Designing and Delivering a Good Retrofit Project

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In partnership with:

HM Government

Retrofit: Introduction

- What is retrofit?
- What are retrofit measures?
- What is the goal of retrofit?

Successful retrofitting requires careful planning, design, project management, and collaboration among stakeholders, including building owners, contractors, engineers, architects, and occupants.

Relevant Policy and Legislation:

- The Climate Change Act 2008
- The Clean Growth Strategy (2017)
- The Future Homes Standard
- PAS2035
- Funding opportunities

PAS2035

1. Whole-House Approach
2. Quality Management
3. Risk Assessment and Management
4. Retrofit Pathways
5. Consumer Engagement and Protection

Challenges of rural retrofit

1. Building age and construction
2. Access to utilities and infrastructure
3. Building density and dispersed communities

Opportunities of rural retrofit

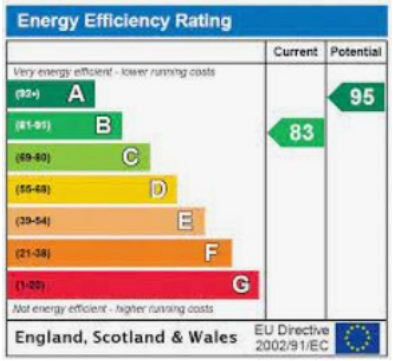
CommuniHeat
PATHWAY TO NET ZERO

1. Local energy generation
2. Innovative technologies and design
3. Community engagement and collaboration
4. Green skills and economy

Project preparation

Data

1. Baseline assessment
2. Identifying energy-saving opportunities
3. Performance monitoring



Data

Energy data modelling:

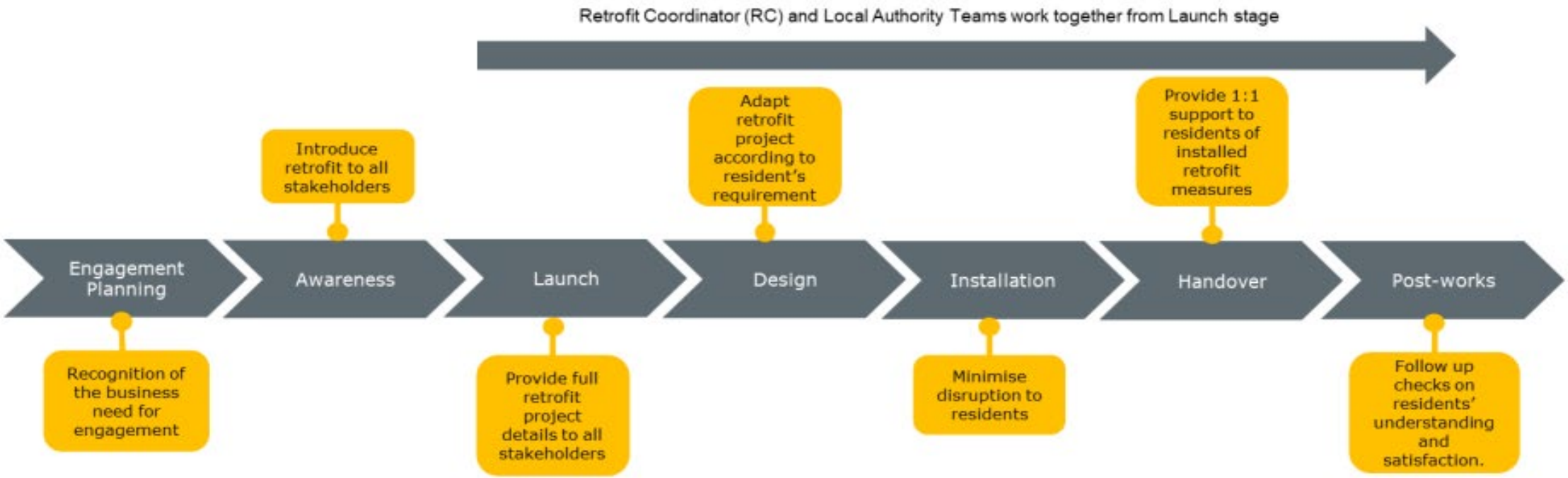
- Utilize energy modelling software to simulate and analyze the building's energy performance before and after retrofit measures
- Data cleansing and quality checks
- Assess the impact of different scenarios and identify the most effective energy-saving strategies

Resident Engagement: Why?

- Collaboration and empowerment
- Improved project outcomes
- Behavior change and energy savings

Strategies of resident engagement

- Communication channels
- Workshops and training
- Surveys and feedback
- Community engagement



Benefits of good resident engagement

- Higher acceptance and support
- Long-term energy savings
- Improved social cohesion

By prioritizing resident engagement in housing retrofit projects, we can create more sustainable, energy-efficient, and resident-focused communities.

Project delivery

Planning constraints

- Permitted development
- Local plan
- Conservation areas and national parks

PAS2035 and other compliance

- Whole-dwelling assessment – gathering the information needed to carry out the retrofit design
- Risk assessment – establishing the risk of the planned approach. Risk depends on the number of energy efficiency measures planned and the inherent risk of each measure.

Monitoring and Evaluation

- Why do we need a monitoring and evaluation (M&E) process?
  - Performance gap
  - Residents are disappointed
  - Carbon savings not delivered
  - Hard to plan subsequent projects

- The PAS2035 standard specifies that every project must have some level of M&E

Post-retrofit

Post-retrofit activities

- Maintenance
- Occupant behavior
- Ongoing energy management
- Highlight the long-term benefits of retrofit projects

Questions

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