RISE | Retrofit information, support & expertise

Retrofitting from rural roots to urban heights

Supply chain advice pack

January, 2026

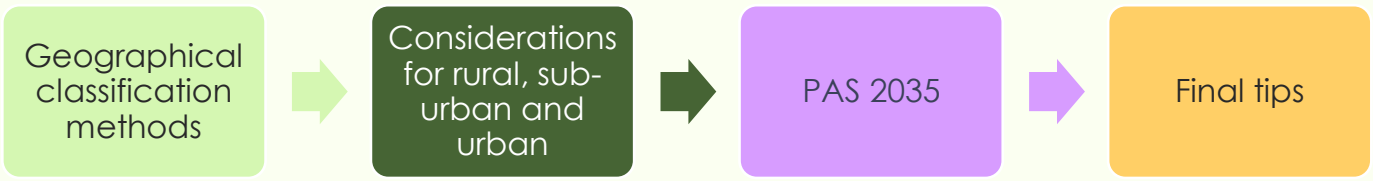
Funded by:

Department for Energy Security & Net Zero

www.riseretrofit.org.uk

Introduction

Geography plays a defining role in how retrofit projects are planned and delivered. Differences in population density, housing types, access routes, and local infrastructure mean that no two areas present the same challenges. A measure that is straightforward in a city centre may be complex or impractical in a rural village, while resident engagement approaches that work well in suburban estates may fall short in high-rise urban environments. Understanding these geographical contexts early enables supply chain partners to anticipate constraints, plan realistic timelines, and select appropriate solutions. This pack provides a structured overview of the main geographic categories - urban, sub-urban, and rural - and outlines how each affects logistics, contractor availability, resident engagement, and measure suitability, helping teams deliver consistent, efficient and context sensitive- retrofit programmes.



Geographical classifications

There are different methods to classify areas:

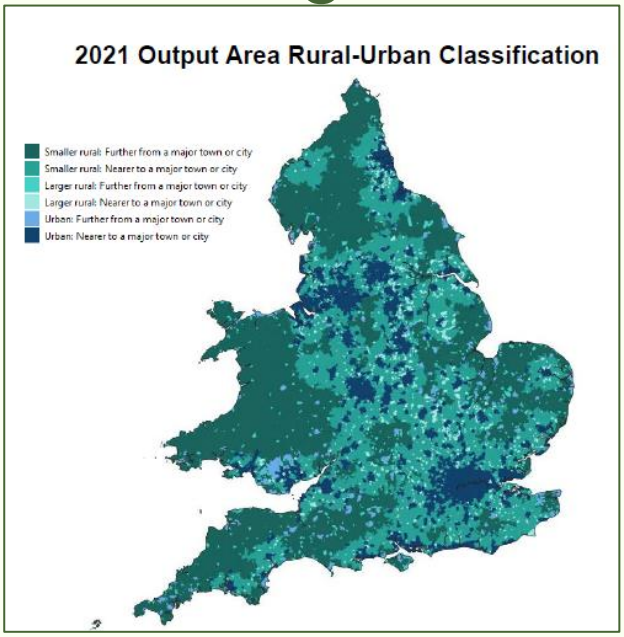
Informally:

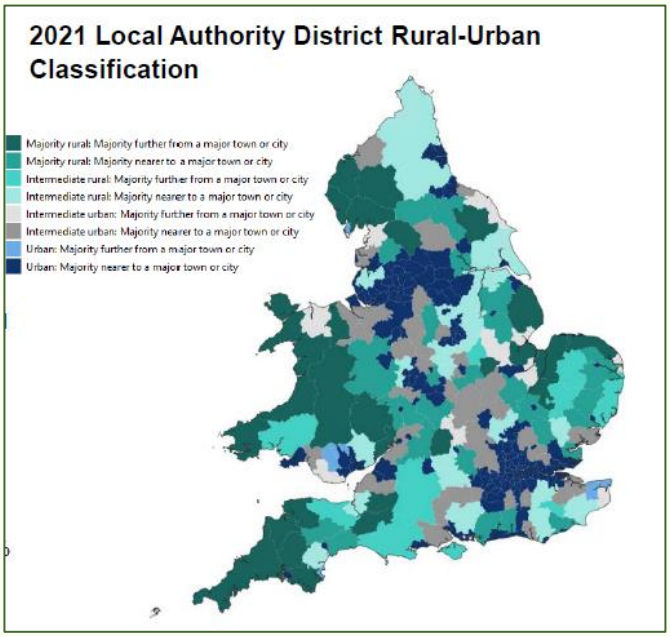
You may use terms like rural, sub-urban and urban based on your own judgement.

Formally:

There are Ordnance National Survey (ONS) classifications which follow their approved methodology.

