



Hertfordshire  
Local Enterprise  
Partnership



# Retrofit Opportunities workshop

SKILLS FOCUS | 2023

*In partnership with*

**greener**  **herts**



Welcome

**STEVE WOODCOCK**  
CHIEF EXECUTIVE, B3LIVING;  
HERTFORDSHIRE LEP BOARD MEMBER

The background is a solid dark blue. It features several abstract geometric elements: a large white right-angled triangle on the left side, a smaller white right-angled triangle in the top right, a teal triangle at the top center, a teal triangle at the bottom center, and a teal triangle at the bottom right. There are also several smaller white and teal triangles scattered throughout the design.

Welcome

**CLLR RICHARD ROBERTS**  
LEADER, HERTFORDSHIRE COUNTY COUNCIL;  
HERTFORDSHIRE LEP BOARD MEMBER

# Retrofit Opportunities workshop: Introduction

**Gavin Cansfield**  
CEO, settle



# Introducing greener herts



- A consortium of Hertfordshire based social landlords: B3 Living, Dacorum Borough Council, settle, Watford Community Housing
- c30,000 homes owned and managed
- 1,500 homes included in the SHDF bid
- Total value of the bid circa £40m
- First major strategic step towards Net Zero Carbon (NZC)
- SHDF part of a long term improvement strategy – NZC to be achieved by 2050 and EPC C by 2030



# Summary – by Landlord

Landlord	Number of Properties in Bid	Predicted Cost of All Works	Predicted Amount of SHDF Funding
B3Living	263 social homes	£5.8m	£2.5m
Dacorum Borough Council	75 social homes	£2.5m	£0.86m
settle group	677 social homes	£11.7m	£5.2m
Watford Community Housing (WCH)	436 social homes 27 leaseholder properties	£18.2m	£5.5m

# Types of Measures

Measures	B3 Living	Dacorum	settle group	WCH
Loft insulation	183	71	516	0
Cavity wall insulation	16	0	4	25
Underfloor insulation	46	4	1	0
External wall insulation	71	75	390	411
Internal wall insulation	9	0	7	0
Roof insulation	6	0	148	8
Heat pumps (air or ground source)	0	0	157	0
Solar PV	136	17	188	0
Draught proofing	263	75	677	0
Ventilation	263	75	677	0
Double glazed windows	0	0	0	168
Low energy lighting	263	75	677	168
Heating controls	127	0	413	0
High heat retention storage	16	3	1	0
Air-source hot water	19	44	23	0

# Looking Forward

- SHDF Wave 2.1 is a two to three year programme – £800m allocation of gov fund – part of a £3.8bn commitment over 10 years
- SHDF Wave 2.1 will accelerate all of the consortium's homes toward EPC C.
- Consortium approach enables innovation and pilot projects – for example heat pumps, solar PV, some IOT and remote monitoring
- Consortium improves access to skills, surveying, PAS 2035 whole house retrofit process, digitalisation, training, resident engagement and so on
- Wider opportunities – retrofit credits, procurement, social impact.



# Key risks and opportunities

## Risks

- Skills shortage
- Supply chain pressure
- Cost of inflation
- Pace of surveying
- Reporting requirements

## Opportunities

- Contractors engaged early
- Social Value offers are strong (see next slide)
- Huge scale of investment into Herts

# Example of one contractor's social value commitment



Initiative:	Outcome	Number
Employment opportunities provided through Wates and our supply chain	Providing sustainable jobs for local residents	4 per £1million
Delivering apprenticeships through the Green Academy Hub at CONEL	Inspiring the next generation and supporting young people into construction	1 per £1million
2-week work experience placements	Insight into decarbonisation	2 per £1million
Careers fairs, at project commencement	Advertising jobs to the local community	1 per £1million
Local school/college visits, through our partnership with the Green Schools Project	Inspiring the next generation to tackle the climate crisis	1 per £1million
Employment of local SMEs, within 30-mile radius	Supporting local economy	90% target
Supply Chain Sustainability School and establishing local skills academies in conjunction with third sector organisations such as Ground Work Trust	Upskilling the supply chain, improving environmental awareness and providing training on green skills needed for the future	100% supply chain access
Free accredited Environmental Awareness training, through the Wates Community Learning Hub	Upskilling local residents	100 tenants per project
Domestic Energy Assessor training for unemployed residents, through partnering with Elmhurst	Upskilling local residents	2 tenants per £1million
Working with The Conservation Volunteers to deliver tree planting	Supporting biodiversity, health and wellbeing	1000 trees per project
Creating a food pantry for vulnerable tenants	Tackling the impacts of fuel poverty	TBC, dependent on project
Providing Energy Saving Advice to tenants through events and campaigns	Empowering tenants to maximise the benefits of energy efficiency measures	100% of tenants

# Social value commitment highlights


Employment opportunities provided through main contractors and our supply chain. Providing sustainable jobs for local residents

4 per £1million invested


Employment of local SMEs, within 30-mile radius. Supporting local economy.

90% target

# Retro fit introduced

A large, light green leaf graphic is positioned on the left side of the slide, partially overlapping the text box.

**David Orr** - The national picture around housing quality is challenging. With nearly 4 million social homes in the UK, many of which built post war with poor design standards. These homes have a long legacy of ventilation and insulation issues and in some cases were only built to last 40 years. Our job is to ensure customers can live safe and well in these homes. This is in the context of decades of limited investment in new homes along with an absence of support from government for regeneration since 2010.

