

# Sustainable and inclusive rural homes



Kerry Booth  
CEO, Rural Services  
Network



Mike Ash  
Freelance senior housing  
advisor, Newton Consultant



Mark England  
Head of innovation, sustainability  
and procurement, Coastline  
Housing



Christina McGill  
Director of social impact and  
external affairs, Habinteg  
Housing Association





# Rural Housing

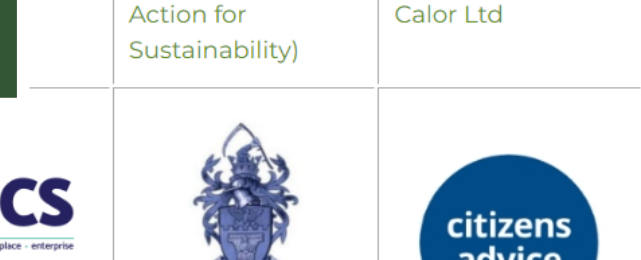
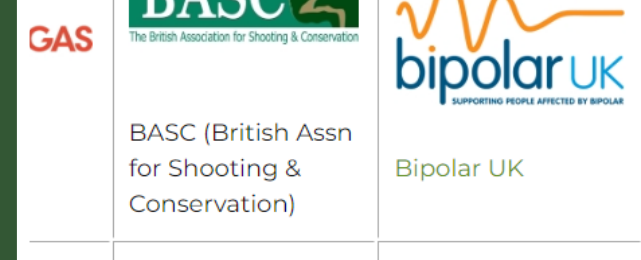
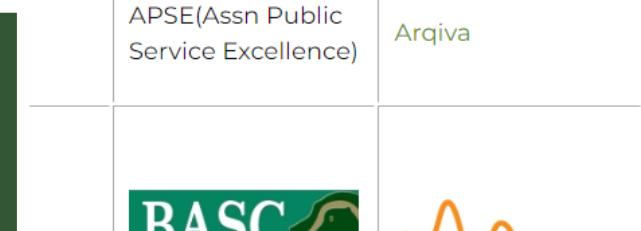
**Kerry Booth, Chief Executive  
Rural Services Network**

**13<sup>th</sup> February 2025**





**We are a membership body with over 500 organisations all with an interest in delivering services in rural areas**



# We are the national champion for rural services



We provide a network  
for rural areas to come  
together and share  
best practice



We represent a range  
of organisations in  
rural areas across  
England



We provide a voice for  
rural areas in  
Parliament

# Challenges in delivering sustainable rural housing



RURAL  
PLANNING



RURAL  
ECONOMIES



RURAL  
TRANSPORT



RURAL  
CONNECTIVITY



RURAL  
AFFORDABLE  
HOUSING

FAIR  
FUNDING

# Delivering for Rural

*Unlocking Rural Prosperity*



RURAL  
NET ZERO

RURAL  
HEALTH &  
CARE





## Fair Funding

 Almost 10 million people live in rural England...  
...that is **MORE THAN** the whole of **GREATER LONDON**




 **Urban voters receive 36% more per head in government funding**


**Rural voters pay 20% more in Council Tax per head**


Find out more [here](#)

## Access to Health & Care

 74% of 65+ year olds voted in the General Election (2019)

**Over 30% of rural voters are 65+**



 **Urban Councils receive 57.5% more per head to spend on public health**

**Rural voters can wait 3 times longer for an ambulance**

Find out more [here](#)

## Rural Transport

 Improved public transport is better for the environment...  
...reduces issues of social isolation  
...provides access to training, skills and employment



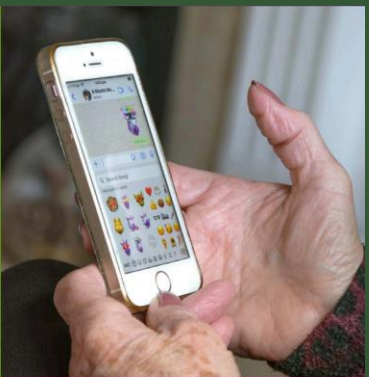
 **Urban councils budget to spend 3.5 times more than rural on public transport**

**Rural voters have fewer transport options and are reliant on private vehicles which can be expensive to run**

Find out more [here](#)

## Rural Connectivity

 Unlocking the digital potential of rural areas could add up to £26bn annually to the UK economy...  
...growing turnover for rural businesses by £15bn each year



 **Only 47% of rural voters have Gigabit capability**

**49% of rural voters do not get 4G mobile coverage on all networks indoors**

Find out more [here](#)

## Rural Economy

 There are over half a million rural businesses in England...  
...that is **23%** of all registered businesses



 **Productivity and GVA in rural areas is lower than urban**

**Rural voters earn £1,600 less a year**

Find out more [here](#)

## Affordable Housing

 Ten new affordable rural homes create an economic boost of £1.4m GVA...  
...and yet they only cost £1.1m to build




 **The rural fuel poverty gap is nearly double the national average**


**Houses in rural areas are less affordable to purchase for those in the bottom 25% of earners compared to urban**


Find out more [here](#)

## Rural Net Zero

 **RURAL NET ZERO**

**Rural households emissions are 19% higher than urban...  
...yet rural areas have the resources to contribute to Net Zero**



 **25% of rural homes are not connected to the gas network**

**Rural voters are more reliant on costly fossil fuels**

Find out more [here](#)

## Rural Planning

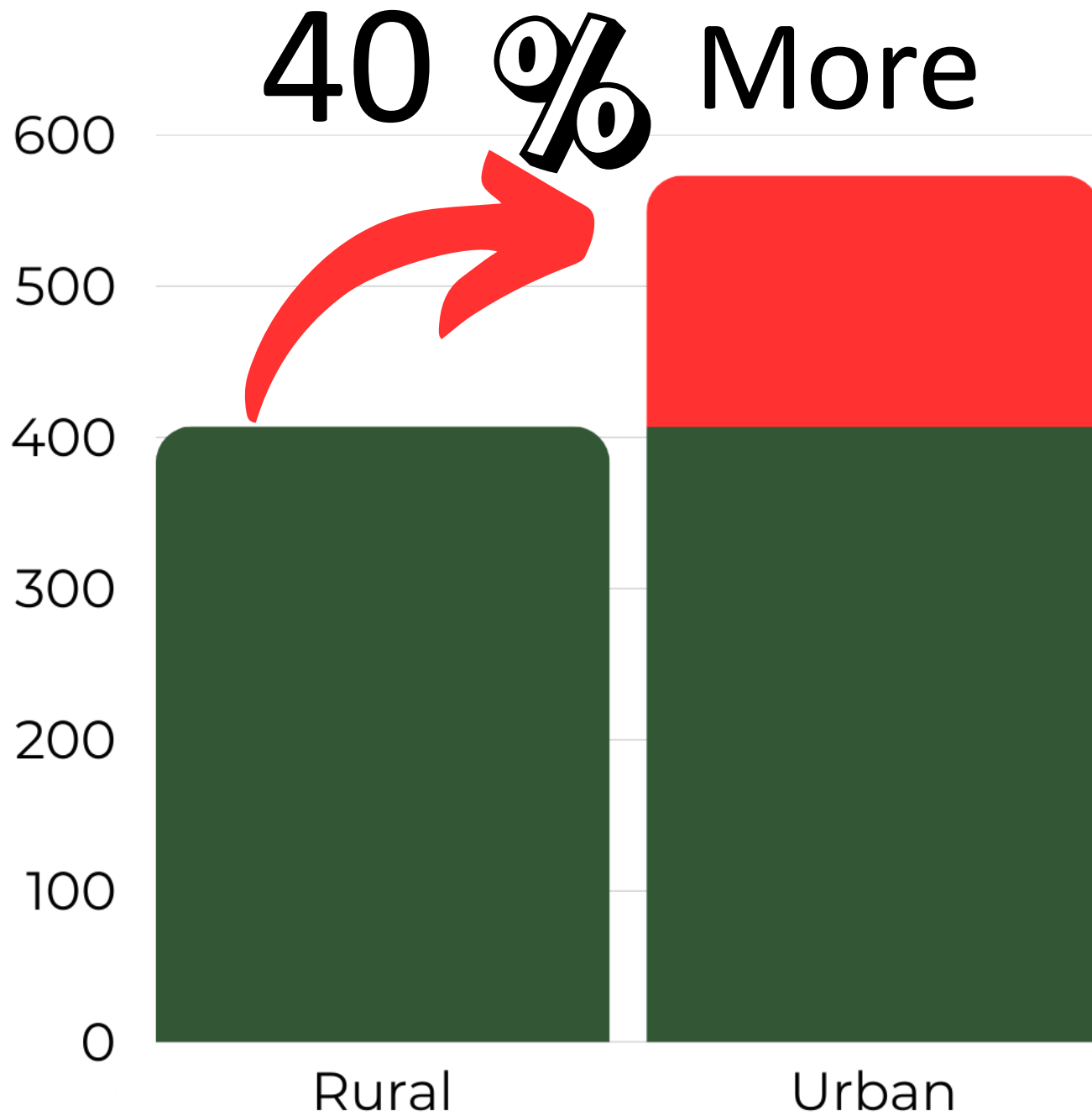
 Over 600 Neighbourhood Plans have been made in rural communities showing how voters want to influence how their local area is developed



