HEPI

Debate

46

Partnered with

University of Salford MANCHESTER

A clear and present danger: Investing in collaborative platforms to accelerate the transition to a green economy

Katy Mason

About the author

Professor Katy Mason is the Pro Vice-Chancellor and Dean of the University of Salford's Business School, Professor of Markets and Management Practices and President of the British Academy of Management. She sits on the General Assembly for the International Federation of Scholarly Associations of Management and is Fellow of the British Academy of Management, Fellow of the Academy of Social Science and Chartered Companion of the Chartered Management Institute.

Katy's expertise lies in the making and shaping of moral markets. This is a particular form of open and collaborative innovation that aims to co-design markets for the good of people and the planet. Making moral markets represents a collective effort towards a more circular economy that (reuses) and recycles materials to protect our planet better. Katy has worked with organisations such as Rolls-Royce, Microsoft, the Cabinet Office and North Yorkshire County Council, among others, to shape and grow moral markets.

Before moving to the University of Salford, Katy was Associate Dean for Research at Lancaster University Management School, Chair of the British Academy of Management and Associate Editor of the Journal of Cultural Economy. She is on the Editorial Board of Management Learning, Industrial Marketing Management, Journal of Management Studies and the British Journal of Management.

Contents

Executive summary

Climate change and biodiversity loss present urgent and systemic risks that demand coordinated and cross-sector action. Higher education institutions are uniquely positioned to play a critical role in this response. However, despite their reach into education, research, knowledge exchange, innovation and civic engagement, they require support, reform and (re)alignment to realise their full potential.

This HEPI Debate Paper argues that universities must move beyond isolated efforts and accelerate systemic collaboration through the continued development of collaborative platforms. These platforms – ranging from education initiatives, research centres and institutes, to catalysts, accelerators and multidisciplinary networks – could serve as a vital infrastructure for societal engagement and knowledge co-production, innovation and positive change. However, financial constraints, misaligned policy environments, disciplinary silos and underinvestment in communication and engagement represent significant barriers to collaboration.

This report recommends targeted support and change to enable higher education institutions to connect and coordinate action across their collaborative platforms in order to drive green economy transitions at the scale and pace required for climate mitigation.

Key findings

- **Universities have a significant role to play in supporting the collaboration required to drive green economy transitions.** Universities are expert at supporting collaboration across disciplines, while working with government, business and civil society. Collaboration has the potential to enable systemic change at speed and scale, by integrating diverse knowledge, distributing responsibility and creating legitimacy and accountability. Sustained collaboration requires resource and skilled support.

- **Collaborative education could accelerate green economic growth.** By bringing together educators from across disciplines to re-design curricula and transform campus culture, education is starting to scale environmental literacy. However, curriculum reform is slow and fragmented, with limited opportunities for reskilling mid-career workers.

- **Collaborative research and knowledge exchange are gradually co-producing new solutions for green economy transitions.** Higher education institutions are supporting collaborations between researchers in STEM (Science, Technology, Engineering and Mathematics) and SHAPE (Social Sciences, Humanities and the Arts for People and the Economy) disciplines, working with government, business and civil society. However, the generation of solutions is fragmented, limiting the scale and pace of green economy transitions.

- **Financial, structural and cultural barriers are limiting the scale and pace of collaboration impacts.** Higher education institutions face a challenging financial context which is reducing investment and support for collaboration. Organisational structures and culture inadvertently create disciplinary silos and often fail to recognise and reward collaborative, challenge-led research outcomes.

- **Collaboration is most effective when supported by a collaborative platform.** Collaborative platforms – including funded research projects and centres, unfunded research centres, research institutes, catalysts, accelerators and networks – help build research skills, attract income, generate solutions and nurture communities of practice across higher education institutions, business, government and civic groups. However, to maximise their impact, collaborative platforms require sustained investment and coordination, both within each platform and across platforms.

Recommendations

- **Align higher education to deliver green economy transitions** by improving access to cutting-edge research through education and skills provision, reforming incentives for interdisciplinary collaboration and strengthening knowledge exchange and engagement capacity.

- **Co-develop a green skills and workforce transformation plan** to embed sustainability into every curriculum, expand modular courses, apprenticeships and micro-credentials in green sectors such as energy, construction and low-carbon transport, and collaborate with Skills England to align qualifications, frameworks and labour market needs.

- **Build national and regional collaborative platforms** to connect and coordinate a network of regional knowledge exchange hubs, linked into an overarching national climate or 'greening economy' platform, to enable research centres, local governments, businesses and communities to access cutting-edge research and shared learning. Proven interventions can be scaled and new knowledge can be mobilised at pace.

- **Establish a cross-disciplinary Green Innovation Framework** that integrates research, industrial strategy and skills, and support its implementation with a £650 million Green Challenge Fund.

1. The role of higher education institutions in climate change mitigation

Higher education institutions occupy a uniquely powerful position to drive society's fight against the climate emergency. As knowledge hubs, universities support the co-creation and circulation of knowledge through teaching and research, with a wide variety of disciplinary perspectives, from Climate Science and Engineering to Economics, Law, Sociology and the Creative Arts.

Universities are perfectly equipped to support researchers in developing new clean technologies and to provide advice on effective environmental action and policies. They are particularly well-positioned to convene key stakeholder groups with the insight and ability to reimagine new and more sustainable economic systems. With their research and teaching capacity, universities have the potential to become keystone actors in driving the seismic change required if our society is to reorganise everyday life and create a regenerative economic system that cares for people and the planet. UK universities educate 2.9 million students each year, which presents a significant opportunity to inform the mindsets, skills and understandings of the next generation of leaders, professionals and environmentally active citizens about the scale of this crisis and ways to think creatively about climate mitigation. Teaching and learning can expand our response to the climate crisis by actively inspiring widespread climate mitigation action.

Yet, despite their significant contributions and capabilities, higher education institutions have failed to deliver the pace and scale of change that our society urgently requires.

A wicked problem and grand challenge requires collaboration

Unless we act now, climate change and the resultant biodiversity crash threaten our planet and way of life. Climate mitigation is both a 'wicked problem' and a 'grand challenge'. It is a distributed, messy, complex, socio-cultural phenomenon that requires systemic solutions across multiple

domains – across energy, financial, economic and social systems. If we are to prevent conflicts over scarce resources, we need to reorganise everyday life to create a different kind of economy, one capable of regenerating, restoring and enhancing both natural and social systems.

Our understanding of this need is long standing. Since the 1960s, when Rachel Carson published *Silent Spring*, we have had scientific evidence of the catastrophic effects of the use of pesticides in food production, resulting in the collapse of nature. In 2019, *The State of Nature Report* from a group of conservation and research organisations revealed the alarming downward trends for biodiversity in the UK: since 1970, there had been a 41% decline in species. Similarly, the UK Government's *Climate Change Risk Assessment* has underscored the link between the deterioration of natural habitats and climate change, suggesting that 30% of species could face the risk of extinction by 2080 if greenhouse gas emissions continued to rise.