A horizontal decorative element consisting of several light green leaf-like shapes is located below the first text box.

**NHF** - For the UK to meet the legal target of net zero carbon emissions by 2050, all of our homes, including social homes must be decarbonised. For a home to qualify as 'decarbonised', it must be adequately insulated and heated by clean heat technology, typically a heat pump.

Thank you





Greater  
South East  
**Net Zero Hub**

# Retrofit Opportunities Workshop

The Bigger Picture

Maxine Narburgh Regional Head GSENZH

16<sup>th</sup> May 2023

# Greater South East Net Zero Hub Region

- Funded by Department for Energy Security & Net Zero
- GSENZH Accountable Body: Cambridgeshire & Peterborough Combined Authority
- GSENZH Board – strategic direction
- 11 Local Enterprise Partnerships
- 2 devolved Authorities (CPCA, GLA)
- 142 Local Authorities
- Population ~24 million



# Why Retrofit?



Climate Crisis



Energy Security



Fuel Poverty & Health



Cost of Living



# Retrofit – Scale

27 million homes to decarbonise by 2050

Target: Retrofit 8 homes/minute to meet Net Zero

In the Greater South East Region

13.9 million households

1.4 million households in fuel poverty

523,000 jobs created in GSE by 2050

# Retrofit - Standard

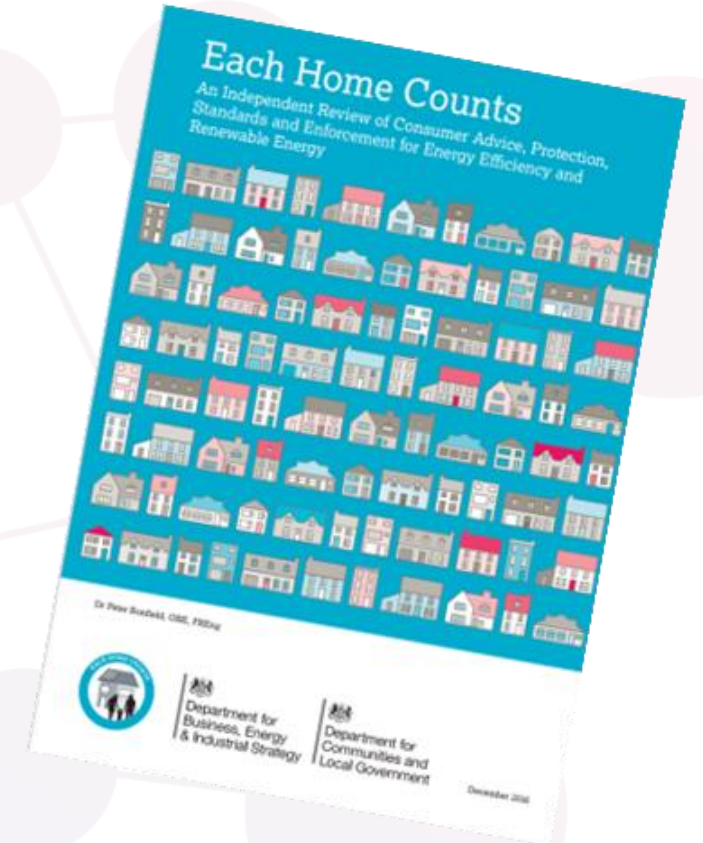
- Bonham Review (2015) – To improve retrofit installations and consumer confidence

The review covered home energy efficiency and renewable energy measures, standards, enforcement, consumer advice and protection

This resulted in new quality standards that came in force in 2021

- PAS2035 (2019); PAS2030 (2017; 2019; 2023)

To ensure quality installs, consumer advice and protection



Heat & Building Strategy (2021)

Warm Homes & Energy Conservation Act (2000)

Sustainable Warmth: Protecting Vulnerable Households in England (2021)



Net Zero 2050 Climate Change Act

# National Policy

Minimum Energy Efficiency Standards (MEES)

Clean Growth Strategy

Powering Up Britain (2023)  
Energy Security Strategy

Energy Efficiency Taskforce (2023)

# Funding

- £1.4bn in this parliament for Social Housing Decarbonisation Fund and fuel poor households (HUG)
- **£6bn** (2025-2028) committed in next parliament for building decarbonisation (include public sector estate)
- Boiler Upgrade Schemes (£5,000 grants to households) (£450m)
- Local Authority Delivery Scheme (£500m)
- Heat Network Transformation Fund (£338m)
- Home Decarbonisation Skills Funding (£9.2m)
- Public Sector Decarbonisation Fund (£2.4bn)



# Barriers & Challenges

To meet Government net zero targets:-

- Est. 27 million domestic, 2 million non-domestic properties requiring energy efficiency retrofit
- Demand for retrofit: extra 217,000 workers needed by 2025 to meet existing Government retrofit targets - far more needed to meet net zero target

Supply constraints:-

- Demographics: 750,000 construction workers predicted to retire by 2035 whilst 20.3% of construction workers are aged under 30 (IPPR)
- Sub-sector shortages: e.g., the heating sector is ill-equipped to respond to growth, undermining the Government's Heat and Building Strategy and the move away from fossil fuels
- Lack of training infrastructure available to respond to training needs

