

# WELSH ZERO CARBON HWB ANNUAL REPORT

**Year 1**

May 2024



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# Introduction

The creation of the Welsh Zero Carbon Hwb (WZCH) was tendered and contracted by ClwydAlyn Housing utilising funding from Welsh Government in 2022/23 with a starting date of May 2023 and funding for three years.

The aim of the project is to create a knowledge sharing hwb that connects the industry and helps share and unlock the expertise and experience required to meet the Welsh government's target to reduce carbon emissions from existing and new homes.

More specifically for its first three years the WZCH is being established as an all-Wales agency to help developers, residential social landlords, housing associations and owners reduce the amount of energy and carbon in building and running homes.

The Hwb mission will be phased over an initial three years to actively support social landlords and local authorities in the use of net zero carbon design and technologies in both their new and existing homes. It will seek to coordinate and learn from existing innovative projects and initiatives across the UK to provide leading edge advice, and become a central point for net zero design, construction and housing performance information in Wales. In time the Hwb will seek to expand its support to private house builders and landlords wanting to move towards net zero carbon homes.

The Hwb is being funded via Welsh Government, supported by a steering group consisting of representatives from Welsh Government, ClwydAlyn, CHC Cymru, Flintshire County council, Cardiff Council, Pobl Housing, Welsh Local Government Association and the Design Commission for Wales.

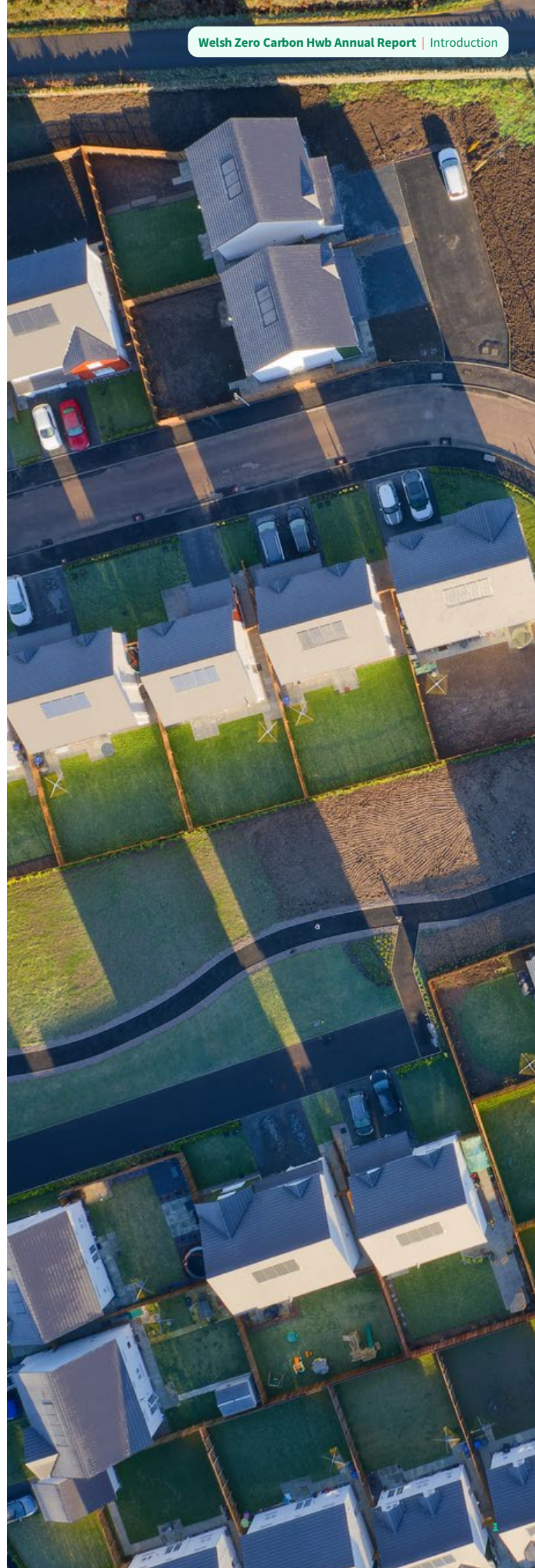
## The Hwb delivery partners are:

Energy Saving Trust, Good Homes Alliance and TrustMark.

**energy  
saving  
trust**



**This annual report summarises the achievements and industry insights from the Hwb in its first year and previews the outputs over the next two years.**



# Digital Outputs

The primary aim of the Hwb is to create online resources for the social housing sector to assist with its journey to net zero.

## The outputs so far include:

Creation of Welsh Carbon Hwb website

➤ [zerocarbonhwb.cymru](https://zerocarbonhwb.cymru)

Case study resource including online submission forms

➤ [zerocarbonhwb.cymru/case-studies/](https://zerocarbonhwb.cymru/case-studies/)

Optimised Retrofit Programme (ORP) & Innovative Housing Programme (IHP) project map

➤ [zerocarbonhwb.cymru/orp-and-ihp-project-map/](https://zerocarbonhwb.cymru/orp-and-ihp-project-map/)

Knowledge base including details and links to other net zero hubs, knowledge libraries, product, databases, housing standards, research, building performance evaluation resources and green finance

➤ [zerocarbonhwb.cymru/knowledge-hwb/](https://zerocarbonhwb.cymru/knowledge-hwb/)

Industry directories including trades & services, products, supply chain, contracts & procurement, accreditation & certification

➤ [zerocarbonhwb.cymru/industry-directory/](https://zerocarbonhwb.cymru/industry-directory/)

Events listing page

➤ [zerocarbonhwb.cymru/events/](https://zerocarbonhwb.cymru/events/)

Industry Advisory Group pages

➤ [zerocarbonhwb.cymru/industry-advisory-group/](https://zerocarbonhwb.cymru/industry-advisory-group/)

E-forums

➤ [zerocarbonhwb.cymru/forum/](https://zerocarbonhwb.cymru/forum/)

