

York and North Yorkshire's Retrofit Strategy

Increasing Comfort, Lowering Costs and
Supporting our Climate

2025-2030



Foreword

York and North Yorkshire's Retrofit Strategy

Mayor's Foreword

York and North Yorkshire is home to historic cities, thriving market towns, coastal communities and rural villages. It is one of the best places to live, work and visit in the whole country.

We have such a proud heritage and so much of our history is preserved in the very walls that we live in. Over a quarter of our homes were built more than 100 years ago, and as Mayor I believe it's important we preserve this heritage whilst making our older buildings genuinely liveable, upgrading them with the latest energy-saving technology. This is about making sure everyone can be comfortable in all seasons, and that bills are affordable for all.

That is why I welcome York and North Yorkshire's Retrofit Strategy, which sets out how we will go further and faster to make our buildings fit for now, and for the future. By working together we can cut our emissions, reduce household energy bills and create new skilled jobs as we move towards our target of being carbon negative by 2040.

This strategy is about supporting the people living in these homes just as much as it is about upgrading the buildings themselves. While we celebrate our county's strengths, we should also acknowledge that too many of our residents are struggling against a difficult backdrop of increasing living costs, increasing numbers of people living in fuel poverty, and economic inequalities. Together, these are leading to unequal life outcomes across our communities. For those who need it most, having a more comfortable, affordable home can have a real, positive impact on health, livelihoods, and quality of life.

With our diverse building stock, strong heritage, growing biobased materials industry, and innovative projects, York and North Yorkshire can test and perfect new ways to upgrade buildings for the future. This is our opportunity to take action and lead the way, for our communities and so many more around the UK.

Mayor David Skaith

Mayor of York and North Yorkshire



Retrofit Strategy Task and Finish Group Chair's Foreword

Our buildings are diverse, unique, and in grave need of upgrades to support the health and wellbeing of our communities and businesses reach our climate change goals and boost our local economy. The scale of the challenge is huge – to become England's first carbon negative region we must retrofit nearly 250,000 homes to EPC C or higher and retrofit over 62% of existing business premises by 2038.

There are huge barriers to retrofit which are highlighted throughout this strategy, but what is also obvious from the engagement that has been done is that there is a large group of organisations with the motivation, expertise, and willingness to collaborate to make retrofit happen at pace and scale.

Retrofit represents a great opportunity for York and North Yorkshire to be bold, to lead the way, and to reap the benefits for businesses and communities. This strategy builds on great work so far in the region and sets out our long-term ambition with the acknowledgement that we'll have to adapt due to changing policy and technologies.

The vision outlined in this strategy can only be delivered collaboratively, including local authorities, central government, businesses, skills providers, community organisations and many more.

On behalf of the Task and Finish group I would like to thank everyone who has been involved in developing this strategy for their time, expertise, and energy. We look forward to working together in delivering the strategy and making York and North Yorkshire's buildings fit for now and for the future for all.

Carolyn Frank, Federation of Master Builders

Task and Finish Group Chair



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Executive Summary

Increasing Comfort, Decreasing Costs
and Supporting our Climate
2025-2030

What is Retrofit?

Retrofit can improve ventilation, comfort and resilience to high and low temperatures. Some common works that can be considered retrofit are:

- Insulating walls, roofs and floors;
- Upgrading windows and doors and installing external window shutters;
- Installing solar panels;
- Installing mechanical ventilation, trickle vents and extractor fans;
- Moving away from fossil fuels, such as by changing the heating source to an air source or ground source heat pump;

Examples of complementary measures include:

- Installing EV charging equipment;
- Smart controls, like smart meters, which could be used in conjunction with other technology like battery storage.
- Improving the water efficiency and drainage of buildings through installing water saving fixtures, rainwater harvesting, and sustainable drainage measures.

This list is not exhaustive, especially as innovative technologies are constantly being developed. Every building is different and requires a unique approach to ensure the right works are completed. For example, heritage buildings may require more bespoke measures.

*‘Retrofit refers to any **improvement work** on an **existing building** to improve its **energy efficiency**, making them easier to heat, able to retain that heat for longer, and replacing fossil fuels with **renewable energy**.’*

Centre for Sustainable Energy¹

Retrofit can include ‘the introduction of new materials, products and technologies’

Retrofit for the Future²



What is the Retrofit Strategy?

York and North Yorkshire's Retrofit Strategy is a **collaborative document** that provides strategic direction for retrofit in the region. Its aim is to provide a **clear, co-owned plan** to **accelerate retrofit** for residents, businesses and communities in York and North Yorkshire.

It is intended to complement other work in the region, not replace it, and the York and North Yorkshire Combined Authority (YNYCA) will work to ensure it complements other Combined Authority and regional documents including the Strategy for a Sustainable Future³ and the Local Growth Plan⁴, City of York Council and North Yorkshire Council's Climate Change Strategies^{5,6} and the York and North Yorkshire Housing Partnership Prospectus⁷.

The Retrofit Strategy was co-created with stakeholders, and details of the development process are included in the appendix.

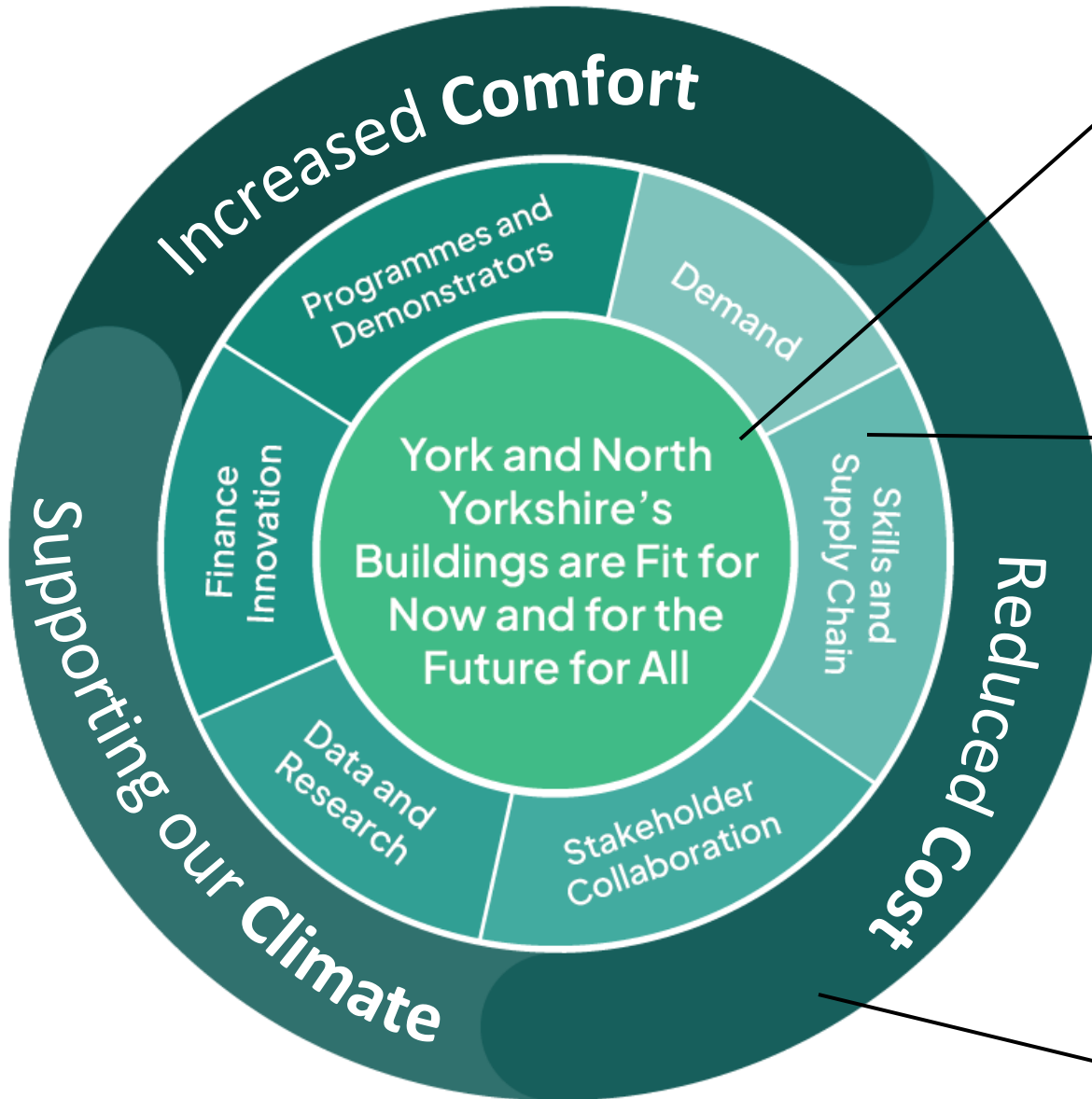
The Strategy sets out the strategic direction for retrofit via the strategic framework on the following page and includes action plans which detail projects and initiatives focused around the six strategic priorities. Delivery of the strategy will involve collaboration between public, private and community sector organisations. It has been co-designed by regional and national partners and has utilised previous work from key stakeholders in the region.

The Retrofit Strategy outlines a long-term direction of travel for retrofit but focuses on priorities and interventions between 2025 and 2030. This is because we are still awaiting key decisions at a national level which will impact the retrofit system, and new technologies and approaches are emerging every day.



Strategic Framework

Building on an extensive evidence base and working closely with stakeholders, this framework sets out the region's approach to delivering our vision, that *York and North Yorkshire's Buildings are Fit for Now and for the Future for All*. It summarises 'what' needs to happen (the strategic priorities) and 'why' (the outcomes).



Vision: This is the long-term goal for retrofit in York and North Yorkshire.

Strategic Priorities:

The strategic priorities are the 'what' and the areas of focus for activity, which span the whole retrofit system. They must all be tackled to increase the pace and scale of retrofit. They are:

- **Demand** - Grow York and North Yorkshire's market demand for retrofit at a pace and scale aligned to regional and national retrofitting and carbon negative targets.
- **Skills and Supply Chain** - Support the supply chain for retrofit to cope with growing demand.
- **Finance** - Reduce finance as a barrier to retrofit, to ensure it does not hold back the rate of change.
- **Data and Research** - Ensure a data and research driven approach to retrofit.
- **Stakeholder Collaboration** - Enable York and North Yorkshire' organisations to be united in their approach to retrofit and coordinate strategic delivery, supporting residents, businesses and communities across the region.
- **Programmes and Demonstrators** - Demonstrate best practice and deliver programmes that meet the pace and scale of retrofit required.

Outcomes:

These are the 'why' of the Retrofit Strategy, which outline what needs to happen because of the Strategy. All activity under the Retrofit Strategy will aim to meet at least two of these outcomes.

What needs to happen?

From our evidence base, we know that in York and North Yorkshire we need to accelerate the pace and scale of retrofit. This includes:

- Delivering retrofit at scale across domestic buildings to improve their energy efficiency and move away from fossil fuels.
- Retrofitting public and community buildings to improve their energy efficiency and move away from fossil fuels.
- Retrofitting existing business premises and increasing the energy efficiency of buildings.

We also know that our buildings are vulnerable to the impacts of climate change, such as flooding and heat waves. YNYCA are currently undertaking an Adaptation Study which will be completed by the end of 2026⁸. For a summary of findings from the Adaptation Study, please refer to the Strategy for a Sustainable Future.

How can this happen?

To accelerate the pace and scale of retrofit and realise the benefits, transformative change is required across the key strategic priorities identified in this strategy. These priorities are:

Demand;

Skills and Supply Chain;

Finance Innovation;

Data and Research;

Stakeholder Collaboration;

and Programmes and Demonstrators.

The Retrofit Strategy outlines a roadmap for how retrofit delivery can be accelerated and scaled up across the region. This aims to enable organisations to efficiently invest in retrofit, maximising the impact of investment, and to position the region to benefit from funding opportunities, such as devolution.



Who needs to be involved?

Delivering retrofit at scale must be collaborative because the retrofit system is complex and involves a range of stakeholders who play different roles. Every organisation has a role to play, and every individual should be able to make a difference.

Therefore, all the organisations involved in retrofit need to be involved in the implementation of the Retrofit Strategy. Key delivery organisations include Local Authorities, social housing providers, skills providers, private landlords, businesses, voluntary organisations, and expert organisations in fields such as heritage and biobased materials. The strategy aims to support and enable all organisations to contribute to its delivery.

Where does this need to take place?

This Strategy focuses on York and North Yorkshire. During the development of the strategy, a range of interventions have been identified. Some of these will need to take place at an organisational level, whereas others will require a more strategic approach across the whole region.

York and North Yorkshire is a rural region and our building stock presents retrofit challenges. Many properties are classified as hard to treat, with factors such as age, archetype, heritage considerations and rurality contributing to higher retrofit costs and increased delivery complexity. This strategy recognises that a single approach will not be effective across all places and property types and supports a people-centred approach to ensure retrofit provides benefits for residents, businesses, and communities.



Why Retrofit? What are the benefits?

Retrofit can have a lot of benefits, which can broadly be divided across the themes of Comfort, Cost and Climate.

Increased Comfort

Retrofit is an opportunity to improve the condition and resilience of our buildings to ensure that **every person in York and North Yorkshire is comfortable** and can afford to heat and cool their buildings. This is crucial because:

As of 2024, there were approximately **41,000 households (11%) in fuel poverty** in York and North Yorkshire⁹

63% of homes (221,308) and 57% (11,511) of non-domestic buildings have an **EPC below EPC C**¹⁰

28% of York and North Yorkshire's buildings were **built before 1930**¹⁰

Cold homes have been found to have a **direct negative impact** on the mental and physical health of children and adults¹¹

90% of our country's housing stock in 2050 will be **homes which exist today**¹²

Reduced Cost

Retrofit can reduce energy use, leading to **lower bills for homes and businesses**, and savings for key services. There is also an opportunity for retrofit to **boost our local economy**. This is important because:

As of 2024, 36.3% households spend **more than 10% of their income** on domestic energy, an increase on previous years¹³

The average energy bill for small businesses is **£2889.37**. As a result, more than **9 in 10 businesses** expect to increase prices¹⁴

Retrofitting ~250,000 homes in York and North Yorkshire to EPC C or above could **save up to £250 million per year in energy bills**¹⁵

For every £1 invested in keeping buildings warm, it is estimated that there is an **NHS saving of 42p** in direct healthcare costs¹⁶

Approximately **£8.7 billion in investment is needed to retrofit homes**, which represents a **huge opportunity** for our local supply chain¹⁰

Supporting our Climate

As storms, floods, and heatwaves intensify across the world, there is growing urgency for collective action to **tackle climate change**. Retrofit can **deliver emissions reductions and help us adapt**, which is important because:

Buildings are responsible for **25% of the region's total emissions**¹⁵

Two thirds of emissions in the region are from **domestic buildings**, with the remainder from non-domestic buildings¹⁵

20% of UK built environment emissions come from the construction and refurbishment of buildings¹⁷

Buildings are at risk from changes to our climate, such as heatwaves, floods, soil erosion, and storms¹⁸

Retrofit can deliver emissions savings, such as an air source **heat pump saving 2900kg of CO2e per year** compared to a gas boiler¹⁹

What is the opportunity for York and North Yorkshire?

Aside from the benefits of retrofit, York and North Yorkshire is in a strong position to lead the way for retrofitting buildings.

Our region has:

- A **unique building stock**, with rural, coastal, and urban roots.
- A **strong heritage sector**, with 28% of York and North Yorkshire's buildings having been built before 1930, and a high number of conservation areas and listed buildings.
- A **thriving biobased materials sector** including hemp and sheep's wool, which can be used for insulation.
- An **ambitious carbon negative aspiration** as a region, with a role to play for every person in York and North Yorkshire.
- **Innovative projects** like the Local Net Zero Accelerator, which focuses on unlocking private sector investment, and the Innovate UK funded Retrofit One Stop Shop Pilot.