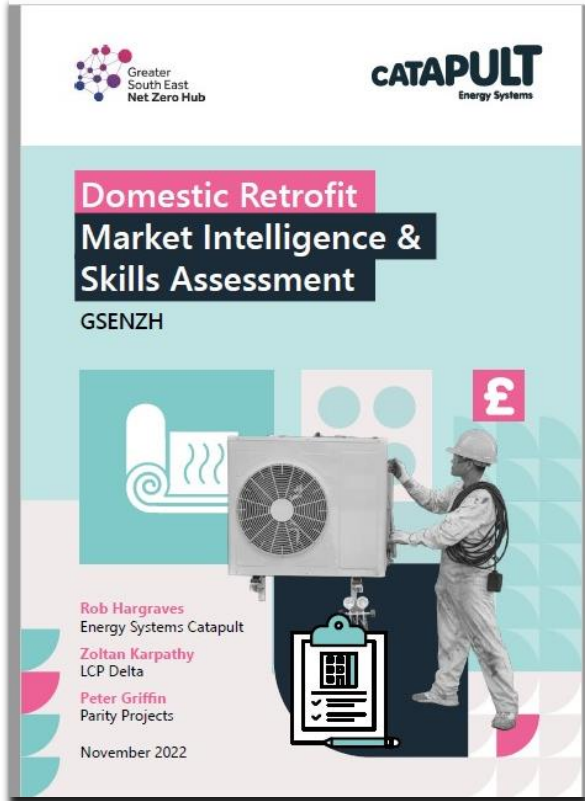
# Training Gaps

Domestic retrofit is still relatively new in terms of development and demand, so

- Significant gaps exist in the curriculum
- A shortage of skilled tutors and an urgent need to ‘train the trainers’
- Difficulty in benchmarking the quality of training provision that is on offer
- Problems reported in filling training places even those offered either heavily subsidised or at no cost to participants
- Lack of awareness about retrofit in the careers curriculum to fulfil the pipeline required.

Need for the sector and education & training providers to come together to meet the training requirement and the upcoming demand

# Regional picture: Domestic Retrofit Skills Assessment



To meet the challenge of achieving the government's 2050 net zero target, there is clearly a need to increase and coordinate the training provision in all roles throughout the retrofit process.

## GSENH headlines

- 10m homes surveyed across GSE area, est. £150bn total investment required
- Net Zero requirements across all housing in the GSENH area requires around **46,500** full time equivalent workers **each year** to 2050
- ESC estimate that the total required retrofit workforce in the Greater South-East region could rise to be circa **100,000 workers** on average and **200,000 workers** at the peak requirement periods
- Due to demographics, the number of required training courses is likely to exceed **500,000**.

# Opportunities

Parity Projects data assesses that:-

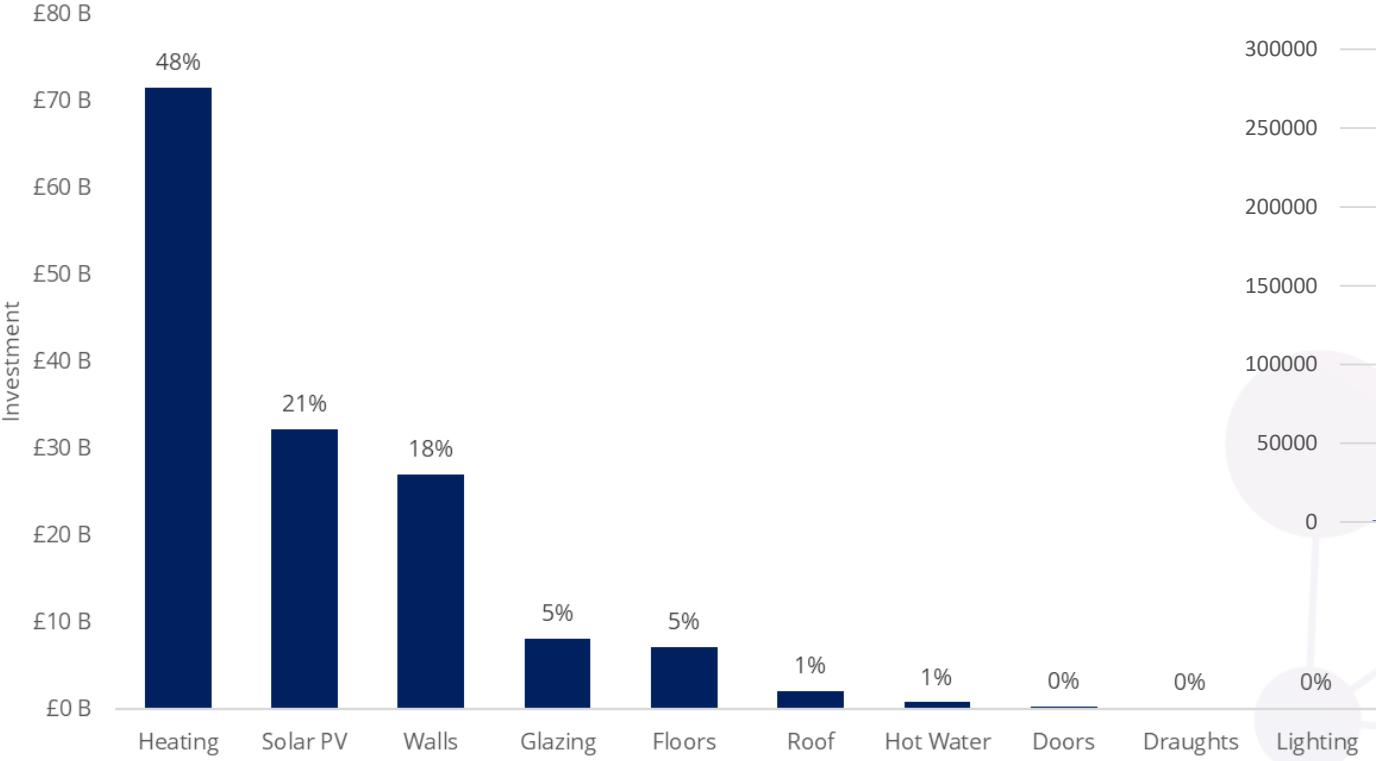
- **482,900** Hertfordshire homes need retrofit measures installed to reach Net Zero by 2050 (around **18,500 per year**)
- **£8.1bn** investment needed or approx. 15.7m total trade days
- **5,787** houses planned through existing schemes over the next few years, such as HUG2, SHDF, ECO