 **There are almost 100,000 second homes in rural areas**

**Most rural developments are too small to include affordable homes**

Find out more [here](#)



Government Funded Spending Power in urban Councils is **40% MORE** per head than in predominantly Rural Councils for 25-26



Houses in rural areas are **less affordable** to purchase for those in the bottom 25% of earners compared to urban areas.

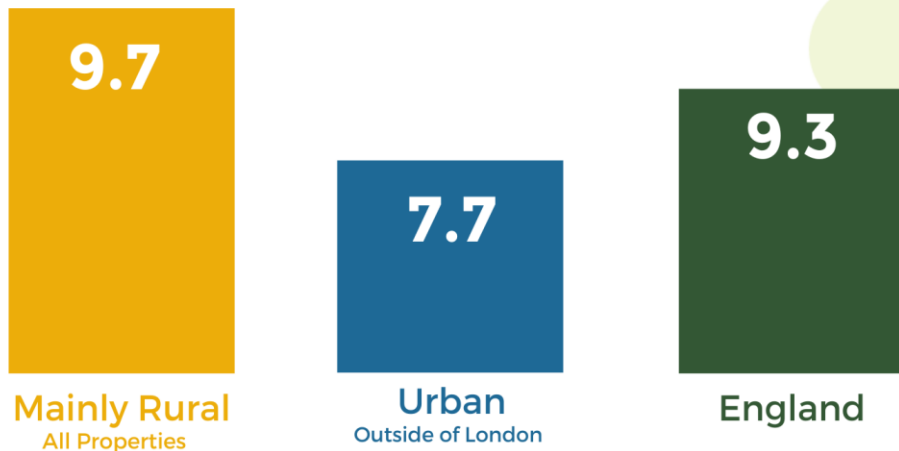


Source: Statistical Digest of Rural England, November 2023

**25%** of rural homes are not connected to the gas network



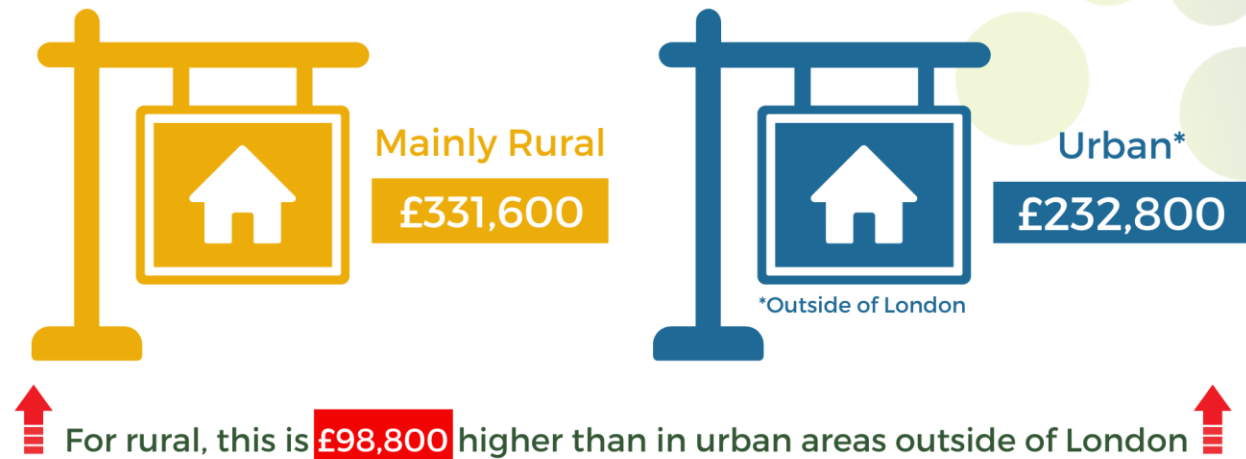
### Lower Quartile House Purchase Affordability Ratios By Settlement Type



Source: DEFRA Rural Statistical Digest 2024

### The Average Property Purchase Price In England:

**£299,300**



Source: DEFRA Rural Statistical Digest 2024



Rural areas can struggle from an influx of short term lets and AirBnB making access to the longer term rental market extremely difficult



**1 in 5 rural homes fail to meet the Decent Home Standard**

**The more rural the area, the lower the proportion of homes that meet the Decent Homes Standard**

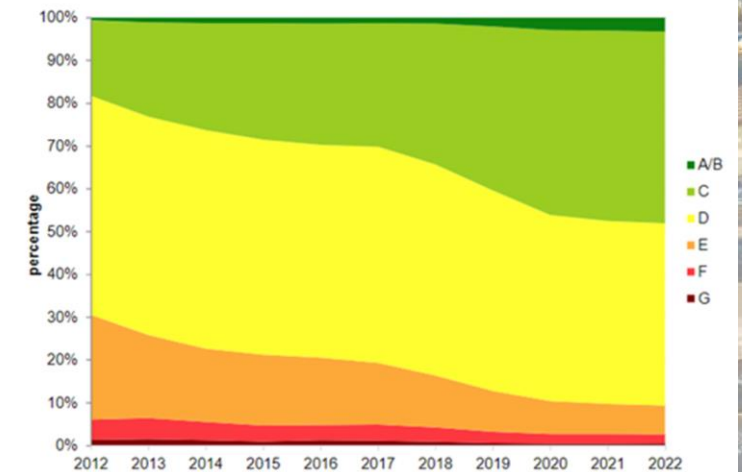
**It is more likely that rural homes provide insufficient thermal comfort for occupants than urban homes**

**4 in every 100 rural homes are prone to damp compared to 6 in every 100 urban homes**

**More than 1 in ten rural homes fail to meet minimum standard set under Housing Health and Safety Rating System**

**The proportion of homes failing to meet the decent homes standard halved from 2008 to 2021**

**Proportion of homes in England in EPC bands A to G**





# Fabric First

## Challenge of retrofit vs new build



# Housing Associations approach - retrofit

## Challenges

- The cost of the retrofit – heating may be oil or coal
- Access issues in remote locations
- Planning Permission
- Non-standard build types

## Solutions



### Guiding Principles

Through the delivery of our Asset Management Strategy, our retrofit work will be guided by the following:

1. A 'fabric-first' approach to improve the energy efficiency of the building's fabric as far as possible.
2. A 'worst first' approach to improve the energy efficiency of our lowest performing homes first, where feasible.
3. A 'no regrets' approach by carefully sequencing the improvements that we carry out to ensure that we do not have to 'undo' work that we carry out in the early years.

Broadacres is conducting an innovative project on four empty homes which is transforming them into the most energy efficient and environmentally friendly homes in its entire 6,600-plus stock.

Broadacres has taken four representative homes and over the last 18 months has been undertaking work which will get them all to zero carbon ready standard.



This is a key part of the Association's Sustainability Strategy which will ultimately result in it realising its ambition of being an entirely net zero carbon organisation by 2050.

The work has included:

- Installing renewable energy, air source heat pumps
- Installing solar panels on the roofs
- Installing triple glazed windows and doors
- Laying thicker loft and floor insulation
- Using thicker external and internal wall insulation
- Adding high levels of air tightness to the buildings
- Installing a wastewater heat recovery system which uses residual heat from shower water to preheat the incoming cold feed that refills the system.
- Installing a mechanical ventilation heat recovery system which extract warm, damp air from the home and draw in fresh air from the outside. Heat from the extracted air is transferred to the incoming air.

