i-PLACE

Innovation Ecosystems

How innovation drives resilience and growth in our cities and communities

FEATURED INNOVATIONS

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Innovation Ecosystems

Edited by Professor Nic Beech and Kasper de Graaf

Innovation Ecosystems is a peer-reviewed compendium of place-based innovation projects presented at the i-PLACE 25 Conference (Salford, November 2025).

Review panel: Professor Jane Falkingham CBE, Professor Nic Beech, Joanne Dobson, Professor Neal Juster, Professor Rebecca Madgin, Professor Katharine Willis

Front cover: Neighbourhoods in Jaywick. Watercolour by Simon Poulter. One of six 360° VR panoramas (detail), part of 'Days Like These'. www.closeandremote.net/portfolio/days-like-these/.

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Created by the Key Cities Innovation Network, i-PLACE is an open platform for research and new thinking in place-based innovation

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FOREWORD

Four years on from its establishment in 2022, the Key Cities Innovation Network (KCIN) has grown into a distinctive and influential platform for advancing place-based innovation across the UK. Built on a shared commitment to civic partnership, the network brings together cities and universities to work collaboratively on the most pressing challenges facing our communities. At its heart is a simple but powerful idea: that innovation is most effective when it is rooted in place, shaped by local knowledge, and delivered through partnerships that span institutional, sectoral and disciplinary boundaries.

This third compendium of peer-reviewed papers—our first under the i-PLACE banner—marks an important milestone in that journey. It builds on the foundations laid in *Civic Partners in Net Zero* (2024) and *Culture, Place and Development* (2025), extending a growing body of work that demonstrates how collaboration between cities, universities and stakeholders can generate scalable, real-world innovation.

As with those earlier volumes, the contributions gathered here are not abstract or theoretical. They are rooted in lived realities, developed through collaboration, and tested through application in real-world settings. They reflect the strength of a network that connects local government, higher education, industry, communities and parliamentarians through the All-Party Parliamentary Group on Key Cities, ensuring that insights from our places inform national policy conversations.

The focus of KCIN has always been on harnessing the power of civic partnership. No single institution holds all the levers required to drive inclusive growth and sustainable development. Instead, progress depends on the ability to convene, connect and align diverse forms of expertise and capability around shared local priorities. Across the network, we see this happening in different ways—through innovation programmes, policy development, community engagement and knowledge exchange—but always with a clear emphasis on delivering tangible benefits for places and for the country as a whole.

The theme of this compendium—innovation ecosystems—captures that ambition. The papers selected here illustrate how such ecosystems are understood, reimagined and enacted across different contexts, from major urban centres to coastal and rural communities. Each contribution reflects strong local partnership; meaningful interaction across sectoral, disciplinary and administrative boundaries; and clear potential for replication, further development and long-term sustainability.

Taken together, the papers demonstrate the breadth of innovation taking place across the network. They explore new approaches to revitalising coastal communities, building on growing recognition of the structural challenges facing these places and the need for targeted, place-sensitive policy responses. They examine the role of culture, creativity and community engagement in shaping inclusive growth, and

highlight the importance of understanding how people experience place—not only economically, but socially and emotionally. They also reflect the increasing emphasis on sustainability, resilience and long-term impact, ensuring that innovation is embedded within enduring partnerships rather than confined to short-term initiatives.

This compendium also reflects the wider conversation initiated through i-PLACE, which convened partners from across the network and beyond in Salford last November. That gathering reinforced the importance of thinking about innovation ecosystems not as fixed models, but as dynamic, evolving systems shaped by relationships, trust and shared purpose.

What distinguishes the work presented here is its grounding in place. Each paper emerges from the specific conditions, assets and challenges of a locality, yet offers insights that can inform practice elsewhere. This balance between local specificity and wider relevance is central to the mission of KCIN: to develop ideas that are both rooted and scalable.

We are delighted to introduce this compendium and to commend it to policymakers, practitioners, researchers and community partners alike. At a time when national debates on growth, productivity and public service reform increasingly recognise the importance of place, the work presented here offers practical evidence of what can be achieved through collaboration.

Above all, it reinforces a central message: that by working together—across institutions, sectors and places—we can harness the full potential of innovation to create more resilient, equitable and prosperous communities.

Cllr John Merry CBE
Chair of Key Cities and
Deputy City Mayor of Salford

Professor Jane Falkingham CBE
Chair of the Key Cities Innovation Network and Vice-President, University of Southampton

This compendium sits within a broader, evolving idea: i-PLACE. More than a publication, i-PLACE is a platform—bringing together research, practice and policy to advance new thinking about place-based innovation. Through its annual conference, YouTube and social channels, and this series of peer-reviewed compendia, it creates a space where ideas can be shared, tested and developed in partnership.

Created by and rooted in the Key Cities Innovation Network—now comprising 24 cities and 12 universities—i-PLACE is an explicitly outward-facing platform fostering collaboration with industry, government, cultural organisations, researchers and community partners across the UK, Europe and beyond. Its aim is to promote effective place-based innovation, building on our experience over the past four years. As Charles Clarke observed at the network's inaugural parliamentary dinner, bringing together cities and universities is exceptionally important in helping places navigate change—a point which has only gained in relevance.

Responding to local need

i-PLACE convened partners from across Key Cities and beyond in Salford last November in a series of events that not only showcased emerging work, but interrogated the concept of innovation ecosystems in responding to the needs of different places, both within and outside the major population centres. Those discussions are reflected in the contributions in these pages, which explore innovation not as a fixed model but as a dynamic, relational process and we are grateful to the authors, whose work reflects the depth and diversity of thinking in this space.

The papers sit at the intersections between sectors, disciplines and communities where new ideas take shape. They point to the need for innovation systems that are accessible and inclusive, extending participation to smaller organisations, marginalised groups and underrepresented places. They highlight the challenge of sustainability: ensuring that innovation is embedded in long-term structures and relationships so that learning accumulates and impact endures. They emphasise the role of emotion, lived experiences, consent and civic discourse.

Partners in inclusive development

These insights build on those in earlier volumes. *Civic Partners in Net Zero* (2024) highlighted the role of local partnerships in delivering climate action at pace and scale. *Culture, Place and Development* (2025) explored how cultural ecosystems can drive inclusive growth and civic renewal when rooted in local experience. In parallel, KCIN has developed a growing body of policy work, including *On the waterfront* (2025) which highlights the systemic disadvantage experienced in our coastal regions, and the current work on Pride in Place, which underlines the ongoing importance of research, evaluation and knowledge-sharing in programme de-

livery. This compendium extends that trajectory, positioning innovation ecosystems as a framework through which economic, social and environmental priorities can be brought together.

Impact

The driver for i-PLACE is to create opportunities for impact in policy, practice and funding.

In *policy*, the influence of place-based thinking is increasingly visible. Mission Coastal, a new initiative announced in the Government's Education White Paper in February 2026, expressly aims to improve educational outcomes in coastal communities, closely reflecting *On the waterfront*'s recommendation for targeted programmes modelled on the London Challenge and its call for a strategic focus on coastal communities—an alignment that demonstrates how the policy insights we develop resonate with national priorities.

The Government's framing of the Pride in Place programme also suggests an understanding that national challenges require locally tailored responses, and yet, securing policy focus and investment on places outside the charmed circle remains a perpetual battle. As AHRC chair Professor Christopher Smith—quoting Derek Jarman—observed at KCIN's parliamentary dinner last year, "living on the fringes of society is probably the place you look to make sure that society really works". This reinforces the importance of sustained dialogue between local actors, researchers and policymakers, and highlights the contribution i-PLACE can make in ensuring that no-one is left behind.

Scalable innovation

In *practice*, the network's strength lies in its ability to share and adapt innovation across places – evident in many areas across social, economic and environmental policy. In arts and culture, the cross-sector partnerships long championed by Key Cities have demonstrated their value in driving regeneration, building community resilience, unlocking investment and demonstrating how co-creation can translate policy ambition into meaningful local outcomes.

Taking ideas forward

In *funding*, the efficacy of partnership is equally clear. Aligning investment with local priorities and collaborative delivery models is critical to scaling impact. The Morecambe Bay Curriculum, presented at the KCIN Conference in Wrexham and discussed in *Civic Partners in Net Zero*, is among those which have attracted significant follow-on funding. Plymouth's participation in Pathways2Resilience, the EU's flagship climate adaptation programme, similarly builds on the ideas we have developed around climate action and coastal resilience.

Pride, arts and culture, skills, devolution, housing, social and climate resilience, re-

generation—all these themes will gain a fresh focus at the next i-PLACE series of events in Southampton in October on the theme of *Liveable (and lovable) places*.

This compendium is part of that journey, demonstrating the ability of cities, universities, and partners in place to generate ideas, test them in practice, and scale their impact.

We hope it will inform, challenge and inspire—and we invite all those interested in the future of our places to take part.

Professor Nic Beech
Vice-Chancellor of the University of Salford and Vice-Chair of the Key Cities Innovation Network

Kasper de Graaf
Director of the Key Cities Innovation Network

Editors

THE REVIEW PANEL

The papers published in this Compendium were reviewed by a panel comprising:

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Prof. Rebecca Madgin
Professor of Urban Studies at the University of Glasgow, Director of the AHRC Place-Based Research Programme and Chair of the KCIN Advisory Board

Prof. Katharine Willis
Professor of Smart Cities and Communities and Director of the Centre for Place at the University of Plymouth

CULTURE IS NOT DECORATION, IT IS PART OF HOW PLACES GROW

When people talk about innovation infrastructure, they do not usually start with a library, a rehearsal room, a festival site or an artist studio.

They picture laboratories, business parks, accelerator space, university spinouts and transport links. All of those things matter. But if we are serious about how places grow, attract talent, generate ideas and create opportunity, then we need to widen our field of vision.

Across England, some of the most important infrastructure for innovation and inclusive growth is hiding in plain sight, in our cultural and creative ecosystems.

Think of a waterfront, a former industrial quarter or a town centre that has been reshaped over time. The warehouses and empty buildings that once signalled decline now host a library and learning hub, studios, digital businesses, rehearsal rooms, cafés, public realm and shared civic space. On any given day, those spaces bring together school pupils, freelancers, researchers, technicians, tourists, families and local residents. They support skills, enterprise, health, community connection and visitor economy activity all at once.

We often call these places cultural quarters. I think we should also recognise them for what they are, innovation infrastructure.

At Arts Council England, we see this every day. We are the national development agency for creativity and culture, investing public money on behalf of government and National Lottery players to ensure that creativity and culture can thrive for everyone, everywhere. But that mission is not only about access to culture for its own sake, important though that is. It is also about what cultural and creative investment makes possible in places.

Subscribe and watch Laura's talk at MediaCity on the i-PLACE Channel at www.youtube.com/@i-Place

Long-term public investment in culture helps create the conditions in which wider growth can happen. It gives places assets that people want to use, supports organisations that bring communities together, and helps build the confidence and identity that underpin economic renewal. It can make a town or city more attractive to live in, study in, work in and invest in.

This matters particularly now. The policy context is changing fast. Devolution is deepening. More decisions about growth, skills, regeneration and public service reform are being made beyond Whitehall, in places across the country. Government has identified the creative industries as a priority growth sector. New local growth plans, new responsibilities and new place-based investment models are all pushing toward

the same conclusion, that local leadership and partnership matter more than ever.

For culture and creativity, that should be seen as an opportunity.

The evidence increasingly points in the same direction. Public cultural investment does not simply subsidise activity, it often acts as risk capital and a signal of long-term credibility. It helps unlock commercial partnerships, philanthropy, earned income and confidence from other investors. It supports experimentation, new ideas and the adoption of new technology. It strengthens local supply chains, contributes to employment and productivity, and generates wider spillover benefits for hospitality, tourism and the broader creative economy. As our own work and that of partners has shown, culture is not something that happens after growth. In many places, it is part of how growth is created in the first place.

There is public demand too. People are already using cultural infrastructure, often in ways that cut across policy silos. Libraries are places for reading, but also for digital access, learning and local support. Arts venues are places of enjoyment, but also of skills development, volunteering and social connection. Festivals animate local economies, but they also tell a story about place, identity and confidence.

The question, then, is not whether culture matters. It is whether we are aligning those assets with our strategies for growth, innovation, health and neighbourhood renewal, or leaving too much value on the table.

This is especially relevant for the UK's Key Cities and for the wider conversations that networks like i-PLACE are helping to convene. Many of these places are ambitious, collaborative and full of civic energy, but they are also operating under real financial pressure. The answer will not be a single flagship building or a one-off event. The places that succeed are usually those that combine strong everyday cultural infrastructure with smart partnerships, long-term planning and genuine community involvement. That means councils, universities, businesses, cultural organisations and communities working together, not in parallel but in concert.

From where I sit, that partnership model is the operating system.

Local authorities can treat culture as core infrastructure, part of local plans, growth strategies, skills systems and health partnerships, rather than a discretionary extra. Universities can embed culture into their civic role, opening up campuses, supporting creative skills and connecting research with communities. Industry can recognise that vibrant cultural ecosystems help attract and retain the talent they need. Cultural organisations can continue to work with residents in ways that are rooted, responsive and ambitious.

Opposite: Bradford UK City of Culture 2025

Arts Council England's role is to be part of that wider ecosystem, as an investor, a partner and a national body that can bring evidence, learning and long-term commitment. We do not own this agenda, but we do want to help back it.

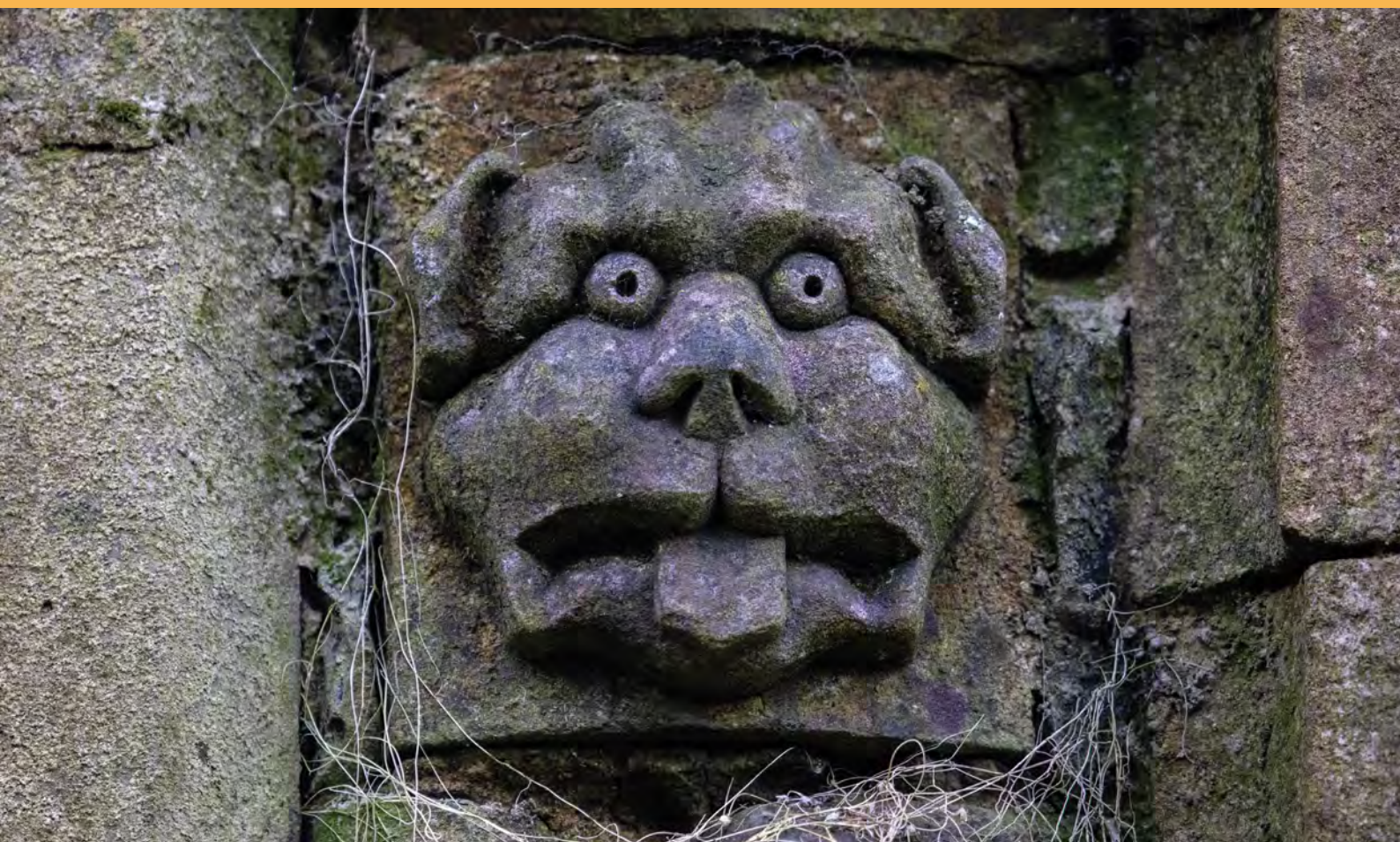
So my challenge to place leaders is a simple one. When you think about innovation, growth and opportunity, do not treat culture as decoration at the edge of the plan. Treat it as part of the plan's foundation.

Because if we get this right, the story we tell in the years ahead will not just be about individual cultural projects. It will be about places that understood creativity and culture as central to how they renew, connect and grow, and were willing to invest accordingly.

Laura Dyer MBE
Deputy Chief Executive Places,
Engagement and Libraries,
Arts Council England

The role of felt experiences in place-based innovation

Prof. Rebecca Madgin and Dr Lucrezia Gigante,
University of Glasgow



What comprises genuine place-based innovation? The role of felt experiences.[1]

Rebecca Madgin and Lucrezia Gigante

Despite decades of policies and practices focused on trying to rectify spatial inequalities, the UK remains "one of the most interregionally unequal countries in the industrialized world" (McCann, 2019, p.256). The consequences of spatial inequalities affect our everyday experiences of place, from small daily choices to long-term opportunities and ambitions. This paper critically reimagines what genuine place-based innovation could deliver if we took a people-centred approach that centres felt experiences.

The paper argues that we can be bolder, braver, and more human in how we tackle spatial inequality. UK public policy sits at a critical juncture as we search for ways to grow the national economy and reconfigure the national-regional-local relationship in ways that can improve lives and livelihoods and reduce spatial inequality. We propose that people-centred, place-based policies and practices that intentionally centre our felt experiences of place (FEP) provide an opportunity to deliver improved socio-economic outcomes. This is not just the kind of growth seen on a balance sheet but crucially that which is felt in our everyday lives through the ways in which place-based policies influence our attachment, belonging, cohesion, identity, and provoke positive emotions.

Subscribe and watch Rebecca's talk at MediaCity on the i-PLACE Channel at www.youtube.com/@i-Place

'Felt experiences of place' is a conceptual framework that can hold many of these 'felt' dimensions of place together. The framework, developed by the Arts and Humanities Research Council's (AHRC) Place-Based Research Programme, draws on a significant body of multi-disciplinary academic research (Madgin, 2022; Madgin and Robson, 2023; Madgin and Howcroft, 2024) and allows us to hold together academic traditions that have studied different aspects of our relationship with place in depth, yet often in isolation. In this paper, we explore what would happen if place-based policies and practices were intentionally designed with FEP at the centre.

Firstly, we conceptualise the history of UK spatial policy as space- rather than place-based. Secondly, we introduce FEP as the mechanism to deliver genuine place rather than space-based innovation and opti-

1 The views expressed in this chapter should not be universally assumed to be those of the University of Glasgow, UKRI/Arts and Humanities Research Council, or the Programme Partners and they remain with the authors.

mise socio-economic outcomes. Thirdly, we provide evidence as to how this can be delivered within place-based work by using two examples of heritage-led placemaking delivered by the AHRC Place Programme in partnership with the National Lottery Heritage Fund and Historic Environment Scotland and Historic England. Finally, we conclude by asking what's possible when we reframe spatial policies and practices through the lens of FEP.

1. Space or place-based: theory and practice

"If two different authors use the words 'red,' 'hard,' or 'disappointed,' no one doubts that they mean approximately the same thing. . . . But in the case of words such as 'place' or 'space,' whose relationship with psychological experience is less direct, there exists a far-reaching uncertainty of interpretation. (Albert Einstein, Foreword to Concepts of Space in Malpas, 2018, p.23)

Spatial policy can be used interchangeably with place-based policy in the same ways in which space and place can be seen synonymously. However, underpinning this paper is a crucial distinction that is important to define at the outset. 'Space' is a geographic location and 'place' is a meaningful geographic location comprised of feelings, emotions, and experiences (Cresswell, 2014). In essence, "Space, … has been seen in distinction to place as a realm without meaning - as a 'fact of life' which, like time, produces the basic coordinates for human life. When humans invest meaning in a portion of space and then become attached to it in some way… it becomes a place." (Cresswell, 2004, p.10). Within this conceptualisation, space is different from place, and the difference is produced by the absence or presence of 'meaning'. However, it is too simplistic to say that space and place are oppositional or dichotomous but rather any "investigation of place cannot be pursued other than in conjunction with an investigation of space" (Malpas, 2018, p.28). We posit in this paper that spatial policy in the UK has followed a 'space-based' mindset and as such has reached its conceptual and practical limits. The more recent change in terminology from spatial policy to 'place-based' policy provides an opportunity to explore how we can shift this mindset to deliver practices that can work with place as a meaningful geographic location. Put simply, we have, at the moment, changed the terminology but have not updated the ways of thinking and doing that accompany a genuine shift from spatial to place-based policy. This paper examines the opportunities that arise when we move from 'spatial' to 'place-based' policy and as such intentionally work with place as a meaningful geographic location.

When we treat space as a geographic location, we see it as mappable, explorable, conquerable, and static. Put differently, space is a point on a map, something we can draw boundaries around, administer through a top-down approach, allocate resource and therefore control. This ap-

proach has played out through decades of UK spatial policies that have privileged the geographic allocation of economic resource by specially designed delivery vehicles. From this highly controlled position, the assumption remains that there should be a linear 'cause and effect'. In essence, money in equals money out in ways that improve productivity and secure 'trickle-down' socio-economic outcomes that can be neatly measured and managed, and people held accountable for successes and failures. On paper, this could work as it plays into rational, technocratic ways of working but this approach has largely failed. Indeed, it is widely accepted that "UK governments over time (have) been so ineffectual at resolving the issue of spatial inequality within England" (Diamond et al., 2024, p.1186). This is attributed to a series of structural and systemic failings characterised both as Hyper-Active Incrementalism (Diamond et al., 2024), "policy churn" and a "failure to learn" (Coyle & Muhtar, 2023). The rest of this paper sets out a learning journey through which we can move from spatial policy to achieve genuine place-based innovation. As such, the focus is on the meta level as it suggests a framework for why and how we intervene in geographic locations and, through case study examples, on the micro level of how we can intervene in geographic locations in 'place-based' ways that privilege meaning, feelings, and experiences.

2. From spatial policy…

In this section, we analyse three components of traditional UK spatial policy and identify a focus on 1. geographic locations, 2. administrative boundaries and 3. the allocation and production of economic resource. We build from this in the following section as we move from spatial policy towards genuine place-based innovation.

2.1 Geographic locations

Broadly, spatial policies are targeted interventions and investments that work with specific geographic locations. This means that policies are designed on the assumption that spatial inequality is simply a problem of insufficient resources and that localised investments can remedy underlying structural issues. As such, the focus has largely been on devising new acts and policies such as the 'Special Areas (Development and Improvement) Act' (1934), 'Special Development Areas Act' (1978) and 'Levelling Up and Regeneration Act' (2023). This view has accelerated in the UK since the 1960s through a number of policies delivered across the political spectrum showing that this assumption transcends party politics (see Jones, 2024, p.288 for an historical overview of spatial policy). However, targeting geographic locations is not enough in and of itself. Indeed, the trajectory and persistent failure of spatial policy are revealed by Kenny and Garling, who stated that "One of the most striking – and salutary – lessons…is the realisation that there is considerable continuity over

the last century in terms of which areas of the country suffer the highest level of relative deprivation" (2021). They go further to compare those areas marked under the Special Areas Act of 1934 and those areas that would, into the twenty-first century, be marked as 'left-behind' places (Mackinnon et al., 2024). At the other end of the spectrum, London has, over the last four decades, become "almost a 'city-region apart', with a per capita gross value added (GVA) some 80% higher than the UK average, and two-and-a-half times that in the North East…" (Martin et al., 2022, p.796). In effect, this means that people's life cycles and choices are differentially determined by their geographic location, with spillover effects on opportunities for the workforce, youth, and the overall economy of places. Targeting geographic locations is not enough on its own.

2.2 Administrative boundaries

As a consequence of working with geographic locations, there has been a need to define the scale at which we should work. As such, there has been a sustained focus on administrative boundaries which, in turn, has produced a plethora of statistically determined boundary areas that has seen areas mapped, indices produced, quantitative data generated, and action taken to correct numerically-informed problems rooted in GPS co-ordinates and GIS quadrants. As a result of this, we have indices of multiple deprivation, super output areas, re-drawing of boundaries, and classification systems which have produced emotionally-loaded and stigma-inducing terms such as 'left-behind places' (Houlden, 2024) or 'doubly-disadvantaged neighbourhoods' (Leach, 2025). This has ensured we have baseline data that should, in theory, enable us to better understand geographic locations.

Bound to this approach is a need to create spatially appropriate delivery vehicles that can operate at these different scales. Accordingly since the latter decades of the twentieth-century we have seen a proliferation of spatially-delineated delivery vehicles. These have oscillated across different UK Governments and moved between different geographic scales from the nationally focused English Partnerships to pan-regional organisations such as the Northern Powerhouse, to Regional Development Authorities to Urban Development Corporations, Urban Regeneration Companies, and a plethora of local and community-based organisations (Tallon, 2020). Taken together, this multiplication of delivery vehicles produced a patchwork quilt of disconnected and short-term initiatives which, when married with local and regional government reform, did little to stabilise geographic interventions. This outcome was partly the result of an uneasy renegotiation of national-regional-local relations across successive UK Governments.

