

# Built Environment — Smarter Transformation

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## Building a Net Zero Scotland

Scotland Excel

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26.5.22

BE—ST

01

Built  
Environment  
—  
Smarter  
Transformation

Goodbye

CONSTRUCTION  
SCOTLAND  
INNOVATION  
CENTRE

Hello

BE—ST

Built  
Environment  
—  
Smarter  
Transformation

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Our identity	BE-ST is an international centre of excellence for zero carbon built environment transformation
Our vision	A better built environment that delivers inclusive and sustainable economic, social and environmental impact
Our mission	To accelerate the built environment's transition to zero carbon
Our strategy	We enable the connections, infrastructure and culture needed to solve the sector's most pressing challenges

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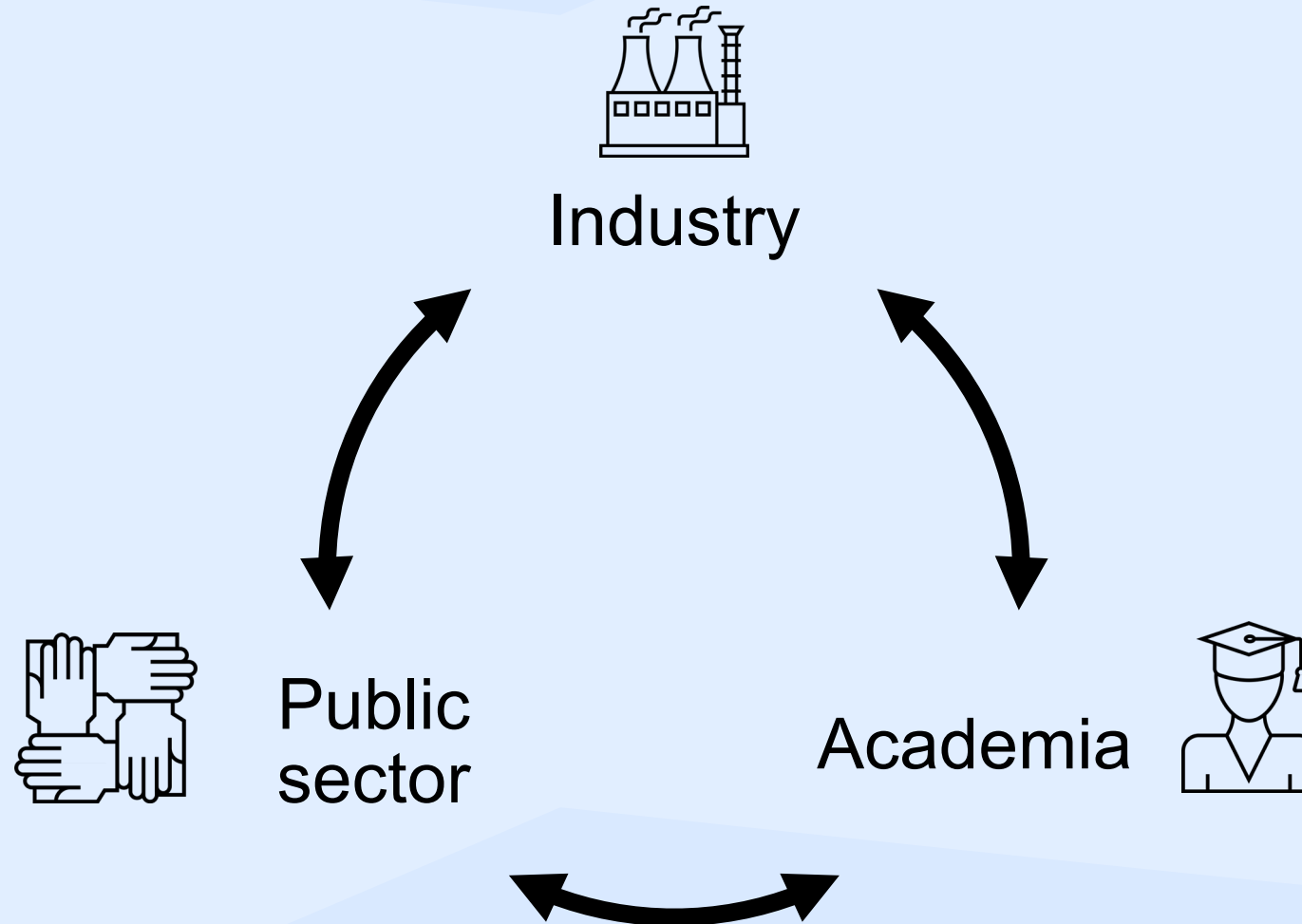
# The innovation centre family



