

## Connected Places Catapult – Written evidence (UKH0081)

1.1 [Connected Places Catapult](#) (funded by Innovate UK) is the UK's innovation accelerator for cities, transport, and places. We are submitting evidence based upon our work since 2014 with many public and private stakeholders across the built environment, housing and planning sectors. This experience enables us as a highly engaged neutral convenor to provide insights to key stakeholders into innovative approaches for improving housing demand across the UK. Our Evidence has been significantly informed by our [Digital Future of Planning](#) (PlanTech) Programme, which also informed many of the UK Government's digital recommendations set out in the Planning for the Future White Paper, published in August 2020.

1.2 We have selected Questions 7, 9, and 11 of the published Call for Evidence to answer below.

### Connected Places Catapult's Response

***Q7. The Government has published its proposals for reform of the planning system. How can the planning system be shaped to meet housing demand?...(3) How should communities be engaged in the planning process?***

2.1 The planning system could better meet housing demand through equipping planning professionals (including plan-makers and decision-makers) with digital tools to make data-decisions at a local level. Opportunities include:

#### Ability to capture geospatially linked demographic data on the demand for housing at a neighbourhood level

2.2 Anonymised data captured by Real Estate agents or online home buying or selling platforms when registering new customers looking to move (for rental or owner-occupied accommodation) could be better utilised and geospatially linked by the UK Real Estate industry to build up an evidence base of what type of accommodation people are seeking in which neighbourhoods (e.g. 30-35 year olds typically seeking 1 to 2 bed flats in Islington) to enable an overview of local demand and the type of supply sought.

#### 'PropTech' enhanced scope for local government to consult residents on the type of housing that they want an increased supply of at a local level

2.3 Citizen engagement tools delivered by the Property Technology 'PropTech' sector (e.g. The Future Fox, Built-ID, Commonplace) could be used by decision makers at a local level to understand the types of housing that there is greatest demand for when plan-making or shaping masterplans submitted through the planning system.

2.4 In addition, there are a number of PropTech tools from SMEs including LandTech and Urban Intelligence that help housing providers to identify small sites for housing delivery which can overcome existing information asymmetries which were acknowledged in the 2017 Housing White Paper, 'Fixing the Broken Housing Market' as an existing barrier to meeting housing demand.

2.5 MHCLG's [Housing Minister-led PropTech Innovation Council](#) (launched in November 2019 and cited in the UK Government's 'Planning for the Future' White Paper) could be better used to advise ministers and policy makers on the opportunities to use PropTech technologies to better inform housing demand.

#### Ability to improve citizen engagement processes within the Planning System

2.6 Human-centred design is central to our work at Connected Places Catapult. We recommend that more human-centred design approaches to reforming citizen engagement processes within the planning system are adopted, to ensure that the UK planning system continues to seek better outcomes for people and places. Citizen engagement tools delivered by SMEs in the PropTech sector have the potential to improve citizen engagement processes within the Planning System and increase the accessibility of community consultations to reach new demographics which were previously underrepresented. Digital tools mean that communities can engage whilst on-the-go without having to be present to attend a public exhibition being held in a physical building on a certain day.

2.7 This is supported by the UK Government's commitment in the *Planning for the Future* White Paper to:

*improve the user experience of the planning system, to make planning information easier to find and understand and make it appear in the places that discussions are happening, for example in digital neighbourhood groups and social networks. New digital engagement processes will make it radically easier to raise views about and visualise emerging proposals whilst on-the-go on a smart phone.*

2.8 Successful outcomes of digital citizen engagement approaches have been demonstrated through pilots led by The Future Fox in Lewisham where digital tools were used to co-create local low-traffic neighbourhood measures, and Built-ID in their translation of planning consultations into a number of different languages to increase the inclusivity of citizen engagement in the Royal Borough of Kensington. The Future Fox is being piloted as a tool for [strategic placemaking across the Ox-Cam arc by MHCLG](#) to inform the Oxford-Cambridge Spatial Framework. The outputs of the first round of pilots funded through [MHCLG's PropTech Engagement Fund](#) should be used to inform the design of emerging citizen engagement processes within the newly reformed planning system.

2.9 However, whilst we highly recommend that the use of digital citizen engagement tools delivered by SMEs are integrated into the design of the reformed planning

system, they should not be relied on as the only vehicle to engage in democratic planning participation exercises. Digital by design should inherently improve accessibility of the planning system for analogue consultation processes too, because a data-driven system enables clear and understandable information to be found in the places that it is being looked for (e.g. community discussion groups) and not just locked into PDFs in local authority websites. A digital-led planning system should improve analogue processes, enabling better letters to be written, better visualised information shared at public exhibitions and clearer planning notices to be printed because they will contain the clear information that people need, removing planning jargon.

**Q9. Is the workforce equipped with the professional, digital and other skills required to meet housing demand, for example in the construction, planning and design sectors? What can be done to overcome skills shortages?**

3.1 Planning professionals of the future will require data and digital skills to meet housing demand because the digital transformation of planning will allow for more informed, data-driven decisions to be made about what housing is needed and where.