Whilst Greater Manchester has been portrayed as a success story this is often attributed to the place-based roots that have underpinned its evolution. For example,

this success is seen to be "built on a long history of decades of collaboration across the city region where the Mayor, political leaders, senior managers, partners and stakeholders work hard in the best interests of residents. As the strength of this collaboration has developed the trust of government in the CA has evolved too" (LGA, 2023, p.3 in Harding and Peake-Jones, 2023, p.1). However, we know that "regions are highly unequal" (Morrison & Doussineau, 2019, p.102) in rolling out spatial policy let alone place-based work centred on residents and trust and as such the remnants of muscular centralism have largely remained. We have now seen a course correction to favour a more radical form of devolution through the creation of Combined Mayoral Authorities in England but it remains to be seen how much this will adopt the mindset of earlier spatial policies. Administrative delineation either by boundaries or vehicles can only take us so far.

2.3 Economic resource

Securing better economic outcomes in targeted geographic locations has remained the cornerstone of spatial policy in the UK. This has largely been administered through a double-layered 'trickle-down' assumption. Resource would a). trickle down from the centre to the regions (largely) through competitively awarded capital investment and b). once invested the benefits would trickle down and out to geographic communities. Both of these assumptions have again largely failed. Kenny and Garling outlined a "danger that the focus on how to make left behind places catch up assumes a linear path to healthy economic development which all successful places can, and should, follow. Not everywhere can be the next Silicon Valley, and not every region will benefit from investments in high-value industries or clusters" (2021, p.12). This has been slightly corrected with a focus on 'inclusive growth' and 'inclusive innovation' (Lee, 2024) as a tension builds over the extent to which agglomeration can engender positive socio-economic outcomes (Scott & Storper, 2015; Mould, 2016). However, the fact that the UK remains spatially unequal across a range of indicators suggests that allocating economic resource and adopting a 'trickle-down' logic is not enough.

To conclude, traditional approaches to spatial policy in the UK rested with three main pillars: 1) work with locations identified through geographic coordinates, 2) create administrative entities to portion space into smaller scales, and, finally, 3) distribute economic resources based on trickle-down logics.

What we argue next is that these approaches to spatial policies have been missing a crucial element of genuine place-based work: meaning. In the following section, we propose a mindset shift to learn from the successes and failures of spatial policies to date and move us forward.

3. ...to place-based innovation

"To be at all—to exist in any way— is to be somewhere, and to be somewhere is to be in some kind of place. Place is as requisite as the air we breathe, the ground on which we stand, the bodies we have. We are surrounded by places. We walk over and through them. We live in places, relate to others in them, die in them. Nothing we do is unplaced. How could it be otherwise? How could we fail to recognise this primal fact?" (Casey, 2013, p.x)

Place is inescapable and it is this which enables geographic locations to have and to hold meaning. Unsurprisingly, evidence suggests that for many people a "profound attachment to place is as necessary and significant as a close relationship with other people" (Relph, 2008, preface). This kind of attachment can be designed into place-based policies and practices (Hester, 1985 and 2020) and indeed there is an increasing recognition that "People-centred attachment to place…becomes of significant importance in pursuit of planning, regeneration … and of placemaking" (Evans, 2022, p.19).

Meaning can come from a range of different life experiences but, when put into conversation with Casey's contention about the inexorable nature of place, we start to see geographic locations as more than a mere backdrop to life but rather one of the essential constituents of human life. In this context, we see meaning as deriving from our everyday feelings and experiences in and of place, and as such the AHRC Place Programme outlines a conceptual framework: 'felt experiences' that enables us to interrogate how space becomes place.

Felt experiences of place are defined as the "way we feel in and about places and the felt relationships we have to and within place" (Madgin, 2022, p.10). We suggest that it is through feelings and experiences that we generate meanings that transform space into place.

Meaning and place are therefore not incidental but instead core to the everyday

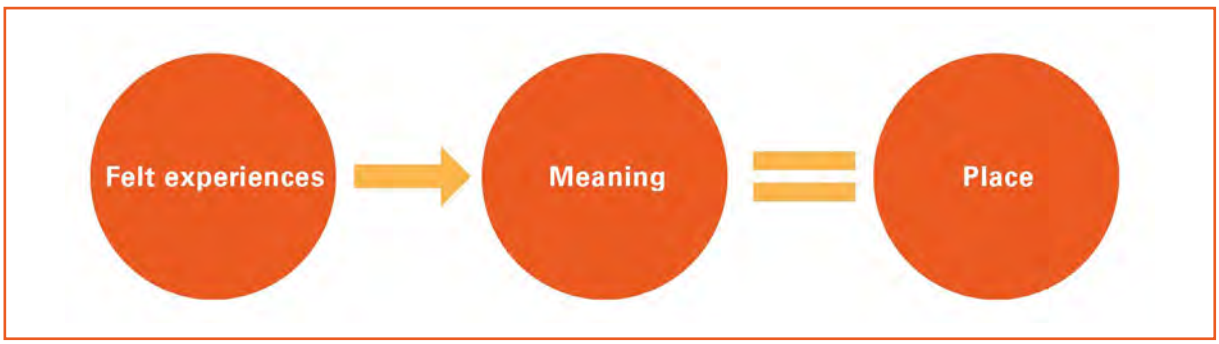


Figure 1. Diagram of felt experiences of place (Madgin & Howcroft, 2024, p. 11)
Graphic by Creative Triangle

lived and felt experience of spatial inequality. These are aspects that do not easily show within spreadsheets and statistics that tell us about 'high-growth potential' nor are they obvious within indices of multiple deprivation but they drive the everyday reality of life in the regions and nations of the UK in ways that inform socio-economic outcomes (Madgin & Howcroft, 2024). In addition to this, place is also a geographic location where economic resource is allocated, boundaries are mapped, and data is collected. Understanding place as somewhere with lived and felt as well as geographic and economic dimensions is crucial to the pursuit of better outcomes for people and place.

3.1 Beyond terminology

Reviewing the history of spatial policy, we argue that its most fundamental limitation has been the adoption of a space-based rather than place-based approach, where one prioritises geography, rigid boundaries and quantifiable metrics, and the other meaning and human experience.

Accompanying a change in terminology, therefore, has to be a mindset shift in how we think about and deliver policies in geographic locations. The AHRC Place Programme puts forward a definition of place-based innovation that builds from spatial policy and re-orients it to accord with academic traditions and contemporary societal needs.

We define genuine place-based innovation as originating in *"People-centred, place-based approaches that hold the lived, felt, geographic, administrative, and economic dimensions together to ensure that place-based policies and practices are developed in equitable partnerships with individuals, communities and professionals."*

Here, we are suggesting that the geographic, administrative, and economic dimensions are crucial but not enough to secure genuine place-based innovation. Instead, we suggest that we need to focus on a people-centred approach that foregrounds the lived and felt dimensions. In so doing, we accord with Malpas' contention that any "investigation of place cannot be pursued other than in conjunction with an investigation of space" (Malpas, 2018, p.28). As such, we do not seek to reject the principles upon which previous spatial policies were built but rather build from them and weave them through the lived and felt realities that make a geographic location meaningful.

3.2 Lived

A first step in this sense has been the growing interest in 'lived experience' which has paved the way to "understand experience as evidence for policy making" (Rhodes & Fleming, 2018) and, from a place perspective, validate local knowledge. McIntosh and Wright (2019) highlight that "researching lived experience can…signify a strategy of recognition that is attentive to feelings, bodily states, interactions and identities that tend to be devalued or ig-

nored. In this sense, lived experience can be invoked as a shorthand for empathy, conferring respect and esteem" (p.456).

In practice, examples of this shift range from the role of citizens' assemblies across the cultural and place sector to initiatives for participatory governance, such as participatory budgeting and local asset transfers. In essence, these mechanisms signal the recognition that lived experience is necessary situated knowledge for collective place-based work. However, research warns that when there is a lack of clarity behind the meaning of 'lived experience', there is also a risk of using it as a "rhetorical device" and a proxy for authenticity (McIntosh & Wright, 2019, p.462) and replaying trauma in ways that cause deep personal harm (McGarvey, 2025).

A focus on lived experiences has brought more voices into decision-making and a necessary step along the way to devolving decision-making through the recognition of deep local knowledge (Scottish Public Service Reform, 2025). However, we would argue that centring meaning does not just entail adding new and more voices and data but instead reforming processes to be person-centred and community-led in ways that do not end with the telling of the life experience but open up ways to improve how people feel in and about their places. As pleasing as the shift to genuine validation of lived experience is, we argue it is not enough to drive forward the next wave of place-based innovation. And despite all these very positive moves forward, we are still witnessing declining levels of trust, cohesion, and an increasing sense of disillusionment, disconnection, and loneliness – feelings that reverberate around our everyday experiences and play out in streets, neighbourhoods, and at the ballot box. Therefore, using lived experiences in policy making without understanding the feelings they provoke and the ways in which they affect meaning can only ever be a starting point rather than a destination.

3.3 Felt

Felt experience brings a depth and complexity by working with layers of meaning and conflicting emotions within heterogeneous communities. Straddling both individual and collective experiences of place, FEP adds a relational and emotive approach to lived experience, enabling us to go deeper into the interdependencies between people and place. In the policy context, Lejano and Kan (2025) define relational as "describ[ing] the role of the informal, deliberative, emergent, and often uncodified practices and interactions" (p.386) and call for a relational turn in policy where the interdependence between policy makers and policy implementers is becoming more evident. They further examine the difference between 'rational' and 'relational' systems. Here they suggest that 'rational' "evokes conceptualizations of policy as a product of formal, structured, often-codified systems of rules and routines" whereas 'relational' "strives to analyze and describe the role of the informal, deliberative, emergent, and often-uncodified practices and

interactions" (p.386). Taken within this frame, space-based relies more heavily on the codified, categorised, structures of top-down control whereas place-based would focus more on the emergent relationships between people in communities, between people and place, and therefore disrupt the traditionally linear process flowing from policymaker to implementer to receiver.

A genuine place-based approach, we suggest, works relationally with feelings, experiences, and meaning. We propose that 'felt experiences of place' (FEP) is the mechanism to access both the lived and emotive dimensions of place, the 'meaning' that transforms space into place. FEP is broadly defined as the "way we feel in and about places and the felt relationships we have to and within place" (Madgin, 2022, p.10).

This simple definition is deliberately broad so it can connect to the decades of multi-disciplinary research that explores what makes a location meaningful. This research sits broadly under the banner of people-place relations and has produced concepts such as place attachment, place dependency, place identity, genius loci, sense of place and spirit of place. Running alongside this is work on feelings which has broadly included affect', 'atmosphere', 'attachment', 'belonging', 'cognition', 'emotion', 'perception', and 'senses' (Madgin et al., 2026). This body of work has been approached from a variety of different disciplinary and methodological standpoints including data science, phenomenology, philosophy, neuroscience and has ensured that there is a plurality of ontological and epistemological positions. In the AHRC Place Programme, we adopt an approach that sees strength in bringing these areas together where possible, but crucially this work is underpinned by a belief in the power of creative methods/practices and participatory approaches to generate understandings of why places matter to people (Madgin & Lesh, 2021; Madgin, 2025) and that these approaches can be used within the delivery of people-centred, place-based policies and practices (Madgin et al., 2025).

Evidence suggests that working in this relational way and with this focus on felt experiences results in a range of socio-economic outcomes (Madgin & Howcroft, 2024). This means that FEP are not incidental. If, for example, we consider belonging, place attachment, and pride in place, which are three areas on successive UK Government agendas, we know that we can directly attribute a range of positive socio-economic outcomes (Figure 2).

We therefore argue that FEP is a crucial yet currently neglected aspect of delivering place- rather than space-based policies and practices.

4. Harnessing momentum: relational and emotional turns in theory and practice

This argument does not stand in isolation and indeed is situated within a wider turn in public policy that is concerned with relational and emotional dimensions of policy-

making (Lejano & Kan, 2025). This is seen across a number of different place-based spheres including 'affective urbanism' (Anderson & Holden, 2008), place-marketing (Lecompte et al., 2017), urban cultural policy (Borén et al., 2021), pride in place (Howcroft et al., 2024), urban planning (Hoch, 2006), real estate and property development (Fallon, 2022) and public service reform (Scottish Government, 2025). This runs contrary to traditional approaches within political science that have sought to neglect emotions by separating mind and body, rationality and emotion (Stempel, 2025), and fallen back on the dichotomy of 'subjective v objective' (Jones & Yarrow, 2022). Despite this broader turn, Stempel reflects that scholarship has been "neglecting the concrete role of emotion in the process of public policymaking" (2025, p.109). However, successive UK Governments have placed 'emotion' into the realm of public policymaking and, as such, this neglect cannot continue.

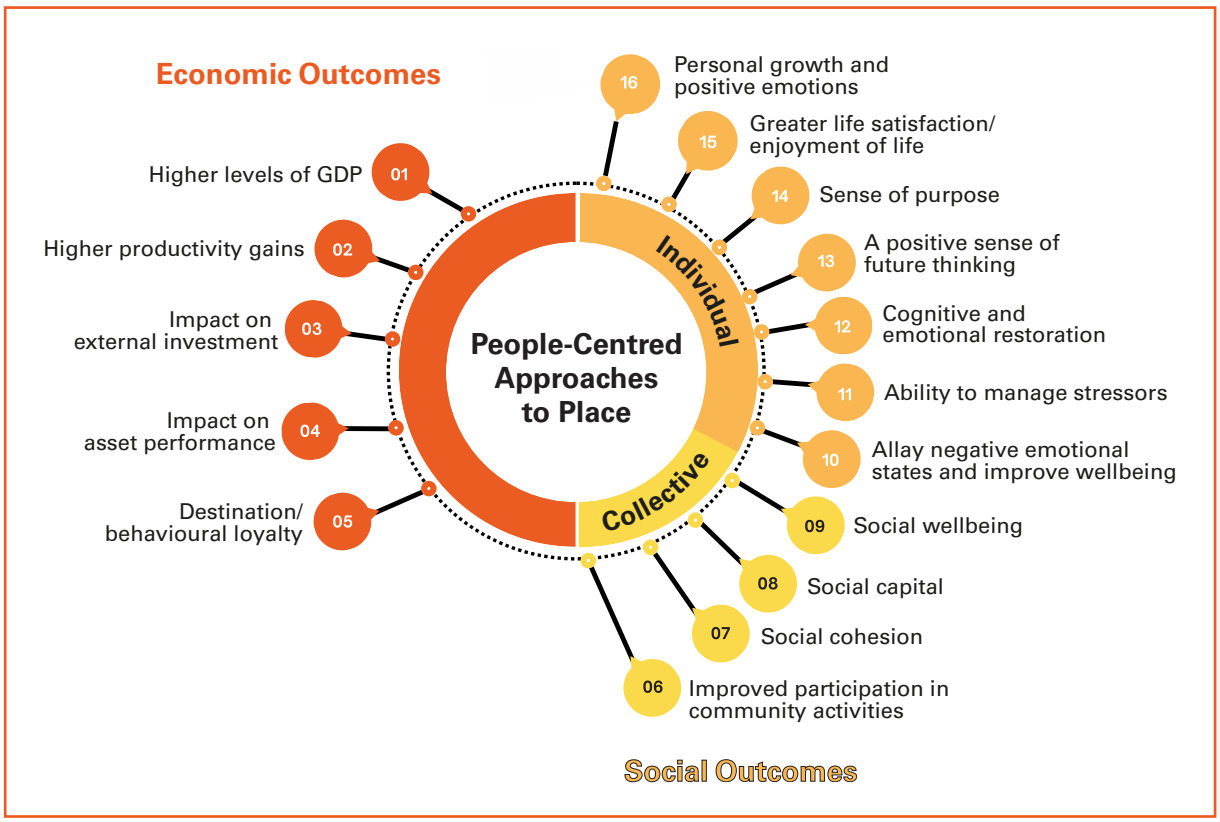


Figure 2. Diagram of the socio-economic outcomes associated with felt experiences of place See (Madgin & Howcroft, 2024: p. 16-21) for bibliographic references and further information on the socio-economic outcomes.

4.1 The role of felt experiences in place-based public policy

In a UK Government context, FEP has assumed a growing position through, for example, the sustained focus on 'pride in place' (HM Government, 2022; 2024; MHCLG, 2025), the national need to nurture social connection and belonging, and the complex emotional register that has accompanied entrenched spatial and social inequality across the regions and nations of the UK. The emotional connections and reactions that we experience in relation to our places have been recognised (and mobilised) in official statements and policy literature. For example, in her Spending Review Speech in June 2025, Chancellor Rachel Reeves acknowledged the importance of pride in place and stated that *"the renewal of Britain must be felt everywhere"*.

However, we suggest the real innovation is not in recognising felt experiences as a component of policy but instead being able to weave FEP through the policy process to ensure they are validated as a key aspect of delivering successful place-based policies and practices. To do this, we need to challenge traditional assumptions about the role that feelings and experiences can play within policy and practice. For example, if we consider the turn by successive UK Governments towards 'pride', 'belonging' and 'feelings', we could argue that the underlying assumption is that positive emotions and a sense of belonging will trickle down from economic investment. Felt experiences, therefore, would sit within a container that is still subservient to and seen as an outcome of economic growth. This would bring us back to the key components of spatial policy analysed in the first part of the paper: everything still stems from the same mindset that suggests the geographic allocation of economic resources by specialist delivery bodies will achieve positive felt experiences.

If the renewal of Britain is to be "felt everywhere", then we suggest that we need to disrupt this traditional mindset and have a more explicit way of surfacing, working with, and valuing the felt dimensions of everyday life. We therefore propose that FEP is the framework through which we can change the mindset that underpins how we think about spatial inequality and a driver for the delivery of policies and practices within geographic locations.

To achieve this, we need to be much more intentional in designing for and with felt experiences of place, seeing them as core aspects of relational working, key inputs into regenerative systems, and not just expecting them to flow from allocating economic resources to different geographic locations. In so doing, our hope is that felt experiences of place can be the next stage of genuine place-based innovation, at a time when conditions seem to be favourable for this much-needed shift.

This approach can be applied in a number of different policy contexts and below we outline two areas in which the AHRC Place Programme is working with partners to

deliver place-based policies and practices that centre felt experiences of place.

4.2 Felt experiences of place resource kit

The AHRC Place Programme in partnership with the National Lottery Heritage Fund (NLHF) and Historic Environment Scotland (HES) produced a 'Felt experiences of place resource kit' (Madgin et al., 2025) which provides a step-by-step approach to embed felt experiences within place-based decision-making. The kit is designed to support community groups, local authorities, and the private sector to collect, analyse, and incorporate felt experiences within heritage-led regeneration initiatives.

The kit builds from tried and tested emoji-methods (Madgin, 2021 & 2025) and locates these within the context of the development and delivery of heritage and place regeneration initiatives funded by NLHF and HES. The methods were deliberately focused on surfacing how people feel in and about their historic places and how this affected their felt relationships with and to their places. In essence, the Resource Kit "features practical, adaptable methods that demonstrate how emotional and sensory responses to heritage can be collected, interpreted and used to inform successful, community-led projects" (NLHF, 2025). Crucially, this kit goes beyond collection of stories and experiences to instead explore how this information can inform particular kinds of decision-making. Within this, we suggest data analysis techniques that can help to interpret the information and identify five key stages within the process of heritage-led regeneration where FEP could inform decision-making.

For example, we suggest that the kit could be used to co-produce an understanding of the unique characteristics of place which could then provide baseline data about which places matter to people and why. Decisions about, for example, prioritisation, allocation of capital funding, interpretation strategies and community activity plans could then be co-produced by centring a deep local knowledge of what matters to people and why. Finally, this information could be generated at key stages to become part of an iterative cycle demonstrating how project funding has changed people's feelings about their places and the consequent impact on socio-economic outcomes. In these ways, we suggest that embedding FEP at the outset and throughout can result in a step-change to the ways we deliver place-based policies and practices by moving beyond a linear, rational process of receiving data from people to instead seeing this as a relational process whereby communities are equitable partners in ways that ensure felt ownership over any changes and improved socio-economic outcomes.

In so doing, the resource kit builds on participatory/collaborative planning approaches (Healey, 1997) that centre the lived experiences of people in place and re-orient this towards felt experiences. This starts to break down the traditional

view that planners/analysts rarely recognise emotions and indeed 'learn to treat emotions as a source of bias and distortion' (Hoch, 2006, p.367). Baum built on this by finding that planners 'largely resist recognising emotion' because 'Western culture downplays the role of emotion in human behaviour' (2015, p.498). However, the Resource Kit refutes this position to instead align with emerging attention on sensory (Kenny, 2014), experiential (Lehtovuori, 2012), emotional (Madgin, 2025), and affective practices within urban environments (Howcroft et al, 2024).

4.3 Felt Experiences of historic places model

Felt experiences of place inform the socio-economic realities of life. The AHRC Place Programme partnered with Historic England to understand how and why felt experiences informed the socio-economic outcomes associated with historic places. Building on a multidisciplinary evidence base, we produced the 'felt experiences of historic places model' (see Figures 3 and 4) which positions felt experiences as a flow of services connecting the stock (historic places) to the benefits (socio-economic outcomes).

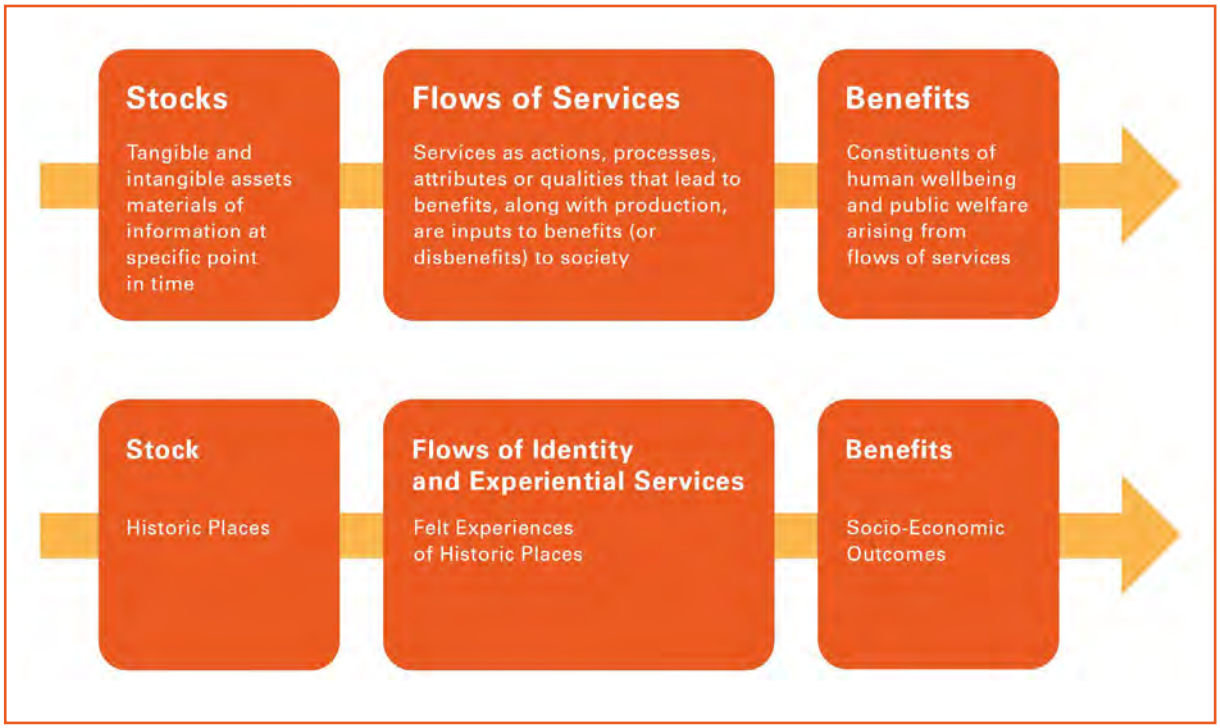


Figure 3 and Figure 4. The concept of capitals and the cascade model (top) replicated by showing how the Felt Experience of Historic Places fits within the linear cascade model (bottom) outlined in the Department for Culture, Media and Sport's Cultural Heritage Capital Framework (Madgin et al., 2026: p.38) Graphics by Creative Triangle

In this economic model for historic places, the 'stock' is comprised of culture and heritage assets, and generates 'flows of services' that can either directly reach audiences or, combined with other inputs, produce new stocks (Throsby, 1999).

"Flows of services, along with production, are inputs to diverse benefits (or disbenefits) to society – some services have direct benefits, while others produce benefits when they are combined with other forms of capital (such as human or natural processes) (Sagger & Bezzano, 2024). These benefits have value that can be measured and monetised for economic accounting and social cost-benefit analyses" (Madgin et al., 2026, p.37).

This model sits within the context of the Department for Culture, Media and Sport's Cultural Heritage Capital Framework, a long-term innovative programme that will establish a standardised, consistent economic approach for calculating the value of cultural heritage assets. This approach looks beyond orthodox economic approaches to also consider feelings, emotions, and experiences. In this sense, the need for a model that connects culture, felt experiences and economics is a direct response to previous ways of thinking and doing where "feelings and experiences have largely been neglected within current economics and therefore their potential to unlock understandings of economic growth remains largely unrealised" (Madgin et al., 2026, p.36). While the resource kit mentioned in the previous section offers guidance for place-based policymakers at the local level, this model provides a roadmap to embed felt experiences in national economic frameworks.

Felt experiences of place, conceptualised as experiential and identity services within the cascade model of culture and heritage as an economic capital, help to reveal the reasons why the socio-economic outcomes identified in section 3.3 are possible. However, the intention is to move beyond description to instead understand the mechanisms through which such outcomes can be optimised. As such, the model does not just evaluate or report on outcomes but instead seeks to inform how relational policies and practices could centre FEP in ways that can optimise benefits.

5. What's next – and what's possible?

The shift from spatial policy to place-based innovation is in train. We have a change in terminology, a rhetorical commitment to feelings, a raft of policies across successive UK Governments, attempts to implement felt experiences within practices at the national and local level, and a robust and established evidence base to underpin why this shift needs to happen.

This is a great start, but history forewarns us that proposed solutions to spatial inequality in the UK have been derailed by Hyper-Active Incrementalism (Diamond et al., 2024), "policy churn" and a "failure to learn" (Coyle & Muhtar, 2023).

