

# The Heat Decarbonisation Workforce Challenge

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# 60%

## Difficulty in Recruitment Qualified Workers

This statistic highlights the **significant challenge** faced by the retrofit industry, emphasizing the urgent need for effective strategies to attract, **recruit** and retain skilled workers for successful project completion.

Construction is one of the most desired destinations for Scottish school leavers - yet difficult sector to get “a start” in

Major Paradox Exists

# Workforce impacts – Risks

## Transition Challenges

Buildings contribute about 15% of Scotland's total emissions. The shift to zero-emissions heating by 2045 presents risks linked to workforce readiness and capacity constraints.

## Skilled Workforce Requirement

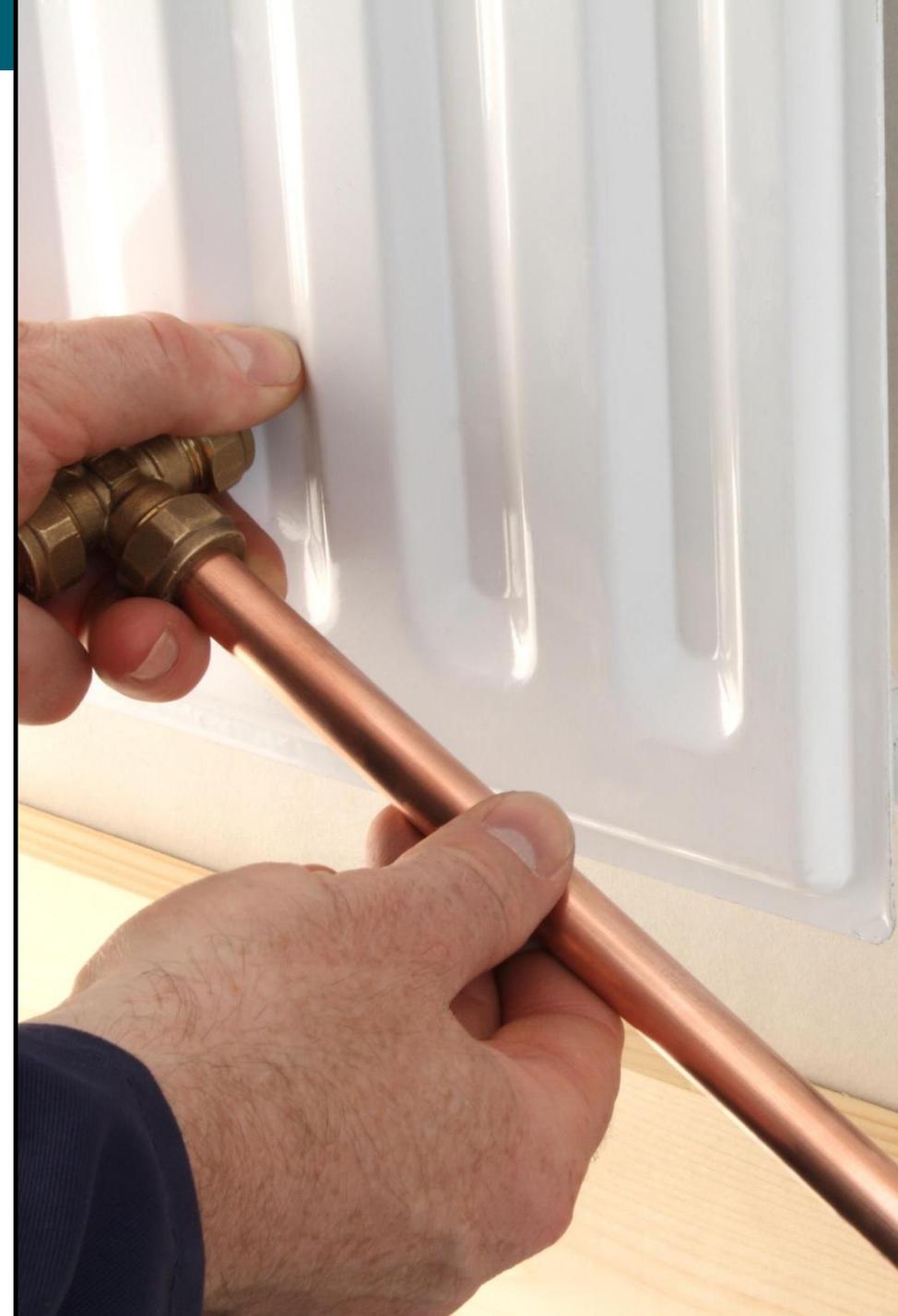
Upgrading heat systems and energy efficiency needs skilled, multi-trade workers for tailored solutions.