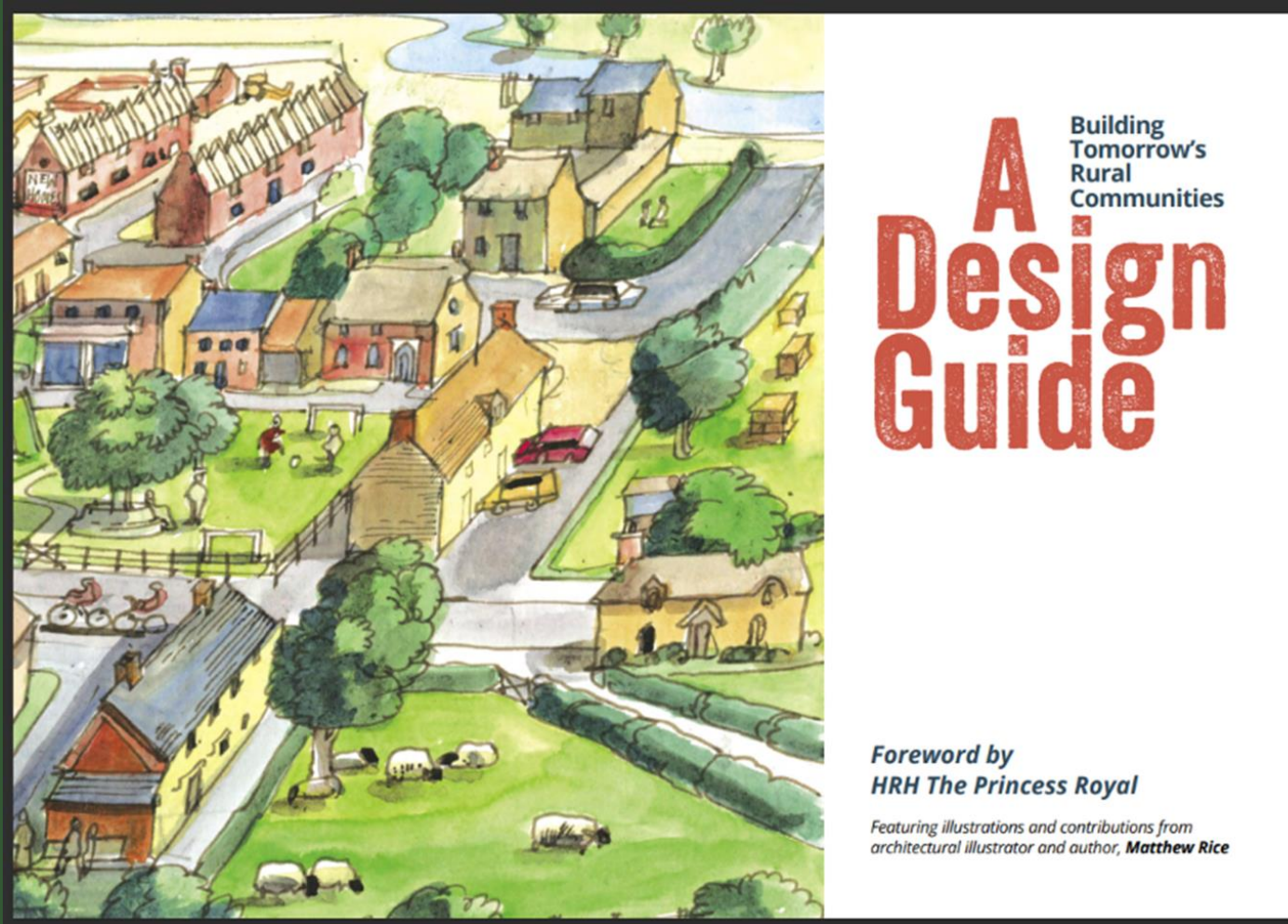
The 'deep retrofitting' of these homes will reduce energy demand by up to 70% and will eventually reduce carbon emissions by 100% when the National Grid becomes decarbonized.

Broadacres piloting approach

The Association is also drawing up a 'lessons learned' action plan to identify what improvements can be made to the process and how this work can ultimately be undertaken at all its homes, ahead of the 2050 deadline set by the Government for the UK to reach net zero carbon emissions.



# Housing Associations approach – new build





# Rural Housing Design Guide Toolkit



This Toolkit is a resource designed to inspire and guide Parish Councillors, communities, and other rural stakeholders in creating beautiful, sustainable, and affordable housing. This toolkit aims to help you prioritise design elements that enhance community well-being while maintaining the unique character of your village.

Approach this toolkit with creativity and an open mind. Use the checklist as a starting point to identify the most important aspects for your project, and feel free to add or adapt items to suit your community's specific needs and aspirations.

To help bring your vision to life, we recommend creating a 'mood board' that visually captures the characteristics that make your village unique. Gather images, sketches, and samples of materials that inspire you and reflect the local design, styles, and local community. This will serve as a guide throughout the planning and design process, helping you communicate your ideas to rural architects, housing associations, developers, and planners.

## CHECKLIST

Use this checklist as a starting point for your rural housing project. Consider each item carefully and prioritise them based on your community's needs, values, and aspirations. Feel free to add or modify items to create a bespoke checklist that reflects your unique vision.

Items highlighted in bold green text are considered "given" factors that should be included in any design considerations. Items not highlighted in bold should be discussed and agreement reached on how important each is and what trade-offs might be made.

### Our Village, Our Future

1. Have you considered and prioritised possible sites for affordable, flexible, and diverse housing options that cater to a wide range of income levels and household types?
2. How will you make sure that community stakeholders, including residents and the Parish Council, are kept engaged throughout the planning process and informed about the benefits of sustainable design and construction?
3. Are the homes designed to be comfortable, energy-efficient, and aesthetically pleasing, with thoughtful layouts and ample natural light?
4. Where they exist, is there access to local amenities, facilities, green spaces, and sports and play provisions?
5. Incorporating accessibility features for residents with mobility challenges, sensory limitations, and dementia-friendly design?
6. Well-connected footpaths and cycle routes created to encourage active travel and reduce car dependency?
7. Proximity to public transport been considered when planning new developments?
8. Making sure that new housing developments connect to vital services to support the local economy?



## Building New Homes: THE HASTOE WAY



- Energy efficiency
- Reduced water consumption
- Beautiful design
- Quality control
- Minimal impact on the environment
- Property size
- Adaptability and accessibility
- Future proofing

These key elements are a minimum requirement for all our new homes. We have published them so our partners know exactly what to expect from us but also so they know what we expect of them. Of course, we are always very happy to build homes above this minimum standard, including to Passivhaus standard.

We will continue to evolve the Hastoe Standard as we monitor and learn more from the performance of our new homes, from other innovations across the sector, and to keep ahead of changes to building and safety regulations.

**Hastoe**  
Group



# Challenges for rural housing

- Large housing targets to meet
- Cost of retrofit can be significant
- Is there a risk that we focus resources on retrofit and don't have the resources to invest in energy efficient new builds?
- Reliability and future of electricity distribution network
- Do Government understand these rural challenges?

**PARLIAMENT  
STREET SW1**



**WHITEHALL  
SW1**



**CITY OF WESTMINSTER**

**The RSN  
campaigns for  
rural focused  
policy in key  
areas  
impacting rural  
communities**

# The Value of Technology and Data

CIH February 2025

Mark England

Head of Innovation, Sustainability and Procurement

Coastline Housing





# Importance of Data in Housing

- All social landlords hold huge levels of data;
  - Customers
  - Demography
  - Assets
  - Maintenance
  - Financial
- Adding technology brings new data and opportunities
- Combining new data can help define health, wellbeing and disrepair
- Customers can access data to help themselves



# Damp and Mould

- Coastline has adopted process and technology
- Target customers reporting Damp and Mould
- 30-50 homes increasing to 100 homes
- Indoor sensors during initial survey
- Monitor before and after remedial works
- Relocate sensors to new properties when satisfied that remedy is effective
- Customers contacted with bespoke advice about ventilation