The key challenge for place-based inno-

vation is overcoming the overreliance on quantitative evidence, and recognising 'felt experiences of place' as an equally fundamental category of evidence to inform genuine place-based policy. As we argue in the programme's latest report, feelings and experiences are "a vital input shaping and driving economic growth" (Madgin et al., 2026, p.46) and not an outcome or by-product. As such, one of the potential applications of FEP is the ongoing review of the Green Book, particularly in relation to the new Place-Based Business Cases (see Madgin et al., 2026, p.46 for more details).

To really ensure place-based innovation and to change the way we think about and deliver policies and practices, we need to be both intentional and brave.

We need to be intentional to ensure that we counter the risk of reducing felt experiences to rhetorical slogans and therefore prevent FEP from being tokenistic rather than substantive. Instead, we need to intentionally design for felt experiences and see them as an inextricable part of delivering human flourishing and place-based prosperity. If we don't do this, then we risk couching current place-based innovation in twentieth-century thinking around a set of spatial policies that have largely failed. Tinkering around the edges is no longer sufficient. We can no longer just change boundaries, devolve funding differently, and create new delivery agencies. We need to build in the relational mechanisms through which the lived and felt dimensions of place sit alongside the geographic, administrative, and economic.

We finish by suggesting that genuine place-based innovation can only come from being brave enough to recognise the limits of repeating the same process within different spatial and temporal parameters. Instead, we need to be courageous and recognise that, if the renewal of Britain is to be "felt everywhere" (Reeves, 2025), then we need to have a more explicit way of surfacing, working with, and valuing the felt experiences of everyday life and seeing these experiences as things to guide change rather than hope they can be improved by default.

In so doing, a world becomes possible where we can satiate our existential need for place-based meaning and satisfy our everyday experiences in ways that ensure we can secure improved lives and livelihoods. This, we suggest, comprises genuine place-based innovation.

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Bath city-region as a hologrammatic creative canvas

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BATH CITY-REGION AS A HOLOGRAMMATIC CREATIVE CANVAS

Andy Salmon and Cleo Newcombe-Jones

Abstract

Maya Angelou famously said, "You can't use up creativity…the more you use, the more you have." This paper explores the concept of a Key City Region as a creative canvas, drawing on John Urry's concept of mobility and flow (Urry, 2007).

Our argument is that whilst thriving by a number of indices, the very conditions of Bath's success threaten its future growth.

To address this, the city region must re-imagine the possibilities for the future, facilitating a fluid hologrammatic canvas of productive possibilities.

This in turn must be underwritten by foundations that allow the city to convert innovative pilot activity into scalable sustainable outcomes.

Lastly, the paper reflects on the role a professionally creative university can play in partnership with the city council and private and third sector partners to drive inclusive growth.

The conclusion is that all these elements are required, though as John Urry argues, perhaps we need to be more searching in both liveable presence and technological connectivity to find the best outcomes (Urry, 2007).

Subscribe and watch Andy and Cleo's talk at MediaCity on the i-PLACE Channel at www.youtube.com/@i-Place

Keywords

Creative economy; Regional innovation ecosystems; Cultural infrastructure; Inclusive growth; Creative industries; Urban regeneration

Context

Is Bath a thriving place, yet an unproductive city? To onlookers, Bath is a city with little to worry about. The city welcomes 6 million tourists a year, is a double-inscribed UNESCO World Heritage Site comparable only to Venice; it has a highly educated population, two excellent universities; its thriving city centre hosts the accoladed Christmas Market; London Paddington is 1 hour 18 minutes away by train in one direction, Bristol 12 minutes away in the other. Yet, are the very conditions of this success stymying growth?

House prices are almost 18× the average national wage, graduates keen to stay cannot find work or affordable homes, and there is an hourglass economy exacerbated

Image on page 91: Sketch View of Bath Fashion Museum Public Realm Improvements by LDA Design, Bath & North East Somerset Council, 2026.

by limited transport options, further driving urban–rural disparities. A lack of affordable accessible living space is mirrored by a lack of affordable workspace, holding back start-ups as well as the maturation of enterprises.

For all these reasons, despite being a global cultural, heritage and tourism asset, Bath has -0.9 productivity growth—on the lower range nationally (Bath & North East Somerset Council, 2026).

To address this challenge, the Bath city region is returning to the visionary DNA of its founding Georgian architects, whose founding concepts are closer to Urry's sense of the fluid 'liveable city' than we might first think (Urry, 2005). In order to do so, we need to first understand the evolution of the productivity challenge since the 1800s.

The evolution of the productivity challenge

Blended DNA

Like all Key Cities, Bath and its region have enjoyed a blend of purposes over time. Established before the Romans as a place of healing, pilgrimage, visitor economy and cultural assimilation, the region augmented this in the 17th, 18th and 19th centuries with profitable industries such as mining, wool and engineering.

All of which were fuelled by the vast liquidities of the slave trade, in terms of direct production of goods and the establishment of Bath by the Regency as a spectacular pleasure garden of international proportion.

Health, healing and pilgrimage were modernised into high-society dancing, gaming, property speculation and business transaction with all the licence of the eighteenth-century 'grove'.

Post-war industrial decline, emerging service industries

From the end of the 19th century, aligned to the national profile of divesting empire, fighting two world wars, and ceding manufacture in a new global marketplace, Bath struggled.

By the 1980s much of the light industry had vanished or relocated. Major companies like Horstmann and Rotork were rare survivors and the city has not been able to attract equivalent incoming growth.

In the 1970s, cheap property prices and dilapidated premises enabled a thriving arts scene centred around Walcot Street. However, as Bath harnessed its visitor economy potential in line with national policy shifts toward a service economy, the city became a holiday destination for the burgeoning tourism and culture market.

The fluidity of the 'grove' was replaced with the scheduled regimen of the tour operator. Instead of a multi-faceted blend of purposes, Bath and its region increasingly relied on a fundamentally monocentric purpose. Hotels, restaurants and heritage

replaced light engineering, wool, mining and manufacturing with what might be termed a 'barista economy'.

The productivity challenge

What this trajectory accentuates is that one form of productive expansion can constrain another. As Urry observes in The Complexity Turn, "there is no fixed or absolute time independent of the system to which it refers" (Urry, 2005).

Whilst the post-war period has grown a thriving professional and predominantly public-service class, it has also reduced local opportunity.

Areas of Bath such as Twerton and Whiteway are in the bottom 10% nationally for multiple indices of deprivation. There are communities with multiple generations since regular sustainable employment.

The attainment gap between pupils qualifying for free school meals in B&NES and nationally is significant: 36% of such pupils achieve the expected standard in reading, writing and maths, compared to 48% nationally (Bath & North East Somerset Council, 2026).

15% of students in B&NES attend private school, which is double the national average. This educational profile complements the hourglass economy, with a shared productivity challenge of a low-lying base and a prosperous upper layer.

The core problem

Starkly, the immediate productivity challenge is how to build a sustainable middle economy, creating a diversity of new jobs alongside affordable housing, enabling the talented graduate workforce to remain whilst building inclusive opportunities for progression.

Behind this is the need to align the city region's considerable cultural, creative, health and education assets with Bristol and the surrounding rurality, enhancing national and international significance for the whole South West.

To do this, we need to generate a multilayered inclusive response.

Urry compares the current global age to a hologram rather than a camera lens:

"By contrast, the hologram is a plausible metaphor for a complex informational age… any part contains, implies, and resonates information of the whole" (Urry, 2007).

Core idea: the whole Bath city-region as a hologrammatic creative canvas

In preparation for "writing the whole," the entire city region can be considered as an innovation zone, constructing an ecosystem across the surrounding rurality that also connects into Bristol. The next productive step is joining up assets and opportunities nationally, regionally and locally (Urry, 2007).

Joining up the productive assets

National impetus

On November 4, 2024, the Secretary of State for Education, Bridget Phillipson, sent an open letter to all UK university vice-chancellors. She set out expectations that higher education should drive growth through greater access, more inclusive practice, stronger civic engagement and economic impact, and wider systems change (Department for Education, 2024).

Universities across the UK had already established civic agreements with anchor institutions. However, this intervention explicitly positioned higher education institutions as central to addressing the UK's longstanding productivity challenges in transport, housing, skills, enterprise, innovation, sustainability, health and well-being.

Supporting analysis for the UK Government's Modern Industrial Strategy indicates that while productivity has risen by approximately 1% per year over the last 18 years in France, Germany and the United States, in the UK it has increased by only 0.8% in total over the same period (HM Government, 2025).

Accordingly, the Industrial Strategy identifies eight priority sectors ("IS-8") as the most productivity-potent, with delivery mechanisms increasingly devolved through mayoral combined authorities.

As Justine Greening noted at the launch of Breaking Down Barriers to Inclusive Growth, "regional is the new national—it's how to get things done" (Greening, 2025).

Regional framing

The West of England Growth Strategy aligns closely with the UK Government's Industrial Strategy and associated funding streams, including:

- the Department for Science, Innovation and Technology Local Innovation Partnership Fund
- UK Research and Innovation Creative Places Growth Fund
- Arts and Humanities Research Council Creative Clusters Fund

In addition, evidence presented at the Key Cities i-PLACE 2025 conference highlighted a growing expectation that these funding streams should "articulate together" to maximise productive resonance, in ways analogous to Urry's hologrammatic metaphor (Arts and Humanities Research Council, 2025; Urry, 2007).

Accordingly, the West of England has adopted a multimodal approach through the establishment of a Citizen's Culture Plan.

Launched in January 2026, the plan was developed by 51 members of the West of England Citizen's Assembly and sets out a shared vision for culture and creativity across the region (Citizens for Culture, 2026).

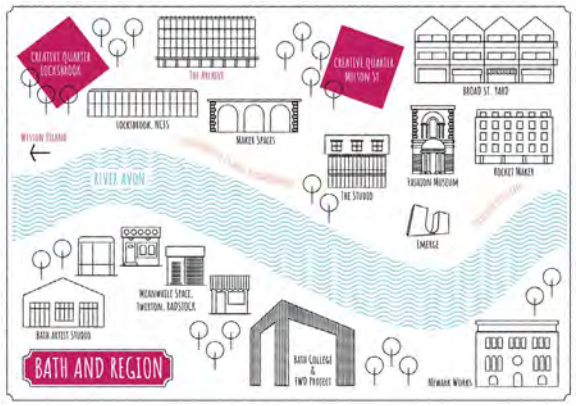
For Bath and North East Somerset, the six priorities are:

- repurposing underused buildings as cultural hubs
- protecting heritage through creative use
- fair investment for under-represented voices
- inclusive cultural policymaking
- improving creative space affordability
- giving citizens more power in cultural decision-making

Each of these priorities directly informs the application of the hologrammatic canvas at the city-region level.

City-region application

Existing assets include Bath Spa University's Creative Technology Innovation Centre, "The Studio," which hosts 68 creative social enterprises.



Bath Spa University's EMERGE incubation programme supports a further cohort of creative graduate start-ups, while Locksbrook Arts Campus accommodates approximately 1,500 undergraduate, postgraduate and short-course students.

Along the River Avon corridor (the "Bath River Line"), a cluster of publishing, marketing, web development and creative technology companies contributes to the wider ecosystem.

In addition, Bath College is located adjacent to the North Quays site, designated for development as a high-growth innovation centre.

Taken together, these assets provide the productive capacity for Urry's concept of hologrammatic "writing the whole," linking arts-based microbusinesses, social enterprises and high-growth innovation opportunities (Urry, 2007).

The city benefits from the complementary strengths of two universities:

- the University of Bath (STEM-focused)
- Bath Spa University (arts, humanities and social value-focused)
- Recognising this, the Bath Innovation and Creativity Board is jointly chaired by the two institutions, with:
- the University of Bath leading the North Quays development
- Bath Spa University leading the creative canvas initiative

Both institutions are actively pursuing cross-sector collaboration.

The primary asset

Within this wider ecosystem, the most significant catalytic intervention is the reinvention of the Bath Fashion Museum.

Proposed Bath Fashion Museum, Bath & North East Somerset Council, 2026 by 6a Architects.

The Bath Fashion Collection is the world's largest and longest-running fashion collection, spanning over 400 years and comprising more than 100,000 objects.

Even without a permanent museum space, its assets are accessed globally by approximately 1.3 million people annually.

The redevelopment project will:

- establish the UK's only dedicated fashion museum
- be located within the Milsom Quarter
- generate an estimated 250,000 additional visitors annually
- contribute approximately £18.4 million GVA to the regional economy
- create approximately 165 new jobs

(Bath & North East Somerset Council, 2026)

In addition, the project is expected to deliver:

- £16.9 million in arts-based wellbeing benefits
- alignment with a regional visitor economy valued at £2.4 billion
- approximately 7% of regional employment

(Bath & North East Somerset Council, 2026)

The project involves a £40 million retrofit of the former Post Office building, bringing a vacant site back into productive use.

As such, the Fashion Museum activates multiple priorities within the regional cultural strategy and creates the conditions for two complementary spatial models:

- the city hive
- the unbounded region

The city hive

The West of England Growth Strategy and the Bath and North East Somerset Cultural Development Plan position the Fashion Museum as a central driver of a broader cultural and economic ecosystem (Bath & North East Somerset Council, 2026; West of England Combined Authority, 2025).

Located in the Milsom Quarter, the museum's educational programme will contribute to addressing regional attainment gaps.

In parallel, Bath and North East Somerset Council, working closely with Bath Spa University, is developing affordable creative workspace provision in the surrounding area.

This aims to create a creative microbusiness "hive", stimulating the wider creative economy and linking the city centre to surrounding communities, including former industrial towns such as Midsomer Norton and Radstock.

In this context, the concept of a centralised "hive" evolves into a more fluid, distributed model of productivity aligned with Urry's concept of mobile sociology:

"Social and material life [is] like waves of a river" (Urry, 2007).

Unbounded spaces

Radstock and Midsomer Norton, located between Bath and Bristol, are already experiencing inward migration of creative practitioners seeking more affordable space.

These towns contribute to a regional total of approximately 1,555 creative businesses, generating around £250 million in GVA, projected to rise to £271 million by 2030 (Bath & North East Somerset Council, 2026).

Collaborative initiatives between Bath Spa University, Bath and North East Somerset Council and Little Lost Robot CIC have led to the development of the Old Print Works Arts hub in Radstock.

This initiative has:

- supported 80 artists
- engaged over 3,000 participants
- delivered 350 workshops, events and residencies
- reached audiences of over 3,200 people

(Bath Spa University, 2026; Little Lost Robot CIC, 2026)

In addition, the Trinity Hub project is

transforming a former church into a 1,000 m² cultural and community space under community ownership.

These developments exemplify Urry's concept of unbounded "flow," emerging through social mobilisation and grassroots participation:

"Social mobilisation in the very process of acquiring citizenship rights 'from below'" (Urry, 2007).

Dial shifts: inclusive growth, creative practice and systems change

The previous section outlined the structural alignment of national, regional and local assets. However, these alone are insufficient to address the productivity challenge unless accompanied by a series of dial shifts in how inclusive growth is conceptualised and delivered.

Bath Spa University's report Breaking Down Barriers to Inclusive Growth argues that inclusive growth requires moving beyond traditional economic metrics to focus on the distribution of opportunity, participation and wellbeing (Bath Spa University, 2025).

In this context, inclusive growth is not simply about increasing Gross Value Added (GVA), but about enabling more people to participate meaningfully in the economy through education, skills, creative practice and enterprise.

This aligns with wider national policy debates, which emphasise the need to connect economic growth with social mobility and place-based opportunity (HM Government, 2025).

Creative practice as economic infrastructure

A key dial shift involves recognising creative practice itself as a form of economic infrastructure.

Traditionally, infrastructure has been understood in terms of transport, housing and utilities. However, there is growing recognition that cultural and creative systems also function as enabling infrastructures, shaping how individuals and communities access opportunity.

The Bath city region provides a clear example of this.

The development of creative hubs such as:

- The Studio (Bath Spa University)
- Locksbrook Campus
- Old Print Works (Radstock)

demonstrates how creative practice can operate simultaneously as:

- a site of cultural production
- a platform for enterprise development
- a mechanism for social inclusion

(Bath Spa University, 2026; Little Lost Robot CIC, 2026)

In this sense, creative infrastructure is not separate from economic infrastructure, but deeply intertwined with it.

Inclusive pathways and microbusiness development

Another critical shift involves the role of microbusinesses and creative entrepreneurs.

Across the UK, approximately 96% of businesses are small or micro-enterprises, yet economic policy has historically focused on scaling large firms (HM Government, 2025). In Bath and North East Somerset, the creative sector reflects this pattern, with a large proportion of activity taking place within small-scale enterprises and freelance practice (Bath & North East Somerset Council, 2026).

The challenge, therefore, is not simply to attract large-scale investment, but to create conditions in which microbusinesses can emerge, survive and grow.

Programmes such as:

- EMERGE (Bath Spa University)
- creative incubation at The Studio
- community-based hubs such as Old Print Works

provide pathways for:

- graduate retention
- enterprise formation
- skills development
- community participation

(Bath Spa University, 2026)

These initiatives help to build what might be termed a distributed middle economy, addressing the structural imbalance between high-skilled professional roles and low-paid service work.

Education, skills and professional creativity

A further dial shift concerns the role of education.

Bath Spa University's strategic positioning as a "professionally creative university" reflects a commitment to integrating creative practice with employability and enterprise (Bath Spa University, 2026).

This approach recognises that:

- creative graduates require not only disciplinary knowledge
- but also the skills to operate within complex, interdisciplinary and entrepreneurial environments

The university's short course provision and professional training programmes have supported nearly 2,000 adult learners over four years, with approximately 70% progressing into employment or further study (Bath Spa University, 2026).

In July 2025, this work was rated Outstanding by Ofsted, reinforcing the role of professional creative education as a driver of inclusive growth.

Building to scale

The final dial shift involves moving from pilot activity to scalable systems.

While many of the initiatives described in this paper are relatively small in scale, their long-term significance depends on their ability to generate sustained impact across the region.

This requires:

- aligning cultural infrastructure with economic strategy
- connecting local initiatives to national funding frameworks
- embedding inclusive growth within institutional practice

The redevelopment of the Fashion Museum provides a focal point for this scaling process.

As part of a wider cultural and economic ecosystem, it has the potential to:

- attract investment
- generate employment
- support creative enterprise
- enhance international visibility

(Bath & North East Somerset Council, 2026)

However, scaling is not simply a matter of expansion. It requires maintaining the relational and networked qualities that underpin the hologrammatic creative canvas.

As Urry suggests, complex systems operate not through linear growth, but through

dynamic interactions across multiple levels:

"Any part contains, implies, and resonates information of the whole" (Urry, 2007).

Conclusion

The creative economy within Bath and North East Somerset currently generates approximately £230 million in Gross Value Added (GVA) annually, with a significantly higher GVA per job compared with many other sectors of the local economy.

Projections suggest that this could rise to approximately £271 million by 2030, reflecting continued growth in creative and cultural industries (Bath & North East Somerset Council, 2026).

Research undertaken by Turley Economics indicates that the supply of suitable workspace remains insufficient to support this growth, particularly in relation to affordable studio and light industrial space (Turley Economics, 2024).

Between 2010 and 2022, employment in the creative sector increased from approximately 5,065 jobs to 6,315 jobs, representing steady but constrained growth (Bath & North East Somerset Council, 2026).

If current trends continue, projections suggest that by 2030, 2040 and 2050 the region could experience an increase of approximately 4,255 additional creative jobs, alongside a shortfall of around 620 creative studio spaces (Turley Economics, 2024).

A creative canvas for productive flow

The analysis presented in this paper suggests that addressing the productivity challenge requires a shift in how cultural infrastructure, creative enterprise and regional policy are understood and connected.

Rather than treating cultural investment as peripheral, the Bath city region can be understood as a hologrammatic creative canvas, in which different elements of the system interact dynamically.

Within this framework, the redevelopment of the Bath Fashion Museum operates as a catalytic intervention capable of unlocking wider economic and social value.

This investment, exceeding £50 million, functions across multiple scales:

- international cultural heritage
- national policy frameworks
- regional economic development
- local creative ecosystems

(Bath & North East Somerset Council, 2026)

From imagined presence to economic activity

A central challenge is translating what Urry describes as "imagined presences" into tangible forms of productive activity (Urry, 2007).

The initiatives described in this paper aim to address key structural constraints, in-

cluding:

- the shortage of affordable creative workspace
- limited pathways for microbusiness development
- uneven access to education and employment opportunities

Through the development of:

- the city hive
- unbounded regional networks
- education and enterprise pathways

the Bath city region can begin to convert potential into sustained economic activity.

Rethinking Productivity

If productivity remains one of the central economic challenges facing the United Kingdom, the evidence presented here suggests that new approaches are required.

In the South West of England, approximately 96% of businesses are small or micro-enterprises, indicating that growth strategies focused solely on large firms are unlikely to succeed (HM Government, 2025).

Instead, policy must increasingly focus on:

- enabling small-scale enterprise
- supporting creative entrepreneurship
- connecting cultural infrastructure with economic opportunity

Wider implications

The approach outlined in this paper has potential relevance beyond Bath.

Many UK Key Cities share similar characteristics:

- strong cultural assets
- high levels of heritage value
- productivity challenges
- housing and affordability pressures

The Bath case suggests that integrated creative ecosystems, combining:

- cultural infrastructure
- university innovation
- inclusive growth strategies

can provide new pathways for addressing these challenges.

Final reflection

The Bath city region demonstrates that productivity is not solely a function of traditional economic inputs, but also of how effectively places mobilise their cultural, social and creative assets.

In this sense, the hologrammatic creative canvas offers not only a conceptual framework, but a practical approach to aligning policy, infrastructure and creative practice.

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Plymouth Sound National Marine Park as a model for place-based innovation

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Reimagining Coastal Regeneration: The Plymouth Sound National Marine Park as a Model for Place-Based Innovation

Chris Bennewith, Elaine Hayes, Katharine Willis

Subscribe and watch Chris and Elaine's talk at MediaCity on the i-PLACE Channel at www.youtube.com/@i-Place

Introduction

For decades, coastal communities in the United Kingdom have faced endemic, intractable socio-economic and environmental challenges. UK Government reports persistently highlight long-standing disparities in health, transport, digital access, education, housing quality and employment, many of which remain insufficiently addressed despite decades of intermittent funding (House of Lords Liaison Committee, 2023; Regenerating Seaside Towns Committee, 2019).

Coastal regeneration in the UK has historically suffered from short-termism, fragmented funds, and siloed actions, resulting in inconsistent or limited impact on structural inequalities (House of Lords Liaison Committee, 2023). Multiple Government regeneration strategies have recognised these entrenched disparities but have not offered coastal-specific responses (Regenerating Seaside Towns Committee, 2019) nor recognised the uniqueness of the challenges that coastal communities, both large and small, face.

Against this background, the Plymouth Sound National Marine Park (PSNMP) proposes a paradigm shift, transforming the marine environment from a passive backdrop into a driver of civic identity, wellbeing, and inclusive economic opportunity (Pittman et al., 2019).

Recent research on place-based innovation, civic governance, and experimental approaches to local transformation provides a useful conceptual lens through which to understand the significance of PSNMP. Place-based innovation scholarship emphasises solutions that emerge from the interaction of local assets, civic leadership, and collaborative governance, rather than generic policy interventions applied uniformly across geographies (Fiorentino et al., 2024; Rissola & Haberleithner, 2020). This literature further highlights the importance of integrating social, environmental, cultural, and economic systems within a coherent spatial framework, particularly in regions marked by long-term structural decline (Fiorentino et al., 2024). In parallel, contemporary civic governance scholarship underscores the value of public–civil partnerships, community co-design, and iterative, experimental modes of policymaking that respond to local complexity and encourage adaptive, participatory transformation (Jennings et al., 2024;

Nijamdeen et al., 2025). While this paper remains rooted in practice, these perspectives collectively help situate PSNMP as a distinctive attempt to operationalise holistic, place-based innovation within a coastal context.

In the paper we first outline the national context for the significant challenges faced by coastal communities and cities. We then detail how regeneration strategies have sought to address these challenges and highlight the range of ways in which they have failed to achieve the scale and scope of change proposed.

The paper then presents PSNMP, the UK's first National Marine Park, as a novel, integrated model of place-based innovation that brings together environmental restoration, education, cultural engagement, and economic development (Plymouth Sound National Marine Park, n.d.; Plymouth City Council, 2025). By situating urban marine space as an innovation district, PSNMP demonstrates the potential for scalable coastal regeneration. Positive emerging evidence from projects such as seagrass restoration, immersive education programmes, and blue-green skills development suggests that the Park could provide a blueprint for wider coastal renewal across the UK (Natural England, 2022; City College Plymouth, 2024).

Historical and structural context

Coastal cities were once central to UK economies; from their integration as a part of the working life of UK cities in 1900's, to their increasing role in societal and cultural such as tourism in twentieth century (Leyshon, 2018). But in the last three decades, coastal communities across the United Kingdom have faced a distinctive and deeply interconnected set of structural challenges that differentiate them sharply from inland regions (Richardson et al., 2025). Academic research, national statistics, and parliamentary inquiries consistently show that coastal deprivation is persistent, multi-dimensional, and mutually reinforcing, emerging from long-term socio-economic decline, environmental pressures, demographic imbalance, and fragmented governance. These include:

Persistent Socio-Economic Stagnation and Labour Market Weakness: Many coastal communities have experienced decades of economic stagnation as traditional maritime, tourism, and service industries declined. Fiorentino et al. (2024) argue that coastal areas function as "left-behind places" whose socio-economic profiles resemble post-industrial regions rather than dynamic urban centres. This stagnation is compounded by limited industrial diversity, low-wage seasonal work, and a narrow economic base. The House of Lords Liaison Committee (2023) similarly concludes that "endemic problems of seaside towns persist unabated," with little progress despite successive regeneration initiatives. ONS Statistical data shows that coastal settlements have lower employment rates, higher economic inactivity, and fewer busi-

nesses per capita than inland settlements (Office for National Statistics [ONS], 2024). This structural weakness restricts household incomes, reduces economic resilience, and limits opportunities for young people entering the labour market.

Demographic Imbalance and Population Ageing: A defining feature of many coastal areas is a skewed demographic profile characterised by youth out-migration and inward migration of older residents. The ONS (2024) reports that 21% of residents in coastal built-up areas are aged 65 or over, compared with 15% inland, resulting in a significantly older population. This shift is driven by both the decline in opportunities for young adults and the attraction of coastal areas for retirees. The concentration of older populations places additional pressure on health and social care systems, particularly in places already struggling to recruit workforce. Academic reviews highlight the social consequences of this demographic imbalance, including diminished community vitality, reduced economic participation, and limited capacity for local leadership and innovation (Fiorentino et al., 2024).