All of this means that **we have the ability to test, trial, perfect, and lead the way for retrofit.**

We are developing this regional Strategy to harness these opportunities. Nationally, retrofit is central to the delivery of the Government's Warm Homes Plan²⁰, published in January 2026, and has a role to play in the delivery of national and local housing targets. Additionally, whilst retrofit is currently driven by Central Government funding schemes, Combined Authorities are being given more local powers and devolved funding to deliver retrofit. Therefore, it is essential that we map out our approach now to cement our strong position, so we can make the most of future opportunities.

This Strategy is a result of extensive collaborative work which has identified key action areas. However, to truly deliver transformative change, significant investment (such as a devolved retrofit settlement) is required. This would mean that the region can undertake more retrofit at a greater pace and scale to realise the benefits for the region.



How will the Retrofit Strategy be delivered in York and North Yorkshire?

Organisations, community groups, and stakeholders across the region will be involved in the delivery of the outcomes outlined in the Retrofit Strategy. The co-design of the strategy and the consultation has sought to ensure that organisations across the region involved in retrofit have been able to contribute to the development of the strategy.

The adoption of the Retrofit Strategy by the York and North Yorkshire Combined Authority, and local authority partners presents a united regional commitment to delivery. This places the region in a strong position to benefit from further devolution opportunities, as seen in other areas including Greater Manchester and the West Midlands. It is anticipated that an implementation plan will be developed with Local Authority partner organisations to identify roles, responsibilities, and costs associated with strategy delivery.

Governance

The following aspects will contribute to the overall governance of the Retrofit Strategy:

- **The Strategy for a Sustainable Future:** The Retrofit Strategy provides the foundation for the Comfortable, Efficient Buildings high impact sector of the Strategy for a Sustainable Future³ and will feed into this governance process and contribute to the yearly progress report and governance meetings where appropriate.
- **The Task and Finish Group:** The continuation and evolution of stakeholders in the Task and Finish Group will be important to provide an external advisory function, supporting strategy delivery and governance.
- **Governance Committees:** Where appropriate, it is anticipated that the Retrofit Strategy will be reported to elected Members of the York and North Yorkshire Combined Authority and both local authorities.



The Case for Action

Why Retrofit is important for York and North Yorkshire

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Why Retrofit? What are the benefits?

Retrofitting domestic and non-domestic buildings across York and North Yorkshire presents an opportunity to **increase comfort, decrease cost** and **support our climate**, delivering health and cost saving benefits for residents, businesses and communities¹⁶.

For these benefits to be felt by residents, businesses, and communities, it is important that retrofit is completed to a high-quality standard and tailored to the building, its performance and how it functions²¹. The Strategic Framework outlined in this strategy identifies the interrelated areas of focus to ensure that an increase in retrofit activity does not come at the expense of the quality of installs and the overall approach supports trusted retrofit delivery.

Accelerating retrofit in York and North Yorkshire will improve the building stock, and ensure people are **comfortable** in their homes all year round. The **cost** of energy bills for residents and businesses of North Yorkshire varies significantly across the region and **fuel poverty** affects around 40,000 households⁹. Similarly, business owners are worried about **energy prices** and over a quarter are currently finding it difficult to pay for their energy bills²². York and North Yorkshire is a rural region, and our housing stock presents a challenge, as 63% of homes and 57% of businesses have an EPC rating below C²³. The region has many 'hard to treat' homes, meaning they are typically more energy inefficient, more expensive to heat and more complex and expensive to upgrade. Without retrofit, existing buildings could become unviable, untenable and at risk of decline or loss.

Therefore, to support our region across our society, our economy and our environment, we must take action on retrofit to increase comfort, reduce costs and support our environment for all in York and North Yorkshire.



Increasing Comfort

Increasing comfort for people who occupy buildings across North Yorkshire delivers multiple benefits. Retrofit can **increase comfort** by addressing the following factors:

- **Thermal comfort:** By reducing heat loss through improved insulation, homes can maintain a more consistent temperature. This eliminates draughts and cold spots in winter and avoids overheating in summer months²⁴.
- **Indoor air quality:** The installation of appropriate ventilation measures ensures that improvements to insulation do not lead to condensation, damp, or mould. This supports a healthier and more comfortable indoor environment²⁴.
- **People centred approach:** Communicating clearly with building occupants to understand the building, and their priorities helps to ensure people are at the centre of retrofit delivery. This approach helps to minimise concerns associated with the disruption caused by retrofit works and seeks to ensure that installed measures improve the quality of life for the building user. The importance of working with the building occupier helps to ensure that they understand how to operate new systems, maximising comfort benefits²⁵.

Buildings that have been retrofitted provide significant mental and physical health benefits for people who live and use them. Cold and damp homes are strongly linked to a range of health issues, including respiratory infections, asthma, poor cardiovascular health, increased cases of winter illness and hypothermia. Nationally, it is estimated that 21.5% of excess winter deaths are associated with cold homes¹¹.

Similarly, many people feel stress, anxiety and worry associated with paying for their energy bills²⁶. Reducing costs through retrofit helps to alleviate these concerns and lead to better mental wellbeing and an enhanced quality of life.



Increasing Comfort: Spotlight on retrofit projects

The below examples of retrofit activity across the region highlight how retrofit is **increasing comfort** for residents.

Broadacres Housing Association

Broadacres utilised £2.4 million from the Social Housing Decarbonisation Fund to retrofit 400 homes. The team aimed to undertake retrofits which would make a significant difference to people's lives, and resulted in measures often going beyond EPC C.

This included 400 solar PV systems, 53 air source heat pumps, 156 loft insulation top ups, floor insulation in 15 homes and smart air bricks in 24 homes. Following the installation of the retrofit works, Broadacres conducted 10 in depth interviews with their customers to understand their experience.

All customers interviewed stated they feel more comfortable in their home. They reported fewer draughts, due to improved ventilation and increased air tightness, their home being better at retaining heat, and having a consistent indoor air temperature.

One customer stated, *"I haven't been poorly this year which is down to the heat pump as there are no changes in internal temperatures"*.

The Net Zero Fund: Renewable Heating Upgrade

The Net Zero Fund, a part of York and North Yorkshire's devolution deal supplied £1.6 million in funding to upgrade heating systems for two independent living facilities owned by the City of York Council. The aim was to increase resident comfort, reduce their bills, and reduce the carbon emissions from the City of York residential estate. The project installed air source heat pumps, and solar panels with battery storage.

Following completion of the works the project was visited by Mayor of York and North Yorkshire David Skaith where he spoke to retired nurse and Alex Lyon House resident, Valerie Jones. Valerie told the Mayor about the impact the project had on her life noting she no longer requires the use of inhalers and has seen a significant reduction in her heating bills.



North Yorkshire Council: Warm Homes Local Grant

Through the Warm Homes Local Grant Scheme, North Yorkshire Council installed retrofit measures on a stone cottage built in 1661. The property is off the gas grid and relied on panel electric heaters and an open fire. This was expensive to run for the resident, and the property was persistently cold.

A high heat retention storage heater and ventilation measures were installed, and the homeowner switched to an off-peak tariff. Following the retrofit works, they reported being much more comfortable in their home.

Another recipient reported improved indoor air quality and reduced energy bills following the installation of solar PV, battery storage and ventilation measures. An indoor air quality monitor verified the improvement.

These examples illustrate how retrofit has a positive impact on health and comfort of residents and it can be effective on older properties.

Reducing costs for businesses, residents and community buildings

Increasing retrofit delivery across York and North Yorkshire can reduce costs for residents, businesses and community organisations, supporting the regional economy. Retrofit can **reduce costs** by addressing the following factors:

- **Reducing energy bills:** Retrofit can reduce energy use, leading to lower bills for homes and businesses and alleviating fuel poverty for households. Properties with an EPC rating below EPC E cost an average of £1000 more per year to heat than a typical home¹⁶. Based on this saving, retrofitting ~250,000 homes in York and North Yorkshire to EPC C or above could save up to £250 million per year in energy bills.
- **Increased energy generation:** Solar panels and battery storage help to support small scale energy generation, whereby residents, businesses, and community buildings can use energy that has been generated by their property, reducing energy bills and supporting energy independence.
- **Enabling business resilience:** Growing the local supply chain is an opportunity to support our local economy. The aspiration to enable ~250,000 homes to achieve EPC C by 2038 could represent around £8.7 billion investment in domestic retrofit by 2038¹⁰. The investment required for business premises is more difficult to estimate but unlocking this investment for the region would grow the local economy.
- **Job Creation:** Supporting apprenticeships and upskilling members of the construction industry helps to create a workforce equipped for the future with highly skilled, well-paid jobs.
- **Wider Savings:** For every £1 invested in keeping buildings warm, it is estimated that there is an NHS saving of 42p in direct healthcare costs¹⁶. Improving health can reduce illnesses and prevent A&E visits.

Reducing the running costs of buildings helps them to be operational into the future, continuing to support employment and deliver services for communities. Saving money for families helps to alleviate fuel poverty, ensuring homes are comfortable all year round and reducing financial stress.



Reducing Costs: Spotlight on retrofit projects

The below examples of retrofit activity across the region highlight how retrofit is **reducing costs** for residents and businesses and protecting the delivery of public services, benefitting communities.

UK Shared Prosperity Fund: The Community Climate Action Programme

The Community Climate Action Programme ran from September 2023 to March 2025, and it was administered by North Yorkshire Council. In total 27 community energy projects were funded by the programme and one of the most significant impacts was reduced energy costs for community organisations through increased energy efficiency and renewable energy generation.

One village hall that received £24,000 for insulation, solar panels and a battery storage system stated that the project had a significant impact:

“reducing our energy costs overall has helped to ensure that the hall is financially viable for the future as a community hub and the savings mean that we do not need to increase [village hall] hire costs at this time”.

The retrofit measures installed in this community building highlight how retrofit measures can provide practical savings and future proof local resources.

Mayoral Renewables Fund

York and North Yorkshire received £700,000 funding from the Mayoral Renewables Fund to cut community fuel bills through clean energy technology. The funding was provided by the Department for Energy Security and Net Zero (DESNZ).

Solar panels have been installed on a range of community facilities in York and North Yorkshire, including Yearsley Swimming Pool in York, Whitby Leisure Centre and The Ripon Leisure and Wellbeing Hub – Jack Laughter Centre. The solar panels will help to reduce energy costs for these buildings and support them to continue to deliver services to their communities. It is expected that this investment will provide an estimated combined savings of £4m over the lifetime of the solar panels for the 16 buildings that have received the funding. It will also save over 200 tonnes of CO2 per year.



Yorkshire North & East Methodist Church

Using over £700,000 of funding from the Net Zero Fund, 20 churches have received decarbonisation works such as solar PV, heat pumps and insulation.

This has benefitted over 500,000 people based on average footfall, including users of community ladders, uniform banks and dementia cafes.

Supporting our Climate

As storms, floods, and heatwaves intensify across the world, there is growing urgency for collective action to tackle climate change. The viability of our economy and communities depends on urgent action. In York and North Yorkshire, the region has an ambition to reach carbon negative by 2040 to ensure we're making our fair contribution to mitigating climate change.

The Strategy for a Sustainable Future presents further detail on what we're doing to move towards Carbon Negative by 2040.

Buildings are responsible for emitting 25% of the region's total emissions¹⁵. Most of these emissions come from the fossil fuels used to heat our buildings. **Two thirds** of our emissions come from **domestic buildings**, with the remainder coming from non-domestic buildings¹⁵. Retrofitting our buildings helps to contribute to our climate ambitions in the following ways:

- **Cutting emissions from buildings:** Improving insulation and the energy efficiency of our buildings lowers the overall energy use, which reduces the consumption of fossil fuels. Replacing gas boilers with low carbon technologies reduces emissions from heating.
- **Increasing energy generation and storage:** Installing solar PV and battery storage enables residents and businesses to use the energy they generate, relying less on electricity from the grid.
- **Growing the circular economy:** Using sustainable materials such as hemp to retrofit properties helps to reduce waste from construction and support the bioeconomy.
- **Increasing preparedness for the future climate:** The findings from the York and North Yorkshire Adaptation Study highlights that climate change presents a set of interconnected and escalating risks for the region and that without early and sustained action, the region is likely to face economic costs and reduced resilience. Retrofitting buildings helps to ensure they are fit for the future and residents and businesses are better equipped for future climate scenarios.

Therefore, retrofitting our buildings to reduce energy use, reduce energy demand (reducing stress on the electricity grid) and move away from fossil fuels, whilst ensuring they are resilient to climate change, is crucial for our carbon negative ambition and the health of our residents, businesses and communities.



Supporting our Climate: Spotlight on retrofit projects

York and North Yorkshire is home to many innovative projects and initiatives, a few examples of which are detailed here. This highlights the progress that has been made so far and should inspire us to go further and faster as a region.

Volunteer It Yourself: Community Retrofit Demonstrators

Volunteer it Yourself have secured funding from the York and North Yorkshire Carbon Negative Challenge Fund to deliver 8 Community Retrofit Demonstrator projects across 2026 and 2027. The Community Retrofit Demonstrator projects will improve energy efficiency in community buildings through retrofit works, reducing their running costs, and provide hands on green skills training for young people, as well as upskilling local tradespeople in retrofit. The programme aims to engage over 1,000 residents through open days and workshops.

Retrofit One Stop Shop Pilot

The City of York Council-led and Innovate UK funded Retrofit One Stop Shop York (ROSSY) project developed a “one stop shop” service in York. This was a pilot programme that provided a single point of contact for residents in York to find information on home retrofit and connect them to trusted suppliers to install retrofit measures. The project collaborated with York and North Yorkshire Combined Authority, Brightsparks, Wrapt Homes, York Community Energy, the Stockholm Environment Institute, and many others. Different partners focused on different work packages. For example, Wrapt Homes undertook the retrofit of two City of York Council homes, which were then opened to the public as demonstrators, with viewings facilitated by York Community Energy, the Council, and Brightsparks. There were ~200 viewings in total, with many visitors going on to engage further.

Green Skills Courses

Funded by the UK Shared Prosperity Fund (SPF), and in collaboration with North Yorkshire and City of York Councils, York College supported learners on retrofit courses. These included a Level 3 Award for Energy Efficiency for older and traditional buildings, and a Level 5 award for Retrofit Coordination and Risk Management. Supporting and developing the green skills of the future is crucial to meet our ambition to be Carbon Negative by 2040 and to support people into skilled well-paid jobs.

Sheepish

Peacock and Verity have ensured sheep’s wool insulation is a major component in the designs of 15 Silver Street in Masham, which is currently undergoing extensive redevelopment. Native Architects are integrating biobased materials into the design, ensuring there are teaching and testing elements.



Retrofit Reimagined

Retrofit Reimagined is a research project that is being conducted by an interdisciplinary team and led by the University of York. Based on assumptions, existing knowledge and stakeholder input, they have created ‘personas’, which are representations of target users, where retrofit uptake can be increased. These personas are intended to be used early in user research to guide retrofit policy design, moving from a one-size-fits-all policy to targeted, precision policy shaped by real motivations, behaviours and life events.

Retrofit in our Region

An overview of context and the scale of ambition

National Strategic Context for Retrofit

Nationally, industry and government have indicated support for scaling up and accelerating retrofit delivery. The Construction Leadership Council worked with industry to produce the National Retrofit Strategy²⁷, which has influenced the government's approach to retrofit policy. The UK Government Warm Homes plan²⁰ demonstrates commitment to improving the energy efficiency of homes, reducing fuel poverty, and decarbonising the UK housing stock.

Policy and Regulatory Background

The UK Government published the Warm Homes Plan²⁰ in January 2026, which aims to reduce energy bills, tackle fuel poverty, create good jobs, deliver energy security, and address the climate crisis. The Warm Homes Plan commits £15 billion in public investment to upgrade five million homes by 2030. The Warm Homes Local Grant and the Warm Homes Social Housing Fund are current funding programmes that are delivered by Local Authorities to support the delivery of the Warm Homes Plan, and these are to be consolidated in 2027/2028 to a single scheme for low-income households. The Warm Homes Plan outlines the ambition to create a national delivery agency to support the scale up of retrofit and further details are expected later this year.