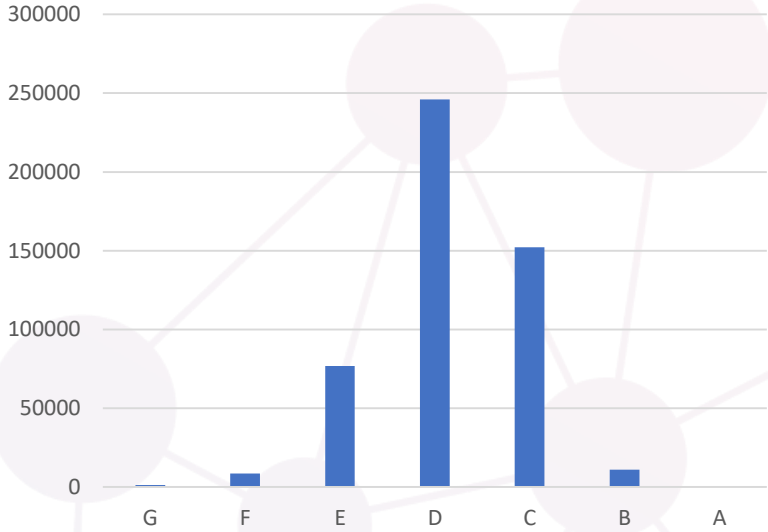
More training courses urgently needed to support this retrofit demand in Hertfordshire



# Domestic Retrofit Skills Need Assessment



Hertfordshire Property EPC Bands



Circa 332,000 Band D to G

GSENZH – Measure Mix to Net Zero 2050



# Greater South East Retrofit Training Network

Regional retrofit training network to spearhead collaboration and coordination of skills development across the region, to include:

- a GSE Retrofit Training Network Steering Group to ensure the offer meets the region's needs and can be self-sustaining
- a Training Providers network to find ways for supply to meet demand
- GSE Careers Portal, tracking existing opportunities and outlining the pathways for young people
- creating a regional retrofit projects/knowledge database
- a GSE Employers Group, to articulate the needs of employers and act as a sounding board

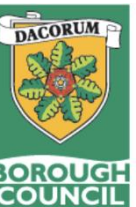


# Greater South East Net Zero Hub



# Retrofit Opportunities workshop: The local picture

**John Swinney**  
Sustainability Lead, Greener Herts



# The Retrofit Opportunity

- Net Zero Carbon (NZC) is not going away – organisations can plan for the long term
- SHDF successes countywide offer the opportunity to build that infrastructure - drive a local skills revolution and business growth – c£40m of grant - £100m of works
- The NZC process will cover the widest range of measures and need all relevant skills to support delivery
- The shorter term SHDF opportunity is a microcosm of what will be required for the NZC journey
- New business models not tarnished by legacy issues and historic challenges

# The Retrofit Opportunity

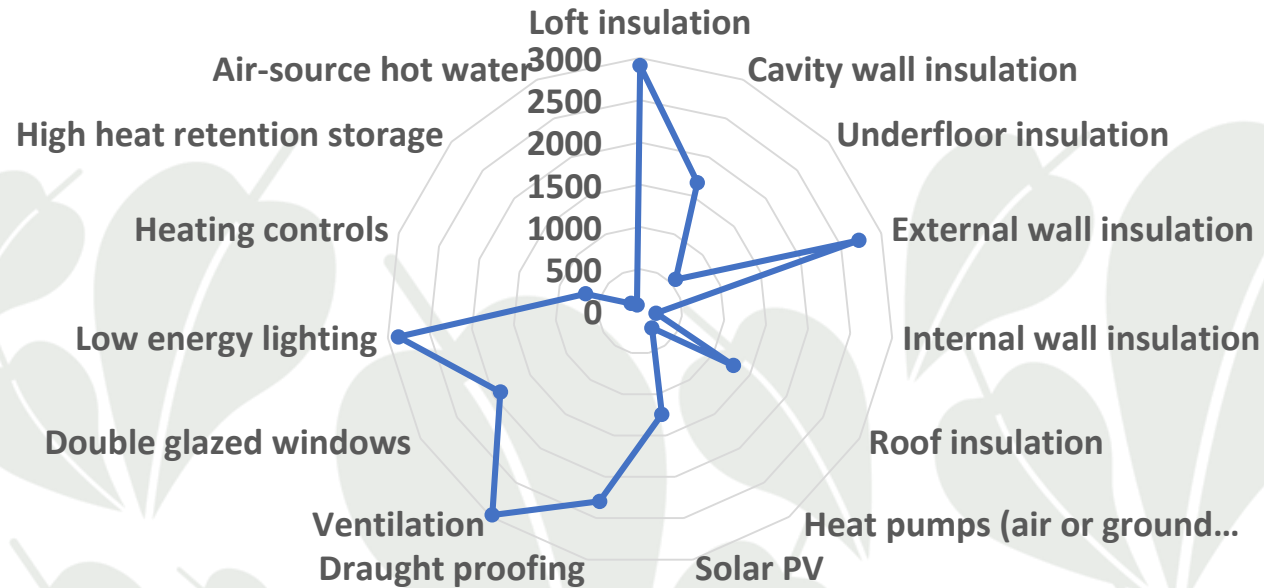
Organisation	Grant Award	Comments
Greener herts	£14.1m	Settle group, Dacorum, WCH, B3Living
Network	£4.463m	East Herts
St Albans	£8.5m	
Stevenage	£2.6m	
Thrive	£2.2m	Three Rivers
Welwyn Hatfield	£2.8m	
Clarion and Peabody	TBC	Hertfordshire allocation from £49m grant
Total	£34.663 + Clarion and Peabody	c£100m of works

