

THE FUTURE OF SUSTAINABLE HOUSING: CREATING A NEW STANDARD

It has been stated by the Government that the role of the Code for Sustainable Homes will be 'wound down' and local authorities will have less power to impose higher sustainability standards. The BRE have asked what lessons can be learnt from the Code and what a new, optional sustainability standard for housing might look like.

So what are the key sustainability challenges facing housing over the next 25 years? **We believe the most pressing to be overheating, daylight levels, climate change adaptation, efficient use of materials and green space.**

While it's clear much more work to mitigate climate change is needed, further **emphasis on climate change adaptation is equally as important and not currently gaining enough attention.** In the coming years, issues such as overheating and flooding will become regular and more damaging and designing homes to cope with these issues is therefore vital.

Although outside the remit of a standard for new dwellings, the state of the existing housing stock is perhaps the most serious obstacle in terms of wide spread sustainable housing. While standards and schemes such as BREEAM Domestic Refurbishment and the Green Deal exist, we are still yet to see any real success.

We have a considerable housing shortage in the UK and need to **balance making widespread house building affordable whilst also achieving high sustainability standards.** This is probably the major challenge facing the industry.

More and more people are living in cities, but urban sprawl is still an ever increasing problem. The simple answer is to densify urban areas further and build taller buildings, but this will obviously have detrimental effects on issues like daylight and access to green space.

The ability to provide good daylight in urban areas is difficult. The quality of the site has a big impact on the quality of design. Standards like Active House **use a sliding scale to reward daylight**, which has the potential to encourage designers to pay it more attention, rather than brandishing it as impossible from the outset. The issue could also be aggregated across the dwelling/site.

We should prepare for the fact that buildings will eventually be knocked down and re-built. Therefore, **designing for deconstruction should become much more common**, ensuring materials can be re-used easily and efficiently.

There are many lessons we can learn from the Code, both positive and negative. In the end, many of the positive aspects of the Code failed to be seen by designers, instead it was just an analysis of points against cost. This was especially true in the eye of contractors, **the cheapest option would invariably be the winner.**

People who buy and sell homes (estate agents etc.) don't actually know what the Code is, let alone its benefits. The benefits therefore get lost. If we take Passivhaus for example, Passivhaus has a higher profile even though far fewer are built (in the UK). People have heard of it – it's well branded, it's complex but still simple to understand - consumers buy-in to 'getting a Passivhaus'.

There should be **support for the small build developer** or recognition of the fact that the Code can be very difficult to achieve. The difference in scale is compounded by the limited number of credits, resulting in dwellings being penalised unfairly. Achieving a considerate constructors credit may well be out of reach for small developers – alternatives, such as using local apprenticeship schemes, should be encouraged.

The lack of flexibility in the Code is seen as a fundamental problem throughout the industry. The absence of choice often ends up pushing designers into things just to get credits even when they're not applicable to the development, e.g. cycle storage overkill. Furthermore, credits are too prescriptive; more flexibility is needed to allow designers to be creative whilst still delivering quality. Similarly, the amount of evidence required to document a credit is often disproportional to its value. The cost and time it takes does not seem to justify its worth within the design.

An important omission from the Code is that it **only considers design from an empty site.** Demolishing a small house in the countryside to build another similarly sized house is not sustainable. Whereas, demolishing a small house in the city to densify the site is not so bad.

Finally, in some cases credits are the equivalent to building regulations. Credits should be removed in these instances to make the whole process more streamlined.

Moving on from the negatives, there have also been many positive outcomes. One of the main goals of the Code was to set the course towards 2016 and drive improvements within the industry. It is fair to say that in many respects the Code has delivered. **It's been a hook for reluctant designers and developers to think about sustainability,** something they would never have done before. It drags the bottom up. Without the Code, the sustainability agenda would never have made it to the table in such widespread fashion.

The rigour involved in the credits is good. If you can't measure something how do you know if it has worked? A new standard should keep the rigour but make it more flexible, for example by demonstrating compliance with the intent of the credit.

Biodiverse green space and access to it is an important issue in terms of environmental and social sustainability. The inclusion and heavy weighting of ecology credits has encouraged the protection and enhancement of habitats, something which will be missed when the Code goes.

The fact that the Code is outcome driven rather than process driven has actually made it easier for the industry to understand what is required. In fact, much of the red tape to which the government is probably referring to comes from getting to terms with methods and processes which the industry wasn't used to. Over the lifetime of the Code, it could be said that industry has become used to these administrative burdens and the process is not as onerous as it once was. **That is not to say the Code wasn't in need of an overhaul, but the danger is now that all the good work up until this point will be lost.**

The big question: **how with an optional standard do you encourage uptake?**

Answer: 'Don't sell the sausage, sell the sizzle.' The secret to selling is that you don't advertise the sausage itself – because it's the desirable sounds and smells which get people interested. (Futerra, 2009) Trying to 'sell' sustainability issues in terms of cost savings, energy security and legislation isn't going to engage the masses. Instead, **we should be creating a positive vision** of the kind of future we can look forward to.

People need to want it, rather being something they feel obliged to do. **Issues should be framed in terms of value to the consumer.** Healthy, bright, enjoyable, affordable, desirable spaces, part of a vibrant community. We need to link sustainability to quality/luxury. To some extent popular culture can play a role in this, but that's not really something a new standard can do alone.

Custom build is becoming more popular, especially in Bristol and the South West. This can be a good opportunity to engage people/communities and to tailor to the needs of individual clients. On the other hand, in areas of high demand for housing these types of issues take a back seat, if people can afford it, they will buy it.

Another option is **Government incentives/grants**. For example, in some districts of Belgium grants are awarded to people who achieve Passivhaus certification. Could something similar be done here? Additionally, achieving such certification would be deemed to be building regulations compliant.

Finally, **educating estate agents** would go some way to spreading the word. If they can be made aware of the benefits to the consumer and to themselves, there is no doubt they would use it as a selling point.

Digital technology can play a role, both directly and indirectly, in achieving higher sustainability standards. There is presently a whole host of smart meters and energy saving technologies available on the market which have the potential to help consumers save energy and reduce bills. However, the installation of such features is no guarantee of improved performance and their capital cost means they are unlikely to be universally adopted. Alternatively, **controlling systems in the dwelling with smart phones and iPads** could be promoted as a cheaper and easier alternative to implement the intentions of the design. For example, an app in which suggested use patterns could be input.

There are many examples of the internet developing communities between people from down the road to across the globe, such as Airbnb, Share My Car, gardening clubs and Free Cycle. Society generally takes care of these things by themselves, but perhaps **developing or encouraging the creation of local resource sharing networks** could be included in a new scheme.

Technology can also play a part in other ways. Industrial processes are continually becoming more efficient and streamlined through advancements in technology. Off-site production of building elements, pre-fabrication and more efficient renewable energy technologies are just a few examples of this.

As councils will no longer be able to impose higher standards, **a carrot approach could be adopted** to encourage uptake rather the stick, perhaps through a reduction in council tax. This may also have a positive effect on the way the scheme is viewed compared to the Code.

On the other hand, there is potential this would only favour those who are at a financial advantage in the first place. People who can afford to improve their home get rewarded for it, whereas those who can't are left with higher bills and lower quality housing. If this was linked to funding, for example a more effective form of the green deal, then this problem could be negated. Or perhaps people could apply for a council tax reduction if the money was guaranteed to go towards sustainability measures for their home. Similarly, landlords could be forced to reinvest a proportion of their profits in sustainability features.