

# TRANSFORMING HOMES NEWSLETTER

The Transforming Homes consortium is an ecosystem of stakeholders working together to transform existing homes through design using biobased materials and low carbon solutions to provide better places to live for future generations.

## Happening across our consortium

### Shaping Outputs: Transforming Homes Writing Retreat 2024

Dr Shan Shan Hou, Research Associate, Cardiff University



Credit: Jo Patterson

The Transforming Homes Writing Retreat 2024 took place on July 31<sup>st</sup> and August 1<sup>st</sup> at De Vere Tortworth Court, located outside of Bristol. Given the rapid pace of our project, it offered a much-needed pause for reflection, enabling us to digest findings and focus on determining how these can be disseminated.

Chaired by Professors Jo Patterson and Pete Walker, the event featured a balanced schedule of timed writing sessions and breaks, fostering both individual and collaborative productivity. Informal discussions during breaks promoted collaboration and the sharing of ideas.



Credit: Veronica Albarran

Activities concluded with participants reflecting on their progress, agreeing that the retreat allowed them to refine their work and advance the delivery of outputs. Looking ahead, another retreat is planned for 2025, once research progresses. Further insights into wider dissemination activities will also be explored.

### Kicking off the Early Career Researchers Training Programme

Dr Veronica Albarran Carrillo, Cardiff University

On Monday, September 23<sup>rd</sup>, our Early Career Researchers (ECRs) participated in our first Transforming Homes ECR training, delivered by the [Digital Humanities Lab](#) at Exeter.

The morning session, led by [Gary Stringer](#), Digital Humanities Manager, focused on Data Management and Digital Preservation. He emphasised essential elements for developing a data management plan before a project's initiation, discussed best practices for collecting and managing data, and outlined strategies to mitigate risks throughout the project's lifecycle.

The second session, a hands-on Photogrammetry workshop led by [Erato Kartaki](#), Research Fellow in Digital Skills Development, demonstrated how photography can be used to create 3D digital models of physical objects. Participants explored digitalising softwares and became familiar with the digitalisation process. Newly developed skills were then tested by capturing and digitalising features around the Exeter University Campus.

Through this training, ECRs learnt essential skills for documenting the broad range of research outcomes using 3D digitisation techniques, including those from our community workshops and design charrettes. Efficient data storage and data exchange in multidisciplinary, multi-partner research was also explored, supporting the development of robust archiving principles for effective collaboration within the Transforming Homes project.

## Featured Articles

Addressing the Energy Retrofit Skills Gap: Insights from the Transforming Homes Workshop



Explore ECR Dr Dominika Malkowska's insights from the Transforming Homes and Energy Retrofit Workshop, which brought together over 80 stakeholders to address the **skills gap in the UK's energy retrofit sector**. Discover insights from experts Charlotte Surrey, Barbara Jones, Chris Brookman, and Steve Bertasso, who presented innovative solutions to address training challenges and skill shortages in retrofit. Explore the collaborative efforts required to transform existing housing through energy-efficient solutions.

Transforming Homes: Some Mid-Term Reflections



Join our Principal Investigator, Prof Pete Walker, as he reflects on the first year of the Transforming Homes project. Over the past 12 months, this interdisciplinary team has made significant strides in working closely with residents, partners, and community members to co-design housing solutions. From research on interwar housing to engaging with stakeholders to integrate their knowledge into the design process, Prof Walker shares key achievements and looks ahead to the challenges and goals for the coming year.

## Spotlight on ...



James Moxey

Business Development and Delivery,  
Woodknowledge Wales  
Co-investigator, Transforming Homes

## Insights from beyond Transforming Homes

Online resources suggested  
by Joel Cady

**Archetypes Library &  
Best Practice Guide**



Podcast suggested by  
Veronica Albarran Carrillo



The Healthy Housing Initiative Podcast

Working group suggested by  
Jennifer Rao-Williams



# External events of interest

22 Oct



2024 The Housing Forum  
National Conference  
London

6 Nov

BE-ST Fest '24  
Summit

BEST-Fest Summit  
Glasgow

7 Nov

International  
Retrofit  
Conference

International Retrofit  
Conference  
Glasgow

20 Nov

SOCIAL HOUSING  
ANNUAL  
CONFERENCE

Social Housing Annual  
Conference  
London

22 Nov

Abstract  
deadline



1<sup>st</sup> Intl. Congress on Sustainable  
Energy and related Technologies  
Lipari, Italy

27-28  
Nov



Homes UK  
Glasgow

Interested in contributing our next issue? Contact  
Veronica at [AlbarranCarrilloV@cardiff.ac.uk](mailto:AlbarranCarrilloV@cardiff.ac.uk) to get  
involved!