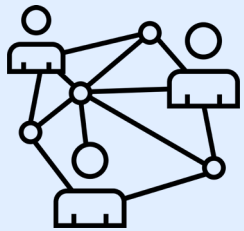
## Supported by



# Our connected ecosystem



# BE-ST unlocks innovation...



Across our  
connected  
ecosystem



Through  
collaborative  
projects &  
programmes



At the  
Innovation  
Factory



By delivering  
future skills  
programmes

# 02

## The challenge

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“Innovate, accelerate, scale. When it comes to the climate crisis – winning slowly is the same as losing. To rebuild the world, we need to innovate, accelerate, and scale bold climate solutions.” Tom Steyer, NextGen America

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Construction and the built environment is responsible for

45%

Of global CO2e emissions

60%

Of materials use in the UK

50%

Of the UK's total waste

# Programme Components

**Accelerate to Zero** brings together **10** integrated programme components across **4** key areas:

- ▶ 1 x Zero Carbon Skills Programme
- ▶ 2 x Transformation Hubs
- ▶ 3 x Culture Change Programmes
- ▶ 4 x Innovation Labs

These integrated component parts of the **Accelerate to Zero** programme will foster collaboration, build capability, share outcomes and cross-fertilise learnings to ensure maximum impact can be realised.

## 1 Zero Carbon Skills Programme

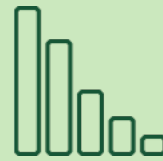


Skills, Knowledge  
& Competencies

## 2 Transformation Hubs



Supply  
Chain



Data Driven  
Performance

## 3 Culture Change Programmes



Procuring  
for Value



System  
Design



Leadership  
Development

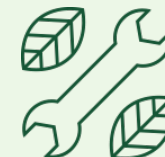
## 4 Innovation Labs



Digital



MMC



Deep Retrofit



Sustainability

20  
2120  
45

A unique Scottish asset, connected to a network of regional, national and international partner organisations

# Innovation Factory 2.0

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An additional 35,000sq ft of dedicated innovation space

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An incubation hub for micro and SME businesses to transition from start-up to scale-up, focused on delivering maximum economic, social and environmental impact

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A national Centre of Excellence for Deep Retrofit in Scotland

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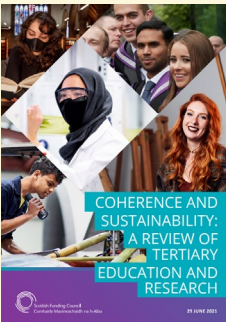


# Sectoral Alignment

Accelerate to Zero is aligned to the key industry & government drivers of change, most closely with the recommendations and aspirations set out in **Scotland's National Strategy for Economic Transformation**, the **Programme for Government** the **Climate Change Plan Update**, the **Draft Heat in Buildings Strategy**, **Housing to 2040**, the **Draft Manufacturing Recovery Plan**, Scotland's **Digital Strategy**, the **Infrastructure Investment Plan**, the **Construction Recovery Plan** and the **Construction Accord**.

In a specific skills context, Accelerate to Zero responds to Skills Development Scotland's **Climate Emergency Skills Action Plan**, the Construction Industry Training Board's **Building Skills for Net Zero** report and Zero Waste Scotland's **The Future of Work: Baseline Employment Analysis and Skills Pathways for the Circular Economy in Scotland** report.

In addition, Accelerate to Zero also aligns with the SFC's ambition to build world class industry/academic partnerships that are mission focused and can deliver economic, social and environmental impact for Scotland.



