A FUTURE VISION FOR THE ROLE OF FE COLLEGES IN INNOVATION

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ABOUT THIS PAPER

The purpose of this paper is not simply to advocate for including further education (FE) in the innovation agenda, but to outline practical ways to do it. It sets out what leadership, culture, funding, partnerships, capacity and infrastructure need to look like for colleges to realise their full potential in the UK innovation landscape. It also highlights examples of innovation in action, showing how colleges contribute to economic and social renewal through applied approaches to learning, teaching and enterprise.

INTRODUCTION

When the term 'innovation' is discussed in the context of education and skills, attention instinctively turns to the university sector. Universities are rightly recognised as engines of discovery, places where high-quality primary research takes shape, where academic rigour meets scientific curiosity and where ideas often move from concept to breakthrough. Their contribution to the UK's innovation landscape is significant and enduring.

If universities are seen as the home of disruptive innovation – the birthplace of new technologies, radical discoveries and paradigm shifts – then FE colleges have an equal right to be recognised as the home of incremental innovation. Colleges are where innovation meets reality; where employers, educators and learners work side by side to turn ideas into improvements that drive productivity, inclusion and growth. The FE sector's proximity to employers, its deep community roots and its culture of practical problem-solving make it a natural incubator for innovation that is grounded, relevant and immediately impactful.

At a national level, the opportunity is strategic. The UK's productivity challenge, particularly for small to medium-sized enterprises (SMEs), stems less from a shortage of innovation at the top of the economy and more from the lack of diffusion and adoption of that innovation in the everyday economy. Ideas and technologies proven in principle often fail to gain traction on the ground. FE colleges, with established employer networks and trusted relationships, are well placed to close this diffusion gap. They help businesses translate innovation into practice, supporting them to understand, adopt and adapt new approaches in ways that make sense locally.

The college of tomorrow is inquisitive and outward facing, working hand in hand with employers but no longer limited to the transactional nature of training provision. Instead, it becomes a thought partner, capable of pushing boundaries, asking difficult questions and sparking new ideas.

This paper explores what needs to be true for FE colleges to deliver a greater and more strategic role in the UK's innovation ecosystem. It considers the conditions under which colleges can act not just as conduits for skills, but as catalysts for change – as institutions that help businesses, learners and regions to innovate more effectively. The analysis recognises that while universities and colleges have their own distinct strengths, the future of innovation depends on leveraging both the theoretical depth of universities and the applied reach of FE colleges.

REFRAMING THE CONCEPT OF INNOVATION IN FE

Every day, colleges across the UK are driving incremental innovation. Through targeted training programmes, applied research collaborations, and student and apprentice projects that address live industry challenges, they translate theory into action, converting knowledge and technologies into tangible benefits for employers and learners. For many local businesses, especially SMEs and microenterprises, the most accessible link to innovation is their local college, where new techniques are tested, digital tools adopted and operational processes refined.

Colleges operate on an immediate problem-solving basis. Their partnerships are pragmatic, built on trust, responsiveness and shared outcomes. A local employer can take a challenge to a college and be working alongside staff and students on a practical solution within days or weeks. This is not a by-product of informality; it is by design.

Recognising this activity as innovation requires a broader national definition. Too often, innovation is equated with disruptive technology emerging from research labs and start-ups. This narrow view overlooks human-centred innovation, for example, a new teaching method that improves skills delivery, a partnership that redesigns a workflow or a student project that improves a local service. Each example solves problems in new ways that add value to organisations and communities. To unlock FE's potential, this inclusive framing must be adopted.

When viewed without preconceived assumptions, FE colleges occupy a unique position in national and local innovation ecosystems. Their reach into communities and their work with a wide cross section of employers, from anchor firms and public sector bodies to family businesses and social enterprises, give them insight into real challenges and the agility to respond quickly. This responsiveness contrasts with the more formal structures found in universities, where long-term partnerships, while valuable, often take years to establish and are governed by complex agreements.

This responsive innovation is inclusive by nature. Rooted in communities, colleges draw on diverse talent and ensure innovation benefits those who might otherwise be excluded. They create environments where learners from all backgrounds participate as active agents of change. Reframing our understanding of innovation to include this incremental, applied dimension is essential if the UK is to unlock its full potential. National competitiveness depends not only on laboratory breakthroughs but also on improvements made on workshop floors, in digital suites and through community partnerships.