Evidence that we are breaking the planetary boundaries that provide the conditions for life on earth puts society at critical risk of creating 'tipping points' of no return. For more than five decades, data has shown a need for urgent action. Yet, as a society, we have consistently failed to act at the scale and pace required; we now face a clear and present danger.

But there is hope: generating social tipping points (for example, by transforming energy systems, finance, education and governance) could help society take action to address climate change and stabilise the earth's climate by 2050.[1] To mobilise the breadth of expertise needed to create these tipping points, the United Nations include Climate Action and the development of Sustainable Cities and Communities in their Sustainable Development Goals. More than bringing together the required expertise, higher education institutions need to co-ordinate and co-develop solutions collaboratively, with the keystone stakeholders who have agency to act across multiple national borders and domains of human activity simultaneously.

There is clear evidence that collaboration enables systemic change. The collaborative-governance literature demonstrates that when public agencies, firms and civil society engage in consensus-oriented deliberative processes

(not just consultation), outcomes improve. Thus, when diverse actors work together, they can achieve outcomes that no single institution can deliver alone.[2] Comparative studies of participatory and collaborative governance consistently show positive effects on the quality and implementation of environmental measures, particularly when processes are co-designed and deliberative.[3] Large cross-case studies of fisheries and forestry reveal that where communities collaborate with governments and scientists, they deliver measurable ecological gains and improved livelihoods.[4] Transnational city networks, such as the C40 Cities initiative, have accelerated urban climate action by diffusing innovations and scaling local experiments into broader systemic shifts. Taken together, these findings highlight that collaboration works because it enables the integration of diverse knowledge, the distribution of responsibility and the creation of legitimacy and accountability, all of which are preconditions for addressing systemic challenges at speed and scale.

Such collaborations need support. Research shows that collaborative platforms act as polycentric systems, which can improve experimentation, mutual monitoring and learning across multiple scales.[5] Higher education institutions are well positioned to act as collaborative platforms capable of driving change at the pace and scale needed, by designing the structures, resources and incentives needed to convene experts. They allow partnerships to flourish and deliver real-world impact through collaborative research and innovation across economic, social and technical domains.

Different kinds of collaborative platforms have emerged in recent years, presenting a significant opportunity to engineer a transformation infrastructure capable of supporting collective, open, socio-technical and economic innovation at scale. These platforms could support targeted coordination and show 'what works' in the transition to a more sustainable economy and society.

Higher education institutions as collaborative platforms

In Sir Nigel Carrington's 2025 report, *Towards a new era of collaboration*, the need for increased collaboration between higher education institutions is put front and centre of progress. To work well, such collaborations require a supporting infrastructure that spans traditional disciplinary boundaries and

engages a diverse range of stakeholders from government, business and civil society. Higher education collaborative platforms, including environmental literacy education initiatives, funded research projects, funded and unfunded research centres, research institutes, catalysts, accelerators and networks provide distinct models of collaborative support.

Described as open architectures of collaborative governance, collaborative platforms can be designed to structure, organise and support cooperative working practices across organisational boundaries. When designed with care, collaborative platforms can support 'high intensity' interactions that nurture mutual interdependence and joint action and simultaneously preserve the autonomy of collaborating parties.[6] Facilitating interactions between academics, practitioners and policymakers helps organise collective decision-making and management to 'engage people constructively across the boundaries of public agencies, across multiple layers of government, across public and private and civic spheres'.[7] Put differently, collaborative platforms engage stakeholders in a 'collective decision-making process that is formal, consensus-oriented and deliberative', so that actors can co-produce goals and strategies and share responsibilities and resources.[8]

Collaboration is changing the education offer

Higher education institutions are starting to support collaborations that embed environmental literacy into curricula and campus culture. Further, initiatives – such as the United Nations's Principles of Responsible Management Education (UN PRME) – are helping institutions share best practice. As a result, today's students (future leaders in science, engineering, urban planning, business and the public sector) are adopting and developing more sustainable practices. However, we need to develop and accelerate this change.

UN PRME (Principles for Responsible Management Education) is a 'global initiative [that] connects business schools and management-related higher education institutions around the world in a mission to integrate sustainability and social responsibility into business education and research. Since its launch by the United Nations in 2007, PRME has grown to include over 800 institutions across more than 90 countries.

'Through PRME, universities collaborate with each other and with industry to share best practices in teaching sustainable business, to carry out research on responsible management, and to engage in projects with companies that advance the Sustainable Development Goals. For instance, PRME schools often partner with corporations on student projects addressing the real sustainability challenges those companies face, such as reducing waste or developing inclusive business models. PRME provides a framework and network that makes it easier for such academia-industry collaborations to form, under a shared ethos of improving business' impact on society.'[9]

The success of PRME demonstrates the power of collective commitment. It has created a global community of educators and practitioners that are pulling together to accelerate the reach and speed of innovations in responsible management education.

We need to collaborate to develop green skills. The skills required to deliver a green economy remain unevenly developed and insufficiently embedded across education and training pathways. Employers consistently highlight shortages in technical skills for renewable energy, retrofitting and low-carbon transport, alongside deficits in managerial and leadership capabilities to guide organisations through sustainability transitions. This gap is compounded by slow curriculum reform, fragmented provision and limited opportunities for reskilling mid-career workers. As a result, regional economies risk falling behind in both workforce readiness and competitiveness in emerging green sectors.

One opportunity is for higher education institutions to offer affordable and accessible training informed by cutting-edge research, working in partnership to co-create green skills enhancement programmes, targeted to impact regional development. This could include vocational training centres, micro-credential programmes and enhanced apprenticeship schemes targeting green industries. Higher education institutions could do more to collaborate with public agencies and regional industrial bodies to embed regional industry needs into training and curriculum design. Prioritising sectors such as renewable energy, sustainable construction, low-carbon transport and the development of more general management and leadership transition

skills will help with workforce resilience and employability. Universities could align their short-course offers with the Westminster Government's Lifelong Learning Entitlement policy (a modular student learning approach, born of the 2019 Augar Review). Every learner up to the age of 60 may now have access to the equivalent (loan) funding of a four-year full-time study (around £37,000), providing a significant opportunity for universities to support the rapid roll-out of green skills. Bite-sized learning, part-time study and credit transfers between institutions would also support upskilling and wider access and participation.[10]

Government agencies and universities should collaborate on measuring what drives positive change. Established by the Starmer administration in 2023, Skills England is tasked with aligning skills provision with labour market needs and is well positioned to play a pivotal role, coordinating national standards for green competences, embedding sustainability principles into qualification frameworks and focusing policy support on sectors critical for green economy transitions. University collaboration with Skills England could develop Local Skills Improvement Plans with Mayoral Combined Authorities, to ensure that green skills training are responsive to local economic needs. This would increase participation rates in education and training (especially in disadvantaged regions), improve graduate earnings by aligning skills with growing green sectors and help to narrow regional inequality by supporting economic renewal through green industries.

