

Better use of space

Report on a roundtable for industry professionals

December 2016

Introduction to the opportunity

One of the principal themes of the shift to a sustainable economy, at least in the developed world, is ‘dematerialisation,’—less added value from physical ‘stuff’ and more from human skills and ingenuity. The built environment could be one of the sectors that contributes most to this trend—and one of the sectors where there are most opportunities for competitive advantage based on it. These opportunities will arise because of improvements in technology, but also because of improvements in the way buildings are used. This roundtable focused on the latter. The aim was to identify an innovative project that would make better use of buildings more likely.

After looking at range of ideas and current initiatives The World Future Council (part of the CUSP consortium) identified three areas for a possible project, described briefly below:

- Expand the market for high density housing
- Use IT to facilitate use of currently unused or underused space for office work
- Design a building in which the same space is used by residents and office workers at different times.

Expand the market for high density housing

The challenge is not to build attractive high-density housing—there is plenty of that. It is to expand the market for high density housing and so reduce demand for low density housing.

The relevant metric is not simply units per hectare. Instead ‘high density’ is short hand for (a) sufficient density to justify good public transport and other local facilities; and (b) design that reduces the volume of construction materials and energy consumption. So, for example apartment blocks surrounded by park land could qualify.

In a 2005 report CABE suggested that there were opportunities to increase demand for, and planning permission for, high density housing.¹ On the weakness of demand they commented:

- “Probing behind the initial responses, it is possible to see how many people’s requirements can be met through building at higher densities. Modern apartments can offer better security than many detached houses. They can also provide affordable, usable outside space, often in the form of shared gardens or a balcony. Most people want to live in somewhere distinctive and with character, which can be provided if housing is well-designed. Everyone wants privacy, which is why sound insulation is important, and layout that is designed to avoid problems of overlooking. Elderly or disabled people can have the advantage of easy access, if lifts are well-maintained....Higher-density neighbourhoods have the potential to capture the appeal of older places, by contributing to lively, well-used neighbourhoods and by creating a sense of community.”

They argued that good design and management is central to increasing demand and mentioned the following factors: parking space (must be adequate but not dominate the public realm), visual privacy, sound insulation, mixed communities, the relationship with the surrounding area, access to public transport, priority for pedestrians and cyclists, high-quality open space, and some usable private outside space (with a clear demarcation between public and private spaces), and good on-going management.

But there is clearly still scope for increasing demand: the potential has not been fulfilled yet.

Space utilisation in offices

Space utilisation rates remain stubbornly low. However, the challenge is not to cram people into

ever tighter space or get people to work from home: arguably these trends have gone about as far as they can. Instead it is to use IT to make temporary use of space, and use of currently unused space, cost effective.

The UK Green Building Council has developed two related concepts which could help do this.

The first, *Use Space Well*, involves a combination of IT and advisory service.² A website would offer access to thousands of different desks, meeting spaces, retail areas and ‘pop up’ spaces available all over the country for employees to use, on an hourly/daily/weekly basis. This would be accompanied by an advisory service designed to help businesses make better use of space, for example by sub-letting.

The idea could be (but does not need to be) combined with a second idea: *Commute Next Door*.³ This would match organisations that require flexible office space with homeowners who are able and willing to rent out spare rooms. These would typically be for regular rather than one off use.

There are a number of obvious barriers that these ideas will have to overcome. First, are they economic? For example, Regus’s rooms by the hour cost up to four times as much as permanent leases. Second, would existing operators with related products such as Regus or the Hub move in and kill any new entrant? Third, can quality control be maintained, for example through customer reviews? Fourth, can the security issues be overcome? Fifth, what are the planning, legal, mortgage and tax implications? Sixth, can critical mass be achieved reasonably quickly?

Nonetheless there are always barriers—the question is can they be overcome and is the potential sufficient to make it worth the effort.