# Damp and Mould Reports

## Mould index

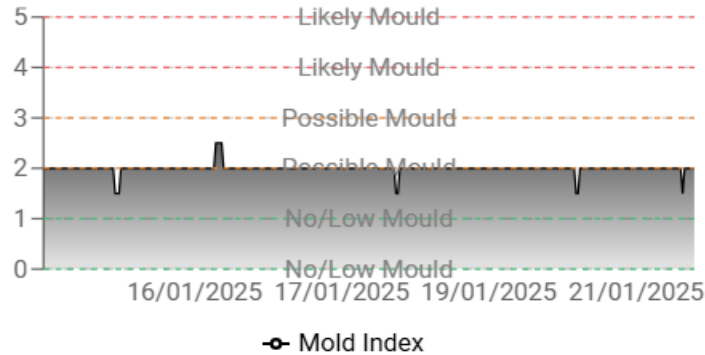
Current mould index  
8 minutes ago



Average mould index  
8 minutes ago **2**

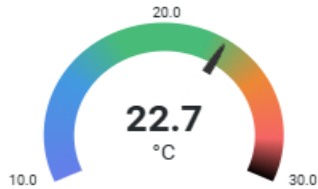
Maximum mould index  
8 minutes ago **2**

Weekly mould index trend  
8 minutes ago



## Temperature

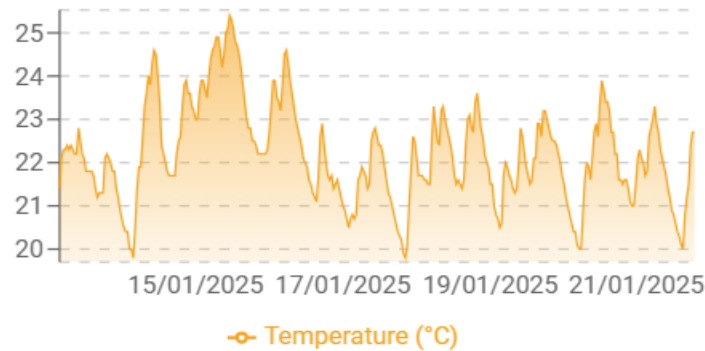
Current temperature  
8 minutes ago



Average temperature  
8 minutes ago **21.8**

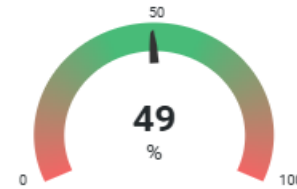
Maximum temperature  
8 minutes ago **23.7**

Weekly temperature trend  
8 minutes ago



## Humidity

Current humidity  
8 minutes ago



Average humidity  
8 minutes ago **47 %**

Maximum humidity  
8 minutes ago **49 %**

Weekly humidity trend  
8 minutes ago





Finding solutions to real  
problems.....



# New Build Defects

- 2 year project
- In home monitoring
- 30 new properties
- 2 sites in project (North and South of Cornwall)
- Temperature and humidity are key to monitor performance
- Soil moisture levels to identify poor garden drainage
- Drainage effluent levels to identify blockages
- Handover to Asset team with sensors in place



# New Home Performance

## Mould index

Current mould index  
19 minutes ago

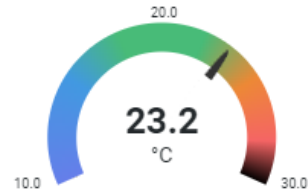


Average mould index  
19 minutes ago **3**

Maximum mould index  
19 minutes ago **4**

## Temperature

Current temperature  
19 minutes ago

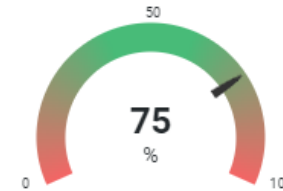


Average temperature  
19 minutes ago **21.3**

Maximum temperature  
19 minutes ago **23.**

## Humidity

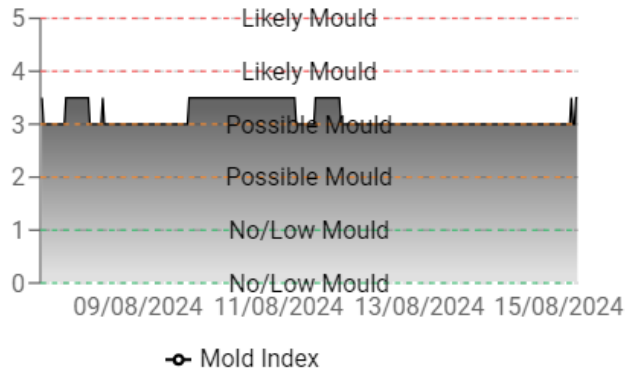
Current humidity  
19 minutes ago



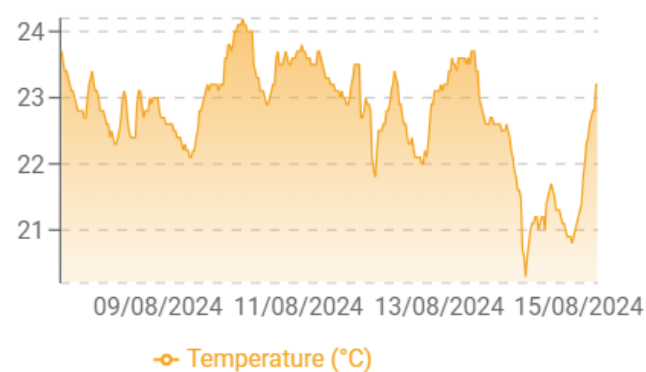
Average humidity  
19 minutes ago **67 %**

Maximum humidity  
19 minutes ago **75 %**

Weekly mould index trend  
19 minutes ago



Weekly temperature trend  
19 minutes ago

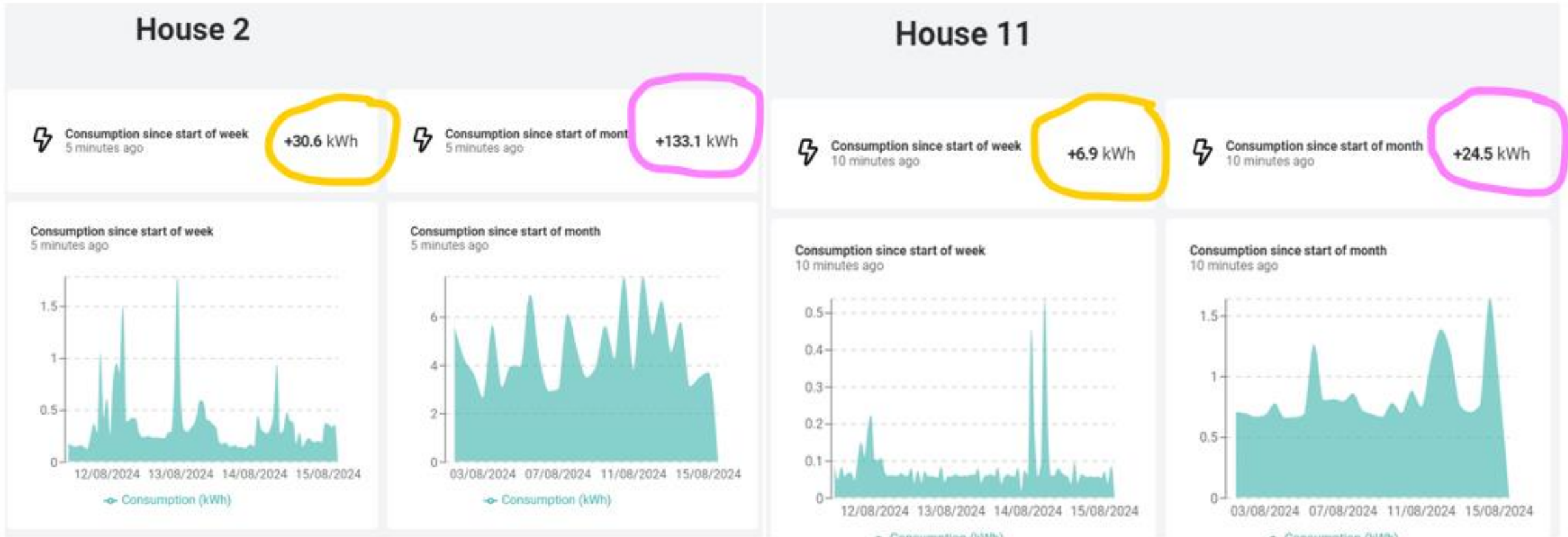


Weekly humidity trend  
19 minutes ago





# New Home Energy Use

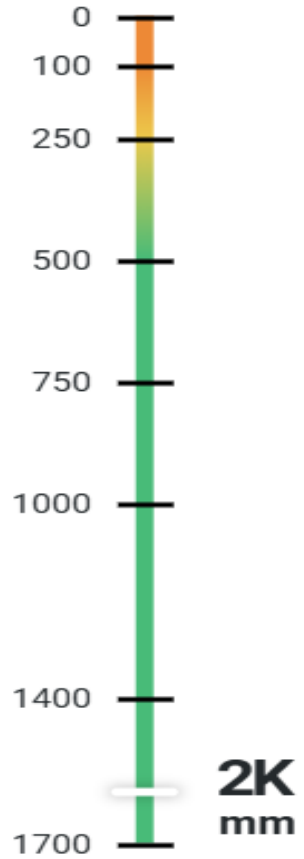


\*A household typically consumes approximately 800 to 1,000 kWh (kilowatt-hours) of monthly electricity.