Opportunities to accelerate green skills via further education and higher education collaboration with Skills England

Opportunity	How it helps accelerate green skills
Co-designed modular courses between further education colleges and higher education	Allows learners to stack short courses into full qualifications, gaining green skills progressively.
Shared green skills hubs	Facilities jointly funded and operated by further education and higher education institutions, providing technical and higher-level green training.

Regional green skills strategies	Universities use research to identify future green economy needs; further education colleges adapt provision to meet near-term workforce demands.
Dual-sector apprenticeships	Apprentices could start in further education and transition into higher education degrees linked to green careers, combining vocational and academic strengths.

Two issues effect universities' ability to create such offers: accessibility and funding. Historically, universities have not organised for accessibility. Education programmes and their payment systems must be easy-to-use and accessible for learners. At present, university systems are often designed around a single September intake, as opposed to join-anytime systems. They are cumbersome, preventing many academic departments from creating short-course offerings. This is part of rethinking universities as collaborative platforms.

Funding short-course learning would likely accelerate take-up. The government could create tax credits, apprenticeship reforms and a dedicated Green Skills Fund to support re-skilling programmes, ensuring that workers can transition into green industries. While concerns of fraudulent claims and non-completion of publicly funded initiatives have generated concerns in the past, there are several steps that universities and governments could take to avoid both. Universities can strengthen enrolment and attendance monitoring systems, making use of digital verification and monitoring advances (face recognition, for example), while loan companies could demand confirmation of attendance, activity and progress, which could be connected to distributed and automated loan disbursements. A joint fraud detection partnership between government and universities would be critical.

In sum, higher education institutions need to do more to accelerate environmental literacy via education, ensuring that sustainability is part of every tertiary curriculum pathway and that it is made as accessible as possible. By educating students via engagement with environmental specialists (scientists) and users of environment research (business and public sector practitioners and policymakers), students will be able to develop a more

nuanced understanding of the significant challenges we face in transitioning to a green economy.

Disciplinary collaboration should drive research and innovation

With the right support, universities can provide essential disciplinary collaboration to tackle this problem at scale. Technology is an essential but insufficient basis for green economic transitions. While universities have made significant progress in advancing renewable energy and energy efficiency, lower-carbon materials and more climate-resilient energy infrastructures, there is little work being done to transform the socio-economic mechanism of the not-so-green global economy.

To date, technology research and innovation have largely been driven by collaborations across STEM disciplines (Science, Technology, Engineering and Mathematics) – positioning technology as the solution. Without social innovation, the development and adoption of green technologies will stall across entire supply and demand networks: from production to consumption. While higher education institutions have the social science expertise to generate evidence and insight to support social innovations, few have the resources to apply their social expertise to the problem at hand. This represents a significant missed opportunity. The Social Sciences, Humanities and the Arts (SHAPE) disciplines offer significant expertise to advance understandings of 'People and the Economy' and could situate higher education institutions at the centre of driving cultural and social change in a transitioning green economy.

The introduction of renewable energy infrastructures (such as wind turbines and solar farms) is a useful example of the need for social innovation alongside technical innovation. Plans for wind and solar farms have generated local resistance, which has led to change scepticism, the politicisation of net zero and the rise of anti-net zero parties and policies. Instead, we need to create a context where such green economy transitions are not threatening the economy and livelihoods of workers. Instead, transitions must enable sustainable and inclusive economic growth.

Collaboration through knowledge exchange is solving real-world problems

Higher education institutions are bridging knowledge and action by transforming the way they do research and knowledge exchange, increasingly using engaged, participative and collaborative methods. This is helping universities deliver their civic responsibilities within their region and beyond.

Higher education institutions often have longstanding relationships with regional and national government, industry partners and (inter)national networks. Collaborative relationships position higher education institutions not only to translate research findings into practical policy solutions but also to work with external stakeholders and research users to co-produce new knowledge in relation to specific challenges and concerns. Higher education institutions host conferences, policy dialogues and public lectures. They bring experts together to explore problems at a regional, national and international scale. By ensuring dialogue is grounded in evidence and state-of-the-art knowledge, universities are well-positioned to build consensus and drive collective action outside of politics. In addition, many institutions support researchers to serve as advisers to government agencies or to collaborate with companies on research and development ideas. Developing understanding in this way is central to generating practical climate change solutions.

While higher education institutions have a long track record of supporting collaboration, achieving the collaborative outcomes at the scale and pace required to deliver a green economy is a significant challenge. At best, higher education institutions can point to hot spots of success which prove the collaboration concept works in practice. However, because of the scale and complexity of the climate emergency, proof-of-concept is not enough. To accelerate the pace and scale of collaborative impact, higher education and policy leaders will have to overcome significant barriers.

Climate change cannot be solved by a single actor. Higher education institutions must work together to develop a network of collaborative platforms. The analysis that follows underpins a call to develop a coordinated network of regional collaborative platforms connected to each other via an overarching national platform.

2. The barriers to collaboration

If higher education institutions are to realise their potential in driving the transition to a green economy, they must overcome external and internal barriers.

Global political context and climate action: policy contradictions

The current policy landscape presents significant barriers to achieving regenerative, green economy transitions. While many governments across Europe (and beyond) have made commitments to tackle climate change, there are contradictory trends that complicate the picture.

The climate emergency is a global issue, yet not all political forces are aligned in support. In early 2025, the United States administration began to undermine federal efforts to address climate change. References to climate science and policy have been removed from official government websites, effectively censoring information about the climate crisis. Executive orders and policy changes have dismantled climate initiatives. This is a single country policy change with international implications.[11]

Anti-climate action underscores the importance of independent higher education institutions as critical change agents. When political winds shift or short-term interests are focused, universities can stand as guardians of scientifically informed information and sustained efforts to address the climate emergency.

Despite international setbacks, the UK's political environment offers promise: the UK was the first major economy to enact a legally binding target to reach net-zero carbon emissions by 2050. Other countries followed. The European Union's Green Deal is a wide-ranging strategy aiming for climate neutrality across member states, transforming sectors from energy to agriculture.

This supportive policy in the face of global threats creates a unique opportunity for UK higher education institutions to lead the way. Regions with robust

climate policies can collaborate with government and regional higher education institutions, creating a relationship between research and teaching on climate mitigation and government policy. Where governments are disengaged or hostile to climate action, UK universities can collaborate with other institutions across national borders to sustain activity, keeping climate issues in the public discourse and partnering directly with businesses and local authorities to educate citizens and safeguard academic freedoms. International networks of researchers can help to maintain momentum even if one country temporarily pulls back support. However, our opportunity to lead these collaborations is threatened by the current financial landscape in the UK.

The financial context of UK universities

The financial landscape for many UK universities remains extremely challenging. Universities face escalating operational costs, including staff salaries and pension contributions, straining their budgets. This scenario underscores the need for urgent financial restructuring and the development of sustainable funding models within the sector.

