

Impact

2023

Built
Environment
—
Smarter
Transformation



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“The climate crisis has already been solved. We already have the facts and solutions. All we have to do is wake up and change.”

Greta Thunberg, Climate Justice Activist

BE bolder



BE—ST

We're only just getting started

This year has been a year of action. We've been laser focused on adding value and delivering impact across all we do. The highlights of this are captured in this 2023 Impact Report. It's testament to what our partners and stakeholders have been able to achieve on our joint mission to accelerate the built environment's just transition to zero carbon.

Our report is not just about reflecting on the past year. By taking this time to look back, we also create a lens through which we can look into the future, where we can find the drive to supercharge our mission and vision.

Our commitment to accelerating the built environment's transition to zero carbon is stronger than ever. Yet again, the United Nations has published a report warning of the extreme consequences our slow pace of change will have.

Antonio Guterres, UN Secretary General said, "Present trends are racing our planet down a dead-end 3.0c temperature rise. This is a failure of leadership, a betrayal of the vulnerable, and a massive missed opportunity... Leaders must drastically up their game, now, with record ambition, record action, and record emissions reductions. No more greenwashing. No more foot-dragging."

These words underscore our entire mission. A mission that enabled us this year to embed the work of BE-ST into the Construction Accord as we support the delivery of the Construction Leadership Forum's Transformation Action Plan. Through initiatives like this, we have the power to make change happen, to lead the sector into its next chapter. Let's choose to make it one that's bigger, bolder, and braver.

We need to set a clear course of action, and then move with urgency. This is a crisis. When we had an international health crisis, we responded with speed and action and changed the face of daily life overnight. We are in the midst of a global climate crisis, a cost-of-living crisis and housing crisis – so why should our response be any different?

Transitioning to zero carbon holds both the power to reshape every sector of Scotland's economy and offers the chance to benefit citizens and level many of the inequalities that are currently ingrained in our society. It is a huge opportunity that shouldn't be underestimated.

BE-ST's unique position sitting between industry, academia, government, public sector and communities gives us the opportunity to help organisations to learn,



collaborate in response to these crises and make an impact at every stage of their journeys.

BE-ST Fest '23 was the culmination of this year's action and impact. It was an incredible two days exploring the theme of 'Breaking Barriers', which came to symbolise a call to action for all attendees and speakers.

It's time to move beyond the challenges we've long contemplated and start taking decisive steps to put things into action. And our primary role is to equip everyone with the evidence, insight, knowledge, and tools to confront these monumental challenges we face head-on.

Our focus on the just transition in Scotland has been paramount. As we move into 2024, we are going beyond environmental impact, and putting social and economic justice at the core of everything we do to make sure we are recognising all the opportunities we can to close inequality gaps through the transition to zero carbon. Our involvement in shaping Scotland's Just Transition Plan and my role as a Commissioner with the Just Transition Commission underline our commitment to this movement.

It's time to be pragmatic in the face of challenges, to think carefully and act with precision and pace. Our engagement with industry, academia, clients, local and national governments, and Scotland's citizens demonstrates a clear commitment for all to collaborate.

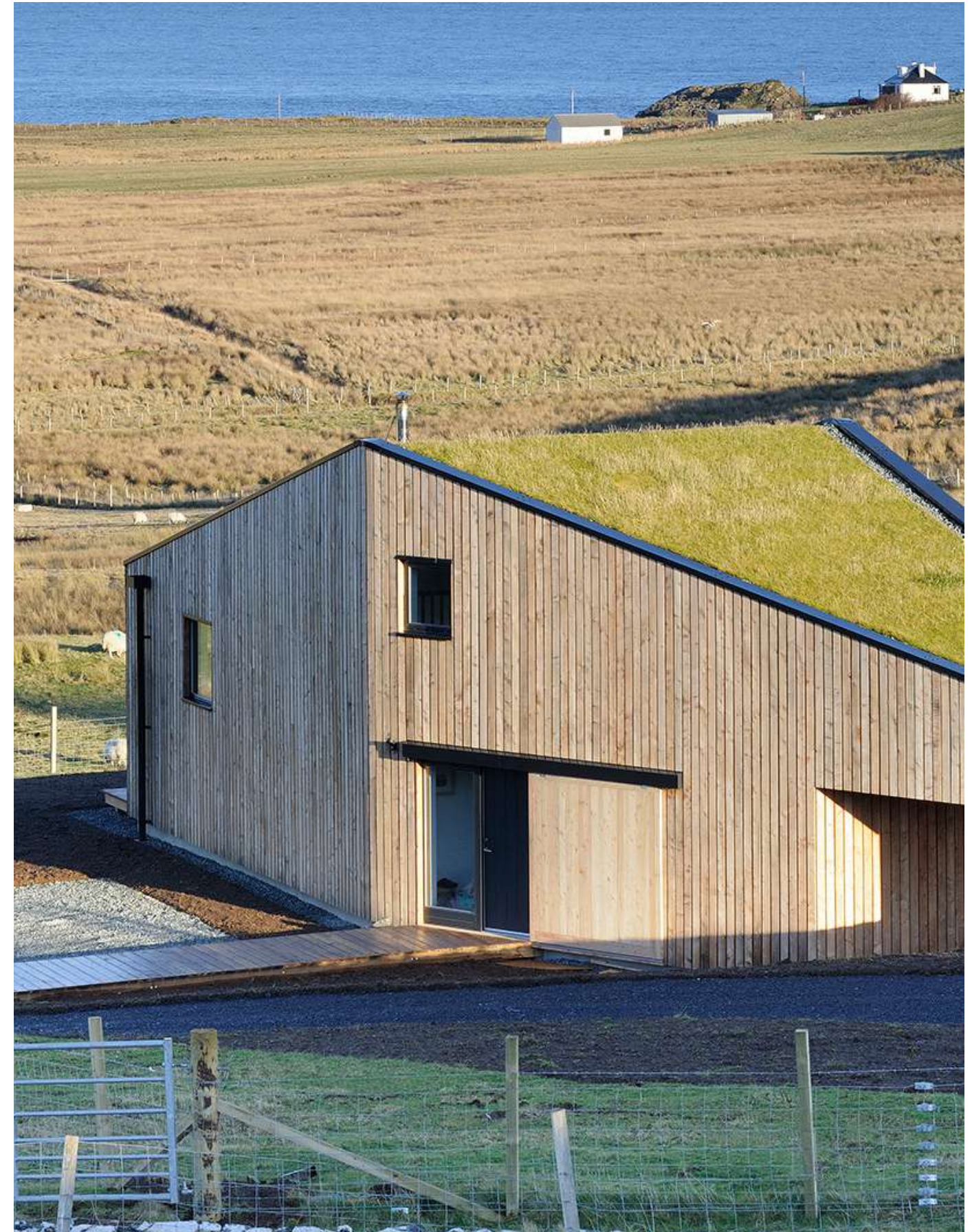
We need to build on these inspiring connections and work with businesses to achieve their goals and make a positive impact that goes beyond reduced carbon emissions to the benefit of everyone.

In moving forward, we must remember that we're not alone on this journey. Our collective efforts, innovations, and collaborations create a platform for change that is stronger and more vibrant than anything any of us could do alone. With each breakthrough, we get closer to realising our shared vision of a more sustainable, equitable and innovative built environment.

This Impact Report is not just a reflection or summary - it's proof of the collective strides we've made together, the obstacles we've overcome, and the vast potential that lies ahead.

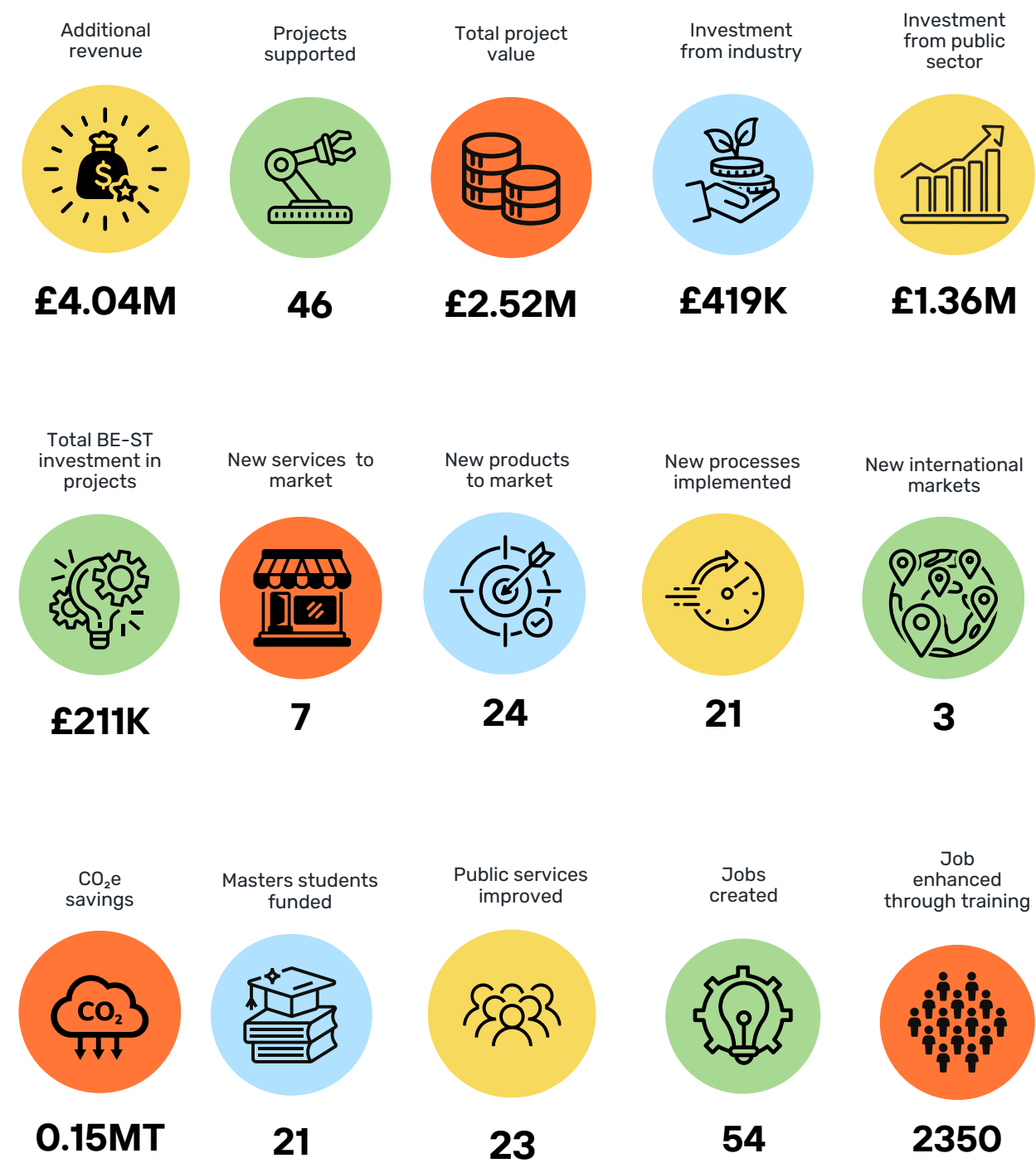
Thank you to everyone who has embraced transformation in 2023. We've enjoyed being part of your journey and look forward to building even greater momentum and delivering even greater impact in 2024. Let's continue to innovate, collaborate, and transform as we accelerate towards a fair, just and zero carbon built environment in Scotland.