Over £40m SHDF grants in Hertfordshire - 4,830 homes

# Total Predicted SDHF Measures

Measures	Numbers	Comments
Insulation - internal	8910	Loft, cavity, roof, IWI, etc
Insulation - external	2712	
Ventilation	2975	
Double glazing	1908	
Heating controls	678	
Heat pumps	241	Air and ground source
Solar PV	1243	
Low energy lighting	2975	
Air source hot water	86	
High heat retention storage	144	
Total measures	18,562	

# SHDF Wave 2.1 – Predicted Measures

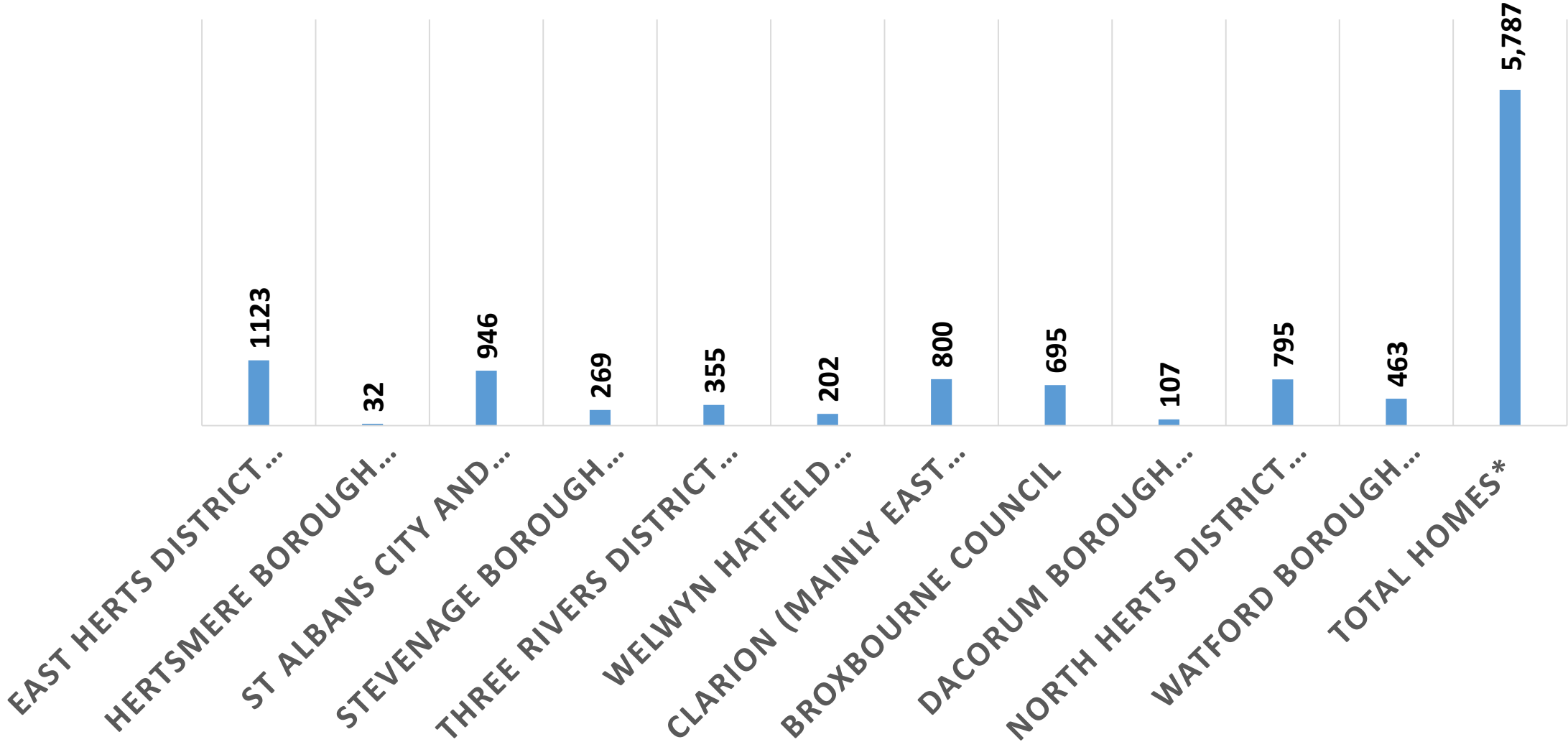




# Other Funding Initiatives

- **HUG2** – a 2 year Home Upgrade Grant provides energy efficiency upgrades and low carbon heating to low income off grid households
- £6.426m for Hertfordshire via GSENGH consortium - benefit **357** homes and their residents
- **Solar Together** - group discounted procurement scheme for households to buy solar panels, batteries and/or connected EV charging infrastructure
- 1,600 homes to have solar (2022 cohort). Post 3-week installation customer feedback very positive. Proposal for 2023 cohort – **another 1,600 houses**
- **ECO4**, Energy Company Obligation– 4yr Gov scheme from 2022, supporting lowest of incomes with energy efficiency measures. Two local authorities have identified **600** homes to benefit
- **Green Heat Network** - £1.8m funding to WCH

