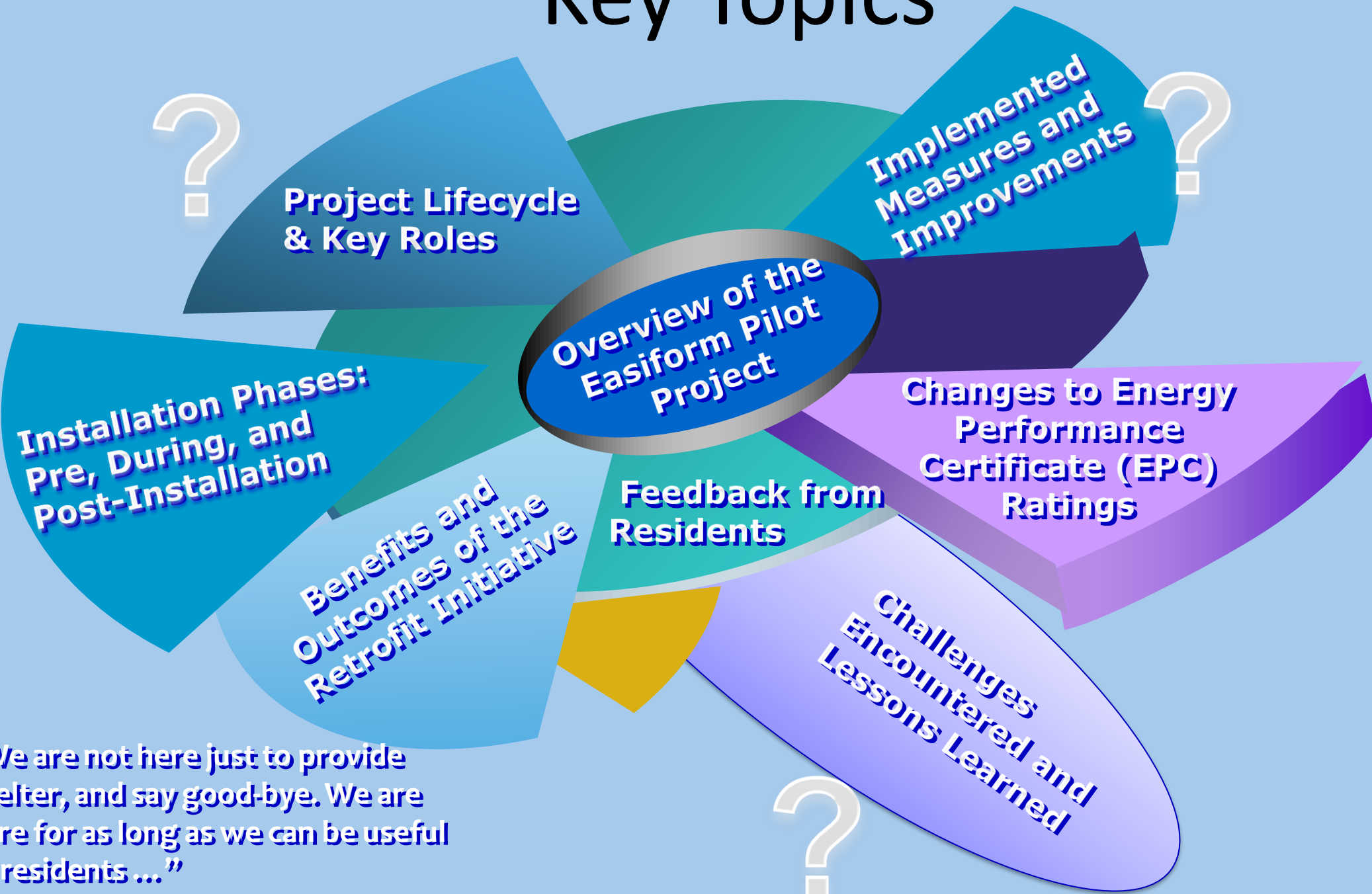


# Key Topics



“We are not here just to provide shelter, and say good-bye. We are here for as long as we can be useful to residents ...”