Stephen Good, CEO, BE-ST

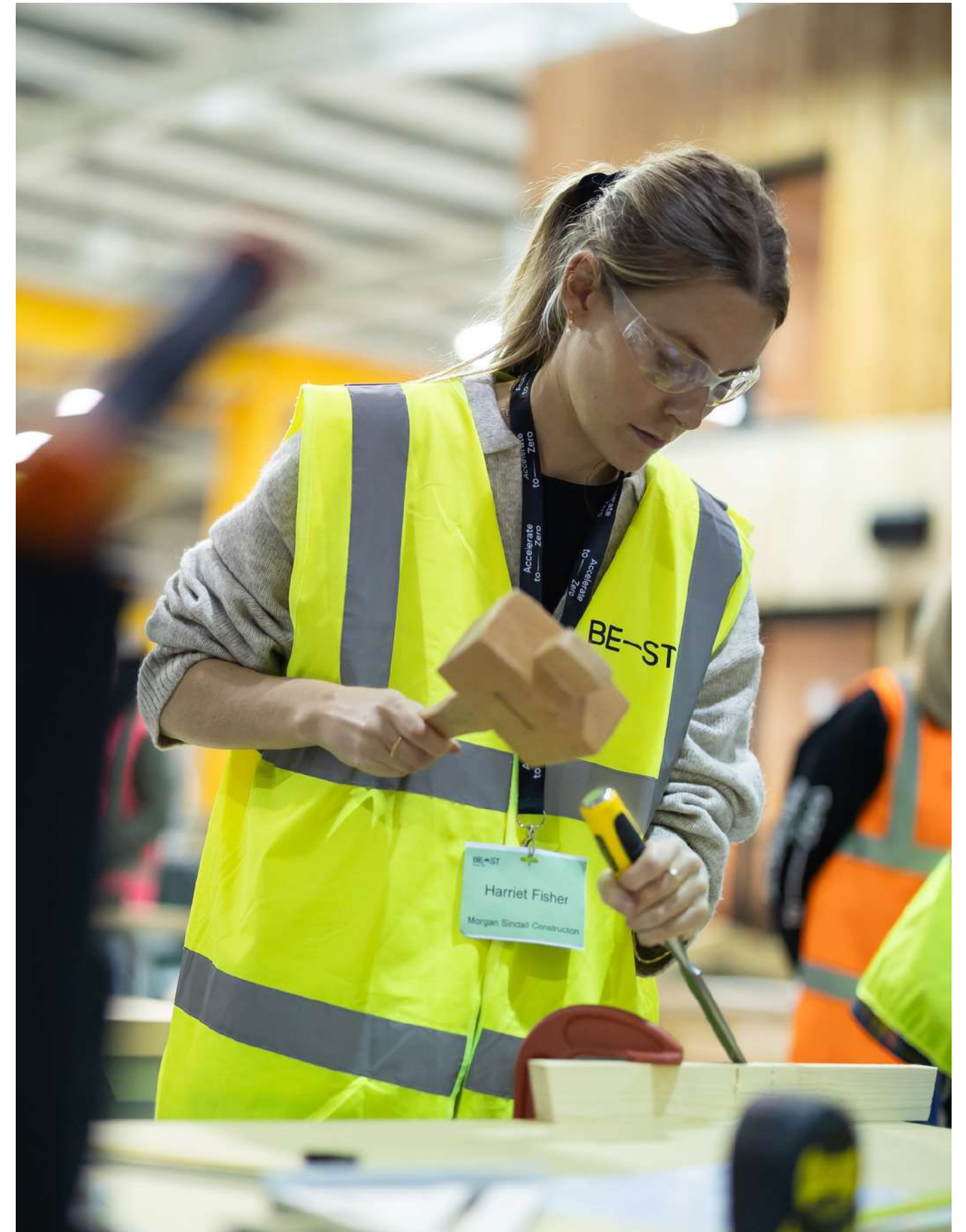


Year at a glance

Phase 2 Year 4 (1.8.22-31.7.23)



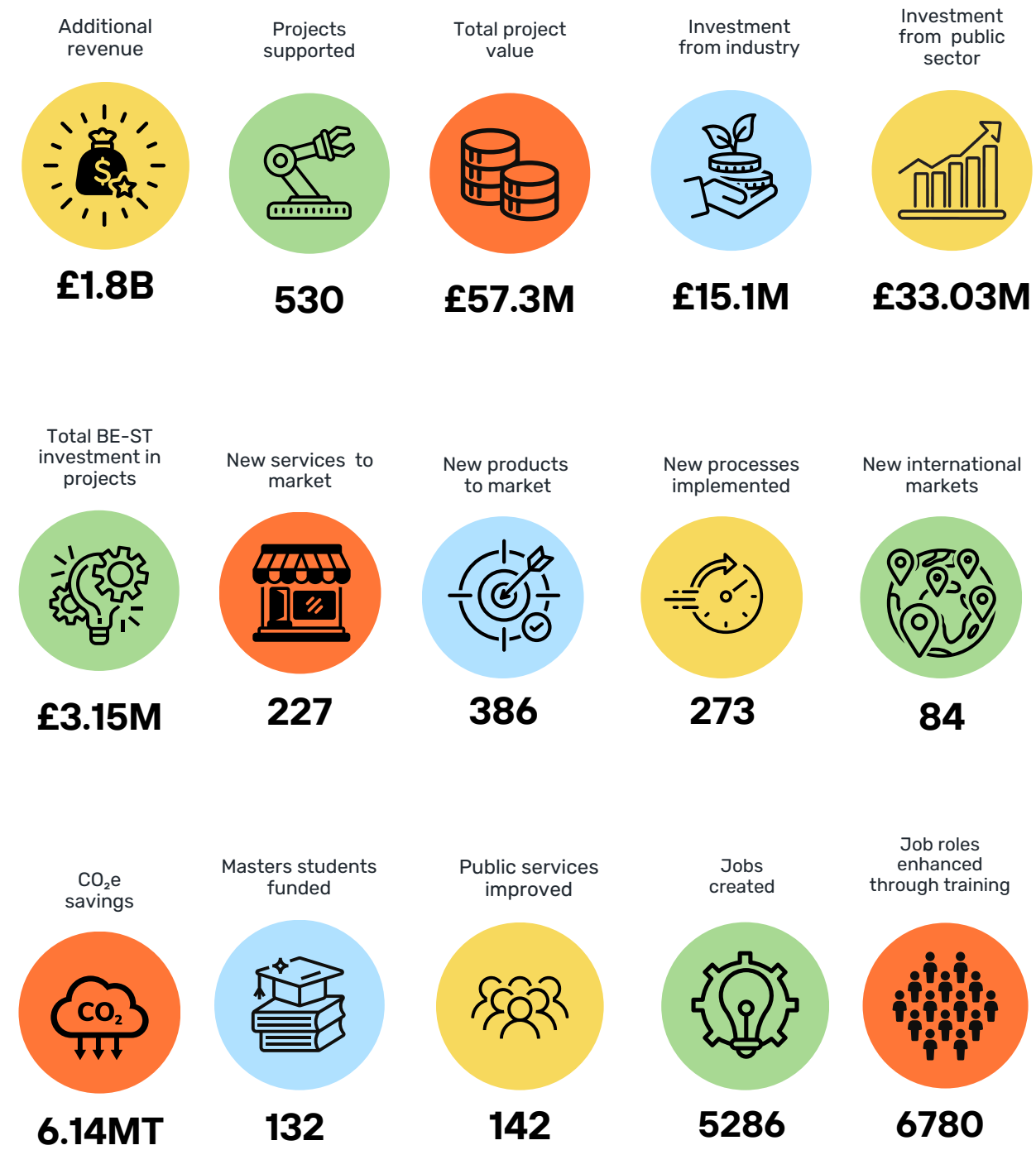
BE-ST



BE-ST

Total impact

2014 - 2023



BE-ST



BE-ST

Our mission

“To accelerate the built environment’s just transition to zero carbon emissions.”

Our commitment to the built environment's just transition to zero carbon emissions is more than a mission statement – it's the force that drives us. 'Accelerate to Zero' is a roadmap that enables all of us to collaborate around key opportunities, delivering tangible impact in the right places and in the right ways.

All our impact emanates out from this mission. We put it at the heart of everything we do in our work with industry, academia and the public sector. This means we collaborate and act as a platform to facilitate and support knowledge exchange and innovation with the potential to contribute to transformational change.

We make this change happen across four key areas:



Projects

We work to help shape and deliver impact driven projects



Programmes

We co-design and deliver programmes that bring the knowledge exchange and innovation together to deliver impact