In short, if universities are the nation's research and development laboratories, FE colleges are its test beds: the places where ideas become everyday practice. Their role in incremental innovation is central to a truly innovative economy, one where the benefits of progress are widely shared and sustainably delivered.

DRIVING INNOVATION THROUGH STRUCTURAL AND SYSTEMIC ENABLERS IN COLLEGES

Innovation rarely happens by accident; it flourishes either in times of challenge or when time, resources, leadership and culture align. FE colleges' potential to deliver meaningful innovation is clear, but the conditions that allow it to happen consistently and at scale are missing. To unlock this potential, systems such as funding, governance, recognition and infrastructure must support innovation as a deliberate, measurable activity rather than as a by-product of teaching. Expecting innovation to just happen is both naïve and unrealistic.

In the university sector, research and innovation are integral to academic identity. Staff pursue inquiry, generate knowledge and contribute to the institution's intellectual life. Structured time, resources, and recognition enable these activities, and career progression is directly linked to contributions. By contrast, in most FE colleges, teaching dominates. Workloads centre on delivery, assessment and administration, leaving little room for curiosity-driven work. This creates a structural and cultural gap between research-driven development and delivery-driven pragmatism.

If FE is to play a greater role in the UK's innovation system, investment earmarked for capacity and capability building is required. Critically, this is not about replicating the university model but creating conditions where innovation is understood as essential professional practice. For many staff, this will mean a shift in mindset, and for many colleges, it will mean a shift in culture and a redefinition of the educator's role.

Currently, colleges do not formally receive funding for innovation. Funding models focus on teaching outputs, contact hours, retention, qualifications and progression, which narrows definitions of success and limits the resources available for activities outside these metrics. Staff timetables are often full, optimised for efficiency rather than creativity, leaving little space for reflection, experimentation or collaboration beyond immediate delivery.

Many staff are technical experts but may have had limited exposure to design thinking, systems mapping or applied research methods. Professional development, through secondments to industry or universities, and engagement in cross-sector networks are necessary to broaden their perspectives and build the interdisciplinary thinking that lies at the heart of innovation.

Culturally, innovation should be seen as part of the teaching role. Professional excellence in FE has long been defined in terms of pedagogy and learner outcomes. These remain vital, but curiosity, experimentation and collaboration with external partners should also be recognised as hallmarks of great teaching. FE colleges should engage in, and should be encouraged to engage in, case studies, peer learning and internal showcases. This will make innovation tangible, which will build confidence and help embed behaviours over time.

This is already well established in higher education. Research and innovation funding streams and the frameworks that accompany them embed discovery and knowledge exchange in strategy and leadership. FE lacks any equivalent mechanisms. Instead, innovation activity is typically episodic and project based, often dependent on short-term external funding, which makes it hard to sustain momentum or build capacity.

Encouragingly, programmes such as the Innovate UK-funded FE Innovation Fund in Glasgow and Manchester show what targeted investment can unlock.[1] With dedicated resource and leadership focus, colleges have experimented with new partnership models, applied research and knowledge transfer. Crucially, staff have been given time to collaborate with employers, test ideas and share learning. Early outcomes point to stronger industry relationships, motivated staff and greater organisational confidence – a compelling case for structured, repeatable funding.

Leadership is pivotal. Senior leaders need to embrace and champion innovation as a valued part of professional life, aligning it with strategy and embedding it in performance discussions and recognition. Internal funding competitions, awards and showcases help to normalise innovation and signal that it matters.

Leaders need to have freedom in how they invest in innovation, including staff development, pilots and partnerships, in ways that reflect the local context. Policy and accountability frameworks can constrain this flexibility by prescribing spend and limiting non-teaching investment. Greater autonomy would enable the taking of calculated risks, new delivery models and regionally relevant innovation.

Reward and recognition structures must also evolve. In universities, research and innovation outputs are part of progression and reputation. In colleges, frameworks often value teaching load and compliance, offering few incentives for innovation. Redefining 'good' in FE performance management so that it celebrates pedagogical, technical and organisational innovation is essential for shifting norms.

Infrastructure matters too. Moving beyond pilots requires physical and digital spaces for research, collaboration and co-creation: laboratories, maker spaces, fabrication hubs, simulation suites and robust digital platforms. Capital funding should recognise innovation capacity as a legitimate investment alongside traditional facilities.