# Overview of the Easiform Pilot Project



- Bristol City Council is committed to making Bristol a carbon-neutral and climate-resilient city by 2030.
- The framework is built around the One City Climate Strategy, launched in 2020, which outlines specific goals across key areas including transportation, energy, waste management, and infrastructure.
- The goal of this pilot project was to upgrade 26 Bristol City Council-owned 'Easiform' properties to meet PAS2035 standards
- The Easiform system, developed by John Laing plc, is a cast-in-situ concrete method for constructing houses. This structural system mirrors the design of traditional cavity-walled brick dwellings

# Implemented Measures and Improvements



- Cavity Wall Insulation (Extraction & Refill)
- Loft Insulation
- New Windows & Doors
- Ventilation to Kitchen & Bathrooms
- External Wall Insulation
- New Roofs
- Solar PV
- Air Source Heat Pumps (2 properties).
- LED Lighting & Controls



# Project Lifecycle & Key Roles



1. Integrates the RIBA Plan of Work stages comprehensively, from inception through completion, including the City Leap partnership process and Pre-Application Consultation (PAC) phase.

## ➤ Stage 1: Retrofit Assessment

Each property is visited by a Retrofit Assessor to determine the construction and condition of the home, including the building services such as heating, hot water, ventilation and lighting.

## ➤ Stage 2: Retrofit Design

The Retrofit Designer will develop detailed plans that are tailored to the specific needs of the property.

They work closely with retrofit coordinators and assessors, to ensure that every retrofit measure integrates seamlessly with a property's architecture and performance goals.

## ➤ Stage 3: Installation & Retrofit Co-Ordinator

During the installation phase, the Retrofit Co-Ordinator's role is to protect the client and public from start to finish in relation to planning, organising and managing the project.

They provide consultants and contractors with informed advice and support.

# Pre-Installation



# During Installation



# Post Installation



# Changes to Energy Performance Certificate (EPC) Ratings



Pre-install EPC score	Post space heating demand (kWh/m2)	Post-install EPC score
65, D	93.09	89, B
65, D	93.09	89, B
64, D	75.91	94, A
53, E	77.35	81, B
66, D	72.37	92, A
66, D	96.66	89, B
59, D	70.39	89, B
62, D	75.85	85, B
68, D	86.81	89, B
62, D	80.48	88, B
66, D	88.18	91, B
64, D	64.43	91, B
63, D	89.09	92, A
64, D	86.57	91, B
60, D	89.71	92, A
63, D	79.48	91, B
60, D	75.94	87, B
64, D	92.01	90, B
63, D	83.92	92, A
60, D	82.29	84, B
66, D	79.82	83, B
56, D	68.72	91, B
61, D	89.19	90, B
65, D	71.96	88, B
58, D	56.72	93, A
59, D	76.07	86, B
67, D	88.54	91, B

# Benefits and Outcomes of the Retrofit Initiative



**Warmer & More Comfortable**

**Cooler in Summer**

**Reduced Energy Bills**

**Lower Carbon Emissions**

**Reduction in Damp, Mould, Condensation**

## Risk

- Measures not meeting expected savings.
- Tenant dissatisfaction.
- Financial losses incurred if grant timescales not achieved.

# Challenges Encountered and Lessons Learned



## ➤ Party Wall Agreements, Changes in Planning Legislation

A number of the properties we were retrofitting had neighbouring properties that were privately owned. As a result, we required party wall agreements to proceed with the work.

## ➤ Resident Engagement

One of the greatest challenges in retrofitting domestic properties is resident engagement.

We have learned during this project that engaging with residents as early as possible, highlighting the benefits, will ensure greater uptake and reliability of access during the assessment and installation phases.

## ➤ Weather Delays, Supply Chain Constraints

It is important to start certain works during the summer months, as measures such as EWI require dry, warm weather.

During the pilot project, we started in October, meaning the programme of EWI and roofing works took place over the winter months.

## ➤ PAS2035 Requirements

Meeting PAS2035 requirements brings its own unique challenges

## ➤ Co-ordinating with planned maintenance work

There are many benefits to the council and residents of carrying out planned maintenance work whilst the retrofit project is taking place.

# Summary



1. Overview of the Easiform Pilot Project
2. Implemented Measures and Improvements
3. Project Lifecycle and Key Stakeholder Roles
4. Installation Phases: Pre, During, and Post-Installation
5. Changes to Energy Performance Certificate (EPC) Ratings
6. Benefits and Outcomes of the Retrofit Initiative
7. Challenges Encountered and Lessons Learned
8. Feedback from Residents



**Thank You**