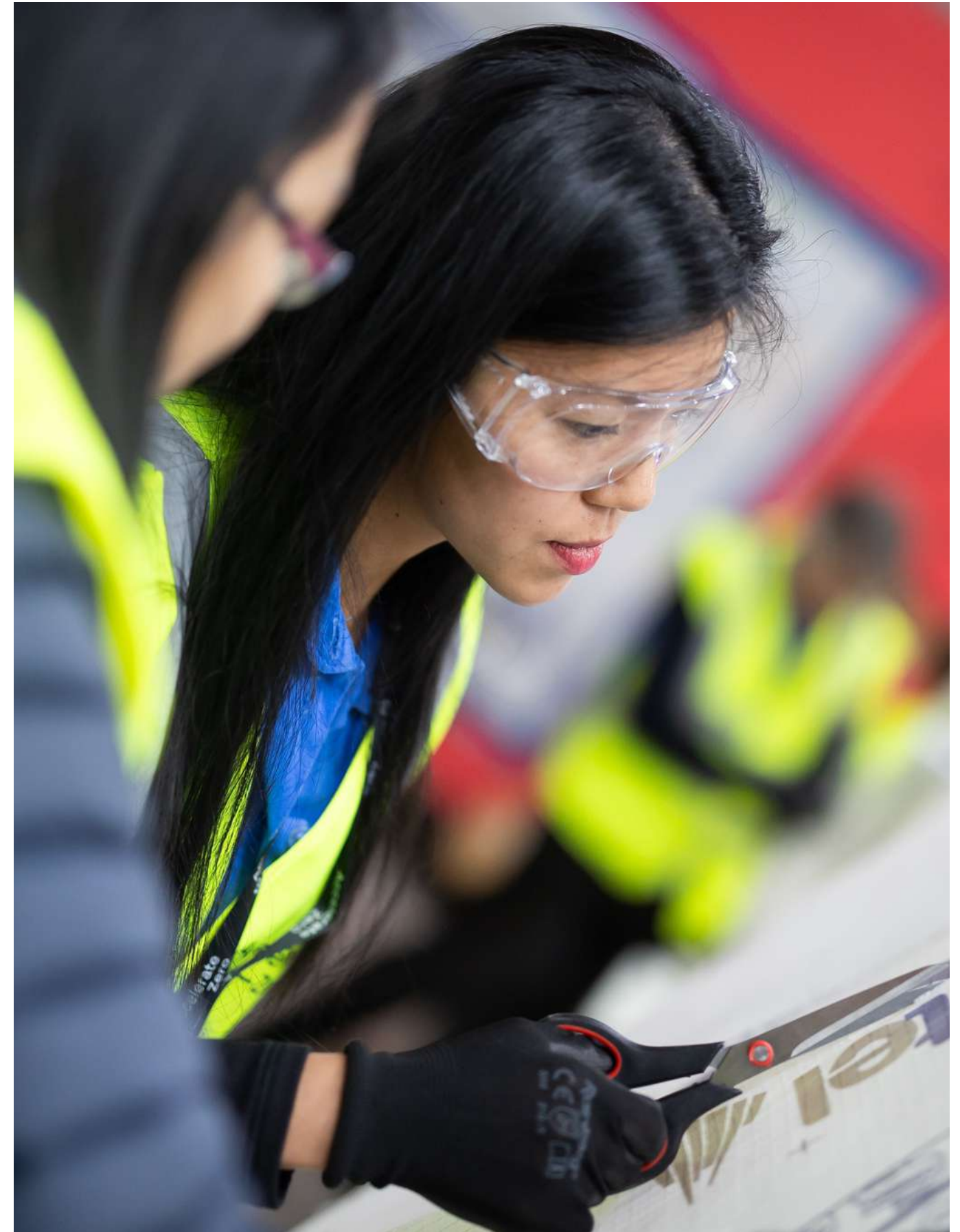
Platforms

We identify the underpinning platforms that are enabling collaboration to thrive

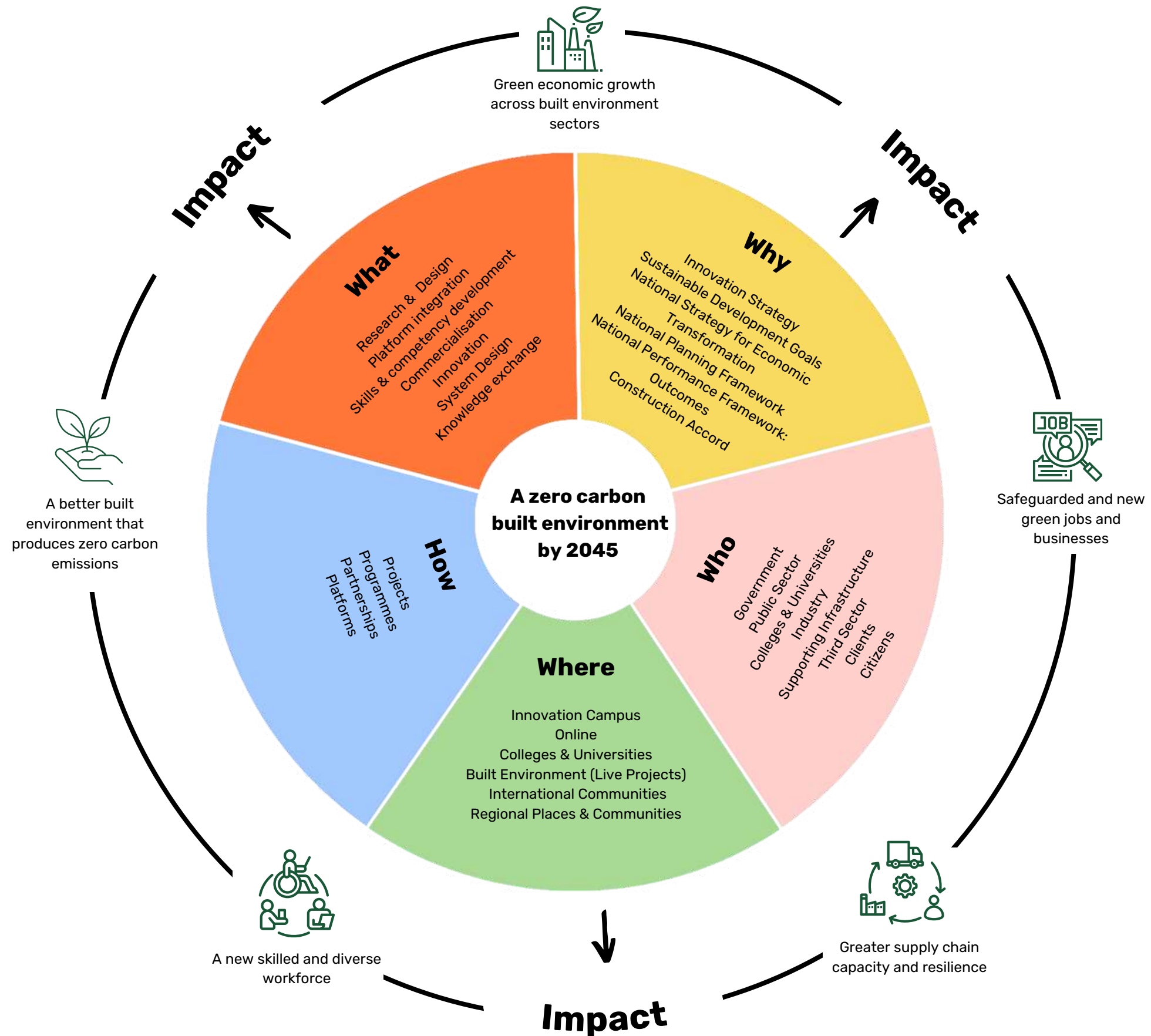


Partnerships

We highlight the vital partnerships that are inspiring and driving change



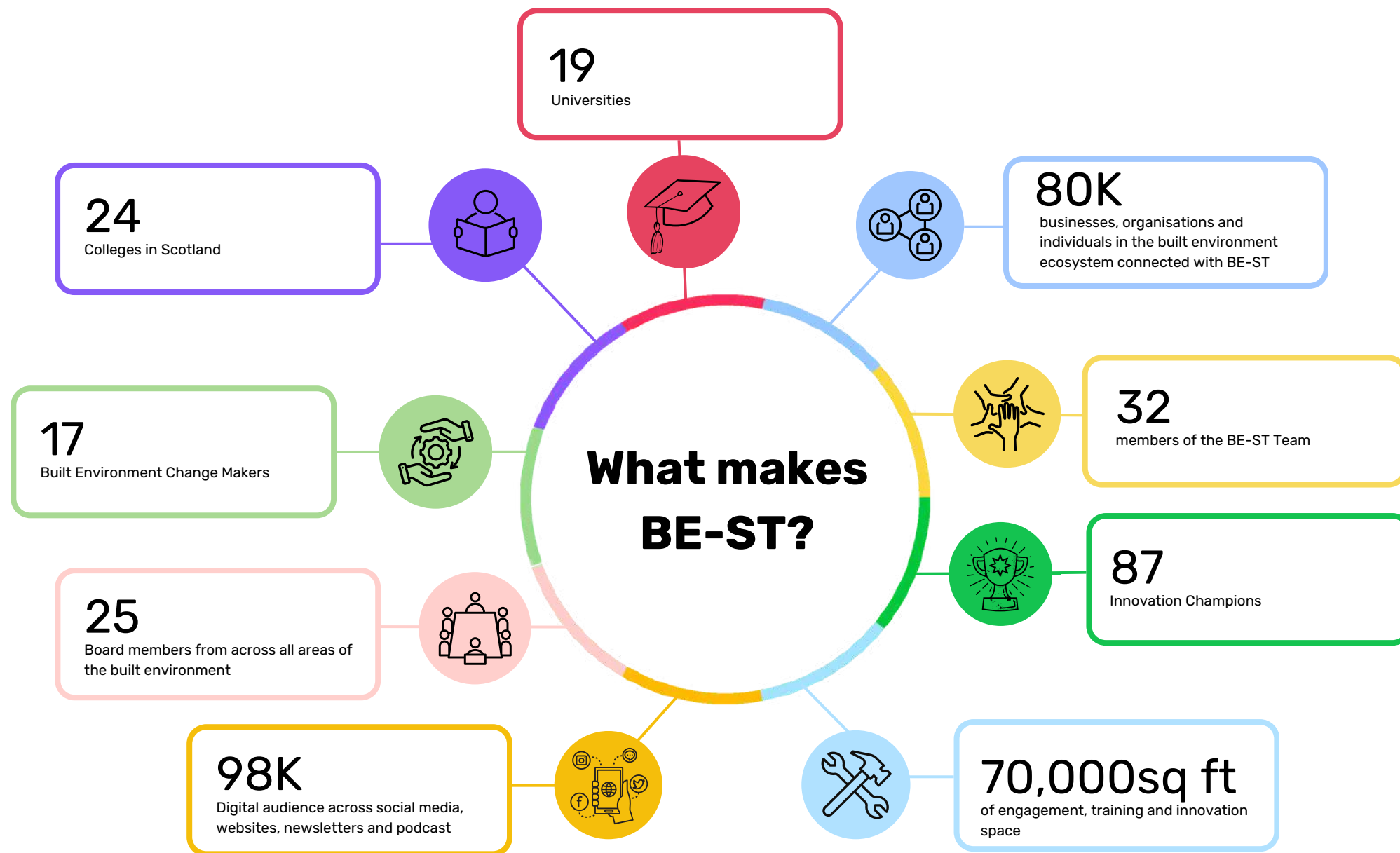
A to Z in practice: How we achieve our mission



What is BE-ST?

BE-ST is a movement. It is a platform for collaboration and change. It is a collection of passionate doers united around our mission. It's a comprehensive network of universities, colleges and innovation assets that make up Scotland's rich innovation ecosystem.

These groups unlock innovation, inspire change and maximise inclusive, sustainable economic, social, and environmental impact.

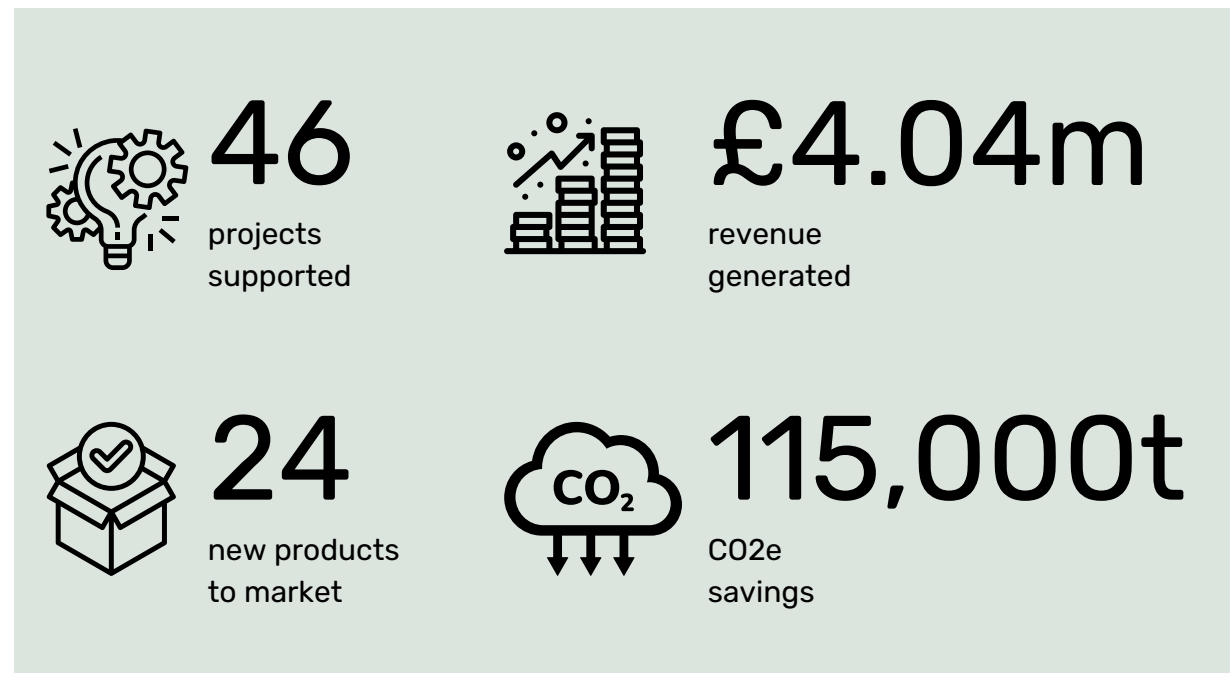


BE-ST Team

The beating heart of BE-ST is our passionate team of 32 people focused on delivering our mission. Every day we build collaborative partnerships, connect stakeholders, share knowledge, support innovation, and enable change.

Investing in our people and growing our capability to meet the evolving demands of our mission is key so we remain agile and responsive to the needs of our stakeholders. This approach ensures we stay agile and responsive to drive BE-ST to its goals.