FE innovation depends on there being a coherent framework of enablers: ring-fenced funding, leadership autonomy, recognition mechanisms and modern infrastructure. When these elements are aligned, innovation becomes an expected and rewarded part of the mission, positioning the sector as an active driver of change and progress, not just a provider of skills.

Ultimately, building capability is about belief as much as resource: belief that every educator can contribute to innovation and that their contribution has value. Shifting from compliance and delivery to curiosity and creation unleashes latent creativity in the workforce. When staff are empowered, skilled and supported, the benefits spread beyond the institution, with richer learner experiences for students, more effective employer partnerships and colleges positioned as engines of renewal. Capacity building becomes not just about individuals, but about cultivating a collective capability that anchors FE in the UK's innovation system.

1 Innovate UK (accessed 2026) Further Education Innovation Fund.

STUDENT INNOVATION AND ENTERPRISE

Beyond staff and systems, the largest untapped resource for innovation in FE is students. Hundreds of thousands of young people and adult learners attend colleges each year, developing practical and technical skills that underpin the economy, yet few see themselves as innovators or entrepreneurs. Most adopt the identity of student: learning, following instruction and preparing for work. If FE is to fulfil its potential, this mindset must evolve. Students should be encouraged and empowered to see themselves as creators, problem-solvers and future change-makers.

FE's vocational focus provides a powerful platform for applied innovation. Students often work directly with employers on placements, apprenticeships and live projects, giving them the dual perspective of being embedded in a business while also able to observe it with fresh eyes. This combination creates fertile ground for innovation, where students can spot inefficiencies, suggest improvements and contribute ideas that longer-serving staff may miss.

In innovation-focused colleges, learners enjoy access to opportunities traditionally associated with universities, for example, opportunities to prototype, to collaborate and to refine ideas. This parity of esteem enhances learning outcomes while raising aspiration and confidence. Students who might never have considered themselves innovators see their creativity validated and their contributions valued. The impact ripples outward, and across the UK, SMEs, microbusinesses and local organisations benefit from a steady flow of practical ideas, products, processes and services refined and delivered in partnership with colleges. Apprentices and technical learners become conduits of innovation, offering fresh insights to the companies they work for and acting as ambassadors for change.

This role of students as conduits of innovation is a step change, even for those colleges currently considered to be leading the way. It begins with reframing learning as an active, collaborative journey of discovery and improvement. The line between learning and innovating is fluid: every act of learning requires creativity and every act of innovation requires learning. When colleges explicitly give students permission to think and act like innovators, the culture shifts. Innovation then becomes part of daily life, not the domain of experts.

Many students enter FE conditioned to seek the 'right answer', whereas an entrepreneurial mindset is curious, takes the initiative and is resilient. These qualities can be taught but they must also be modelled and celebrated. When colleges build environments where innovation is expected and supported, students recognise their agency – that ideas matter and can make a difference.

Embedding this mindset requires intentional design. Innovation and enterprise should run through the curriculum, not sit solely in business studies (or in some cases, not be included at all). Engineering, healthcare, media, hospitality and other subjects all offer opportunities to identify problems, propose solutions and experiment. Project-based learning, hackathons,[2] innovation challenges and live briefs set by employers mirror workplace realities and enable students to apply creative thinking in context.

2 A hackathon is a fast-paced event where people come together for a set period of time to collaborate on solving a problem or identifying new opportunities.

When structured opportunities are provided, the results are strong. The ScotCol Accelerator[3] in Scotland, for example, helps students generate and develop practical business ventures. It coaches students with early-stage ideas through customer discovery (understanding customers' situations and needs), prototyping and validation (testing the viability of the venture). Participants learn to keep testing their assumptions and iterate quickly. The outcomes have included viable ventures, process innovations in workplaces and, in some cases, new businesses. The lesson is clear: with tools, confidence and support, students rise to the challenge.

Colleges can build on this by establishing innovation hubs, enterprise clubs and mentoring schemes that connect students with entrepreneurs, alumni and innovation professionals. Access to seed funding, prototyping facilities and business advice helps turn ideas into actions. Assessment and recognition should also evolve to reward not just knowledge but also creation, improvement and influence. Valuing originality, collaboration and impact reinforces the message that innovation is expected and achievable.

