UNIVERSITY OF CAMBRIDGE | CISL Cambridge Institute for Sustainability Leadership

Delivering Retrofit at Scale Together:

Better homes for healthier, resilient and stronger communities

Funded by UK Government

CAMBRIDGESHIRE & PETERBOROUGH COMBINED AUTHORITY

CAMBRIDGE CITY COUNCIL

The University of Cambridge Institute for Sustainability Leadership (CISL)

CISL is an impact-led institute within the University of Cambridge that activates leadership globally to transform economies for people, nature and climate. Through its global network and hubs in Cambridge, Cape Town and Brussels, CISL works with leaders and innovators across business, finance and government to accelerate action for a sustainable future. Trusted since 1988 for its rigour and pioneering commitment to learning and collaboration, the Institute creates safe spaces to challenge and support those with the power to act.

Cambridge City Council

Cambridge City Council was among the first councils in the UK to declare climate and biodiversity emergencies in 2019, and has committed to getting its own operations to net zero by 2030.

Since then, Cambridge was named an 'A' list city in 2023 and 2024 in the Carbon Disclosure Project's global rankings, while also being recognised as a top performing council in Climate Emergency UK's Council Climate Action scorecards – both of which acknowledge the council's ongoing work to mitigate and adapt to climate change.

With 27% of the city's carbon emissions currently come from people's homes, the council's commitment to building better new homes and retrofitting older homes plays a vital role in bringing down energy costs for residents, making people's lives healthier, and reducing household emissions across the city.

Authors

Anum Yousaf Sheikh, Sanna Markkanen

Supported by

Lucy Bruzzone, Annabelle Roblin-Sserwanja, Annisa Sekaringtias

Citing this report

University of Cambridge Institute for Sustainability Leadership (CISL). (2025). *Delivering Retrofit at Scale Together: Better homes for healthier, resilient and stronger communities*. Cambridge Institute for Sustainability Leadership.

Acknowledgements

This report, and the research informing it, was commissioned by Cambridge City Council with funding support from the Council and the UK Shared Prosperity Fund.

The authors would like to acknowledge the contributions of numerous people to the preparation of this study through their participation in focus groups, the workshop and interviews as listed in Annex E of the report. While every effort has been made to faithfully reflect and build on the inputs provided, this paper does not necessarily reflect the views of these organisations or the interviewees.

Executive summary

This research was commissioned by Cambridge City Council with funding from the Council and the UK Shared Prosperity Fund. The purpose of the project was to ***identify key opportunities and challenges to residential retrofits*** *in the Greater Cambridge area and, building on this evidence, draw* ***actionable recommendations to accelerate retrofits*** *in the area.*

In this context, 'retrofit' was defined as a process of making improvements to a home to make it more energy efficient. These measures include improvements to insulation of walls, floors, lofts, windows and doors. Retrofits may also include solar photovoltaic (PV) installation and upgrades to heating, hot water and lighting.

The UK housing stock is among the oldest and leakiest in Western Europe, heated predominantly with fossil gas. For the UK to meet its medium- and long-term greenhouse gas (GHG) reduction targets, approximately 29 million homes need to be retrofitted with better insulation and electric heating technologies in the coming decades. Despite significantly higher than average incomes, house prices and rents in the area, the quality of homes in Greater Cambridge is similar to the national average, indicating a considerable need and opportunity for retrofits to improve housing standards. Beyond emissions reductions, retrofits would improve comfort and energy efficiency, reduce fuel poverty and help eradicate unhealthy housing conditions. Carefully targeted and adequately funded retrofits could help reduce wealth and health inequalities, which are exceptionally high, especially in Cambridge City. Accelerated retrofit activity would also present substantial opportunities for job creation and economic growth.

Many of the key challenges to scaling retrofits in Greater Cambridge are similar to those seen across the UK. These include high upfront costs, low consumer awareness, concerns over the level of disruption, limited funding and complex design of many of the available schemes, and the age, complexity and diversity of the housing stock. However, **some challenges are linked to local contextual conditions** such as high housing costs and large numbers of heritage listed homes.

The retrofit potential in Greater Cambridge is significant, but realising it requires a co-ordinated, well-resourced, and locally tailored approach. Cambridge City Council and South Cambridgeshire District Council are actively promoting and supporting retrofit, in addition to retrofitting their own housing stock. The two councils have successfully collaborated to raise funding for retrofits under the Warm Homes: Local Grant and to deliver projects such as the Action on Energy scheme, which offers guidance and a trusted contractor framework to all homeowners. However, they are keen to act more decisively and in partnership with others to understand and address factors that hinder scaling of retrofits in the local communities.

Combining a literature review with a stakeholder mapping exercise and qualitative research, this research identified four key areas where Cambridge City Council could intervene to promote retrofitting of the residential building stock: **policy and governance, finance, skills, and awareness and engagement**. Each of these themes involves barriers at the national, local, and household levels that must be overcome. In this report, the analysis is organised thematically, with national level challenges, local perspectives and recommended actions detailed under each theme.

At the national level, policy instability and the lack of a comprehensive, long-term retrofit strategy create a sense of uncertainty, deterring investment among users, service providers and educational establishments. Policy U-turns and the lack of consistent commitment are reflected in the short-term duration of many funding programmes and frequent revisions to standards, making it risky for all stakeholders to draft long-term plans. Local respondents were particularly concerned about building regulations that allow newbuilds that will eventually need to be retrofitted. Considering the significant size of the private rented sector in the area, unclear guidance for landlords presents a barrier to retrofit investment among them.