National regulatory changes are expected to accelerate retrofit delivery and strengthen the reliability of property data. EPC reform is anticipated in the second half of 2027, and it is suggested the reform will provide a clearer picture of energy performance. Minimum Energy Efficiency Standards (MEES) stipulate the energy efficiency requirements for rented properties, although some properties can be exempt. Recent changes outline a requirement for large commercial properties to achieve EPC B from 2031, and the government has indicated that all homes in the private rented sector will need to meet EPC C by 2030²⁸. The National Planning Policy Framework (NPPF)²⁹ sets out government planning policies and informs the development of local plans and planning decision making. It is supportive of retrofit and energy efficiency improvements and states that local planning authorities should give significant weight to the need to support energy efficiency and low carbon heating improvements to existing buildings. These considerations demonstrate a clear national commitment for scaled up retrofit delivery.

National Standards and Industry Guidance

To support the delivery of domestic retrofit, PAS 2035 is the national framework for whole house retrofit, focused on how retrofit projects should be assessed, designed, managed and monitored³⁰. This is supported by PAS 2030 which is the installation standard, focusing on how energy efficiency measures should be installed³¹. TrustMark is the national quality assurance scheme for domestic retrofit and helps to ensure that the supply chain are complying with PAS2030/2035 and delivering effective retrofit measures to homes³².

PAS2038 supports the delivery of retrofit measures for non-domestic buildings, promoting a whole building approach³³. Guidance is available to support commercial retrofit produced by organisations such as the UK Green Business Council³⁴, the Royal Institution of Chartered Surveyors³⁵ and The Chartered Institution of Building Services Engineers³⁶. For the heritage sector, Historic England have webpages and advice notes on how to retrofit Historic Buildings. Their Advice Note aims to provide clarity on approaches to improve the energy efficiency, support carbon reduction, and conserve the significance of historic buildings. They advocate a whole building approach to retrofit, which is based on building performance, significance and setting, and minimising harm to the building by prioritising interventions that are proportionate, effective and sustainable³⁷. To evaluate the success of retrofit measures, British Standard 40101 is applicable to both domestic and non-domestic retrofit and can be useful to provide an approach to monitoring the performance of a building post-retrofit³⁸.

Regional Context for Retrofit

Regionally, there are plans and strategies that underpin the work carried out by organisations across York and North Yorkshire related to retrofit. This strategy builds on existing regional priorities, but it sets out the scale of pace and action required for the region to be Carbon Negative by 2040.

Name of Regional Strategy	Overview of Regional Document	Relationship to the Retrofit Strategy
Economic Framework: Guiding Prosperity in York and North Yorkshire ³⁹	Three overarching ambitions; Transition to Carbon Negative, Deliver Inclusive Economic Growth, Increase Opportunities for All	The Retrofit Strategy delivers on all ambitions by reducing emissions from homes, reducing fuel poverty and supporting the skills and supply chain to scale up the delivery of retrofit.
Local Growth Plan ⁴	To drive economic growth in the North by identifying priority growth sectors.	Retrofit supports the delivery of the clean energy competitive advantage sector, and accelerating retrofit delivery strengthens the construction supply chain.
Strategy for a Sustainable Future ³	Sets out how York and North Yorkshire can lead the way in tackling climate change to achieve Carbon Negative by 2040, creating a truly sustainable future that benefits communities and businesses.	Retrofit delivery is a significant component of the Comfortable, Efficient Buildings strategic priority.
Housing Growth Strategy ⁴⁰	To accelerate the provision of housing, driving the delivery of 60,000 new homes over the next decade, of which at least 25,000 will be affordable.	Increasing retrofit supports the priority of delivering warm and efficient homes.
Local Skills Improvement Plan ⁴¹	A statutory, employer-led plan which sets out the key skills priorities for York and North Yorkshire and identifies the changes required across the post-16 technical education and training system to better meet the needs of the local economy.	Skills and supply chain is a strategic priority of the Retrofit Strategy.
Skills Strategy ⁴²	To ensure that skills provision is accessible, integrated and responsive to the distinct and varied needs of local economies and communities	Supports the delivery of the sustainable and affordable housing thematic priority
Housing Partnership Prospectus ⁷	Sets out how housing associations can support the York and North Yorkshire Combined Authority to take a strategic approach to delivering warm and affordable homes.	Supports the low carbon housing priority included in the prospectus.
Local Area Energy Plans ⁴³	Identifies locations in the region where investment and interventions can be targeted to decarbonise the energy system.	Maps areas that can benefit from low carbon heating and where fabric upgrades are needed, supporting domestic and non-domestic retrofit.
The Mayor’s Rural Action Plan 2026-2035 ⁴⁴	Rural communities thrive as part of the York and North Yorkshire region; becoming fit for the next generation, being healthy places of opportunity and empowered to be at the centre of devolution.	Increasing retrofit in rural areas helps to alleviate fuel poverty.
Spatial Development Strategy (forthcoming)	20-year+ planning framework introduced in England to coordinate housing, economic growth, and infrastructure across combined authorities and wider regional geographies	Increasing capacity within the retrofit supply chain is important to achieve the ambitions included in this strategy. Similarly, equipping the region for future climate
York and North Yorkshire Adaptation Study ⁸ (forthcoming)	The study highlights that climate change presents a set of interconnected and escalating risks for the region – without early and sustained action, the region is likely to face increasing economic costs and reduced resilience.	Retrofitting homes and considering climate related vulnerabilities is important to ensure resilience for homes and businesses in the region.

Local Context for Retrofit

City of York Council and North Yorkshire Council are working to deliver retrofit for their own housing stock and for residents, as well as providing support for the private rented sector. Both organisations have Climate Change Strategies that include a commitment to support retrofit delivery, as a component of achieving net zero by 2030.

- **City of York Climate Change Strategy (2022 – 2032):** The strategy identifies improving energy efficiency and increasing the uptake of renewable heating systems as an objective to deliver net zero. City of York have a retrofit action plan that details specific actions to support retrofit in York⁵.
- **North Yorkshire Council Climate Change Strategy (2023 – 2030):** The built environment is included as a priority under the ‘mitigation’ theme of the strategy. It highlights the need to improve the energy efficiency of buildings, decarbonise the heating of buildings, and support residents to retrofit properties⁶.

Along with the North York Moors National Park Authority, and the Yorkshire Dales National Park Authority, both councils have statutory responsibilities for preparing planning policy and managing development in their respective areas. Informed at a national level by the National Planning Policy Framework²⁹, Local Plans present an opportunity to support retrofit activity and protect the historical significance of buildings in their area. The planning authorities are also working together with the York and North Yorkshire Combined Authority to produce a regional Spatial Development Strategy to support the delivery of the Local Growth Plan⁴ and the Local Nature Recovery Strategy⁴⁵. Protected Landscapes also produce Management Plans that support retrofit alongside protection and preservation of heritage and character.

York and North Yorkshire have Joint Health and Wellbeing Strategies^{46,47} that both highlight the importance of housing supporting positive health outcomes. Both strategies identify a focus on preventative health interventions that can support residents to live healthier, happier and longer lives. By increasing comfort, reducing costs and supporting our climate, retrofit can directly contribute to these health objectives, supporting better physical and mental health outcomes across York and North Yorkshire.

Community groups across the region help to support the acceleration of retrofit delivery at a local level. This can include increasing awareness of retrofit, ensuring alignment with community energy schemes and providing bespoke advice to residents and businesses.

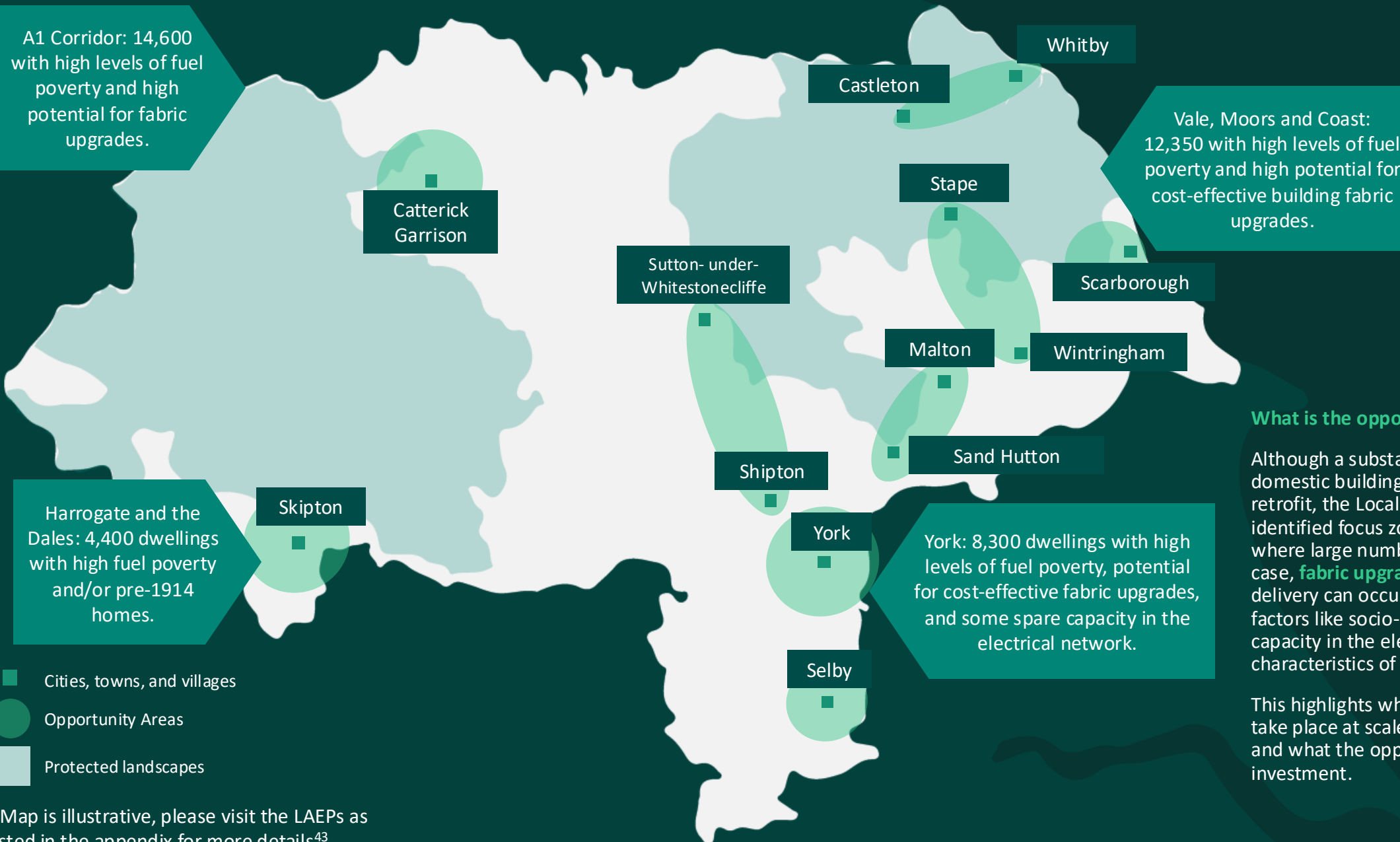
This strategy builds on the local policy context and existing retrofit activity to provide a coordinated regional framework for accelerating and scaling up retrofit delivery across York and North Yorkshire.

The Scale of Ambition in York and North Yorkshire

The Area Assessment highlighted how Carbon Negative can maximise benefits for residents and businesses in York and North Yorkshire. The scale of the challenge across the region is outlined in the maps on the next pages. More information on the details provided below is included in the appendix.

- **To reach Carbon Negative by 2040:**
 - Retrofit ~1,600 public (by 2030) and ~1,600 community buildings (by 2038) to $\geq$ DEC C
 - Retrofit 24,656 existing business premises to EPC C by 2038
 - Install rooftop solar PV on 98,227 homes by 2038 and 1745 business rooftops per year by 2038
 - Deploy decarbonised heating (e.g. heat pumps, geothermal, district heating) to 249,328 homes and 8800 businesses by 2038.
 - No new oil boiler installations after 2030³
- **Skills and Supply Chain:** There is a huge gap between the current labour force (500 people) and the peak labour requirement in 2031 (13,000 people) required to deliver on our retrofit ambitions, across a range of roles. 25,000 potential employees were identified in other industrial groups with similar skills profiles to retrofit. Training and upskilling activities to support these employees into appropriate roles in the retrofit supply chain will be an important component of equipping the region to deliver retrofit at scale and will provide long term job security to people¹⁰.
- **York and North Yorkshire's Building Stock:** Common archetypes for domestic buildings include terraces, and stone-built cottages. Many non-domestic buildings are older buildings, and there are also several large industrial estates. The data consolidation work highlighted the opportunity for creating a shared dataset amongst key stakeholders to aid strategic decision-making and to strengthen the availability of local data on all our buildings.
 - **Heritage:** There are over 2000 listed buildings in York and over 12,200 in North Yorkshire. Over 18,000 properties intersect a conservation area in the City of York, and there are 331 conservation areas across North Yorkshire, including two National Park areas which are separate planning authorities. All of these have additional requirements in terms of planning and permissions compared to non-listed and non-conservation areas. There are 98,559 dwellings (28%) in York and North Yorkshire which were built before 1930. Heritage buildings contribute significantly to the region's economy, worth an estimated £2.1 billion in GVA and 41,000 jobs⁴⁸. Heritage buildings require a bespoke approach to retrofit, to ensure that harm is not done by retrofitting incorrectly, and that our regional heritage and identity is protected now and into the future. Historic England advocate a "whole building approach" to adapting historic buildings, considering the building performance and historical significance to minimise the harm and risk of maladaptation³⁷.
 - **Domestic Buildings:** There are 397,303 dwellings in York and North Yorkshire. 87% of these are private dwellings (private owned and private rented), and 13% are social housing or other public sector dwellings. 63.43% of domestic buildings in York and North Yorkshire have an average energy efficiency rating below EPC C. It is estimated 1,161,940 measures are required across the stock, including: wall insulation (156,713), floor insulation (189,478) and loft insulation (75,952), draughtproofing (21,536), replacing windows and doors (52,166) and installing heat pumps (389,231), solar PV (276,864) and battery storage¹⁰.
 - **Non-Domestic Buildings:** 57% of the non-domestic stock in York and North Yorkshire has an EPC below C. Approximately 90% of the non-domestic stock uses either grid electricity or natural gas. Common measures required across the stock include wall, floor and roof insulation, replacement heating and installation of solar PV. There is less available data on non-domestic buildings and further research is needed to create a greater understanding¹⁰.

Domestic Fabric Upgrades



What is the opportunity?

Although a substantial number of the domestic buildings in our region require retrofit, the Local Area Energy Plans (LAEPs)* identified focus zones. These highlight areas where large numbers of a solution (in this case, **fabric upgrades**) are required, so delivery can occur at scale. This accounts for factors like socio-economic conditions, capacity in the electrical network and characteristics of the building stock.

This highlights where domestic retrofit could take place at scale based on these factors and what the opportunities are for investment.

*Map is illustrative, please visit the LAEPs as listed in the appendix for more details⁴³.

Heat Pump Installations

A1 Corridor: 12,120 homes not connected to the gas grid, making heat pumps a low regrets option. Potential for 31,800 heat pumps.

Vale, Moors and Coast: 13,900 homes not connected to gas, making heat pumps a low regrets option. Potential for 28,550 heat pumps.

Harrogate and the Dales: 13250 homes not connected to the gas grid. Potential for 43,200 heat pumps.

York: Potential for 31,300 heat pumps.

What is the opportunity?