3.2 Connected Places Catapult has long supported the government to better understand how local authority back-office systems could be transformed to better support planning professionals to make data-driven decisions and improve productivity and efficiency at a local level. This led to the UK Government committing in the *Planning for the Future* White Paper to:

*Work with tech companies and local authorities to modernise the software used for making and case-managing a planning application, improving the user-experience for those applying and reducing the errors and costs currently experienced by planning authorities. A new more modular software landscape will encourage digital innovation and will consume and provide access to underlying data. This will help automate routine processes, such as knowing whether new applications are within the rules, making decision making faster and more certain.*

3.3 Whilst planning professionals will require some level of upskilling in digital and data literacy, the integration of well-designed modular digital services at local authority level that links data between systems and has been user-tested, will mean that planning professionals will be supported in their shift towards more data-driven approaches without requiring the whole profession to retrain as data scientists. A modular software landscape will also enable procurement of micro-services to plug into existing systems (e.g. PropTech tools) to help local authority Planning Officers to carry out a range of improved practices including:

- Finding small sites for housing supply (e.g. LandTech)
- Appraising the viability of sites for redevelopment (e.g. Urban Intelligence)

- Visualising the cumulative impact of proposed developments in 3D (e.g. VuCity)
- Engaging with local citizens on development proposals (e.g. Built-ID)

3.4 Connected Places Catapult therefore supports the UK Government's Planning for the Future White Paper commitment that:

*Reform should be accompanied by a significant enhancement in digital and geospatial capability and capacity across the planning sector to support high-quality new digital Local Plans and digitally enabled decision-making. We think the English planning profession has the potential to become an international world-leader in digital planning, capable of exporting world class planning services around the world.*

3.5 Professional membership bodies including the Royal Town Planning Institute (RTPI), Royal Institute of Chartered Surveyors (RICS) and Royal Institute of British Architects (RIBA) will play a key role in ensuring that skills shortages can be overcome, in addition to universities who deliver professionally accredited courses for the built environment.

3.6 There will also be a need for local leaders in Local Authorities, where much of the publication of data relating to land, housing and planning is devolved to, to be supported by Digital Leadership programmes. This should equip teams to move towards agile, multidisciplinary models to deliver the digital transformation of planning at the local level.

***Q11. What are the main opportunities and areas of innovation for meeting the UK's housing demand?***

4.1 There are many opportunities and areas of innovation for meeting the UK's housing demand in the UK at present, which Connected Places Catapult explores and develops through our Housing Innovation, Digital Planning and Construction Innovation and Standards workstreams. We have drawn out a selection of them based upon our recent experience in this space, showing how Connected Places Catapult is seeking to support stakeholders in overcoming and exploiting these challenges.

*Innovative approaches to housing delivery for our ageing population in the UK*

4.2 By 2050, a quarter of the UK population will be over 65. That means we need to make significant changes to ensure healthy ageing for all. 80% of the houses that we will occupy in 2050 have already been built and with the oldest housing stock in Europe, it's vital that we're both innovative and practical as we build a healthier future for the UK.

4.3 With the right technologies and innovative care solutions we can get more from our homes for longer and can tailor the existing fabric to meet the emerging

demand for housing that supports people to live independently at home for longer. However, at present, the UK Built Environment Industry needs support in developing a business case to help fund and integrate healthy ageing solutions into their design thinking and delivery of new schemes.

4.4 Connected Places Catapult has committed to continue investing in innovative approaches to housing and health, launching our 'Homes for Healthy Ageing Programme' in 2020. We have taken the home as one key area of intervention and support (See Lord Nigel Crisp's book '[Homes are for Health, Hospitals are for Repair. Building a Healthy and Health Creating Society](#)'). Through our Living Labs, we will take a holistic approach centred around the home and their surrounding communities, including key aspects such as mobility and the role of community care from an innovation and technology perspective.

4.5 Connected Places Catapult's 'Homes for Healthy Ageing Programme' will deliver 5 testbeds across the UK to trial and demonstrate innovative approaches to integrating healthy ageing solutions into homes to overcome local challenges. Our first two testbeds have been selected. In Sunderland, our location partner will be testing SME solutions that seek to overcome health issues resulting from cold and damp homes and in Northern Ireland our partners will be testing SME solutions that seek to reduce social isolation and loneliness.

4.6 We will support the SMEs that are tested within the programme with commercialisation and scale-up of their products and tools in these areas. We are keen to hear from anyone who is interested in learning more or becoming a location partner in one of our 5 emerging Living Labs/ testbeds. This includes: UK businesses and innovators, Local Authorities, housing associations, charities or non-profits, researchers, academics, policy or investment partners. Here is a link to our [expression of interest form on our website](#).