Yet higher education institutions have found an enthusiastic audience for their work and are connecting with willing collaborators, including students, local authorities, communities and businesses aligning with their net-zero and climate change goals. For example, Electrical and Electronic Engineering researchers at the University of Sheffield developed permanent-magnet gearless generator technology that is now incorporated into Siemens Gamesa offshore turbines, reducing global weighted-average levelised cost of energy by 37 per cent and enabling the creation of the first zero-subsidy offshore wind farm. Energy-systems researchers at University College London generated cost-and-demand models, helping the National Grid plan their renewables infrastructure. The UK People and Planet student network has worked with researchers to establish a league table of the most sustainable universities.

Despite these success stories, progress is threatened. There are significant research de-investment decisions being made by universities because of precarious finances.

Financial constraints have implications for universities putting their own houses in order. Most UK universities have committed to ambitious net-zero targets for 2030 on Scope 1 and Scope 2 emissions, backed by detailed decarbonisation roadmaps and investments in energy efficiency and the production of renewable energy (such as University College London's net-zero-carbon building programme and the rooftop solar rollout at the University of St Andrews). However, sector data from the Higher Education Statistics Agency shows that Scope 1 and 2 emissions fell by only 1 per cent in 2022/23, indicating that much of the low-hanging fruit has already been picked. Further reductions will require significant investment and mitigating Scope 3 emissions is proving challenging (for example, supply chains, travel and information technology emissions). Given funding, universities could do much more to demonstrate their commitment and lead by example.

University structures and culture

While higher education leaders say they support collaboration, the structures and culture of academic departments can act as a major barrier. For many years, universities have emphasised and valued individual, discipline-focused excellence over team-based interdisciplinary work. Academic departments are typically organised by discipline, each with their own cultures, conferences and journals. Because scholars are trained and socialised within these silos, they can find it extremely difficult to work on multi-, inter- or transdisciplinary projects. Understanding the differences between these forms of research is an important step in developing solutions to these difficulties.

Multidisciplinary research brings together experts from different disciplines to work in parallel on a common concern relating to climate change; researchers contribute separate insights based on their discipline without trying to integrate their perspectives. Their dialogue is aimed at generating new ways of seeing.

Interdisciplinary researchers integrate methods and concepts to create a synthesised understanding; for instance, combining climate science and economics to model the impacts of carbon pricing.[12] Researchers invest considerable time and effort in understanding the norms, language and

methods of those they are collaborating with and, consequently, often generate profound insights and practical solutions.

Transdisciplinary research goes further and is arguably the most challenging form of research. Transdisciplinary research brings (often interdisciplinary) researchers together with external stakeholders, for example, regional business practitioners, city officials and policymakers, to collectively frame problems and co-design evidence-based solutions.

Building a career based on inter- and transdisciplinary research is a difficult task, as university structures and cultures can impede progress. University recruitment and reward systems recognise high numbers of publications and citations in discipline-specific journals, while inter- and transdisciplinary research is typically slower, spanning multiple topics and appearing in less traditional publication outlets. Consequently, interdisciplinary research is undervalued or viewed sceptically by peers who do not understand its nature and complexity. It is important to recognise the disincentives baked into the academic recruitment and promotions system: collaborative and interdisciplinary research that brings about real-world change may not be recognised by promotion panels if it has not been published in recognised journals. Institutions need to remove this barrier as a matter of urgency. Universities have to invest in new architectures to support and reward researchers to learn inter- and transdisciplinary skills and to recognise different forms of high-quality outputs.

There are examples of institutions that have attempted to overcome these structural anomalies with career frameworks. For example, the University of New South Wales in Australia has redefined academic promotion to reward societal and interdisciplinary impact by ensuring that:

- promotions panels are trained to recognise non-traditional outputs, such as policy briefings, cross-sector partnerships, community and participative research outcomes, that are co-produced;
- case templates require applicants to map their work against collaborative research and not just publication counts; and

- a central research infrastructure that facilitates and acknowledges cross-institutional collaborations.

In 2018, North Carolina State University put together a Strengthening University-Wide Interdisciplinarity task force to overhaul promotions and tenure processes, introducing:

- expanded promotions criteria that explicitly credit interdisciplinary outputs (papers, grants, creative works) alongside traditional disciplinary metrics;

- guidance for department and external reviewers on valuing team-based and cross-field work; and

- periodic review of promotion cases to ensure interdisciplinary scholars are not disadvantaged by single-discipline panels.

Similarly, there can be mutual stereotypes when researchers engage outside of academia (for example, ivory-tower professors versus unimaginative bureaucrats) that impede initial trust and stop collaboration before it has started. While academics tend to communicate findings with nuance and caution, often expressed through technical papers, business leaders and policymakers may respond better to concise and action-orientated messages. The norms of scholarly discourse (hedging statements, detailed methodology, emphasis on uncertainties) can reduce the impact outside academia if not translated.

Furthermore, policymakers and business leaders often find it difficult to communicate their concerns to researchers. This can make it hard to make clear the kind of information or solutions that would be most useful for immediate decisions or tasks. Current policy or business needs might not invite the conceptually or theoretically interesting questions often pursued by researchers. Equally, politicians are frustrated that researchers seem unable to give definitive recommendations without caveats or understand the limits imposed on them by voters in democracies. In turn, researchers can become frustrated when politicians cherry-pick single data points from complex studies.

Trust and mutual understanding take time to build but can be accelerated with careful facilitation. Universities need to create collaborative platforms where listening skills for effective collaboration can be developed and supported. Communicating outside of academia is a skill, yet research training rarely supports its development. Universities need to invest in communications specialists and knowledge exchange agents to support effective collaborations.

Yet the collective response to the COVID-19 crisis set a precedent for effective academic, government and business collaboration; we showed how boundaries between disciplines and sectors can be crossed to make fast progress in an emergency. The pandemic forced academics, policymakers and business leaders to overcome their professional culture, timeline and language differences. Research insights into disease spread and vaccine development were widely shared before being published in peer-reviewed journals.

In a post-pandemic world, progress seems to have slowed. Climate research takes time to yield critical insights. In the Business and Management field, it is not unusual for the research design-to-publication process to take five years. In contrast, business practitioners and policymakers require fast input (within days) to make decisions and respond to crises. With structured and managed support and investment in collaborative platforms, we can accelerate our response. If we address these structural barriers, higher education institutions can lead climate mitigation and green economy transitions.

3. Building effective collaborative platforms for climate action

Despite the barriers identified above, universities around the world are now experimenting with new forms of collaboration that span traditional disciplinary boundaries and engage a diverse range of stakeholders from government, business and civil society. To be effective, these collaborations require more than goodwill; they demand robust support systems and carefully designed infrastructures that can accommodate the complexity and ambition of cross-sector, inter- and transdisciplinary research.

These infrastructures – referred to as collaborative platforms – are more than physical or digital spaces. Rather, they are structured, intertwined arrangements that facilitate 'high-intensity interactions'.[13] Collaborative platforms are capable of supporting sustained engagements that nurture mutual interdependence and coordinated action while respecting the autonomy of each participating organisation or group.