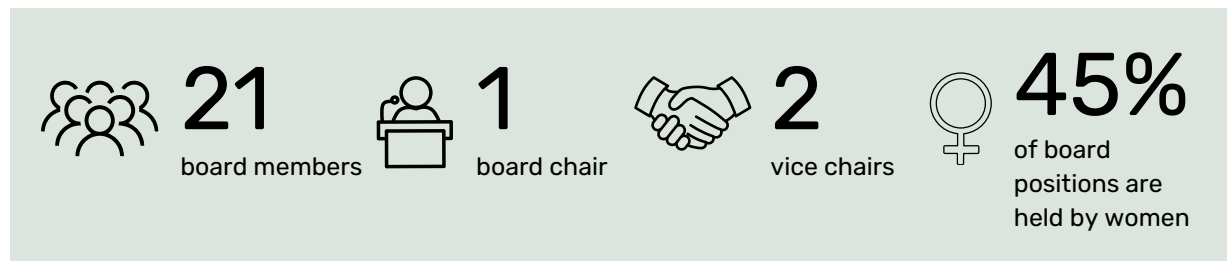
Over the last, 16 months our team of 32 achieved a huge amount:



BE-ST Board

This year we welcomed 13 leading figures from across the sector onto our board to help drive forward our mission.

Our new members bring diverse expertise from client organisations and a range of industry perspectives to ensure we continue to build our reputation as a committed leader of transformational social and sectoral change.



Our new board members are:

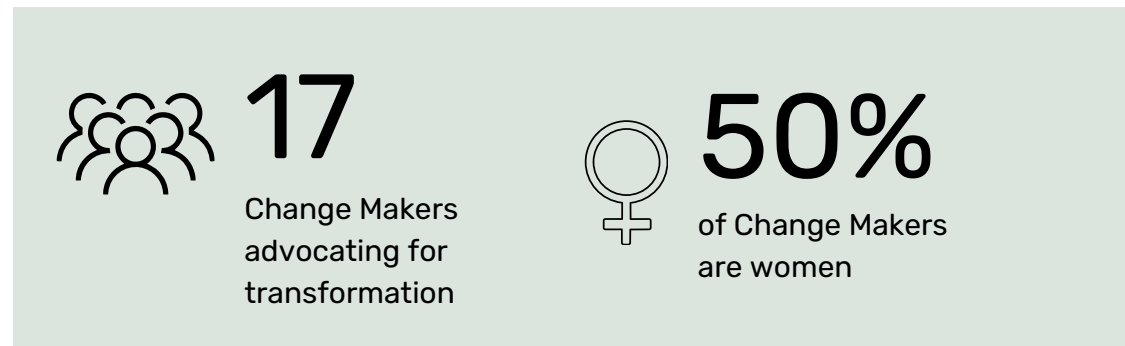
- Susan D'aish, Director of Climate Response, Jacobs
- Mila Duncheva, Business Development Manager, Stora Enso Wood Products
- Saffron Grant, Managing Director, Digital Construction Skills
- Jonathan Hines, Managing Director, Archetype Ltd
- Ian Hogg, Technical Services Director, Balfour Beatty
- Stella McManus, Principal & CEO, South Lanarkshire College
- Simon McWhirter, Deputy CEO, UK Green Building Council
- Gordon Mitchell, Chief Innovation Officer, Key FM/Wholus
- Jennifer Phin, Managing Director, AC Whyte & Co Ltd
- Jonathan Shaw, Operations Director, Harvey, Donaldson & Gibson
- Linzi Shearer, Learning and Improvement Lead, Legal & General Homes
- Duncan Smith, Energy and Sustainability Manager, River Clyde Homes
- Alan Wilson, Managing Director, SELECT & Chair of Construction Industry Collective Voice (CICV)



BE Change Makers

With a built environment that is transforming at a rapid pace, we need young people with drive, ambition and a determination to shape its future.

The Built Environment Change Makers (BECM) launched in November 2021. The Change Makers are a group of emerging professionals from all corners of the industry who advocate for systemic change in the sector and are committed to making it happen. Currently, we have 17 Change Makers who are actively engaging with industry, education and government.



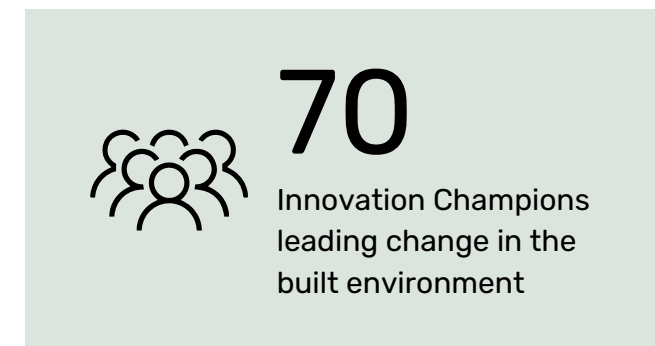
BE-ST

Innovation Champions

These are the disruptors and thought leaders in industry or research who want to influence change.

Our Innovation Champions work with us to set our priorities and inform our support programmes. They help us to share knowledge, expertise and inspire the wider sector.

Our Innovation Champions network has continued to grow to include 70 members today. In 2023 we welcomed Jana Bartshcova from Turner Townsend, Cameron Bell from Ayrshire College alongside Craig Giblett and Keith Barclay from Cruden.



BE-ST

Our Innovation Campus

Although BE-ST have team members based across the whole of Scotland, the BE-ST innovation Campus near Hamilton is where you'll find our two centres of excellence - the Accelerator Lab (A Lab) and the Zero Carbon Innovation Lab (Z Lab).



A Lab

Our Accelerator Lab with 35,000sq ft of dedicated engagement space is where we hold events, deliver our retrofit training programmes and accelerate, scale-up, and commercialise the innovative solutions developed in the Z Lab.

 **35,000ft²**
of innovation and training space



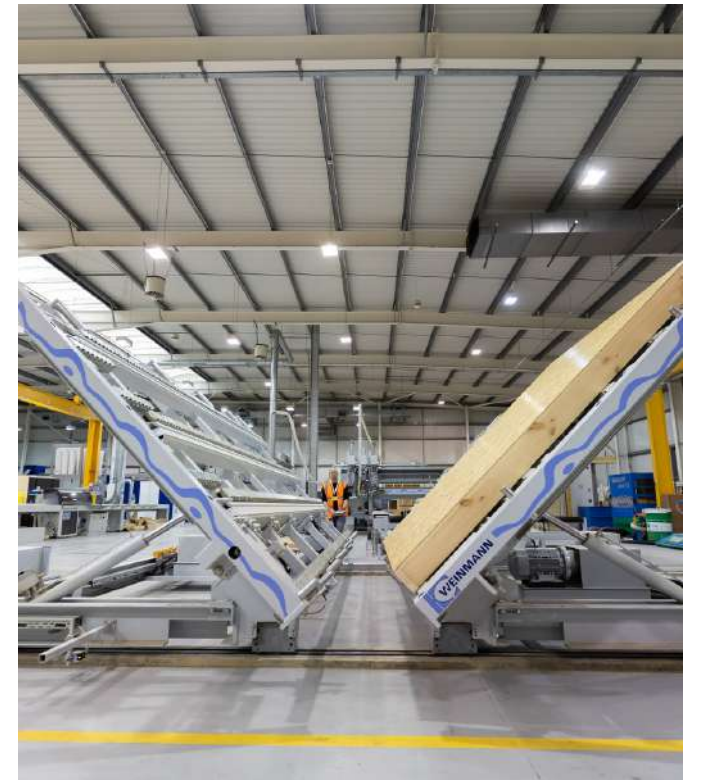
BE-ST



Z Lab

The Zero Carbon Innovation Lab houses our advanced manufacturing technology and specialist equipment that's available to partners for prototyping, piloting, testing, and trialling bold ideas. It's a safe space to make mistakes, learn fast, and develop the solutions of tomorrow.

 **17**
pieces of state-of-the-art equipment



BE-ST

BE connected



BE-ST

Our connected ecosystem

We have worked hard to cultivate, build and nurture our connected ecosystem. Now, it is one of our most powerful assets.

Over the last year, we have continued to widen connections and deepen key relationships with the goal of acting as a collaborative support platform right at the heart of our industry, academic, and public sector's knowledge exchange and innovation ecosystem.

We have carefully aligned our strategy and programmes with key industry and government drivers of change at international, UK national and Scottish national level.





BE—ST

Construction Leadership Forum

For several years now we have been an active member of the Construction Leadership Forum (CLF) - a collaborative initiative between the construction industry and Scottish Government.

Over the past year we have delivered and contributed to a number of impacts for the industry with the CLF. These include supporting the CLF's mission to transform the construction and built environment sector as well as the Forum's communications activities.

This year, the CLF published its Construction Accord - a shared vision to improve outcomes for industry and public sector - and the Transformation Action Plan that sits at the Accord's heart. To support the outputs of these, BE-ST is co-chairing three of the ten area focused working groups that are developing and delivering the Transformation Action Plan including data, net zero and digital. We are also actively involved in supporting the Forum's communications activities.

We have also been working with Scottish Government and industry through the Construction Leadership Forum's net zero working group by delivering a programme of engagement with the sector to support the development of a Just Transition Plan for the Built Environment & Construction.

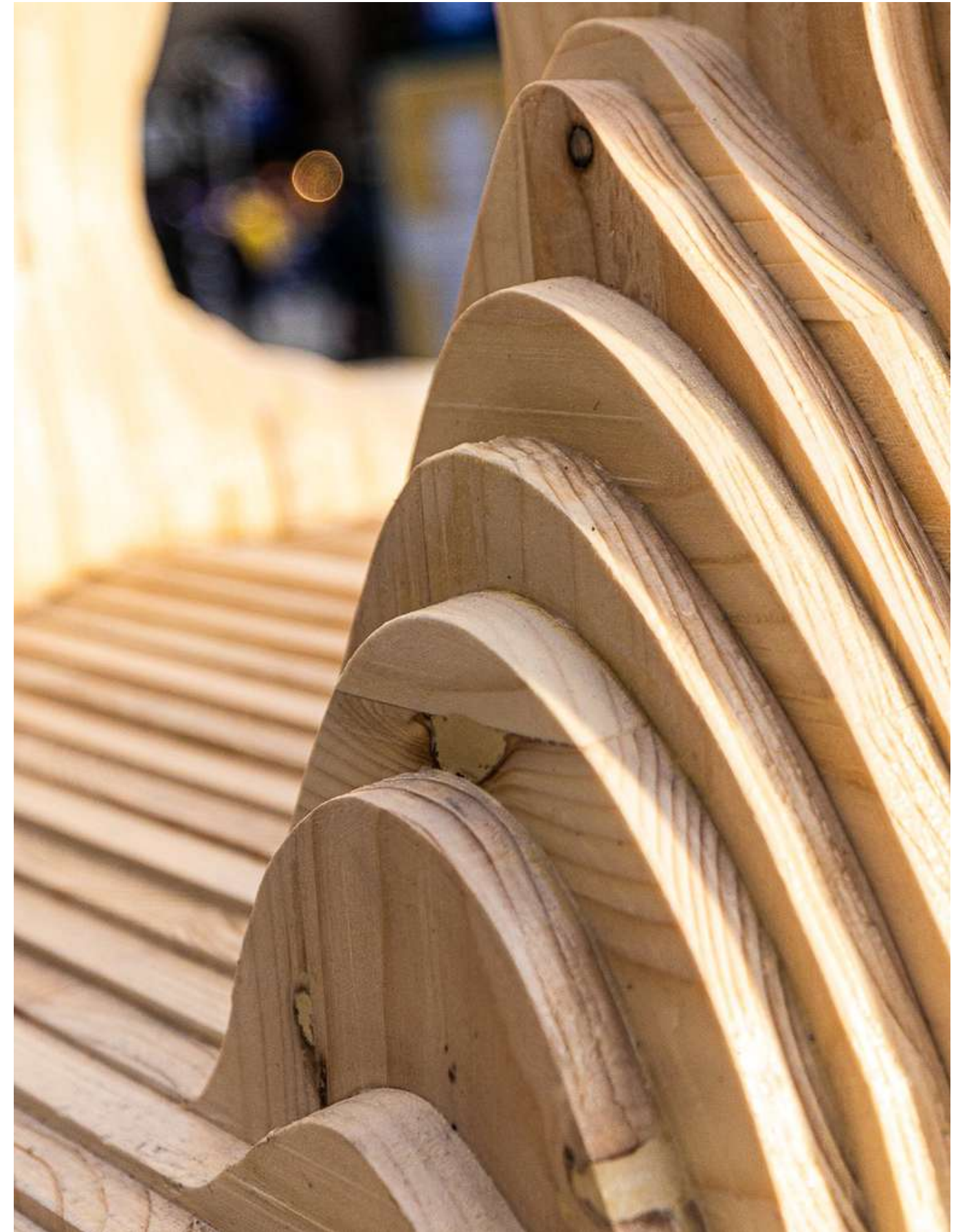
BE—ST

Scottish Funding Council

This year, we were invited by the Scottish Funding Council (SFC) to submit plans outlining how we would meet the SFC's objectives for long-term infrastructure investment as agreed last year by the SFC Board.