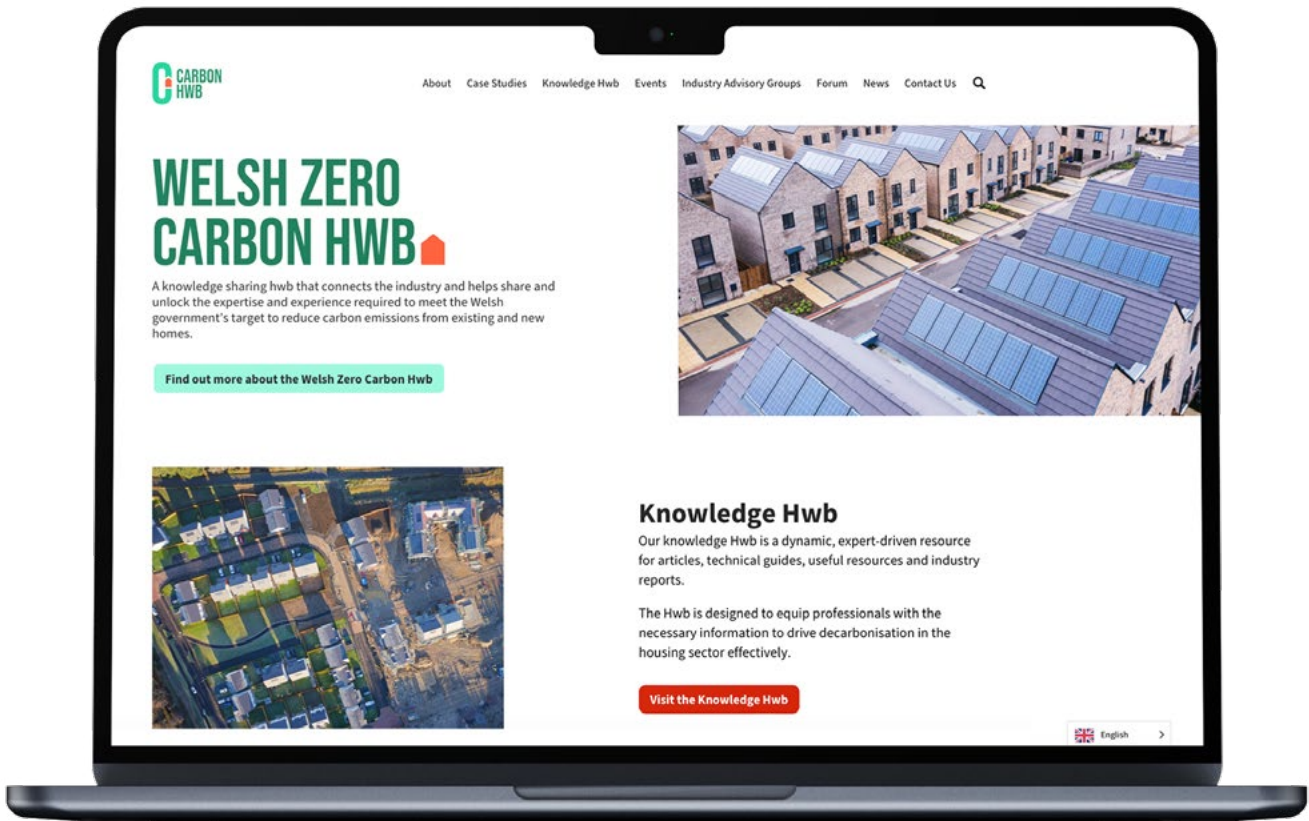
News page

➤ [zerocarbonhwb.cymru/news-updates/](https://zerocarbonhwb.cymru/news-updates/)

Contact page and newsletter sign up

➤ [zerocarbonhwb.cymru/newsletter-sign-up/](https://zerocarbonhwb.cymru/newsletter-sign-up/)

All pages are available in Welsh and English.



# Stakeholder Engagement

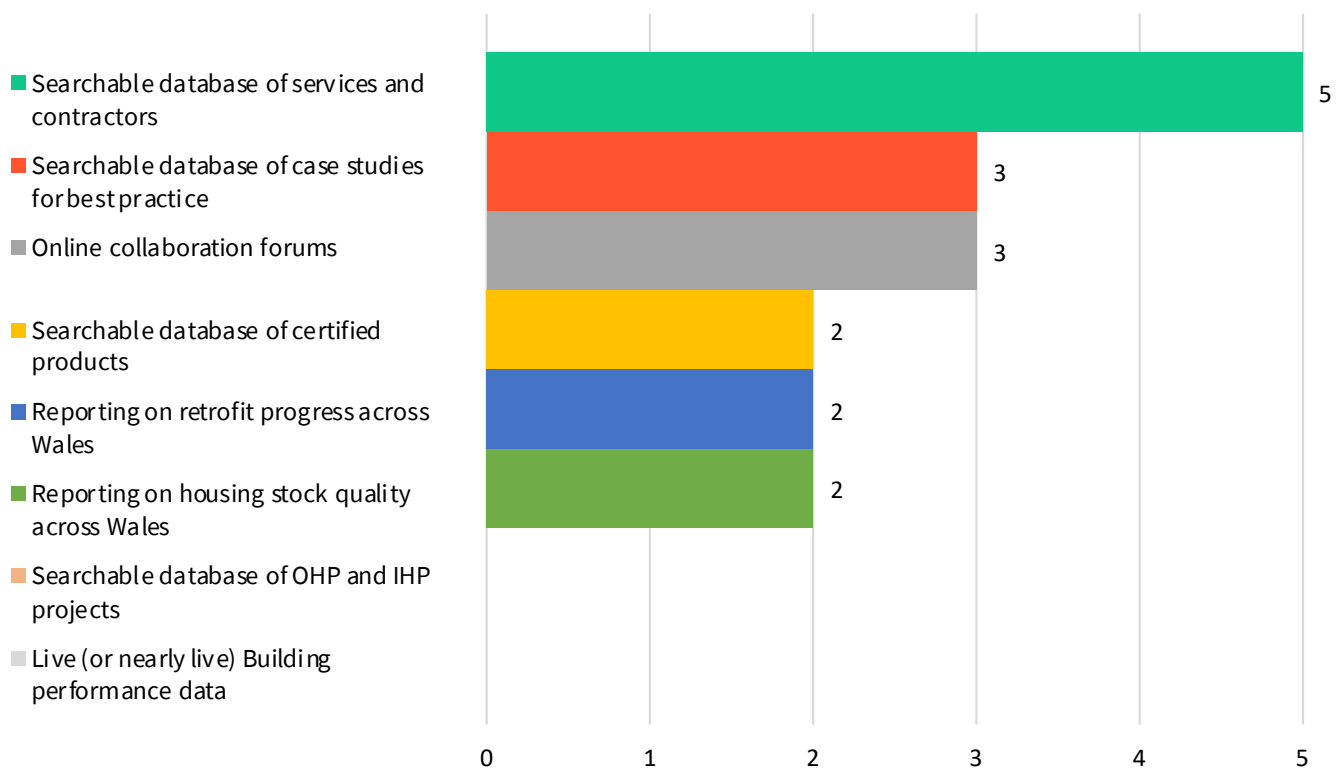
The Hwb is continually checking in with the industry to ensure that what it delivers is current, relevant and needed. Over the first year we have carried out an online stakeholder survey and a set of workshops at the launch event.

