Background

There has been a systemic failure in tackling the Retrofit challenge, compounded by piecemeal national policy, difficulties in engaging householders to stimulate demand and a lack of sustainable business models.

It is our strong belief that central government is not going to be able to ‘solve’ home retrofit alone, by delivering it through a wholly top-down approach.

• Local/combined authority leadership will be essential to deliver carbon reductions in existing homes. However central government is still key to unlocking certain barriers.

• Authorities can achieve more through collective action & better joining up of respective efforts on home retrofit.
From July to December 2019, UKGBC led an EIT Climate-KIC Pathfinder project, 'Accelerator Cities', focusing on the role of cities in catalysing a step-change in home retrofit.

The Accelerator Cities Pathfinder ran nine workshops with local authorities across the country, including in Cardiff and Edinburgh. From these workshops, research and accompanying engagement with key stakeholders, the Pathfinder identified the key barriers to retrofit in the UK.

A high-level blueprint was subsequently created for how an individual city-led home retrofit programme could address these barriers.
A City-led retrofit programme blueprint

Stock-take of existing homes in city/region
- Type
- Condition
- Tenure
- EPC performance
- In use performance: Smart meter data
- Strains on the local grid
- Stock data: deprivation, health, performance

Technology
- Certified approaches
- House type specific
- Area based approaches
- Insurance – NHBC type
- Measurement of successful retrofit
- Academia – research and innovation

Incentives
- Council tax
- Grants
- Competitions

Tenure type
- Social housing – revolving fund – (Salix), RHI, ECO
- Able to pay – green mortgages, PAYS loans, RHI, ECO, upfront grant
- Private rented – green buy to let mortgages, PAYS loans, RHI, Enhanced Capital Allowances, ECO, upfront grant
- MEEs

Pilots/case studies
- Test of approaches: finance, tech, skills, householder package
- De-risk private investment
- Hearts and minds
- Exemplars to showcase

Skills
- Local training
- Local employment opportunities
- Installers kitemark
- Local supply chain/necessity of upskilling
- Apprenticeships
- Work from community interest groups
- Academia – skills training

Policy
- Level of ambition. Climate Emergency - Net Zero by 2050
- What this means for existing homes
- EPC C by 2030
- Consequential improvements
- RE planning policy-Allowable Solutions
- Existing initiatives
- Importance of a joined up programme to exert pressure at a national level and create supply chains

Engagement with householders
- Trigger points
- Deep retrofit plan – stages of retrofit, costed/timed
- Tenure specific approach
- Area based
- Start with social housing, and/or ‘willing able to pay’
- Assurance of tradespeople/technology – compensation scheme in case of issues
- Occupier enthusiasm e.g. holiday offers

Finance

LA sources of finance
- ECO
- Section 106
- Allowable solutions
- Private finance
- Green Finance Institute
- Joining up health/social care/other budgets
- Revolving funds
- EIAH/ URBIS

Making the case for investment
- Cost/benefit tools
- Measurement of co-benefits – ‘good homes’
- Procurement policy – retrofit at scale bringing cost down
What is the Retrofit Playbook?

The component parts of this resource pack are designed to help enable cities and local authorities to drive mass-scale retrofit of existing homes.

• The intention is for this resource to be a *live document*.
• We intend this to feel co-owned by users and are actively seeking ongoing feedback and engagement.
• The Playbook is a guide; and the intention is that local authorities can ‘dip into’ those sections that are relevant and useful to them, depending on their capacity/progress etc.
• The Playbook currently focuses on information relevant to *English local authorities* and only covers issues relating to carbon mitigation and energy efficiency. This could be reviewed in due course.
The role of local/combined authorities

The Playbook highlights that retrofit at scale is neither a responsibility nor challenge that local authorities can or should be tackling alone. Different local and combined authorities will have different resource and capacity constraints, and political willingness to lead. The Playbook offers a spectrum of activities that local authorities can engage with, and outlines a number of different roles that they can play. These include:

- **Facilitation** – local authorities can act as convenor to bring a ‘coalition’ of willing individuals and groups together to help develop and implement a retrofit strategy and programme.