# Bottom Gully Sensor

## Current distance

9 minutes ago



## Average distance

9 minutes ago

1,537 mm

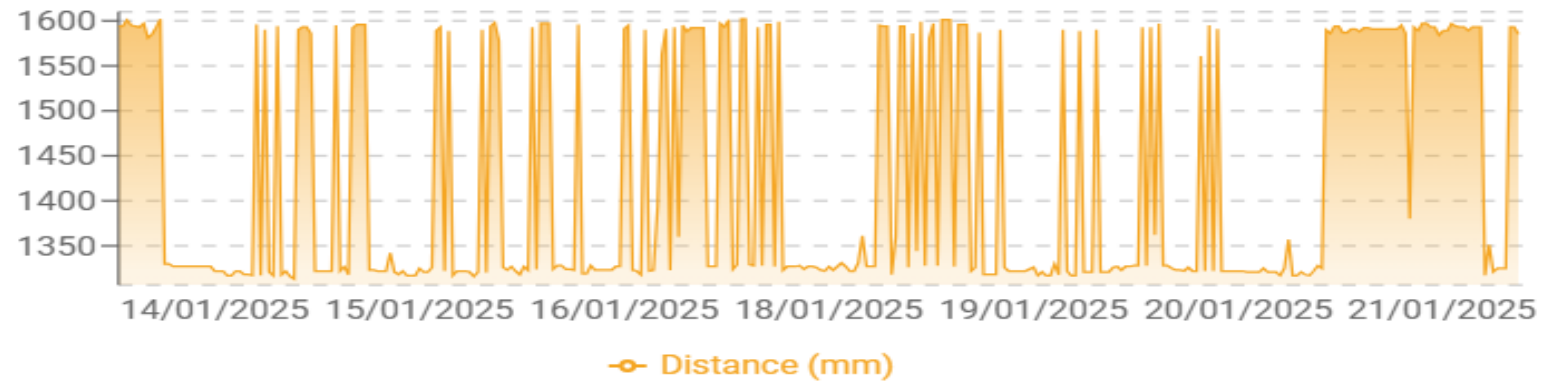
## Maximum distance

9 minutes ago

1,597 mm

## Weekly distance trend

9 minutes ago



# Property Security

## Door contact 4

Door open/closed times  
2 months ago

105

Last door open/closed duration  
2 months ago

0  
Minutes

Door state  
2 months ago

● Open

Door opened for longer than 5 minutes  
2 months ago

● True

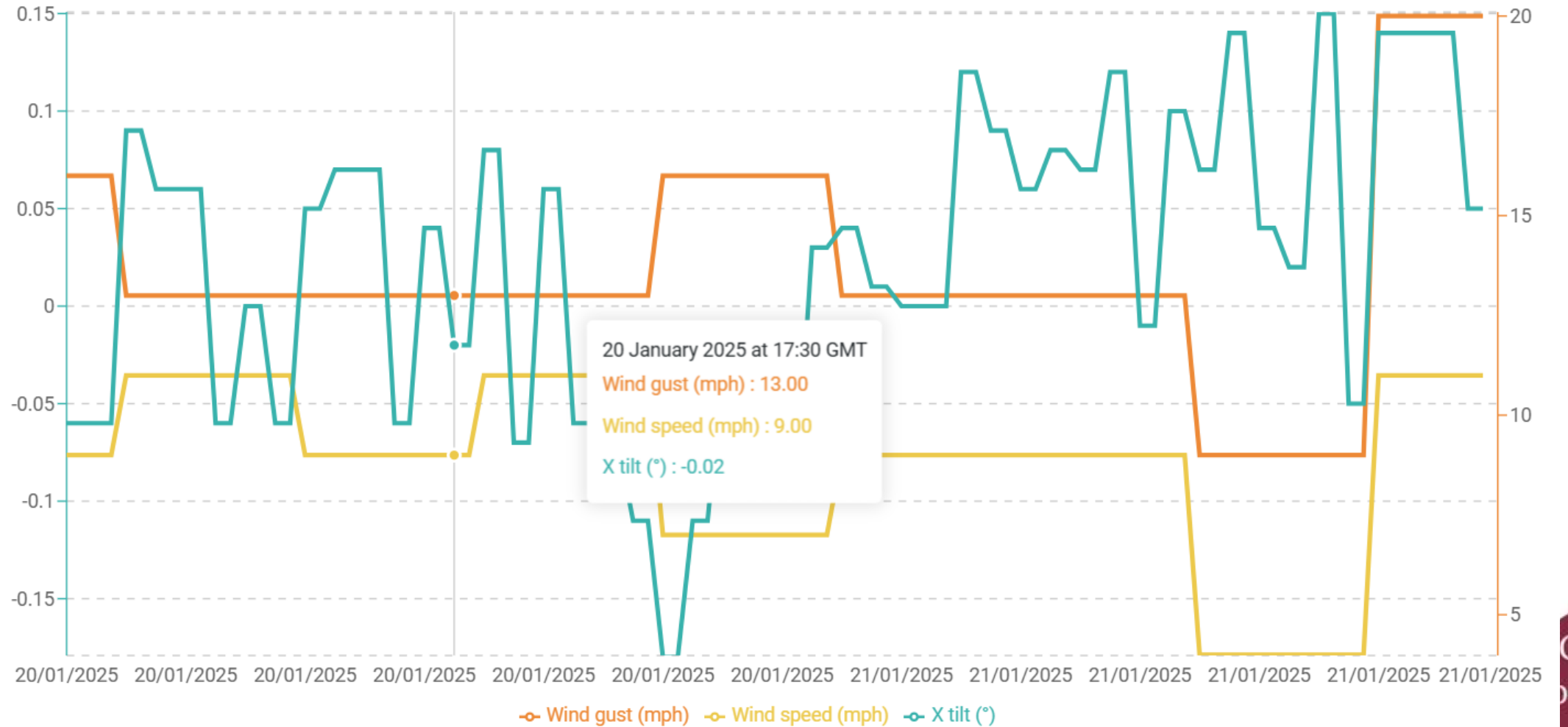




# Tilt Sensor

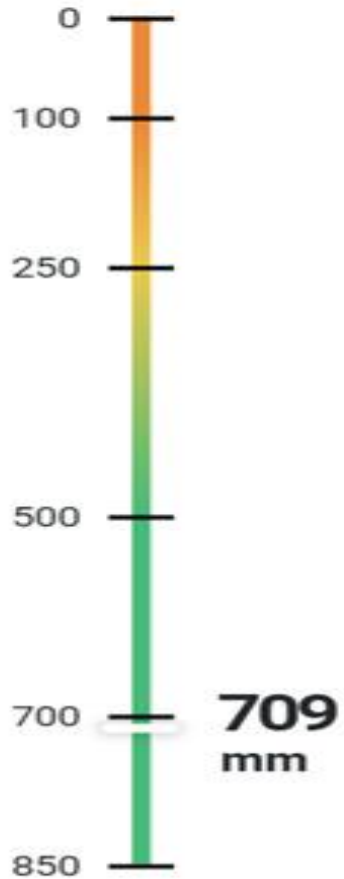
X  
15 minutes ago

Default 1H 1D 1W 1M Custom



# Garden Drainage

**Current distance**  
17 minutes ago