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## Low Carbon Learning

## Low Carbon Learning

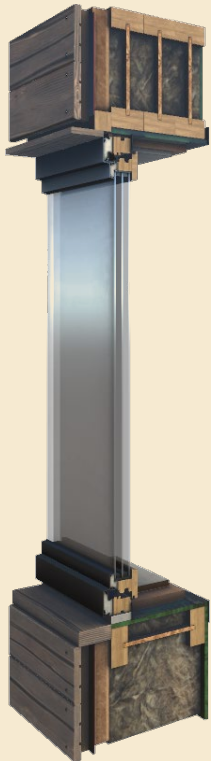
Scotland's first national Passivhaus, retrofit and fabric first training programme



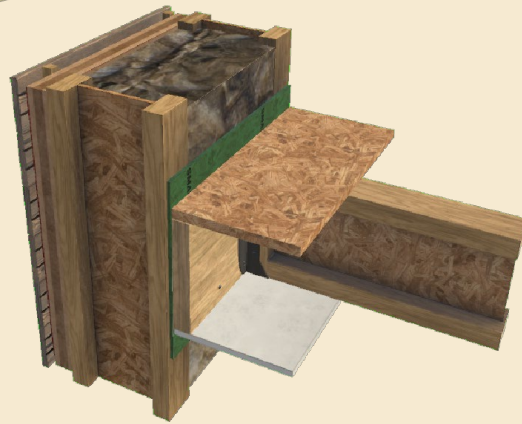
PASSIVHAUS  
in practice

## Low Carbon Learning

### Passivhaus Mixed Reality



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Scotland's first national Passivhaus, retrofit and fabric first training programme



## Low Carbon Learning

Scotland's first national Passivhaus, retrofit and fabric first training programme



## Low Carbon Learning

### Retrofit Webinars

AECB Carbon Lite Contractor Training

AECB EnerPHit Training

AECB Passivhaus Bitesize

### Retrofit Coordinator Training

Understanding Domestic Retrofit Training

Immersive Learning Retrofit – through 360

Mobile Passivhaus training rigs for educators

Steel Rig– for practical training

Two Retrofit Rigs - for practical training

Scotland's first national Passivhaus, retrofit and fabric first training programme

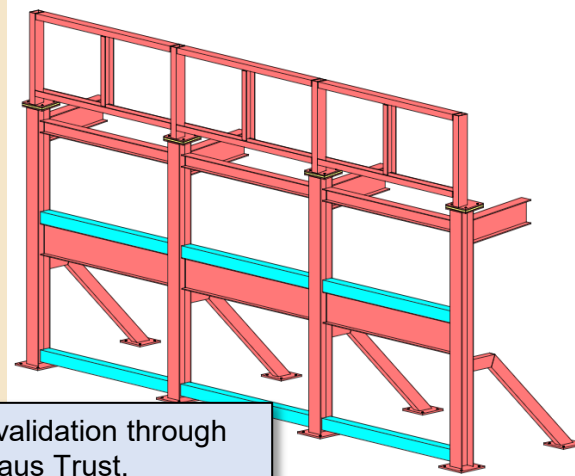


## Low Carbon Learning

## Steel Rig Retrofit Rig – in partnership with Morrison Construction



Incorporation of innovation:  
i.e. weberwall/ k-briq



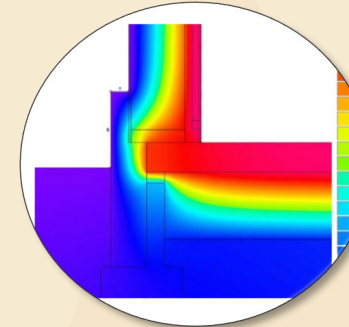
Design validation through  
Passivhaus Trust.

Detail development and  
modelling:

1. SFS infill
2. SFS oversail
3. Composite

Physical installation:

BSB (steel)  
Keyes (SFS)  
Chemplas (Cladding)  
Linnotech (Glazing)



Supply chain input, familiarisation  
and training.

BE-ST to use for training  
programme.

SCOTT BROWNRIGG<sup>+</sup>

RSK

RAMBOLL

BSB  
STRUCTURAL

Chemplas

ARCHITYPE

Goodson  
Associates

jmarchitects

KEYES BROTHERS  
KB  
CONSTRUCTION LTD

LINN  
TECH

BE—ST



## Low Carbon Learning

## Programme Achievements



372

individuals trained face-to-face in Passivhaus standards



45

individuals accredited in Passivhaus Standards



1628

individuals trained online in retrofit/ passivhaus standards



152

individuals trained face to face in retrofit/passivhaus standards



72

businesses engaged in programme



123

jobs safeguarded and/or created



41

educators engaged in Passivhaus training



18.5%

increase in knowledge and confidence amongst participant groups of low carbon construction standards for Passivhaus and retrofit.

Built  
Environment  
—  
Smarter  
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Thank you

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