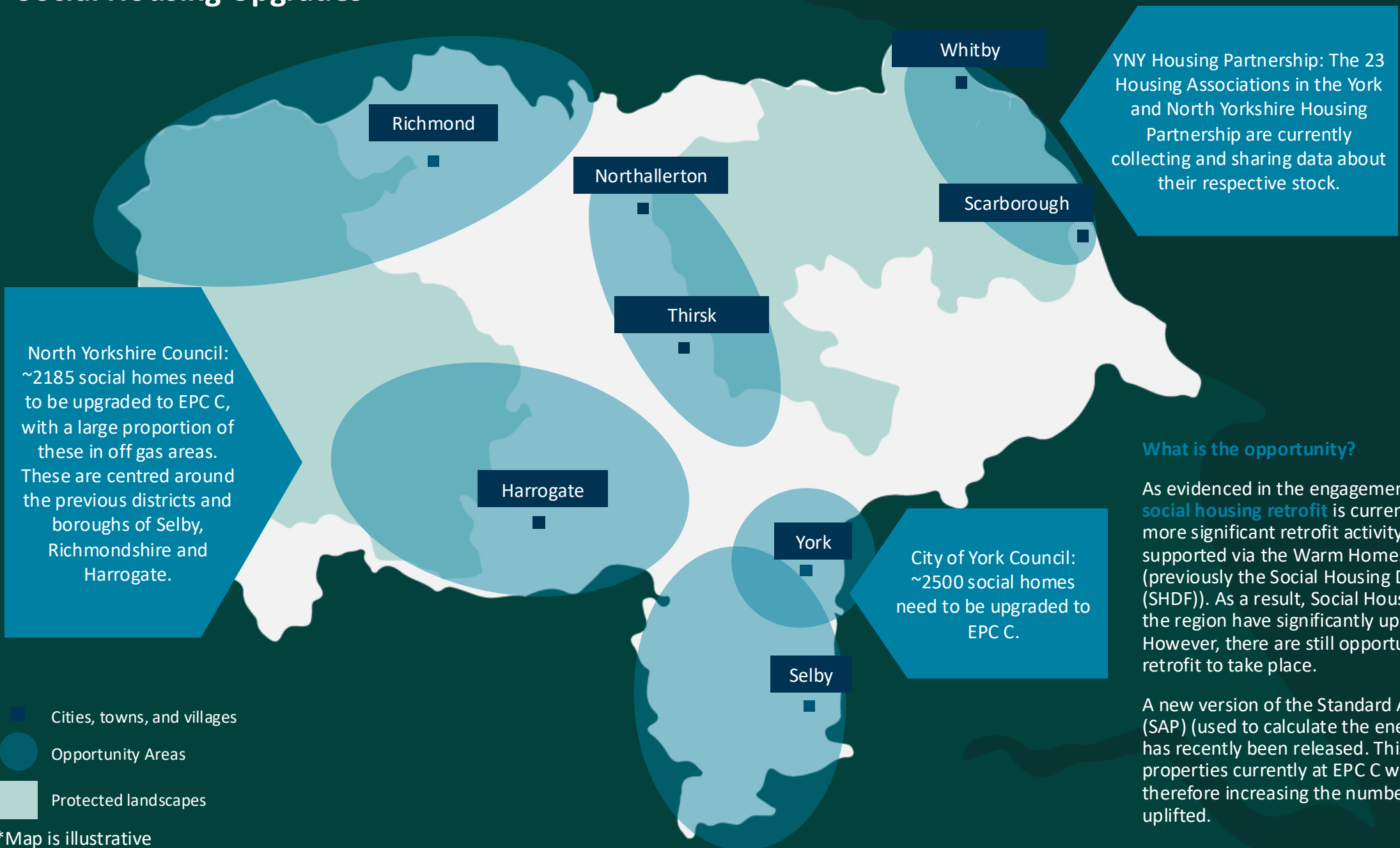
Although a substantial number of the domestic buildings in our region require retrofit, the Local Area Energy Plans (LAEPs)* identified focus zones. These highlight areas where large numbers of a solution (in this case, **heat pump installations**) are required, so delivery can occur at scale. This accounts for factors like socio-economic conditions, current heating methods, capacity in the electrical network and characteristics of the building stock.

This highlights where domestic retrofit could take place at scale based on these factors and what the opportunities are for investment.

- Cities, towns, and villages
- Opportunity Areas
- Protected landscapes

*Map is illustrative, please visit the LAEPs as listed in the appendix for more details⁴³.

Social Housing Upgrades

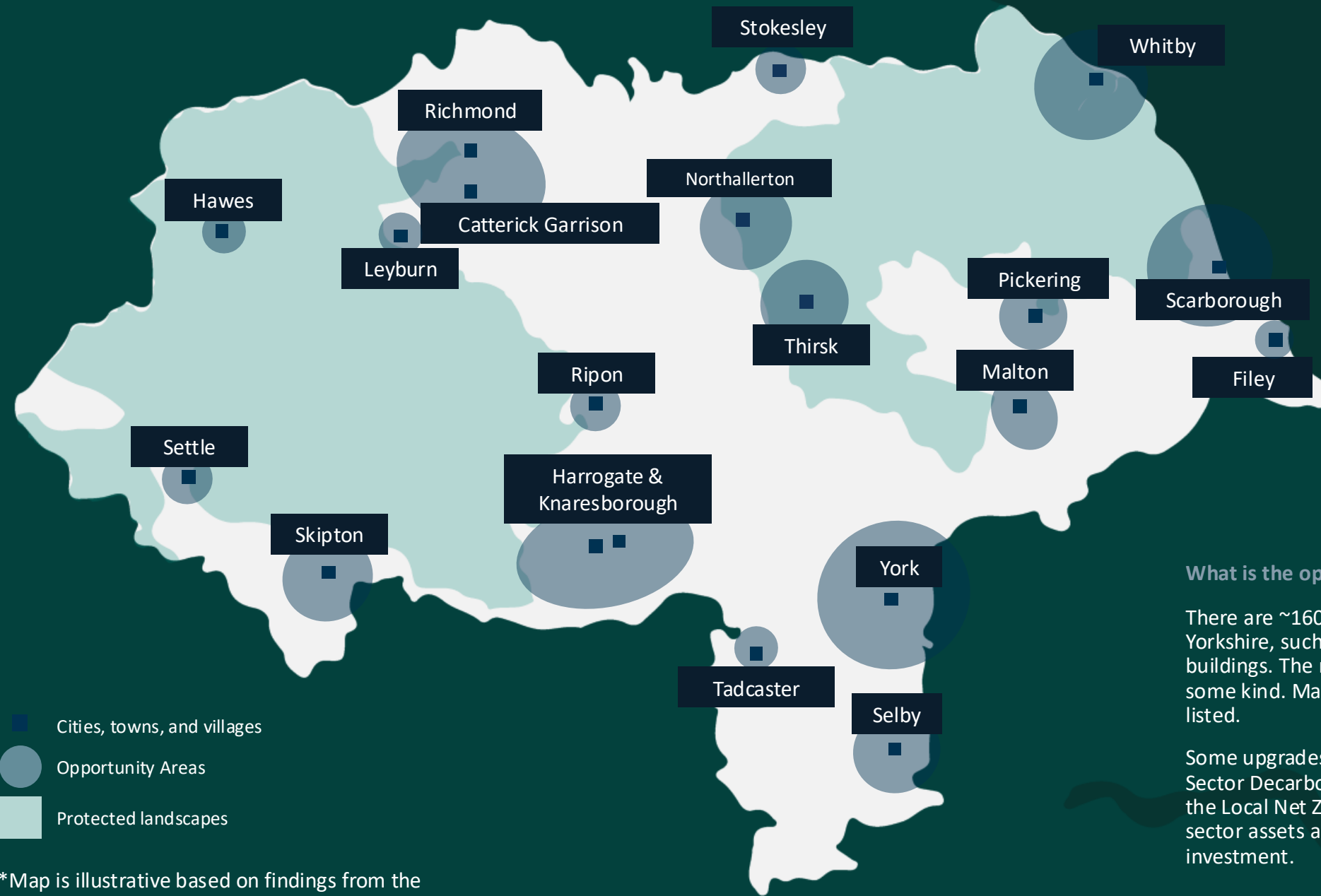


What is the opportunity?

As evidenced in the engagement for this strategy, **social housing retrofit** is currently one of the areas of more significant retrofit activity. This has been supported via the Warm Homes: Social Housing Fund (previously the Social Housing Decarbonisation Fund (SHDF)). As a result, Social Housing Providers across the region have significantly uplifted their stock. However, there are still opportunities for further retrofit to take place.

A new version of the Standard Assessment Procedure (SAP) (used to calculate the energy rating of buildings) has recently been released. This may mean that some properties currently at EPC C will fall to EPC D, therefore increasing the number which need to be uplifted.

Public Sector Building Upgrades



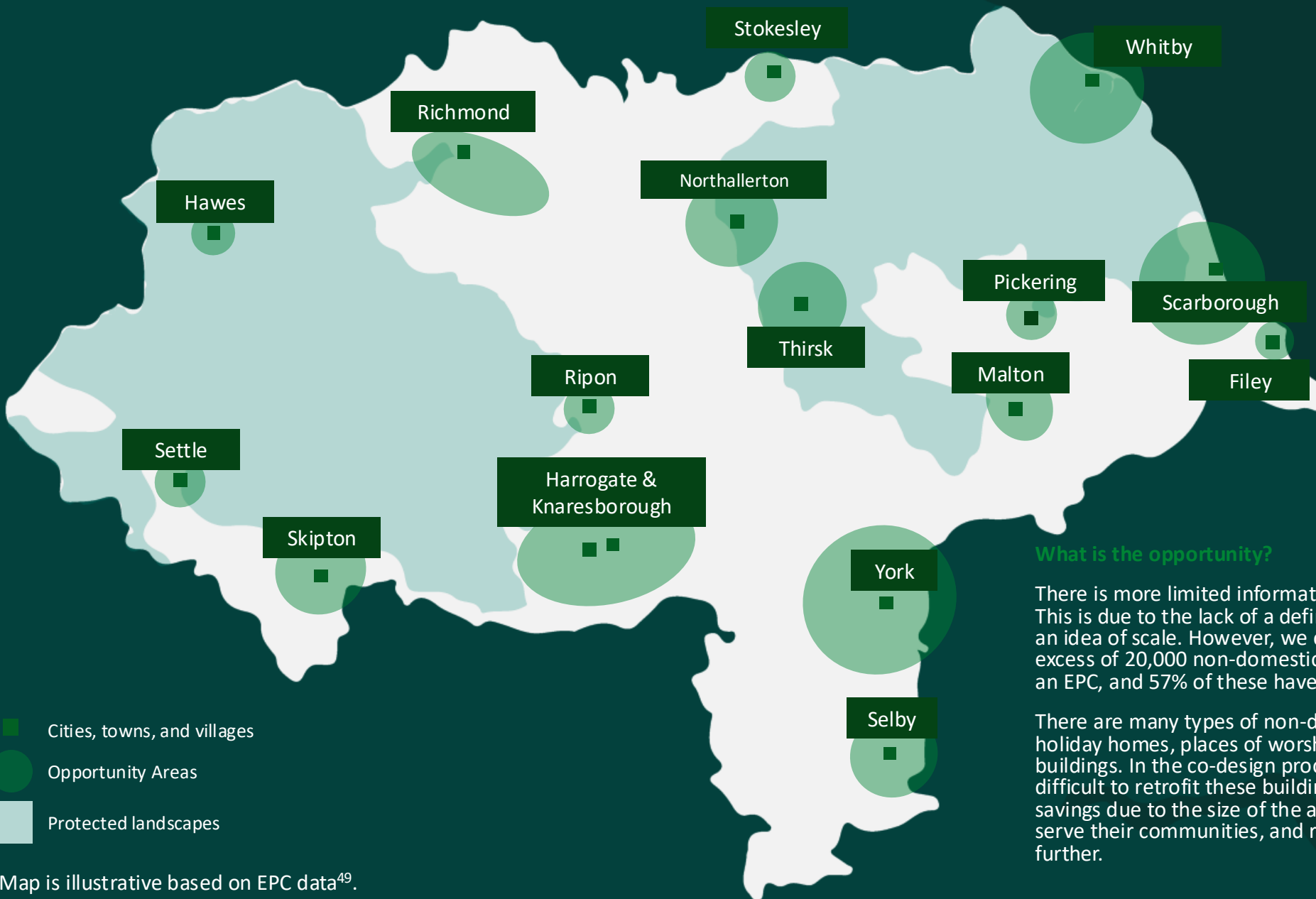
What is the opportunity?

There are ~1600 **public buildings*** across York and North Yorkshire, such as leisure centres, care facilities and police buildings. The majority of these require retrofit or upgrades of some kind. Many of the buildings are pre-1919 and others are listed.

Some upgrades have taken place, such as through the Public Sector Decarbonisation Scheme. Work is currently ongoing via the Local Net Zero Accelerator programme to map public sector assets and understand the potential for private investment.

*Map is illustrative based on findings from the Local Net Zero Accelerator pilot.

Non-domestic Upgrades



What is the opportunity?

There is more limited information about non-domestic buildings in the region. This is due to the lack of a definitive list of non-domestic buildings providing an idea of scale. However, we can see from the DEC register that there are in excess of 20,000 non-domestic buildings. Approximately 88% of buildings have an EPC, and 57% of these have an EPC worse than C⁴⁹.

There are many types of non-domestic buildings in the region, including holiday homes, places of worship, warehouses, theatres and community buildings. In the co-design process, it was noted that whilst it may be more difficult to retrofit these buildings, there are substantial carbon and cost savings due to the size of the assets. Additionally, many of these buildings serve their communities, and reducing their energy bills will support this further.

*Map is illustrative based on EPC data⁴⁹.

Opportunities for retrofit intervention

As shown on the previous pages, the scale of the challenge for delivery of retrofit is huge, but there are many benefits to be realised. This section examines what opportunity points (outside of policy and funding) are available to support further delivery of retrofit, outside challenges such as skills or finance.



Boiler replacements

According to Heat in Buildings⁵⁰, 1.2 million boilers are replaced every year in England. Based on the same rate of replacement for the number of homes in York and North Yorkshire, this suggests that approximately 18,000 boilers are replaced in the region every year. If all of these boilers were replaced with heat pumps, York and North Yorkshire could install just over 93,000 heat pumps between 2025 and 2030. This would also be a key lever for other approaches such as geothermal and heat networks.



Home improvements

The home improvement industry has a lot of overlap with retrofit and is a good indication of the appetite homeowners have for making changes to their homes. In 2024, it was predicted that 1.06 million new kitchens would be installed in the UK in 2024⁵⁴. Based on the same rate of replacement for the number of homes in York and North Yorkshire, this suggests over 16,000 kitchens are replaced every year. As this work is disruptive anyway, it is a prime opportunity for retrofit to occur. Where possible, retrofit could also be promoted as part of existing maintenance programmes to encourage homeowners to consider upgrading the energy performance of their home. A whole house retrofit assessment can support this progressive approach to retrofit, by identifying a programme of energy efficiency measures that can be implemented over time. This whole house approach is aligned with the principles of PAS 2035, which promotes the coordinated planning and sequencing of retrofit measures to achieve long-term improvements in building performance.



Vacant homes

In York and North Yorkshire, there are approximately 5,782⁵¹ long term vacant homes, which are homes that have been unfurnished and not lived in for over 6 months. Retrofitting and refurbishing these buildings could provide an uplift to housing provision in the region.



Solar PV and Battery Storage

Analysis of more than 5 million property sales has shown that installing solar PV on a typical home could increase its value by £1891-£2722. Homes fitted with solar feature a statistically significant price premium of between 0.9% and 2%⁵². Data published by DESNZ shows 255,000 rooftop solar systems were deployed in 2025 across the UK. This equates to one every 2 minutes, showing households are increasingly choosing to generate their own power⁵³. This data was published on the back of government announcing support for the rollout of “plug in” solar to ensure residents without suitable rooftops can still benefit from clean energy. Solar PV can be paired with battery storage to increase the financial viability of their installation and support a flexible energy system by reducing the reliance on energy from the grid at peak times.



Moving to a new home

A key opportunity point is when a building changes hands through a sale. 959,900 homes and 108,440 non-domestic buildings were sold in England in 2025-26⁵⁵, highlighting the scale of the property market. Ensuring retrofit is understood by key stakeholders in this transition such as estate agents, will be crucial for encouraging buyers to consider retrofit.

