

Home of 2030

Conclusions and recommendations





About Home of 2030

Home of 2030 sought to encourage the development of homes that will help tackle the key challenges facing our society. It focused on solving multiple issues, to generate new typologies and products that are age friendly and inclusive, address health and wellbeing and at the same time harness new and evolving technologies for a low carbon and energy efficient future.

Home of 2030 was focused on deliverability, cost-effectiveness and design quality, addressing gaps that may exist in the market. It was a cross-departmental initiative funded by HM Government, with a steering group that included the Ministry of Housing, Communities and Local Government (MHCLG), the Department of Business, Energy and Industrial Strategy (BEIS) and the Department of Health and Social Care (DHSC).

The programme was managed by a multi-faceted consortium led by BRE, the world's leading building science centre. RIBA Competitions managed the design competition element of the initiative. Design Council providing public and SME engagement, and educational charity MOBIE were responsible for outreach to young people.

www.homeof2030.com





About BRE

BRE delivers innovative and rigorous products, services, standards and qualifications which are used around the globe to make buildings better for people and for the environment. For a century we have provided government and industry with cutting edge research and testing to make buildings safer and more sustainable.

BRE's ambition is to be the world's leading innovation, science and data hub for the built environment. By developing science-led solutions to urgent challenges, we will build a thriving and sustainable world.

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Introduction

This summary report has been produced by BRE, lead partner and project manager for the Home of 2030 project. It provides conclusions from the project, as well as a set of recommendations made by BRE to the Ministry of Housing, Communities and Local Government.

Background

The Home of 2030 project was initiated in 2018 to engage industry and the public around a vision of the building of tomorrow – addressing gaps in the current market, for housing that is energy efficient, suitable for changing needs across a lifetime, affordable and scalable. The main focus of the project was a professional competition.

Delivery of Home of 2030 was designed around four key workstreams:

- **Developing the brief:** building consensus on specific design challenges that were to be addressed and defined in the brief for the Home of 2030 Competition. Decision making was based on the research evidence from the research workstream
- **Engagement:** with public, with industry and with those that will live in, design and construct homes in the future via a young persons' design challenge competition
- **Competition:** a two-phase design competition providing a key output of the project, deliverable design solutions for the Home of 2030
- **Research:** a programme of research providing an evidence base for the competition brief, public and industry engagement.

These workstreams were supplemented by a programme of communications to support activity across the project.

It is noted that there were two significant disruptions to the programme as envisaged in July 2019: the General Election and COVID-19 pandemic. The timing of the election in the autumn of 2019 resulted in a need to delay the launch of the main professional competition. The new Housing Minister, the Rt Hon Christopher Pincher MP, was therefore able to officially launch the competition in person.



Fig 1: Rt Hon Christopher Pincher MP launching the competition at the IET in March 2020

The COVID-19 pandemic also created a number of challenges for delivery. The competition was launched shortly before the first lockdown. However, all interactions from that point became virtual, including project meetings, industry engagement and, crucially, industry events. Whilst the pandemic extended the timescale further, benefits included that some design teams had more time to spend on competition entries and that one-to-one engagement was easier.

Context

Homes are responsible for 14% of carbon emissions in the UK. By 2030, this needs to reduce by a minimum of 24%, with new homes which are low carbon, highly energy-efficient and climate resilient. As we move to zero (operational) carbon in new homes, the focus is shifting to embodied carbon and other impacts associated with the resources used to construct them. Meanwhile, by 2030, nearly 22% of the UK population is expected to be over 65 years old. Between 2016 – 2036 the projected population change shows an increase of 36% of people aged 65 – 79 and a 69% increase in those aged 80+. The Government's Ageing Society Grand Challenge mission is for people to enjoy 5 more years of healthy, independent living by 2035.

Government set industry a Grand Challenge around new housing: to significantly increase the supply of new homes, ensure they minimise their impact on our local environment and global climate, embrace new methods of construction and the digital world but equally build homes that are safe, visually appealing and work for people. Making new homes desirable to all demographics was a key pillar to the challenge, ensuring that homes can adapt to changing demands, and in particular including working for an ageing society allowing people to live at home longer and enabling our health and care service to become more proactive rather than reactive.

Whilst there are examples of housing developments that meet some of these challenges, few have proven achievements in all areas. One of the aims of Home of 2030 was therefore to help to galvanise industry and the public to expect more from our homes, helping to improve the culture of mass housebuilding to one that embraces the highest quality and rejects a “just enough” approach.



Fig 1: Finalists of the Home of 2030 professional competition

Conclusions

The project acted as a vital catalyst for conversation and change. Weekly Steering Group meetings brought together three Government departments (MHCLG, BEIS and the Department for Health and Social Care), alongside Homes England, providing a conduit for the discussion of policy, priorities and challenges for housing. Workshops and events brought together organisations, both large and small, from housing design and delivery, alongside representatives from the finance sector, policy-makers and academics to identify barriers and solutions to the issues around delivery of low carbon and age friendly housing. Engagement with the public and, specifically, with young people, through their own design challenge brought in a diversity of views and perspectives, which were reflected in the professional competition process.

Conclusions in the report are divided into three areas: general findings on the housing industry, the provision of age friendly and low carbon housing, and the value of competitions such as Home of 2030.