# PREDICTED NUMBER OF HOMES FOR SHDF2.1, HUG2 & ECO4



# Finding Success

- Work together – share experiences/learning – how much can be planned on a county wide basis
- No failures
- Exemplar projects – county case studies
- Tell our story – one website – greener herts?
- What will it cost?
- Is there enough energy and commitment?

# What Next?

- Wave 3 (or 2.2)
- Retrofit credits
- Water credits
- Other funding opportunities and mechanisms – a county wide fund?
- County wide forums and collaboration



# The local picture

**NORMAN JENNINGS**  
OPERATIONS DIRECTOR, HERTFORDSHIRE LEP

## UK's economic performance is being buffeted by the impacts of:



Coronavirus  
pandemic



War in  
Ukraine



Energy  
prices



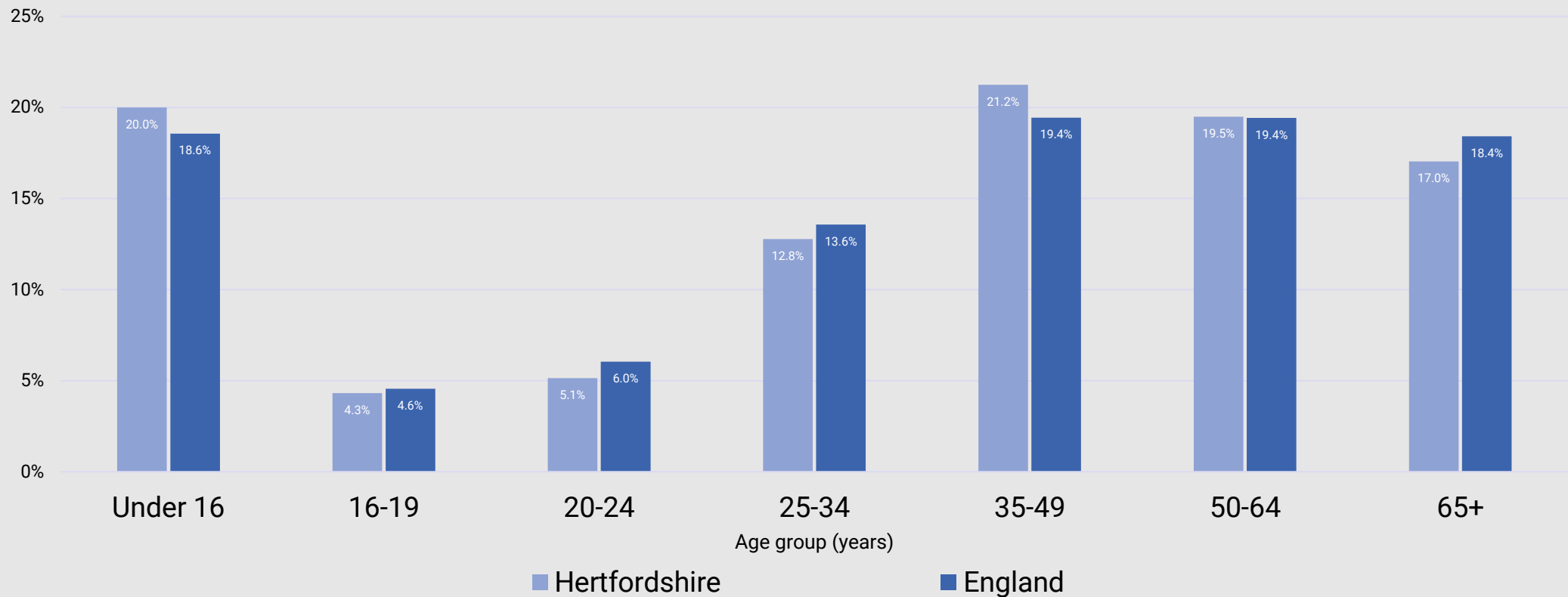
High levels  
of inflation

# Economic headlines

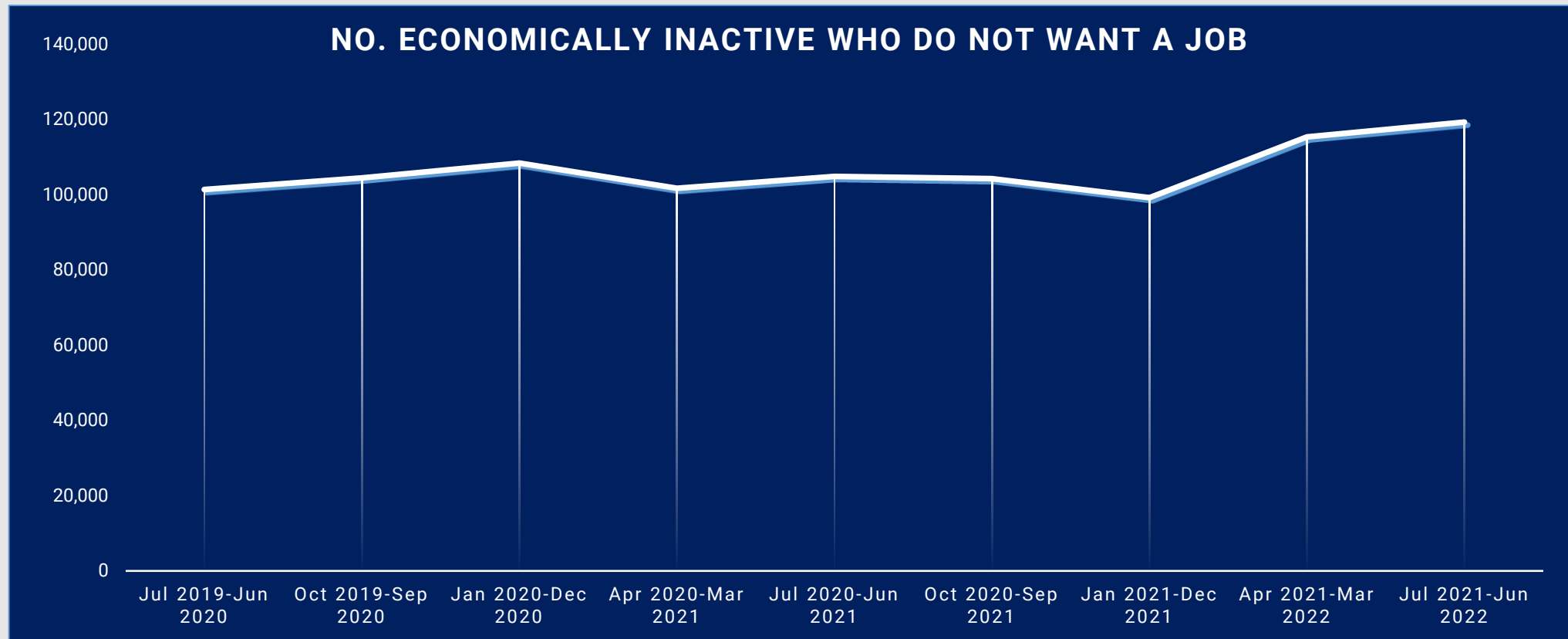
