Northumbria University NEWCASTLE

Jan 12, 2018 11:40 GMT

EXPERT COMMENT: New housing can be affordable and homely if builders learn lessons from the car industry – and IKEA

Associate Professor in Architecture and Built Environment, David Morton, discusses affordable housing for The Conversation.

For many people, the housing market is not a welcoming place. The rungs of the property ladder seem to get further and further out of reach. There are loud calls to build hundreds of thousands of new homes (and equally loud demands that they're not built in anyone's back yard).

If there was ever a time to introduce mass-produced affordable housing, surely that time is now.

The benefits of mass production have been well known since Henry Ford's car factories made the Model T back in 1908. It was only made in one colour, black, for economic reasons. Not because it was the cheapest colour of paint, but because it was the colour that dried the quickest.

This allowed the production line to operate at faster, more cost effective, speeds. And ultimately it meant the product could be sold at a more attractive cost to the customer.

This approach, where processes are tested to achieve increasingly efficient production costs, is yet to filter properly into the construction of houses. This makes sense in a way, as not everybody wants exactly the same type of house.

Historically, affordable mass-produced housing removed a large amount of customisations, to ensure final costs were controlled. But there is another way. Builders and architects have the ability to create housing that allows a level of flexibility and customisation, yet also achieves the goal of affordability.

Back in 2006, the "BoKlok" approach to affordable housing was launched to great acclaim in the UK. Literally translated from Swedish the term means "live smart". Originally created from a collaboration between flat-pack favourite IKEA and Swedish construction giant Skanska, the BoKlok housing approach was to allow for selected customisation to maximise individuality and choice for the customers. But at the same time it ensured that larger house building components were duplicated or mass-produced, to bring down the overall costs.

Standard elements – wall panels, doors, windows – were made in large numbers to bring the elemental costs down. This approach ensured the costs were controlled from the initial sketch ideas through to the final design choices offered to the customers. The kitchens and bathrooms were designed to be flexible in terms of adding additional units. Draw and cupboard fronts interchangeable. Small options that provided flexibility, but did not impact on overall affordability.

It's a simple approach that has worked very well. More than 10,000 BoKlok houses have now been built, mainly in Norway, Sweden and Denmark, with a small number in the UK.

But it is only part of the architectural equation. The affordable housing market is vital, but the cost of making these homes more adaptable is rarely considered.

Flexibility is key. The needs of a house's inhabitants change. Families can grow (and shrink) and require more room, so the costs of moving house reappear. One clever response to this, in BoKlok homes, has been to allow "built in" flexibility.

Loft living

This flexibility could include a loft space that already has flooring and a built in cupboard on a lower floor which can be simply dismantled and replaced with a "flat-pack style" staircase that can be purchased and installed with minimal disruption to the existing fabric.

Watch video on YouTube here

Weeks of builders removing walls, plastering and upheaval are replaced by a trip to the IKEA store to purchase the staircase and the booking of a subcontractor to fit it. The original design accounted for this "future option" and is built into the core of the house.

The best approach to new affordable housing should consider combinations

of factors that look at design, materials and processes that have yet to be widely used in the affordable housing market.

And the construction sector needs to look over its shoulder at other market places – especially the one that Henry Ford dominated over a century ago. Today's car manufacturers offer customised options in everything from colour to wheel size, interior gadgets to different kinds of headlamp. These options have all been accounted for in the construction and costing of each model.

They share a similar design "platform", and by doing so, considerably reduce the overall cost of the base model. The benefit is quicker production with the added benefit of a cost model that allows for customisation to be included. It is a method the construction sector should adopt to produce housing where quality and affordability live happily together.

This article was originally published on The Conversation. You can read the original article here.

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