- The Hwb will need to ensure that its outputs and deliverables are directly relevant and helpful to the supply chain, Local Authorities and Housing Associations, to help inform this the Hwb created a set of short online industry questionnaire surveys the results of which are set out below.
- The surveys were disseminated in September and October 2023.

The key results of the stakeholder survey and the Hwb’s responses are summarised below:

## Question 1

**What topic areas do you see as being most important for the Hwb to deliver? n = 17**



### Hwb response:

We have provided links to searchable databases of services and contractors that are accredited by TrustMark and the Microgeneration Certification Scheme(MCS).

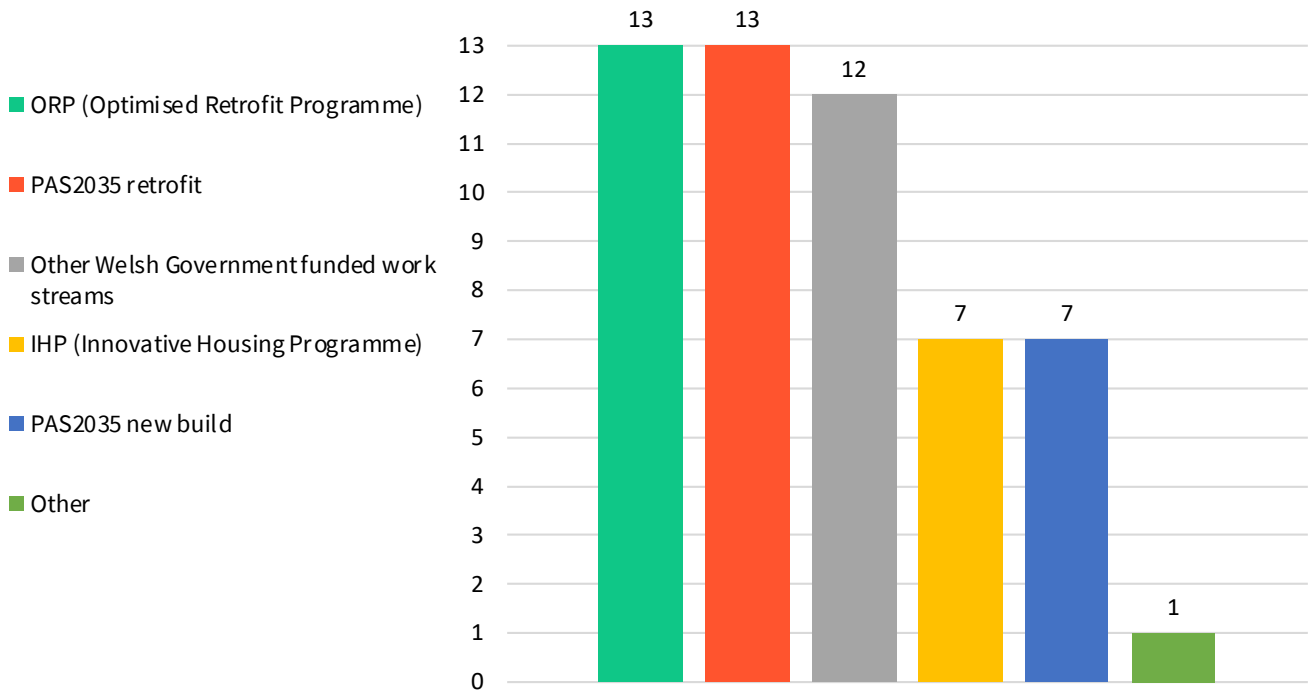
We have a searchable set of case studies that is growing in size.

We have provided an online e-forum for discussion between industry professionals.



### Question 2

The Hwb aims to curate lessons learned across various activities across Wales. Please select which would be valuable to you. (n = 16)

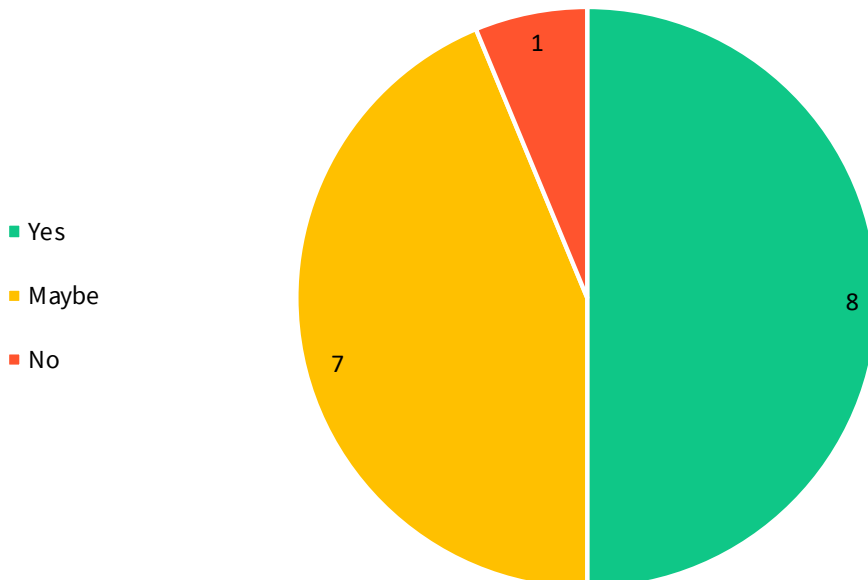


#### Hwb response:

All of these activities/themes will be covered by the case study programme.