ONS categorisations





2021 Output Area classifications:

- Urban
- Larger rural settlement
- Smaller rural settlement

2021 Local Authority District classifications:

- Rural majority
- Intermediate rural
- Intermediate urban
- Urban

ONS 2021: *OAs are defined as Urban if they have a high density of residential addresses, or if they intersect with Amalgamated Built Up Areas (ABUAs) with a resident population of 10,000 or more. ABUAs are Built Up Areas (BUAs) within 200m of one another and with a direct road connection, representing larger conurbations. OAs that intersect with ABUAs with populations less than 10,000, or that have lower densities of addresses, are assigned to the Larger or Smaller rural settlement categories.*

ONS 2021:

- "Urban" LADs have less than 20% of their population in rural OAs
- "Intermediate urban" LAD have between 20% to less than 35% of their population in rural OAs
- "Intermediate rural" LAD have between 35% and less than 50% of their population in rural OAs
- "Majority rural" LADs have 50% or more of their population in rural OAs.

Benefits of a contractor understanding the formal geographical categories:

Linking to other data such as fuel poverty and Index of Multiple Deprivation (IMD)
ONS Rural–Urban classifications align cleanly with fuel poverty and IMD datasets, helping contractors identify areas with higher heating-cost pressures or digital exclusion. This enables teams to:

- **Anticipate:** where residents may struggle with affordability or engagement.
- **Plan:** additional support (energy advice, ASHP guidance, longer engagement).
- **Target:** homes where fabric measures will have the biggest impact
- **Allocate:** resources proportionately, especially in higher IMD neighbourhoods.

Can be used to group homes
Formal classifications help contractors group homes for surveys, design, and delivery.

- **Density:** Urban clusters can be grouped by block or estate for efficient EWI or PV roll-outs.
- **Archetype:** Sub-urban homes can be grouped by archetype (e.g., 1960s semis or terraces).
- **Efficient travel:** Rural settlements can be grouped geographically to minimise travel and plan specialist visits.

Overall area-based retrofit tips:

Supply chain availability	Parking and travel considerations	Measure suitability	Resident engagement approaches

- **Contractor availability:** if you need specialist high rise, heritage or ecological services you will need to consider their coverage and proximity to the sites.
- **Parking / vehicle size:** this can be a challenge in all areas such as high-rise flats or even country lanes, planning can help a smooth programme delivery. Having local depots, so you can go from larger vehicles to smaller vehicles
- **Measure suitability:** ultimately if you are following the PAS 2035 process this will determine the suitable measures. You will need to check you have the appropriate certifications for the measure needed.
- **Resident engagement approaches:** different approaches will be needed to suit the area, for example in rural areas make need more time due to lower population density.

Rural considerations

Topic	Descriptions
Storms and power cuts	• **Challenge:** some rural areas can be more susceptible to storms and power cuts. Residents may have concerns over power cuts and may be nervous relying on energy sources from the grid or want a backup option. • **Solution:** heating advice packs and longer engagement may be needed.
DNO and Power Grid connections	• **Challenge:** existing grid connections may not be sufficient for new connections. DNO process can take time and could have associated costs involved. • **Solution:** early engagement with your DNO to understand timescales and costs can help you plan and pivot if required. If it takes longer you may wish to adjust the programme and budget.
Lower population density	• **Challenge:** geographical spread means resident engagement may take longer. • **Solution:** plan this into your logistics so you are not caught by surprise.
Internet connection for smart devices	• **Challenge:** internet connections may not be as fast in rural areas, fibre connection can be more likely in urban areas. This may impact smart devices. • **Solution:** check in on their appetite for smart devices in early engagement and then plan measures to suit this.
Heritage properties	• **Challenge:** thick stone walls and thatched cottages may be more common in rural areas. • **Solution:** to screen for heritage or listed building aspects early.
Wildlife	• **Challenge:** protected species and more wildlife may be common in rural areas. • **Solution:** you will need to factor ecological surveys into the programme to screen for protected species to plan around any findings.
Supply chain proximity	• **Challenge:** there may not be contractors available locally so travel might be longer making return to site more challenging. • **Solution:** higher costs should be planned and risk assessments for staff wellbeing and accommodation will need to be planned.