In addition to simplifying their own planning processes, local authorities can improve the situation through effective policy advocacy at national level.

Financial constraints are a significant barrier to retrofits across the country. **In Greater Cambridge, the financial challenges are partially different from the national norm.** High house prices and rents mean that many owner-occupiers and landlords do not qualify for government grants, while volatile interest rates and the high cost of living disincentivise them from seeking debt financing for retrofits. Moreover, Greater Cambridge has many heritage listed properties and conservation areas, which necessitate tailored approaches, specialised solutions, skilled expertise and planning permissions – all of which slow down the process and increase costs. Although the national funding system needs to be streamlined, stabilised and made easier to navigate, it also needs to cater for regional variation, offering full cost coverage for those most in need and partial coverage for others – in all parts of the country. Local authorities need more autonomy in managing funding and eligibility criteria.

A substantial skills gap exists in the retrofit sector, necessitating more trained workers as well as high-quality training programmes that equip people with sufficient practical skills and confidence to deliver retrofits. Clear career pathways and consistent work pipelines are essential to address this shortage, and current short-term funding schemes create demand fluctuations. In the Greater Cambridge context, respondents expressed some concerns over availability of suitably skilled professionals who are based locally, and the willingness of service providers from other parts of the country to take on small-scale projects in the area.

Effective communication and engagement are crucial for scaling up retrofits. Homeowners and landlords need clear, accessible and trusted information about retrofit options, available support, skilled workers, and long-term benefits. Messaging needs to be tailored to address specific stakeholder concerns, focusing on practical advantages. Communication and co-ordination between local authorities, contractors and residents could be strengthened further, with local authorities assuming a leading role in facilitating collaborative activities.

Based on our analysis, we develop some overarching recommendations presented below:

1. **Collaborate with key stakeholders to develop a data-driven retrofit strategy:** Conduct a comprehensive housing stock and public attitudes survey to inform tailored intervention pathways to be delivered together with key stakeholders.

2. **Collaborate in national policy advocacy:** Partner with other councils facing similar retrofit challenges and engage with national advocacy organisations (eg, Institute for Public Policy Research (IPPR), Royal Institute of British Architects (RIBA), UK Green Building Council (UKGBC) to collectively influence policymakers.

3. **Strengthen Action on Energy:** Enable Action on Energy to increase staffing and better use digital infrastructure to expand targeted multi-channel awareness campaigns.

4. **Explore additional funding routes and innovative financing options:** These could include establishing a council-backed revolving loan fund for 'able-to-pay' residents, leveraging community benefits funds from renewable energy companies, or collaborating with academics and contractors to apply research funding for retrofitting heritage listed homes.

5. **Enhance targeted stakeholder engagement:** Leverage council influence to convene and support the local retrofit ecosystem by appointing liaisons, fostering partnerships and empowering community groups. This could include working with skills commissioners, local colleges and contractors to promote and develop retrofit skills training.

6. **Assess impact and centralise data:** Implement a robust project management system to track initiatives against key performance indicators (KPIs), and create a central portal that provides access to information on all local retrofit schemes, case studies and resources to improve accessibility and spotlight ongoing work.

The following table summarises the recommendations:

	National-level advocacy	Local level
 **Policy and governance**	Stronger, more coherent and more stable national policies Stamp duty reductions for more energy-efficient homes Greater powers for local authorities on matters related to housing stock and planning Electricity market reform to make retrofit technologies/electrification more viable and cost effective	Develop a comprehensive local retrofit strategy Streamline planning processes for retrofit projects Provide social and private sector landlords with greater support and incentives Strengthen and expand collaborative relationships with other local authorities, housing associations and community-led initiatives, such as Sustainable Energy Communities (SECs) Consider implementing local building regulations if/when this becomes possible
 **Finance**	Increased funding for retrofit programmes, with simplified application and clear information on eligibility and coverage Reinstatement of tax incentives for key stakeholders, such as private sector landlords	Facilitate access to national funding by providing grant application support Explore innovative financing mechanisms, such as revolving funds, property-linked finance and local green bonds Facilitate access to finance through local schemes or partnerships
 **Skills**	Increased funding for skills More comprehensive training programmes that incorporate practical experience and multi-trade skills More stringent standards and standardised training protocols Introduction of a builder licensing scheme and accreditation to address quality concerns Simplification of quality assurance frameworks, such as TrustMark and PAS 2035	Work with local training providers and contractors to encourage collaboration Allocate funding to enable contractors to take on apprentices and attend upskilling courses Carry out a scoping study with SMEs and sole traders to understand their training needs and barriers to upskilling Support local contractors in adherence to national accreditation schemes and quality assurance frameworks
 **Awareness and engagement**	Changes to the key terminology and narrative in promotional materials, replacing 'retrofit' with 'home energy improvements' and emphasising the impact these improvements would have on comfort instead of emissions reductions (this could also be done at local level)	Conduct research studies on market segmentation and public attitudes to retrofit Redouble efforts to provide clear and consistent information and advice to residents Target communication strategies and messaging to specific demographics Showcase best practice, innovative technologies and actions in council-owned properties using on-site visuals, case studies, client testimonials and digital tools Inspire action among individuals and communities by raising awareness of simple yet effective methods such as DIY draught proofing, and through appointing community champions and engaging with leaders through platforms such as CLCCG Collaborate with contractors and property agents to make retrofits more visible through standardised signage on properties being upgraded and highlighting energy efficiency ratings in property listings