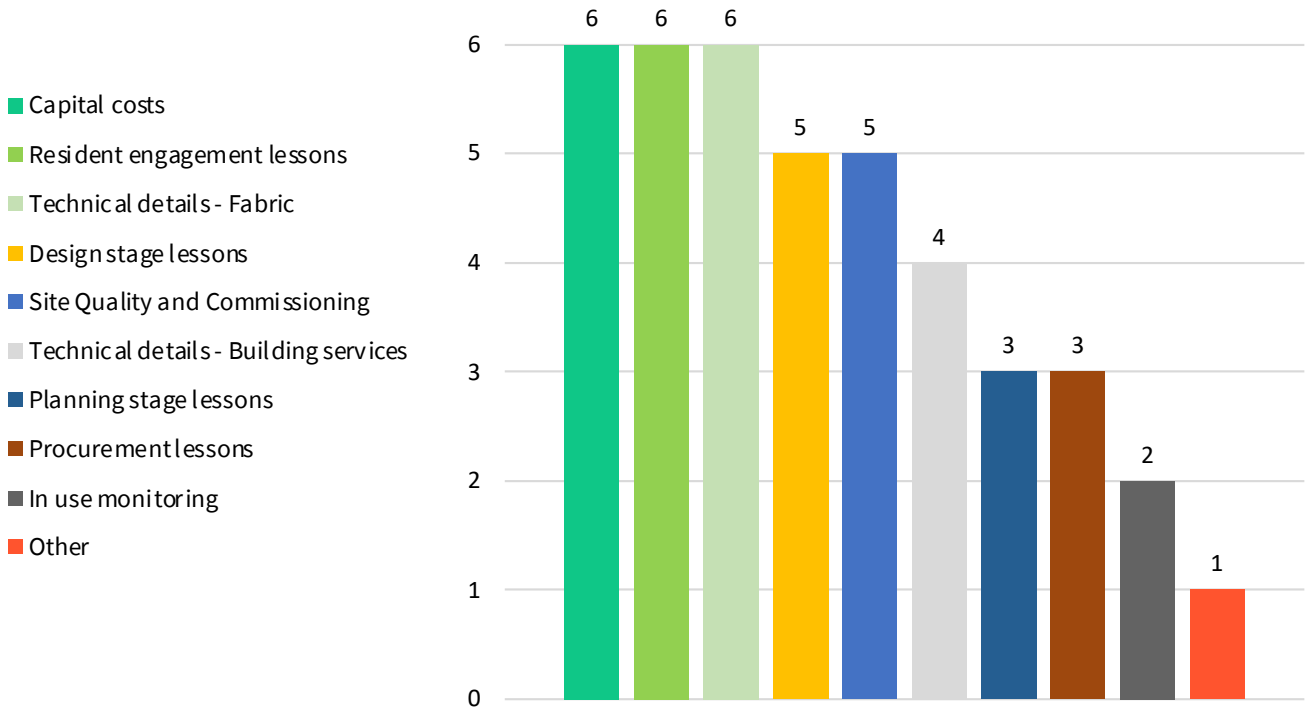
### Question 3

Would your organisation be willing to submit online case studies (into a pre-formatted template)? (n = 16)



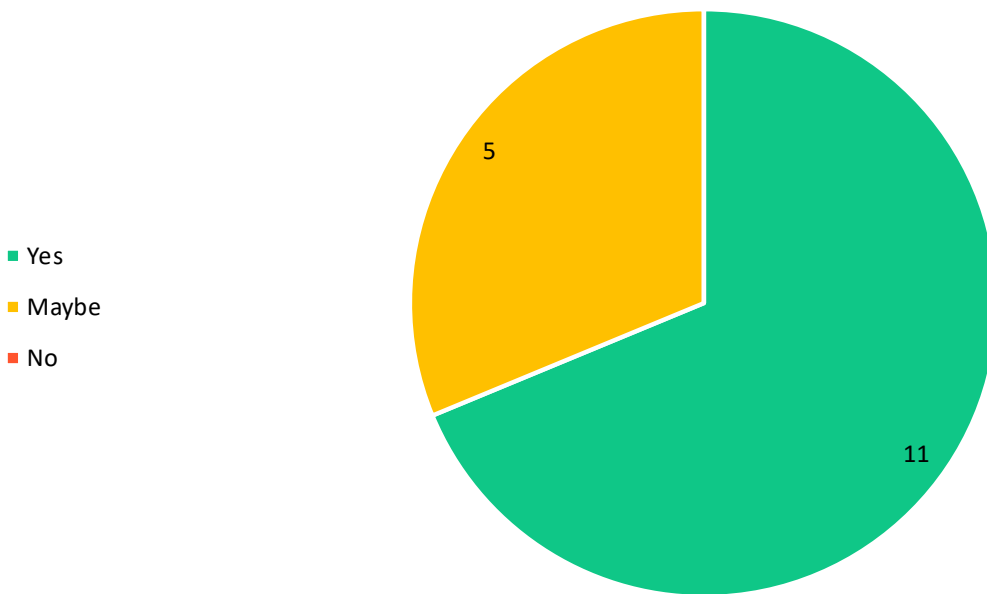
### Question 4

If you answered “Yes” to submitting case study information, which areas would you feel you are able to contribute that would be useful? (n = 8)



### Question 5

Would your organisation be willing to share building data with the Hwb? (n = 16)