Kirk Emerson, Tina Nabatchi and Stephen Balogh define collaborative platforms as the structures and processes that 'engage people constructively across the boundaries of public agencies, government and the public, private and civic spheres'.[14] They do this in ways that are formal, consensus-oriented and deliberative, enabling diverse actors to co-produce goals, strategise and share responsibilities and resources. In the public administration context, collaborative platforms therefore operate as forms of collaborative governance.

Varieties of collaborative platforms in higher education

While different collaborative platforms vary in their scale, structure and resourcing, they all serve the same essential purpose: to enable collective problem-solving and research aimed at generating real-world impact. This section outlines the most prominent collaborative platform types, highlighting their roles, strengths and limitations in supporting climate mitigation and sustainability transitions.

Funded research projects often serve as temporary platforms for interdisciplinary and transdisciplinary engagement. Typically designed around a specific problem-solution frame, these projects are time-bound (often lasting between two and three years) and bring together academic researchers, policymakers, industry partners and third-sector stakeholders. They are frequently supported by competitive grants from agencies such as UK Research and Innovation or philanthropic sources.

Funded research projects (especially larger ones) often encourage multiple perspectives and enrol diverse forms of expertise. They are often co-designed with stakeholders, increasing the likelihood of relevance and impact. Impact-generating activities receive rigorous peer review and feedback as part of the funding process. However, because funded research projects are time-bound, they have limited opportunities to drive long-term systemic change. Furthermore, when seeking to address complex and uncertain situations through engaged research methods, projects can be constrained by pre-approved research design requirements and limited flexibility for post-funding activity. The 'funding cliff edge' often means that collaborative momentum is lost as the project concludes.

A well-documented example of success is the Seafood Business for Ocean Stewardship initiative, which links scientists and major seafood companies in a long-term partnership. This collaborative platform exemplifies how sustained collaboration can be enabled through philanthropic funding and continuous engagement. The project helped a community of practice reframe problems and deliver sector-wide innovations.[15]

Funded research centres typically represent a longer-term investment (five or more years) and are usually backed by government research councils or philanthropic foundations.[16] These centres are often hosted by a single institution but may involve multiple universities and external partners. Their thematic phenomenon-based approach (for example, focusing on delivering net zero or positively impacting biodiversity) allows them to integrate diverse disciplinary perspectives (for example, bringing ecologists, economists, accounting scholars and sociologists together to explore nature markets within the business ecosystem). Funding provides stability that enables

centres to build reputation and trust with external stakeholders (for example, with keystone businesses, policymakers and / or public groups that may be impacted by any change being researched). Their longevity enables sustained relationships and reputation-building, allowing them to produce both academic outputs and practitioner and policy-relevant materials to explain and justify change.

Funded research centres often have the resource to support skills and capacity building for research, engagement and knowledge exchange. They often host external-facing knowledge exchange events. As with funded research projects, funded research centres depend on continued investment. Institutional alignment with a centre's reputation-building can lead to their continuation beyond the period of external funding.

Investments in research centres can be significant (often more than £5 million), meaning their research and innovation programmes are influenced by the agenda of funders.

An example is the UK's network of What Works centres. Established in 2013 under the Cabinet Office, HM Treasury and the Economic and Social Research Council, What Works centres aim to ensure that policy and practice across government and public services are underpinned by the best available evidence. Their activities are funded through blended streams of central government departments (core), Economic and Social Research Council / UK Research and Innovation (strategic), devolved administrations, charities / philanthropy (notably relating to social issues) and project-based commissioning. This diversified model is designed to give them both independence and sustainability, while ensuring evidence flows directly into UK policymaking and service delivery.

The Centre for Sustainable Innovation at the University of Salford offers a slightly different model, where research and knowledge exchange grants fund the entirety of the Centre's activities, ensuring real-world challenges inform the research that is undertaken. While there is no single source of funds under this model, the portfolio of projects delivered help build reputation and secure further funding in a virtuous circle.

Unfunded research centres take a different form, typically emerging from the voluntary collaboration of small groups of scholars (five to 10) working within a shared intellectual or theoretical frame. They are often interdisciplinary in ambition but constrained by minimal resources (sometimes no more than £3,000 to £5,000 as an annual resource), plus researchers' time, funded by the employing university. They enable the creation of strong intellectual communities and can provide accelerated theorising skills that can advance a group's research at pace. They are often marked by a highly motivated and committed leadership and are useful for amplifying individual researchers' work through collective branding. Their limited resource usually means they have less capacity for external engagement or sustained impact. Consequently, it is not easy for unfunded research centres to scale up or respond flexibly to policy and industry opportunities; they rely on the voluntary commitments of researchers and goodwill.

An example is the Centre for Practice Theory at Lancaster University, which provides a 'home' for scholars working with social practice theory. The Centre supports a global interdisciplinary network through workshops and online events, with some researchers describing their research concerns and contexts in relation to sustainability.

Research institutes are typically long-term, strategic investments by universities. They focus on high-priority societal challenges that demand an interdisciplinary approach, including sustainability in business and society and climate change.[17] They aim to position their host institutions as global leaders in these areas. As strategic investments, they typically have more substantial resources and infrastructure, and most importantly, the capacity for interdisciplinary facilitation, with doctoral scholarships and knowledge exchange support. As a result, research institutes can support long-term community building and grant-capture activities, constituting teams that are productive and impactful in what they do. Research institutes are exceptionally good at assembling and reassembling research teams based on emerging priorities. They require sustained leadership and institutional buy-in and, as such, can be vulnerable to shifting university priorities and staff turnover. They also require a continual generation of funded research to maintain momentum, which can be challenging as funders tend to favour the establishment of new collaborative platforms rather than existing ones.

Institutes like the Sustainable Consumption Institute at the University of Manchester, the Edinburgh Climate Change Institute at the University of Edinburgh and the Grantham Institute at Imperial College London, demonstrate the value of institutional investment in problem-focused, interdisciplinary research.

Catalysts differ significantly from research centres in their purpose and form. Catalysts were established to be agile, purpose-led collaborative platforms, designed to bring together actors from academia, policy and business to co-design responses to pressing challenges.[18] Typically run by a small expert team, catalysts provide structured programmes of activity that catalyse collective understanding and action. Problems are framed by practitioners, and scientists bring their expertise to bear, achieving outsized impacts from this dedicated resource. They are effective at bridging multiple stakeholder groups and can operate from within or outside formal university structures, offering flexibility. They require consistent funding to maintain staff and programming, making their existence precarious.

The Innovation Catalyst at Lancaster University, for example, convenes leaders from regional firms, academia and policy to co-create innovation ecosystems. Its work includes action-oriented 'Innovation Collaboratories' focused on net zero and cybersecurity. The Innovation Catalyst was funded by the UK Shared Prosperity Fund. Similarly, the Stevenage Bioscience Catalyst – formed by GSK, the Wellcome Trust and the UK Government – acts as a platform for academic–entrepreneurial collaboration, particularly in the biosciences. Unlike the Innovation Catalyst, this is an industry-led initiative.

