortage of finance, the case for "luxuries" such as renewable technologies is a hard sell.

Building editor Denise Chevin kicked off the debate by asking the panel what impact the changing market has had on sustainability. Are developers and clients still willing to invest in it?

Encouragingly they still are, if in smaller numbers. There is still a scattering of exemplar projects where clients are refusing to deviate from a longer-term target to achieve zero carbon within, say, four years. Legislation, building regulations and planning policies are also exerting a forward pressure.

There's a more pragmatic financial angle too: developers know a building will be more attractive to buyers or tenants if it demonstrates better energy performance. Sustainability is a big selling point for



Sustainability is still important for new builds. A few years ago, clients would stand out if they did it. Now they stand out if they don't – their project would be seen as less valuable

DAN JESTICO, HILSON MORAN

many office occupiers, from government bodies to charities or big corporations.

Rising and volatile energy prices have also focused developers' minds on reducing consumption, particularly if they have a long-term stake in the building. In the offices sector, the balance of work has shifted from new build to refurbishment but energy efficiency is still an important issue.

But while clients are willing in spirit, the panel reported a reluctance to face up to the costs of their aspirations. It's no good specifying a project must achieve BREEAM Excellent if the design features that allow it to do so are cost-engineered out later.

Building users are also unwilling to compromise on



Clients who have a long-term stake in a development or refurbishment project are considering these issues much more thoroughly

DAVID O'RORKE, EIGHT ASSOCIATES

comfort if it conflicts with low-energy building solutions. Office occupiers still want air-conditioning at a steady 19°C, and while the government's Building Schools for the Future programme steers architects towards passive ventilation, this may contradict restrictions on acoustic levels.

TOPIC 2: Greenwash – and the unintended consequences of regulation

Since the earliest developments of sustainability, professionals have been wary of “greenwash”, which talks up the virtues of a scheme or technology while delivering very little.

As budgets tighten but sustainability rises up the agenda, there’s a perhaps understandable temptation on behalf of clients to keep the most visible elements of a sustainability strategy while jettisoning hidden, but more effective, design features. Where cost must be stripped out, the conditions imposed by planning permission are often the deciding factor. This puts a heavy weight of responsibility on ratings schemes and regulations that are still in their infancy.

The losers are nice-to-have features such as rainwater harvesting, while biomass boilers, which go a long way to helping a building meet planning requirements, are retained – and not always where they are most appropriate, felt the panel.

Although well-meaning, the planning requirement for 20% of energy to come from renewable sources often has unintended consequences alongside the positive benefits.

So how can standards be developed to avoid box-ticking and ensure a genuine reduction in a scheme’s impact? It was suggested that, rather than specifying technologies, building regulations could set minimum standards of energy use. The panel also felt that an annual review of regulations, identifying loopholes and closing them, would be a valuable exercise.

The biggest gap is in the statistics available to demonstrate the performance of buildings and how they are used after completion, said delegates. Post-occupancy evaluations will not only ensure that the minimum standards are being met but they will also feed back valuable performance information to architects, engineers and manufacturers developing new solutions. How else will we know if the theoretical model of a building under construction reflects its real performance?

This is already gaining ground. Under BREEAM offices 2008, if sustainability is value engineered out

Designers can claim buildings are low impact, but ultimately the atmosphere experiences real carbon emissions, not design carbon emissions, and that’s what we need to work on

JON MUSSETT, BRE



during construction, a building’s rating can be reduced after a post-construction review. What would be even more valuable, suggested the panel, would be a repeat inspection after the building has been in operation for a year. Wates Group has begun post-occupancy assessments on all projects where clients grant them access.

As with any regulation, the law of unintended consequences applies. What would happen if, for example, public funding was made dependent on a housing project’s actual performance matching its theoretical potential?

Making post-occupancy evaluations compulsory would also double the administrative burden and the



Clients are less willing to lower their expectations of climatic conditions than to lower their sustainability requirements. There should be a correlation between what we’re asked to do and the budget attached to it. There’s a lot we can do that doesn’t cost, but that only goes so far

KATHERINE LEAT,
ARCHITECTURE PLB



Legislation allows you to put a biomass boiler in and do nothing else

PAUL DAVIES, WATES GROUP

cost of inspections. This is a particular worry for smaller developments; the cost of complying with sustainability requirements is already hampering the efforts of individuals building their own homes.

On smaller housing developments a doubling of consultancy fees could make a dramatic difference to the financial viability of a scheme. And since about 80% of schemes involve fewer than 40 units, this would be an unwelcome obstacle. ©

TOPIC 3: Moving beyond carbon emissions – the case for lifecycle costs

The flipside to conducting post-occupancy evaluations is to take into account the lifecycle costs and energy use of a building when making decisions at design stage. To the frustration of the experts around the table, this kind of evaluation is rarely used on projects.