SFC was looking to support innovation centre activities that directly contribute to their capacity and capability to build connections across the knowledge exchange and innovation ecosystem to address and respond to industry needs, challenges and priorities. It wants to do this by drawing on an academic base to support the development of creative collaborative solutions in partnership with colleges and universities.

We are pleased to say that BE-ST was successful in its submission and the SFC decided that it would fund our activities as a long-term infrastructure investment. This is a huge vote of confidence for our vision, mission and capability.



Scottish Government

The Scottish Government remains committed to embedding zero carbon practices across the sector and to supporting the just transition. We work closely with Scottish Government to bring innovation into their policy thinking and to link the drivers of industry with the Government's agenda.

For example, we hosted a visit from the Just Transition Commission to discuss the plans for a just transition in the built environment and construction sector. We also facilitated a number of workshops on behalf of Scottish Government focused on procurement.

We've welcomed several members of the Scottish Government including Neil Gray MSP, Cabinet Secretary for Wellbeing Economy, Fair Work and Energy, Mairi McAllan MSP, Cabinet Secretary for net zero and Just Transition, and Lorna Slater MSP, Minister for Green Skills, Circular Economy and Biodiversity. Ms. Slater also gave the keynote address at the BE-ST Fest Summit 2023.

In her speech she explored the construction sector's crucial role in achieving a zero carbon built environment, emphasising collaboration, just transition planning, and government support for innovation and green skills development to address urgent climate challenges.



"All of you here today are the ambassadors for the transition to net zero. Making it happen is not something for the future. It is happening right now. You are all leading it. Our communities need construction work that will stand the test of time - even with the challenges of climate catastrophe bearing down on us."

Lorna Slater MSP & Minister for Green Skills, Circular Economy and Biodiversity - key note address at BE-ST Fest 2023

Just Transition

Scotland is committed to ending its contribution to climate change in a way that is fair and leaves no one behind. This means undertaking the transition to zero carbon in a way that prioritises fairness and justice.

CEO Stephen Good is a commissioner with the Just Transition Commission – an independent body appointed to advise and scrutinise Scottish Government in its Just Transition planning.

This year we were also invited by Scottish Government and the Construction Leadership Forum's net zero working group to lead a programme of stakeholder engagement that considered the draft Buildings and Construction Just Transition Discussion Paper published by the Government.

With the goal of producing a comprehensive report of findings and recommendations for how best to embed justice and fairness at the heart of the sector's zero carbon transition, we engaged in a series of activities to inform the report, including desk research reviewing a wide range of existing stakeholder and sector-wide insights and data, 1:1 interviews with key stakeholders, a quantitative online survey and four workshops taking place across Scotland and online.

The UN Economic Commission

The climate crisis is not unique to Scotland - it is a global challenge and international collaboration is vital.

This took on a new perspective in 2021 when BE-ST was invited by the United Nations Economic Commission for Europe (UNECE) to become Scotland's Centre of Excellence for High Performing Buildings, alongside a community of 25 other international centres, during a COP26 launch event at BE-ST's Innovation Campus during our BE@COP26 Programme.

Since then, the programme has brought together a community of organisations sharing knowledge and expertise and working collaboratively to tackle mutual challenges. This connectivity into international businesses, universities, colleges, and support organisations has brought brought us new partnerships and collaborative research opportunities.

BE-ST is also aligned to the United Nations Sustainable Development Goals and has supported projects in partnership with the UN Development Programme this year. Overall, our collaborations with the UN have placed us in an international network of other leaders in the built environment space, working together to develop the intellectual, material and financial resources to educate, advocate and advise for the transformation to a zero carbon built environment.

Testimonials



Chris Stark
Climate Change
Committee

“There's such a strong alignment between the mission of BE-ST and the advice of the Climate Change Committee. Decarbonising the built environment is often said to be the biggest challenge for net zero; doing so while ensuring our buildings are well-adapted to the warming climate makes this even more exciting.

I particularly admire BE-ST's positive approach to engagement with Scottish Government, industry and academia. I've seen the focus that BE-ST places on the opportunities of the transition and on workforce development, diversity and inclusion. We'll need that positive, well-informed approach to deliver real change across the country.”



Richard Park
Hub North Scotland Ltd

“Over the last 12 months we have been collaborating with the BE-ST team, government and a range of public sector partners to develop a regional net zero leadership programme for all public sector partners in the North of Scotland.

This programme is linked directly to national policy and demanding all participating organisations to think differently across technical, funding and place workstreams. With the expert and professional support from BE-ST, significant progress has been made promoting innovation and creative solutions to this critical programme.”



Morag Angus. Chief
Surveyor - Scottish
Government

“BE-ST have proactively supported the Property and Construction Division in collaborative work with construction buyers, suppliers and policy-makers, exploring ideas around construction procurement reform.

Their financial and practical support enabled academic partners to apply an innovative, fresh view onto long term challenges and supporting us to produce collaborative visions and recommendations for the Scottish Construction Accord's Transformation Action Plan”



BE a partner



BE—ST

Partnerships at a glance

Impactful partnerships are central to our vision of a cohesive, zero carbon, mission-focused built environment community.

To date, our team have cultivated a comprehensive network of partners across academic institutes, government, public sector, third sector and industry.



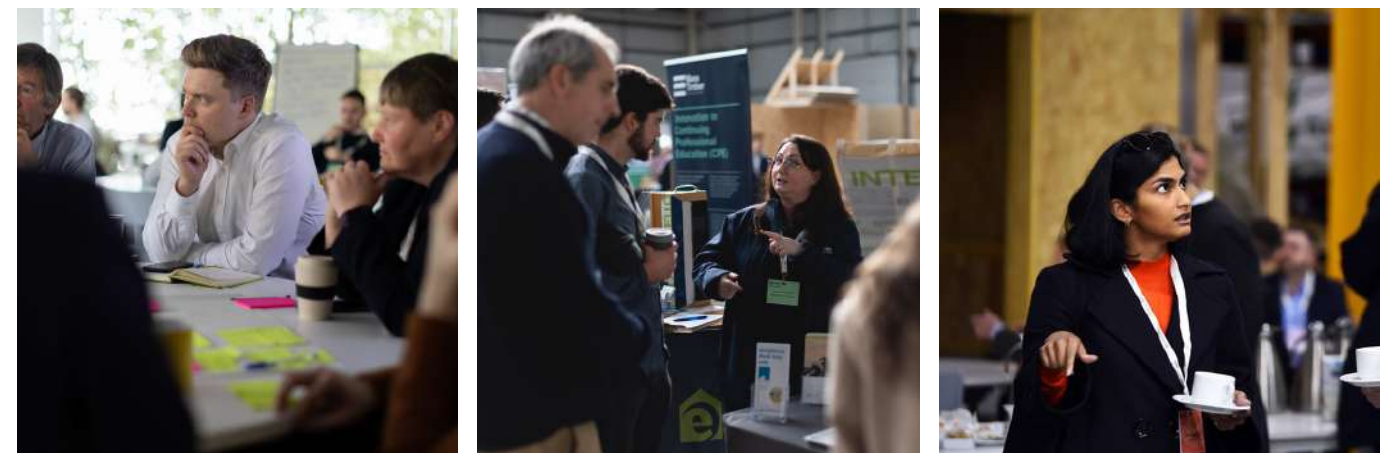
New partnerships

During 2023, our team has forged incredible, new strategic partnerships which will be invaluable in fulfilling our mission and widening our reach and impact.

With each new strategic partnership, we place a set of joint aspirations front and centre. Beyond supporting us on our journey to accelerate the built environment's transition to zero carbon, our strategic partnerships create impact and generate engagement through the delivery of joint projects, events, training, communications activities and more.

We form partnerships with the organisations that have clear strategic alignment with BE-ST – an approach which is critical to maximising the impact and value of all our activity. Our new partnerships include:

- Changeworks
- Enniscorthy Forum
- NMITE & Timber TED
- The National Robotarium
- Skills Development Scotland



The National Robotarium

The UK's leading centre for robotics and AI, the National Robotarium has forged a partnership with BE-ST to bring the construction industry together to explore the use of automation and robotics in construction and promote the many exciting benefits to the construction and built environment sectors.

As part of this, BE-ST and the National Robotarium co-hosted 'The Robots are Here' event, which brought together representatives from the built environment, construction, trade, science, and policy, as well as experts from robotics companies, for a half-day of inspiring talks and live demonstrations. BE-ST and the Robotarium were also invited to Digital Construction Week 2023 and UK Construction Week 2023 to demonstrate some of the technology on offer to the construction industry.



"People will always be involved in construction. I don't think we'll ever see that change. By addressing safety concerns in onsite environments, robots can benefit people, not detract from them."

Matthew Paton
Associate Impact
Manager, BE-ST

BE-ST

NMite and Timber TED

BE-ST and NMITE (The New Model Institute for Technology and Engineering) have entered a strategic partnership. The collaboration was officially launched with the inaugural Timber TED 1 course at BE-ST.

NMITE, based in Hereford focuses on delivering engineering degrees underpinned by real life work-based experiences. The institute works with industry partners to produce work-ready, world conscious engineers who are creative, responsible and, importantly, ready to meet the environmental challenges within the built environment through innovation and sustainable solutions.

Timber TED is a series of short courses designed in response to the current skills crisis in the construction sector to reach zero carbon by 2045 in Scotland and 2050 in the rest of the UK. BE-ST has been piloting the Timber TED 1 course at our Innovation Campus.



BE-ST

Enniscorthy Forum

BE-ST joined the Buildings Action Coalition (BAC) in partnership with the Enniscorthy Forum, other coalition members, and the United Nations Environment Programme's (UNEP) Global Alliance for Buildings and Construction to support and advance the principles of high-performance in buildings and the built environment.

All partners will work in collaboration with UNEP to promote and demonstrate the transformative benefits of high performing buildings and to ensure uptake of best practice methods in planning, design and construction across the world.



Barbara-Anne Murphy
CEO, Enniscorthy Forum

"BE-ST has been a leader in the transformation of the built environment to be high performing... [Together] we plan to mobilise resources and disseminate knowledge, experience and best practices to transition towards high-performance buildings."

Changeworks

BE-ST and Changeworks joined forces this year to create a formal strategic partnership with the aim of accelerating and improving retrofit in Scotland. This partnership comes at a crucial time for the housing sector in the face of the accelerating climate crisis and increasing living costs.