Structural Challenges in Education, Skills, and Aspirations: Educational inequality is one of the most pervasive challenges in coastal Britain. Research consistently finds that coastal schools face recruitment challenges, lower per-pupil investment, and reduced attainment outcomes (House of Lords Select Committee on Regenerating Seaside Towns, 2019). These factors limit progression to further and higher education. A comprehensive study by UCL (Keating et al., 2025) on youth life chances found that young people in coastal communities: have fewer post-16 opportunities, are challenged by affordable transport to FE/HE institutions, face a shortage of youth services and extracurricular provision, and experience a wide gap between career aspirations and local labour market realities. The result is a "double disadvantage", fewer local opportunities and reduced access to opportunities elsewhere.

Poor Health Outcomes and Pressured Health Infrastructure: Coastal communities exhibit some of the worst health outcomes in England. According to Public Health England data (cited in Whitty, 2021), coastal residents experience higher rates of chronic obstructive pulmonary disease, heart disease, stroke, diabetes, and mental health challenges. Even when adjusted for age, coastal areas show higher rates of disability and poorer self-reported health (ONS, 2024). The structural drivers of these outcomes are complex: poverty, poor-quality housing, workforce shortages, seasonal employment, and long travel times to hospitals all contribute (Bailey, 2021). These conditions combine to create a health system under strain—both in prevention and treatment.

Housing Pressures, Poor-Quality Stock, and Transience: Housing pressures are acute in many coastal towns. The House of Lords (2019) identifies poor-quality private rented accommodation, often convert-

ed from former guesthouses, as a major contributor to deprivation. Large concentrations of houses in multiple occupation (HMOs) are associated with anti-social behaviour, weak community cohesion, and overstretched local services. An additional challenge is the high prevalence of second homes and short-term holiday lets, which inflate prices and reduce housing supply for local residents (House of Commons Library, 2025). This dynamic contributes to population churn, undermining long-term civic stability.

Environmental Vulnerability: Flooding, Erosion, and Climate Change: Environmental pressures compound socio-economic challenges. Climate change is increasing the frequency and severity of extreme coastal flood events (Haigh et al., 2025). Rising sea levels, coastal squeeze, and sediment supply disruption are accelerating erosion and degrading natural habitats such as dunes, salt marshes, and seagrass meadows (Environment Agency, 2023). The 2024 National Assessment of Flood and Coastal Erosion Risk shows that 6.3 million properties are currently at flood risk, rising to 8 million by mid-century under high-warming scenarios (Department for Environment, Food & Rural Affairs, 2025). The Coast-R Network (McDonagh et al., 2025) highlights that coastal communities face multiple intersecting crises, including biodiversity loss, landfill exposure, marine pollution, climate-linked migration pressures, and infrastructure vulnerability. These pressures elevate physical and social risk, and disproportionately affect low-income residents.

Fragmented Governance, Short-Term Funding, and Limited Local Capacity: Governance challenges underpin many of the systemic issues identified above. The All-Party Parliamentary Group for Coastal Communities (APPG, 2024) emphasises the absence of a coherent national coastal strategy, cross-departmental leadership, long-term funding frameworks, and standardised data for monitoring coastal inequality. Competitive bidding models, such as Levelling Up grants, often favour areas with greater administrative capacity, inadvertently widening inequalities between coastal and inland authorities (Key Cities Innovation Network, 2025). The Treasury's Green Book criteria have also been criticised for disadvantaging coastal towns in investment assessments. Academic work reinforces that fragmented governance and siloed policy frameworks undermine the potential for integrated solutions to coastal challenges (Fiorentino et al., 2024).

Social Infrastructure Decline and Loss of Community Services: Over a decade of public sector austerity has disproportionately affected coastal communities. Many areas have seen closures of libraries, youth centres, and community hubs, reductions in leisure and cultural services, decreased public transport provision, and weakened voluntary sector capacity. These cuts undermine social cohesion, reduce local resilience, and increase isolation—particularly among older people and young residents

with limited mobility (Keating et al., 2025).

Connectivity Failures and Geographic Peripherality: Connectivity challenges are structural and long-standing. The House of Lords Select Committee (2019) identifies inadequate transport links and poor digital infrastructure as critical constraints on productivity, education, and investment. Many coastal communities are literally at the "end of the line", meaning fewer transport options, higher travel costs, longer commute times, and reduced attractiveness for businesses and professionals. Digital connectivity lags national averages, restricting access to remote work, digital skills, and online learning.

Failures of past regeneration approaches

Leary and McCarthy propose that urban regeneration is an area based intervention which is 'public sector initiated, funded, supported or inspired, aimed at producing significant sustainable improvements in the conditions of local people, communities and places suffering from aspects of deprivation, often multiple in nature" (2013, p. 9). However, regeneration models have typically not been applied successfully to urban coastal cities and towns. (Gray et al., 2023; Leyshon, 2018). From the 2000s onwards, a range of government policies and funding programmes have been implemented to regenerate seaside resorts and coastal communities, with a focus on refurbishing the physical environment of seaside towns to reverse the perception of decline and encourage people to visit (Ward, 2018, Richardson et al., 2025). Other programmes have focused on public health or environmental infrastructure interventions.

Yet, despite decades of policy attention, successive coastal regeneration efforts in the UK have repeatedly failed to arrest long-term decline, largely because interventions have been piecemeal, short-term, or structurally misaligned with the deep-rooted challenges facing coastal communities (Richardson et al., 2025). Evidence from parliamentary inquiries, academic research, national statistics, and local authority testimony reveals a highly consistent pattern: traditional regeneration approaches have not only fallen short, but in some cases entrenched disadvantage.

Over-reliance on tourism and failure to diversify local economies

For decades, coastal regeneration strategies have focused on reviving or modernising seaside tourism, often without recognising the limited capacity of tourism to generate year-round employment or high-value jobs. As early as the 2000s, researchers observed the structural decline of traditional holidaymaking following international travel liberalisation, but policy responses remained rooted in nostalgia-driven attempts to "restore the seaside economy" (Bailey, 2021). This narrow economic focus has left many coastal towns vulnerable to seasonal cycles, low-wage service jobs, fluctuating visitor mar-

kets and vulnerability to climate impacts on coastal assets. Fiorentino et al. warn that future coastal resilience requires diversified economic ecosystems, including marine industries, green skills, R&D hubs, creative sectors, and nature-based tourism, not solely traditional leisure models (Fiorentino et al., 2024; McDonagh et al., 2025).

Lack of community co-creation and persistent deficits in local capacity

Many earlier regeneration initiatives failed because they were imposed from outside, rather than co-created with residents. Research on coastal youth, for example, reveals that traditional interventions, skills schemes, town centre projects, or short-term cultural programming, did little to address the lived experiences of local communities (Keating et al., 2025). Furthermore, austerity-era cuts weakened local authority capacity, meaning councils lacked the staffing, data, or strategic bandwidth needed to design and deliver complex regeneration programmes (Local Government Association, 2019). This left many coastal areas dependent on external consultants or unable to compete for major national funds, further entrenching inequality.

Siloed, sector-specific interventions

Past approaches typically treated coastal decline as a set of discrete problems, housing, tourism, transport, skills, rather than recognising their interconnected and mutually reinforcing nature. For example, tourism-focused regeneration in the early 2000s boosted visitor infrastructure without addressing underlying labour market fragility, seasonal employment cycles, or youth out-migration (House of Lords Select Committee, 2019). Similarly, infrastructure investments have frequently failed to link environmental resilience, workforce development, and social wellbeing. Fiorentino et al. (2024) argue that UK policy has historically lacked a holistic framework comparable to modern international coastal regeneration models, resulting in interventions that treat symptoms rather than root causes.

Failure to integrate climate adaptation into regeneration

Climate change and coastal erosion represent existential threats, yet historic regeneration programmes seldom included climate resilience. The National Assessment of Flood and Coastal Erosion Risk (2025) shows that up to 8 million properties could be at flood risk by mid-century, disproportionately in coastal areas (Department for Environment, Food & Rural Affairs [Defra], 2025). The Coast-R Network (McDonagh et al., 2025) warns that regeneration is unsustainable unless adaptation is embedded from the outset. Ignoring climate risk has meant that infrastructure investments have become obsolete, cultural assets have deteriorated, housing has become unsafe, businesses face rising insurance costs and local economies are

losing resilience. For coastal communities, regeneration without climate adaptation is, increasingly, not regeneration at all, but deferral of future crises.

Short-term, fragmented funding cycles

A central failure has been the reliance on short-term, competitive funding streams, from the Coastal Communities Fund to the Levelling Up Fund, designed more for project-level outputs than system-level change. The House of Lords Liaison Committee (2023) highlights that competitive bidding disproportionately disadvantages coastal authorities with limited capacity, leading to "patchwork" interventions that cannot address long-term structural issues. This challenge is echoed in the APPG Coastal Inquiry (2024), which found that many councils are forced into a cycle of "reactive grant-chasing," inhibiting strategic planning. Fiorentino et al. (2024) characterise such funding structures as misaligned with spatial realities, noting that regeneration should be approached as a decadal, place-based transition, not a series of isolated projects. Asthana and Agarwal likewise argue that short funding horizons have prevented coastal areas from developing coherent strategies for economic diversification or climate adaptation (De Graaf et al., 2025, p. 41).

Weak governance coordination and lack of a national coastal strategy

One of the most widely recognised failures is the absence of coordinated national leadership. Multiple reports stress that coastal issues cut across Defra, DLUHC, DSIT, DfE, DHSC, and DCMS, but no single department holds responsibility (House of Lords Liaison Committee, 2023). The result is fragmented policy, environmental protections exist alongside unaligned economic strategies, while skills initiatives operate separately from marine spatial planning or cultural programmes. The APPG Coastal Communities (2024) calls this a "governance vacuum," arguing for a dedicated Minister for the Coast and a cross-departmental coastal taskforce. The Government's 2023 formal response acknowledged the need for greater coordination, but stopped short of creating new governance structures, leaving significant gaps (Department for Levelling Up, Housing and Communities, 2023).

Environmental Management and Enforcement Failures: Environmental governance has been one of the most conspicuous weaknesses. Despite expansive Marine Protected Area (MPA) designations, enforcement has been limited: more than 90% of UK MPAs still allow bottom trawling, undermining ecological recovery (Oceana UK, 2025). Geographical analyses (Geographical Magazine, 2025) show thousands of hours of destructive fishing activity within MPAs each year.

Without meaningful ecological management, coastal regeneration efforts that rely on natural capital or environmental tourism have struggled to deliver long-term value. The Environment Agency (2023)

also reports chronic habitat loss, water quality degradation, and climate-driven erosion, none of which have been systematically integrated into regeneration funding models.

In summary, UK coastal regeneration, defined as public, area-based intervention, has largely failed in the last three decades. Tourism-led, short-term, fragmented programmes have neglected diversification, connectivity, housing, governance, community co-creation, environmental management and climate adaptation. Evidence shows piecemeal, siloed policies often entrenched disadvantage, revealing the need for long-term, integrated, place-based coastal strategies addressing structural decline and deep-rooted inequalities.

Plymouth: a concise contextual overview

To understand the rationale for PSNMP, it is important to situate Plymouth within its coastal, socio-economic and governance landscape. Plymouth is a port city with a complex maritime heritage, a high proportion of low-income neighbourhoods and a long-standing reliance on defence, marine industries and public sector employment. The city's geography, shaped by estuaries, river valleys and an expansive harbour, creates both opportunities and constraints: world-class marine assets exist alongside pockets of concentrated deprivation, limited east–west transport connectivity and persistent skills gaps (Figure 1). Plymouth has one of the UK's largest marine science and technology clusters, yet also experiences entrenched inequalities in education, housing and health. Governance capacity has been constrained by a decade of austerity and short-term funding cycles, while the marine environment represents both a major cultural asset and a site of environmental vulnerability. This context underscores the need for an integrated model that connects environment, economy and community, a need PSNMP directly responds to.

Figure 1. Plymouth Sound marine park setting

PSNMP as a coastal regeneration and innovation model

PNSMP adopts a model of regeneration that leverages the unique natural assets of the city's coastal space as an engine for the regeneration and innovation (Balata & Vardakoulias, 2016; Barton et al., 2022; Carpenter & Balata, 2018; Corfe, 2017). It has adopted the 'City marine park model (Pittman et al., 2019) as a new model of urban regeneration in coastal cities that

create socio-economic and environmental benefits. Pittman et al define a city seascape as:

"an ocean and coastal space defined by collective local knowledge and recognised for its special importance for city community health, well-being and heritage, with the intention of encouraging greater prosperity and responsible enjoyment and deepening knowledge, appreciation and care for the city seascape and the broader Earth system. A city marine park recognises the rich economic and social capital and propensity for innovative solutions to urban problems that are contained within cities" (Pittman et al., 2019)

Despite the strategic importance of coastal cities Pittman et al. highlight the fact that 'surprisingly little attention has been directed at finding innovative ways to integrate the seascape into city-wide initiatives to achieve healthy, prosperous and sustainable coastal cities' (2019, p. 3). As noted previously, Plymouth is the first city in UK to have a designated National marine Park.

The Plymouth Sound National Marine Park, is the UK's first National Marine Park and aims to transform how the city of Plymouth interacts with the sea. The project was described by Councillor Tudor Evans, Leader of Plymouth City Council as follows:

"In developing the UK's first National Marine Park we will create a blueprint for an innovative new model of National Marine Parks … as the first city to enjoy this incredible opportunity to innovate, protect and develop our connections to the sea."

The coastal challenges outlined above are not abstract background conditions; they directly shaped the design of PSNMP, as did essential learnings from failed past regeneration approaches. PSNMP's approach, integrating education, cultural programming, environmental restoration and economic opportunity, is a deliberate response to the interconnected nature of these challenges (Figure 2) and includes the following strands:

- Place-based and Cross sectoral Innovation: Develop a marine innovation district wth Place-based Gateways and through cross sectoral working.
- Diversifying Local Economies: Provide new employment opportunities and career pathways in sustainable future ocean jobs through a Skills Hub and blue green careers pathways.
- Integrating Climate Adaptation into Regeneration : Protect and enhance a world class natural environment and heritage landscape through a marine sustainability programme including a large-scale seagrass restoration efforts
- Creating Community Co-Creation and capacity building opportunities: Create access for excluded groups

to blue space through wellbeing and active engagement programmes and with a new generation of engaged volunteers, communities and heritage champions

- Digital Innovation: a Digital Park: Deliver a 'digital park' to harness the opportunities of new modes of immersive engagement and digital innovation.
- Changing Governance and Coordination : Bring these together through a long-term, multi-partner governance model.

Figure 2. Plymouth Sound marine park location plan and projects (Plymouth Sound National Marine Park Project Summary)

Below we describe in more detail how PNSMP is addressing the previous failures of coastal city regeneration through the marine park model, as outlined above:

Place-based and cross-sectoral innovation

Plymouth Sound National Marine Park is redefining the relationship between city and sea by positioning the urban–marine interface as a marine innovation district that integrates environmental, social, cultural, and economic objectives within a single spatial framework. This approach departs from traditional marine management by treating the seascape not only as an ecological asset but as a platform for place-based innovation, where scientific research, cultural production, and community engagement are co located and mutually reinforcing (Plymouth Sound National Marine Park, n.d.).

Central to this model is the deliberate clustering of cultural organisations, educators, and marine scientists, supported by institutions such as Marine Research Plymouth and local cultural partners, to stimulate interdisciplinary collaboration and new forms of creative and scientific practice. Through this integration, PSNMP advances an innovation model that connects ecological restoration with cultural programming, digital engagement, and socially driven experimentation.

The Park's mission further emphasises the reconnection of people with the sea by establishing "educational gateways," enhancing community participation, and foregrounding heritage centred narratives that help residents engage with the Sound as both a cultural and ecological landscape (Plymouth Sound National Marine Park, n.d.; Plymouth City Council, 2025).

These gateways take multiple forms, restored heritage sites, experiential learn-

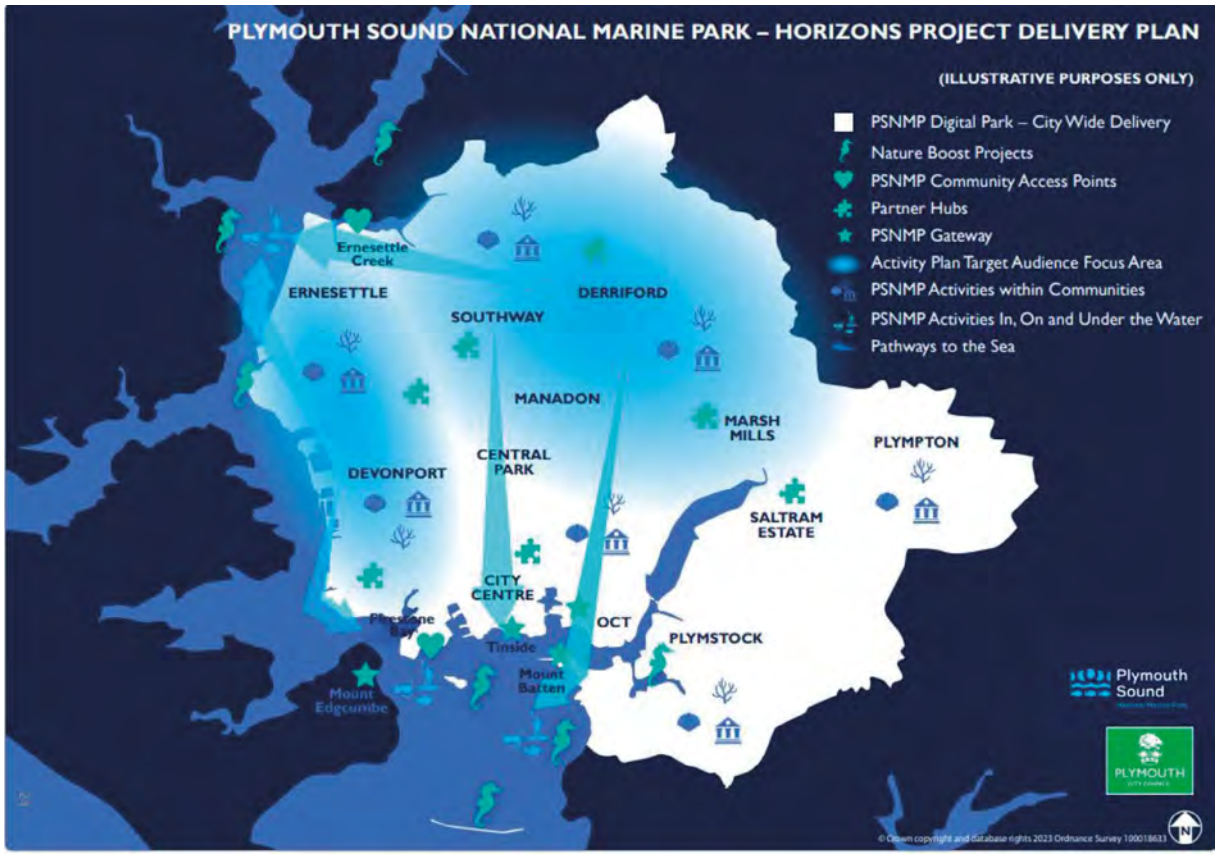

Figure 3. PSNMP place-based gateways

ing programmes, participatory cultural initiatives, and digital access points, each designed to lower psychological and practical barriers to marine engagement (Figure 3). By embedding environmental stewardship, cultural expression, and social inclusion into its core activities, PSNMP demonstrates how cross sectoral innovation can be used to transform marine spaces into engines of urban regeneration. This integrated approach not only strengthens the city's relationship with its marine environment but also provides a replicable model for coastal cities seeking to align ecological recovery with community development, creative economies, and long-term environmental literacy.

Diversifying local economies

According to McElduff and Ritchie (2018) the challenges faced by coastal communities are also heralding a "new era" for them in the context of increasing entrepreneurial activity (Centre for Entrepreneurs, 2015) as well as diversification into "new" alternative industries (e.g., marine

renewables) (Marine Management Organisation, 2011). The ability of individual communities to leverage these opportunities depends on a range of factors including accessibility and infrastructure improvements, skills enhancement and crafting new place marketing and identity. A central pillar of PSNMP's regenerative model is its commitment to economic diversification grounded in the principles of the blue economy. Rather than relying on the historically narrow and often fragile mix of seasonal tourism and legacy maritime industries, the Park leverages a broad spectrum of marine related economic opportunities, including marine technology, ocean science, sustainable tourism, and creativity based enterprise, to build a more resilient and future facing coastal economy.

This approach is underpinned by Plymouth's unusually dense concentration of marine research and innovation assets. The city hosts one of the UK's largest and most integrated marine science clusters through Marine Research Plymouth and the National Centre for Marine Autonomy, a nationally recognised hub advancing next generation ocean autonomy research and innovation (University of Plymouth, 2022; Plymouth Marine Laboratory, 2025). These ledge institutions anchor a high value innovation ecosystem capable of generating skilled employment, attracting research investment, and fostering new commercial opportunities in sectors such as robotics, environmental monitoring, and blue tech manufacturing.

Complementing this research led innovation environment, the Blue Green Skills Hub provides a structured workforce pipeline, training up to 2,000 learners annually across marine, defence, renewable energy, and environmental sectors (City College Plymouth, 2024) (Figure 4). This skills infrastructure ensures that residents, particularly young people and mid career workers, are positioned to participate in, and benefit from, emerging high value industries rather than being displaced by them.

Figure 4. Plymouth City College blue-green skills hub

By integrating research excellence, vocational skills development, and community embedded engagement, PSNMP's model reframes local economic diversification as a systemic process, connecting people, place, and innovation. Together, these initiatives demonstrate how a National Marine Park can operate not only as an environmental designation but also as a place-based economic development platform, capable of supporting long-term prosperity in coastal

cities historically constrained by narrow economic pathways.

Integrating climate adaptation into regeneration

A core component of PSNMP's approach to regenerative practice is the integration of climate adaptation into ecological restoration. The LIFE Recreation ReMEDIES project provides a powerful demonstration of how climate resilient restoration can be embedded within broader place-based regeneration strategies (Figure 5). Through this programme, around eight hectares of seagrass have been restored across Plymouth Sound and the Solent using innovative hydro marine seeding and biodegradable mat technologies, enabling habitat recovery in areas previously degraded by anchoring, pollution, and coastal squeeze (Ocean Conservation Trust, 2024; Natural England, 2022).

Seagrass meadows are recognised as critical blue carbon habitats that stabilise sediments, enhance biodiversity, and buffer coastlines from erosion, functions that are increasingly essential as coastal communities face intensifying climate pressures. Early signs of regrowth within these restored meadows indicate both ecological recovery and the potential for long-term carbon sequestration and enhanced climate resilience. Importantly, the project has also mobilised extensive volunteer participation, with residents contributing to planting, monitoring, and protection efforts (Dive Magazine, 2024).

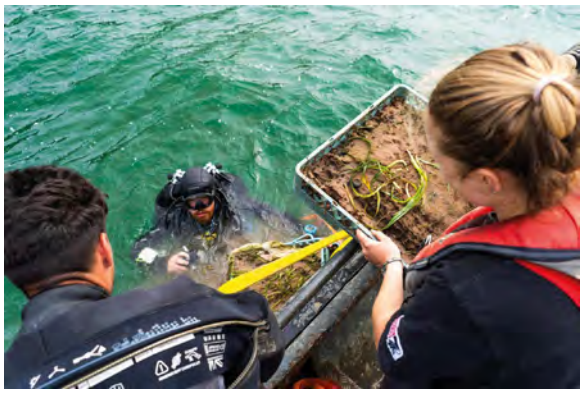

Figure 5. Remedies seagrass restoration

This civic involvement not only reduces restoration costs but strengthens community ownership of climate adaptive practices, linking ecological regeneration directly to social engagement and environmental citizenship. In this way, the ReMEDIES project exemplifies how targeted habitat restoration can operate as a climate adaptation intervention, a community development mechanism, and a regenerative economic strategy within a single integrated coastal framework.

Creating community co-creation and capacity-building opportunities

Locality's research found that local regeneration strategies, are most effective when developed in partnership with communities and requires cocreating the vision for regeneration with communities (Locality 2022). A defining feature of PSNMP's regenerative model is its commitment to co creation and capacity building, ensuring that communities are not passive beneficiaries but active partners in shaping the Park's vision and delivery. Cultural

programmes, such as the ambitious Arts Council funded Sea for Yourself project, alongside artistic commissions, festivals and digital storytelling, play a central role in cultivating civic pride and deepening residents' emotional connection to the marine environment. These cultural interventions align with wider evidence that community led cultural activity is integral to successful place-based regeneration, enhancing social cohesion, identity and local agency (Locality, 2022; Madgin & Howcroft, 2024; Plymouth Sound National Marine Park, n.d.).

PSNMP's Horizons programme further exemplifies this co creative ethos. During its development phase, Horizons engaged more than 10,000 residents and 155 community groups, making it one of the most extensive marine focused engagement exercises in the UK (Plymouth Sound National Marine Park, 2025). This early, large scale participation ensured that the Park's priorities reflected community aspirations and helped remove long standing barriers to engagement, such as cost, accessibility, confidence and perceived exclusion, that often limit public involvement in coastal or environmental programmes.

A significant aspect of PSNMP's community building strategy involves reducing both physical and psychological barriers to accessing marine environments. This includes innovative approaches to digital such as VR enabled education, outreach into care homes, and other forms of immersive digital engagement, allowing people who may be mobility restricted, anxious, or unfamiliar with marine spaces to build confidence and connection at their own pace (Ocean Conservation Trust, 2024).

Alongside these community wide initiatives, the flagship Sea in Our School programme embeds marine literacy across Key Stage 2, providing curriculum aligned learning that links environmental knowledge with wellbeing, curiosity and future career pathways (Figure 6). The programme supported 970 learners in its first year, receiving strong approval from teachers and generating demonstrable positive outcomes for young people's confidence and environmental understanding (Plymouth Sound National Marine Park, 2024; Ocean Conservation Trust, 2024).

By connecting children and educators with the marine environment, the programme cultivates early marine citizenship and capacity within schools and families, laying the foundations for sustained community stewardship of Plymouth Sound (Buchan et al 2023).