Another form of catalyst are the UK Government's nine sector-based Catapults. Established in 2011 under the Conservative and Liberal Democrat Coalition Government, conceived as innovation bridges between academic research and commercialisation (while being modelled on Germany's Fraunhofer Institutes), the Catapults operate from 65 locations and employ more than 6,000 staff. From April 2023 to March 2028, core funding is set at £1.6 billion (£320 million per annum). The Catapult network has recently delivered 18,785 industry collaborations, 11,916 small and medium-sized enterprises have been supported and 5,560 academic partnerships.[19]

Catapults operating in domains with clear market and policy pull (for example, renewables / offshore energy), can play a critical convening role and mobilise their infrastructural assets to deliver measurable economic impact, providing proof of performance. In contrast, systems or cross-domain Catapults (such as the Energy Systems Catapult) add high strategic value and make contributions that are much harder to isolate and so rely more on qualitative policy evaluations and reports rather than on metrics. While Catapults have the potential to offer significant value, they are expensive and their focus is broad.

Accelerators are platforms designed to scale up research-based innovations, speeding up the development of technological advancements, their commercialisation, marketisation and adoption. These platforms may or may not be open to interdisciplinary academic participation, depending on their design. They can be good at moving innovations from concept to application and adoption and can provide vital support for early-stage spinouts or support communities struggling to adopt technologies. Critically, they offer potential links to funding, mentorship and networks. However, accelerators often have a narrow focus, most notably on start-up or commercial outputs. While they often have limited interdisciplinary academic involvement, they can generate important collaborative research opportunities.

For example, Stanford's StartX Accelerator supports tech startups with strong links to Silicon Valley venture capital, while the UK-based Technology in Professional Services Accelerator (TiPS) works with law and accounting firms to adopt digital technologies. The former is aimed towards entrepreneurs, while the latter integrates academic researchers more directly in the co-development process.[20]

Networks are typically less formalised than other platforms and often bring actors together around events such as roundtables, seminars or panels. They can play an important role in fostering collaboration and communities of practice. Their informal arrangements mean they often operate at scale, making them inclusive, dynamic spaces for showcasing work and forming connections that lead to more intensive collaborations. Networks can have global reach and longevity and are useful for sensitising participants to emerging challenges and opportunities. The challenge is that the events they

organise can lack follow-through. Networks require long-term support and may be vulnerable to leadership changes.

Examples include the Interdisciplinary Market Studies network, which highlights emerging socio-political and economic issues, and the Centre for Social and Environmental Accounting Research, which provides thought leadership across institutions and borders.

These collaborative platforms have been developed by many higher education institutions in response to researcher, government and public concerns with the climate emergency. Research funding has increased, and partnerships with government agencies on sustainability projects have become more widespread in Europe and before 2025, in the United States. In the UK, the value of university collaborations is increasingly recognised by government and research organisations, with funding for research and innovation explicitly encouraging collaboration. The creation of UK Research and Innovation (UKRI) in 2018 has been a driving force, bringing together previously separate Research Councils into one overarching body. With the aim of encouraging multidisciplinary and interdisciplinary working, it has supported a more coordinated approach to strategic research and innovation investments. As a result, government investments have become more impactful.

Beyond the UK, other major funding initiatives have also targeted grand challenge research: schemes like the UK's Global Challenges Research Fund and the EU's Horizon Europe explicitly fund research with multidisciplinary teams focused on issues such as climate change, clean oceans and sustainable cities. For the most part, UK industry-led collaborations supported by Innovate UK tend to have a more limited focus on research and systemic change.

These structural shifts signal that interdisciplinary collaboration is not just encouraged; it is becoming an expected norm in addressing complex problems. However, it is also clear that, despite these investments, important collaborative efforts are not delivering a green economy transition at the pace or scale required. The claim here is that extant platforms do not currently support transdisciplinary research in a sufficient or systemic way. There is a need for targeted and interconnected climate mitigation platforms that

systematically support transdisciplinary research capable of delivering real-world impact at pace.

4. Accelerating & scaling green growth through collaboration

The real challenge is delivering the scale of change required to mitigate climate change and to do this before the planetary system reaches a tipping point of no return. This raises questions about how best to make use of higher education institutions' investments in collaborative research, which for the most part are fragmented and distributed but which at the same time offer promising solutions to some of the most critical social, technical and economic problems we face.

A first stage is to think of collaborative platforms as being part of a knowledge ecosystem and a vantage point from which to explore the scaling of impacts. The process of scaling can enable collaborative platforms to achieve a disproportionate increase in performance (impact) relative to the extent of the activities under scrutiny: getting more out than you put in. Through their work on systems of social innovation, Michele-Lee Moore, Darcy Riddell and Dana Vocisano identified three forms of scaling:

- **scaling up,** where a group or collaborative platform manages to deliver institutional changes in policies and laws that make the reach of any change much bigger;
- **scaling deep,** where the group or collaborative platform effects institutional changes in cultural norms, beliefs and values; and
- **scaling out,** where the group or collaborative platform increases the reach of its effects through the replication and dissemination of ideas, values and cultural norms and maximises the use and productivity of investments in concrete structures and activities that support them.[21]

We argue that collaborative platforms developed to advance climate change mitigation research could act as a critical national infrastructure for scaling green economy transitions. As a strategy for scaling, the further development of collaborative platforms seems worthy of consideration.

Although scaling the impact of collaborative platforms will require strategy and investment, major efficiencies could be realised by connecting and coordinating the activities of existing platforms. For example, a £650 million five-year Green Innovation Challenge Fund could be established to finance a coherent UK network of university-anchored platforms capable of delivering measurable, regional and national progress in climate mitigation. This could cover: national coordination (8% of the budget); a regional delivery and coordination architecture (30%) for a research and innovation network; support for extant collaborative platforms (including research institutes and centres) (30%); support for incentive reform (8%) to drive interdisciplinary Social Sciences, Humanities and the Arts for People and the Economy (SHAPE) and Science, Technology, Engineering and Mathematics (STEM) and; and a skills and workforce development initiative (24%).

Investment in a national & regional network of collaborative platforms

Initiative and five-year investment	**Aims**
National collaborative platform, linking regional hubs (£50 million)	❱ Curate a national repository of climate-action evidence and 'what works' data. ❱ Run annual policy-practice dialogues and international partnerships. ❱ Maintain a small central professional team for data curation, communications and scaling. ❱ Manage monitoring and evaluation of overall system impact. ❱ Co-ordinate action and / or areas of expertise and focus, nationally.
Regional knowledge exchange hubs Establish eight regional Greening Economy hubs anchored in universities (**£**200 million)	❱ Connect local research centres, further education colleges, small and medium-sized enterprises, local / regional authorities and anchor institutions to co-create shared sustainability goals. ❱ Run 'living labs' for renewable energy, sustainable construction, transport and urban greening. ❱ Use professional knowledge-exchange teams and impact evaluators to deliver and evaluate impact. ❱ Fund regional demonstrator projects that scale local successes.

University institutes and research centres
 	
Support existing collaborative platforms that are nurturing interdisciplinary and transdisciplinary sustainability research and innovation with regional, national and international partners.
 	