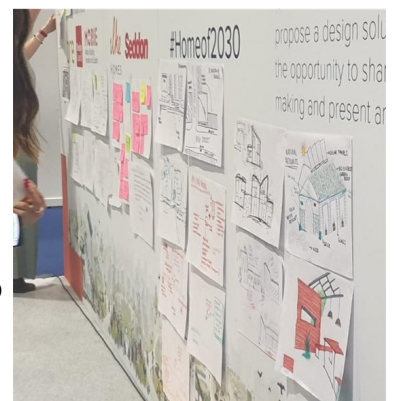
Housing industry

Throughout the lifetime of the Home of 2030 project the landscape has changed significantly. At the start, the key focus areas of the competition (low carbon and ageing population) were not such a high priority for industry, Government, consumers or investors. As the project and the landscape developed, the importance of the Home of 2030 project was highlighted as it remained unique in taking a holistic approach to the issues of Health, Ageing, Low Carbon and Scale.

Further work remains; the research, engagement, innovation challenge and competitions all highlight that there are some pockets of good practice. However, there is relatively little, large scale delivery in all areas. Industry does seem to understand that new innovations in working practices and construction (including MMC) will help unlock this.

The scale of housing delivery required is significant. Both research and engagement also suggest that MMC can help to unlock some of the scale and urgency required.

Engagement undertaken with SMEs identified that they view the diversification of the housing industry as essential if the quality, choice and long-term performance of housing is going to improve. They also considered that diversification could increase supply. However, the SMEs viewed the risk averse nature of the industry as a whole as a key barrier, making it more difficult for them to access the market.



There was significant interest in the results of the public engagement, something that is likely to be heightened due to the COVID-19 lockdowns and people spending significantly more time at home and changes in working practices.

Figs 2&3: Charette at Homes UK 2019, run by MOBIE

Age friendly and low carbon housing

The two Grand Challenges of age friendly and low carbon do not appear to be equal in stature. There is significant amount of research, good practise and debate (if not delivery) regarding low-carbon housing. The entries to the competitions (and the innovation challenge) reflect this, with the age friendly aspect receiving less focus. The competition certainly helped to simulate more debate and ideas on how to tackle these twin challenges.

The research showed there is very little housing for people as they age. Much of the provision is specialist only and even less that is both low carbon and age friendly.

The Young Persons' Challenge suggested a preference for homes which provide their occupants with more choice and flexibility over their housing options. They identified the ability to extend and adapt their homes at different points in their life as important and considered the benefits of multi-generational living beyond their immediate families. Space and sharing of facilities featured strongly, both inside and out, with an emphasis on the importance of place.

Competition

There is definitely an interest in industry for competitions of this sort, as evidenced by the number of registrations and entries, as well as views to the website and social media.

Industry engagement showed a generally positive view of the concept of a competition such as Home of 2030, seeing it as a way of identifying and piloting innovation and inspiring improvements in the sector across design and construction. However, there was a note of caution around the outcomes of previous competitions, which have not necessarily delivered as intended. Interviewees highlighted the need to bridge the gap between piloting of innovation and adoption at scale, and noted that post occupancy evaluation should be part of future assessments to understand the experience of the end user.

Direct engagement with stakeholders identified that SMEs are cautious about entering competitions of this kind as they need to balance the risks with the opportunities. SMEs would be more interested if they could see additional benefits of entering, such as the potential for building relationships to create long term partnerships. They viewed the competition as an opportunity for learning, including through resources and partnerships. They also highlighted the benefits of trialling innovation through the competition process.

The competition entries themselves showed a range of common themes:

- Use of sustainable materials and successful reduction in embodied energy
- Focus on public realm and benefits for the community - incorporating more green space and car free zones
- Modular concepts with the ability to pre-fabricate off site
- Ability to accommodate differing requirements including working from home and adaptability for age friendly living
- Incorporation of digital technologies including the option for self-customisation.



Fig 4: winner of the Young Persons' Challenge, Rachael Milliner



Recommendations

The Lead Delivery Partner, BRE, has identified four key areas in which it thinks lessons could be drawn from the Home of 2030 campaign, which take government's current priorities to the next level:

Sustainability

The large amount of activity (e.g. consultation on energy efficiency in the private rented sector, forthcoming Heat and Buildings Strategy) related to the built environment, as well as the forthcoming Net Zero Strategy and COP26, demonstrate the importance of sustainability in the built environment – but also the importance of cross-government working. Industry-led frameworks, certification and standards promote performance well beyond regulatory minimum and could offer government a shortcut to reach net zero, particularly where there is already government intervention and support.

Resilience



Homes need to be built to adapt to both external challenges like climate change and the demographic challenges of an ageing society. The competition, with the background context of COVID-19, showed that with the right prompting architects and designers can provide innovative and appealing homes which respond to multiple challenges simultaneously. The Home of 2030 programme also made clear that the wide variety of housing needs of our ageing population requires further, detailed research to help find suitable solutions for all, particularly ones that are realistic for all developers to build in the scale that is needed.

Planning

Building on public engagement completed through the Home of 2030, as well as the Planning White Paper and the Building Beautiful Commission, national and local government should continue to engage directly with the public on what they want from their homes. The competition also highlighted that there is a rich design ability in the UK, and that local communities do not have to accept bland outdated housing designs.

Safety

A home's primary purpose is to provide safety and shelter. In the pursuit to achieve sustainable, well designed, beautiful homes this primary purpose should not be forgotten. With the Building Safety Bill requiring a lot more detail in order to put the recommendations of the Hackitt review into practice, understanding how to combine safety measures with those designed for more sustainable and adaptable living will become more important. The department may wish to consider how to combine this with sustainability both in Building Regulations and other policy drivers.





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