The aim is for a generation of FE graduates who carry an entrepreneurial mindset into employment, further study or self-employment. This is not solely (or even at all) about start-ups; it is about graduates who can see opportunities, solve problems and drive positive change. With encouragement, structure and by making themselves visible, colleges can transform their communities into powerful forces for practical innovation. When students see themselves as innovators, and when employers and policymakers also see them that way, FE's contribution to the national innovation agenda becomes both visible and indispensable.

CULTURAL TRANSFORMATION

Cultural transformation is a complex and critical element in enabling colleges to evolve from primarily being places of learning into dynamic centres of innovation. Structures and resources create conditions, while culture determines whether those conditions lead to change. For FE, this demands a shift in identity and perception: internally redefining what the institution stands for and then externally repositioning it with employers, communities and policymakers.

Grassroots energy is essential. Every college has staff inclined to try new methods, technologies or partnerships. Empowering them and making them visible champions has a multiplier effect. Peer examples normalise innovation because it becomes something that 'people like me' do. Communities of practice, staff-led groups and informal networks create spaces for dialogue and idea-sharing beyond timetable constraints. Leadership's role is to enable and amplify this and support it at the grassroots level (see Figure 1).

This vision requires cultural and structural change not just in colleges, but across the broader education and innovation system. Colleges must be recognised and supported as active participants in innovation, with the funding, frameworks and partnerships to reflect this. With this alignment in place, colleges can act as hubs for practical innovation where design thinking, experimentation and applied problem-solving are part of daily life.

3 LinkedIn (accessed 2026) Elaine Baxter update.

Studies have begun to highlight the potential of the innovation ecosystems around FE colleges and reveal the networks of collaboration and problem-solving that often operate below the radar of national policy. These studies show that, when empowered, colleges can deliver innovation of a kind that universities cannot easily replicate – where innovation is local, applied and connected to real-world needs and happens in practice. From new training methods for emerging technologies to co-designed process improvements in small firms, colleges are already innovating every day, although in most cases without the formal recognition or systemic support needed to scale such activity.

Colleges that do this well emerge as leaders in local ecosystems. They host showcases, share success stories and actively participate in networks, treating communication as an integral part of innovation strategy. This type of visibility attracts partners, funding and talent, creating a virtuous cycle in which innovation begets innovation. This requires the courage to challenge the modesty that has long characterised FE. Quiet pride has value, but it can limit recognition. Colleges must balance humility with confidence, asserting their contribution and advocating for their role in regional and national prosperity.

Ultimately, cultural transformation is not about replacing values but expanding purpose. Teaching and innovation are complementary. A college that innovates in how it teaches, engages and collaborates enhances its educational mission. By embedding innovation in daily practice, celebrating success and empowering contribution at all levels, colleges come to be recognised as places of innovation and they drive progress from the ground up.

Figure 1. Growing a culture of innovation in college

COLLABORATION AND ECOSYSTEM THINKING

At the heart of meaningful innovation lies collaboration. Transformation rarely happens on its own. It thrives on diverse perspectives and the sharing of expertise. For FE, collaboration is essential. To fulfil their potential, colleges must act as partners within wider ecosystems that bring together universities, employers and civic institutions. The strength of these ecosystems determines how effectively innovation is generated, diffused and adopted.

Historically, collaboration for FE has meant working with employers and it has been a core strength. Colleges are trusted because they deliver skilled people, responsive training and practical solutions. Yet these partnerships often remain narrowly focused on curriculum, apprenticeships or workforce development. Today, not enough colleges collaborate in broader innovation activities or formalise relationships with universities or neighbouring colleges. The result is a fragmented ecosystem with parallel efforts rather than aligned strategies. Tripartite partnerships between colleges, universities and employers offer a clear route forward. Each party contributes distinct strengths. Universities bring research expertise, grant-writing experience and access to funding streams. Employers bring live challenges, market insight and the appetite for applied solutions. Colleges occupy the middle ground, close enough to employers to understand operations but also aligned with education and able to translate complex ideas into deployable innovations.