#### Hwb response to question 3, 4 and 5:

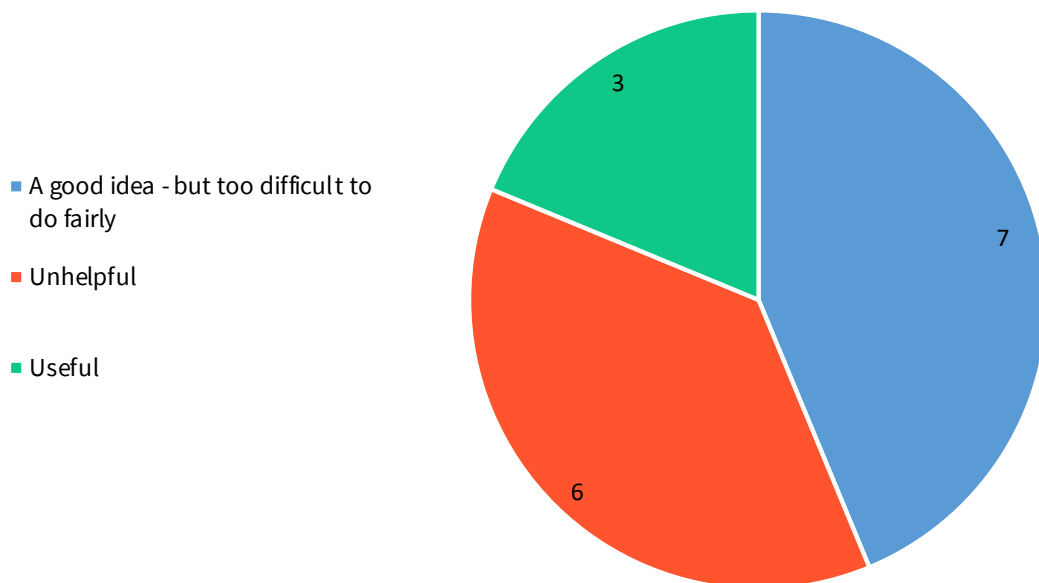
We are collecting case study data on an ongoing basis.

We will call upon the industry to promote best practice at our various events.

We have the e-forums available for dissemination and discussion.

### Question 6

Do you think benchmarking retrofit and new build activity into a league table is: (n = 16)

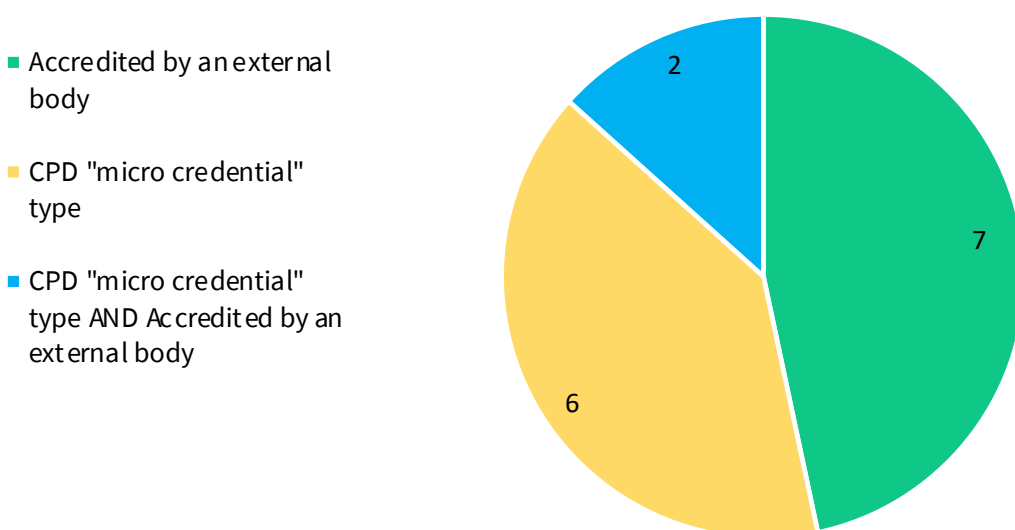


#### Hwb response:

We will keep this under review with our stakeholders.

### Question 7

The Hwb will be developing a course for Site Inspectors and Project Managers aiming to upskill on improving net zero outcomes in construction. Do you agree that this course should be: (n = 15)



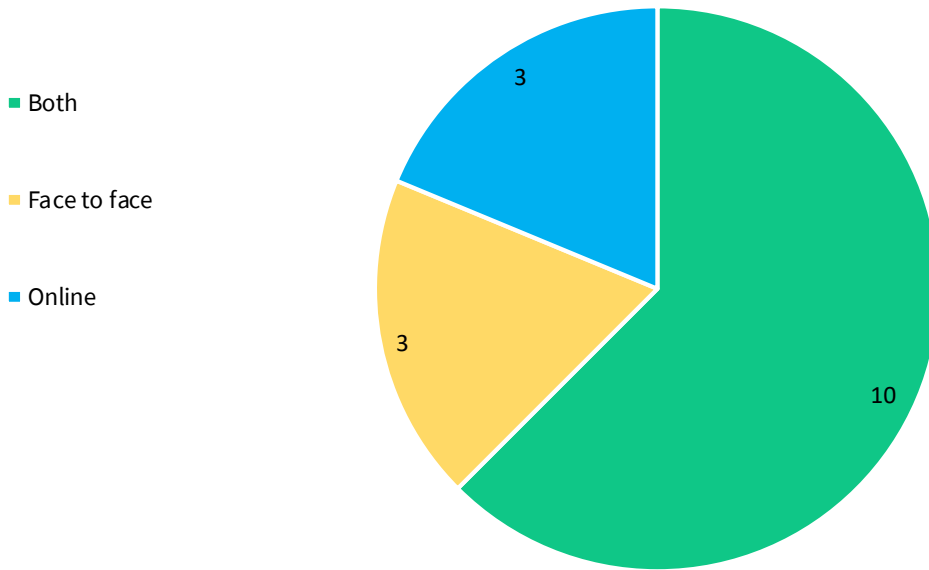
#### Hwb response:

The course will be delivered via an e-learning platform and a certificate issued upon completion



### Question 8

Should the course for Site Inspectors and Project Managers be: (n = 16)

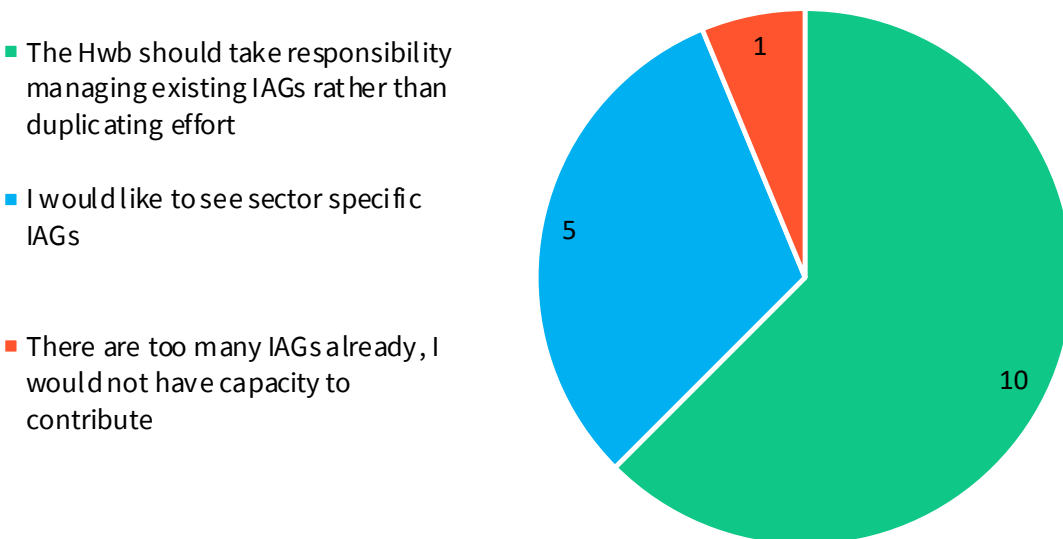


#### Hwb response:

The course will be delivered online via e-learning and learners will be contacted if site visits opportunities arise.

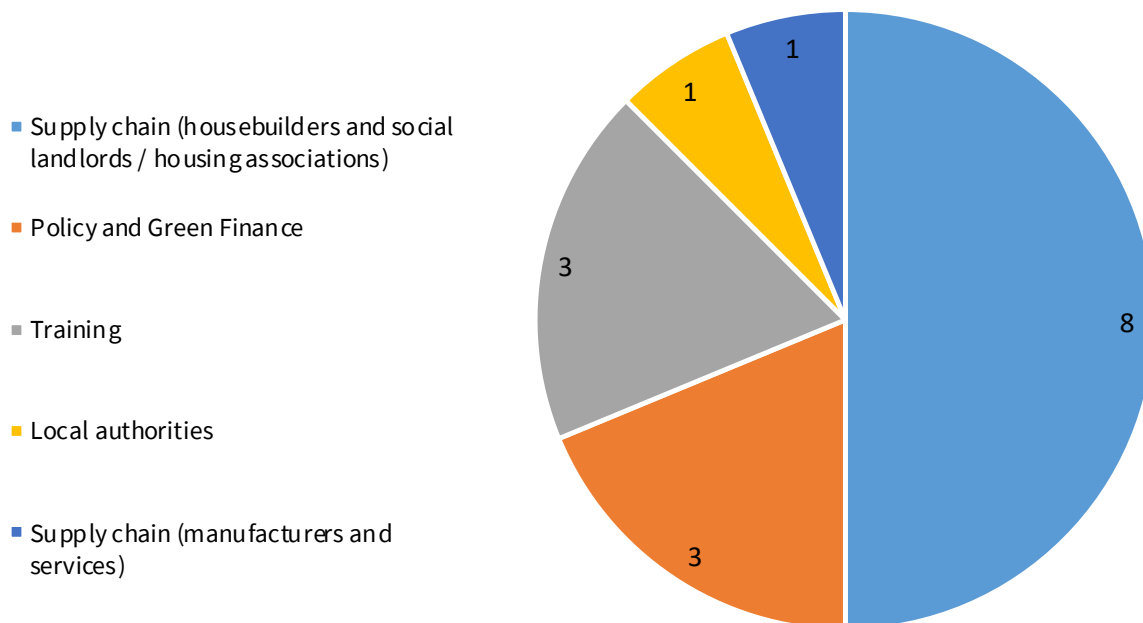
### Question 9

We are seeking to establish Industry Advisory Groups (IAGs) across several sectors: Local authorities, Supply Chain (manufacturers and services), Supply chain (housebuilders and landlords), Training, Policy and Green Finance. Select the statement that suits.



## Question 10

Please indicate which IAGs would be useful to you or the sector as a whole: (n = 16)



### Hwb response to question 9 and 10:

The Hwb has created four Industry Advisory Groups (IAG).

The second event was the workshops that took place at the Hwb Launch Event on 24 April 2024.



**Our second stakeholder engagement event was at our Launch Event in April 2024, where we held 4 breakout sessions that were themed to match our Industry Advisory Groups, the discussions centred around:**



### Policy

Several key themes emerged during the session. One significant area of discussion centred on the concept of net zero. It was emphasised that a clear and consistent definition is crucial, particularly for consumer understanding. It was also felt that any innovation needs to use real world energy metrics rather than modelled and needs to take into account householders and their feedback.

### Skills and Training

The discussions highlighted several issues, including the need for improved training programs and the shortage of skilled professionals entering the sector. Another significant concern was the lack of available trainers, as many qualified individuals prefer to remain in the field rather than take on training roles. One proposed solution was to encourage retired industry professionals to become trainers. On a positive note, the removal of the cap on green training and the introduction of flexible skills funding were seen as major steps forward.