(£200 million)
	◗ Support existing collaborative platforms that drive interdisciplinary and transdisciplinary research, incorporating both Science, Technology, Engineering and Mathematics and Social Sciences, Humanities and the Arts for People and the Economy expertise.
	◗ Support transdisciplinary research and innovation projects co-developed with business, public and civil-society partners.
	◗ Deliver challenge-based research programmes focused on:
	  ◗ Decarbonising supply chains and local manufacturing.
	  ◗ Nature-positive accounting, regenerative business models and social innovation.
	  ◗ Supporting small and medium-sized enterprises to adopt clean technologies.

Incentives, evaluation and higher education institutional reform (£50 million)	◗ Incentivise universities to reform internal reward systems and align Research Excellence Framework / Teaching Excellence Framework metrics with climate impact. ◗ Provide seed-funding for cross-disciplinary teams, leadership training and communications specialists. ◗ Support development of transdisciplinary and knowledge-exchange career pathways. ◗ Fund longitudinal impact assessment and open-access data sharing.
Green skills and workforce transformation (£150 million)	◗ Jointly led with Skills England, further education and higher education providers. ◗ Co-fund modular micro-credential courses, apprenticeships and dual-sector qualifications. ◗ Create shared Green Skills Hubs for technical and managerial training. ◗ Integrate university payment systems with the Lifelong Learning Entitlement to widen participation.

5. Recommendations

The UK has an opportunity to lead the transition to a global green economy, but the scale and pace of change is currently insufficient. This paper suggests the central constraint is not a lack of ideas or activity in higher education institutions, but a need for co-ordination, incentives and sustained capacity to leverage and coordinate research excellence with regional keystone actors for systemic change. The recommendations that follow, therefore, focus on building a powerful knowledge infrastructure by connecting collaborative platforms and reforming the conditions to allow them to scale green economy transitions at pace.

i) Align higher education institutions to deliver green economy transitions

Many universities have already begun to reposition themselves as agents of climate mitigation through regional renewal, requiring new forms of collaboration. To scale collaboration, higher education institutions need to overcome entrenched disciplinary silos, revising researcher career incentives and supporting the development of agile collaborative platforms that link research, skills and practice with external stakeholders. Higher education institutions could:

a) Improve access to cutting-edge research through education and skills provision:

- translate climate and sustainability research into accessible short courses (micro-credentials) and vocational training;
- collaborate with regional partners, including small and medium-sized enterprises, further education colleagues and national agencies (Skills England) to shape skills provision;
- reform university payment systems for short-courses and align with the Government's Lifelong Learning Entitlement to make green skills training affordable and widely accessible; and

- protect universities from penalties for non-completion of short courses and to work with universities (and specifically with Universities UK) to co-develop robust fraud prevention and monitoring systems for those needing to access funding to pay for short courses – this will enable universities to invest in developing and delivering easy and effective green skills training.

b) Reform incentives for interdisciplinary research collaboration by developing:

- recruitment, promotion and reward criteria that recognise inter- and transdisciplinary research outcomes and real-world impact;
- new academic metrics that value problem-solving publications, partnerships and demonstrable societal benefit; and
- internal seedcorn grants for cross-boundary collaboration with industry, policy and social sector partners.

c) Strengthen knowledge exchange and engagement capacity:

- invest in professional knowledge exchange teams who can support new collaborations and translate research into actionable insights for policymakers, businesses and communities;
- embed professional knowledge exchange teams as an integral part of research collaborative platforms to manage partnerships with industry, public bodies and civil society; and
- implement monitoring and evaluation mechanisms so that the impacts of positive interventions can be evidenced, scaled and investments can be sustained over time.

ii) Co-develop a green skills and workforce transformation plan

The UK Government and universities must work together to ensure the workforce can adapt to and benefit from green economy transitions. This means:

- embedding sustainability into every curriculum;

- expanding modular courses, apprenticeships and micro-credentials in green sectors such as energy, construction and low-carbon transport; and
- using Skills England as a convenor to align qualifications, frameworks and labour market needs.

By linking skills development to regional greening strategies, universities and policymakers can address local economic needs, reduce inequalities and create resilient employment pathways.

iii) Build national and regional collaborative platforms

Climate action requires coordination beyond single institutions. A network of regional knowledge exchange hubs, linked into an overarching national climate or 'greening economy' platform, would enable research centres, local governments, businesses and communities to access cutting-edge research and shared learning, scale proven interventions and mobilise new knowledge at pace. These hubs should be tasked with:

- investing in and coordinating the activities of collaborative platforms based in higher education institutions across the UK;
- connecting local 'living labs' in, for example, renewable energy, sustainable transport, green business models and green construction;
- supporting leadership and management training for organisations undergoing green transitions; and
- curating a national repository of climate-related projects to accelerate replication across regions and nations.

iv) Establish a cross-disciplinary Green Innovation Framework

Government could create a policy and research funding framework that integrates research, industrial strategy and skills. A dedicated five-year £650 million Green Challenge Fund, jointly resourced by the Department for Energy Security and Net Zero, the Department for Environment, Food and

Rural Affairs, the Department for Science, Innovation and Technology, the Department for Education and the Department for Business and Trade would:

- sustain the work of collaborative research centres and accelerator platforms;
- incentivise partnerships that cut across Science, Technology, Engineering and Mathematics (STEM) and Social Sciences, Humanities and the Arts for People and the Economy (SHAPE) disciplines; and
- drive the adoption of clean technologies while addressing the social and economic transitions needed for a regenerative and inclusive economy.

This Green Innovation Framework would give coherence to fragmented initiatives, attract downstream private investment and strengthen the UK's position as a global leader in green social and technical innovation.

A £650 million Green Challenge Fund need not require new taxation. It could be created by rationalising and consolidating existing and fragmented innovation and place-based funding into a single mission-led programme administered through UKRI, with cross government sponsorship. This would mean pooling a small proportion of relevant existing budgets currently spread across the Department for Science, Innovation and Technology and UKRI Challenge programmes, net-zero innovation competitions and the place-based growth and innovation funds. Contributions might also come from skills-related innovation pilots. All could be presented as a single coherent Fund with shared outcomes, common evaluation and explicit requirement to bridge STEM (Science, Technology, Engineering and Mathematics) and SHAPE (Social Sciences, Humanities and the Arts for People and the Economy) research engagement in support of regional delivery hub for green economy transitions.

The Fund could sit alongside existing UKRI mission/challenge research governance mechanisms, with a cross-department board including representatives from the Department for Energy Security and Net Zero, the Department for Environment, Food and Rural Affairs, the Department for Science, Innovation and Technology, the Department for Education and the Department for Business and Trade. The board could set priorities and ensure alignment with industrial strategy and regional growth and skills policy. Savings could be made by reducing duplication of small competitions, while creating a consistent multi-year funding resource.