## Workforce Planning

Rapid workforce growth is essential alongside technical and policy efforts to ensure decarbonisation advances smoothly.

## Policy and Practical Solutions

Evidence from research and case studies informs practical workforce solutions and policy planning for delivery. This area is a WIP!



# SDS Pathfinder Research

The SDS Pathfinder – Heat Decarbonisation (Work Package 2) focused on reducing heating emissions in Glasgow City Region and Shetland.

SDS highlighted key challenges: shortages in plumbing, heating, and retrofit skills; limited training capacity for certifications like MCS and PAS2035; and an ageing workforce with difficulty attracting new construction workers.

Heat decarbonisation requires cross-sector coordination, causing competition for workers.

SDS supports skills planning through investment mapping and job demand modelling.



# From Single-Trade Installs to Whole-Building Retrofit

## **Shift to Whole-Building Retrofit**

Heat decarbonisation work is slowly evolving from single-trade installs to comprehensive building retrofit strategies focused on fabric-first approaches.

## **Rising Competence and Safety Standards**

New regulatory and safety thresholds demand higher competence and quality assurance in heat-related roles to ensure safe installations.

## **Quality Over Volume**

Emphasizes on quality, safety, and performance, raising the bar for workforce entry and project scaling.

## **Training and Workforce Development**

New approaches to training and workforce development are essential to meet elevated standards in heat decarbonisation projects.



# Replacement and Growth Demand

## **Replacement Demand Due to Ageing Workforce**

An ageing workforce creates strong replacement demand requiring 70,000 new entrants over the next decade.

## **Short-term Workforce Forecast**

Between 2025 and 2028, 25,300 people are needed including 15,300 for replacement and 10,000 for growth.