- **Marketing and communication** – a key, and relatively resource-light role for local authorities is to provide information for residents on the benefits of retrofit, the importance of whole house plans, and the importance of using only accredited installers and suppliers.

- **Coordination** – local authorities can act as the ‘lynchpin’ in terms of coordinating action on home retrofit. They can set up or support ‘One Stop Shops’ to support residents on their retrofit journey. They can liaise with finance providers, to look at piloting and supporting local retrofit financing mechanisms. They can also take a leading role in supporting the skills providers, to ensure that the local supply chain gears up to deliver.

- **Being a ‘trusted’ partner** – research shows that local authorities are consistently more ‘trusted’ than national government and other stakeholders. Supporting third party retrofit schemes can help increase their reach and impact.

- **Supporting the growth of local skills and supply chain** – local authorities can work with existing sector partners to engage with the supply chain to promote accreditation through Trustmark and MCS and capacity-building for whole house approaches.

- **Delivering deep retrofit on social housing** – developing ambitious targets for local authority-owned and social housing provides an opportunity to immediately stimulate the supply chain.
Playbook contents

Part 1. Setting targets and an overarching strategy
Part 2. Developing a One Stop Shop
Part 3. Engaging householder and landlords
Part 4. Finance
Part 5. Skills and supply chain
Part 6. How local authorities can engage Registered Social Landlords on retrofit

Case Studies & Appendices
The Retrofit Playbook
Part 1 – Setting targets and an overarching strategy
Key components of a retrofit strategy

Overcoming the barriers to home retrofit requires a holistic, cross-departmental strategy to ensure buy-in from across the relevant teams. It should contain the following elements:

• **How to increase resource(s) to match ambition**
  - This includes financial resources, joint national lobbying, knowledge sharing, partnership working, business-case development & refocusing exiting roles.

• **Setting targets for retrofit**
  - These can act as both a rallying cry and direct actions in line with an evidence-base detailing the local context.
  - Regional partnerships or organisations such as universities can provide pathway modelling or supportive local research.

• **Key Stakeholder engagement & collaboration**
  - Identify the key local stakeholders & beneficiaries to engage with; including those needed to deliver and inform the strategy.

• **Whole house retrofits: in one go or a staged approach?**
  - The majority of homes are going to need a ‘whole house’ or ‘deep’ retrofit. However, there may be times when it is not possible to undertake a whole house retrofit, so it is worth developing an approach to incremental improvements.
  - Building renovation passports are a tool which can be used to chart a trajectory for an individual building.

• **Monitoring impacts**
  - Capturing and monitoring data on the impacts of different retrofit interventions is crucial to establish which approach is the most effective, The Build Upon 2 Framework, contains relevant milestones and progress indicators.

• **Examples** include Greater Manchester and Leeds.
Setting targets and an overarching strategy

Key actions for local and combined authorities

• Convene a coalition of willing partners in the area to take forward and help resource development of a retrofit strategy.
• Baseline the Local Authority/Combined Authority current circumstances - for example political and stakeholder engagement, data and resources etc.
• Identify and deliver the most appropriate route to putting in place a strategy and targets for retrofit.
• Raise the profile of retrofit within local authority departments to leverage resources
• Work with UKGBC and other coordinating bodies to share knowledge and experience.
The Retrofit Playbook
Part 2 – Developing a One-Stop Shop
A ‘One Stop Shop’

Under the **one stop shop model**, multiple services are bundled together to offer homeowners an end-to-end journey; from raising awareness of the need for an upgrade, undertaking assessments and designs, arranging contractors and helping to organise finance. A helpful guide to setting up one stop shops for local authorities across Europe has recently been published by **INNOVATE**.