Figure 6. Plymouth Sound Coastal Ranger at an engagement activity

Collectively, these initiatives demonstrate how PSNMP's approach to co creation and capacity building extends beyond traditional consultation. Instead, it represents a multi layered, participatory framework that integrates cultural expression, education, digital innovation and civic engagement. Through these channels, PSNMP strengthens community agency, diversifies pathways into marine participation, and embeds environmental stewardship within everyday civic life, making co creation a cornerstone of long-term regeneration in the city.

Digital innovation: a digital park

Digital innovation is an essential part of the PSNMP and includes a programme called The Digital Park aims to use digital technologies to create inspirational digital experiences to enable the city to be fully immersed in what the Park has to offer. This is positioned around a digital marine citizenship approach, that uses digital engagement to connect people with the sea (Willis & Gupta, 2025). The Digital park includes capacity building and access by including opportunities for individuals and groups to access technology, advice and training to support content creation and an accessible platform for learning materials linked to the schools and learning programmes. The programme of digital innovation is partnered with the city's cultural organisation: Plymouth Culture to deliver a Digital Cultural Programme for the PSNMP. Funded through an Arts Council Place Partnership programme, this programme will deliver a four-year project titled 'Sea for Yourself' to engage audiences and reconnect communities with place, nature and their cultural identity through a series of digital cultural commissions. These commissions explore the role of digital, testing digital technologies, content and environments to enhance audience engagement. The commissions focus on four thematics: 1)making the underwater world visible through the activation of citywide screen-based infrastructure; 2) exploration of archives and heritage through a co-creation project with communities leading to a digital exhibition; 3) inspiring engagement through the creation of an immersive nature-based experience; and 4) blending digital and physical locations through outdoor AR/VR enabled installations. A key part of this is harnessing the role of digital data and there is a data-insights strand that will combine and analyse available data, giving invaluable insights to drive more effective interventions.

The digital innovation pathways in the PSNMP are also realised through a series of Digital Gateways that draw on cultural and digital assets to create new pathways for digital experiences and skills that link to the sea. The includes developing and presenting innovative immersive content at the Devonport Markethall Dome, which is a state-of-the-art 15 metre immersive dome equipped with the highest quality video and audio systems able to run VR, AR, mixed reality, animation, games soft-

ware, 360 recorded and live action and multiple audio systems (Figure 7). Digital Gateway infrastructure also includes The Smart Sound Plymouth, which is the UK's leading testing facility for marine autonomy, uncrewed systems, and advanced ocean technologies is also a catalyst for maritime solutions and innovation backed by decades of expertise across defence, offshore industries, and marine science.

Figure 7. Immersive ocean experiences in the 360° Markethall Dome

Changing governance and coordination

PSNMP is pioneering a distinctive approach to long-term governance that departs significantly from conventional protected area or coastal management models. The Park is intentionally reimagining governance beyond traditional protected area structures, adopting a more socially embedded, participatory and multi dimensional framework (Beaumont, 2025). Central to this shift is the development of a dedicated long-term governance entity through Project Sunfish, designed to secure a sustainable institutional legacy beyond the lifespan of initial National Lottery Heritage Fund investment (Plymouth City Council, 2026). PSNMP's governance model is also rooted in extensive co production, with stakeholder engagement processes highlighting the need for clear accountability, inclusive decision making, and co-designed policies capable of supporting adaptive, community centred marine management (Beaumont, 2025).

Underpinning this is a multi year £22 million funding structure, which provides an unusually stable foundation for long-term stewardship and institution building compared with the fragmented funding cycles that have historically constrained coastal governance across the UK (Plymouth Sound National Marine Park, 2026).

This governance trajectory is further reinforced by national guidance for the evolution of future National Marine Parks, much of which has been shaped directly through the Plymouth experience and emphasises inclusive governance, long-term partnerships, sustainable financing, and continuous civic engagement as core principles (Blue Marine Foundation, 2023) (Figure 8 overleaf).

Collectively, these developments position PSNMP as a prototype for transformative ocean governance, characterised by participatory structures, long-term institutionalisation, and integrated social environmental objectives that extend well beyond tradi-

Figure 8. PSNMP governance with stakeholders from across key city organisations

tional marine management approaches.

To summarise, PSNMP reconceptualises marine space as an innovation district capable of aligning environmental, social, cultural and economic objectives. Its mission emphasises reconnection between people and the sea through educational gateways, community participation and heritage-led approaches. The Park leverages Plymouth's significant marine research and innovation assets, including one of the UK's densest clusters of ocean science organisations and the National Centre for Marine Autonomy.

The scale of early community engagement is notable: the Horizons programme reached more than 10,000 residents and 155 community groups before major delivery began, embedding the principle of bottom-up design. The Sea in Our School initiative has already delivered positive educational and wellbeing outcomes, while seagrass restoration demonstrates tangible ecological renewal. Cultural programmes enhance place attachment and civic pride. This integrated approach, a deliberate counterpoint to past siloed interventions, already demonstrates the potential for systemic change.

Conclusion: PSNMP as a blueprint for coastal regeneration

PSNMP offers more than a portfolio of projects, it presents a blueprint for how coastal regeneration can be reimagined through

integrated, place-based innovation. The model works at a meta level, combining environmental restoration, skills development, cultural vitality and community engagement into a coherent system that is greater than the sum of its parts. All of which aligns closely with recommendations from parliamentary committees and coastal researchers (House of Lords Liaison Committee, 2023; Fiorentino et al., 2024). Its design recognises that coastal decline is systemic and therefore requires systemic solutions: ecological health supports wellbeing; cultural engagement reinforces civic pride; skills pathways connect young people to meaningful futures; and multi-year governance enables sustained impact.

The blueprint is not prescriptive but principled: long-termism; co creation; environmental stewardship; civic leadership; and alignment between research, education, culture and community. As evidence accumulates, PSNMP demonstrates how coastal communities can move from managing decline to cultivating innovation grounded in place, environment and community. In doing so, it contributes a valuable model to national debates on coastal policy and regeneration.

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Image on page 72: Amy Carroll (Arup) and Professor Nic Beech in discussion at the i-PLACE 25 Speakers Dinner at the Lowry.


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Mezzo-level: imagination as policy infrastructure

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IMAGINATION AS POLICY INFRASTRUCTURE: A MEZZO-LEVEL APPROACH

Tony Sampson

Abstract

Effective environmental strategy engagement is often constrained by a persistent gap between macro-level governance and the micro-level lived and felt experiences of neighbourhoods where strategies are enacted. Drawing on a case study of the Imaginarium project in Essex, this article proposes an intermediary mezzo-level of policy engagement and delivery, operating at the scale of local ecosystems, as a critical mechanism for translating strategy into effective, context-responsive implementation. The approach draws on extensive practical project delivery experience and is informed by speculative methodologies that reconceptualise neighbourhood imagination not as a supplementary cultural activity, but as a key component of policy infrastructure. This practice-informed speculative framework is examined through the Imaginarium, a cross-sector, interdisciplinary project developed by the Cultural Engine Research Group (CERG) to support the Local Nature Recovery Strategy (LNRS) and other environmental and nature related strategies and projects.[1] By convening local neighbourhoods, policymakers, creative practitioners, and scientists in a space for co-creative and speculative practice, the Imaginarium operates as an exemplar mezzo-level intervention, providing both the mechanism and the infrastructural conditions to align strategic environmental objectives with local, situated 'emotional geographies' (Sampson, 2025). It demonstrates how community imagination can function as a translational interface between macro-level strategy and micro-level lived and felt experiences.

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Keywords

Mezzo-level governance, speculative methods, imagination, policy infrastructure, Local Nature Recovery Strategy (LNRS), assemblage, local government, environmental futures

1. Introduction

The global governance of the climate and ecological crisis is increasingly marked by a troubling disjunction. At the macro scale, conflictual political messaging obscures urgent, scientifically supported imperatives for systemic transformation. At the micro scale, national strategies are translated into public-facing campaigns and behavioural nudges that tend to fragment responsibility, reducing change to shifts

1 LNRS is a statutory environmental strategy operating at county scale that sets biodiversity priorities; used in the article as a case study of a policy at risk of falling into the macro–micro implementation gap.

in collective habits and consumption. Between these two poles lies a vast and often underutilised terrain of hyperlocal governance, community life and the emotional resources of place-based experience. This is a space where the goals of global strategies frequently become entangled in competing local priorities and issues, and where a perceived disconnection between neighbourhoods, local authorities, and governments persists. It is here - where policy implementation can be either adopted or resisted - that environmental strategy often fails, not due to a lack of technical solutions, but because of an imaginative failure to achieve joined-up translation and local resonance.

This article addresses this implementation gap by proposing and examining the critical role of a mezzo-level in policy design and delivery. Distinct from both macro structures and individual micro-level agency, the mezzo encompasses the dynamism of networks, neighbourhood assemblages and local institutional ecosystems where lived experience and strategic direction can effectively intersect. It is within this middle space that policy can emerge as more meaningful, legible and actionable.

In summary, the central thesis is that effective environmental governance, particularly for place-based strategies like the Local Nature Recovery Strategy (LNRS), requires not just top-down planning or bottom-up activism, but the deliberate cultivation of mezzo-level infrastructures capable of creative translation and speculative co-creation.

To support this claim, the concept of imagination as policy infrastructure is advanced. Moving beyond viewing imagination as a soft and attractive add-on, the article reconceptualises it as a fundamental governance capacity: a civic and institutional faculty of the imagination that must be activated, resourced and embedded in environmental policy to enable the envisioning of alternative socio-ecological futures.

This speculative approach is operationalised through a case study: the Cultural Engine Research Group's (CERG) Imaginarium project in Essex. The Imaginarium functions as a prototype mezzo-level intervention; a speculative apparatus that brings together neighbourhoods, local authorities, ecologists, universities, businesses, arts venues and creative practitioners to collaboratively (re)imagine local natures and futures in support of the LNRS.

This article proceeds in six parts. First, it establishes the conceptual background, linking speculative "what if" methodologies to the idea of imagination as an infrastructural element of environmental strategy. Second, it reviews key literature, tracing macro–micro debates in social theory and arguing for the emergence of the

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Image on page 31: Neighbourhoods in Jaywick. Watercolour by Simon Poulter. See caption page 4.

mezzo as a critical, yet under-theorised, policy scale. Third, it situates the mezzo within the contemporary UK policy context, from Levelling Up to Local Government Reorganisation (LGR). Fourth, it presents the empirical heart of the article: a cursory analysis of the Imaginarium as a mezzo-level experiment. Fifth, it discusses the broader implications, arguing for the legitimacy of the mezzo as policy infrastructure. Finally, it concludes by returning to our speculative starting point to ask what if imagination was treated as seriously as social engineering in building our ecological future?

2. Conceptual background: speculative research and the role of imagination in policy

2.1 Speculative research as method

Applying the concept of imagination to policy strategy may initially seem ambiguous, particularly when assessed against conventional empirical methods of knowledge acquisition. There is, after all, a complex conceptual lexicon to navigate (see Glossary of Terms). Yet, to address misunderstandings arising from potential opacity, it is worth recalling Albert Einstein's (2009) scientifically grounded assertion that "imagination is more important than knowledge." For Einstein, knowledge is "limited to all we now know and understand," whereas imagination "embraces the entire world, and all there ever will be to know and understand" (ibid).

At the core of this proposal for a 'faculty of imagination' is speculative research. This is an interdisciplinary approach that begins with a simple but powerful question: "What if?" It is a methodological question that provides a deliberate probing of the boundaries and possibilities of a problem. In design theory, Dunne and Raby (2024), for example, show how speculation can be used to create thought experiments that make alternative futures tangible, contestable and emotionally resonant. Speculation moves beyond predictive forecasting to explore plural, potential worlds, thereby expanding the horizon of what is politically and practically thinkable.

Similarly, in policy studies, speculative approaches can challenge a dominant paradigm, even those supported by an evidence-base, which often privileges past data and linear projections. Instead, speculation introduces the skill to imagine and prepare for multiple possible futures, or what Miller (2018) defines as a capacity for futures literacy. Speculation of this kind is particularly pertinent for addressing problems like climate change, where transformative change requires breaking with current paradigms. Speculation therefore becomes a policy tool for stress-testing strategies and, in this ecological context, for engaging neighbourhoods in meaningful dialogue about preferences and fears and for building collective adaptive capacity.

2.2 Imagination as policy infrastructure

From CERG's experience, imagination in policy circles has tended to be relegated to the cultural domain. Imagination is often seen as the preserve of artists or as part of community-engagement workshops, brought in at the end of a process to communicate or decorate decisions already made. We propose a more radical framing of imagination as a form of infrastructure which, like other investible infrastructures (roads, grids, pipelines, etc.), becomes necessary for future activities to occur. As an infrastructural capacity, imagination provides a substratum that enables a polity to envision alternatives, empathise across differences, connect present actions to long-term consequences and construct shared narratives of the future. Imagination is the substrate for innovation, resilience and collective action. Indeed, when this faculty is underfunded, underdeveloped or unequally distributed, communities or institutions lack the tools, time or permission to imagine differently. Policy can become trapped in incrementalism and fail to generate the transformative visions needed for systemic ecological recovery. Treating imagination as infrastructure means deliberately building the platforms, processes, skills and resources (like the Imaginarium) that allow this capacity to be exercised collectively and consistently.

The policy gap: the missing middle in the translation of imagination

There are lessons to be learned from comparable policy projects, like the creation of the Civic Imagination Office in Bologna (d'Alena et al., 2018), where an "imagination phase" enables residents to propose ideas and take part in co-design of public services. Despite several empirically evidenced achievements, the Bologna project faces challenges in terms of the translation of imagination often constrained by entrenched top-down bureaucracy and a lack of inclusive local participatory cultures (ibid). As follows, a preliminary claim here is that policies frequently fail not in their conception but in their translation. On one hand, macro-level imperatives (e.g., "achieve net-zero," "reverse biodiversity decline") can often be encoded in complex, technical language and framed at scales (national, biospheric) that can feel distant, abstract or alienating. Micro-level interventions, on the other hand, can seem fragmented, burdensome or disconnected from larger systemic causes. CERG point to an alternative mezzo-level where translation between national biodiversity targets and neighbourhood green spaces can occur more effectively: spaces of interpretation, negotiation and meaning-making. Without robust and inclusive mezzo-level infrastructures to support this translation into locally resonant narratives, policy risks remaining inert.

3. Literature review: macro–micro debates and the emergence of mezzo-level thinking

3.1 Classical macro/micro frameworks

The tension between macro and micro scales figures writ large in social theory. Émile Durkheim's sociological positivism establishes a macro perspective wherein social facts are external, constraining forces that shape individual behaviour and collective consciousness (Sampson, 2012). From this sociological viewpoint, policy is a top-down instrument of social order, setting the structural conditions within which individuals act. Conversely, the Chicago School's symbolic interactionism and later ethnomethodology emphasised a micro society, continually constructed and reproduced through everyday interactions, interpretations and practices.

In policy design research, symbolic interactionists attempt to "bridge the gap between micro- and macrosociological" theories (Carter & Fuller, 2016, 937). However, the approach is defined by tracing meaningful changes emerging from the ground up, through micro-level shifts in localised practices and meanings (Ibid). In policy practices, the macro/micro dichotomy often maps onto debates between structural reform and behavioural change. Macro-dominant approaches can become technocratic and alienating, while micro-dominant approaches can devolve responsibility to individuals and overlook power structures.

Environmental policy has swung between these poles, from grand national level schemes to local campaigns focused on household recycling. Both are necessary, but neither is sufficient without a connective tissue.

3.2 Assemblage theory and the "zone of emergence"

Drawing on the philosophical work of Deleuze and Guattari, scholars of assemblage theory offer a path beyond the binarism of the macro and micro (Delanda, 2006). This approach posits that social reality is composed of heterogeneous elements (human, non-human, discursive, material) that enter into temporary, dynamic relations with one another. Assemblages are not hierarchical or scalarly fixed; they are constantly in formation, dissolving and re-forming. A neighbourhood, for instance, is an assemblage of people, buildings, flora, fauna, regulations, memories and economic flows (see Figure 1). Crucially, assemblages generate properties that cannot be reduced to their parts or deduced from a larger whole. This points to zones of emergence (ibid) where novelty arises from the specific interactions within a mid-level formation. This zone is neither macro nor micro, but mezzo: it is the site where broader structures are territorialised into specific configurations and where local practices aggregate into new patterns.

For policy, this means paying attention to the unique, relational dynamics of place-based assemblages as active sites of innovation.

3.3 Mezzo-level theory

The mezzo concept already has origins in various disciplines. In urban sociology, it appears in neighbourhood-effects studies

Figure 1: Neighbourhoods in Jaywick Watercolour by Simon Poulter (see caption p.4)

(Sampson, R. J., 2002). In public administration, it can relate to intermediate institutions and "complex interdependencies" in local policy networks (Johnston, 1998, 394). In complexity theories applied to policy and public management, the mezzo aligns with the idea of complex adaptive systems operating as "attractors" at "individual, family/community, professional, and political" scales (Eppel & Rhodes, 2018, 953).

CERG define the mezzo level as the scale of neighbourhoods, cross-sector local networks and place-based systems. It can be characterised by four characteristics:

1. Relational interdependence: outcomes depend on the quality and configuration of relationships between diverse actors.
2. Situated knowledge: expertise is distributed and includes tacit, experiential and cultural knowledge

alongside technical data.

3. Emergent order: governance here is less about top-down command and control and more about curating conditions for collaboration and adaptive learning.
4. Mezzo as policy scale and speculative imagination

The challenge of effective environmental governance is fundamentally a problem of scale, where a significant disconnect exists between macro-level strategic frameworks and the capacity for meaningful local implementation. Hambleton's (2017) critique of the super-centralised English state reveals a governance model that is structurally ill-equipped for this task. Rather than encouraging empowered, adaptive local institutions through genuine devolution and subsidiarity, the prevailing system imposes transactional deals that prioritise compliance and upward accountability to central government. This ultimately maintains a governance gap where strategic plans remain abstract and local initiatives lack the connectivity and agency to enact systemic change.

To bridge this gap, the literature points to the need for a deliberate mezzo-level scale; an intermediary and collaborative tier operating between national/regional strategy and community action: an enabling infrastructure for joined-up action, facilitating coordination, resource pooling and the translation of broad policy goals into context-sensitive action, thereby addressing the structural failures of both hyper-centralisation and fragmentation.

Beyond structural coordination, however, a second critical deficit exists: an imaginative deficit in confronting the radical uncertainty of the climate crisis. This is where the literature on speculative methods converges with governance theory to define the unique function of the mezzo level. Here scholars like Swedberg (2021, 59) argue that only speculation can challenge and replace old "presuppositions" in the social sciences. Consequently, navigating systemic transformation requires legitimising extraordinary speculation, with a capacity to challenge foundational assumptions. When integrated into a mezzo-level infrastructure, speculative practices become operational governance tools. Such a platform, or Imaginarium, develops on "participatory worldbuilding" of "possible worlds" (Fischer & Mehnert, 2021) and speculative narrative methods (Watson, 2025) to translate abstract targets into tangible, collectively imagined future scenarios. The project borrows from critical design (Galloway & Caudwell, 2018) to productively question policy orthodoxies. It is informed by an experimental "methodological pluriverse" (Koro, 2022) that enables an inclusive space for diverse knowledges.

Ultimately, this brief synthesis of literature proposes that a successful mezzo-level entity must be more than a coordinating body; it must be a speculative infrastructure. Its eventual output is not

merely plans, but an enhanced civic speculative capacity; the shared cognitive and social ability of a community to imagine, debate and navigate alternative ecological futures, thereby turning imaginative engagement into a core mechanism for effective and legitimate environmental governance. The critical gap CERG identify is the treatment of cultural and imaginative capacity as a core, infrastructural component of this mezzo level.

Discussions of resources rarely include the funding of speculative civic spaces; discussions of evidence rarely legitimise creative or narrative forms of knowing. Our contribution is to fuse mezzo-level governance theory with speculative design and cultural practice, arguing that imagination is the missing infrastructure within the missing middle.

4. The mezzo-level in local governance – from Levelling Up to Local Nature Recovery

4.1 Policy context

The conceptualisation of the mezzo in this article emerges from two main sources. Firstly, it is informed by CERG's extensive practical experience of supporting and delivering projects intended to leverage local culture, heritage and environment to empower local communities. Secondly, it arises from our critical response to the UK government's Levelling Up agenda, particularly the pride-in-place mission (Sampson et al., 2024). Through this previous work and discussions, it became evident that neither centralised funding programmes nor hyper local community grants could alone address complex place-based inequalities. A strategic middle layer was needed to align resources, broker partnerships and build a coherent local narrative. The mezzo was conceived as a collaborative platform connecting neighbourhoods to regional, district and local authorities, anchor institutions, the voluntary and community sector, and businesses.

This need is now accelerated by LGR. As upper tier and district authorities in Essex move towards a new, more integrated unitary model, the entire institutional landscape will be restructured. This period of structural flux creates both vulnerability and opportunity. It risks disrupting established networks and local knowledge, but it also opens space to design new, more adaptive governance ecosystems, like the establishment of Neighbourhood Committees to empower residents by giving them a direct say in local priorities, services, and budgets.[2] It is nonetheless imperative that the development of an imaginative policy infrastructure should not be left to local communities or indeed the creative

2 Leader and Cabinet Blog (2025) Local Government Reorganisation – putting more power in the hands of local people, 17 September. Available at: https://leaderandcabinet.blog.essex.gov.uk/2025/09/17/local-government-reorganisation-putting-more-power-in-the-hands-of-local-people/ (Accessed: 12/01/2026).

sector to realise. The mezzo-level must not reinforce existing power imbalances. It is proposed as the essential scale at which new ecosystems can be consciously built; a scale large enough to be strategic and small enough to be relational.

4.2 Identifying the policy gap: the LNRS challenge

The LNRS risks becoming a policy that falls into the macro–micro gap. As a statutory strategy, it sets out biodiversity priorities at a county scale. Yet its success depends on changes in land management, planning decisions and community behaviours in specific parishes, neighbourhoods and streets. The disconnect is not just one of scale, but of language and meaning. Ecological terms like nutrient neutrality or Biodiversity Net Gain can be opaque. The LNRS's vision needs to be translated into stories, images and projects that connect to what people value about their immediate place: the hedge where birds nest, the stream children play in, the fields that flood.

4.3 A theoretical model of the mezzo

CERG visualise the mezzo not as a rigid layer in a hierarchy, but as a dynamic, interstitial alignment engine (see Figure 1). If the macro provides direction and resources and the micro provides lived experience and agency, the mezzo is the active site of translation, negotiation and experimentation. It is where:

1. Strategic goals are interpreted into local contexts.
2. Local knowledge and emotions are aggregated into strategic intelligence.
3. Cross-sector alliances (e.g., between a wildlife trust, a housing developer and a community group) are brokered.
4. Speculative prototypes for nature recovery (a pocket meadow, an urban garden, a community-owned wetland) are tested.

This model reframes neighbourhoods not as passive policy recipients, but as dynamic assemblages and active agents in environmental governance. The mezzo is the lever for aligning these assemblages with broader strategic arcs.

5. Case study: the Imaginarium as a mezzo-level policy experiment

5.1 Project overview: operationalising the mezzo-level assemblage

The inaugural Wild Essex Imaginarium event at the Essex Business School (EBS) in September 2025 served as a concrete first step in building a speculative, imaginative infrastructure at the mezzo level. Explicitly framed as a response to the gap between macro-level policy (the LNRS) and micro-level community experience, the event functioned as a catalytic platform. It assembled a "new ecosystem of collaboration" by convening over 100 participants from local government, academia, cultural organisations, environmental NGOs (Essex Wildlife Trust), artistic practitioners

and community members. This cross-sector constitution demonstrates the Imaginarium's core operational logic: a dynamic assemblage designed to cultivate creative engagement with environmental futures by connecting disparate actors typically separated by institutional and epistemic boundaries.

5.2 Aims and principles in practice: connecting emotion, ecology and governance

The event's proceedings directly enacted the project's guiding principles. The principle of activating imaginative capabilities was framed as the creation of a new faculty of the imagination, positioning creative practice as a vital mode of engaging with policy. To connect with neighbourhoods, discussions leveraged the concept of emotional geography, focusing on the affective attachments and enchantments people feel towards local nature, as illustrated by Ken Worpole's (2025) exploration of Essex's history of living experiments and the poets' work on radical listening. The aim to translate for resonance was evident throughout, most pointedly in Professor Thomas Cameron's (Life Sciences at UoE) scientific provocations and Rich Yates's (EWT) argument that "conservation is not a science," urging that the LNRS should act as a "muse for creatives" to re-express ecological data in culturally resonant forms.

5.3 Methodologies and tensions: navigating speculative and instrumental logics

The event employed a range of co-creative, speculative methodologies that moved beyond conventional consultation. These included art-nature provocations (e.g., the "land-based" artist Lora Aziz's act of welcoming nature into the auditorium), speculative storytelling (Jessica Pearce's use of folklore to forge new myths) and policy-focused drama (Steve Waters's (2024) work staged on farms). A critical tension emerged, however, between the speculative logic of the arts, which thrives on ambiguity, open-ended questioning and felt aesthetic experience, and the instrumental logic of policy and impact agendas, which often relies too heavily on positivistic measurable outcomes. Participants noted the risk of instrumentalising creativity to fit some of the bland templates of policy impact. This tension is central to the Imaginarium's experiment: it must create a protected space for speculative aesthetic experimentation while also demonstrating tangible value to policy processes. For example, following Waters's articulation of this tension between art and impact, we note how the Imaginarium itself serves as a forum for discussion and raising concerns after seeing a piece of drama about the environment. Moreover, in terms of the emotional geographies neighbourhoods establish with their local environment (Sampson, 2025), the Imaginarium offers a space for communities to process a

wide range of feelings – negative, positive and indifferent.

5.4 Reflections and future direction: cultivating an experimental sensibility

The primary reflection posits the Imaginarium's value as providing a much-needed forum to explore how different experimental sensibilities (the external, testing mode of science and the immersive, disruptive mode of art) can be brought into productive dialogue. The event succeeded in creating a shared space for experiments in living and methodological exchange, with many attendees noting they had never been to an event exploring these issues before. The future challenge, as identified, is to move beyond a one-off symposium towards an ongoing and dynamic mezzo-level collaboration.