## **Impact of Heat Decarbonisation**

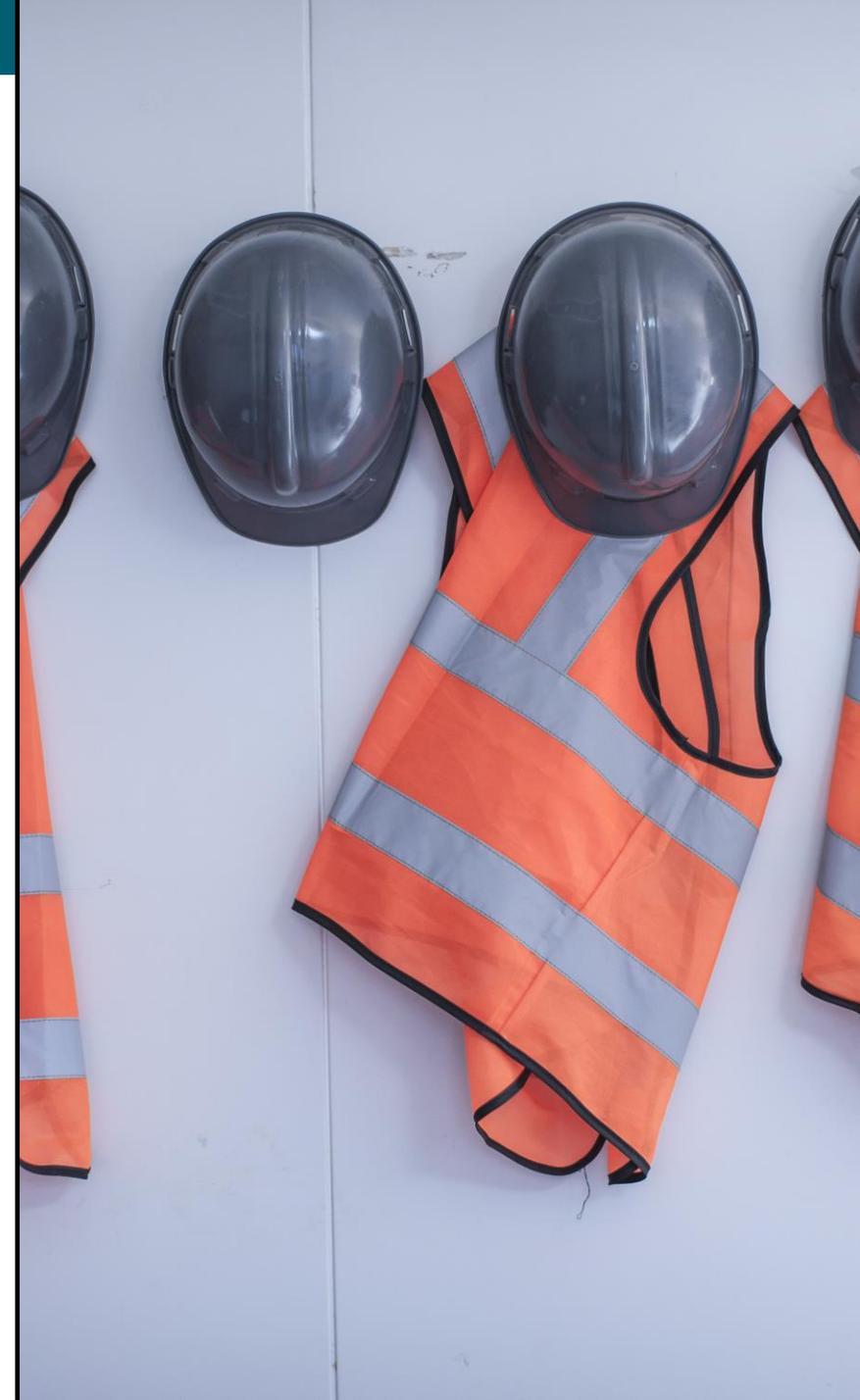
Heat decarbonisation adds pressure, increasing demand for new skills alongside baseline construction needs.

## **Heat Pump Installers Needed**

The demand for heat pump installers is estimated between 4,600 and 11,400, reflecting rapid adoption.

## **Urgency to Scale Workforce**

Scaling workforce capacity is urgent to meet replacement and expansion demands amid complex industry changes.



# Systemic Barriers to Workforce Growth

## **Skills Shortages and Training Limits**

Persistent skills shortages across wider construction sector and training capacity impede workforce growth in key trades and retrofit roles.