- Unemployment remains low. Employment rate remains well above the UK average.
- Hertfordshire continues to weather these headwinds but the size of the labour force has become slightly smaller as the number of people leaving the labour market has increased.
- Hertfordshire's business base: Hertfordshire has lost a proportionately high number of Micros/SMEs in recent years as the number of business deaths has exceeded births.
- Overall, Hertfordshire performs well above the UK and England average – except in the areas of housing where costs are well above UK averages and house prices have fallen compared to last year.



# Population by age group - 2021 Census



# The number of people leaving Hertfordshire's labour force has increased





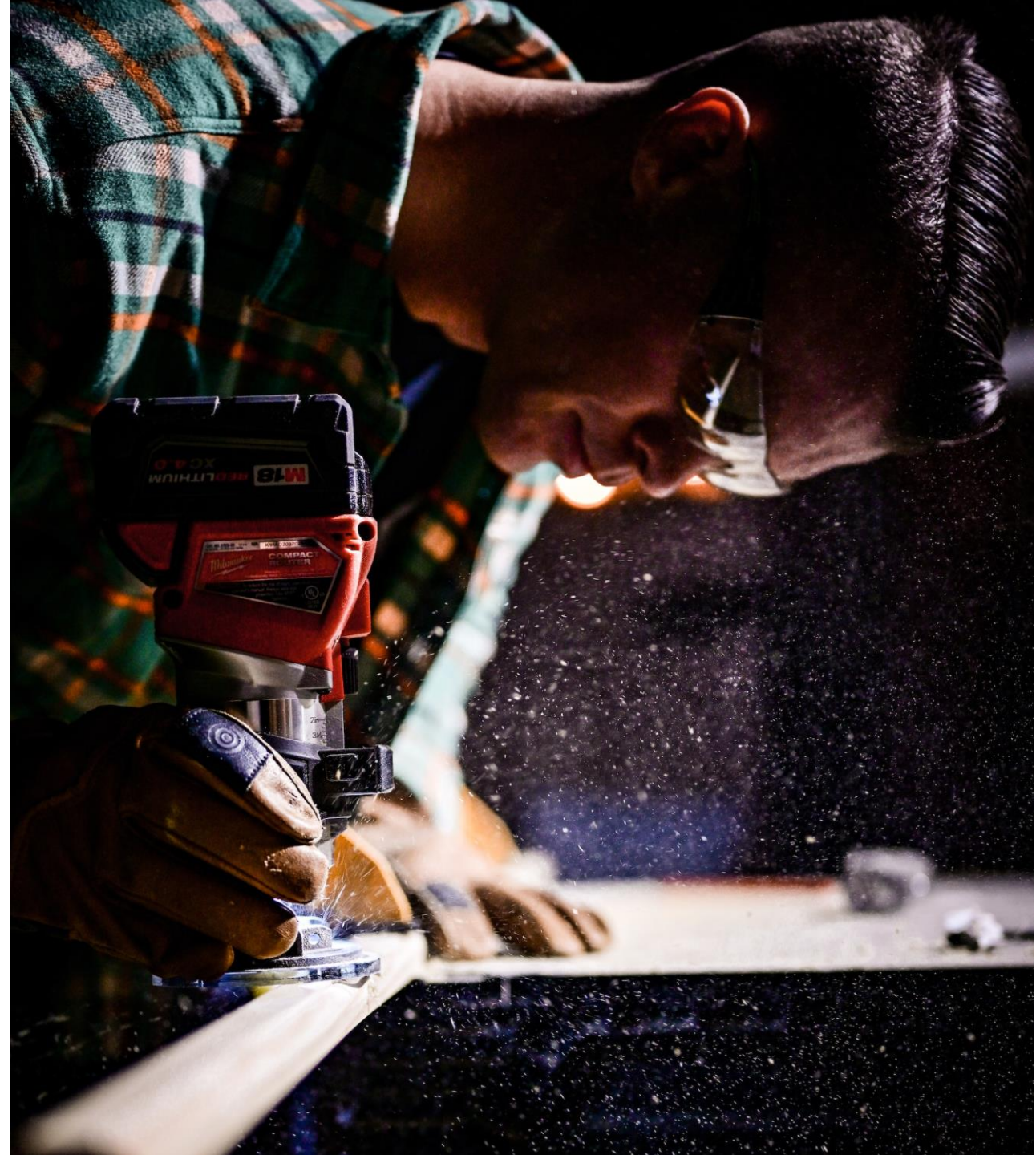
# Top 10 Apprentices Starts by Framework Sector