*The potential to build a trusted data infrastructure for built environment, transport and natural environment data*

4.7 A main opportunity to help the UK improve housing demand would be to provide a trusted data infrastructure to provide decision makers with the data that they need to better understand what is needed to be built and where, at a geospatial level.

4.8 There is currently not an integrated central data infrastructure/platform for the built environment containing trusted and standardised datasets relating to housing, land, planning, natural environment, transport and infrastructure. This means that there is no 'single source of truth'; information relating to the built environment is difficult to find, understand, use and trust, with a lot of critical data locked into local authority back-office systems.

4.9 This prevents crucial information from being able to be accessed to inform data-led plan-making and decision-making at a local, regional and national level. Without a trusted data infrastructure, built environment stakeholders are

prevented from adopting a systems-thinking long-term approach to making strategic decisions about the built environment, for example when considering the impacts of major infrastructure programmes. This leads to siloed and short-term decision-making which can have a detrimental long-term impact on people, places and the natural environment.

4.10 A trusted data infrastructure would need to be designed, built and managed by an independent, neutral and non-profit making entity. To be successful in its output, it would need to comprise open access to data in line with the Open Data principles under Open Government License rather than licensed, as that would create more friction in the system caused by data license agreements - and prevent UK businesses from unlocking new innovation. If open access to standardised and trusted geospatially linked data for the built and natural environment can be secured, new innovation and digital tools and services can be unlocked and scaled.

4.11 Connected Places Catapult understands the complex needs of users requiring a trusted data infrastructure containing standardised planning, land and housing data. Key users include: central and local government policymakers; citizens seeking to meaningfully engage; and SMEs unlocking innovation. We have recently delivered:

- Housing and Planning Data Discovery Project for the Cabinet Office's Geospatial Commission to identify the key stakeholders who need and work with housing and planning data and understand their needs;
- 'Golden Thread of Building Information' Discovery Project for MHCLG (post-Hackett Review implementation);
- London Borough of Waltham Forest's Housing Monitoring Alpha Project (GovTech Catalyst) helping to link data up through using UPRNs within the Council's back-office system to enable data-led decision making. We were appointed to continue this work to Phase 2.

4.12 The UK government have supported opportunities that could lead to a trusted data infrastructure being delivered through recent policy changes:

- A) In April 2020 [unlocked Unique Property Reference Numbers \(UPRNs\)](#) via the Cabinet Office's Geospatial Commission) under Open Government License. This paved the way for critical built environment data sets to be linked within a trusted data infrastructure. UPRNs are viewed by the industry as the 'golden thread of building information' and there is a lot of excitement within the industry about the opportunities that this can unlock.
- B) The UK Government's [Planning for the Future White Paper](#) (released August 2020) set out:

*It is also time for the planning system finally to move towards a modernised, open data approach that creates a reliable national picture of what is happening where in planning, makes planning services more efficient, inclusive and consistent, and unlocks the data*

*needed by property developers and the emerging Property Technology (PropTech) sector, to help them make more informed decisions on what to build and where.*

- C) The Cabinet Office's Geospatial Commission released the [UK Geospatial Strategy](#) in June 2020 which sets out that:

*Our aim is to unlock the significant economic, social and environmental opportunities offered by location data and boost the UK's global geospatial expertise.*

- D) The Department for Culture, Media and Sport released the [National Data Strategy](#) in September 2020. This identifies one of its core 'Missions':

*To succeed, we need a whole-government approach that ensures alignment around the best practice and standards needed to drive value and insights from data; and the creation of an appropriately safeguarded, joined-up and interoperable data infrastructure to support this. We also need the right skills and leadership within the public sector to understand and unlock the potential of data.*

- 4.13 However, no UK government department has yet felt in a position to commit to create a trusted data infrastructure for the built environment – nor created an arms-length body to manage and maintain it despite multiple references to its need.

#### Net Zero through Retrofitting Innovations to meet the UK Housing Demand of the Future:

- 4.14 A recent policy shift that presents opportunities for ensuring today's existing housing stock will meet the housing demand of the future, is the drive for rented commercial buildings to achieve a minimum EPC band B by 2030. Alongside this, many occupiers are targeting net zero and demanding green buildings - which is very positive, given that the built environment accounts for 40% of UK carbon emissions.

- 4.15 However, 80-90% of assets in London do not meet this requirement, meaning a major challenge. [Many real estate owners have raised concerns](#) that this could lead to many stranded assets and shortage in supply. There will be huge demands for a commercial retrofit supply chain to deliver this along with new assets. Viability may result in many assets being sold off for residential change of use, creating new challenges for placemaking to ensure areas predominantly designed for commercial space are good places to live (e.g. access to schools, open space).

- 4.16 Therefore, focus is needed to look at models for how this challenge can be delivered in an effective way that helps identify the most innovative approaches to building retrofit and that supports good placemaking. At the same time,

there is also a need to ensure that these targets are effectively enforced, as the Mayor of London has [called for in their response to the proposals](#). Local authorities need to be adequately funded to enforce, with penalties that are not less than the cost of the actual interventions.

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