## **Dysfunction Labor Model**

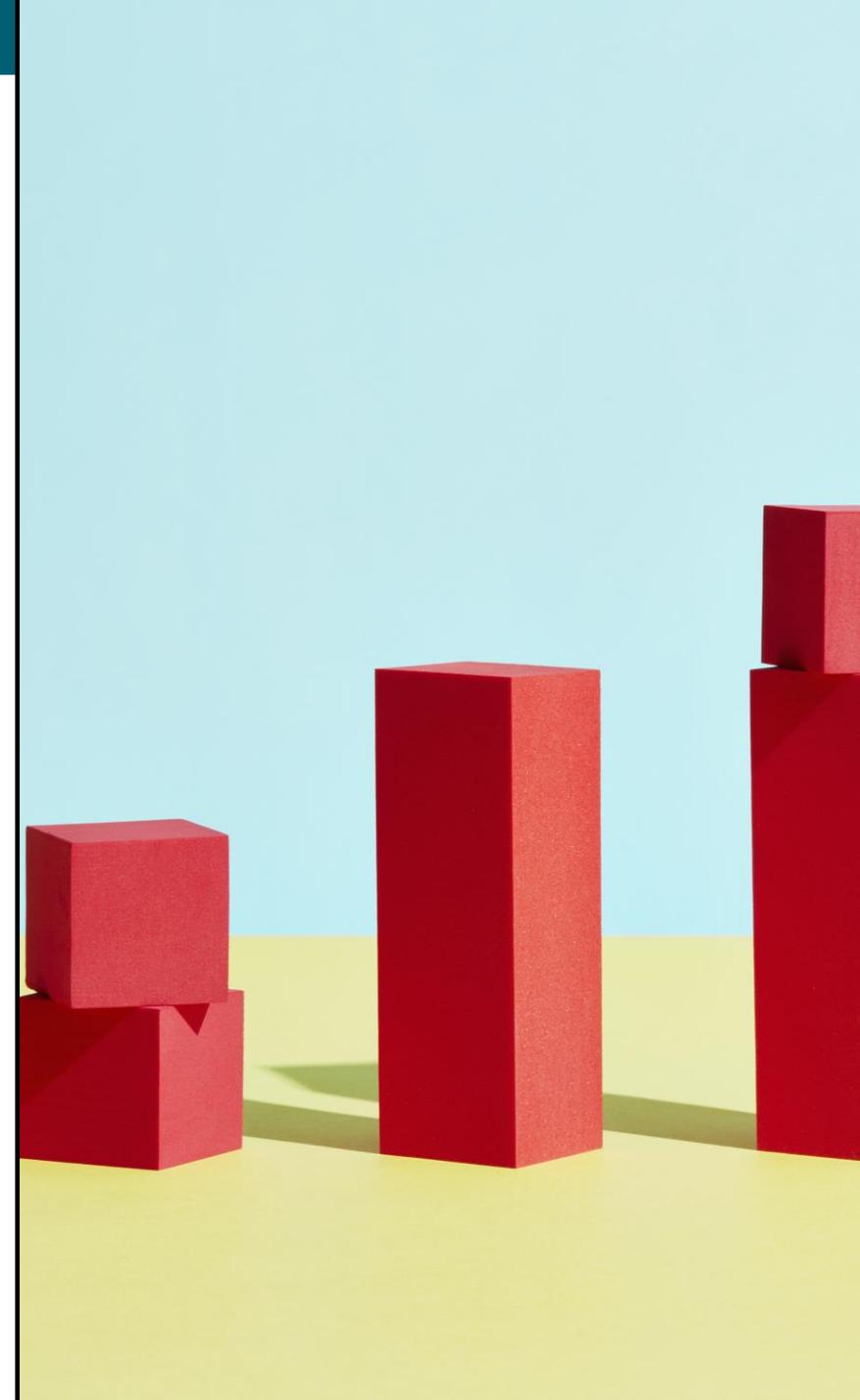
The subcontracting model externalizes training risks; business models can lead to aggressive risk transfer discouraging growth and low-cost models stifle recruitment

## **Small Firms' Resource Constraints**

Small and micro firms dominate domestic market but often lack resources to invest in workforce development and training. The business models that operate may mean not an operational priority

## **Existing Pathways**

Traditional apprenticeships dominant limited acceptance of alternative routes by many Industry partners



## Boosting the Construction Workforce Mission

One of the biggest challenges facing the construction sector in Scotland is ensuring it recruits, trains, and retains enough new entrants to build a skilled and professional workforce.

This is not just about having enough people, but rather about ensuring they acquire the necessary competence through skills, knowledge, behaviours and experience the construction sector needs.

Failure to do so will stop Scotland from creating the infrastructure and built environment it needs to support the country thrive and meet its net zero goal.

The survey issued by the Construction Accord's Skills and Workforce Group in summer 2025 called on the sector to outline the challenges it faces; where does the sector engage with specialist skills and who may best support the sector to develop the solutions needed.

The **Construction Accord Transformation Board** has used this sector intelligence to create this Construction Workforce Mission to help focus attention on this critical challenge.