Stay connected

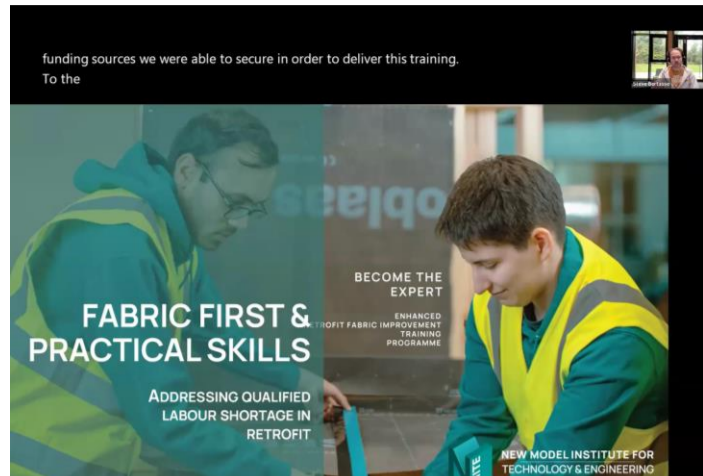


## Addressing the Energy Retrofit Skills Gap: Insights from the Transforming Homes Workshop

Dr Dominika Malkowska, Research Associate, University of Bristol



Image credits: Dominika Malkowska



On Wednesday September 18<sup>th</sup>, the Transforming Homes Workshop brought together over 80 participants in an engaging online event to address the pressing issue of the skills gap in the energy retrofit sector. The event featured keynote speakers, interactive breakout sessions, and a dynamic exchange of ideas among a wide range of stakeholders.

The workshop featured industry experts who provided valuable insights into the current state of the training in the energy retrofit sector, including:

- **Charlotte Surrey** from *The Green Register*, who highlighted their efforts in sustainable construction training and the challenges of scaling up retrofit skills for smaller contractors. She emphasised the need for accessible, practical training to bridge the skills gap, and highlighted *The Green Register's* initiatives 'Futureproof' and 'Retrofit West Business Support' that integrate both online and hands-on learning to support local supply chains. Charlotte underscored the importance of building a skilled workforce and expand their training programs to meet the increasing demand for the retrofit expertise.
- **Barbara Jones** from *School of Natural Building*, who discussed a partnership with *Tod College* in Todmorden, West Yorkshire, aimed at training residents in sustainable retrofit techniques through hands-on courses on how to use natural materials like lime hemp plaster and wood fibre insulation. Barbara discussed how, by using the college building as a training site, participants gained practical experience, empowering them to apply these skills to their own homes. She also highlighted the need to create a model for sustainable retrofitting that benefits the community while addressing local housing challenges.
- **Chris Brookman** from *Back to Earth*, who highlighted the need to adapt retrofit systems to the current skill levels in the construction industry, characterised by a shrinking and aging workforce. Chris emphasised the importance of using easy-to-install materials that can be managed with basic skills. He expanded on wood fibre insulation, known for its thermal and moisture management properties, and ideal for both modern and older buildings. Chris advocated for simplified training, including online courses, to make sustainable retrofit solutions accessible to a broader range of contractors.
- **Steve Bertasso** from *New Model Institute for Technology & Engineering*, who emphasised the significant challenges in the UK's retrofit sector, including the vast need for retrofitting, a shortage of skilled labour, and the high costs involved. Steve also showcased the outcomes of a year-long training initiative designed to enhance practical skills in the retrofit sector. The program, which emphasised a "fabric first" approach, combined online sessions with in-person workshops using mobile training units, achieving high completion rates and strong participation from underrepresented groups. Steve noted that the program's success was largely due to its flexible delivery model and collaboration with industry associations.

After the keynote presentations and a Q&A session, participants engaged in interactive break-out rooms to discuss and brainstorm the main gaps in energy retrofit skills and the best ways to address them. This session stimulated dynamic discussions among participants, generating a wealth of ideas and highlighting diverse perspectives from across the industry. Key themes that emerged included:

- **The Need for a Centralised Entry Point for Training:** Participants highlighted the confusion caused by the multitude of training programs and certifications. There was a strong call for a single entry point to help learners identify suitable training based on their specific needs and interests.
- **Building Physics and Practical Skills:** A recurring theme was the lack of foundational understanding of building physics among contractors. Many participants emphasised the need for more hands-on training, especially in areas like proper insulation fitting and managing moisture issues in older buildings.
- **Awareness and Outreach:** Participants emphasised the need to raise public and industry awareness about the benefits of retrofitting. They highlighted that effective marketing and communication strategies are crucial to shift the perception of retrofit careers as viable and attractive options.
- **Removing Barriers for SMEs:** The challenges small and medium-sized enterprises face in accessing training and accreditation were also discussed, with participants suggesting that greater support is needed to help these businesses navigate the complexities of regulations and funding.

The workshop highlighted the critical need for collaboration, innovation, and targeted action to bridge the skills gap in the energy retrofit sector. By bringing together experts, practitioners, and stakeholders, the workshop fostered a shared understanding of the challenges ahead and the potential solutions that can drive the industry forward. As the event concluded, it was clear that achieving widespread energy efficiency in the UK's building stock will require not only technical skills but also a shift in culture and perception, which requires continued efforts and the support of initiatives like Transforming Homes.