**The business model** - The INNOVATE guide identifies several business models for one stop shops

- Services that ‘hand-hold’ people through the whole process, with independent advice from a trusted source, are likely to have the greatest chance of success. Key to this whole-service approach is the role of a Retrofit Coordinator, as required by the PAS2035 standard, who acts as a liaison between homeowners and suppliers.

**The customer journey** through the one stop shop contains the following steps:

- **Marketing**: Community based marketing and promotion
- **Initial assessment**: To create a desktop ‘whole-house plan’
- **Detailed assessment**: A home visit
- **Coordination**: the Retrofit Coordinator project manages procurement of suppliers
- **Monitoring**: Ongoing performance monitoring

An example of this is the **Retrofit Works** model, a cooperative structure that involves trusted community based ‘advocate’ organisations promoting the Retrofit Works Retrofit Coordinator service, along with suppliers who themselves are members of the cooperative.
Developing a One Stop Shop

Key actions for local and combined authorities

- Review the INNOVATE guide to gain a good understanding of the different models and the potential role of local authorities.
- Incorporate the establishment of a one stop shop as a key element of the city-strategy and engage coalition members as potential partners.
- Develop opportunities for the one stop shop model to work alongside social housing initiatives in a joined-up neighbourhood-based approach.
The Retrofit Playbook
Part 3 – Engaging householders and landlords
Defining the audience: market segmentation and messaging

Targeted information and encouragement from a local authority can help engage residents, as local authorities are trusted by the public and benefit from existing communication channels. A successful engagement and communications plan will need to:

• Define the audience, looking at:
  o Tenure types: social or private renters and homeowners - both high and low income
  o How to harness key life stages and ‘trigger points’ relevant to retrofit, such as moving home
  o Common and unique barriers e.g. risk aversion, awareness

• Consider psychological types and the ways to appeal to each type
  o The ‘Diffusion of Innovations’ theory examines different psychological ‘types’ including: innovators, early adopters, early majority, late majority, laggards. This theory can be used in communications and engagement with residents through helping tailor messaging.

• Consider different market segments – motivations and messaging
  o E.g. homeowners, able to pay vs less able to pay, social housing etc. will require different messaging to address their circumstances / barriers e.g. signposting to funding or a consideration of time constraints.
  o Other key messages for residents and landlord include the importance of phased whole house retrofit plans and quality assurance

• The customer journey through the one stop shop model
  o Being clear about the customer journey as a local authority and then using it to shape key communications and any engagement plan is an important component of a successful strategy
Engaging householders and landlords

Key actions for local and combined authorities

• Capitalise on the immediate opportunity offered by the Green Homes Grant (GHG) scheme by providing information on the programme parameters and eligibility criteria through community networks to ensure communities are aware of the programme and can link it to their existing referral pathways. Brief councillors about the GHG and encouraging them to publicise the scheme through their networks.

• Review details of any residents that have been through other energy efficiency programmes and, where permissible, contact them again to let them know about the GHG programme and how to apply.

• Communicate with residents about the benefits of retrofit, the importance of whole house plans, and the importance of using only accredited installers and suppliers. Taking into account differing motivations and types of audience.

• Working with sector partners, create a communications and engagement plan as part of a longer-term strategy taking into account differing tenure types, life changes and trigger points and psychologies.
The Retrofit Playbook
Part 4 – Finance
Funding the development and delivery of a retrofit strategy

There are two key aspects of finance that are essential for a successful city/LA-wide home retrofit programme:

1) Funding the development and delivery of a LA retrofit strategy.
2) Supporting retrofit finance mechanisms for householders.

- **LA funding**
  - Several possible funding sources include: National funding, knowledge sharing, regional coalitions, partnerships or joint ventures.
  - In order to be ready to capitalise on funding competitions as they become available, Local Authorities should prepare a full stock assessment that supports funding applications as well as policy and programme development.