This bridging role is a major untapped asset. SMEs often see universities as remote or too academic, while the scale of colleges and the language they use makes them more relatable. Trusted relationships make colleges effective channels for translating research into practice. Institutes of Technology demonstrate how this works.[4] As partnerships between FE colleges, universities and employers, they embody ecosystem thinking. They enable shared investment, co-designed curricula and joint innovation projects. In regions such as Greater Manchester, for example, Institutes of Technology focus on sectors where rapid innovation is vital, showing how a shared purpose can accelerate diffusion.

Ecosystem thinking also requires a mindset shift: from transactional to trust, reciprocity and shared value. Building these ecosystems needs coordination, shared governance and mutual investment, which involves regional boards, cross-sector groups, joint bids and digital platforms for sharing data and resources. Policy should encourage cross-boundary partnerships, embedding collaboration as the default.

The national benefit is diffusion. The UK's productivity challenge stems not from a shortage of innovation but from a failure to spread it across the economy. When embedded in effective ecosystems, FE can take innovation directly to workplaces and communities. Embracing collaboration allows colleges to redefine their role – taking them from local training providers to regional innovation engines – while strengthening institutions and contributing to a more inclusive and resilient innovation economy.

4 Institutes of Technology (accessed 2026) Home page.

TOWARDS A MODEL OF INNOVATION IN FE

A new model for innovation in FE begins with a shift in how colleges, leaders and stakeholders see FE's role in the innovation landscape. Structural change, cultural renewal and investment are essential, but without a leadership mindset that treats innovation as core business, interventions will underperform. Innovation in FE must be led and managed as a defining feature of a modern college, not as a side project (see Figure 2).

Many of the barriers reflect inherited assumptions: that colleges are primarily teaching institutions, that innovation is the domain of universities and that FE's contribution is to supply skills for the innovation of others. The new model rejects these assumptions. It sees colleges as active ecosystem players: institutions that educate and create, nurture talent and generate ideas, train individuals and transform industries.

The idea of what constitutes success needs to be redefined and the shift must start at the top. Leaders such as principals, vice principals and boards should see themselves as innovation leaders in local economies. They should ask how the college contributes to regional productivity, which partnerships drive applied innovation, and how learners and staff are supported to think creatively and take calculated risks. Asking these questions signals that innovation is a shared responsibility and a strategic priority.

Alongside mindset change, the structural barriers must be removed and a culture that expects, rewards and celebrates innovation must be cultivated. When funding, workloads and recognition evolve to support innovation, they provide the scaffolding for mindset change. In turn, a more innovative mindset helps systemic changes to flourish. Colleges adopting this dual track – reforming systems while nurturing culture – are best placed to become truly innovative.

Central to the model is reimagining staff roles. Teachers, trainers and curriculum designers should see themselves as innovators designing new pedagogies, developing applied projects and co-creating solutions with employers and students. This enriches teaching rather than displacing it. Every classroom, workshop and digital space becomes a site of innovation.

Partnership working is a second pillar. Collaboration with employers, universities, civic organisations and other colleges should be built into structures, not bolted on to individual projects. Innovation thrives when ideas flow across boundaries. Colleges that are rooted in local economies and are agile in their responses can orchestrate that flow, connecting government priorities, university research agendas and business realities.

Leadership development matters. Leaders need frameworks for innovation management, systems thinking and collaborative governance. Alongside targeted development, mentoring and cross-sector learning, they enhance leadership capabilities, resulting in more efficient working, which creates new capacity. National bodies can provide guidance and recognition for innovative leadership, establishing innovation as a criterion of excellence.

Measurement must also evolve. Traditional FE metrics of attainment, completion and employment remain important, but they do not capture the full value of innovation. Additional indicators, such as outputs, partnership impact, staff engagement and community benefit, reflect a broader definition of value. Over time, such metrics normalise innovation as a core institutional objective.

The vision is of a fully developed college ecosystem where innovation is a shared mindset that is embedded at all levels. Staff are empowered to experiment, students are encouraged to think entrepreneurially, and partners see colleges as vital collaborators. Leadership aligns structure, culture and strategy to sustain improvement.

This model does not ask colleges to become something they are not. It enables them to realise what they already are: practical, connected and capable institutions, deeply embedded in their communities and uniquely positioned to drive innovation from the ground up. With leadership vision aligned to systemic reform and cultural evolution, FE can take its place as an equal partner in the UK's innovation landscape, shaping a future in which innovation is inclusive, applied and accessible to all.