Urban considerations

Topic	Descriptions
Space for measures	• **Challenge:** in high rise flats and some urban spaces there may not be space on balconies for heat pumps or roof availability for solar PV. • **Solution:** different measures may need to be considered.
Fire safety and cladding remediation	• **Challenge:** the building may be under a remediation plan and you may need to factor this into your programme of works. • **Solution:** the earlier you can discuss this with your client and understand their compliance needs and how it fits in with the energy upgrade the better.
Noise levels	• **Challenge:** heat pumps can have noise level thresholds for neighbouring property. The current MCS standard details 'The location of external fans and heat pump compressors should be chosen to avoid nuisance to neighbours' (MCS, 2025)[1] • **Solution:** working to MCS guidance and early site analysis is key.
Urban heat island effect	• **Challenge:** it can be 10°C warmer in built up areas meaning overheating can be a challenge. • **Solution:** shutters, shading and other measures can be considered, PAS 2035 approaches to overheating should be followed.
Parking/ vehicle access	• **Challenge:** in built up areas parking and transporting materials to the site can be more challenging • **Solution:** screen for the parking solution early on to avoid surprises. You may be able to get a temporary permit so account for time to apply for this.
Working at height	• **Challenge:** it is likely there will be more high-rise flats and measures like double glazing may need scaffolding and working from height compliance. • **Solution:** this needs to be factored into project timescales and costs early on to avoid risks.

[1] The Heat Pump Installation Standard, MCS, 2025

Sub-urban considerations

Topic	Descriptions
Neighbour coordination	• **Challenge:** many sub-urban properties share boundaries, roofs, or party walls, meaning work may require neighbour agreements or careful sequencing. • **Solution:** build in early resident engagement to understand neighbour availability and ownership arrangements before scheduling works.
Parking and site setup	• **Challenge:** parking can be inconsistent – better than urban areas but far from guaranteed, especially on narrow streets with driveways. • **Solution:** plan vehicle movements, welfare units, and scaffold locations early; consider applying for temporary parking permissions if needed.
Measure suitability	• **Challenge:** external wall insulation may face space constraints on side paths, and heat pumps may require appropriate clearances from neighbouring homes. • **Solution:** carry out pre-installation checks to identify pinch points and select compact or low-noise technologies that fit sub-urban layouts.
Resident expectations	• **Challenge:** sub-urban homes often have higher expectations for aesthetics, noise, and disruption, which can lead to resistance if changes are very visible. • **Solution:** use clear visuals and explain how aesthetic impacts will be managed (e.g., colour matching, neat trunking, discreet unit placement).
Contractor logistics	• **Challenge:** sub-urban areas may not have the same contractor density as urban centres, but they are easier to reach than rural locations – creating an unpredictable middle ground. • **Solution:** plan for flexible scheduling and ensure contractors are briefed on access routes, parking, and storage restrictions.

Case studies

Rural: Tinwell near Stamford

Parties: Amplius (client), Morgan Sindall (principal contractor), P.J. Mear (installer)

Measures:

- External Wall Insulation
- Structural repairs

Geographical lessons:

- Adapting to older rural construction
- Coordinating trades in remote areas

Source: INCA

Urban: Wilmcote house, Portsmouth

Parties: Portsmouth City Council (client), ECD Architects (lead designer), Engie/Equans (main contractor)

Measures:

- Whole-building thermal upgrade
- High-performance openings and ventilation

Geographical lessons:

- Structural check
- Fitting in with a wider programme of H&S works

Source: ECD Architects

Suburban: Skelmersdale, Lancashire

Parties: Lancashire Council (landlord), Sustainable Building Services (contractor)

Measures:

- Multi-measure thermal upgrade
- Heating and fabric improvements

Geographical lessons:

- Working across dispersed sub-urban estates
- Managing varied property conditions

Source: SBS

PAS 2035 and geographies:

PAS 2035 involves considerations and planning around some areas which may be more of less likely in rural or urban areas:

- Reducing the risk of overheating
- Improving the resilience of dwellings to existing and/or future risks from climate change
- Protection or enhancement of architectural heritage

Summary

Geography has a major influence on how retrofit programmes should be planned and delivered. Urban, sub-urban, and rural areas each bring different considerations around access, resident engagement, contractor availability, and measure suitability. Using both informal judgement and formal ONS classifications helps teams group homes effectively and link retrofit planning with wider datasets such as fuel poverty and IMD.

Urban projects often require careful coordination around space, safety, and working at height; sub-urban areas benefit from early neighbour engagement and clear planning for access; and rural projects demand extra attention to travel, grid capacity, heritage buildings, and environmental constraints.

By understanding these contexts early and applying PAS 2035 principles throughout, supply chain partners can deliver more efficient, tailored, and resilient retrofit programmes that meet residents' needs across all types of communities.

Resources

Podcast: All RISE podcasts are available **here**.

PAS podcast: "Archetyping for your retrofit project" available **here**.

Masterclass: All RISE masterclasses are available **here**.

Masterclass "Urban vs Rural Approaches to Retrofit" available **here**.

Advice pack: All RISE advice packs available **here**.

Masterclass "Building Safety Regulations and Retrofit" available **here**.

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