The inaugural Imaginarium was followed by a community-focused Urban Wild Imaginarium hosted by the Common's Café in Colchester, Essex, in February 2026. This event brought together life science researchers, local artists, horticultural activists and gardening businesses to explore an exemplar mezzo-level biodiversity initiative, Beth Chatto's Meanwhile Garden. Supported by the University of Essex's Innovation Fund, the Imaginarium is currently being strategically embedded within a collaboration with Uttlesford District Council's Sustainable Uttlesford where the next Imaginarium will feature in the community-led Big Green Festival in June 2026.

This gradual institutionalising of the Imaginarium platform is necessary to ensure a continuous facilitation of speculative workshops, nurturing of art-science residencies and building of a narrative archive, thereby transforming a one-off stimulating event into a sustained infrastructure for building collective speculative capacity and shaping more resonant, effective environmental governance.

5.5 Evaluating six mezzo-level interventions

The work of the Imaginarium is being structured into six intervention areas, forming a framework for embedding and evaluating impact of imagination in mezzo-level governance:

1. Institutional framework: embedding creative practitioners within LNRS delivery teams to facilitate community interpretation and visioning, evidenced through testimonies on how practices influenced interpretation and collaboration, supported by number of practitioners embedded, workshops delivered and inclusivity of participant engagement levels.
2. Governance and leadership: creating inclusive governance tables for the LNRS that include artists, community storytellers and youth ambassadors alongside officers and experts. Impact assessed through accounts on how inclusive governance changed deliberation and decision

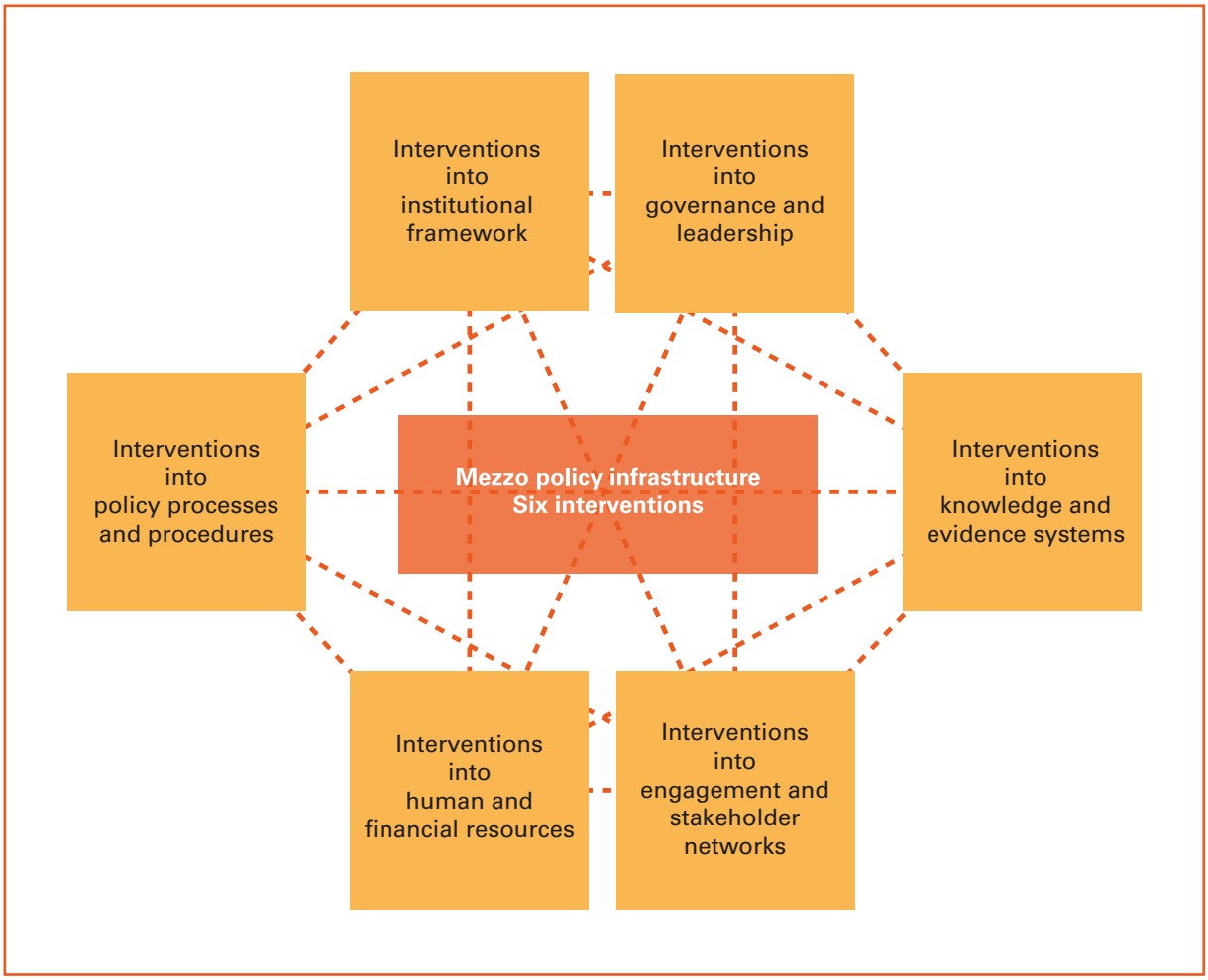

Figure 2: Six Mezzo Interventions The author

framing.

3. Policy processes: integrating imaginative methods (like speculative workshops) into the standard stages of policy development: scoping, consultation, implementation and review. Impact would be demonstrated through documentation showing how workshops informed policy drafts, consultations or implementation plans.
4. Knowledge and evidence: expanding the LNRS evidence base to include qualitative, narrative and artistic outputs as valid forms of intelligence about place attachment and public values, evidenced by incorporation of artistic outputs into e.g., LNRS evidence bases and strategy documents.
5. Human and financial resources: establishing dedicated "mezzo-lab"

budgets and roles (e.g., Civic Imagination Officers) to fund and steward experimental collaborations, evidenced through budget allocations, number of supported projects and partnerships created.

6. Engagement networks: reframing public engagement from a one-way consultation to an ongoing, co-creative narrative-building process, strengthening the social infrastructure for nature recovery, demonstrated through community testimonies describing ownership and shared narratives around nature recovery.

5.6 Aims and aspirations informed by initial observation

1. Strengthen connectivity by further developing relational networks between environmental policy teams and cultural, community, and academic partners, recognising the value of sustained cross-sector collaboration.
2. Enhance policy resonance by continuing to shape LNRS-related materials that are more accessible and emotionally engaging, informed by feedback from community test groups.
3. Surface latent public values through the expanded use of creative and participatory methods capable of revealing attachments, concerns, and affective responses to place that are not readily captured through conventional consultation.
4. Build institutional capacity by supporting policy officers to work productively with uncertainty, narrative, and participatory approaches, encouraging confidence in these methods as tools for policy effectiveness rather than supplementary activities.

Overall, the Imaginarium aspires to consolidate a deliberately cultivated mezzo-level space in which imagination functions as a primary medium for engagement, helping to bridge translation gaps between strategic environmental objectives and lived local experience, and enabling policy goals to be understood as locally relevant, responsive, and open to collective shaping.

6. Discussion: the mezzo as policy infrastructure

6.1 Why the mezzo matters: resolving translation failures

The case of the Imaginarium illustrates the mezzo's primary function: it is a translation and alignment device. Macro–micro failures occur when there is no dedicated infrastructure to perform the continuous work of interpreting, adapting and narrating strategy in context. The mezzo resolves this by providing a stable yet flexible platform for this work. It strengthens democratic accountability by creating a visible, participative space where strategy is made sense of and where local feedback can re-

shape strategic priorities in a continuous loop.

6.2 Imagination as governance capacity: beyond decoration

The project underscores why imagination must be infrastructural. In complex, value-laden transitions like ecological recovery, governance is not merely administrative; it is world-building. It involves constructing compelling narratives of the future, managing collective grief and hope, and facilitating dialogues where multiple, often conflicting, values are negotiated. These are imaginative tasks. To relegate them to the margins is to outsource the core political and cultural work of transition. The Imaginarium model argues for formalising this capacity, funding it, training for it and creating career paths around it, just as we would for financial management or engineering. This connects to wider debates on ecological citizenship (requiring an imaginative connection to distant others and future generations), participatory governance (which thrives on the ability to envision shared futures) and environmental justice (which demands the imagination to see the world from profoundly different situated experiences).

6.3 Policy implications for LNRS and beyond

For LNRS officers and local authorities undergoing LGR, the implications are practical:

1. Invest in mezzo-level platforms: create and fund permanent cross-sector hubs or partnerships dedicated to the imaginative co-creation of place-based strategies.
2. Legitimise new forms of evidence: formalise protocols for incorporating narrative, artistic and experiential knowledge into decision-making processes.
3. Develop mezzo-level skills: train officers in facilitation, speculative design and narrative methods to equip them for their role as translators and brokers.
4. Embed creativity in governance structures: include creative and community representatives not just as consultees, but as co-governors in relevant partnerships.

The post-LGR landscape, with its mandate for systemic redesign, presents a unique window to institutionalise the mezzo level as the engine of resilient, responsive and resonant local governance.

Conclusion: what if… and what next?

This article began with a speculative question: What if imagination was part of policy infrastructure? Through theoretical exploration and empirical example, it argues that answering this question is necessary to tackle the chronic implementation gap in environmental governance between macro and micro-levels. It proposes the mezzo-level (the scale of neighbourhood assemblages and local networks) as the

critical site where this imaginative infrastructure must be built.

The article's contributions are threefold. First, it provides a theoretical articulation of mezzo-level governance, synthesising assemblage thinking with public-administration scholarship. Second, it offers an early case study of the Imaginarium, demonstrating a practical speculative apparatus and co creative mezzo-level intervention. Third, it outlines a practical framework of six interventions for further embedding and evaluating imagination within policy systems. In short, the path forward requires a shift in mindset from seeing imagination as episodic and decorative to valuing it as infrastructural, recognising the mezzo not as a passive gap but as an active, legitimate and essential scale of governance.

The Essex experience highlights two practical challenges: sustainability and scalability. Imaginarium interventions have relied on relatively small but catalytic resources and the innovation of a district authority willing to experiment with LNRS collaboration. Sustaining these initiatives beyond pilot phases requires embedding them in institutional budgets, staff roles and long-term partnerships. Scaling cannot rely on replication alone; the value of mezzo-level experimentation lies in its sensitivity to local assemblages of actors, ecologies and cultures. The Imaginarium cannot become a fixed model. It must be understood as an evolving platform for collaborative policy innovation. Enduring cross-sector imagination requires a "hackable" series of principles,[3] localised prototyping of nature recovery, and spaces where local knowledge, scientific expertise and creative practice converge.

For other Key Cities, the Essex case suggests that anchor institutions must act as catalytic partners in shaping policy processes, particularly amid the uncertainty of LGR. Convening imaginative civic spaces and supporting district-level experimentation allows universities to strengthen the social and cultural infrastructure. As local authorities navigate ecological crisis and structural reorganisation, nurturing this intermediate imaginative capacity may be key to strategies that are scientifically robust, socially rooted, inclusive, emotionally resonant and capable of mobilising collective agency for nature recovery. In the end, the question is not whether we can afford to invest in imagination, but whether we can afford not to. Where local imagination flourishes, policy innovation follows.

Glossary of Terms

Assemblage: Multifariously derived from Deleuze and Guattari's agencement (Buchanan, 2017) referring to a dynamic gathering of heterogeneous elements (human, non-human, material, discursive) in temporary relations. Here, neighbourhoods are assemblages of people, buildings, regulations, memories, ecologies and econom-

3 As described by CERG collaborator Simon Poulter.

ic flows that generate properties beyond their parts.

Emotional geography: The affective attachments, feelings and enchantments people experience in relation to places and local environments; used by CERG to link policy strategies (e.g., pride-in-place) to what residents value in their neighbourhoods.

Imaginarium as Infrastructure: The Faculty of Imagination embeds collective imagination within policy systems as a shared capacity to envision alternative futures, empathise across difference and build collective narratives linking present action to long-term consequences. Like other core infrastructures, imagination requires investment, platforms, skills and sustained resources.

Macrolevel: National governance, global strategy, statutory frameworks and technical policy language; structural conditions and top-down direction.

Mezzolevel: Intermediate scale of neighbourhoods, cross-sector networks and place-based systems where macro strategy and micro experience intersect; characterised by relational interdependence, situated knowledge and emergent order.

Microlevel: Lived and felt experiences, household practices and everyday interactions where policies are enacted, adopted, resisted or reimagined.

Speculative methods: Approaches beginning with "What if?" making alternative futures tangible and contestable. Often experimental, small-scale "prototype" interventions (e.g., community gardens, urban wetlands) testing neighbourhood-level nature recovery possibilities.

Zones of emergence: From assemblage theory: mid-level formations where novelties arise from interactions; identified here with the mezzo level where broader structures and local practices generate new possibilities.

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Image on page 92: Imogen Robertson (Medway Council), Holly Lewis (We Made That) and Dharma Nurse (GM Business Growth Hub) discussing The Shape of Things to Come at i-PLACE 25.

Innovation “from the outside in” – rethinking regional ecosystems

Prof. Nic Beech, Prof. Mandy Parkinson, Prof. Katy Mason, Dr Anisa Kabir Abdulfatah (University of Salford), Anthony Hatton (Salford City Council)

Innovation "from the outside in" – rethinking regional ecosystems through actor-network theory and the MITIH Accelerator

Nic Beech, Mandy Parkinson, Katy Mason, Anthony Hatton and Anisa Kabir Abdulfatah

Abstract

This paper examines the catalytic role of accelerator platforms in fostering innovation within regionally based SMEs, focusing on the MediaCity Immersive Technology Innovation Hub (MITIH) in Greater Manchester. MITIH, a collaborative initiative involving Salford City Council, the University of Salford, technology providers, and funders, convenes and coordinates a diverse array of human and non-human actors including technologies, business development expertise, collaborators, material infrastructures, and management tools to support SME innovation across sectors and organisational boundaries.

The study's central theoretical contribution is the reconceptualisation of regional accelerators as place-based, socio-material platforms that generate innovation through translation processes and the mobilisation of boundary and epistemic objects, rather than through programme design alone. Empirical analysis is grounded in engagement with 190 businesses, demonstrating over 90% retention in innovation and technical-assistance activities and a 15% attrition rate in funded project applications, providing robust evidence of MITIH's mechanisms and effects.

Utilising Actor–Network Theory (ANT), the paper reveals how MITIH functions as a convenor and coordinator, consistently integrating materials, technologies, experts, management tools, and devices to create new actor networks operating across multiple scales of innovation from product development to the stabilisation of collaboration networks. Unlike traditional perspectives viewing accelerators as resource bundles or fixed programme architectures, this analysis foregrounds the socio-material infrastructures that actively configure interactions, structure attention, and enable coordination among heterogeneous actors. The findings underscore MITIH's role in mobilising new actor networks, acting as both a catalyst for change and a critical institutional element within the regional business ecosystem.

Subscribe and watch the panel discussion at MediaCity on the i-PLACE Channel at www.youtube.com/@i-Place

Accelerators as innovation platforms

Accelerators are widely defined as fixed-term, cohort-based programmes that provide early-stage ventures with mentoring, education, and access to investors and partners, often culminating in a public "demo

day" (Cohen & Hochberg, 2014; Hathaway, 2016). Empirical research has examined accelerators from several perspectives. One stream focuses on venture-level outcomes, associating accelerator participation with increased funding speed, investment likelihood, or venture survival (Hallen et al., 2020). Here, mechanisms such as learning acceleration and feedback intensity are emphasised, suggesting accelerators help ventures progress rapidly by structuring exposure to mentors, peers, and investors, yet the delivery settings of these programmes are rarely considered.

A second, design-oriented stream analyses how programme features mentor matching, cohort structure, milestone-based accountability shape venture decision-making under uncertainty (Cohen et al., 2019). Accelerators are thus understood as deliberately designed environments that reduce bounded rationality and coordinate entrepreneurial action.

A third body of literature positions accelerators as key intermediaries within entrepreneurial ecosystems, enhancing connectivity, legitimacy, and deal flow, and contributing to regional entrepreneurial vitality (Spigel & Harrison, 2018; Brown & Mason, 2017; Autio et al., 2014). This view is influential in policy contexts, where accelerators are framed as tools for regional development and innovation capacity building (Uyarra, 2010; Asheim et al., 2011).

Additionally, corporate and public accelerators are increasingly examined through the lens of open innovation, acting as mechanisms for incumbent organisations to access external entrepreneurial knowledge and technologies (Chesbrough, 2003; Dahlander & Gann, 2010; West & Bogers, 2014; Kohler, 2016; Weiblen & Chesbrough, 2015).

While these contributions have justified increased investment in accelerators, important limitations remain. Selection bias is persistent—accelerators tend to attract and select high-potential ventures, complicating causal attribution (Butz et al., 2021; Hallen et al., 2020). As a result, while outcomes can be measured, the generative mechanisms underlying accelerator value are often inferred rather than directly evidenced. Much literature treats accelerators as bundles of resources and capital access, without theorising how these elements are assembled into functioning innovation systems. Accelerators are thus often seen as containers of value, rather than as coordinating socio-material infrastructures that actively configure interactions and structure attention (Gawer & Cusumano, 2014; Gawer, 2021).

We argue that the socio-material elements of accelerators spaces, artefacts like pitch decks and evaluation rubrics, digital platforms, and narratives are under-theorised. While scholars acknowledge material aspects, these are rarely included in conceptualisations of accelerator operation. Artefacts are central to how accelerators compress time, standardise judgement,

and enable coordination, yet receive little analytical attention (Star & Griesemer, 1989; Nicolini et al., 2012). Thus, accelerators are frequently described as intermediaries, but their intermediation is treated descriptively, not analytically.

To explain how accelerators work, some researchers turn to open innovation literature (Chesbrough, 2003; Dahlander and Gann, 2010; West and Bogers, 2014), which highlights distributed innovation across organisational boundaries and the role of accelerators in configuring knowledge flows. While helpful in revealing accelerators as intermediaries structuring interactions and reducing transaction costs (Kohler, 2016; Weiblen and Chesbrough, 2015), these approaches do not fully explain the organising capacity or place-based impacts of accelerators. Notably, they overlook how the specific socio-material 'canvas' of accelerators influences the innovation process and scaling effects (Uyarra, 2010; Asheim et al., 2011).

Recent management literature on platforms defines them as organising units that enable complementary innovation by external actors (Gawer & Cusumano, 2014). This view introduces a socio-material dimension, with accelerators functioning as non-digital platforms for open innovation (Gawer, 2021). Through rules, routines, reputational signals, and boundary resources in a specific place, accelerators provide a foundation where external actors can co-create solutions. This framing helps explain how accelerators achieve scale and impact without proportional resource growth: their value lies in socio-material orchestration (Gawer, 2021; Star & Griesemer, 1989). Recognising the role of place is critical, suggesting an opportunity to further explore how accelerators mobilise extensive resources to scale impact while remaining relatively small organisations. We contend that existing organising logics lack the granularity to explain how platforms function in practice, and that actor-network theory (ANT) offers a powerful lens for such analysis (Callon, 1986; Latour, 2005).

To consolidate the theoretical arguments developed above and to guide the subsequent empirical analysis, we advance two propositions that link the accelerator literature with Actor–Network Theory and socio-material perspectives on innovation:

P1: Accelerators that mobilise boundary objects within shared physical infrastructures facilitate cross domain translation and faster validation for SMEs

This proposition reflects the argument that epistemic objects, such as prototypes, Minimum Viable Products (MVPs), testbeds, and collaborative artefacts operate as mediating devices that enable heterogeneous actors to align expectations, iterate more rapidly, and reduce uncertainty within early-stage innovation processes.

P2: Place-based orchestration enables effects to scale from firm level prototypes to regional collaboration networks.

This proposition captures the claim that accelerators embedded within specific socio-material environments can generate regional spillovers by stabilising new actor networks, linking organisational practices with ecosystem level change, and allowing localised interactions to travel across the wider innovation system.

Accelerators as socio-material Actor-Networks

ANT conceptualises innovation as the outcome of processes of translation, through which heterogeneous human and non-human actors are assembled into networks that stabilise particular forms of action (Callon, 1986; Latour, 2005). Translation here is understood as a form of 'working out' what to do next; what is worth doing; and what works (Mason et al., 2019). This perspective positions us to trace how founders, mentors, investors, corporates, and policymakers are enrolled; how artefacts such as pitch decks, metrics, demo days, and digital tools mobilised to act as mediators; how legitimacy, comparability, and trust are produced; and how local interactions generate effects that travel across a region (Star & Griesemer, 1989; Nicolini et al., 2012) (see Figure 1).

Figure 1 (overleaf) outlines an ANT-informed framework that demonstrates how human actors and socio-material artefacts interact across firm, network, and regional levels within MITIH's place-based platform. Human actors including founders, SME teams, end-users, facilitators, creative professionals, technical specialists, university researchers, anchor institutions, and funders are depicted as circles, while non-human actors and artefacts such as prototypes, pitch decks, evaluation rubrics, digital platforms, and lab infrastructures are represented as rounded rectangles. Solid arrows indicate translation processes between actors, and dashed arrows show how artefacts mediate ties, with labels specifying the ANT translation moves: problematisation, interessement, enrolment, and mobilisation. The framework illustrates how boundary and epistemic objects circulate between levels prototypes move upward for testing and validation, then return for refinement enabling faster validation at the firm level, the formation of new collaboration networks, and regional spillovers that strengthen the wider innovation system.

By adopting an ANT lens, accelerator research can move beyond functional descriptions to analyse accelerators as socio-material assemblages whose effects configure, stabilise, and scale innovation across the region (Latour, 2005; Mason et al., 2019).

The ANT lens enables critical examination of whose values are embedded in accelerator infrastructures, what forms of innovation are privileged, and how this generates some insight as to how regional inequali-

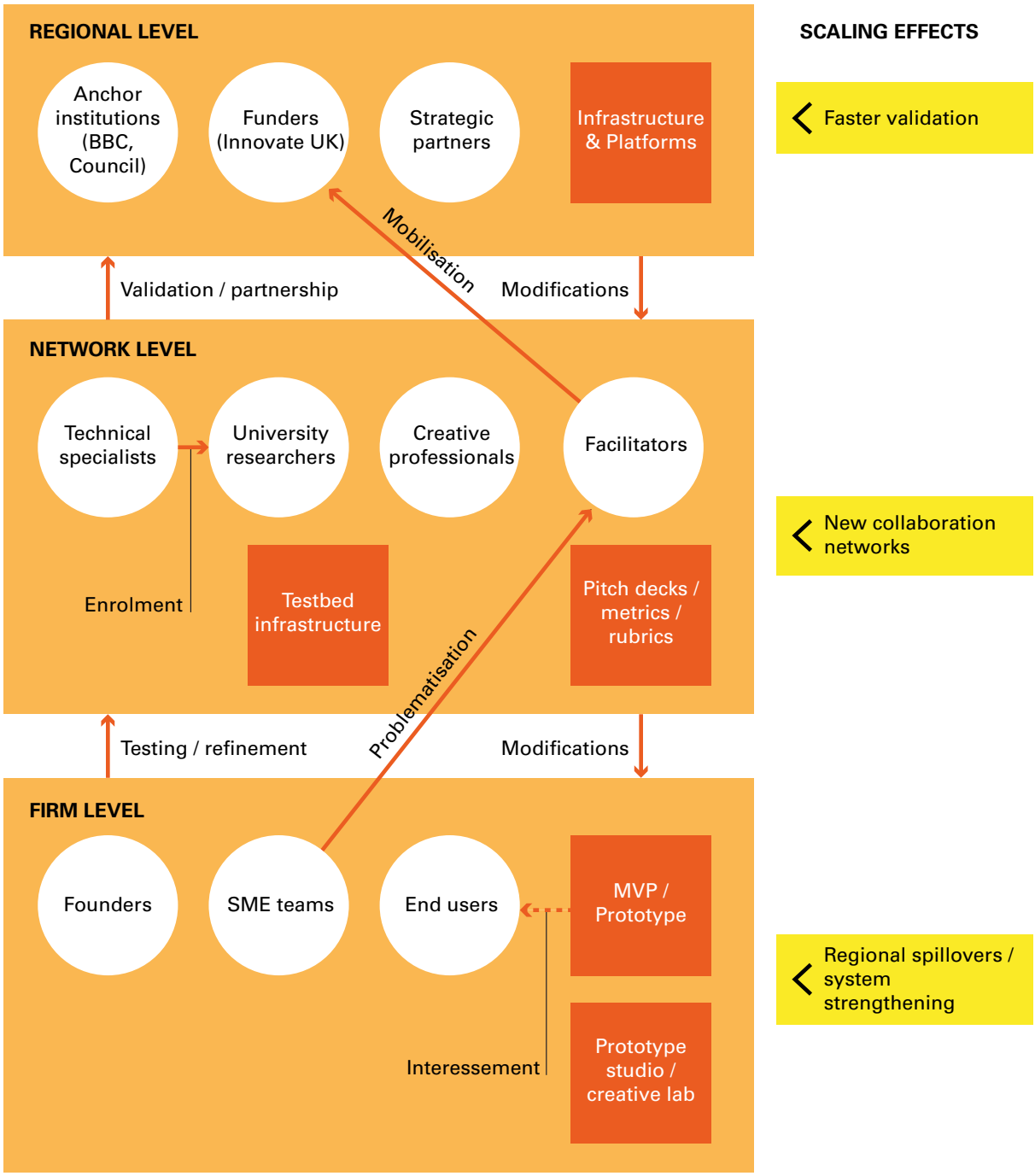

Figure 1. An analytical framework to explore how innovation accelerators work

ties might be engineered out of our economy (Asheim et al., 2011).