Changeworks is Scotland's leading environmental charity, delivering solutions for low carbon living. Together, the two organisations will collaborate across a range of activities to bring about transformational change in the decarbonisation of Scotland's homes and deliver affordable, warm homes. These activities will include supporting the delivery of events, sharing market intelligence, partnering on strategic projects and industry specific research. The partnership will also focus on developing skills opportunities and supply chain capability in the construction sector.



Iain Davies
Supplier Engagement Manager,
Changeworks

"As the climate emergency escalates, and more people than ever are in fuel poverty in Scotland, we all need to do more, faster to reach Scotland's ambitious zero carbon targets."

Skills Development Scotland

After working together for many years Scotland's skills agency, Skills Development Scotland (SDS) and BE-ST signed a formal partnership agreement to build the skills base among Scotland's construction workforce to meet the demand that will face the sector in the drive to zero carbon.

Through this, SDS and BE-ST will explore and create opportunities to work collaboratively to develop the skills needed to support the drive to a low carbon economy and to improve sector productivity.

One area of joint working under the new strategic partnership will be responding to the Climate Emergency Skills Action Plan (CESAP) looking at how to tackle the major skills implications the construction sector is facing in order to fulfil its role around heat decarbonisation.

Our two organisations will also be working together to review apprenticeship standards and frameworks for the sector. During apprenticeship reviews, BE-ST will provide insights and evidence on emergent and sustainable technologies and practices to the technical expert groups reviewing apprenticeship developments as well as facilitating the conversations on these issues.



"22.5K workers need to join the heat decarbonisation workforce by 2028 to create lasting change"

Building Skills for zero carbon in Scotland, CITB

BE impactful



BE-ST



BE-ST

Our Impact

Together with our funders, we have set ambitious goals to ensure every pound invested in BE-ST is returned several-fold by our social and economic impact. Our work creates economic opportunities for business through new products, services and processes.

We help businesses to reduce risk, be more productive and increase resilience by creating the conditions for exploring innovation and ideas that will create economic and social value.

Across the projects we support with our diverse partners and our events where we engage and facilitate conversations with our stakeholders directly, we deliver impact. None more so than BE-ST Fest - an annual festival for a zero carbon built environment that launched in 2022.

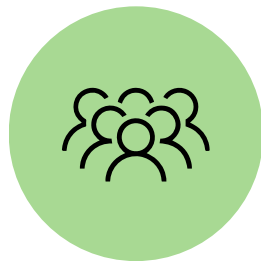
BE-ST Fest - our annual festival celebrating the very best zero carbon built environment innovation - grew from a one day Summit and Fringe festival in 2022, to include the International Retrofit Summit on the second day, and the Accelerate to Zero Awards alongside, in 2023.

BE-ST

BE-ST Fest Fringe '22



1500+
attendees

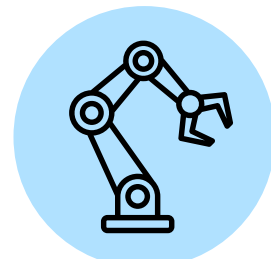


120 speakers

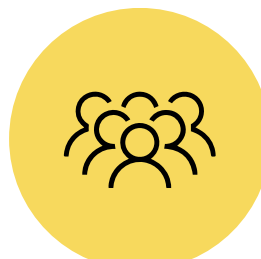


26 events

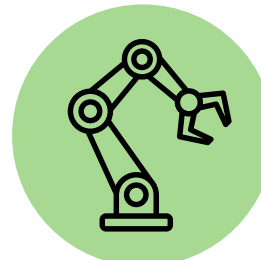
BE-ST Fest Summit '22



1 day



12 speakers



11 workshops
& tours

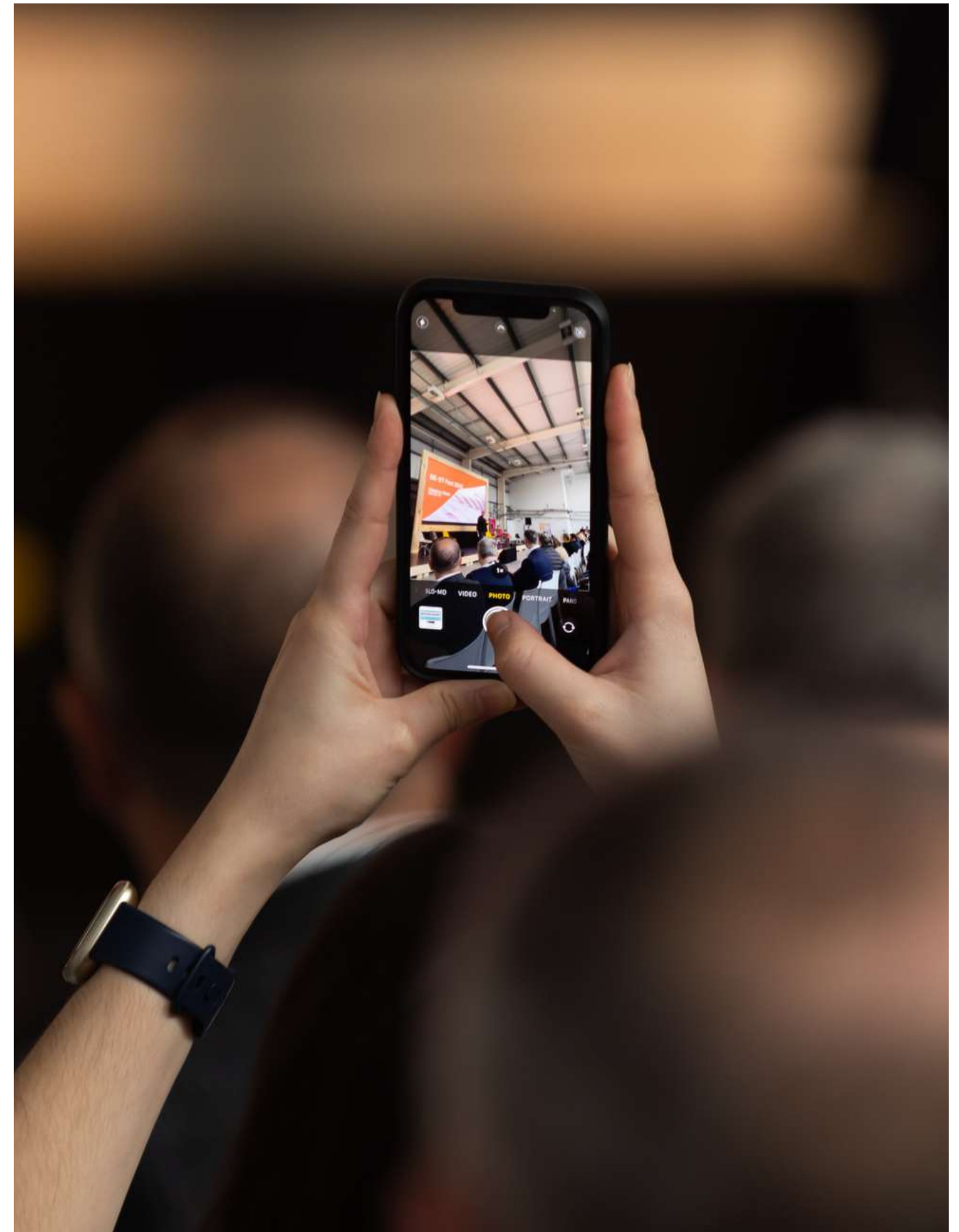


404
attendees



31 exhibitors

BE-ST



BE-ST

BE-ST Fest '22: Exploring a zero carbon built environment



BE-ST Fest Summit '23



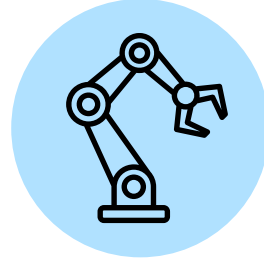
525
attendees
(23% increase
from 2022)



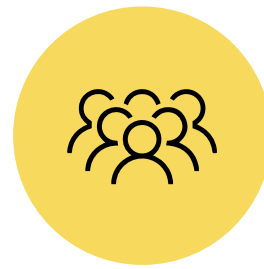
2 headline
sponsors



12 workshops
(100% increase
from 2022)



4 tours
(33% increase
from 2022)



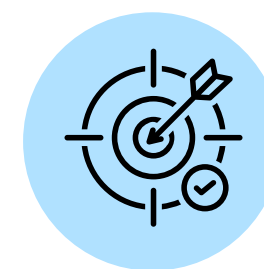
22 speakers
(83% increase
from 2022)



44 exhibitors
(42% increase
from 2022)



4.4/5 event
experience



40% new
audience



BE-ST Fest '23: Breaking barriers to achieving zero carbon



Accelerate to Zero Awards



180
attendees



12 awards



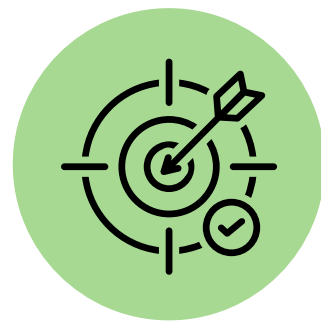
99
applications



4 sponsors



4.4/5 event
experience



45% new
audience



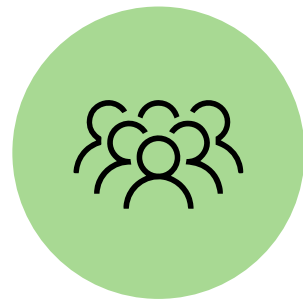
BE-ST Fest '23: Accelerate to Zero Awards



International Retrofit Conference



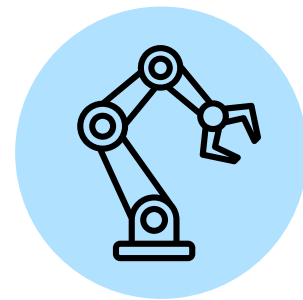
323
attendees



18 speakers



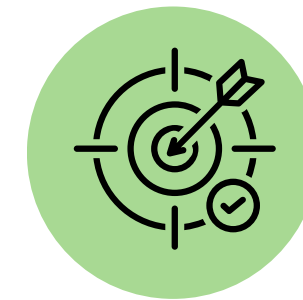
8 workshops



6 tours



4.6/5 event
experience



30% new
audience



40 exhibitors



BE-ST Fest '23: The UK's first International Retrofit Conference





Programmes and platforms

How we deliver the BE-ST impact.

The programmes and platforms our partners build with BE-ST's support deliver a pipeline for adopting innovation and competencies at a scale that will accelerate our transition to a zero carbon built environment.

We believe that we work best when our efforts are aligned and integrated, from early-stage research and development to deployment, scaled adoption, and widespread upskilling.

Our programmes are delivered exclusively in alignment with our four thematic areas MMC, Sustainability, Digital and Retrofit, underpinned by competencies, culture and communications.

BE-ST also plays a role as a platform integrator - a place where all actors with an interest in a zero carbon built environment can collaborate, exchange knowledge, and create impactful value.

Transforming Timber

Re-engineering the future of the UK construction industry.

Transforming Timber encapsulates a programme of timber-related projects and initiatives. This aim of this project is to create the business case for investment in the UK's first mass timber manufacturing capacity, with the goal of improving the carbon footprint of the UK's buildings, while driving the value of homegrown timber through its use in higher grade, higher value products and applications. By increasing use in commercial construction and housebuilding, the sector can also reduce its reliance on imported timber and create a new manufacturing industry that delivers green jobs.

Over the last year, this has included Building from England's Woodland's - a project looking at how we can use English Hardwoods across the built environment to improve the UK's carbon footprint and support diverse woodland ecosystems. Focusing on the use of timber in modern methods of construction, partners will collate data on the potential strength grading of each species while also assessing the use of homegrown co-products such as wood fibre insulation.