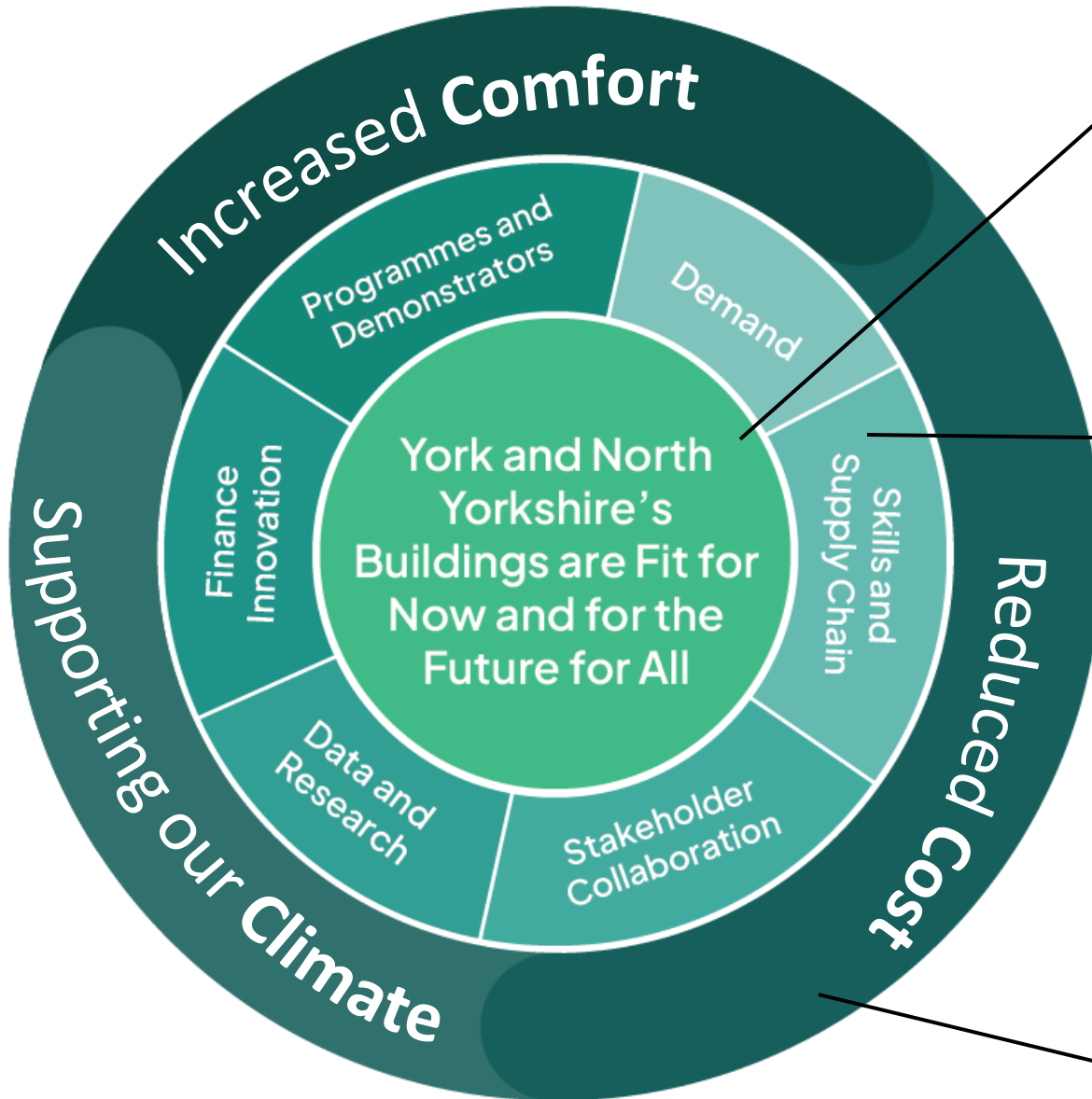
These figures are illustrative estimates based on national and local data and influencing these opportunity points will require substantial collaboration and engagement across the region. However, this does highlight some of the opportunities for change across our current building system, which can be utilised to gain all the benefits of retrofit.

Strategic Framework

An outline of our vision, strategic priorities
and outcomes

Strategic Framework

Building on an extensive evidence base and working closely with stakeholders, this framework sets out the region's approach to delivering our vision, that *York and North Yorkshire's Buildings are Fit for Now and for the Future for All*. It summarises 'what' needs to happen (the strategic priorities) and 'why' (the outcomes).



Vision: This is the long-term goal for retrofit in York and North Yorkshire.

Strategic Priorities:

The strategic priorities are the 'what' and the areas of focus for activity, which span the whole retrofit system. They must all be tackled to increase the pace and scale of retrofit. They are:

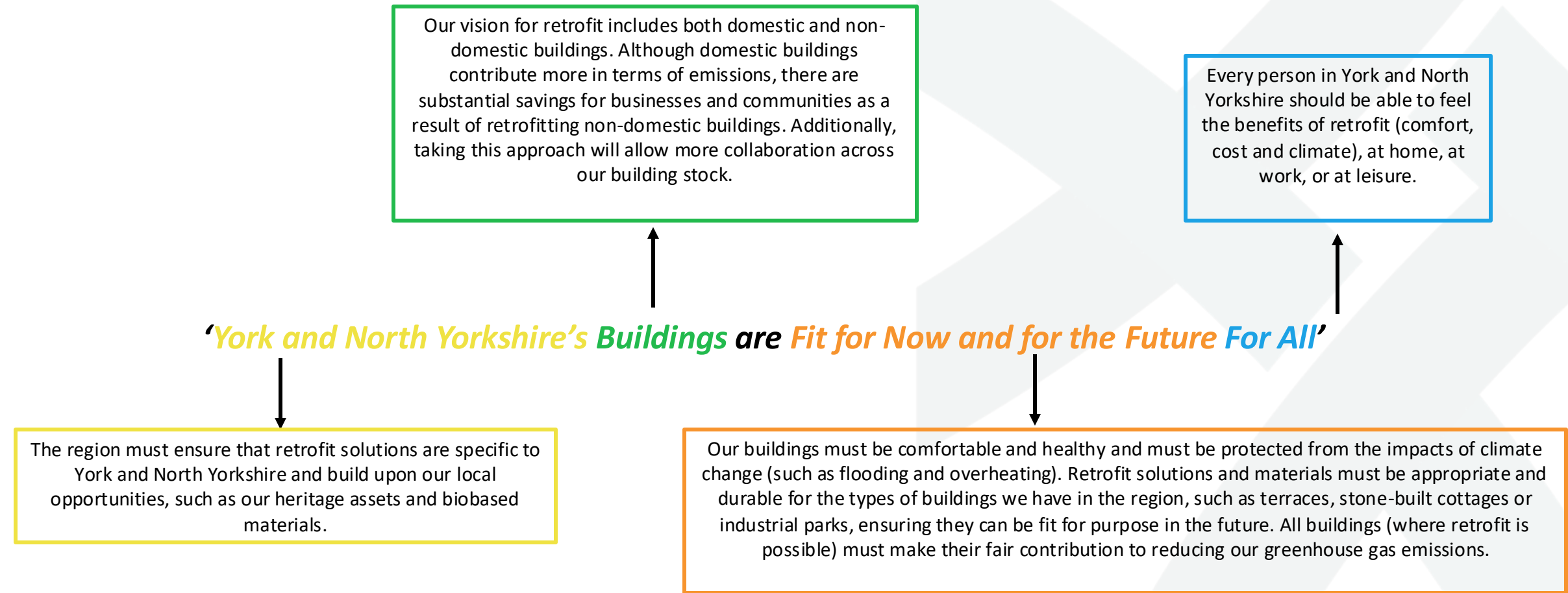
- **Demand** - Grow York and North Yorkshire's market demand for retrofit at a pace and scale aligned to regional and national retrofitting and carbon negative targets.
- **Skills and Supply Chain** - Support the supply chain for retrofit to cope with growing demand.
- **Finance** - Reduce finance as a barrier to retrofit, to ensure it does not hold back the rate of change.
- **Data and Research** - Ensure a data and research driven approach to retrofit.
- **Stakeholder Collaboration** - Enable York and North Yorkshire' organisations to be united in their approach to retrofit and coordinate strategic delivery, supporting residents, businesses and communities across the region.
- **Programmes and Demonstrators** - Demonstrate best practice and deliver programmes that meet the pace and scale of retrofit required.

Outcomes:

These are the 'why' of the Retrofit Strategy, which outline what needs to happen because of the Strategy. All activity under the Retrofit Strategy will aim to meet at least two of these outcomes.

York and North Yorkshire's Retrofit Vision

York and North Yorkshire's Retrofit vision is an ambitious, long-term goal for retrofit in York and North Yorkshire, placing people at the centre. To achieve our vision, we must transform our **retrofit system** to deliver at pace and scale, ensuring a **just transition for communities and businesses** and supporting the region's **carbon negative ambition**. All interventions included in this Strategy should be aligned to this vision. The vision is explained in more detail below.



Strategic Priorities

The six strategic priorities are the areas of focus for activity, which span our whole retrofit system. These are:

- **Demand** - Grow York and North Yorkshire's market demand for retrofit at a pace and scale aligned to the regional ambition to be Carbon Negative by 2040.
- **Skills and Supply Chain** - Support the supply chain for retrofit to cope with growing demand, ensuring an increased pace of retrofit installations does not come at the expense of quality and trust.
- **Finance** - Reduce finance as a barrier to retrofit, to ensure it does not hold back the rate of change.
- **Data and Research** - Ensure a data and research driven approach to retrofit integrating real-time assurance in retrofit delivery where possible.
- **Stakeholder Collaboration** - Unite and empower local organisations in their approach to retrofit and coordinate strategic delivery, seeking to engage residents and businesses across the region, ensuring a just transition as we work towards reaching Carbon Negative by 2040.
- **Programmes and Demonstrators** - Demonstrate best practice and deliver programmes that meet the pace and scale of retrofit required.

They must all work together to strengthen and grow the retrofit system, ultimately leading to an increased pace and scale of delivery.

Each of these strategic priorities is intricately linked to the others, highlighting the complexity of the retrofit system. Investing heavily in one strategic priority and not the others will not tackle the fundamental barriers to retrofit. For example, increasing **demand** from the public without strengthening the **supply chain** will result in a backlog of work and a struggling supply chain.



Outcomes

The outcomes are what should happen as a result of the Retrofit Strategy being delivered. All activity under the Retrofit Strategy will aim to meet at least two of these outcomes but ideally will balance the three.

Increased Comfort

Buildings are comfortable to be in all year round. Comfort looks different for everyone, but generally people should be warm enough in cold weather and cool enough in hot weather. Crucially, this comfort level should not be blocked by high energy bills or leaky buildings and should have positive outcomes such as decreasing damp and mould and the associated health impacts.

Reduced Cost

York and North Yorkshire feels the economic benefits of retrofit, such as:

- Energy bill savings.
- Savings to the health system as a result of reduced health impacts from damp, mouldy or poorly performing buildings.
- A huge opportunity for businesses in the region to scale-up to meet retrofit demand, even if they're not currently in the industry. This will allow the economic benefits of retrofit to stay within York and North Yorkshire.

Supporting our Climate

Climate change is mitigated by reducing greenhouse gas emissions, and we adapt to our changing climate. This may lead to improvements in the resilience of our buildings to flooding, storms and extreme heat, as well as reductions in the amount of energy we use and our switching to renewable energy.

People are at the centre of this approach, meaning that the benefits of retrofit are felt by the people of York and North Yorkshire.



Action Plans

What actions we will take to deliver our strategic priorities

Action Plans

The Action Plans are the ‘**how**’, showcasing how we will achieve the strategic priorities. There are six in total, one for each strategic priority. Prior to delivery, a more detailed implementation plan will be created for the actions outlined, including how success will be measured. Accompanying each strategic priority is some context from the area assessment and co-design process.

These action plans have been created utilising findings from research focused on the region, feedback from stakeholders and national evidence. The action plans are intended to be collaborative and require commitment from a range of partners, with proposed lead partners indicated in **bold**, and potential partners also mentioned. However, further work is required to ensure all the right organisations are included in each action.

As the Strategy covers the period 2025-2030, it is expected that these action plans will be updated to reflect the requirements of new activity as technology and policy changes.

Action Impacts

The actions selected have a range of impacts, which is indicated in the impact column. This shows which of the outcomes each action meets out of increased comfort, reduced cost and supporting our climate, indicated by the icons opposite. Actions must result in at least two of these outcomes.

Action Timescales

The Strategy builds on existing work, and therefore some actions are already underway, some have secured resource but are not yet being delivered, and others have the potential to significantly move the dial on retrofit but require significant resource. This is indicated using the colour coding opposite.

Devolution

Some of the interventions described in this Strategy could form part of a devolved retrofit programme. Relevant actions are indicated by the icon opposite.

Impact	The intervention results in:
	• More comfortable buildings • Reduced health impacts from buildings
	• Reducing greenhouse gas emissions • Adapting to a changing climate
	• Savings for energy bills or the health system • Supply chain economic benefits

Colour	Meaning
	Intervention is already being delivered
	Intervention has resource secured, but is not yet being delivered
	Intervention requires significant resource or support to be delivered

Icon	Meaning
	This intervention could form part of a devolved retrofit programme

Demand: Grow York and North Yorkshire's market demand for retrofit at a pace and scale aligned to regional and national retrofitting supporting the ambition to be Carbon Negative by 2040.

The co-design process confirmed that there is a lack of demand for retrofit across domestic and non-domestic private buildings. Current demand levels are not in line with what is required to meet our regional ambition of Carbon Negative by 2040. Reasons for this lack of demand included:

- The public is sceptical of retrofit schemes, especially where they are not driven by local councils;
- The retrofit system is difficult to navigate, and people do not know where to get information from. When it comes to undertaking retrofit works, trust is a key component for choosing contractors and making financial decisions;
- There are levers which can be pulled, such as shifting retrofit to become part of regular household spending. UK homeowners typically spend an average of £10.70 a week on home maintenance and repairs⁵⁶.
- There is a general lack of understanding of what retrofit is and the benefits it can have.

However, there was a recognition that because of the benefits of retrofit for comfort, cost and climate, demand needs to be increased.

What we need to do:

- Increase the profile of retrofit across the public, supply chain, community and voluntary groups, and leadership organisations;
- Ensure people are supported to better understand and access retrofit;
- Provide clear and easy routes to retrofit for communities and businesses.



Demand

Action	Description		Proposed Lead and Potential Partners	Outcomes
Engagement Campaign	Making use of existing research and evidence, run an engagement campaign highlighting what retrofit is and what help is available across the region with the objective of increasing understanding of and confidence in retrofit and its benefits for all, such as homeowners, renters and landlords, community groups, businesses etc. This must link to existing activity in the region. Activity may include: • Highlighting case studies of different types of buildings to make retrofit more inclusive, and including details of archetypes and building types such as terraces or stone built homes, and community buildings or businesses; • Holding engagement events for the public and for businesses; • Working with front line services such as GPs to raise awareness of retrofit and its health benefits; • Utilising engagement tools like social media; • Looking at innovative solutions, such as featuring retrofit in television or other media. [Plan for campaign established 2027]		YNYCA, CYC, NYC, Community Groups	£  
Retrofit Reimagined	Building on work completed with the Retrofit Policy Lab, work collaboratively with the University of York and other local and combined authorities to explore funding opportunities to develop an innovative, property linked retrofit model. This work will aim to address barriers associated with upfront costs, fragmented delivery models and property ownership changes. The aim is to accelerate residential decarbonisation and increase consumer-led flexibility to support the UK's net zero ambitions. [2026 onwards]		University of York, YNYCA, other partners TBC	£  
Carbon Negative Challenge Fund	Through the Carbon Negative Challenge Fund, support projects which can support and enable wider uptake of retrofit in the region. [From March 2025]		YNYCA, other partners TBC	



Skills and Supply Chain: Support the supply chain for retrofit to cope with growing demand

During the co-design there was a general consensus that our local supply chain is currently unable to scale up to future demand. The workshops and the Retrofit Skills Assessment highlighted a number of constraints which are preventing our local supply chain from scaling up, including:

- The current lack of demand (as discussed in the demand section) is discouraging to businesses in the industry, and makes it difficult for them to invest in retrofit skills;
- Skills providers are often not getting enough people on courses and therefore are unable to continue provision without significant funding;
- The complexity of retrofit creates a need for lots of different skills specialisms and soft skills. For example, heritage retrofit requires a separate set of heritage related skills which require further training and investment. Additionally, interacting with customers can be challenging as retrofit is a poorly understood area of construction, so soft skills like communication are required;
- There are skills shortages in the region, especially in relation to air source heat pumps, insulation, scaffolding, retrofit assessors and heritage skills.