- **The local authority can play a critical role in mobilising a ‘blended funding model’ as a facilitator, coordinator and provider of finance.**
  - The Blended funding model represents a ‘dial’ of funding approaches for different socio-economic groups.
  - In their report ‘Financing energy efficient buildings: the path to retrofit at scale’ the GFI explore potential funding mechanisms - e.g. green leases, metered energy savings, energy saving ISA, property Assessed Clean energy style financing.

- **Finance should be part of the one stop shop customer journey**
  - Householders will need to be given a clear ‘menu of financial options’, with advice about how they can be combined.
  - There is a possible role for ‘financial coordinators’ working alongside ‘retrofit coordinators’

- **Local authority housing stocks, associated maintenance budgets, and their relationships with other social housing landlords and stakeholders place them in the ideal position to catalyse neighbourhood-based approaches.**
  - i.e. engaging with whole streets and offer funding packages that can work across all tenure types and suit all financial circumstances.
The blended funding model

**SOCIAL GROUPS**
- Able to pay

**BENEFITS**
- Better Homes
- Energy Savings
- Social Impact

**FUNDING MECHANISMS**
- Savings
- Loans
- Energy as a service
- Green rental agreements
- Grants
- PACE
- Pay as you save

**SUPPLY CHAIN**
- Commercial opportunities
- Volume discounts
- Product finance

**Figure 5: The blended funding approach [Credit: Otley Energy]**
Key actions for local and combined authorities

1) Funding the development and delivery of a retrofit strategy:

• Advocate for central government funding and maintain a robust strategy
• Convene an early meeting of relevant cross-department officers and politicians to secure buy-in to retrofit commitments and co-ownership of the retrofit strategy as a funding priority.
• Capture and monitor data on the impacts of home retrofit by using models such as the World Green Building Council Build Upon Framework
• Support an active network between the combined authority, relevant officers from other local authorities and the local energy hub in developing city and regional strategies
• Prepare a full stock assessment that supports funding applications as well as policy and programme development
• Consider a formal prospectus process as undertaken by Bristol, commissioning sector specialists, or consider an ‘open door’ policy to proposals that could generate funding and resource.
• Review UK100 proposals for a national Net-Zero Development Bank and share with stakeholders
2) Supporting retrofit finance mechanisms for householders:

- Support the work of UKGBC and partners including the Green Finance Institute in identifying the role of local authorities in promoting, utilising and providing emerging funding models such as ‘pay as you save’, as part of a ‘blended funding’ approach.
- Stimulate demand for householder funding mechanisms through targeted marketing and messaging.
- Explore opportunities for volume discounts and product finance as part of city-wide initiatives and neighbourhood-based approaches.
- Explore ways to help householders navigate through finance options, especially for more vulnerable members of the community. Local authorities could play a role either through their existing financial inclusivity teams, directly providing advice, supporting trusted community organisations or through support for the one-stop-shop model.
- For local authority housing stock, use maintenance budgets to accelerate the decarbonisation of the existing stock, which will stimulate the supply chain and skills ecosystem and start to shift the social norms and attractiveness of home upgrades.
The Retrofit Playbook
Part 5 – Skills and supply chain
Skills and supply chain

There are two key strands to understanding local supply chains and skills.

- **Understanding the local building stock and the demographics of the people that live in the local area;** this is important as the supply chain and skills need to correlate, as different building types and occupants need different approaches to upgrade them.

- **Understanding the status of the local supply chain and skills within a local authority area;** these then need to be mapped against the demand, which is determined by the type of buildings and the existing energy use intensity of these buildings, as well as the local demographics.

- Local authorities should create an **Action Plan** to develop and support local skills and the local supply chain. This could be done by setting up a task group to coordinate action and deliver solutions. The task group should include representatives from across the supply chain.

- There are some critical issues pertinent to the skills and supply chain for upgrading homes that local/combined authorities need to be aware of, as these influence the skills required, including: the prevalence/profile of traditional buildings, considering local stock repair and maintenance requirements, ventilation.