Transforming Timber has also evolved into an online collaborative knowledge hub promoting the use of UK-grown timber in the built environment and providing the sector free access to content to accelerate the commercialisation of UK-grown timber products.

Partners:

- Innovate UK
- Edinburgh Napier University
- The University of Edinburgh School of Engineering
- EcoSystems Technologies
- BSW Timber Group
- SNRG powered by Centrica

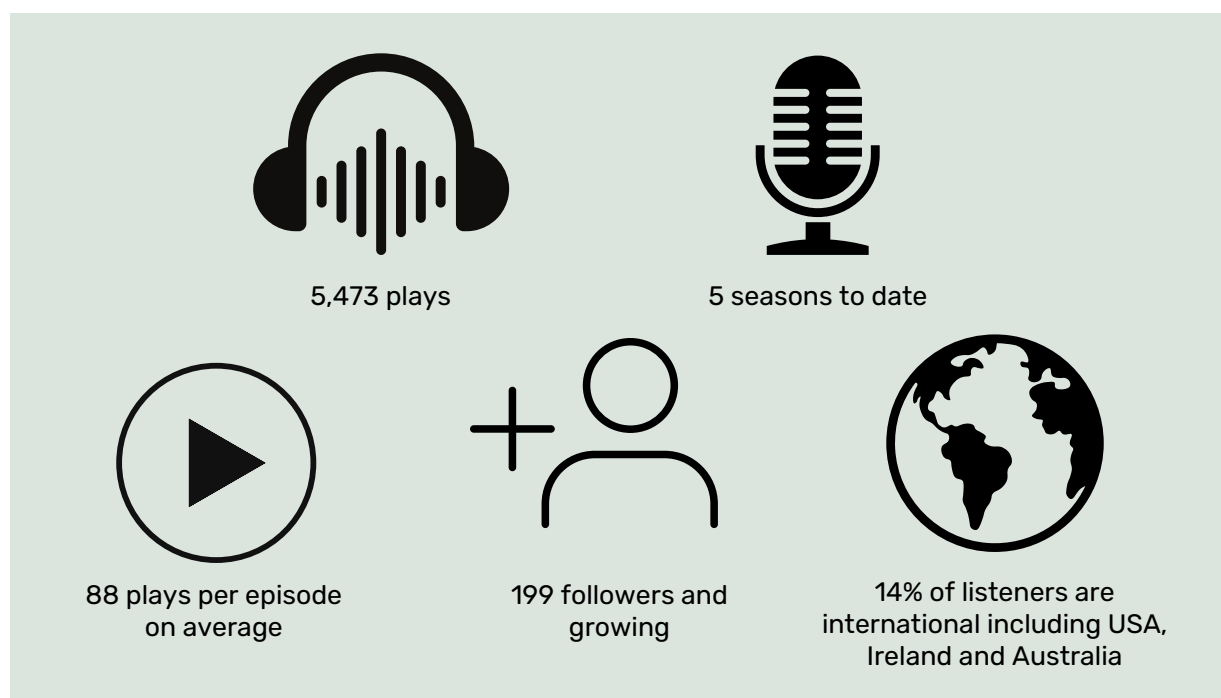


Accelerate to Zero Podcast

Sharing the journey to zero carbon.

Our 'Accelerate to Zero' was kickstarted with the goal of bringing our audiences along on the journey to zero carbon in the built environment.

Across five seasons so far, Sara Edmonds, Head of Citizen Engagement, has taken the seat as host and explored all things retrofit. In season one. She focused on community-driven retrofit first, before in season two hearing individuals' personal experiences of retrofitting their homes. For season three we had Associate Impact Manager Sam Patterson speaking to businesses working in sustainable insulation and natural materials, before handing back to Sara for a fourth season on the tools of retrofit. The last season was lead by Matthew Paton, Associate Impact Manager, about the digital future of the built environment.



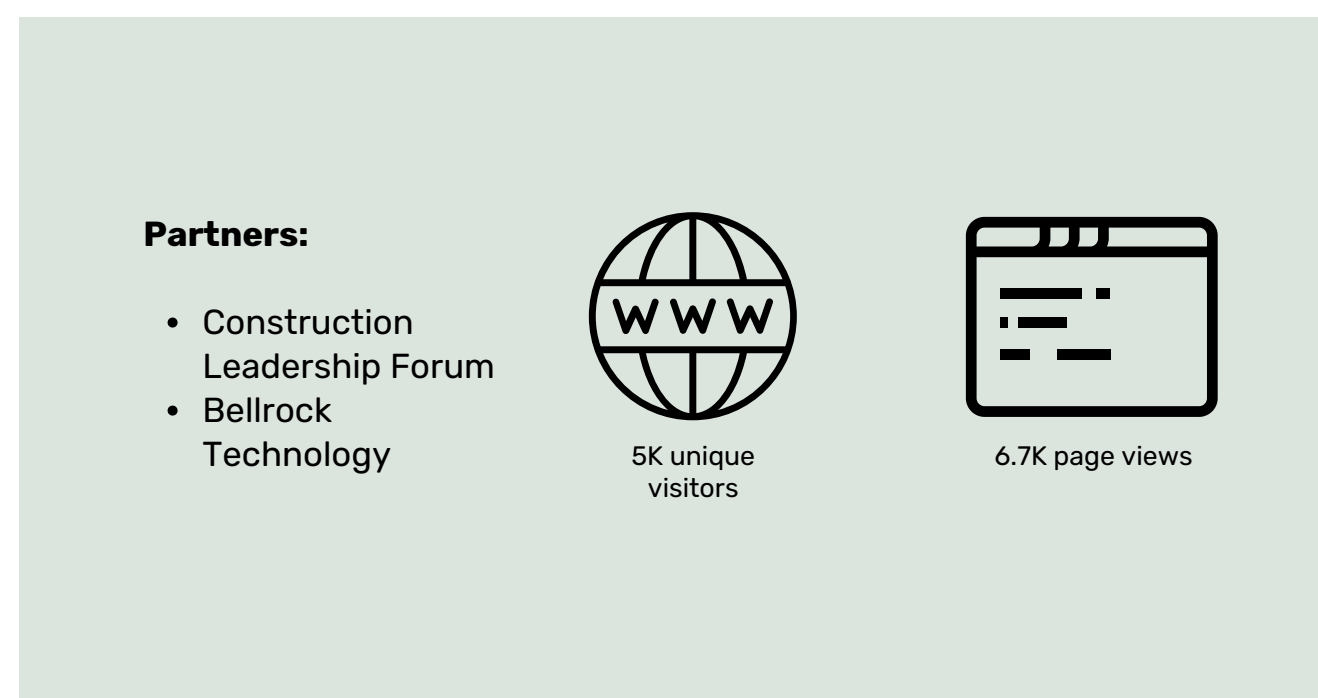
Scottish Construction Industry Data Dashboard

Data at your fingertips.

A lot of data is available on the construction industry, but the quality and frequency of updates varies across different sources.

As part of the Construction Leadership Forum (CLF)'s roadmap to improvement and recovery, BE-ST and Bellrock Technology joined forces to develop a new free-to-use data dashboard. Available online, the data dashboard combines various publicly available datasets into a free-to-access Scottish Construction Data Dashboard website.

The dashboard can be used in a variety of ways: individuals and organisations will find different uses for the data dependent on their specific areas of interest.



Low Carbon Learning

Scotland's first national green construction skills training programme.

In 2021 we started Scotland's first ever national Passivhaus training programme – by 2022 it had already grown to include retrofit, fabric and structure.

By 2023, it expanded again to include Next Gen, a programme of workshops designed to allow young people from across Scotland to get hands-on with and inspired by the potential of low carbon and sustainable construction. Available to young learners interested in the built environment with workshops suitable for 13–24-year-olds, the Next Gen sessions cover knowledge and training in retrofit, Passivhaus, digital construction and modern methods of construction, whilst always considering the Fabric First approach.

Partners:

- Young Person's Guarantee
- SFC
- Hub North

Making an impact:

"It's great to get hands-on interactions with materials and start to understand their actual applications and the number of details that go into in designing sustainable buildings."

**University of Strathclyde
Architecture Student**



713 young
people trained
in-person



56 tutors and
members of
staff



5 locations
across Scotland



Hub North

Supporting the North of Scotland on its journey to zero carbon.

BE-ST, Hub North and STPB (Strategic Territory Partnering Board) have committed to accelerating the adoption of low carbon construction solutions in the North of Scotland and the Highlands and Islands across three strands: schools and further education, low carbon construction and zero carbon leadership development.

In response to the focus on schools and further education, BE-ST took its Low Carbon Learning: Next Gen programme to the Hub North territories to deliver a series of workshops across the Hub North territories, including Lochgilphead, Inverness, Shetland, and Moray to over 100 young people with academic support from Glasgow School of Art Innovation School.

The third strand aims to develop a zero carbon leadership workforce programme across the Hub North territory while the low carbon construction strand focuses on finding innovative solutions to zero carbon challenges.

Partners

- STPB (Strategic Territory Partnering Board)
- Hub North



16 public sector organisations currently engaged



6 programme components developed throughout the workshop series

“We are giving our public sector partners the opportunity to look together at new ways of doing things which will help them meet their requirements and at the same time unlock potential additional investment opportunities.”

-Paul McGirk, Executive Chairman of Hub North Scotland



Passivhaus Practical Training

Preparing industry for future legislation.

Led by experienced practitioners, our practical session builds on the theory covered in the Low Carbon Learning courses and allows participants to explore the realities of delivery. Delivered at BE-ST's ground-breaking A-Z Lab in Hamilton, the training is run in partnership between Coaction Training CIC (formerly Carbonlite/WARM Passivhaus Training) and BE-ST.

The course teaches Scottish contractors essential practical Passivhaus skills that can be applied onsite and readies Scotland's workforce as legislation moves towards mandatory Passivhaus or equivalent standards for new buildings in the near future.

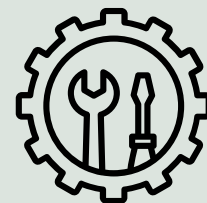


Partners:

- Passivhaus Trust
- Coaction



47 participants to date



4 sessions complete, 5 more planned



"Great to finally put theory into practice - the day was packed with invaluable tips from the trainers. Highly recommend!"

- Passivhaus Practical Training participant

HeatSource

Scotland's low carbon heating network.

Only 11% of homes in Scotland use zero emission heating systems. Recognising the need to increase this number, Scottish Enterprise Agencies engaged BE-ST to deliver a programme to support and build the ecosystem of companies involved in manufacturing, installation and training across the wider supply chain to grow demand for zero emission heating systems.

HeatSource exists to support all organisations and individuals across all areas of the supply chain within this growing sector, including but not limited to manufacturers, installers, training providers, planners, buyers from private and public sector, and academia. Through the programme we have built a connected audience through our HeatSource champions network and newsletter, supported a number of Green Heat related working groups and contributed to the Climate Emergency Skills Action Plan.



Partners:

- Highlands and Islands Enterprise
- Scottish Enterprise
- South of Scotland Enterprise

739 social media followers

7K website visits

670 newsletter subscribers

20 HeatSource Champions



DiveIN

Creating a more diverse and inclusive sector.

DiveIN is a programme delivered by BE-ST to promote diversity and inclusion in the built environment. We have been collaborating with industry to provide valuable tools, provoke discussion and empower people. When first running our DiveIN programme with Tier 1 contractor, Balfour Beatty, we took a comprehensive approach to address the specific challenges faced by people of minoritised ethnic backgrounds in the industry.