Method

This study adopts a qualitative case study approach to critically investigate the MediaCity Immersive Technology Innovation Hub (MITIH) as an intermediary within Greater Manchester's creative and digital economy. Rather than seeking generalisable, quantitative outcomes, the research focuses on elucidating the mechanisms and emergent impacts of MITIH within a complex, place-based innovation system (Eisenhardt, 1989; Yin, 2018). The methodological orientation privileges situated, processual enquiry, surfacing early-stage outcomes and learning within evolving innovation interventions. Data collection was staged across two phases: the first examined early implementation, stakeholder engagement, and perceived value; the second extended inquiry to a wider pool of beneficiaries and delivery partners, exploring how identified barriers were addressed and how MITIH's activities influenced a broader set of participants. Special attention was paid to MITIH's intermediary role and its connectivity within the regional innovation ecosystem (Spigel & Harrison, 2018; Autio et al., 2014).

Interview transcripts were thematically analysed using NVivo, applying inductive coding to allow themes to emerge from participants' accounts of innovation support, collaboration, technology adoption, and impact at organisational and ecosystem levels. The analysis was iterative and comparative, enabling identification of recurring patterns and divergences across stakeholder groups and programme phases (Braun & Clarke, 2006). Cross-case comparison and triangulation with programme documentation and monitoring data supported analytic depth and reduced selection bias (Eisenhardt, 1989; Braun & Clarke, 2006).

The evaluation framework was guided by logic models underpinning MITIH's initial phases, mapping expected causal pathways from programme inputs to outcomes. These models informed both research aims and analytical procedures, with a focus on how innovation support is accessed and experienced over time (Rogers, 2008). Actor-Network Theory (ANT) was used to interpret findings, situating emergent themes within the broader innovation ecosystem and analysing how relations between human and non-human actors shaped processes and effects (Latour, 2005; Callon, 1986; Nicolini et al., 2012). This approach supports a nuanced understanding of MITIH's intermediary role and its contribution to regional innovation capacity (Spigel & Harrison, 2018).

Guided by these logic models, the study addresses four core research questions:

1. How do SMEs engage with MITIH-supported activities, and how are programme inputs and support mechanisms accessed and experienced?

2. How does participation in MITIH influence organisational practices, including innovation capability, technology adoption, and collaboration within the creative and digital sectors?
3. How do early outcomes and learnings align with intended short- and medium-term outcomes articulated in the Phase 2 logic model?
4. How does MITIH function as an intermediary within the regional innovation ecosystem, and how do interactions between SMEs, delivery partners, and institutional actors contribute to programme effects?

Case studies traced innovation trajectories at both firm and ecosystem levels, using semi-structured interviews as the primary data source. Purposive sampling ensured diversity by sector, organisation size, and type of MITIH engagement, focusing on SMEs in immersive technology, AI, creative digital production, and related domains. Recruitment leveraged programme networks and partners, and potential selection bias was addressed through cross-case comparison and triangulation. The evaluation dataset comprised five semi-structured interviews with founders from businesses that had engaged with MITIH and subsequently received secondary grant funding. All participants held founder-level roles and were thus able to speak to both strategic intent and operational delivery, including how MITIH support was accessed, interpreted, and translated into innovation activity within their organisations. Interviews lasted on average one hour (ranging from 40 to 60 minutes, depending on participant availability and project complexity). The five cases were purposively selected to reflect variation in sector, type of innovation activity, and project stage, prioritising information-rich exemplars capable of illuminating the translation of MITIH support into innovation activity (Eisenhardt, 1989; Yin, 2018).

Interviews followed a consistent topic guide to support comparability, while allowing flexibility for participants to foreground aspects of support, experimentation, collaboration, and implementation they considered most significant. This enabled examination of both recurring patterns and meaningful divergence, consistent with qualitative case study practice. Interview transcripts were thematically analysed using an iterative and comparative approach: inductive coding grounded in participant accounts was followed by systematic cross-case comparison to identify recurring mechanisms, boundary-spanning practices, and any instances of misalignment. Particular attention was given to identifying deviant or contradictory perspectives, which were used to refine emergent themes. Qualitative insights were further contextualised through triangulation with administrative programme records, which provided descriptive confirmation of delivery activity and reported achievements, and situated interview accounts within the broader logic-model

framing of intended outcomes. In accordance with data protection and research governance requirements, all interview data were anonymised during write-up, stored securely with access limited to the research team, and handled confidentially throughout. Where illustrative vignettes are presented, these have been constructed to preserve analytic integrity.

By synthesising qualitative insights across stakeholders and timeframes, the case study design enables a nuanced assessment of MITIH's intermediary function, capturing both anticipated and unexpected effects and supporting empirically grounded insights into place-based innovation hubs (Yin, 2018; Uyarra, 2010).

The innovation context

MediaCity is a creative, digital cluster anchored by major organisations (notably the BBC's Salford base, alongside studios and a dense supply chain). Cluster work on "anchor institutions" argues that large, stable organisations can stimulate local ecosystems by shaping demand, standards, skills pipelines, and networks (Hospers, Sautet & Desrochers, 2008; Martin & Sunley, 2003). The BBC has itself commissioned analysis of its role in supporting creative clusters, explicitly using an "anchor" framing. The Greater Manchester Business Board summary of a KPMG report notes that employment in Salford's creative and digital sector grew from 6,310 (2010) to 15,275 (2019) a 142% increase. This is substantially faster than Great Britain overall over the same period. Econometric work on the BBC's move from London to Salford, finds measurable multiplier effects for creative-industry jobs (while also cautioning that impacts may be uneven across the wider city-region). Alongside anchors, the ecosystem includes specialist spaces and facilities (e.g., HOST at MediaCity, with studios/labs and usability testing rooms); a dense SME and freelancer population typical of creative/digital industries (high churn, project-based work, micro-enterprises); university presence and skills pipelines (University of Salford at MediaCity) (Uyarra, 2010; Asheim et al., 2011).

In cluster environments, the bottleneck is often not "ideas" but coordination: aligning talent, prototypes, finance, data, IP, procurement pathways, and credible validation. In Greater Manchester, according to the Business Growth Hub, creative-digital activity across the Northwest is substantial, with over 19,000 digital, creative, and technology companies and approximately 156,000 people employed in creative and digital roles (Business Growth Hub, n.d.). In such dense innovation environments, the core challenge is less about idea generation and more about coordination across actors, resources, and infrastructures, highlighting the importance of intermediary mechanisms such as MITIH. This growth was thought to be creating innovation bottlenecks. The decision to create an innovation accelerator in MediaCity was a purposeful response to three recurring ecosystem frictions: search and matching; val-

idation and legitimacy: pathways-to-adoption (Autio et al., 2014; Spigel & Harrison, 2018).

First, search and matching frictions are created because immersive innovation requires unusual combinations of creative practice, software, hardware and domain knowledge (healthcare; manufacturing; education; retail). Market matching for these complements is costly without an orchestrator. Second, validation and legitimacy frictions occurring because XR/immersive products often need trusted testbeds, users, and evidence of outcomes (clinical, educational, productivity, safety). SMEs were struggling to secure credible validation quickly enough. Finally, pathways-to-adoption frictions were occurring because adoption frequently depended on access to procurement and deployment systems (NHS trusts, local authorities, large corporates) that were proving extremely hard for micro-firms to navigate. These are exactly the kinds of frictions that innovation intermediaries and open innovation arrangements are designed to address: by reducing search, coordination, and transaction costs and by creating structured interfaces between "solution providers" and "problem owners." Open innovation as purposive knowledge flows across organisational boundaries are foundational here (Chesbrough, 2003; Dahlander and Gann, 2010; West and Bogers, 2014; Kohler, 2016).

Nationally, the creative industries are consistently described as a major UK growth engine. UK Government sector planning documents place the sector at ~millions of jobs and ~£100bn+ GVA scale. Regionally, Greater Manchester's policy documents emphasise "Createch" and cross-sector creative-technology innovation as a strategic priority, suggesting deliberate regional intent to lead in creative technologies. Further, the UK immersive sector is commonly characterised as dominated by micro-enterprises. One widely cited overview notes "well over 2000 active immersive specialist companies… 80%… microenterprises with fewer than 10 employees." (UK Government, 2025). This matters because micro-firms can innovate rapidly but often lack access to high-end kit and production facilities, market access to large customers, structured routes to pilots and evaluation, time and capacity to build cross-sector partnerships (Nesta, 2019).

Site of inquiry: MITIH

MITIH describes itself as "a next-generation accelerator based in MediaCity, designed to power innovation, collaboration, and business growth". MITIH received £4,200,0000 in public investment across Phase 1 and 2 of the initiative from Innovate UK, to support innovative Greater Manchester businesses in exploring the future of Creative Technologies. This significant financial backing was directed towards advancing the capabilities of local businesses, enabling them to investigate and develop emerging creative technology fields. The targeted areas include immer-

sive storytelling, spatial computing, creative artificial intelligence, and real-time virtual production, reflecting the initiative's commitment to shaping the regional innovation landscape and fostering growth in cutting-edge sectors.

Immersive technologies are typically understood as the family of extended-reality (XR) system: including virtual reality (VR), augmented reality (AR) and mixed reality (MR). They generate, augment, or blend perceptual "reality" for a user, so that the user can experience and interact with digitally produced content as if situated "in" (or seamlessly alongside) the world being represented (e.g., via head-mounted displays, spatial audio, real-time rendering, tracking, and interactive interfaces). There is an explicit aim to support the adoption of these technologies across multiple sectors (Nesta, 2019).

MITIH comprises a Creative Tech Labs (Table 1 overleaf) to help businesses test ideas, build prototypes, and unlock local and national funding and investment opportunities. MITIH champions the voice of the creative industries in Greater Manchester, connecting SMEs with major national and regional actors: including the BBC and Dock10, and is working to help shape local policy and practice to regional economic growth and flourishing.

A key element of MITIH's approach is the establishment and mobilisation of partnerships with leading business support organisations (for example, Innovate UK Business Growth, Growth Company, Salford University, Salford City Council) and future-focused industry partners. MITIH also hosts a UK Shared Prosperity Fund (UK SPF)-funded team of facilitators and educators who deliver opportunity-led (and demand driven) programmes that help ambitious businesses upskill, adopt emerging technologies, and pivot so that they can thrive and grow in a fast-changing digital world.

Analysis and findings

At a pivotal moment for Greater Manchester's creative technology ecosystem, MITIH has been strategically established as a catalyst for assembling and energising diverse socio-technical networks. MITIH's model, informed by actor-network theory, focuses on actively reconfiguring connections between founders, technical specialists, creative professionals, and end-users, precisely the type of collaborative, cross-disciplinary partnerships illustrated in the following vignettes. MITIH's interventions are specifically designed to help SMEs overcome barriers to innovation, whether through the rapid prototyping and validation seen in Vignette 1's immersive narrative project, the technical frontier work undertaken by Vignette 2, or the inclusive co-creation exemplified by Vignette 3's VR initiatives. Recognising that innovation is as much a social process as a technical one, MITIH supports SMEs through a flexible suite of tailored programmes and resources. These include the

MITIH intervention	Inputs	Mechanisms	Anticipated outcomes
Creative Tech Lab	Studio/lab; XR/VP equipment; technologists; prototypes; test-users	Rapid prototyping: shared infrastructure reduces cost/risk; prototypes enable cross-domain communication	**Firm**: Faster iteration, better product readiness **Network**: Cross-disciplinary collaboration **Region**: Greater immersive tech capacity
R&D Challenge Interventions	Challenge briefs; problem owners; SMEs; mentors; pilots	Matches solution-providers with adopters; pilots provide proof; stabilizes partnerships	**Firm**: Credible validation, clearer market route **Network**: Durable partnerships **Region**: Persistent networks; cross-sector spillovers
Grant Funding & Investment Support	Funding intelligence; bid support; investor networks; advisors	Converts ideas into fundable propositions; standardizes comparability; reduces transaction costs	**Firm**: Increased funding success **Network**: Finance sector links **Region**: Improved innovation pipeline
SPARK Salford	Fully funded 8-week programme; cohorts; Growth Clinics; Innovation Labs (AI, automation, immersive); investor readiness; marketing support; mentors; workspaces	Structured scale-up pathway; hands-on tech adoption; standardizes ventures; builds legitimacy via mentor/investor connections	**Firm**: Improved scaling; higher tech adoption; investment readiness **Network**: Peer and investor links **Region**: SME growth; faster tech diffusion

Table 1. MITIH intervention pathways from inputs to regional innovation outcomes

Creative Tech Lab , which offers intensive, hands-on workshops for developing and testing new creative technology solutions; R&D Challenge Interventions , facilitating advanced collaborative work in areas such as virtual production and AI; comprehensive Grant Funding and Investment Support, helping SMEs access diverse funding streams and navigate the complexities of commercialisation; and SPARK Salford, a bespoke programme focused on strategic growth, talent development, and technology adoption for local businesses. Through these initiatives, MITIH empowers SMEs to iterate, validate, and scale breakthrough innovations, fostering inclusive actor-networks that underpin the region's creative technology leadership and growth (Latour, 2005; Star & Griesemer, 1989; Spigel & Harrison, 2018).

The evaluation encompassed a cohort of 190 businesses across phase 1 and 2, pri-

marily engaged through the innovation interventions, with further participation via grant funding rounds and community events. The study monitored dropout rates throughout, noting an overall 15% attrition in funded project applications but consistently high retention, over 90% in innovation and technical assist activities. These figures demonstrate robust engagement and provide transparency regarding the reliability and representativeness of the qualitative data underpinning the subsequent analysis.

The evaluation surfaced a series of project level examples that demonstrate how MITIH has actively facilitated the recombination of people, practices, and material resources into new socio-technical arrangements, catalysing innovation and supporting the initial uptake of advanced technologies. Notably, the experiences of Vignette 1, Vignette 2 and Vignette 3 illustrate how founders, technical experts, creative professionals, academic researchers, and end-users have been brought together through shared infrastructure, prototype studios, and collaborative workflows. In each case, epistemic objects, for example, Vignette 1's evolving MVP, Vignette 2's Unreal based automation tool, and Vignette 3's VR prototype served as exploratory artefacts, open to interpretation and further development (Star & Griesemer, 1989; Nicolini et al., 2012).

Epistemic objects whether in the form of prototypes, toolkits, pipelines, automation tools, MVPs, or shared digital platforms play a central role in enabling inclusive, cross sector innovation. Unlike finished artefacts, epistemic objects are inherently unfinished, evolving, and marked by a degree of uncertainty. It is precisely this open-endedness and provisional character that makes them so powerful within actor networks. Their adaptability allows participants from diverse backgrounds and sectors to engage meaningfully in the innovation process, contributing their expertise, iterating on ideas, and shaping outcomes collaboratively. As these objects circulate through shared spaces and collaborative workflows, they act as focal points for dialogue, experimentation, and negotiation, supporting the co-creation of value across organisational and disciplinary boundaries (Nicolini et al., 2012; Star & Griesemer, 1989).

The provisional and adaptive character of these artefacts enabled teams to iterate across organisational, disciplinary, and technical boundaries, making advanced innovation activity accessible to SMEs and less technically oriented partners. These epistemic objects operated as boundary devices, supporting translation between actors of varying expertise, aligning expectations, facilitating communication, and reducing barriers to adoption. Taken together, these cases underscore how MITIH's socio-material setting has fostered inclusive innovation by enabling diverse actor networks to coalesce around shared artefacts, gradually embedding new practices and extending their reach through-

out the creative technology sector (Star & Griesemer, 1989; Nicolini et al., 2012).

Vignette 1: Reassembling practice and materiality for inclusive innovation

Case Study 1, a creative storytelling micro-enterprise, used MITIH to develop an MVP for participatory narratives. Despite transmedia expertise, they faced limited specialist access, validation difficulties, and fragmented procurement. "We struggled to find local tech partners for the MVP, eventually we secured Amazon Web Services and Takara as subcontractors" MITIH provided creative technologists, MediaCity co-location, and rapid prototyping support. The MVP functioned as an epistemic object, evolving through user testing with educators and creatives, validating learning outcomes and accessibility. Strategic guidance connected Case Study 1 with funders, universities, and media partners, expanding scaling opportunities and demonstrating how orchestrated networks lower barriers for micro-firms.

Micro-logic Chain:

Context: Strong vision but limited partners, test environments, and validation.

Intervention: Funded development, facilities, and networks enabled prototype creation without commercial pressure.

Boundary Object: MVP enabled joint exploration across disciplines.

Translation Moves: Testing shifted assumptions; failed IP route redirected focus to backend technology.

Proximate Outcomes: Functioning MVP, partnerships, validated capability. "Developing the MVP opened new conversations with universities, potential licensing, and angel investors"

Early Scaling: Stabilized MVP repositioned consultancy with proof-of-concept, enabling education-sector engagement and investment discussions, extending local experimentation into wider networks.

Vignette 2: Bridging technical frontiers and collaborative practice for scalable innovation

Case Study 2, an SME specialising in automation tools for immersive content, used MITIH to accelerate their Unreal Engine-based platform.
"For our project, the main issue was data wrangling, handling the motion capture data and integrating it into our engine."
MITIH's R&D Challenge provided sector experts, prototype studios, and collaborative community.
"Being in MediaCity, there was a company called Dock10 doing something similar."
The Unreal tool functioned as an epistemic object, encouraging cross-disciplinary dialogue on technical potential and user needs.

MITIH testbeds enabled pilots with animation studios and creators, surfacing requirements and challenges addressed through iteration with facilitators and peer SMEs. Strategic support included R&D funding guidance, university and industry introductions, and procurement navigation.

Micro-logic Chain:

Context: Conceptual pipeline but lacked infrastructure and test environments for commercial validation.

Intervention: Funded lab access, R&D space, and expert facilitation within MediaCity.

Boundary Object: Unreal pipeline enabled negotiation of workflow standards and performance requirements.

Translation Moves: Testing revealed data-integration bottlenecks. Collaborative problem-solving reconfigured technical architecture.

Proximate Outcomes: "It allowed us to analyse and refine a pipeline we believed in but hadn't tested in a commercial setting. We identified pitfalls and refined the process into a customer-ready approach."

Early Scaling: "We started a project with Two LE Media and Dock10 right after the funding. It was for a pitch for a kids' TV show currently being pitched to Netflix and BBC." Validated workflow embedded real-time production practices within the regional cluster.

Vignette 3: Advancing immersive audio innovation and sector collaboration

Case Study 3, an SME in audio solutions for broadcast, joined MITIH to accelerate automated audio mixing technology.
"We often have more ideas than resources, and we wanted to innovate in the immersive space. This grant came at the perfect time."
MITIH's Creative Tech Lab provided technical mentors, broadcast professionals, and peer innovators. MediaCity co-location enabled rapid iteration. The audio mixing MVP served as an epistemic object, evolving through demonstrations, pilots, and expert critique.
MITIH testbeds enabled pilots in broadcast settings with producers and engineers.
"We unexpectedly took part in the Music Hack event hosted by MITI. That hands-on experience with users helped us refine the product based on real-world feedback."
Strategic support included funding guidance, procurement navigation, and relationship building with media organisations and universities.

Micro-logic Chain:

Context: Audio expertise but lacked test environments, user feedback channels, and legitimacy signals for adoption.

Intervention: Funded R&D support, Creative Tech Lab facilities, mentors, and pilot

environments.

Boundary Object: Audio-mixing MVP enabled negotiation of performance expectations and workflow integration.

Translation Moves: "We ended up changing the technical architecture to achieve a more generic and industry-friendly solution. It was a strategic pivot, not a failure to meet outcomes."

Proximate Outcomes: "We created a brand new product, which helped us engage new clients and enter a new market vertical. We've already secured a decent-sized project because of it."

Early Scaling: "With a relatively small grant, we accessed a new market and created a whole new product." Stabilized product enabled market entry, client acquisition, and embedding of immersive-audio practices within the regional ecosystem.

Summary

This paper has critically examined the role of accelerator platforms, with a particular emphasis on the MediaCity Immersive Technology Innovation Hub (MITIH), in catalysing innovation among SMEs within Greater Manchester's creative and digital sectors. By utilising an actor-network theory (ANT) perspective, the research moves beyond conventional functional accounts to illuminate the intricate socio-material assemblages underpinning accelerator effectiveness. The case studies, Vignette 1, 2, and 3, not only exemplify MITIH's socio-material infrastructure but also reflect broader findings from the Outside-In paper, which positions MITIH as a dynamic actor-network mobilising both human and non-human resources to drive regional innovation (Callon, 1986; Latour, 2005; Gawer, 2021).

Central to MITIH's success are boundary objects such as prototypes, collaborative platforms, and shared physical spaces. These artefacts play a critical role in enabling technology diffusion and stakeholder alignment, serving as focal points for dialogue, experimentation, and consensus-building across disciplinary and organisational boundaries (Star & Griesemer, 1989; Nicolini et al., 2012). By strategically deploying material artefacts and networked infrastructures, MITIH facilitates translation between research, production, and market domains, sustaining collaboration and supporting the wider adoption of new practices among participating SMEs.

These mechanisms are essential for fostering inclusive growth, as they lower barriers for micro-enterprises and SMEs to access advanced technologies, expert knowledge, and funding pathways. MITIH's interventions, ranging from prototype testbeds to collaborative R&D and strategic support demonstrably enable micro-enterprises to forge meaningful partnerships, validate innovative solutions, and iterate towards market readiness. This approach is particularly significant in a sector where access and credibility are often constrained by resource limitations and risk aversion

(Spigel & Harrison, 2018; Autio et al., 2014; Brown & Mason, 2017).

Applying Actor-Network Theory reveals that innovation within MITIH emerges from ongoing negotiation and reconfiguration among diverse actors rather than through top-down institutional mandates. The accelerator operates as a dynamic, adaptive platform where relationships, artefacts, and practices are continually shaped by the interplay of local context, stakeholder needs, and technological possibilities (Callon, 1986; Latour, 2005; Gawer, 2021; Star & Griesemer, 1989). This process underscores the importance of place-based, relational, and adaptive innovation ecosystems for supporting regional development and resilience (Uyarra, 2010; Asheim et al., 2011).

In summary, MITIH's approach reflects the Outside-In perspective, highlighting how actor-networks, boundary objects, and material infrastructures collectively underpin inclusive and sustainable innovation. The findings suggest that fostering collaborative, practice-based environments is vital for empowering SMEs to overcome sector-specific challenges, scale their impact, and contribute to the vibrancy of Greater Manchester's creative technology landscape. For academic researchers, policy makers, and SME leaders, the MITIH model offers valuable insights into the design of innovation ecosystems that prioritise adaptability, inclusivity, and regional growth (Spigel & Harrison, 2018; Martin & Sunley, 2003).

This paper offers three core contributions:

Theoretical: Reconceptualises accelerators as place-based socio-material platforms, specifying how translation mechanisms and boundary/epistemic objects shape innovation beyond programme design explanations.

Empirical: Provides a rich case of MITIH, showing how Creative Tech Lab activity, R&D challenges, and testbeds orchestrate SME innovation with over 90% retention in technical-assistance engagements.

Methodological: Introduces a logic-model-guided, ANT-informed qualitative approach suited to analysing early-stage ecosystem interventions where outcomes are distributed and emergent.

Directions for future research

Future studies should examine how different boundary objects (e.g., demo days vs. testbeds) shape enrolment and legitimation across sectors, using comparative artefact analysis, panel interviews, and social-network mapping.

A second direction is to identify which regional policy regimes enable accelerators to most effectively scale socio-material networks, through comparative regional cases, policy–accelerator alignment analysis, and network-growth mapping.

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From football city to civic lab: stewarding innovation

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From Football City to Civic Lab: How Partnership Stewardship Drives Inclusive Innovation in Wrexham

Nina Ruddle and
Gerardo J. Arriaga-Garcia

Abstract

Wrexham's profile has skyrocketed with Wrexham AFC's unprecedented three-in-a-row promotions to the EFL Championship (2023–25). That visibility coincides with a deeper, quieter transformation: Wrexham University's role as a steward of a place-based social-innovation ecosystem across North Wales. This evidenced paper sets out how Wrexham University has operated as a civic convener and steward to build a place-based innovation ecosystem across North Wales. It argues that "ecosystem building" is best understood not as a single partnership or programme, but as an enabling architecture. That is, a set of interlocking civic platforms that make collaboration, learning and legitimate decision-making routine across a complex local partnership landscape. The paper describes four platforms – North Wales Public Service Lab, North Wales Insight Partnership, North Wales Civic Engagement Partnership, and the North Wales Tertiary Alliance – and shows how these platforms enable multiple forms of innovation (practice-based learning, evidence alignment, participation and decision-routing, and inclusive pathways). Four cases illustrate how the ecosystem functions in practice: Co-producing Community Narratives (CpCN), Wrexham City Board engagement, the North Wales Children's University, and Trauma-informed Civic Innovation (TrACE). Drawing on programme documentation and primary testimony, the paper demonstrates how trust, inclusion and evidence are treated as civic infrastructure, enabling innovations that are scalable, transferable and sustainable beyond short funding cycles.

Subscribe and watch Nina's talk at MediaCity on the i-PLACE Channel at www.youtube.com/@i-Place

Keywords

Place-based innovation, innovation ecosystems, civic universities, stewardship, quadruple helix, inclusive innovation, North Wales.

1. Method, theory and evidence-based approach

This paper is an evidenced case study of Wrexham University's role as a place-based convener and steward. Evidence draws on: (i) programme documentation and outputs from the four civic platforms (lab notes, briefs, learning products, partnership papers); (ii) engagement outputs from the four illustrative cases (e.g., thematic coding of City Board postcards;

narrative artefacts from Co-producing Community Narratives); and (iii) primary qualitative testimony from partners and participants and project records associated with the Civic and Economic Impact Assessment (CEIA) (Evidence First and City-REDI, 2025).

We use these sources to (a) map how the four platforms enable the cases (through convening, brokering, evidence alignment and decision-routing), and (b) trace how learning from cases feeds back into platform redesign, consistent with an "ecosystem-as-learning-infrastructure" framing (Domanski et al., 2020).

Our analysis is guided by three linked concepts: public value, intermediary work, and narrative infrastructure.

First, in this paper we treat innovation not only as "more" innovation, but as directional and normative. The "normative turn" in regional innovation policy foregrounds responsibility, legitimacy and the pursuit of public value, raising questions of who benefits, whose priorities count, and which groups can engage in change (Uyarra et al., 2019).

Second, we conceptualise the four civic platforms as intermediary infrastructure rather than "partnerships." Research on quadruple helix and collaborative platforms shows that cross-sector collaboration and public co-design are rarely "given"; they often depend on intermediary vehicles that actively construct relationships, broker participation, and translate learning into reusable routines (Vallance et al., 2020).