Framework Sector Subject Area	2020/21			2021/22			% change 2020/21 to 2021/22
	Female	Male	Total	Female	Male	Total	
Health and Social Care	711	126	837	574	142	716	-14.5%
Accounting and Finance	194	235	429	241	298	539	25.6%
Child Development and Well Being	425	14	439	480	10	490	11.6%
Business Management	475	474	949	449	405	854	-10.0%
ICT Practitioners	118	261	379	136	287	423	11.6%
Engineering	50	275	325	22	384	406	24.9%
<b>Building and Construction 7th</b>	<b>29</b>	<b>224</b>	<b>253</b>	<b>34</b>	<b>368</b>	<b>402</b>	<b>58.9%</b>
Administration	253	102	355	242	115	357	0.6%
Hospitality and Catering	73	64	137	103	105	208	51.8%
Nursing & Subjects & Vocations Allied to Medicine	122	32	154	163	40	203	31.8%
.... Grand Total for ALL sector subject areas	3,045	2,391	5,436	3,064	2,840	<b>5,904</b>	8.60%

# Retrofit: roles, trades and skills

- Retrofit advisors, coordinators and assessors
- Ground and air source heat pumps installers
- Solar Thermal/PV and Battery Storage installers
- Insulation installers
- Smart heating controls installers
- Heat network installers
- Plasterers/Renderers
- Window fitters
- Carpenters
- Scaffolders
- Project manager
- Trainers and educators

We need to build both Capability & Capacity of these trades



# Hertfordshire FE Strategic Development Fund

Herts FE awarded £2.8m of Strategic Development Funding until March 2023. These funds are supporting the clean growth agenda as follows:

## COLLEGE A:

- Awareness days re. Renewable Energy; EV & Solar PV, Heat Pumps etc.
- Installation of EV charging (L3)
- Solar PV (L3)
- Air Source Heat Pumps (L3)
- Water Regulations (L3)

## COLLEGE B:

- Same as College A but not Water Regulation, and;
- External Wall Insulation Installation

In addition, FE Colleges have also invested in equipment and staff training for the above, as well as VR equipment to support delivery of the above. However at this stage most of the above courses/ qualifications are not eligible for funding and therefore will be delivered at full commercial rates.

# National Provision – Home Decarbonisation Skills Training Fund

20 projects have secured a share of £9.2 million covering:

- Work package 1: retrofit assessor and retrofit coordinator
- Work package 2: insulation
- Work package 3: heat pumps

## Essex County Council

Work Package 1: Retrofit assessor and retrofit coordinator

- Level 2 Understanding Domestic Retrofit
- Level 3 Retrofit Advisor
- Level 4 Retrofit Assessor
- Level 5 Retrofit Coordinator

## Retrofit Academy

Work Package 1: Retrofit assessor and retrofit coordinator

- As before
- Work Package 2: Insulation
- Level 2 & 3 Diploma in building insulation & treatments

# Considerations

- Awareness sessions for SMEs re. supply chain opportunities.
- More detailed analysis of local construction/retrofit skills provision.
- Curriculum discussions re provision to meet immediate need but also to consider future workforce i.e.
  - Upskilling for current workforce
  - Upskilling for adults new to the workforce
  - Provision for future workforce i.e. full qualifications vs. modules
  - Access to funding
- Collaborate with stakeholders and coordinate retrofit activities to meet local needs – **we are stronger together!**
  - Develop and align a net zero and retrofit pathway for Hertfordshire
  - Provide a clear access to retrofit market including bulk purchase
  - Support a positive resident and business 'retrofit' engagement and experience i.e. Hub

# Coffee break

PLEASE REJOIN US AT 3.45PM

greener  herts

Hertfordshire  
Local Enterprise  
Partnership





## Roundtables: Building capacity & capability

1. Is there existing skills provision that can help meet the identified need?
2. What are the challenges/barriers to addressing skills needs?
3. What do we need to do to address these challenges?





# Summary and next steps

**STEVE WOODCOCK**  
CHIEF EXECUTIVE, B3LIVING





Thank you

**Questions?**

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