The insights gained from this workshop are fundamental to the research developed by the Transforming Homes GTE, as we explore how to share our findings with professionals and the public and turn them into targeted training to help reduce the design skills gap in home transformation.

## Transforming Homes: Some Mid-Term Reflections

Prof Pete Walker, Principal Investigator & Co-Director, University of Bath



Image credits: Jo Patterson

Over the past 40 years I have had the opportunity to participate in, and sometimes lead, several multi-partner research projects. My motivations to do so are largely unchanged: working on interesting and challenging research; making a positive impact; and collaborating with talented and motivated colleagues. Transforming Homes is the most multidisciplinary team I have worked with to date. No surprises that addressing the challenge of transforming housing and homes for future generations is only possible with a multidisciplinary approach, though this of course brings some its own challenges.

On 30th September 2024, one-year since the Transforming Homes Green Transition Ecosystems project started, it was tempting to think “Wow! where have the past 12 months gone?” However, it is perhaps a little too easy to overlook some of our important achievements. Once the official ‘paperwork’ was finally signed off late last year, we recruited an inspiring team of 11 early career research associates across the four partner universities, with our research work beginning in earnest from January this year. Working successfully with our partners, residents, and community members in Bristol and Swansea, developing design briefs, is amongst our most notable achievements over the past year. Surveys, performance testing and continuous monitoring, combined with interviews and design workshops, have all impacted the residents of our demonstrator homes; we are extremely grateful for their ongoing cooperation in our research. Our original ambition can now be extended through additional leveraged funding we have secured over the past year.

In April this year, we issued our first monthly newsletter, and with our new website launching later this month, we will start to circulate the newsletter externally. Building our new multidisciplinary team has been greatly strengthened through our regular online huddle meetings, which have included presentations on design research, skills and training, retrofitting research, and public engagement. Our engagement has also included wider work with the Future Observatory (including training activities), the Design Museum and the other Green Transition Ecosystems. Other achievements to date include: a state-of-the-art technical and policy review; mapping interwar (1920-1940) housing in England and Wales; engaging with a wide range of professional stakeholders in Bristol and Swansea; and information gathering on retrofit skills and training, including an online workshop, and a questionnaire for professional bodies.

Getting to know and working with colleagues, old and new, has been a real pleasure: I thank you all for your hard work, especially Jo. But whilst we have achieved much in our first year, a great deal remains to be completed over the coming 12 months. Not least amongst these is delivery of the demonstrator home projects in Bristol and Swansea. In our second year we also seek to widen our dissemination activities with webinars and presentations, conduct design charrettes in other interwar estate communities, complete prototype performance tests and modelling, hold further engagement work with residents, communities and professional stakeholders, and undertake further skills and training work.

To stay in touch with our work please sign up to our newsletter here:

[www.transforminghomes.org.uk](http://www.transforminghomes.org.uk)

## Spotlight on...

James Moxey, Business Development and Delivery, Woodknowledge Wales

### What's your current role at your institution?

The team in Woodknowledge Wales (WKW) consists of specialists from a range of disciplines and sectors. We are architects, engineers, researchers, communicators, housing professionals, wood scientists, sawmillers and manufacturers. Together we are committed to drive change through transdisciplinary collaboration across academia, industry and policy. Working with WKW is inspiring because of the variety and challenge. I support people from across government, industry, and the public sector; I help secure contracts; and I oversee and deliver projects. All three activities are related and interdependent. Project delivery for example helps me stay focussed on current opportunities and challenges which helps when talking to policy makers and industry leaders. It's exciting work.



### Which past experiences have helped you the most in your current role?

I'm not a qualified construction professional. I spent over 25 years in Academia where I supported and developed research centres, often with large research teams who delivered industry-facing research and support. The common themes in this work were design and creativity, which also meant securing income, delivering projects with industry, and engaging with policy makers.

### What excites you about the research in the Transforming Homes project?

The Transforming Homes project has brought together many people from different backgrounds with a wide range of expertise and experiences. These different perspectives are being focussed on a common goal: making homes better and healthier places to live in. I'm constantly excited by the new perspectives that are being brought into focus within the project and the quality of the discourse, whether that be the historical context of the homes being examined or the way in which communities can be at the heart of the regenerative process that retrofitting provides.

### How is your expertise contributing to the Transforming Homes project?

I'm reluctant to claim to be an expert in anything really. I guess the main contribution I make is to consider how the research within the project is relevant to the supply-chains that will deliver it. I also support in terms of thinking around material use (e.g. retrofit systems, performance and carbon reporting). If I have any expertise in this field, it's in my general understanding of the spectrum of issues related to retrofit, the ability to spot an opportunity for collaboration, and then making connections between the research team and those in industry who will have the specific expertise to advise and support. It helps being well-connected in order to make this happen.