- The supplier journey must link-up with the one-stop-shop model
  
  - Just as the householder needs to be led through a smooth ‘journey’, so the supply chain needs its own journey to transition from where they are now.
  
  - Contractors need to be made aware of the opportunities in the market, engaged, supported in upskilling and monitored for quality and service.
Skills and supply chain

Key actions for local and combined authorities

- Know the stock
- Understand the local skills and supply chain
- Map the stock (demand) against the available skills and supply chain
- Identify gaps from mapping
- Develop a strategy to address gaps
- Develop relationships with training providers and local supply chain
- Support development of local skills and supply chain
- Support integration of supply chain into OSS model to deliver whole house approach
The Retrofit Playbook
Part 6 – How local authorities can engage Registered Social Landlords on retrofit
How to engage with Registered Social Landlords

RSLs can be a powerful delivery partner. To engage with and support this group, Local Authorities should focus on:

- **Engagement:**
  - LAs should involve and work with RSLs in their area as part of strategy development and set up a forum for RSLs to work collaboratively.
  - The registered social landlord will have the responsibility to engage with tenants to get the work carried out. There will be issues around choice and control, and this needs to be handled sensitively through a well-considered tenant engagement process.

- **Finance:** A key barrier for RSLs is access to finance. Potential solutions for Local Authorities include:
  - Low-interest finance or loans, creating a Carbon offset fund, hosting an RSL forum. An RSL forum hosted by the Local Authority could be used to jointly bid for grant funding.

- **Supply chains and skills:** Local Authorities can play an important role to help to connect RSLs with the skills supply chain and upskill RSLs
  - RSLs need: reassurance of technical capabilities (i.e. accredited suppliers); a procurement framework of people who are able to undertake retrofit; RSL knowledge-transfer forums.

- **Making a plan:** A significant cost for RSLs will be undertaking a zero-carbon assessment for their whole portfolio. RSLs could undertake desk-based analysis working with a partner, such as Parity Projects and its Portfolio tool. An RSL forum could also be used to share and compare results for this portfolio scoping exercise, showing the scale of the challenge, indicative cost, and areas for savings.

- **Reviewing a whole estate:** A detailed assessment is needed using multiple factors like fuel poverty and the maintenance cycle, a feasibility study is also needed for each housing estate.

- **Procurement of portfolio and investment options:** There can be a problem with a lack of retrofit contractors, Local Authorities could have in-house specialist for retrofit who could supervise work on site. This person could be charged out to RSLs.

- **Post-occupancy evaluation:** This is valuable for ensuring that the work is being carried out to the correct standard. Appropriate methodologies would include:
  - A "soft landings" strategy approach, akin to the BSRIA Soft Landing framework
  - The Building User Survey approach methodology
How local authorities can engage Registered Social Landlords on retrofit

Key actions for local and combined authorities

- Involve and work with RSLs in the area as part of retrofit strategy development, and on skills, finance and engagement
- Set up a forum for RSLs to work collaboratively - a space to share learnings and challenges, and where tradespeople, experts and fund providers could present and engage
- Explore sourcing finance for RSLs at low/LA borrowing rates
- Work on joint bids for grant or loan funding to improve the business case for RSLs to undertake retrofit
- Set up ‘buying groups’ so RSLs can procure services and materials.
- Employ an in-house specialist for coordinating and overseeing retrofit who could supervise work on site, ensure quality and that the building performs as designed. This person could be charged out to RSLs. They could also help scrutinise tender bids, help bids, help identify good financial advisors and host the RSL forum.
More information:

For more information about the Playbook, please see: https://www.ukgbc.org/ukgbc-work/driving-retrofit-of-existing-homes/

For more information on Accelerator Cities, please visit: https://www.ukgbc.org/ukgbc-work/accelerator-cities/

To access our interactive Retrofit Policy Map, please visit: https://www.ukgbc.org/interactive-policy-map

• To contact a member of the team, please email: philip.box@ukgbc.org