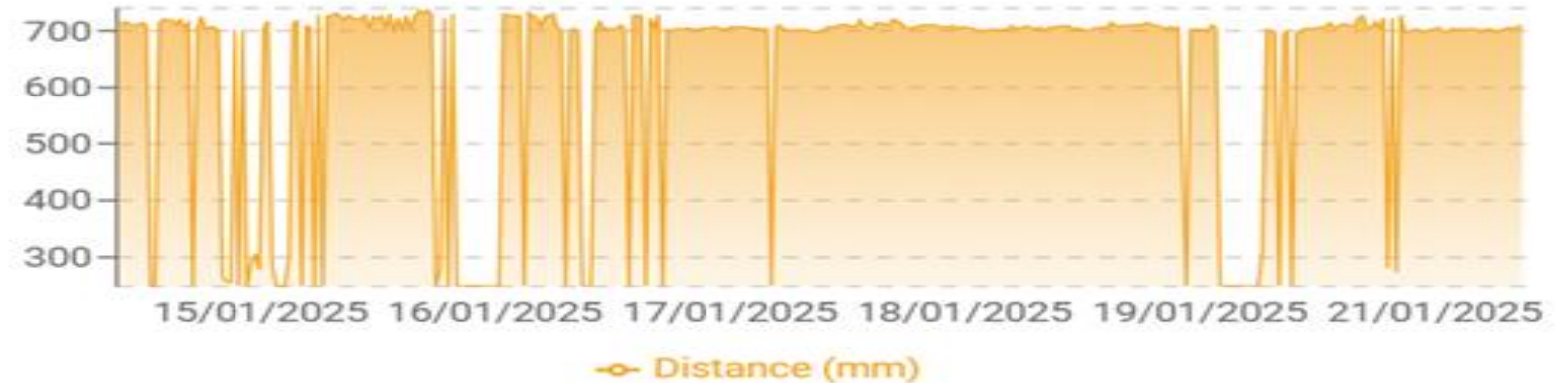
**Average distance**  
17 minutes ago

**688 mm**

**Maximum distance**  
17 minutes ago

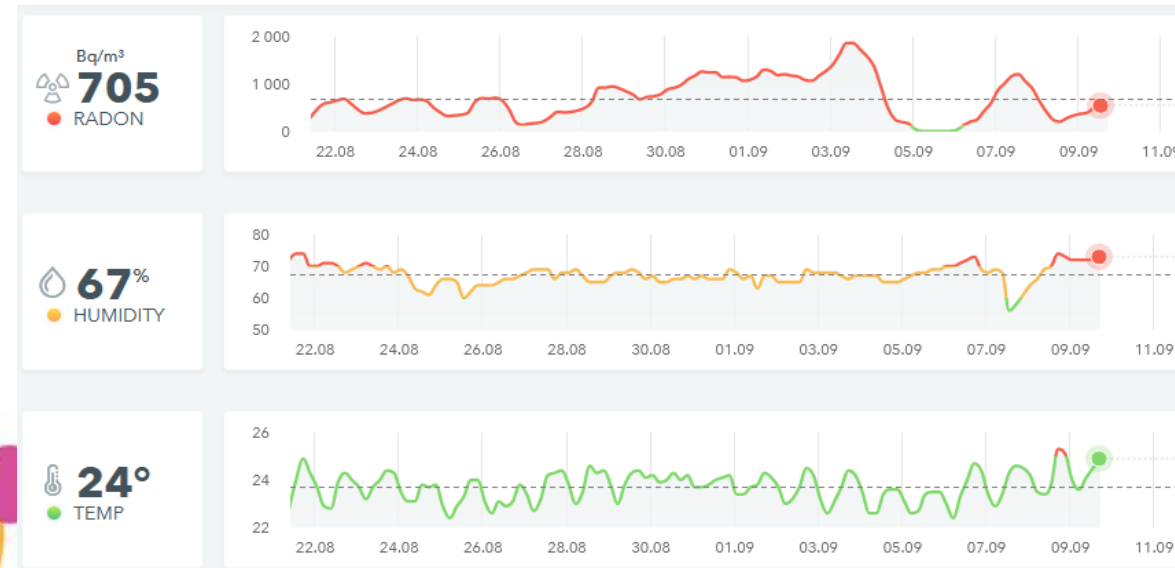
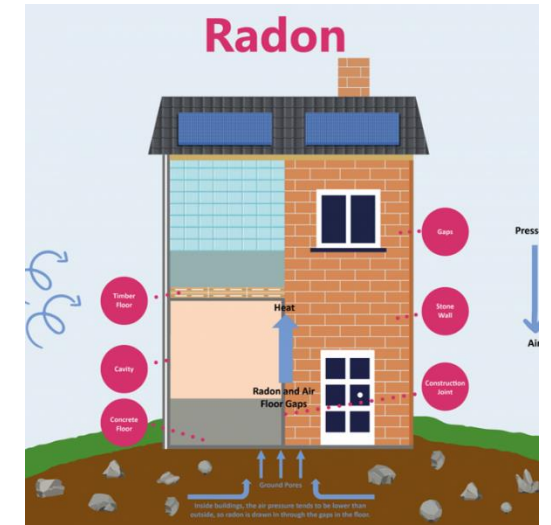
**727 mm**

**Weekly distance trend**  
17 minutes ago



# Radon Management

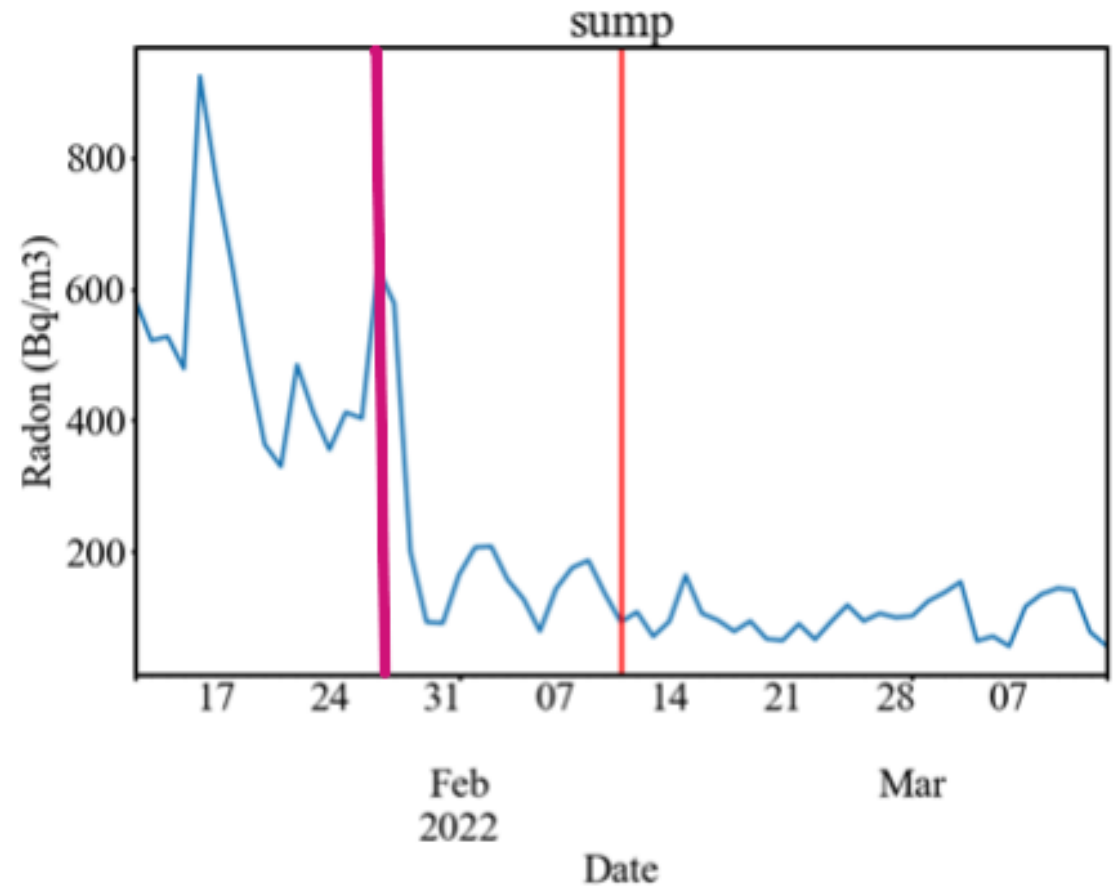
- Radon is naturally occurring in Cornwall
- Unpredictable
- First new technology sensors installed
- Some properties are side-by-side
- Results raised lots of questions
- Technology will prove interventions





# Radon Remediation

“.....with a significant decrease in radon levels for five of the six PPU's, and for two of the four sumps.”