### Finance and Innovation

The availability of funding for new builds was highlighted as a positive development, along with a focus in policy documents on reducing energy demand rather than solely relying on EPC or SAP ratings. Although innovation is encouraged, there is often reluctance from financiers and insurers to support new technologies, which can limit their use. To address this barrier, discussions emphasised the importance of the group engaging with insurers and funders.

### Supply Chain

The group discussed the fact that there is an appetite to train and upskill housing providers and that energy networks and manufacturers are keen to engage with the industry. There were discussions about how issues with standards can stifle the supply chain for example it was felt that the development of standards was intermittent making it difficult to upskill the supply chain in a timely manner as well as feelings that there is a gap between PAS 2030/35 and best practice as it is too bureaucratic.

There was some consistency across the groups in terms of how the Hwb can help support the sector. These included sharing knowledge between RSLs/HAs and tenants, facilitation of more collaboration within the sector, hosting an annual conference to help share best practice and leading strategic thinking. The IAGs have taken away all the points mentioned at the launch to consider in further discussions as the groups evolve.

The forum on the website have a board for each IAG group so members can comment on and discuss these topics to help develop our thinking on how the Hwb can support.



# Industry Advisory Groups

## The Hwb is also curating 4 Industry Advisory Groups on:

- Supply Chain
- Finance & Innovation
- Training & Skills
- Policy

A summary of the activity of each of the groups is below, including the members of each group:

### Supply Chain IAG

#### Secretariat by CE Wales.

This group is assessing the needs of the supply chain in relation to the journey to net zero. Topics and Issues for the supply chain on net zero outcomes include:

- Procurement & behaviours
- Training & skills
- Best routes to achieve & comply with net zero
- Fabric first approach
- Availability of products & sourcing of material
- Retrofit to net zero
- Grid solutions
- Technology
- Renewable energy
- Carbon offsetting
- Additional benefits including biodiversity & health
- Circular economy
- Waste
- MMC, offsite & prefabrication
- User's journey
- The need to look at the wider mechanisms to achieve net zero, like urban design, space planning, transportation and fleet

The group has met once and a workshop was held at the Hwb conference. Second meeting is 16 July 24.

#### Members:

- Liz Jones (Chair) – Cynon Taf Community Housing
- Julian Brooks – Welsh Zero Carbon Hwb
- Malcolm Davies – Welsh Government
- David Lorey – Denbighshire Council
- Jay Morgan - Carmarthenshire Council
- David Jaques – Cardiff Council
- Naomii Thomas – Cardiff Council
- Catrin Sneade – Cardiff Council
- Darrin Davies - Valleys 2 Coast
- Richard Mann - United Welsh
- Helena Kirk - North Wales housing
- David Hayhoe/Jason Wroe - Cadwyn housing & Newydd
- David Lewis – Clwyd Alyn
- Jade Lewis – Welsh Government
- Llinos Williams – Head of Residential Decarbonisation Policy Team
- Nicole Pike – Residential Decarbonisation Officer
- Ryan Price – WHQS Relationship Manager
- Brian Gould – Senior Housing Standards Technical Officer
- Peter Williams - Welsh Government
- Ann Marie-Smale - Powell Dobson Architects
- Barrie Davies – Asbri Planning
- Matthew Williams – McCanns
- Kassie Williams – Robert Price
- Ben Copson – Sustainable Energy Association
- Alex Hughes – MCS Certified
- Phil Mason – TrustMark
- Stuart Jones - Wates
- Dorian Payne - Castell Group
- Luke Joyner- Joyners
- Mike Mills – EOMLtd
- Penny Haywood - SEWSCAP
- Simon McWhirter - Down to Earth
- Vince Hanly - Home Grown Homes & Procurement specialist
- Peter Draper – Rounded Developments
- Robert Chapman – Independent Sustainability Consultant

## Finance & Innovation IAG

Secretariat by Energy Saving Trust.

### Purpose of group:

To guide, inform and prioritise activities relating to the finance and procurement elements of the Welsh Zero Carbon Hwb work plan, as well as inform the group of relevant activity within the industry. This group will initially focus on innovative funding opportunities within the social housing sector but will keep a 'watching brief' on activities of relevance in the private rented and owner occupier sector. The group's research and activities should extend to incorporating low carbon technologies within the design and build of new build properties as well as retrofitting existing housing stock.

Two meetings have been held, a kick off meeting in December 2023 followed by a meeting in March 2024 as well as a Hwb conference workshop.

The group has created and agreed Terms of Reference as well as a one pager outlining their ambitions. Next steps include outlining what success looks like for the group and how it can be measured and reported to achieve the biggest impact.

### Members:

- Graham Sumsion (Chair) – Monmouthshire Building Society
- Julian Brooks – Good Homes Alliance
- Sam Rees – Royal Institution of Chartered Surveyors
- Rachael Hunnisett – Green Finance Institute
- David Ward – Tirion Homes
- Llinos Williams – Welsh Government
- Tom Boome – Clwyd Alyn Housing Association
- Cenydd Rowlands – Development Bank of Wales
- Steve Cranston – Welsh Gov
- Daniel Neasham – Future Homes Hub
- Simon Matthey – Principality Building Society
- Gavin Dick – National Residential Landlords Association

## Skills and Training IAG

Secretariat by TrustMark

### Purpose of group:

The objective of the Skills and Training Group is to assess, develop, and implement strategies and initiatives related to skills development and training in Wales within Repair Maintenance and Improvement (RMI) and Construction sectors.

The groups aim is to enhance the skills, knowledge, and competencies of businesses, employees/members, enabling them to meet current and future challenges towards net zero effectively.

To date one meeting has been held and a Hwb conference workshop. Second meeting is scheduled for 29 July 24.