What we need to do:

- Collaborate with local and national partners to ensure that performance standards are high and enforced, and retrofitted buildings perform as promised.
- Work as a region to train and recruit the existing and future workforce to cope with retrofit demand – including housing teams in councils and social landlords, and the use of existing programmes and services.
- Equip skills providers with the evidence and mechanisms needed to develop provision that supports local skills needs.
- Create certainty for the supply chain by showcasing the potential pipeline of work.



Skills and Supply Chain

Action	Description	Proposed Lead and Potential Partners	Outcomes
Retrofit Skills Knowledge Resource	To evidence the need for retrofit skills, collate and share materials such as the Retrofit Skills Assessment, audits from businesses highlighting their skills needs, and skills requirements from delivery of Warm Homes: Local Grant, Warm Homes: Social Housing Fund and the Public Sector Decarbonisation Scheme. This evidence can then be used to drive and inform provision. [2026 onwards]	YNYCA , CYC, NYC, York and North Yorkshire Housing Partnership	£ 
Regional Retrofit Network	Seek finance to extend the previously Innovate UK funded and York based Retrofit Network. As part of this, the network should be extended to include North Yorkshire. Topics should include biobased construction, quality and performance standards, skills etc. Additional aspects of the network may include: • An online platform for resources to use between sessions; • Using the Careers Hub's Collaboration Tool to connect businesses with schools and colleges; • Support for businesses, such as support to register with MCS and TrustMark; • Encouraging 'on the ground' training such as apprenticeships; • An annual conference for the retrofit supply chain with Yorkshire Combined Authorities. [From 2026]	YNYCA , North East & Yorkshire Careers Hub, other partners TBC	£ 
Retrofit Skills Programme 	Utilise current funding and future devolution to support retrofit skills by delivering courses and building retrofit skills into programme design. This should build on successful programmes such as the Green Skills Project funded by the Shared Prosperity Fund.	YNYCA , partners TBC	£ 

Finance Innovation: Reduce finance as a barrier to retrofit, to ensure it does not hold back the rate of change

One of the key areas identified as a barrier to increasing demand is that retrofit is expensive and there is a lack of financial incentives. Reducing this barrier is crucial to enabling more retrofit to take place across York and North Yorkshire.

For private owned buildings, whilst there are government schemes these mostly cover those in fuel poverty or with other specific requirements, meaning that there is a finance gap for those who are unable to fund the upfront cost of retrofit who are also ineligible for these schemes. Additionally, the finance market does not have a comprehensive finance offer for retrofit, largely due to the perceived risk associated with retrofit.

For private rented buildings, a key challenge is that for a lot of landlords they will not see the financial benefits of retrofit, as their tenants are the ones who actually live in the buildings. This creates complexities around bill savings. Additionally, whilst some funding schemes cover private-rented homes, accessing these can be challenging due to complex eligibility requirements.

For non-domestic buildings, some finance is available for assessments which identify improvements which could be made, but there is relatively little finance available to actually deliver on measures, especially as non-domestic buildings like warehouses or churches are often large and complex. This is also complicated by some non-domestic buildings being privately rented, which creates the same challenges as private rented domestic buildings.

What we need to do:

- Support the development of a variety of financing models and fiscal incentives, ensuring that everyone has a route to retrofit;
- Work with local finance stakeholders to create momentum, capacity and confidence in the local retrofit finance system



Finance Innovation

Action	Description		Proposed Lead and Potential Partners	Outcomes
Finance Industry Roundtable	Host a Roundtable to discuss the state of finance for retrofit in the region, identify opportunities for new products or approaches, and agree a future communications strategy. This may include mortgages, loans, funds and other finance mechanisms. The discussion should link to the opportunities identified in this strategy (e.g. heritage, biobased construction), and the pipeline of retrofit identified as part of the area assessment. [late 2026]		YNYCA, Finance Institutions	  
Local Net Zero Accelerator	LNZA is a £2.8M regional finance innovation programme which has designed a model to unlock large-scale investment into net zero infrastructure, not just deliver individual projects. By aggregating retrofit and energy projects into investable portfolios, it creates the scale and certainty needed to attract public and private capital. The proposed model's first phase would accelerate project development, build a regional pipeline and improve investment readiness. For retrofit, this moves the region from fragmented, grant-led schemes to a strategic programme approach. [ongoing until September 2026]		YNYCA, NYC, CYC	 

Data and Research: Ensure a data and research driven approach to retrofit

The co-design process highlighted that there is a high amount of knowledge and expertise across stakeholders in the region. However, it also highlighted challenges around data and evidence which result in a lack of a data-driven approach for the region, including:

- Data is spread across the region and organisations, and there are substantial gaps;
- Regional (and national) retrofit programmes are reliant on EPCs, which are not always accurate and not every domestic building has one;
- There is limited data about non-domestic buildings, as DEC's provide less detail;
- Adapting buildings to climate change is crucial, but for this to happen more needs to be understood about the severity of specific impacts.

Based on this, the following aims and objectives were created for the Data and Research enabler:

What we need to do:

- Bring together data sources to create a comprehensive understanding of retrofit in the region including building condition, socio-economic factors and skills;
- Develop clear metrics and methods of evaluation for the region.



Data and Research

Action	Description		Proposed Lead and Potential Partners	Outcomes
Retrofit Dashboard 	Create a shared retrofit data platform to support market development and ensure a joined up regional approach. This should include data on buildings such as EPCs, information gathered as part of LNZA, adaptation needs and heritage status, and wider retrofit data such as skills needs, public engagement etc. The dashboard should be utilised to: • Create a spatial plan for retrofit which can be utilised to inform delivery and future funding opportunities. • Establish an investible project pipeline, to include non-domestic opportunities and community energy. • Establish clear metrics and methods for evaluation as part of the dashboard. This should complement the Local Area Energy Plans, work with partners to collate other data work in the region and be user friendly to recognise capacity constraints in different organisations. [Options appraisal completed by Summer 2025, delivery from 2026]		YNYCA, CYC, NYC, other partners TBC	 
Climate Adaptation Study	Building on the findings of the Climate Adaptation Study, participate in the Pathways2Resilience programme, which is an EU funded initiative aimed at empowering European regions and communities to develop climate resilience strategies. Through this programme develop a Climate Adaptation Action Plan and Investment Plan for York and North Yorkshire, ensuring that buildings and retrofit are captured. [Study completed by Summer 2026]		YNYCA, CYC, NYC	 

Stakeholder Collaboration: York and North Yorkshire organisations are united in their approach to retrofit and use their levers to create change

The co-design process highlighted how many stakeholders are involved in the retrofit system, and how much work has been done to date. However, there was a general sense that more collaboration is needed across the region to deliver our retrofit vision. Some specific challenges which were mentioned are:

- There is a lack of clear roles and responsibilities for organisations involved in retrofit, which inhibits collaboration;
- Policy and funding is short term and currently driven primarily by Central Government, which creates a competitive environment and does not allow time for collaboration or strategic planning;
- Infrastructure has not caught up to the needs of retrofit, such as the planning system or procurement guidelines, and stakeholders (particularly local authorities) have limited capacity.

What we need to do:

- Develop clear roles and responsibilities for organisations (including local authorities, housing associations, community groups, training providers etc.);
- Utilise levers such as procurement, planning, funding and devolution to enable retrofit at a greater pace and scale;
- Engage with key stakeholders to facilitate joint working, such as applications for funding;
- Reflect local learnings and challenges up to national government to evidence policy change.



Stakeholder collaboration

Action	Description	Proposed Lead and Potential Partners	Outcomes
Joint working framework	Create a joint working framework between key regional partners and community organisations to set out how organisations should work together and identify opportunities for joint working. This should outline clear roles and responsibilities for retrofit and identify levers such as: procurement practices, maximising the impact of the planning and house building system and private rented regulations, joint approaches to funding opportunities, sharing data etc. The framework will be linked to the ongoing governance of this Retrofit Strategy, and measures will be put in place to ensure feedback of local challenges and solutions to central government. [Draft framework created by end of 2027]	YNYCA , CYC, NYC, North York Moors National Park, Yorkshire Dales National Park, York and North Yorkshire Housing Partnership etc.	  
Continue Regional Relationships	Continue working with and learning from other areas and organisations such as West Yorkshire Combined Authority (WYCA), South Yorkshire Mayoral Combined Authority (SYMCA), North East Combined Authority (NECA), Greater Manchester Combined Authority (GMCA), the North East and Yorkshire Net Zero Hub, and the National Retrofit Hub, seeking opportunities for collaboration. This should particularly focus on challenge areas such as adaptation, skills, finance etc. [Ongoing]	YNYCA, WYCA, SYMCA, NECA, GMCA, North East and Yorkshire Net Zero Hub, National Retrofit Hub	  
York & North Yorkshire Retrofit Strategic Partnership	Explore the potential for a call for strategic partnerships with supply chain actors to increase collaboration and knowledge sharing across the public and private sectors. This should consider the work being undertaken by the Local Net Zero Accelerator Pilot. Memorandums of Understanding (MOUs) will be utilised to formalise the relationship and establish the York and North Yorkshire Retrofit Strategic Partnership. [from 2026]	YNYCA , supply chain partners	 
Retrofit Strategy Delivery	Create an implementation plan, governance and reporting structure to ensure delivery of this Retrofit Strategy involving all relevant partners. This will also include communicating with central government to support an increase in retrofit delivery at pace and scale, in line with ambitions included in this strategy. [completed by Strategy completion] .	YNYCA , Retrofit Strategy partners	  

Programmes and Demonstrators: Demonstrate best practice and deliver programmes that meet the pace and scale of retrofit required.

During the co-design there was a general consensus that delivery is not happening at the pace and scale required to meet the regional ambition to be Carbon Negative by 2040.

Key challenges include:

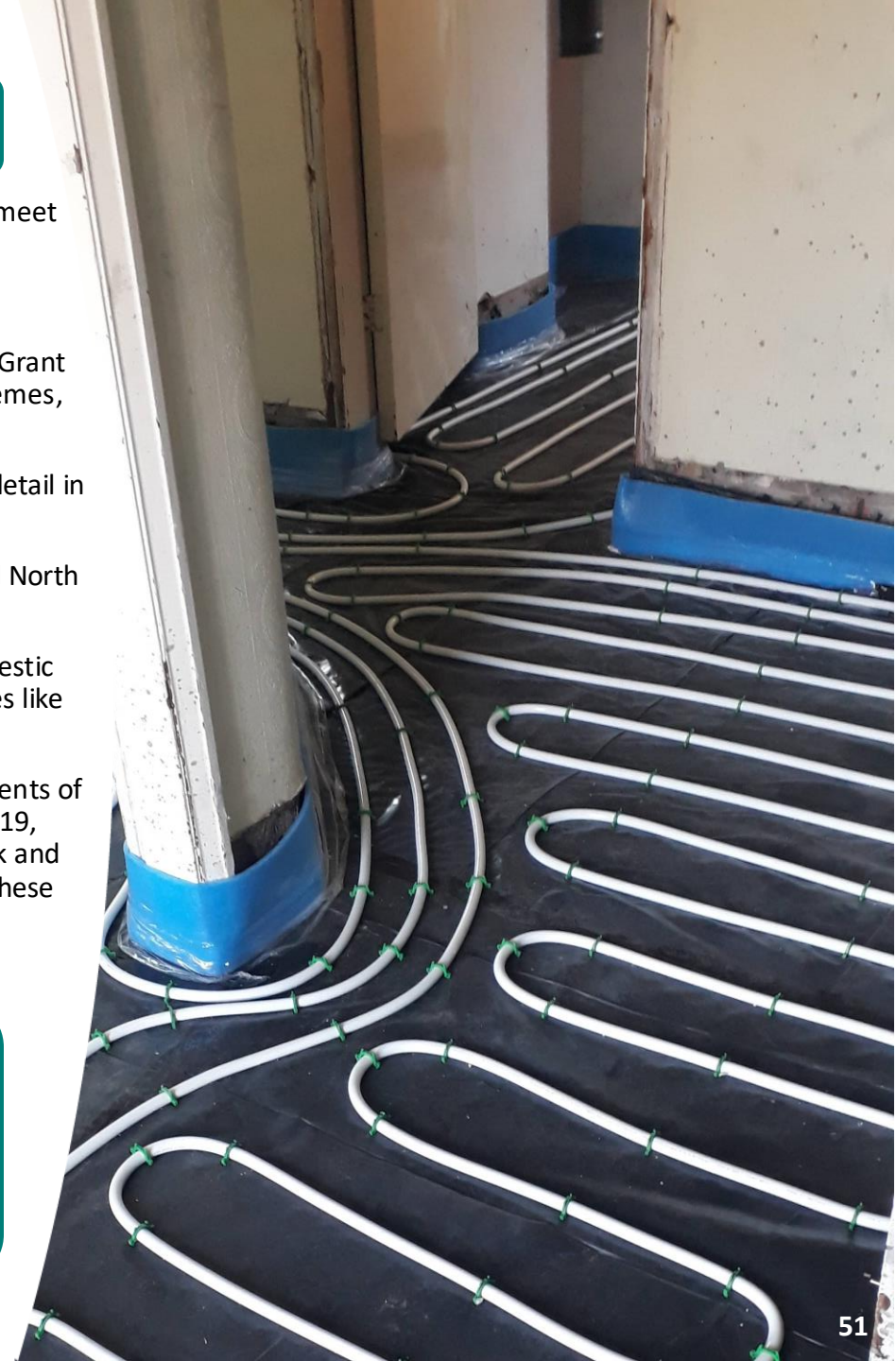
- Delivery is taking place primarily through central government funded programmes, including Warm Homes Local Grant and Warm Homes Social Housing Fund. Although the region has been successful with receiving funding from schemes, this makes a relatively small dent in overall delivery numbers;
- Other delivery is sporadic based on natural demand from communities and businesses, which is limited (further detail in the [demand](#) section);
- Organisations in the region approach retrofit delivery differently, resulting in a lack of consistency across York and North Yorkshire;

However, there are opportunities to make retrofit the easy, obvious answer. For example, approximately 18,000 domestic boilers are replaced every year in York and North Yorkshire, so encouraging people to shift towards other technologies like heat pumps and undertake fabric upgrades could substantially shift delivery numbers.

Additionally, there are a number of areas where York and North Yorkshire could be a demonstrator for different elements of retrofit. For example, as the region is home to many listed buildings, conservation areas and buildings built before 1919, there is an opportunity to showcase more heritage retrofit and gain understanding about how to do this at scale. York and North Yorkshire also has a thriving biobased materials sector, but challenges around guarantees restrict wide use of these materials.

What we need to do:

- Deliver retrofit at scale across domestic and non-domestic buildings via programmes;
- Demonstrate best practice retrofit, utilising our regional strengths.
- Ensure that rural areas and 'harder to treat' properties are not left behind in Retrofit Delivery.