# Data Examples – Property 1



High Humidity  
Low Temperature  
Low SAP? Solid Fuel heat?  
Possible Causes?

# Data Examples – Property 2

## Home 2

61%  
HUMIDITY



18°  
TEMP



Varying Humidity  
Varying Temperature  
(note mirroring of temperature and humidity)  
Property cools quickly?  
Possible Causes?



# Data Examples – Property 3

## Home 3



Excellent profile of Humidity and Temperature

New build home?  
High quality retrofit?  
Any thoughts?



# These Properties are Identical!

## Home 1



## Home 2



## Home 3



# Customer Care

Without technology you may guess or assume all is well.....





# Customer Care



**Thank you for  
your time**

**Any questions?**



**Habinteg**  
Accessible homes. Independent lives.



# Sustainable and inclusive rural homes

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Christina McGill  
Director of Social Impact & External Affairs,  
Habinteg

# About Habinteg



- Habinteg has over 50 years experience delivering and championing accessible in inclusive neighbourhoods.
- Habinteg's consultancy team, CAE is UK's leading authority on inclusive design

# What % of English homes are even 'visitable'?

9%

=

SouthWest  
circa 236,800  
homes are  
'visitable'\*

- Level threshold
- Sufficiently wide doorways and circulation
- Level access from gate or pavement
- Entrance level WC

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\*based on 2,630,834 homes in SW. Census 2021



# Policy changes on the way?

M4(1) Category 1: Visitable dwellings

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Regulatory  
minimum /  
default

M4(2) Category 2: Accessible & adaptable

M4(3) Category 3: Wheelchair user

a) adaptable (ready to tailor)

b) accessible (ready to go)



Optional,  
determined  
by planning  
policy or  
developer  
choice

# Policy changes on the way?

M4(2) Category 2: Accessible & adaptable

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Regulatory  
minimum /  
default

M4(3) Category 3: Wheelchair user

a) adaptable (ready to tailor)

b) accessible (ready to go)



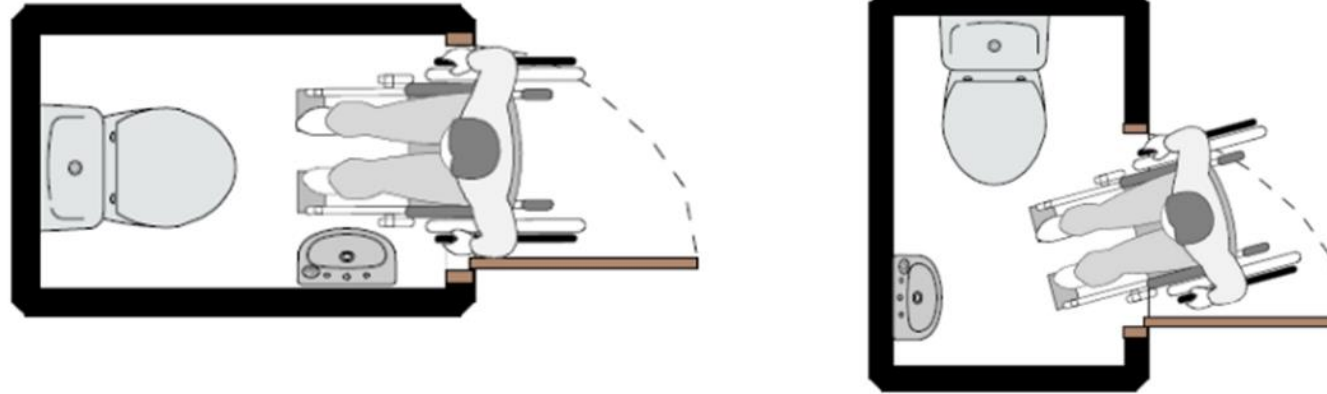
Optional,  
determined  
by planning  
policy or  
developer  
choice

***Exceptions? M4(1) Category 1: Visitable dwellings ?***

***– consultation due***

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# Why M4(1) 'visitable' is not enough?



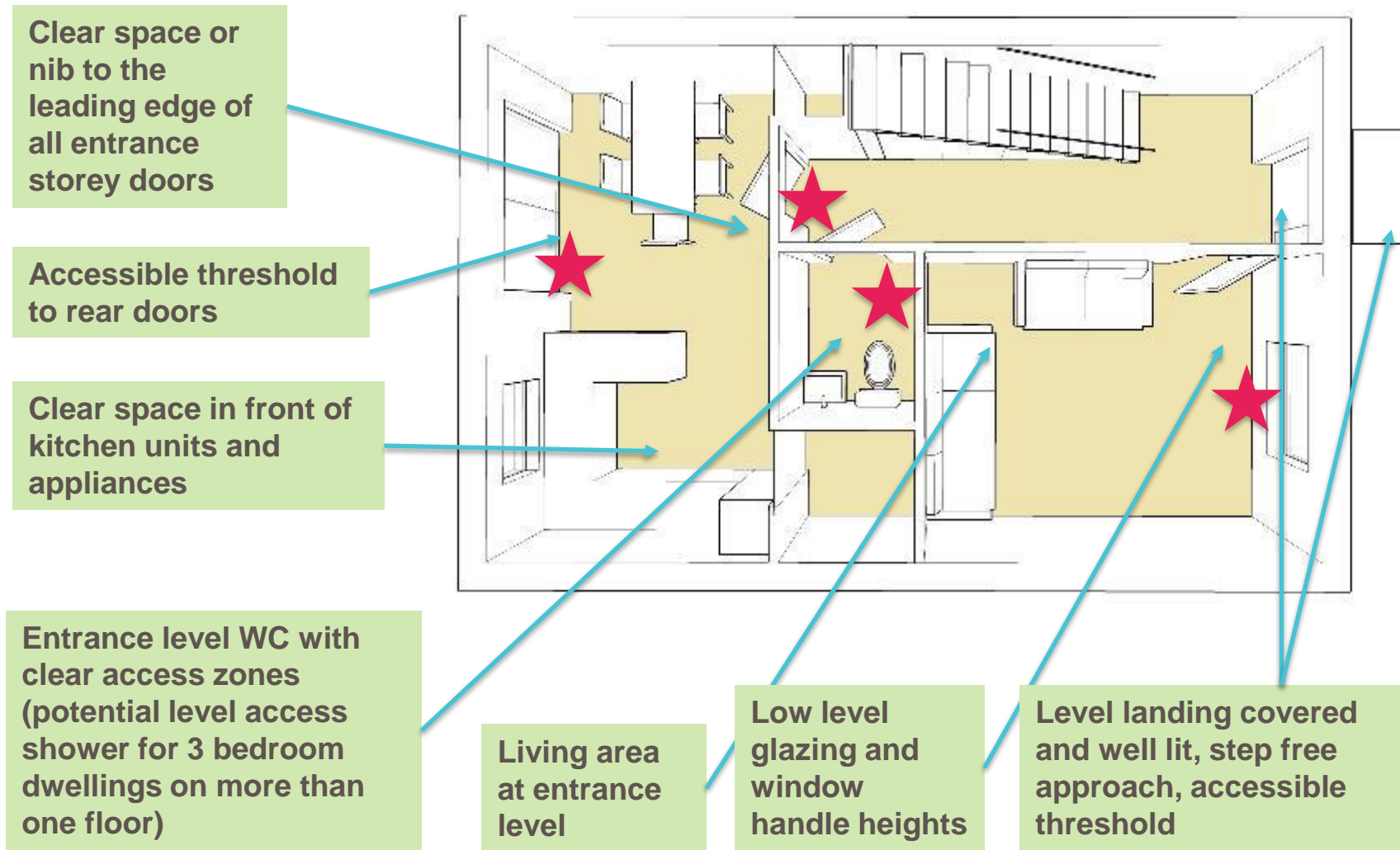
Although called 'visitable' there are limitations, e.g. the entry level WC in an M4(1) will not be guaranteed usable for a wheelchair users or anyone who requires assistance / uses a walking aid.

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# M4(2) – an ordinary home with hidden super powers





Category 2 Accessible, adaptable standard.  
Ground floor.