### The Mission will:



#### RECOGNISE

the sector model for recruitment, training and retaining the workforce, including examples of best practice



#### CHAMPION

a clear workforce model where the workforce is employed and where it is trained to develop its core skills



#### ENCOURAGE

employers to take greater responsibility to build the workforce it needs based on these models



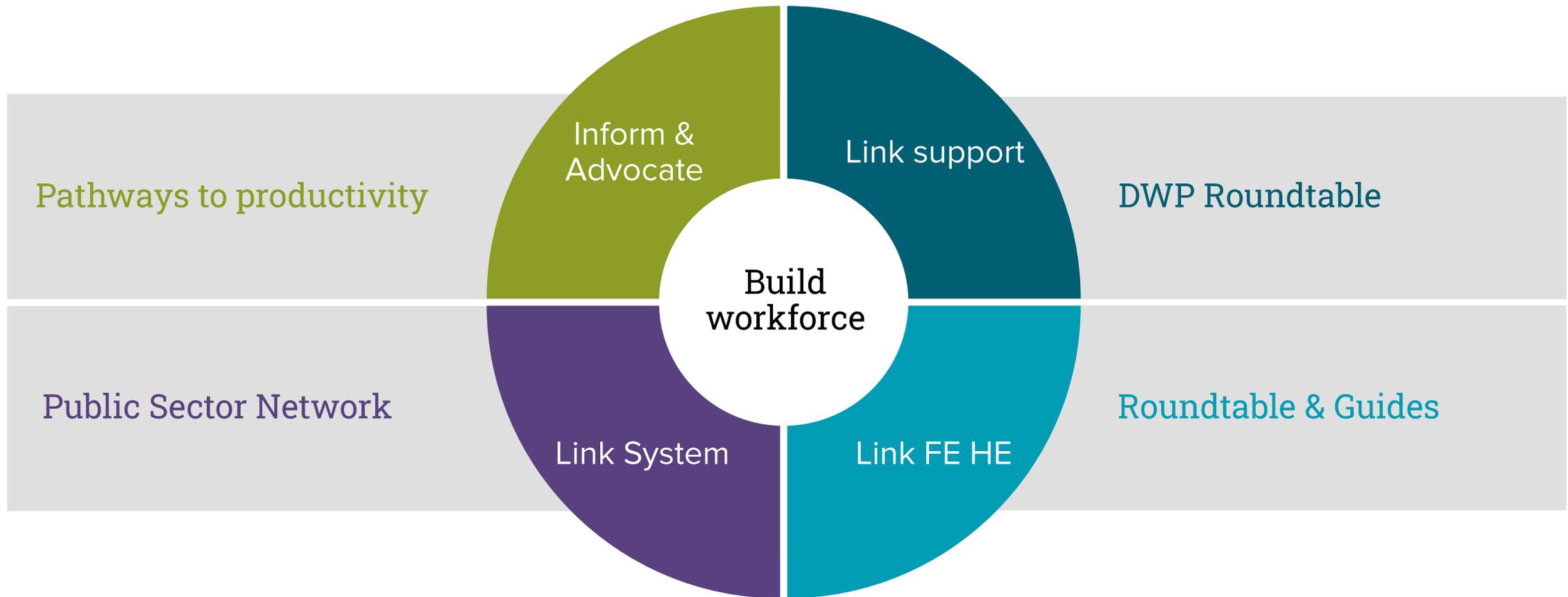
#### INSPIRE

industry stakeholders and public sector partners to work better together and support employers by creating the right conditions and training that support this model

The Construction Accord's Skills and Workforce group will ensure it maintains broader representation that will allow it to champion key activities and support the Mission.

And working in collaboration with industry stakeholders, employers and public sector partners, the Skills and Workforce Group will undertake activity to support the sector address some of the barriers to workforce growth.

# Construction Accord Workforce Mission



# Some Numbers.....

17,210  
Learners

Description of steps

7190  
HE

Description of steps

6526  
MA

Description of steps

96%  
less 10

Description of steps

What can your organisations do –  
maximising any levers available?

Thanks for listening