Programmes and Demonstrators

Action	Description	Proposed Lead and Potential Partners	Outcomes
Retrofit Demonstrators Programme 	Building on work done across the region, develop a business case and seek funding to create and highlight retrofit demonstrators. These should showcase examples of best practice of retrofit, acknowledging some of the barriers and opportunities described in this strategy, including rural locations and hard to treat properties. This could include retrofit of heritage buildings, business premises, community buildings, use of biobased materials and consideration of climate change adaptation. These demonstrators should then be showcased to communities, businesses and organisations to encourage further retrofit. [TBC]	YNYCA , Historic England, other partners TBC	 
Warm Homes: Local Grant	Ensure delivery of Warm Homes: Local Grant. Ensure that scheme delivery links into other elements of this Strategy and retrofit activity around the region, and that lessons learnt about demand are shared. Lessons learnt and progress should be shared with key stakeholders to ensure inclusion in future programmes.	CYC and NYC	  
Warm Homes: Social Housing Fund	Ensure delivery of the Warm Homes: Social Housing Fund. Ensure that scheme delivery links into other elements of this Strategy and retrofit activity around the region, and that lessons learnt about demand are shared. Lessons learnt and progress should be shared with key stakeholders to ensure inclusion in future programmes.	CYC, NYC, York and North Yorkshire Housing Partnership	  
Public Sector Decarbonisation Scheme	Ensure delivery of the Public Sector Decarbonisation Scheme until it finishes in 2028. Ensure that scheme delivery links into other elements of this Strategy and retrofit activity around the region, and that lessons learnt about demand are shared. Lessons learnt and progress should be shared with key stakeholders to ensure inclusion in future programmes.	CYC, NYC and Office for Police, Fire, Crime and Commissioning	  
Devolved Retrofit Delivery Programme 	Design a retrofit delivery programme utilising lessons learnt from delivery and the engagement and research completed for this Strategy. This programme must plug gaps in delivery, such as those who are not covered by current funding schemes and can't pay for retrofit on their own. A devolved Retrofit Delivery programme must deliver for the region and consider the rural and harder to treat properties within York and North Yorkshire. We will communicate effectively with central government to highlight retrofit progress, aiming to secure more funding for the region to increase retrofit delivery.	YNYCA	  

Evaluation

How we will measure success

Monitoring and Evaluation of the Strategy

Prior to delivery, a more detailed implementation plan will be created for the actions in the Strategy, including how success will be measured. Some example metrics include:

Principle	Indicator	Metric
Climate 	CO2 Emissions	Tons of CO2/CO2e
	Energy Consumption	kWh/m2/year
	Renewable Energy Production	kWh/year
Comfort 	Fuel Poverty	% of households
	Type and number of retrofit measures	# of retrofit measures
	% of buildings above EPC/DEC C	EPC
	Incidents of mould	# of incidents
	Number of excess deaths due to extreme heat	# of deaths
	Number of excess deaths due to extreme cold	# of deaths
	Use of warm spaces or cool spaces	# of users or hours used
Cost 	Investment in retrofit	£
	Jobs in retrofit	#FTE
	Growth of supply chain	# of businesses in retrofit
	Financial savings from retrofit (energy bills)	£
	Number of retrofit courses provided	# of courses



Strategic Added Value Framework

The Strategic Added Value (SAV) model will be applied to understand the impact of the Retrofit Strategy. It is likely that to assess the SAV a range of qualitative and quantitative data will be required from different data sources and organisations that are delivering various elements of the strategy. These will be considered in more detail in the implementation plan and for specific actions.

Strategic Added Value	Definition in retrofit context	Possible measures of success
Leadership	Articulating and achieving shared objectives with partners and stakeholders	• Sustained engagement of members of the task and finish group • Local authorities support the strategy
Influence	Leading or facilitating activity that encourages partners or stakeholders to commit to achieving shared objectives	• Provision and uptake of retrofit training and upskilling • Businesses that are trust mark certified and can participate in the retrofit supply chain
Leverage	Providing and/or securing financial and other incentives to mobilise partner and stakeholder resources; equipment and people, as well as funding	• Value of retrofit to the local economy • Businesses engaged in retrofit activity
Synergy	Using organisational capacity, knowledge and expertise to improve information exchange between partners and stakeholders and coordination of activity, reducing duplication of efforts and achieving a catalytic effect	• Area based retrofit interventions that can effectively target resources • The delivery of retrofit in Y&NY is supporting wider economic and decarbonisation aims (SFASF, Growth Plan)
Engagement	Establishing and maintaining mechanisms or incentives for more effective and deliberative engagement of stakeholders in the design and delivery of policies, guidance, research, programmes, and projects	• Increased public awareness of retrofit • Engagement with retrofit activities by businesses and residents

Appendices

Further detail and background documents

Appendix 1

Summary of evidence sources

Emissions from Heat & Buildings in York and North Yorkshire

From the Carbon Abatement Pathway (CAP) study (2024) we know that in York and North Yorkshire, the buildings sector (compared to Transport, Power, Business and Industry, Waste, and Land Use, Land Use Change, and Forestry) shows the highest fall in emissions from 2005 to 2023, with a reduction of almost 50% (1.9 MtCO₂e reduction). Changes in fuel mix for electricity generation, above average temperatures and rising costs for electricity and gas are associated with this reduction. Average use of natural gas and electricity shows a downward trend by domestic users, and an upward trend by non-domestic users.

Despite this progress, the buildings sector currently accounts for 25% of emissions in York and North Yorkshire at 1.62 MtCO₂e, with most emissions coming from domestic buildings gas consumption. Two thirds of building emissions in York and North Yorkshire are from domestic buildings (1.09 MtCO₂e) with the remainder from non-domestic buildings (0.54 MtCO₂e). There is also a difference between York, and North Yorkshire - buildings account for 46% of City of York's emissions (0.35 MtCO₂e) and 23% of North Yorkshire's emissions (1.27 MtCO₂e).

When current emissions (from 2023 due to available data) are reviewed against the projections of the original CAP (2021), they are higher than those projected in the decarbonisation pathways. This highlights that although progress has been made since 2005, more rapid decarbonisation is required.

Therefore, buildings are a significant part of the challenge of reaching net zero and carbon negative and must be tackled.

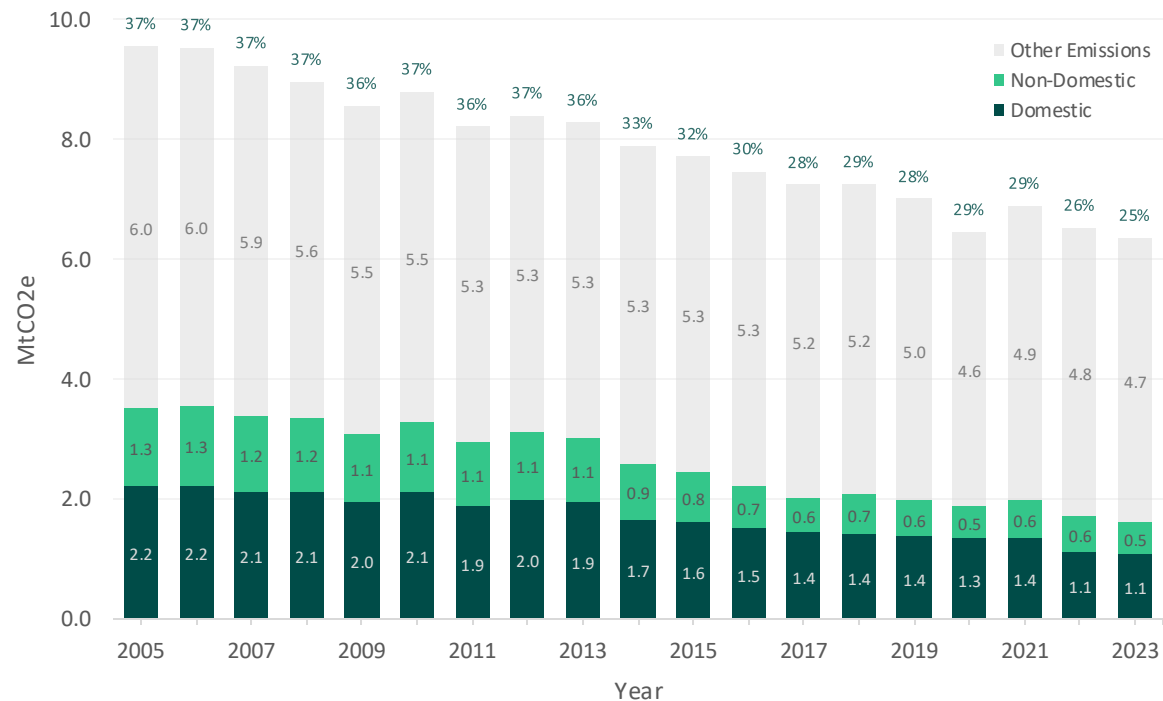


Figure 1. DESNZ Historical Emissions from Buildings compared to all other* sectors 2005 to 2023 across York and North Yorkshire.

*Other sectors include Industry, Transport, Agriculture, Land Use and Forestry, and Waste

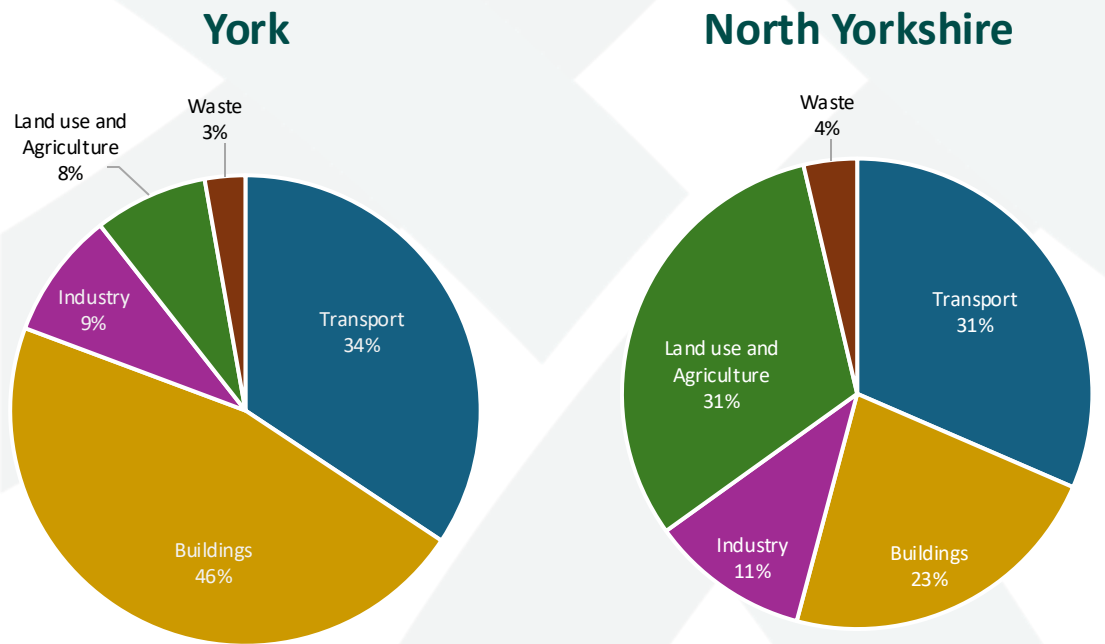


Figure 2. 2023 DESNZ Sector emissions breakdown by percentage for York and for North Yorkshire

Scale of Ambition to Reach Carbon Negative

Based on progress made and our current emissions, the CAP study examined how we can get to net zero and beyond to carbon negative. The York and North Yorkshire Leading the Way pathway shows the scale of possible changes given a set of assumptions. The pathway implies significant electrification of heating, transport and industry, as well as a significant increase in low-carbon power generation and high rates of forest planting.

The York and North Yorkshire Leading the Way pathway is based on assumptions, which have formed the scale of ambition. These are not intended to be 'targets' but provide a direction of travel and illustrate the scale of change required to reach carbon negative. The scale of the challenge is huge, but to reach net zero and gain the environmental, social and economic benefits of retrofit, we must accelerate the pace and scale of retrofit in line with these ambitions. Scale of ambition figures relevant to retrofit are outlined below, which includes those from the heat and buildings section and business and industry section.

Scale of Ambition
Scale up to retrofit homes to EPC C: 179,328 by 2030, and a further 70,000 by 2038
Retrofit ~1600 public buildings to at least a Display Energy Certificate (DEC) C rating or above by 2030
Retrofit ~1600 community buildings to at least a DEC C rating or above by 2038
Scale up to retrofit 12,726 (32%) of existing business premises to EPC C by 2030, and a further 11930 (30%) by 2038
Scale up rooftop solar to 67227 homes by 2030, and a further 31,000 homes by 2038
Scale up to deploy solar on 1745 business premises roofs per year (48 GWh) up to 2038
Scale up to deploy decarbonised heating (such as heat pumps, geothermal and district heating) to 179,328 homes by 2030 and a further 70,000 by 2038
Scale up decarbonised heating to cover 4000 non-domestic buildings by 2030 and 5000 further non-domestic buildings by 2038
No new oil boiler installation by 2030

Skills and Supply Chain in York and North Yorkshire

The Retrofit Skills Assessment, completed in February 2025, aimed to set out future retrofit skills requirements for York and North Yorkshire, and identify the gap between this and the current supply chain. This gap is highlighted below, but more detail can be found in the full assessment.

The assessment examined roles such as installers, manufacturers, professional services (like advice and evaluation) and other administrative roles. Whilst this exercise focused on York and North Yorkshire, it is noted that the supply chain does not follow local authority boundaries, and businesses from West Yorkshire, South Yorkshire, the North East etc. are also part of our supply chain. Businesses from these areas have also been involved in the development of this Strategy.

The main conclusion to draw from the assessment is that there is a huge gap between the current labour force (500 people) and the peak labour requirement in 2031 (13,000 people) required to deliver across a range of roles. This will be a substantial challenge to deliver and requires extensive collaboration across the region. However, 25,000 potential employees were identified in other industrial groups with similar skills profiles to retrofit, some of which are roles that will be scaled down as we transition to net zero, such as those linked to oil and gas. Therefore, a key action from this work is training and upskilling activities to support these employees into appropriate roles in the retrofit supply chain, providing long term job security and equipping the region to deliver retrofit at scale.

Current State

- There are 300+ retrofit businesses in York and North Yorkshire;
- There is a particular gap in insulation businesses, with fewer than 10 operating in the region;
- Retrofit businesses are centred around Harrogate and York;
- There is a labour force of approx. 500 people;
- Training provision is concentrated around York and Harrogate;
- There is a general skills shortage in the construction industry which has implications for retrofit. There are also more specific skills shortages in areas of expertise such as heritage retrofit and retrofit assessors and coordinators;
- There are gaps in provision around air source heat pumps, battery storage, insulation and heritage skills, and there is a need for soft skills;
- There is a general sense that the current supply chain is not in a position to scale up to meet identified retrofit requirements;
- Providers report that there is generally a lack of demand for retrofit qualifications, and difficulty around recruiting suitably experienced tutors or having the resources to upskill existing tutors.

Future State

- To deliver all required retrofit measures by 2034, the peak labour requirement is 13,000 people in 2031;
- 25,000 potential employees have been identified in other industrial groups with similar skills profiles to retrofit. This includes industries which are expected to decline due to shifts to renewables, such as roles in oil and gas.

Data Consolidation Exercise

YNYCA examined what data is held around the region linked to retrofit to better understand what information there is and how it can be utilised to inform retrofit delivery and Strategy. A summary of this work is provided here.

Key Findings

- There are many different approaches to storing spatial data – some stakeholders list buildings by postal address, some by GPS coordinates etc. Whilst this makes sense for individual organisations, it makes it more difficult to compare datasets across the region.
- However, the majority of data is stored as a spreadsheet, with some limited abilities to provide data visualisation.
- Whatever solution is built to produce a cohesive picture of the region will rely on EPC data initially, as this is the main dataset used by many stakeholders and central government. However, the feedback from different organisations was that EPCs are often not reliable or accurate, and that other forms of measurement might be better – there were no alternative measurements found during this exercise.
- Consolidating data in the region would require extensive use of Information Sharing Agreements (ISAs), as most datasets include some personal information.
- Where automatic updates are not available, the frequency of updating datasets is limited by the capacity required to perform updates. This will vary between stakeholders and is also informed by their reporting mechanisms.
- The social housing sector has more up to date information than private housing, as EPCs only last for 10 years and only need to be renewed when a house is sold or rented, whereas social housing providers are more active in understanding their buildings.
- Whilst there is some information about non-domestic buildings through Display Energy Certificates (DECs) and through anecdotal understanding from organisations about their buildings, this does not create a full picture of the non-domestic buildings in the region.

Next Steps

From the data consolidation exercise, it was concluded that creating a shared dataset amongst key stakeholders in the region would be a useful exercise which would aid strategic thinking. For example, if there are areas where there is extensive social housing but also large businesses and private housing, examining all the available data may highlight opportunities for collaborative solutions.