Endnotes

1 Ilona M Otto, Jonathan F Donges, Roger Cremades, Avit Bhowmik, Richard J Hewitt, Wolfgang Lucht, Johan Rockström, Franziska Allerberger, Mark McCaffrey, Sylvanus SP Doe, Alex Lenferna, Nerea Morán, Detlef P van Vuuren and Hans Joachim Schellnhuber, 'Social tipping dynamics for stabilizing Earth's climate by 2050', *Proceedings of the National Academy of Sciences*, vol.117, no.5, 2020, pp.2354-2365

2 Chris Ansell and Alison Gash, 'Collaborative governance in theory and practice' in *Journal of Public Administration Research and Theory*, vol.18, no.4, 2008, pp.543-571

3 Jens Newig, Edward Challies, Nicolas W Jager, Elisa Kochskaemper and Ana Adzersen, 'The environmental performance of participatory and collaborative governance: A meta-analysis of 305 case studies', *Policy Studies Journal*, vol.46, no.2, pp.269–299

4 Nicolás L. Gutiérrez, Ray Hilborn and Omar Defeo, 'Leadership, social capital and incentives promote successful fisheries', *Nature,* 470, 2011, pp.386–389*;* Ashwini Chhatre and Arun Agrawal, 'Trade-offs and synergies between carbon storage and livelihood benefits from forest commons', *Proceedings of the National Academy of Sciences*, vol.106, no.42, 2009, pp.17667-17670

5 Elinor Ostrom, 'Polycentric systems for coping with collective action and global environmental change', in Christian Barry and Holly Lawford-Smith, *Global justice*, 2017, pp.423-430

6 Robyn Leigh Keast, Kerry Brown, Myrna Mandell, 2007, 'Getting the right mix: Unpacking integration meanings and strategies', *International Public Management Journal*, vol.10. no.1, 2007, p.12; Ann Marie Thomson, James L Perry, Theodore K. Miller, 2009. Conceptualizing and measuring collaboration, *Journal of Public Administration Research and Theory*, vol.19, no.1, pp.23-56

7 Kirk Emerson, Tina Nabatchi and Stephen Balogh, 'An Integrative Framework for Collaborative Governance Get access', *Journal of Public Administration Research and Theory*, vol.22, no.1, 2012, pp.1–29

8 Chris Ansell and Alison Gash, 'Collaborative Platforms as a Governance Strategy, *Journal of Public Administration Research and Theory*, vol.28, no.1, 2018, pp.16–32

9 **https://unglobalcompact.org/what-is-gc/our-work/management-education**

10 Kate Wicklow, 'The Lifelong Learning Entitlement could still be a game changer for higher education' HEPI blog, 5 August 2024 **https://www.hepi.ac.uk/2024/08/05/the-lifelong-learning-entitlement-could-still-be-a-game-changer-for-higher-education**

11 Simmone Shah, 'Here Are All of Trump's Major Moves to Dismantle Climate Action', Time, 19 January 2026

12 Sneha Thube, Sonja Peterson, Daniel Nachtigall and Jane Ellis, 'The economic and environment benefits from international co-ordination on carbon pricing: a review of economic modelling studies', *Environmental Research Letters*, vol.16, 2021

13 Robyn Leigh Keast, Kerry A Brown and Myrna Mandell, 'Getting the right mix: Unpacking integration meanings and strategies', *International Public Management Journal*, vol.10, no.1, 2007, p.12

14 Kirk Emerson, Tina Nabatchi and Stephen Balogh, 'An Integrative Framework for Collaborative Governance Get access', *Journal of Public Administration Research and Theory*, vol.22, no.1, 2012, p.2

15 Henrik Österblom, Carl Folke, Juan Rocha, Jan Bebbington, Robert Blasiak, Jean-Baptiste Jouffray, Elizabeth R Selig, Colette CC Wabnitz, Frida Bengtsson, Beatrice Crona, Radhika Gupta, Patrik JG Henriksson, Karolin A Johansson, Andrew Merrie, Shinnosuke Nakayama, Guillermo Ortuño Crespo, Johan Rockström, Lisen Schultz, Madlen Sobkowiak, Peter Søgaard Jørgensen, Jessica Spijkers, Max Troell, Patricia Villarrubia-Gómez and Jane Lubchenco, 'Scientific mobilization of keystone actors for biosphere stewardship', *Scientific Reports*, vol.10, 2022

16 Isabel Edith Torres Zapata, 'University Research Centres: Organizational Structures and Performance', *Journal of Technology Management and Innovation*, vol.14, no.3, 2019, pp.23-43

17 Paul Bolger, 2021, 'Delivering on the promise: how are sustainability research institutes enabling interdisciplinary research?', *International Journal of Sustainability in Higher Education*, vol.22, no.8, 2021, pp.167-189

18 Ju Young Lee and Sandra Waddock, 'How transformation catalysts take catalytic action', *Sustainability*, vol.13, no.17, 2021

19 Catapult Network, *Prospectus*, 2025

20 Lynn E Metcalf, Thomas M Katona, and Jonathan L York, 'University startup accelerators: startup launchpads or vehicles for entrepreneurial learning?', *Entrepreneurship Education and Pedagogy*, vol.4, no.4, 2021, pp.666-701

21 Michele-Lee Moore, Darcy J Riddell, Dana Vocisano, 'Scaling out, scaling up, scaling deep: strategies of non-profits in advancing systemic social innovation', *Journal of Corporate Citizenship*, 2015, pp.67-84

President

Bahram Bekhradnia

Trustees

Professor Dame Sally Mapstone (Chair)

Mary Curnock Cook CBE

Professor Dame Julia Goodfellow

Professor Sir Chris Husbands

Professor Nick Pearce

Director

Nick Hillman OBE

Advisory Board

Alison Allden OBE

Professor Sir Nishan Canagarajah

Anne-Marie Canning MBE

Andy Forbes

Professor Julie Sanders

Professor David Sweeney CBE

Partners

Advance HE

Cambridge University Press & Assessment

Duolingo

Ellucian

Elsevier

Huron

iQ Student Accommodation

Instructure

Interpath

Jisc

JS Group

Kaplan

Kortext

Lloyds Bank

Research England

Studiosity

Taylor & Francis

TechnologyOne

Times Higher Education

Unite Students

UPP Foundation

HEPI

Debate

46

Partnered with

University of Salford MANCHESTER

This HEPI Debate Paper argues universities have a pivotal role to play in tackling climate change, while noting that fragmented collaboration and disciplinary boundaries are currently hampering progress.

The author, Professor Katy Mason of the University of Salford, makes a series of recommendations for speeding up the solutions to climate challenges, including making much more use of collaborative platforms, such as interdisciplinary hubs, research centres and innovation catalysts, that gather together academics, policymakers, businesses and civil society.

HEPI was established in 2002 to influence the higher education debate with evidence. We are UK-wide, independent and non-partisan.

April 2026
978-1-915744-61-6
Higher Education Policy Institute
99 Banbury Road,
Oxford OX2 6JX
www.hepi.ac.uk

Printed by Windrush Press, Witney
Typesetting:
Steve Billington,
jarmanassociates.co.uk