We partnered with Radiant and Brighter as training providers, who were highly qualified and had expertise in diversity and inclusion, and who understood the unique challenges faced by ethnic minorities in the construction industry. We then delivered bespoke, relevant and engaging training content that was designed for the construction industry and its managers.



Partners:

- Balfour Beatty
- Radiant and Brighter

80+ industry professionals trained

Used as exemplar by Scottish Government

Funded by the Workplace Equity Fund

Made real impact in Balfour Beatty leadership culture - "an eye opener"

Sustainable Materials Accelerator

Decarbonising the built environment through sustainable building materials.

A truly sustainable building not only considers heating, cooling and power but also the materials from which it is made. We need to continue to support innovation in low carbon materials that are not only better for the environment but also the building users.

The Sustainable Materials Accelerator was launched to support companies developing sustainable building materials with lower embodied carbon than traditional products. The Circular and Sustainable Materials Accelerator offers an opportunity to work with BE-ST and access a tailored package of support including prototyping and early stage testing, advice and mentoring from BE-ST's expert commercialisation team, project partner sourcing, and grant funding.

Six successful applicants have been accepted onto the Accelerator and will receive help to manufacture and test product types. They will also be able to tap into BE-ST's wide-reaching network of industry and academic experts, knowledge, and facilities to accelerate R&D.




BE-ST

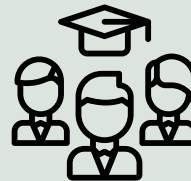
Built Environment Innovation Master's Fund

Take control of your future and shape our world.

Every year we fund master's candidates who can help solve climate change, create smarter, healthier places and develop a workforce and culture that supports the new future. Our master's fund supports projects that will have an impact on industry through new or developed processes, products or ideas that help solve industry challenges.



Up to 20 placements available per year



100+ students funded since inception



BE-ST

Edinburgh Home Demonstrator

zero carbon homes built for people to thrive.

Edinburgh Home Demonstrator (EHD) is developing and testing a new model of affordable low carbon housing through the construction of 1,000 homes.

The EHD project has developed a catalogue of house types with the goal of demonstrating how we can create and set a new standard for affordable zero carbon homes at scale across the six local authorities within the Edinburgh and South East Scotland City Deal Region. [1]

The homes will be built using modern methods of construction (MMC) including offsite manufacturing and onsite assembly techniques in accordance with the EHD's low carbon design and performance standard.

EHD currently has three pilot projects being developed collaboratively with local authorities and registered social landlords from across the City Region. The three pilot projects are enabling the EHD programme to test and develop the delivery model with the goal of applying it across Scotland and beyond.

Partners:

- Offsite Solutions Scotland
- Scottish Futures Trust
- City of Edinburgh Council
- Scottish Government
- West Lothian Council
- Edinburgh Napier University
- Scottish Borders Council
- Fife Council
- East Lothian Council
- Midlothian Council

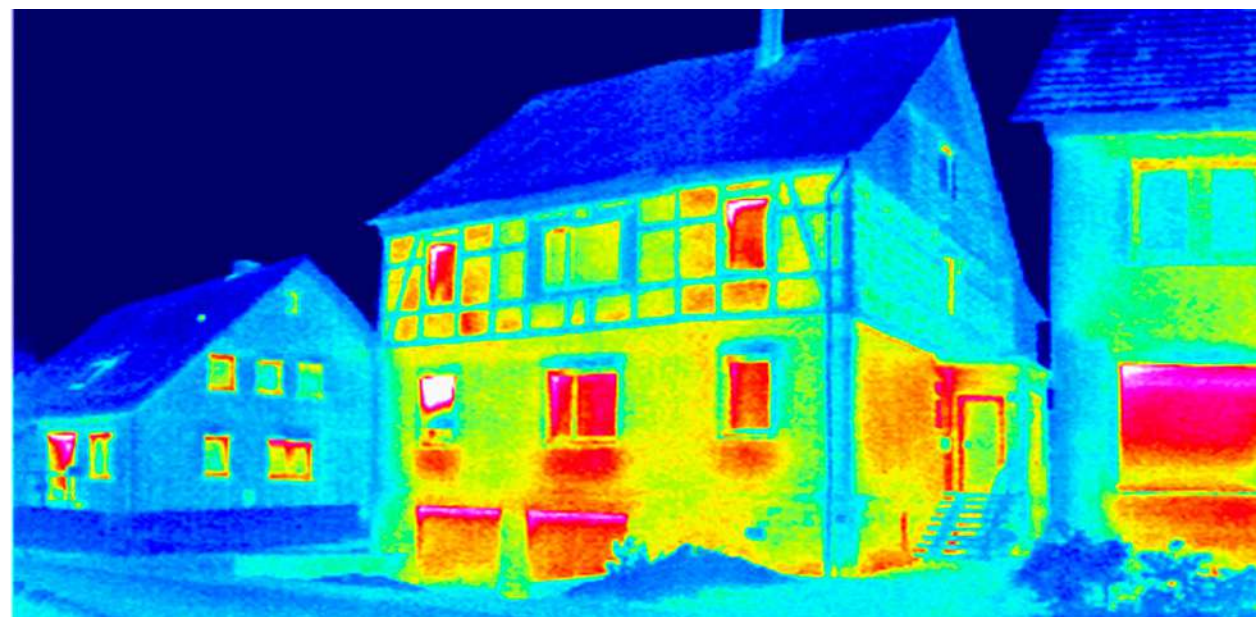


Existing Homes Alliance

Key messages to support a just transition to zero emission homes.

BE-ST was engaged by the [Existing Homes Alliance](#) to identify the key messages, personas and framing to create a targeted and persuasive approach to encourage interest in and uptake of energy efficiency and zero emission heating amongst homeowners in Scotland. This work would also determine the perceived and actual role of regulation, advice and support services in these messages.

Through extensive research and direct engagement with key stakeholders and homeowners through 1:1 interviews and workshops, BE-ST published a report detailing the recommended messages and approach to public engagement, for Existing Homes Alliance to include it in a policy briefing for Scottish Government.



BE-ST

Open Learning Academy

Building a forward-thinking industry.

The BE-ST [Open Learning Academy](#) aims to equip the industry with the knowledge and skills to drive sustainable development and innovation in the built environment sector.

Building on the success of our impactful courses, we continue to co-design a variety of accredited learning opportunities with our partner institutes. Our curriculum focuses on emerging areas within the built environment sector, ensuring learners stay ahead in this rapidly evolving industry, including offsite manufacturing, sustainability and retrofit.



BE-ST

The Construction Accord & Recovery Plan

Addressing inequality in the built environment.

Following a series of stakeholder consultations in late 2022, the CLF published its [Scottish Construction Accord](#) between the public sector and industry. It includes a shared vision for construction and related industries in Scotland and a series of agreed outcomes which support this.

To deliver on those outcomes, the Construction Accord has set out a series of collaborative working groups to develop an industry Transformation Plan covering areas as diverse as procurement practices, fair work and skills for the sector, net zero, and digital transformation.

Last year, BE-ST supported the delivery of the Construction Recovery Plan, including the Scottish construction industry's first equity and inclusion plan. This National Construction Equity and Inclusion Plan, funded by the Scottish Government, is part of a wider transformation plan for the industry giving the sector access to a plan for building a wider talent pool to support growth and help to address labour shortages.

The Plan sets out "Six by 2026" strategic aims which the CLF partners commit to achieve. These aims include the sharing of best practices across industry, using data and industry feedback to benchmark progress, signposting to a range of resources for companies to access and leadership support. We have been supporting the delivery of this through our monthly 'BE Better: equity and inclusion spotlight' series.



BE involved

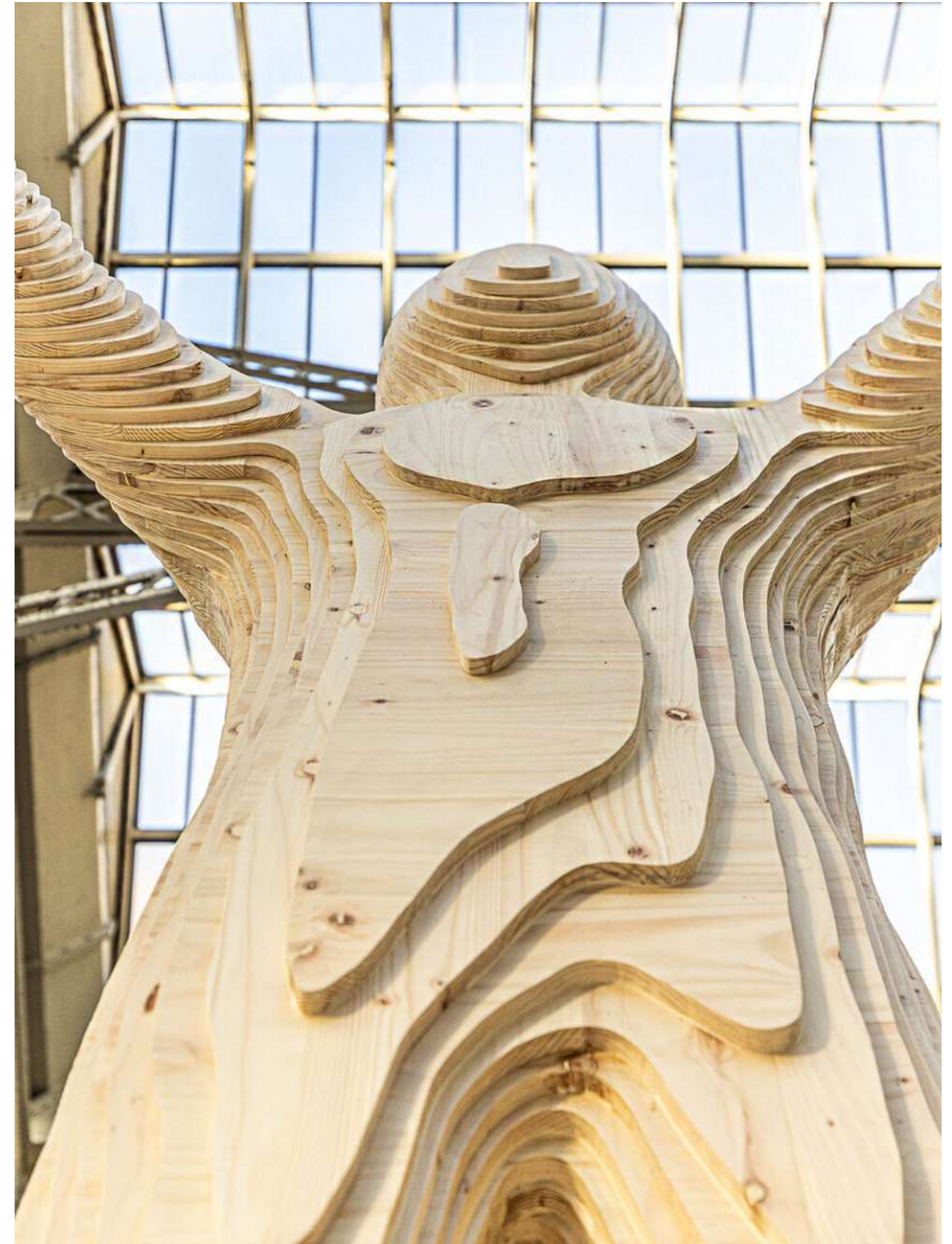


BE-ST

This Impact Report represents a snapshot of BE-ST's key activity across 2023. You can join our mission and accelerate your journey to zero carbon by engaging with BE-ST.

Whether that's talking to us about an R&D project, attending one of our 50+ events and training programmes, using the equipment or event space at our Innovation Campus, or building new programmes and platforms with us that help the built environment accelerate its just transition to zero carbon.

Browse our website, follow us on social media and [sign up to our newsletter](#) and [get in touch](#) to find out more.



THE STORY