### Members:

- Matt Rees (Chair) – Bridgend College
- Menna Lewis – TrustMark
- Julian Brooks – Good Homes Alliance
- Elfed Roberts – Pobl Group
- Tom Boome – Clwyd Alyn
- Malcolm Davies – Welsh Government
- Catherine Bullough – House Building Federation
- Rhodri Williams – House Building Federation
- Oonagh Gavin – Neath Port Talbot Borough Council
- Lisa Thomas – Coelgau Cymru
- Tracey Jones – Welsh Government Skills Team
- Gareth Williams – Construction Industry Training Board
- Bethan Proctor – CHC Cymru
- Matthew Dicks – CIH Cymru
- Stuart Rattray – Building Engineering Services Association
- Wyn Pritchard- Leading Consultant in Net Zero Skills
- Alex Eslor – Qualification Wales
- Sian Lloyd Roberts – Regional Skills Partnership Manager, North Region
- David Price – Regional Skills Partnership, Mid Wales
- Jane Lewis – Regional Skills Partnership, West region
- Richard Tobutt – Regional Skills Partnership Manager, Cardiff
- Sophie Douglas – Universities Wales Association for HE in Wales
- Andrew Eldred – Electrical Contractors Association

## Policy

Secretariat by Good Homes Alliance.

### Members:

The Policy IAG is yet to meet as it is awaiting the appointment of Chairs from the other IAGs.

# Training Course

## Comprehensive training programme for housing association site inspectors and project managers

Within the first 18 months, a key objective was to develop a robust training course tailored for Housing Association Site Inspectors and Project Managers. This initiative aims to equip them with the necessary knowledge and skills to meet net zero standards for both new build and retrofit.

A dedicated working group, comprising industry experts and steering group representatives was established to ensure that the course content is comprehensive and relevant.

### Objective

Our primary goal is to provide Site Inspectors and Project Managers with a thorough understanding of the practical application of Net Zero Standards. The course will also highlight common pitfalls and strategies to avoid them, ensuring that homes meet these ambitious standards in practice.

### Course Structure

The training programme is divided into nine modules, each focusing on critical aspects of Net Zero housing:

- Module 1 - Background to Welsh Social Housing Policies and Regs
- Module 2 - Foundation Module
- Module 3 - PAS 2035: Retrofitting Standards
- Module 4 - Monitoring, Reporting and Reducing Carbon Emissions
- Module 5 - Energy Solutions & Energy Systems
- Module 6 - The importance of quality assurance
- Module 7 - Construction & Fabric approaches
- Module 8 - Ventilation
- Module 9 - Building Performance Evaluation (BPE) in Practice

### Learning Approach

This course is designed to empower Site Inspectors and Project Managers with a blend of theoretical knowledge and practical experience, emphasising hands-on experiential learning. Participants will gain a comprehensive understanding of best practices in realising net zero and low energy residential projects.

### Certification

Upon completion, participants will be awarded a certificate detailing the modules they have successfully passed, acknowledging their expertise in sustainable housing solutions.

### Course Format

The training modules will be available through an online e-learning platform hosted by the Welsh Zero Carbon Hwb. Participants will receive individual e-learning accounts to monitor their progress and access the modules.

### Industry Expertise

To ensure the course is delivered by industry experts, a procurement process was conducted, inviting 28 organisations to tender for specific modules. We are pleased to have contracted several leading industry leaders to deliver the training.

### Launch

The course will be launched in September 2024.

This course will be free of charge (except for a small administration fee) for housing associations and local authorities site managers and project managers in Wales for two years.

This programme is an essential step towards empowering housing professionals to lead the transition to more sustainable housing solutions, ensuring that net zero standards are not only understood but effectively implemented. Future courses could include a module on tenant engagement.



# Events & Wider Engagement

## The Hwb staff team have attended over 20 events in the first year including:

- IHP Community of Practice
- WoodBuild 23
- Housing Industry Leaders
- LA Developers Forum
- DIG Decarbonisation of Homes
- Housing, Decarbonisation CoP
- LA Developers day
- ORP Landlords
- Welsh Gov Net Zero Route Map workshop 7/11/23
- Training & Skills Forum
- National Retrofit Hub, Welsh Housing Retrofit and Decarbonisation Delivery Workshops
- SEA Meeting

On 24 April 2024 at The Pavillion in Llandrindod Wells the Welsh Zero Carbon Hwb was launched.

110 delegates attended with the Zero Carbon Hwb team and representatives from the Hwb steering group.

Chair for the day was Elfed Roberts from Pobl Housing Group who is also a Hwb steering group member.

The event kicked off with a video address from Julie James MS, Cabinet Secretary for Housing, Local Government and Planning.

This was followed by several presentations. The first introduced the Hwb followed by three case studies from both the Innovative Housing Programme and Optimised Retrofit Programme.

After lunch the Industry Advisory Groups (IAG) were introduced to the delegates by their respective chairs/lead member.

Four breakout sessions were then held, themed around the four IAGs that the Hwb has created.

The event closed at around 4pm.

Feedback from delegates has been excellent and we thank all those who helped create thoughtful and satisfying event, especially, Elfed Roberts, Julie James MS, Steve Fanning, Tom Boome, Graham Sumsion and Cat Griffiths Williams and the Hwb Team.

## Social Media

A Hwb LinkedIn page has been created

▶ [www.linkedin.com/company/zero-carbon-hwb/](https://www.linkedin.com/company/zero-carbon-hwb/) that has 436 (6th June 2023 - 5th June 2024) followers.

Impressions: 402

Unique views: 242

Engagement rate: 5,027

## Website Analytics

Website launch: 7 February 2024 – 31 May 2024

Website visits: 2,590

Average visit duration: 3.00 minutes

## Engagement with other UK Initiatives

National Retrofit Hub

Built Environment – Smarter Transformation (Scotland)

Future Homes Hub

## Engagement with Welsh Government Initiatives

ORP

IHP Community of Practice

Delivering Net Zero



# Preview of next two years

## Develop a business plan for a self-sustaining Hwb post end of the current funded project

- Develop a skills matrix identifying the gaps in provision
- Review the Hwb's training course and update where necessary
- IAGs – Conclude a set of asks for each
- Further develop case studies and online search facilities
- Increase social media posts on best practice
- Develop ongoing networks across the sector
- Host further best practice events
- Host two further annual conferences

### Events plan:

#### Year 2 (June 24 – May 25)

- Launch of training course
- Joint event with TPAS on tenant engagement
- 2025 Conference

#### Year 3

- Annual Conference
- Other events TBA