Taking a cradle-to-grave approach to materials and design, considering both the embodied carbon and likely lifespan of a product, could offer a dramatically different perspective. For example, PVC flooring may be relatively energy intensive to produce, but it will last many years longer than alternative products that may look better at face value.

On the other hand, technologies such as photovoltaic panels – often considered the last word in green building – will take many years, if ever, to



I'm regularly asked to talk about affordable sustainability by clients. Some, particularly registered social landlords, are looking at whole-life costs and we explain capital cost increases can be returned and savings made over time due to the longevity of the product and its performance

ANDREW MELLOR, PRP ENVIRONMENTAL

repay the embodied carbon of an energy-intensive manufacturing process. The panels offer an energy reduction of just 5-10%.

Similarly, natural materials such as sheep's wool or hemp may not give the same U-values as synthetic insulators but their life-time carbon costs mean they could be a better option in the long term.

A clearer understanding of how much energy or maintenance different products would require in the long term could affect clients' decisions on spending upfront.

Although the notion of whole-life costing has been around a while, it remains a difficult calculation. It's not just the complexity that manufacturers struggle with; for a company such as Altro, which has many suppliers, it can be a challenge to persuade supply chain partners to provide information – and they may charge a high price for doing so. In addition, firms may change their suppliers often, so any whole-life figure would be a guideline at best. Nevertheless, the panel welcomed Altro's efforts.

The Green Guide, which offers product ratings based on 13 performance areas, is currently the best reference available to specifiers. Yet it is still a flawed system, the panel suggested, as it is biased towards conventional construction. The methodology allots the top rating to the best six products, rather than requiring products to meet a minimum standard. That means – controversially for some – rockwool and sheep's wool both get an A rating.



Maybe we are too focused on carbon. There are other issues. PVC's great strength is its long life and durability

TRACY PERRY, ALTRO

TOPIC 4: What specifiers want from manufacturers

The cost of sustainability remains one of the greatest issues for everyone involved in a building project. Ultimately, the decision comes down to the client, so the project team delivering the building must convince the person paying for it that their design is viable.

The watering down of a specification is a frustration for architects and manufacturers alike because they have designed a solution to a certain standard. But for the contractor it is a constant balancing act – a price has been agreed but if the client wants expensive changes something has to give.

Even on a design-and-build contract, the client gets the final say on which products are to be used. The exception is when products have been key to meeting a specification – in which case the quantity surveyors will only change them on pain of death.

Another frustration for architects is the lack of information when they are making a decision. Manufacturers either cannot provide the relevant information or the importance of the sustainability message hasn't filtered down to the technical staff, so they are unable to provide it in time.

Altro discovered this when it surveyed hundreds of architects and designers last year. More than half said relevant product information on sustainable materials was hard to track down.

Perhaps the problem is that there is not yet an agreed set of indicators to compare manufacturers. Sometimes consultants find themselves drawing up briefs for environmental specifications with nothing to refer to.

Even when they do formulate a questionnaire, it's unlikely that most respondents could answer more than 10% of the questions. But if specifiers don't ask, they will never get the answers – and manufacturers will never get used to being asked.



One of our frustrations is that most of the time we have the answers. We just beg the opportunity to articulate them. All too often specifiers choose to look elsewhere because they don't think they will get answers

MARTYN WEST, ALTRO



I'm still surprised that there are manufacturers out there not waking up to it. I make a point of asking about sustainability, but some still refuse to provide information and it's surprising how many don't have a response. You get a lot of greenwash

KATHERINE LEAT, ARCHITECTURE PLB

ABOUT THE SPONSOR

Altro's dedicated sustainability website summarises the work the company has done to improve the sustainability of its products and business operations. The site provides straightforward information on products, recycling, energy and water usage, as well as facts about materials such as PVC.

Altro's strategy, 6 Steps to Sustainability, encompasses product development, carbon footprint, waste reduction, recycling, energy saving and social responsibility. The firm runs the industry's first safety flooring recycling plant, uses a cradle-to-grave life-cycle assessment scheme and 100% recyclable packaging and buys only from ISO 14001-accredited suppliers.

www.altro6steps.com



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Altro's safety flooring was the first to achieve the highest BRE rating. We also have installed the world's first in-house safety flooring recycling system. And being the first to do these things, who better to advise you about environmental compliance? After all, it is a jungle out there. Ask us how you can answer environmental regulations by contacting 01462 707700 or enquiries@altro.com

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