

CEO FORUM - HELD BY THE HOUSING FORUM AND NHBC - NOVEMBER 2014

TOPIC: "OFF-SITE HOUSING MANUFACTURE – MEETING HOUSING DEMAND"

PRINCIPAL SPEAKER

RICHARD SAXON C.B.E

CONSULTANCY FOR THE BUILT ENVIRONMENT



The Housing Forum runs a monthly CEO Forum to highlight our proposals for more homes and better homes through three Working Group themes: ***Building homes for the future, Investing in our housing assets and Smarter Supply: Smarter Resources (the supply chain)***. We build leadership and influence within the housing sector and the cross sector representation of our membership equips us to investigate issues that require collaboration and expertise for successful outcomes.

BUILDING AT SCALE

Richard Saxon gave his views on the potential expansion of offsite manufacture (OSM) housing supply through the purpose build private sector route. There has been a sharp change in the ratio of home owners to (predominantly private) renters since 2010 with 422,000 fewer home owners and 1.193m more renters. The rise in renters is more than twice the fall in home owners and unlikely to change as the financial crisis and graduate debt has constrained growth in the mortgage sector with expectations that home ownership will not rise above 50%.



Land supply constraints may be eased by building alongside or over existing public buildings and a report published in November 2014 estimated up to that 400,000 additional homes could be provided in this way in London.

Growth in the institutional "Build to Rent" sector can work with OSM. The confidence of landlords in their product will depend on technical excellence and on predicting lifetime costs and maintenance calculations. BIM makes a great difference - enabling design for OSM. With BIM, a building can be rehearsed - real and virtual - the "Cheese grater" model was rehearsed 20 times and used 4D BIM to assign time sequences to elements of construction.

OSM works with a flow of orders and relatively consistent demand and will help address the materials and skills issues.

An example of where OSM works are the Japanese Toyota Homes. This is a process of home production which works by tuning demand to meet the factory side supply. If demand falls behind supply, incentivisation and special offers are brought in to stimulate demand. The product is generally a replacement home of high-performance and flexible room arrangements - usually replacing a 30-40 year old property. It is funded by rolling forward the cost into the existing mortgage which may be for 100 years. The speed of development is the most remarkable - when the house is ready for assembly, the family move to hotel for a week whilst their old home is demolished and onsite assembly is completed.

Another example by MACE is the manufacture of 3,000 homes near St. Petersburg with all elements produced at an onsite factory. The use of BIM and a range of architects achieve a wide range of variety in appearance from a standard kit of parts and elements - cladding, kitchen and bathroom pods can all look different.

James Lidgate, L&G, gave the investors long term perspective. A fundamental structural issue is that there has been a home building shortfall for a very long time of 1.6 million - 2.3 million homes in the last 30 years. The opportunities for investment arise in additionality to the housing stock through a purpose built rented sector. The Housing Zone approach for London provides more certainty and decision making is likely to be quicker.



A STRONG AND RESILIENT SUPPLY CHAIN

Christine Hynes, Climate Energy Homes set out her personal quest to find a "healthy home" which led to the construction of the Eco Tech homes built within 11 days in 2007 and the launch of the Flexi House. This is a home that can be moved and rebuilt as family size or demographics change locally. There does not have to be a "trade off" between cost and quality on OSM. Systems go through accreditation and are benchmarked on both cost and qualities. The factory location offers opportunities to improve and develop skills with young workers. **Mike Fairey, Fusion Building Systems** emphasised the benefits of OSM which arise from the integration of the supply chain in at the earliest opportunity. This cultural change will benefit every financial stakeholder in the process and ensure quality production in a controlled environment. **Paul Molloy, Charcon** and **Tony Ryan, Mar City** commented on the growth of the offsite sector and the concentration needed to bring about change at scale. The gain with OSM is that internal layout can be versatile and flexible, whatever type of system is used. **Jim Martin, Chair of The Housing Forum Working Group "Smarter Supply. Smarter Resources"** discussed the Working Group's findings indicating that clients will need to approach development by taking on more risk as schemes become more complex. A more traditional approach of passing risk over to contractors will fail as there is a shortage of robust contractors who have guaranteed access to the supply chain.

INNOVATE TO DRIVE THE HIGHEST STANDARDS OF DESIGN AND PERFORMANCE

Offsite Manufacture: Meeting Demand? Taking it forward? Discussion:

- Traditional methods of house construction need to change-and with this the integration of the supply chain.
- Government can take a lead by encouraging training and further education, as well as the release of public sector land but most effective would be a tax stimulus or R&D incentive to add momentum to supply.

- With land a scarce and expensive resource, why not double up on semi sized plots and build sets of four homes for downsizers or for start up homes? Micro flats on land awaiting longer term redevelopment could provide a cheaper alternative for "generation rent" - through the versatility of Off Site Manufacture.

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