RETROFIT PROGRESS IN THE UK SINCE 2020 - Wolfgang Küchler (architect)
(all figures from English Scottish and UK government reporting or estimates by author unless noted otherwise)

Background

After Climate Act 2008 government policy was for "net zero" new homes by 2016. By 2011 leading contractors like Wilmot Dixon were gearing up for this. But Cameron scrapped the target and kicked uplifting Building Regs into the long grass.

Instead the govt started the Energy Company Obligation (ECO) schemes, making energy companies responsible for insulating and improving homes energy performance. These companies employed inexperienced often ruthless contractors to get something done to as many homes as possible often at high speed, with no independent supervision. Terrible failures such as the Preston Retrofit Disaster prompted lobbying by retrofit experts and campaigners which eventually led to a new standard and quality regime (PAS 2035 and PAS 2030) for government funded retrofit work.

Hopes that there would be a step change in retrofit were dashed with Corbyn's election defeat at the end of 2019. The total number of homes with some "measures" installed between 2013 and 2020 was around 2 million (out of a total of approx 30 million in the UK - 27 million in England & Wales)

Since 2020

In 2020 the Social Housing Decarbonisation Fund scheme was launched in England, to provide direct grants for local authorities and then housing associations to retrofit homes to a higher level (upgrade from Energy Performance Band D to C typically), under the new "PAS" standard. The total number of homes retrofitted since then stood at 72,900 as of this summer.

This work was done to a higher standard but installers were still woefully untrained and unaware of techniques and principles and dangerous corner cutting, poor installation undermining the design, or poor design undermining the installation was still common. The funding/bid regime made everything painfully rushed, with tenants and installers both suffering.

The "ECO" schemes carried on in parallel with ongoing failures reaching 30,000 during this period, according to investigation by BBC journalist Zoe Conway.

At the same time there have been some showpiece retrofits including 111 homes at Wilmcote House in Portsmouth the first "EnerPhit" standard block of flats. But other schemes like the retrofit and extension of 23 storey block in Stratford have been stalled and council's seen to revisit demolition and rebuild as preferred option. This can be because retrofit is still difficult especially in terms of managing projects (requiring some in-house expertise) compared to newbuild where you just hand over responsibility to a contractor. And of course there often incentives in terms of using rebuilding as an opportunity to increase density.

Scotland has seen more progress, with I would say slightly higher skill levels, but the total number of homes with some retrofit measures since 2008 is around half a million, out of a total of 2.6m homes. The number receiving a "whole house" retrofit will be in the 10-20,000 bracket.

I don't have figure for completed "whole house" retrofits in the "able to pay" sector (a categorization I slightly dispute) but I estimate it's unlikely to be more than hundreds of homes each year. If there were 20 such a year in Manchester during the early 2020s then pro populo that would give 700 a year over the whole UK - but Manchester completions were likely above average.

Summary of progress since 2008

3 million out of around 20 million UK homes have had some retrofit measures over the last 18 years. Something like 100,000 have had something like a "whole house" retrofit.

Feedback from experienced retrofit architects in the social housing sector

Issues include =

1. programmes put together to max numbers not necessarily deal with worst need
2. programmes which mix lots of types of home, scattered over a wide area, and are thus hard to do well
3. the above resulting partly from local authority and housing association lack of in-house expertise and rapid funding/bid cycles
4. homes with high occupancy and no wiggle room for belongings to allow work to take place
5. homes with variations and extensions requiring more design time than allowed
6. retrofits relying on mechanical ventilation as a result of making the homes more airtight, and that mechanical ventilation failing and not being reported, or being switched off or undermined, leading to rapid mould growth and air quality deterioration
7. proper "post occupancy evaluation" to see how homes are performing is still rare (I was going to add some to this article but didn't get it in time)
8. some contractors and other consultants on the larger current schemes can be a bit "hands off" as a result of low prices or fees per dwelling
9. fee levels are not enough for the amount of design and other work involved, so quality is always at risk - many architects still work unpaid overtime to try to mitigate this
10. installers still ignore designs and say "this is how we always do it" which is usually inadequate to the energy performance requirements
11. examples of lower quality due to modern products allowing speedier installation, eg window foam allowing windows to be made with more "tolerance" ie bigger gaps round the edges - but the foam does not make these installations airtight so a lot of heat is lost/ draughts come in
12. lack of training/understanding includes architects - young architects and those from other environments don't have knowledge of eg how ordinary traditional houses are put together. This is partly due to the housing crisis, and other social trends - it would be unusual now for young adults to have watched or helped their parents doing DIY work to an owned home, and for these young adults to own their own home to go up into the loft of (for example) even more unusual

More money so work could be done at a sensible pace and to a higher standard, better training (and public knowledge), better scrutiny, inspection and imposition of public standards onto private delivery, are all takeaways. A societal "ask" to reduce spending on other things as well as to tax the wealthier.

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