

BE-ST:

Driving built environment innovation towards a net-zero future

Built Environment – Smarter Transformation (BE-ST) is championing an unprecedented wave of innovation in the built environment sector, setting an international benchmark in the drive towards net-zero carbon solutions.

Their recent Investor in Innovations (I3) Certification by the Institute of Innovation and Knowledge underscores their pioneering efforts, positioning them as a leading force in sustainable transformation.

BE-ST, Scotland's national innovation centre for the built environment, plays a critical role in aligning innovation with policy, industry, academia, and the broader community. With a mission to accelerate a just transition to net-zero, BE-ST fosters collaborations that deliver impactful innovation – faster, more affordably, and sustainably.

A strategic commitment to innovation

BE-ST's strategic framework prominently integrates innovation within its core operational fabric. Recognised officially by the Scottish Government as a national Innovation Infrastructure Asset, BE-ST acts as a catalyst, bridging academia, industry, and public institutions.

The recent Investor in Innovations Certification, aligned to the ISO 56002 standard, demonstrates BE-ST's exemplary innovation management practices. The certification emphasises robust strategic alignment, effective governance, and comprehensive evaluation mechanisms that measure the tangible impacts of their innovative projects.

Douglas Morrison FIKE, Deputy CEO of BE-ST, noted:

"Our experience with the IKE Institute has been so much more than just an assessment – it has fundamentally transformed the way we conceptualise and manage innovation. Through the

process, we were able to benchmark our capability against global best practice, align our approach with the ISO 56000 series of Innovation Standards, and develop a clear, actionable roadmap to supercharge our innovation potential. It's given us the foundations to scale up our ambition, strengthen our integration with performance and quality systems, and visibly demonstrate our innovation capacity to collaborators, funders, and investors alike."

The BE-ST Manifesto outlines their forward-looking strategy, embedding values of openness, innovation, and constructive disruption. Their strategic transition from project-centric operations to a national infrastructure platform – through unique Centres of Excellence in Mass Timber and Retrofit – is evidence of their dynamic, mission-driven approach.

Professor Phil Kennedy FIKE¹, a member of the seven-member I3 Assessment and Validation Panel said:

"BE-ST exemplifies outstanding innovation management. Their approach combines rigorous strategic alignment, effective governance, and deep industry collaboration. Their Investor in Innovations accreditation highlights their leadership and sets a benchmark for sustainable transformation in the built

¹ Visiting Professor QMUL London; former Chairman and CEO of Nanoforce Technology Limited; former Head of External Innovation-3M UK PLC.



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environment sector. It's been impressive to witness their journey towards excellence, clearly driven by a profound commitment to impactful innovation and sustainable development".

Infrastructure for innovation

BE-ST's extensive physical infrastructure is another hallmark of their innovative vision. Located at the Hamilton International Technology Park, BE-ST boasts the UK's sole mass timber manufacturing facility and Scotland's National Retrofit Centre. Recent investments exceeding £2.5 million have significantly expanded their capacity, enabling pioneering research, cutting-edge manufacturing, and practical training programmes that bridge skills gaps.

The centre utilises advanced digital technologies, including digital twin infrastructure, sophisticated data dashboards, and collaborative digital tools. These technologies facilitate knowledge-sharing and effective project management, fostering agile, responsive innovation processes.

Commercialising innovation: supporting Ecosystems Technologies

BE-ST has been instrumental in supporting Ecosystems Technologies since its inception in 2019, significantly contributing to its rapid commercial growth. Ecosystems Technologies, a



Figure 1: NearHome retrofit kit of parts

pioneer in home-grown timber, modern methods of construction (MMC), and digital construction, has doubled its turnover annually, reaching £4.6 million in 2024/25 and projecting £8.5 million in 2025/26.

Key collaborative initiatives include the £1.4 million Innovate UK-funded 'Transforming Timber' project, which commercialised UK-sourced engineered timber products, and 'NearHome', a retrofitting initiative transforming public sector buildings into efficient office spaces (Figure 1). Additionally, the 'GenZero' initiative, backed by the UK Department for Education, aims to deploy zero-carbon modular systems for schools, demonstrating BE-ST's profound impact on scalable commercial solutions.

Foresight and industry collaboration

Central to BE-ST's innovation leadership is its capacity for industry foresight. Through chairing critical governmental and industry working groups, BE-ST directly informs policies such as the Scottish Government's Green Industrial Strategy and the Climate Emergency Skills Action Plan.

Their extensive stakeholder network – comprising Innovation Champions, Changemaker – drives practical solutions responsive to emerging market trends and policy shifts. Notably, BE-ST

administers the Scottish Construction Industry Data Dashboard, leveraging AI-driven data visualisation to inform strategic decision-making across the sector.

Creating real impact and value

BE-ST rigorously evaluates its innovation processes through a clearly defined Impact and Outcome Framework. Metrics span economic growth, environmental benefits, job creation, and sector-wide capacity-building. For example, since inception, BE-ST has facilitated over 500 collaborative innovation projects, directly enhancing Scotland's economic resilience and contributing significantly to the built environment's sustainable future.

Their strategic use of lean methodologies and agile project management ensures that projects maintain flexibility, optimising resources and delivering substantial returns on investment. This disciplined yet adaptive approach allows BE-ST to maximise value from every initiative.

Cultivating a culture of innovation

Innovation at BE-ST isn't confined to organisational strategy and external projects; it thrives within the internal culture. Their organisational structure, underpinned by interdisciplinary teamwork, promotes continuous learning and creative problem-solving. This vibrant

innovation culture is sustained through initiatives like internal 'Innovation Weeks' and comprehensive employee development programmes emphasising design thinking and agile methodologies.

Moreover, regular internal and external feedback loops, annual strategic reviews, and staff surveys ensure BE-ST's innovation practices evolve continuously, aligning closely with stakeholder needs and market dynamics.

Looking forward

As BE-ST continues its mission-driven journey, their Investor in Innovations Certification signifies not just recognition but also an ongoing commitment to setting global standards in innovation. Their strategic foresight, robust infrastructure, collaborative ethos, and rigorous evaluation frameworks uniquely position BE-ST as an exemplary innovator within the built environment sector.

In this rapidly evolving landscape, BE-ST exemplifies how structured innovation can yield transformative outcomes, setting the pace for other industries aiming for sustainable futures. Their story is not only one of Scottish leadership but of international influence, demonstrating how strategic innovation can genuinely redefine our built environment for generations to come.