# Wheelchair accessible properties differ: eg kitchen:

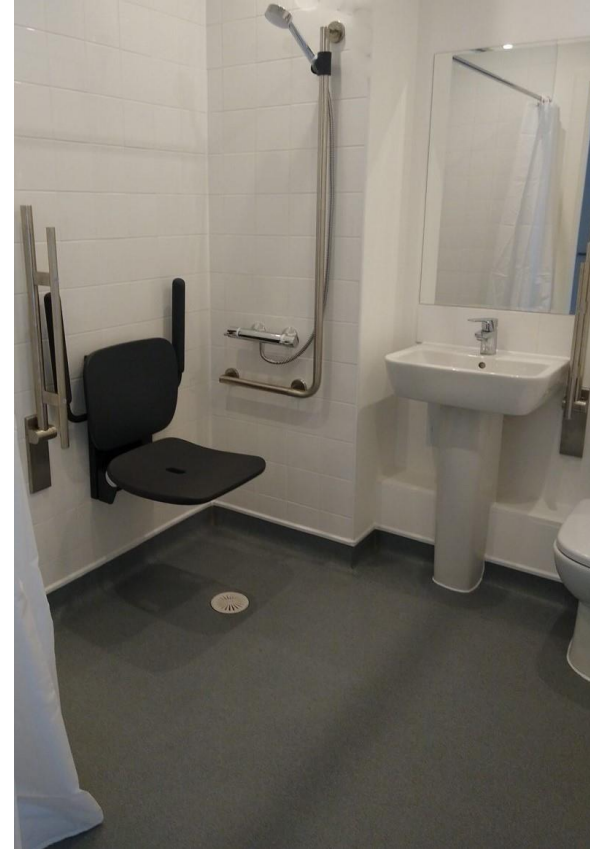


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Photo credit: Symphony kitchens for Inclusive Housing design Guide



# Wheelchair accessible properties differ: eg Bathroom:



# Wheelchair accessible properties differ: eg livable space



# It's not just about the dwelling...

For accessible homes to benefit disabled and older people, the **Neighbourhood must be sufficiently accessible**

- pavement parking,
- lack of dropped kerbs,
- inaccessible shops and amenities
- Inaccessible public transport

*"If I can park the car close to my accommodation, I can get about but need the wheelchair when I get to my destination. I cannot use my wheelchair to travel around my local area. There are too many vehicles blocking the paths"* Survey respondent, 65+

*"A lot of the local road crossing do not either make an audible sound or have tactile buttons underneath that you can feel to know if it's safe to cross the road".* Survey respondent.

*"In our cul-de-sac there are no paths in and out meaning you have to walk on the road which isn't suitable when you have a child with no danger awareness."* Survey respondent


*"Public transport is infrequent; therefore, costs are spent on taxis, or not going out."*  
Survey respondent

# Benefits – LSE analysis

## Benefits to individual and household

Improved confidence, independence, self esteem

Greater social inclusion, community participation

Higher disposable income (greater opportunities for work, less demand for self-funded care or adaptations.) 

## Benefits to public expenditure

Reduced delay in hospital discharges

Fewer trips and falls in the home 

Delayed or avoided need for permanent residential care 

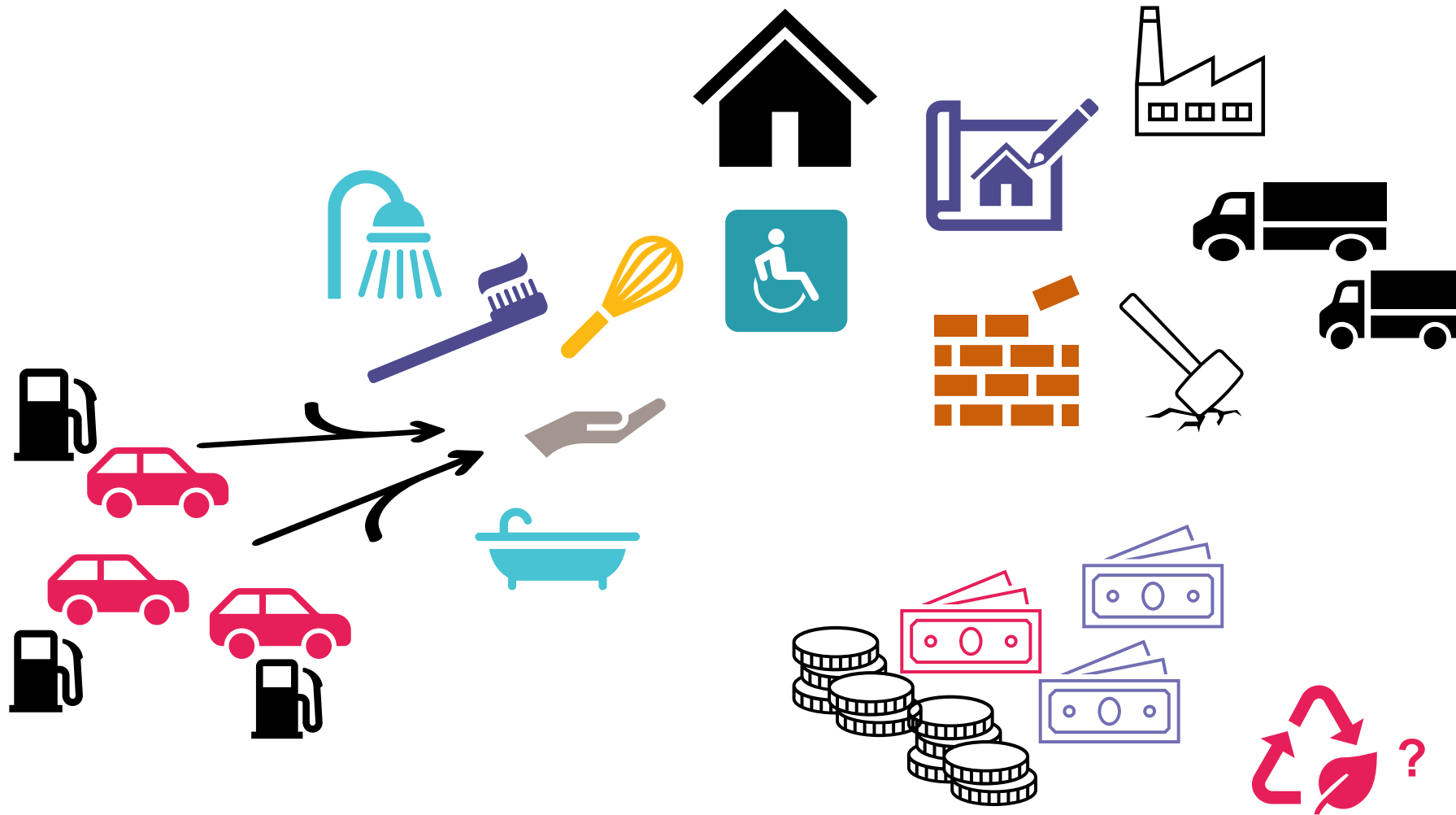
Remove or reduce cost of care assistance at home

Reduced reliance on welfare and greater tax and NI contributions

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# Inclusive homes support sustainability



# Inclusive homes support sustainability



# SouthWest observations

- Developers focus too much on costs as reason not to build accessibly (and Planning Authorities don't demand enough)
  - Distances from home to essential services isolate disabled people
  - Patchy public transport – and poor digital connectivity further isolates
  - Lack of accessible housing exacerbates pressure on already stretched care services, and lengthens hospital stays
  - Retirement inflow increases demand and adds pressure on systems
  - Lack of homes in eg Cornwall, forces disabled people to leave the county – destabilising communities
-

# SouthWest views

“With an aging population in Cornwall there is an even greater need to supply level access homes with walk in showers. I have found **a bungalow may have a walk-in shower but has three steps down then 4 steps up** to the entrance.

“One of my tenants went to view an **adapted flat** and she loved it but the entrance to the flats was not accessible **someone had to carry her in..”**

*Tracy, Habinteg Neighbourhood Manager, Cornwall*

**“Sustainable communities require housing that is inclusive—without it, Cornwall risks becoming a county where disabled people and older residents simply cannot live independently.”**

*Jamie, Habinteg Campaigner, Cornwall*

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# For more...

[cmcgill@habinteg.org.uk](mailto:cmcgill@habinteg.org.uk)

[www.habinteg.org.uk](http://www.habinteg.org.uk)

Policy briefings, reports and analysis  
- #foraccessiblehomes campaign

[www.cae.org.uk](http://www.cae.org.uk)

- technical access consultancy
- training
- guides and publications

**Accessible homes. Independent lives.**

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