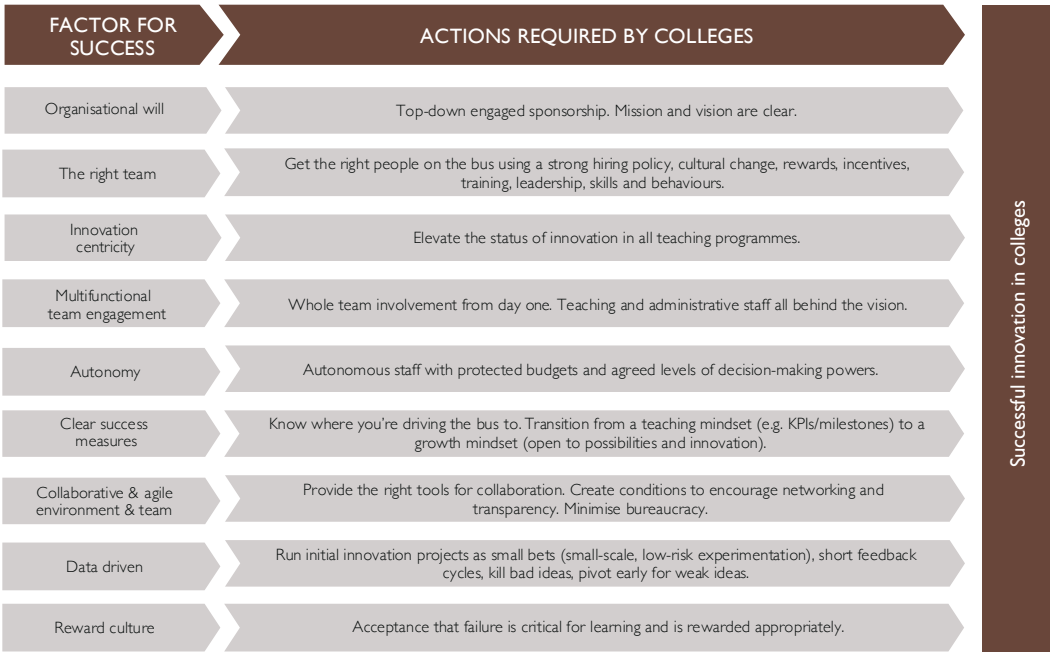

Figure 2. Success factors needed to make innovation in FE happen

CONCLUSION

The future of innovation in the UK depends on the full engagement of every part of its education system. For too long, FE has been viewed through a narrow lens – valued for skills delivery but overlooked as a source of innovation. This paper meets out a vision for change in which colleges are recognised as vital contributors to the national innovation ecosystem, driving practical, inclusive, locally grounded progress.

There is a broader societal case. The UK needs a more inclusive model of innovation that reaches every region and community. FE has the scale, reach and trust necessary to make this possible. Supporting FE is not only a matter of fairness; it is a strategic necessity. A nation cannot claim a world-class innovation system while underfunding and under-recognising the institutions that deliver applied capability.

Realising this vision requires a new model of innovation in FE, driven by a mindset that treats innovation as core purpose. Structural enablers, like ring-fenced funding, staff time and space for experimentation, must align with a culture that celebrates creativity and calculated risk. Staff should be empowered to innovate in teaching, partnerships and applied research, while students are encouraged to see themselves as innovators capable of shaping the workplaces and industries they enter.

Collaboration will define this landscape. Colleges, universities and employers working in integrated ecosystems can accelerate diffusion, expand opportunity and translate research into practice at scale. With the right recognition and support, FE can bridge invention and implementation, connecting academic insight with economic impact.

Ultimately, this transformation is both possible and necessary. By reframing the perception of FE, reforming funding and re-energising the culture, FE colleges can help deliver a more resilient, inclusive and innovative UK. The opportunity now is to move from potential to practice, ensuring that the creativity already thriving in colleges becomes visible, valued and central to how the nation understands and drives innovation.

The future of innovation in the UK cannot be delivered by universities alone. It requires a broader, more inclusive system that recognises innovation as a shared responsibility. FE colleges, with their reach, relationships and relevance, have a vital role in this future. By harnessing their relationships with education, industry and community, they can help ensure that innovation is not confined to research laboratories but diffused throughout the economy and embedded in the everyday practices of businesses, workers and learners across the UK.

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