¹ <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/publications/better-neighbourhoods>

² <http://www.ukgbc.org/sites/default/files/UK-GBC%2520Plan%2520for%2520Growth%2520May%25202012.pdf>

³ http://www.ukgbc.org/sites/default/files/Future%2520Leaders%2520project%2520overview%2520handbook%2520%5Bweb%5D_0.pdf

Residents and office workers using the same space

Office space is not used at night and at the weekend and much home space is not used during week days. Does this have to be so? Could we create buildings that are really used 24/7, or at least used more intensively than they are now?

Most people's first reaction to this question is to ask: "Do people really want to live in the office?" to which the answer is of course: "No". But our question is not whether we should install bunk beds next to desks, but whether there is an entirely new kind of building.

For residents, this would:

- Enable them to live in the city centre at a lower cost than otherwise
- Enable them to have some 'core' private space, but less than they would otherwise have
- Provide space that they can use privately from time to time—for example when having friends round, or listening to music, or cooking an elaborate meal
- Provide communal space where this is efficient, and privacy is not a priority

For office workers, this would:

- Involve a lower 'cost per desk'
- Creates a more attractive work environment than the typical office, including good communal facilities.

In some ways it would be like living and working in a hotel—but without the temporary guests.

This is clearly always going to be a niche, but equally clearly there will be some people who will be attracted to it if the price is right. The questions are (a) whether it can be delivered in a way that makes the price right and (b) whether the niche big enough to make the effort worthwhile (commercially and from a sustainability point of view).

Report on the Event

The roundtable was held on 15 December 2016 and was attended by representatives of 18 developers and industry specialists. It was co-organised by CUSP, Igloo Regeneration and the UK Green Building Council (UKGBC). Charles Seaford first presented the three alternative innovations described above and there was then a discussion about which of these was most promising, and how it might be taken forward.

There was support for developing further the idea of shared use buildings, i.e. for living and working. These would provide communal space (eg a café, gym, quiet room, garden etc), space to be used privately for short periods (eg fully equipped kitchens, dining/meeting rooms, spare bedrooms), and permanently private space. This would make combined residential/office buildings possible—but could also make purely residential buildings more space efficient. Buildings of this type should be seen as part of a wider initiative to increase the popularity of high-density housing.

For residents, the advantages would be affordability, access to good facilities and potentially an enhanced social and community life. For businesses, the advantages will also include cost, but also attractive working environments, and potentially on-site accommodation for some staff.

Much of the discussion at the meeting was about the market for and location of such a building. If this is to be truly innovative it cannot just be for millennials—there are projects already planned targeted at them. It should instead be designed to appeal to a wide age range, from the millennials to the active elderly, and people in between. It should work in a typical provincial city, town or suburb, and attract people who might otherwise live in low-density housing in the suburbs. To the extent that it has elderly residents, it should be close to where they live now so that they do not lose their social networks. It should be

‘ordinary’—that is to say it should not be targeted at a narrow niche but be potentially scalable.

Less time was spent discussing what would be needed to attract business tenants—but of course they are also part of the market.

Some time was spent discussing the large number of design and regulatory hurdles which would need to be overcome.

It was agreed that the next step would be a design competition, which could then be used to attract funding for a full feasibility exercise.

Some variations on the idea would be possible in any such competition:

- It could be as described here, or be a more limited version—with only residential accommodation but still high density and with communal space and short-term private space
- It could be a major new development, or it could be a smaller refurbishment of an existing building
- It could be located in a provincial suburb, or a small town, or a provincial city centre—but only if sufficiently close to potential elderly residents’ suburban social networks.

In parallel with the work on the design, there may be scope to develop potential non-standard financing models. This is to be investigated, but can be treated as a separate exercise at this point.

After the event

After the event, it was decided we were unlikely to find the necessary sponsorship for the design competition proposed at the meeting. However, it was agreed that the idea could be taken forward as part of the UKGBC’s Innovation Lab programme. This involved a number of potential innovations being discussed and developed by industry representatives to meet the challenge ‘how do we make space as agile as tech?’ To make this happen Charles Seaford joined a series of half day workshops run by the UKGBC and the idea

was in effect ‘reinvented’ and developed by one of the teams taking part.