To understand what the possible solutions are, an options appraisal is currently being undertaken. There are some existing platforms which could enable a shared dataset, but a bespoke solution may offer more flexibility and tackle more of the challenges listed above. This work will be continued and is detailed further in the Data and Research action plan.

Building Stock Summary

York and North Yorkshire's building stock is diverse and covers a range of uses, ownership models, designs and requirements. The scale of the challenge for our building stock is outlined in more detail on the next pages.

Archetypes

Common archetypes for domestic buildings include terraces, and stone-built cottages. As the region includes historic centres and market towns, many non-domestic buildings are older buildings, and there are also several large industrial estates.

Heritage

There are a large number of heritage buildings. In this Strategy, heritage buildings are defined as listed buildings, buildings in conservation areas and specially designated landscapes or buildings built before 1930. There are over 2000 listed buildings in York and over 12,200 in North Yorkshire. Listed buildings must have EPCs, but may be exempt from implementing the recommended measures, and Historic England guidance is that carrying out inappropriate work to meet a specific EPC rating can result in harm to the building fabric and health of the occupants³¹. Over 18,000 properties intersect a conservation area in the City of York, and there are 331 conservation areas across North Yorkshire, including two National Park areas which are separate planning authorities (however buildings in protected landscapes can also apply for exemptions). All of these have additional requirements in terms of planning and permissions compared to non-listed and non-conservation areas. Additionally, there are 98,559 dwellings (28%) in York and North Yorkshire which were built before 1930.

Heritage buildings are not only people's homes, but also have a significant economic impact, contributing an estimated £2.1 billion in GVA³² and 41,000 jobs. Based on this and the role that heritage buildings play in York and North Yorkshire, they require a bespoke approach to ensure that harm is not done by retrofitting incorrectly, and that our regional heritage and identity is protected now and into the future.

Domestic Buildings

There are 397,303 dwellings in York and North Yorkshire. 87% of these are private dwellings (private owned and private rented), and 13% are social housing or other public sector dwellings. 88% (348,882) have an EPC, which highlights that 63.43% of domestic buildings in York and North Yorkshire have an average energy efficiency rating below EPC C.

Approximately 1,161,940 measures are required across the stock, including: wall insulation (156,713), floor insulation (189,478) and loft insulation (75,952), draughtproofing (21,536), replacing windows and doors (52,166) and installing heat pumps (389,231), solar PV (276,864) and battery storage. Overall, the stock requires substantial upgrades to realise the benefits of comfort, cost and climate.

Non-Domestic Buildings

Less information is available about non-domestic buildings, as a definitive source is not readily available. This can include business premises like industrial estates, public sector buildings and community buildings like village halls, places of worship, leisure centres etc. However, some high-level figures have been identified.

57% of the non-domestic stock in York and North Yorkshire has an EPC worse than C. Approximately 90% of the non-domestic stock uses either grid electricity or natural gas. Common measures required across the stock include wall, floor and roof insulation, replacement heating and installation of solar PV.

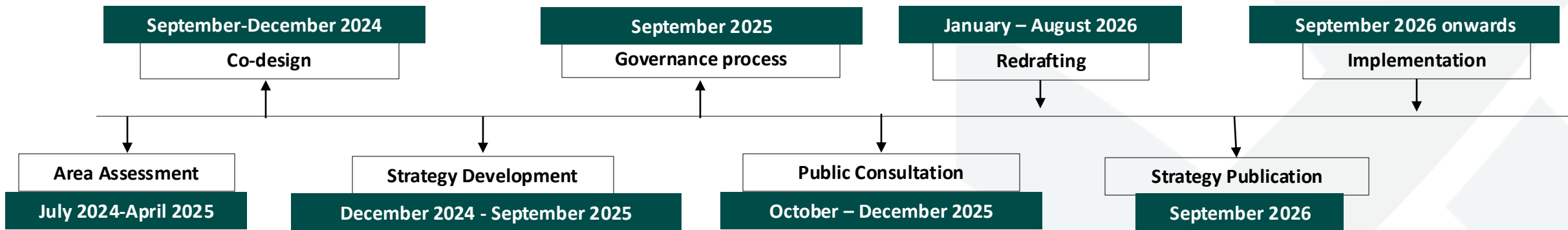
To better understand and support non-domestic retrofit, further research is required.

Appendix 2

The development process

Development Process

The Retrofit Strategy has been developed with key stakeholders from across the retrofit system, following the process outlined below. This means that people with the relevant experience and skills have come together to create the Retrofit Strategy and will play a role in delivering it.



Governance

To guide the development of the Strategy, a Task and Finish Group was established in February 2025. This group includes representatives from key stakeholders such as North Yorkshire Council, City of York Council, the Federation of Master Builders, the York and North Yorkshire Housing Partnership, the Federation of Small Businesses, Northern Powergrid and many more. The group exists to provide strategic direction to the co-design of York and North Yorkshire’s Retrofit strategy, ensuring it is deliverable across a range of partners. It is anticipated that during the implementation of the Retrofit Strategy the group can perform an advisory function to support strategy delivery. The delivery of the Retrofit Strategy will also contribute to the governance of the Strategy for a Sustainable Future, contributing to the Warm and Efficient Buildings high impact sector.

Strategy Delivery

Organisations, community groups and stakeholders across the region will be involved in the delivery of the outcomes outlined in the Retrofit Strategy. The co-design of the strategy and the consultation has sought to ensure that organisations across the region involved in retrofit have been able to contribute to the development of the strategy. The adoption of the Retrofit Strategy by the York and North Yorkshire Combined Authority, and partners presents a united regional commitment to delivery. This places the region in a strong position to benefit from further devolution opportunities, as seen in other areas including Greater Manchester and the West Midlands. It is anticipated that an implementation plan will be developed with partner organisations to identify roles, responsibilities, and costs associated with strategy delivery.

Development Process

The development of the Retrofit Strategy engaged public, private and community organisations across York and North Yorkshire to gather input and to understand how retrofit can deliver for social housing tenants, residents, businesses and communities. The evidence base underpinning the strategy is robust and has considered national and regional data and requirements. The appendix includes specific findings from the area assessment outputs and the public consultation.

July 2024 - April 2025

Area Assessment:

The Area Assessment aimed to build an evidence base to inform the direction of the Retrofit Strategy, which included the following activities:

- A desktop review of national and local policy, strategy and research
- Retrofit Skills Assessment
- Retrofit Data Consolidation
- Carbon Abatement Pathways (CAP) Study and refresh

September 2024 – June 2025

Co-design:

Building on initial findings from the Area Assessment, workshops were held, engaging over 50 stakeholders from across the retrofit system including skills providers, retrofit experts, local authorities and businesses. We worked with stakeholders and co-created the vision for retrofit, informed the direction of the Retrofit Strategy and created ideas for implementation.

December 2024 – September 2025

Pulling together the Area Assessment and Stakeholder Workshops:

The Area Assessment and Stakeholder Workshops were then pulled together to create a first draft of the Retrofit Strategy. This involved cross-checking what stakeholders said with the evidence, such as comparing the supply chain barriers from the Retrofit Skills Assessment with stakeholder comments from the workshops.

October – December 2025

Public Consultation

The draft strategy was published for public consultation, which ran for 8 weeks between October 9th and December 3rd 2025. This was the opportunity for organisations and the public to provide their feedback on the draft strategy. A total of 370 responses were received (52 organisations and 318 members of the public. 83% of respondents were supportive of York and North Yorkshire’s Retrofit Strategy. A report detailing the findings of the consultation is published in the appendix.

January – September 2026

Final Strategy

The final strategy has been updated in line with feedback received through the public consultation and published. A table of changes made for the final version is included in the appendix.

Co-design Process

Building on initial findings from the Area Assessment, YNYCA held a number of workshops to co-create a vision for retrofit, inform the direction of the Retrofit Strategy and create ideas for implementation. This included a full day, in-person workshop, three online workshops and supplementary engagement with key stakeholders.

Stakeholders involved in this development have spanned the whole retrofit system, including local authorities and social housing providers, national experts, community groups, skills providers and businesses. They are further detailed in the appendix. Some examples include:



Feedback from these sessions has been used to create the vision for retrofit in York and North Yorkshire, shape the strategic priorities, highlight barriers and prioritise actions.

Although many barriers to retrofit were identified through this engagement process, it has also highlighted the number of people and organisations who are passionate about retrofit, and the momentum that has been created in the region. This Strategy aims to build on that momentum and create more opportunities.



Priorities for stakeholders, and the public in York and North Yorkshire: Findings from workshops and the public consultation

These themes highlight opportunities and barriers associated with increasing retrofit in York and North Yorkshire and they have contributed to the development of the Strategic Priorities.

Retrofit should focus on the people in the buildings, rather than just the buildings themselves

- Understanding the building user and how the building functions is important to ensure retrofit design places people at the centre. Communicating clearly about the retrofit process and timelines helps to provide reassurance and minimise the disruption caused by retrofit installation.
 - Disruption associated with retrofit works is a significant concern for residents, with 26% of individuals identifying it as a barrier to adopting retrofit measures in their home in their public consultation response.
- Providing support to residents and building occupiers is significantly important to increase trust and provide reassurance on the effectiveness of retrofit measures. The importance of building sustained relationships is important to ensure that retrofit measures perform as intended.
 - 39% of respondents to the individual public consultation survey identified distrust of builders and trades people as a barrier to them retrofitting their homes or business. 52% highlighted that installers that are certified and monitored for quality would help them feel more confident in undertaking retrofit measures on their home or business.
 - 29% of people stated they do not know where to get advice or where to start with retrofitting their home or business and 23% of people highlighted that they are worried about retrofit worsening their home or business. This identifies there is a need to increase demand for retrofit measures and ensure that the public and business owners are aware of the benefits retrofit can provide to their home or business. Similarly, responses highlighted there is a need for funding to support an increase in demand for retrofit and 73% of public responses highlighted that grant funding schemes would increase their confidence in retrofit. Similarly, 40% of responses stated that loans with low or zero interest would help them to undertake retrofit measures on their home or business.
- Continued support after retrofit installations helps to ensure the resident benefits from increased comfort and reduced cost of retrofit. This is particularly important to provide support to residents or businesses to ensure they are on a suitable energy tariff. This approach to retrofit is consistent with PAS2035 principles.

Retrofit can provide benefits beyond improvements to buildings

- Benefits such as health improvements, reduced bills, reduced carbon emissions, improved comfort in buildings throughout the year should be showcased as benefits rather than ‘co-benefits’, to make sure that there is a reason for everyone to retrofit their building. Promoting this message and working collaboratively with stakeholders is crucial to evidence the impact of retrofit measures and to communicate the benefits widely, supporting an increased demand.
 - Qualitative responses to the consultation highlighted that individuals have suffered with negative physical and mental health conditions due to the conditions in their home or stress and anxiety due to the rising costs of energy.

Increasing the retrofit supply chain presents an opportunity to support the circular economy and biobased sector

- Historic England highlight that many **historic buildings** are constructed from low carbon materials, and locally sourced low-carbon materials can be used for their maintenance and retrofit. Preserving, protecting and enhancing our historic buildings through appropriate retrofit measures helps to ensure these buildings are comfortable and affordable for people to occupy, whilst preserving their historical significance for years to come. The heritage buildings that comprise York and North Yorkshire’s building stock define the unique character of our place and retrofit ensures they can continue to operate into the future.

Non-domestic buildings present an opportunity for decarbonisation at scale

- Retrofitting buildings used by community organisations and businesses presents an opportunity to champion retrofit in communities and it is a key aspect of building resilience and ensuring they can be maintained for the future. Responses to the public consultation identified that increasing energy costs were a concern for business owners in York and North Yorkshire, and they are making it difficult to plan.
- Increasing the availability of data and sharing information across organisations and businesses could present an opportunity to enable place-based retrofit and decarbonisation. Similarly, enabling greater collaboration among businesses and organisations can help to utilise resources more efficiently.

Appendix 3

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Group, and Contributors

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Glossary

- **Climate Change** is a change in the state of the climate that persists over a long period of time, usually a decade or more. These changes can be caused by natural forces such as volcanoes. However, since the 1800s human activities such as burning fossil fuels have been the main driver of climate change.
- **Greenhouse gases** (often abbreviated to GHGs) are gases that absorb and emit radiation, which causes the greenhouse effect. They primarily include water vapour, carbon dioxide, nitrous oxide, methane and ozone. There are also some entirely human-made greenhouse gases, including sulphur hexafluoride, hydrofluorocarbons and perfluorocarbons.
- The **Circular Economy** is a way of working that promotes smart use and reuse of the resources we already have within our economy, making the most of these materials and minimising our need for virgin natural resources. We currently live in a linear economy, where we take resources, make them into things and then waste them. A circular economy approach would mean that instead of wasting them, we find ways to reuse what we make and design it in a better way so that we make the most of our resources. Circular economy is sometimes abbreviated to CE.
- **Climate Change Adaptation** is adapting to the climate change impacts that are already happening, or that are expected in the future. Even if we stopped all emissions today, there are still some impacts of climate change that we are committed to that will impact us and future generations. Adaptation might involve reducing our vulnerability to erosion due to rising sea levels, or increased summer temperatures. It also includes utilising any positives of climate change, such as longer growing seasons.
- **Climate Change Mitigation** is essentially reducing climate change, usually by reducing the sources of greenhouse gases (such as by reducing fossil fuel use) and/or increasing capture and storage of gases (for example by planting trees).
- **CO2e** is a metric that compares emissions from other greenhouse gases to the amount of carbon dioxide that would produce the same amount of warming. Different greenhouse gases have different properties. For example, methane creates strong warming over a short time period, whereas carbon dioxide creates warming over a longer time period. Using this metric means that we can express a carbon footprint with one number rather than using a different one for each greenhouse gas.
- **Net Zero** refers to anthropogenic greenhouse gas emissions and anthropogenic greenhouse gas removals becoming balanced over a period of time. The difference between Net Zero and Net Zero Carbon is that Net Zero focuses on all greenhouse gases including carbon dioxide, methane, etc. Reaching net zero emissions is dependent on what metrics are chosen to compare the emissions of different greenhouse gases.
- **Carbon negative** is a step further than carbon net zero. Instead of carbon emissions and carbon removals being balanced, there is more carbon removed than emitted. This doesn't necessarily mean that carbon emissions have lowered, as it may rely on carbon capture technology.
- **Renewable energy** refers to energy that comes from natural sources that can be replenished quicker than they are used. Examples include solar power, wind power, hydropower, geothermal energy and bioenergy.

[For more definitions, please visit: Climate change glossary terms for businesses - Y&NY Growth Hub](#)

Task and Finish Group

Membership

The development of the Retrofit Strategy is overseen by a Task and Finish group, which includes representation from:

- Federation of Master Builders **(Chair)**
- York and North Yorkshire Combined Authority **(Secretariat)**
- North Yorkshire Council
- City of York Council
- North York Moors National Park Authority
- Yorkshire Dales National Park Authority
- Northern Gas Networks
- Northern Powergrid
- Further Education Colleges (represented by Harrogate College)
- Zero Carbon Harrogate/North Yorkshire Climate Coalition
- York and North Yorkshire Housing Partnership
- Third Energy
- Mass Architecture
- York Climate Commission
- Align Property Partners
- York Residential Landlords Association
- Federation of Small Businesses
- York and Scarborough Teaching Hospitals NHS Foundation Trust
- West and North Yorkshire Chamber of Commerce

Role of the Task and Finish Group

The Task and Finish Group was created in March 2025 to guide the development of the Retrofit Strategy and support the following objectives:

- Provide **strategic direction** to the co-design of York and North Yorkshire's Retrofit Strategy, ensuring alignment with other strategies and activity, resulting in a high quality document that is nationally leading.
- **Ensure the Strategy is deliverable** across a range of partners;
- **Provide challenge to the co-design process** and document drafting, creating a robust approach and provide holistic subject matter expertise around retrofit, looking across all elements of the retrofit system and wider sectors and regions where needed;
- **Support the development of a proposed governance structure** that can provide direction, strategic leadership and accountability for the delivery of the Retrofit Strategy.

Contributors

Thank you to all the organisations who have been part of the co-design of this Strategy, including:



NORTH YORKSHIRE CLIMATE COALITION