Third, we use a narrative and inclusive innovation lens to interpret the cases. Narratives matter because they stabilise shared problem framings and "plots" for action, yet they are never neutral, as they can either reduce or reproduce power asymmetries (Vercher et al., 2021).

Much "innovation ecosystem" discourse remains weakly specified on directionality and legitimacy. We therefore treat Wrexham's platforms not as neutral infrastructure but as governance arrangements that can either widen or narrow participation. Our contribution is to show how a university-as-steward can construct intermediary conditions that make quadruple helix collaboration real rather than rhetorical, while also surfacing limits and risks that remain (Uyarra et al., 2019; Vallance et al., 2020; Nordberg et al., 2020).

2. Context and policy frame

The Key Cities Innovation Network (KCIN) conference theme for i-PLACE 25, "Innovation Districts and Ecosystems", invites evidenced contributions demonstrating civic partnership, scalability, barriers addressed, cross-boundary interaction, transferability and sustainability (KCIN, 2025). Wrexham and the wider North Wales region provide a distinctive setting for testing how place-based innovation ecosystems operate in practice. The region is

characterised by deep-rooted inequalities, rurality, linguistic diversity, and a complex institutional landscape (Fransham et al., 2023) spanning public service boards, local authorities, health, third sector partners and anchor institutions. In such contexts, place-based innovation cannot be reduced to discrete projects. That is, it depends on whether local systems can sustain inclusive collaboration, align evidence with lived experience, and translate participation into legitimate decisions (Lata et al., 2024).

Capability must be matched by trust-building infrastructure. Place-based agendas often assume that shifting authority closer to communities will automatically produce better outcomes (Hermelin & Trygg, 2021). However, evidence from engagement in disadvantaged contexts shows that participation can become extractive when it lacks power-sharing, continuity, or visible decision consequences, undermining trust and future participation (Zanini et al., 2023; Holum, 2022). Trust is therefore not simply a cultural variable; it is an equity issue rooted in histories of exclusion and disempowerment (Jaime-Castillo & Herreros, 2024). This makes decision-routing mechanisms (who listens, who acts, and how) central to inclusive ecosystem stewardship (Uyarra et al., 2019).

These dynamics also intersect with widening forms of social and digital exclusion. When some groups lack the resources, confidence or channels to participate, inequalities can become self-reinforcing. In other words, exclusion reduces voice, reduced voice narrows responsiveness, and low responsiveness further erodes participation (Ragnedda et al., 2022). This raises a practical implication for ecosystem building: places must invest in social infrastructure, relationships, norms, bridging platforms and stewardship roles that make coordination and inclusion possible, rather than assuming collaboration will emerge naturally (Domanski et al., 2020; Vallance et al., 2020).

Foundational work on social capital remains useful for interpreting why these investments matter. Networks, norms and trust underpin collective action and make cooperative problem-solving feasible (Putnam, 1993; 2000). Relatedly, Granovetter's (1973) account of "weak ties" helps explain why bridging work across institutional and community boundaries can expand the informational and relational reach of place-based systems.

3. The University as steward

Wrexham University's contribution is best understood as leadership through stewardship: convening and enabling partners to co-create public innovation by mobilising the "power of place" and building collaborative capacity across state, market and civil society (Hambleton, 2019). In this view, leadership is less about top-down control and more about creating the conditions for co-creation, experimentation and shared purpose across a locality. Below, we outline four approaches and three prin-

The Wrexham Model

Building an inclusive innovation ecosystem

4 approaches

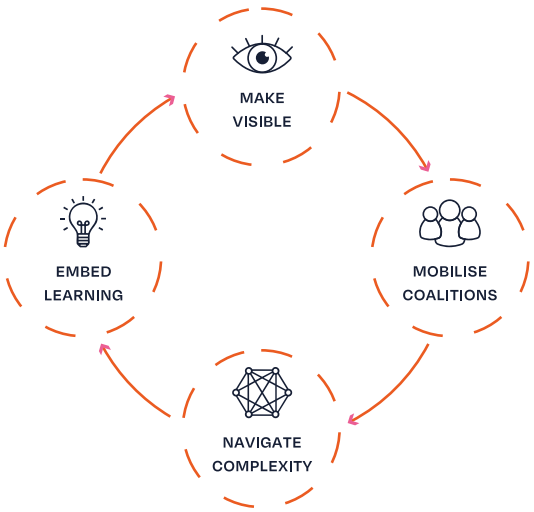
Wrexham University acts as a system steward and convener to enable partners to work better by:

Making the system visible – Mapping partners and connections to spot overlaps, gaps and opportunities

Navigating complexity – Framing big, cross-cutting issues (like wellbeing or inclusion) in a way that different organisations can work on together

Building relationships – Creating psychologically safe spaces for collaboration, where people can share ideas and test change

Embedding learning
Turning what works into tools, templates and shared stories that others can reuse



Prifysgol Wrecsam
Wrexham University

WELL-BEING OF FUTURE GENERATIONS

3 principles

This work is anchored in three principles:

Data and community insight go hand in hand
Numbers, lived and living experience all matter

Relationships are an investment
Trust and networks make cooperation faster and more effective

Evaluation is developmental
How partners work together is as important as what they deliver. Framing and understanding impact can facilitate learning and change

Figure 1. Approaches and principles of the 'Wrexham Model'

ciples (see Figure 1) through which Wrexham University enables partners to work better together. We present these as enabling mechanisms because they describe the practical levers through which stewardship makes collaboration, learning and decision-routing feasible across the (local) system.

3.1. Four stewardship approaches (enabling mechanisms)

Make the system visible. The first approach is to make the partnership landscape visible by mapping partners, relationships and existing initiatives in ways that reveal overlaps, gaps and missed opportunities. This work is an instrument of governance design that clarifies where evidence and insight sit, how they travel (or fail to travel) into decision arenas, and which actors hold the authority and resources required to act (Uyarra et al., 2019). Making the system visible therefore functions as a diagnostic and coordination mechanism as it supports collective sensemaking, reduces duplication, and creates a shared basis for prioritisation.

Navigate complexity. This second approach operates by framing cross-cutting issues, such as wellbeing, inclusion and prevention, in a way that allows different organisations to work together without collapsing the problem into narrow organisational mandates. This involves translating complex challenges into shared working hypotheses and small tests-of-change, while protecting time and attention for cross-boundary learning rather than short-term "delivery theatre". The approach resonates with evidence that collaboration does not arise automatically from co-location or policy exhortation. Rather, it frequently depends on deliberate intermediary work that creates shared problem framings, workable joint tasks and sustained routines of interaction (Vallance et al., 2020). Navigating complexity is therefore both analytical and practical in so far as it reduces fragmentation by enabling partners to act on "whole-system" problems through coordinated, learnable steps.

Build relationships. The third approach operates by creating psychologically safe spaces for collaboration where partners can share ideas, surface tensions and test change without reputational or organisational risk. Instead of ancillary "soft" work, it is a core enabling condition for ecosystem functioning because trust and relational capacity shape the speed, depth and durability of cooperation, particularly where institutions have different incentives and histories of interaction. The platform logic here aligns with the proposition that quadruple helix collaboration must be actively constructed and maintained through deliberate convening and brokerage, rather than assumed as a naturally occurring local system (Vallance et al., 2020). In Wrexham, relationship-building is therefore treated as a form of civic infrastructure that underpins joint work across the ecosystem.

Embed learning. The fourth approach operates by turning what works into reusable tools, templates and shared stories that others can adopt, adapt and scale. This process shifts learning from being an attribute of individual projects to being a capability of the ecosystem. That is, project-level insights are stabilised into routines, briefings and methods that outlast individual funding cycles. Social innovation scholarship emphasises that durable change depends on ecosystems and infrastructures that hold new social practices beyond the pilot stage; embedding learning supports durability beyond pilots (Jareh, 2025).

Importantly, these four approaches are operational mechanisms rather than value-neutral techniques. Each approach shapes what the ecosystem treats as legitimate knowledge, worthwhile relationships and meaningful impact; as such, they only deliver inclusive (public) value when anchored in explicit principles that protect legitimacy, widen participation capability and make learning consequential rather than performative (Thabit et al., 2024; Yang, 2016). Accordingly, the section that follows sets out the three principles that underpin the Wrexham Model and guide how these approaches are applied in practice.

3.1.1 Principles

Principle 1: Data and community insight go hand in hand. Robust place-based action requires both quantitative evidence and community insight. Administrative and performance data can identify trends, patterns and unequal outcomes, but it can also obscure lived experiences, especially where exclusion, language barriers, or distrust shape how people encounter services and opportunities. Conversely, narrative and experiential accounts can surface problems and assets that formal indicators miss, yet risk remaining anecdotal unless they are translated into deliverable forms and routed into decision processes. Treating data and community insight as complementary therefore underpins the approaches of making the system visible and navigating complexity as it strengthens system mapping by clarifying what evidence exists (and what is absent), and it improves collective problem framing by combining indicators with grounded accounts of everyday constraints. In the cases, this principle is enacted through CpCN's narrative production, the City Board postcards' mass engagement and thematic coding, and the Insight Partnership's role in aligning different evidence types into shared judgement.

Principle 2: Relationships are an investment. Relationships, trust and networks are not "soft" additions but enabling infrastructure that makes cooperation more effective. Place-based ecosystems depend on repeated collaboration under uncertainty, where partners must coordinate across organisational boundaries, align incentives, and sustain action through political and funding cycles. Trust and networks re-

duce the transaction costs of collaboration (e.g., repeated negotiation, risk aversion, information withholding) and raise the ceiling on what partners can accomplish by enabling co-design and follow-through (George et al., 2024; Rooks et al., 2000). However, engagement research also shows that trust is shaped by institutional design. For instance, in disadvantaged contexts, participation that is episodic or disconnected from visible decision consequences can erode trust and reproduce exclusion (Rong et al., 2023). This principle therefore grounds building relationships as a stewardship approach, but it also clarifies why decision-routing and sponsorship matter. In the cases, relationship investment is evident in the Public Service Lab's psychologically safe convening, the Children's University's partnership scale-up, and the governance design emphasis within TrACE.

Principle 3: Evaluation is developmental. Evaluations should examine not only "what was delivered" but also how partners worked together and what changed in system capability as a result. Place-based innovation is iterative and multi-causal as it often aims to build long-term capacity for collaboration, learning and inclusion rather than producing immediate linear outcomes. Developmental evaluation therefore treats learning as an outcome in its own right (Bailie et al., 2020), capturing how shared problem framings evolve, how methods are adapted, and how new routines and tools become embedded across a system. In the cases, developmental evaluation logic is visible in the iterative refinement of engagement methods (postcards; CpCN artefacts), the scaling logic of the Children's University, and the use of tools (e.g., environmental assessment) in TrACE that translate learning into institutional change.

Together, these principles clarify how stewardship is operationalised. That is, by shaping what counts as evidence, how relationships are resourced, and how learning is captured and reused across initiatives. The next section builds on this by defining the "regional ecosystem" as the institutional and relational landscape within which these mechanisms operate.

4. The regional ecosystem and the partnership landscape

Innovation ecosystem language is used variously across innovation districts, regional systems and quadruple-helix scholarship; here we use it in a governance-and-learning sense. In this paper we define the term ecosystem as the enduring institutional and relational infrastructure that enables collaboration, learning and legitimate decision-making across the city and region. It is not a single programme or a fixed partnership mandated by policy. Rather, it is a set of interlocking civic platforms that make collaboration routine, lower the transaction costs of joint work, and create credible routes through which evidence and participation can influence decisions. This approach aligns with social

Figure 2. North Wales Partnership landscape and innovation ecosystem enabled by Wrexham University

Platform (micro-ecosystem)	Enabling mechanism	What it makes possible (system function)	Evidence gathered
Public Service Lab	Convening + psychological safety	Shared language; reduced coordination costs; small tests-of-change; cross-boundary learning routines	Underpins experimentation and partner alignment that later supports City Board engagement methods and TrACE tool adoption
Insight Partnership	Evidence alignment + translation	Combines administrative data, evaluation learning and lived experience; produces "shared judgement"	CpCN artefacts as qualitative evidence; thematic coding from postcards; learning products feeding back into platform routines
Civic Engagement Partnership	Decision-routing + sponsorship	Makes participation consequential; links voice to authority; protects participation integrity	City Board: postcards routed into plan; (future) CpCN insights routed into wellbeing / place priorities
Tertiary Alliance	Pathway + participation infrastructure	Builds capability to adopt; connects micro assets to macro anchors; supports inclusion in skills/opportunity systems	Children's University scaling; progression pathways; inclusive outreach channels

Table 1: Platform functions as enabling mechanisms (how platforms translate into case-level action)

innovation scholarship emphasising ecosystems and infrastructures as critical to sustaining new social practices beyond pilot projects (Domanski et al., 2020). It also reflects empirical work on quadruple helix arrangements showing that cross-sector collaboration should not be assumed as a naturally occurring local system as it typically needs to be actively constructed and maintained through intermediary vehicles (Andriienko, 2025; Hasche et al., 2019). Finally, we draw on research that conceptualises the fourth helix not as a passive "public backdrop" but as community as coordination, highlighting that whose participation is enabled, and whose agenda is prioritised, shapes the direction of innovation (Nordberg et al., 2020). To make this partnership landscape (Figure 2) governable (and to enable cross-boundary working) the ecosystem is first rendered visible through mapping of connections, overlaps and routes from insight to decision (Granovetter, 1973).

4.2 The four platforms (micro-ecosystems) and how they enable the cases

The ecosystem described in this paper is operationalised through four interlocking civic platforms (micro-ecosystems), nested within a wider ecosystem, each with a distinct function (practice learning, evidence alignment, decision-routing, and skills pathways) and each designed to host time-bound projects while strengthening infrastructures. The platforms are described in Table 1 opposite and specific links are made with how they translate convening, evidence, participation and pathways into actionable collaboration across the local system (Domanski et al., 2020; Vallance et al., 2020). In Table 1, after outlining the four platforms, we analyse four illustrative cases to show how these enabling mechanisms operate in practice and how case learning is stabilised within the ecosystem.

4.2.1 Platform 1: North Wales Public Service Lab (Public Service Lab)

The Lab operates as an entry point for practice-based learning. It is a psychologically safe environment where systems leaders, practitioners and stakeholders come together in short, purposeful sessions to grapple with live problems, swap methods and commit to small tests of change, building a network of system leaders at local and regional level. This platform addresses a well-documented weakness in many place-based "collaboration" claims – that is, the assumption that partners will collaborate simply because they are co-located or networked. Evidence from collaborative urban innovation and living-lab research shows that collaboration requires constructed conditions, intermediary labour and deliberate facilitation (Edwards-Schachter et al., 2012; Puerari et al., 2018) Here, the Lab is not "supportive context"; it is a mechanism for making collaboration feasible. A partner described the capability-building effect: "A lot of the work the civic mission does, like the North Wales Public Service lab, lots of our colleagues have been through that programme and found it really, really valuable." The quote evidences the Lab as relational and practice capability infrastructure; a mechanism that normalises cross-boundary learning across organisations, rather than assuming collaboration will emerge from co-location alone.

4.2.2 Platform 2: North Wales Insight Partnership (Insight Partnership)

The Insight Partnership convenes leaders from public service boards, local authorities, health, Natural Resources Wales and third sector partners. Its role is to turn data into shared judgement by aligning evidence, co-producing briefs and delivering innovative projects, ensuring community insight sits alongside administrative data and evaluation findings. The partnership counters two common risks in place-based governance: "anecdata" (over-weighting vivid stories) and "dashboard determinism" (over-weighting only what is measurable). Social innovation research emphasises that innovation includes changes in

social relations and institutional arrangements and therefore requires plural evidence types (Van der Have & Rubalcaba, 2016; Domanski et al., 2020).

4.2.3 Platform 3: Civic Engagement Partnership

This Civic Partnership provides senior sponsorship and a route to collective leaders across sectors to engage. It creates a clearer line of sight from learning and evidence to formal decisions, protecting participation integrity by ensuring insights are considered by those with authority to act. A core governance problem in place-based work is that participation can be high-quality yet politically inconsequential if it lacks a route into decision. Engagement research shows tokenism and weak decision linkage undermine trust and reproduce exclusion (Rong et al., 2023). This platform is therefore an accountability device that protects engagement from becoming extractive.

4.2.4 Platform 4: North Wales Tertiary Alliance (Tertiary Alliance)

Alongside this, the Alliance ensures skills pathways evolve with regional need. It links progression pathways to local needs and provides large-scale channels for outreach and co-production. This matters for inclusive innovation because regional ecosystems can reproduce inequality if opportunity pathways disproportionately advantage those already positioned to benefit (Alonso et al., 2020; Green et al., 2021).

These platforms operate as intermediary infrastructure because they construct cross-sector relationships and ensure translation of learning and participation into institutional action. This matters because collaboration is not an emergent property of place; it has to be assembled through deliberate brokerage, shared routines and boundary-spanning vehicles (Vallance et al., 2020). Likewise, community-driven quadruple helix coordination emphasises that participation shapes agenda-setting and innovation direction (Nordberg et al., 2020). This converts "fragmented programmes" into a learning system. That is, cases generate insight, which is stabilised into reusable methods (e.g., postcard engagement, narrative approaches, convening formats, evaluation routines). These are fed back into platforms as tools and practices that lower the cost of future collaboration, improve legitimacy and widen inclusion (Domanski et al., 2020; Vallance et al., 2020).

Case 1: Co-producing Community Narratives (CpCN)

Co-producing Community Narratives (CpCN) is an arts-based, participatory engagement initiative delivered across six communities in North Wales (2024–2025). Funded through the North Wales Insight Partnership and Welsh Government, led by Wrexham University, it aimed to address limitations within statutory wellbeing assessments by generating co-produced qualitative understandings of community identity, lived experience, and local priori-

ties. Examples of such limitations include the tendency of formal assessments to under-capture lived experiences of discrimination, language barriers and everyday mobility constraints that shape access to services and opportunities.

In Wrexham, delivery took place at Ty Pawb. Engagement focused on the Bom Dia group, a Portuguese migrant community. Recognising language as a significant barrier, sessions were supported by a translator, foregrounding linguistic accessibility as a practical condition for inclusion. Participants engaged in "Jars of Hope," a mixed-media arts activity inviting individuals to express aspirations through symbolic forms.

The creative process revealed layered challenges: unreliable and unaffordable transport contributing to isolation; language barriers inhibiting engagement with health and education systems; experiences of racism and cultural exclusion compounding dislocation; and cost-of-living pressures intensifying economic precarity, including concerns about childcare and food insecurity. Environmental issues (littering) appeared as signals of weakened civic pride and care for shared spaces, alongside hopes centred on love, equality, education, health and environmental protection.

Methodologically, CpCN illustrates the value of non-transactional, arts-based engagement for generating narratives from communities often marginalised in formal consultations. Social innovation ecosystem research stresses that initiatives need infrastructures that can hold new social practices, but also that how participation is organised shapes whose needs become visible and actionable (Domanski et al., 2020). Translation and culturally anchored creative practice are therefore not a soft add-on; they are enabling conditions for inclusion. At the same time, narrative research cautions that stories are never neutral: narratives can reduce power imbalances when communities retain agency over problem framing, but they can also reinforce inequity if institutions appropriate or sanitise community accounts (Vercher et al.,2021). CpCN's governance contribution is therefore not only artefacts, but the creation of narrative infrastructure that can feed into evidence systems without stripping out lived experience, provided there is explicit decision-routing so narratives shape priorities rather than remain illustrative (Uyarra et al., 2019).

Analytically, CpCN functions as narrative infrastructure for place-based innovation: it elicits problem framings and collective priorities that are often missed by formal assessment regimes, particularly where language barriers and cultural exclusion constrain "standard" consultation. This matters for responsibility and public value because innovation directionality depends on how problems are framed and on the capability of affected groups to participate meaningfully.

Case 2: Wrexham City Board engagement (postcard method)

Many KCIN partners are based in one of the towns and cities selected for the UK Government's neighbourhood funding programmes. In North Wales, Wrexham and Rhyl (Denbighshire) as well as Conwy are part of the expanded Pride in Place programme (Conwy County Borough Council, 2025). Working through the newly formed Wrexham City Board, Wrexham University ran a rapid engagement process drawing on relationships with schools and youth groups. A postcard tool using a collage of place photographs invited residents to answer "What is your big idea for Wrexham?" Over 4,000 residents and 35 schools contributed, with thematic coding surfacing priorities and informing the regeneration plan. The legitimacy of this engagement was explicitly communicated in schools. A headteacher told pupils: "Your voice matters… This project is an authentic experience for the children to have their voices heard… They have some fantastic ideas and it is important that these form part of plans for Wrexham's future."

A pupil connected civic inclusion to concrete justice priorities: "I feel really privileged to be involved and have a say on our community… I think we need more homeless shelters in the city centre…"

At Board level, the Chair summarised the decision value: "The Just One Thing project gave us a loud and clear message… They want the city centre to feel safer for everyone, they want to see improved transport links, and they want more to do in the city centre."

The primary data show why this engagement method matters as it produces legitimacy and decision-directionality. The headteacher's emphasis on authenticity signals a shift from consultation-as-extraction to consultation-as-civic-right, while the pupil quote links voice to distributive concerns rather than symbolic "pride." This matters because social innovation diffusion research shows that initiatives travel when they become carried by a compelling narrative structure, a shared problem framing, plausible goals, recognised actors and a "plot" that sustains collective action (Vercher et al., 2021). Here, engagement stabilised narrative infrastructure (e.g., safety, transport, things to do) in a form usable by decision-makers, reducing the risk that participation becomes symbolically acknowledged but substantively ignored (Rong et al., 2023).

Case 3: North Wales Children's University

Wrexham University worked with Wrexham and Flintshire PSB, Coleg Cambria and subsequently all North Wales public service boards to pilot a North Wales Children's University, beginning with a pilot in 2022–23 and then scaling across the region. The programme aimed to provide equitable access to high-quality extracurricular opportunities, broaden horizons, raise expectations and strengthen social mobility. Delivering across six local authorities required a bilingual, equity-focused offer spanning English and Welsh-medium settings. A total of 1,272 children and young people engaged; 701 activities were

made available, with a significant amount offered free; the programme facilitated 27,108 hours of extracurricular learning.

A CEIA (pre-CAS) interview captures the "capability shift" produced by exposure to the university as a local pathway:

"After taking them to the university, a lot of the children's conversations were 'I'd like to go to Wrexham University'… they would look up the courses online and talk about the GCSEs they needed… it's sort of had a snowball effect… some of them haven't even been on the local train… opening their eyes to see the big wide world out there…"

Resourcing and stewardship also mattered:

"The Civic Mission was instrumental in finding the money to be able to get the Children's University started. And it's gone from strength to strength."

This quote evidences inclusive innovation as a capability shift rather than a one-off "experience." Exposure expands what is thinkable and actionable (courses, GCSE requirements, travel confidence), creating adoption conditions that inclusive innovation research treats as essential: not only access to opportunities, but the capability to recognise, navigate and take them up (Alonso et al., 2020; Ragnedda et al., 2022). The Children's University model also exemplifies micro-to-macro asset linking, as it connects micro assets (children's aspirations, school relationships, trusted adults) to macro anchor assets (the university and partner network), with stewardship providing the bridge (unlocking inclusive growth by linking micro assets). This is a transferable design principle: inclusion is built through pathway infrastructure, not left to "trickle-down" ecosystem effects.

Case 4: Trauma-informed civic innovation (TrACE)

Over the past five years, Wrexham University has worked with the national ACE Hub in Wales to embed a trauma-informed approach across teaching, student support and civic partnerships. The Well-being of Future Generations (Wales) Act has created a policy environment emphasising prevention, inequality reduction, collaboration and involvement. Wrexham University has translated this legislative ambition into a place-based trauma-informed civic innovation programme, positioning the university as a national example of implementing the Act in practice.

The TrACE programme reframes trauma-informed practice as a whole-system approach to regional wellbeing. It is connected to institutional governance, equality, diversity and inclusion (EDI) strategy, mental health and wellbeing, and civic mission partnership strategy, enabling trauma-informed principles to shape policy, pedagogy, research and estate planning. Impact is visible at institutional and place levels, including a distributed leadership model of TrACE champions embedded across campuses and workplaces.

A distinctive and transferable innovation is the focus on the physical environment as a determinant of wellbeing. In partnership with the Trauma-informed Design Society, the university co-developed an environmental assessment tool; campus-wide audits (lighting, acoustics, layout, signage) generated actionable evidence for design and capital investment. This positions the estate as a living laboratory for preventative wellbeing with relevance for public-sector and regeneration contexts.

TrACE illustrates social innovation as institutional redesign, not only service improvement: it changes routines, spaces and norms so that wellbeing becomes a system property rather than an individual responsibility (Van der Have & Rubalcaba, 2016; Thompson,2018). It also reflects the broader shift in place-based innovation towards public value and responsibility. What counts as success is not only economic growth, but the capability of institutions to reduce harm and widen inclusion through everyday governance and design choices (Uyarra et al., 2019).

Taken together, the four cases show how ecosystem stewardship translates public value ambitions into practical routines (through convening, evidence alignment, consequential participation and inclusive pathways) while also highlighting the limits and risks that accompany this work. However, the cases also raise practical questions for policy: what should be measured, how should learning be captured, and what is likely to travel across contexts? The next section addresses these questions head-on through a discussion of impact, evaluation and transferability.

5. Impact, evaluation, and transferability

The ethos at the heart of KCIN is collaborative learning: sharing practice, identifying what works, and distinguishing what is transferable from what is place-specific. Wrexham University's approach treats ecosystem building as a continuum, evolving through relationships, trust and evidence-to-decision pathways rather than progressing via linear programme stages. In this context, impact is difficult to capture through single metrics alone. We therefore draw on two complementary evaluation frames. Specifically, a civic and economic impact approach structured around twelve pillars and aligned to the Well-being of Future Generations goals and ways of working, and a Wrexham model articulated through four stewardship approaches and three underpinning principles. Figure 3 summarises how the civic and economic impact approach has evolved as the ecosystem has matured.

Across the four cases, the paper evidences a consistent enabling logic: (1) capability-building and safe experimentation (Public Service Lab), (2) evidence alignment and translation (Insight Partnership), (3) participation integrity and decision-routing (Civic Engagement Partnership), and (4) pathway infrastructure for inclusion (Tertiary Alliance). This is what converts fragmented programmes into a learning

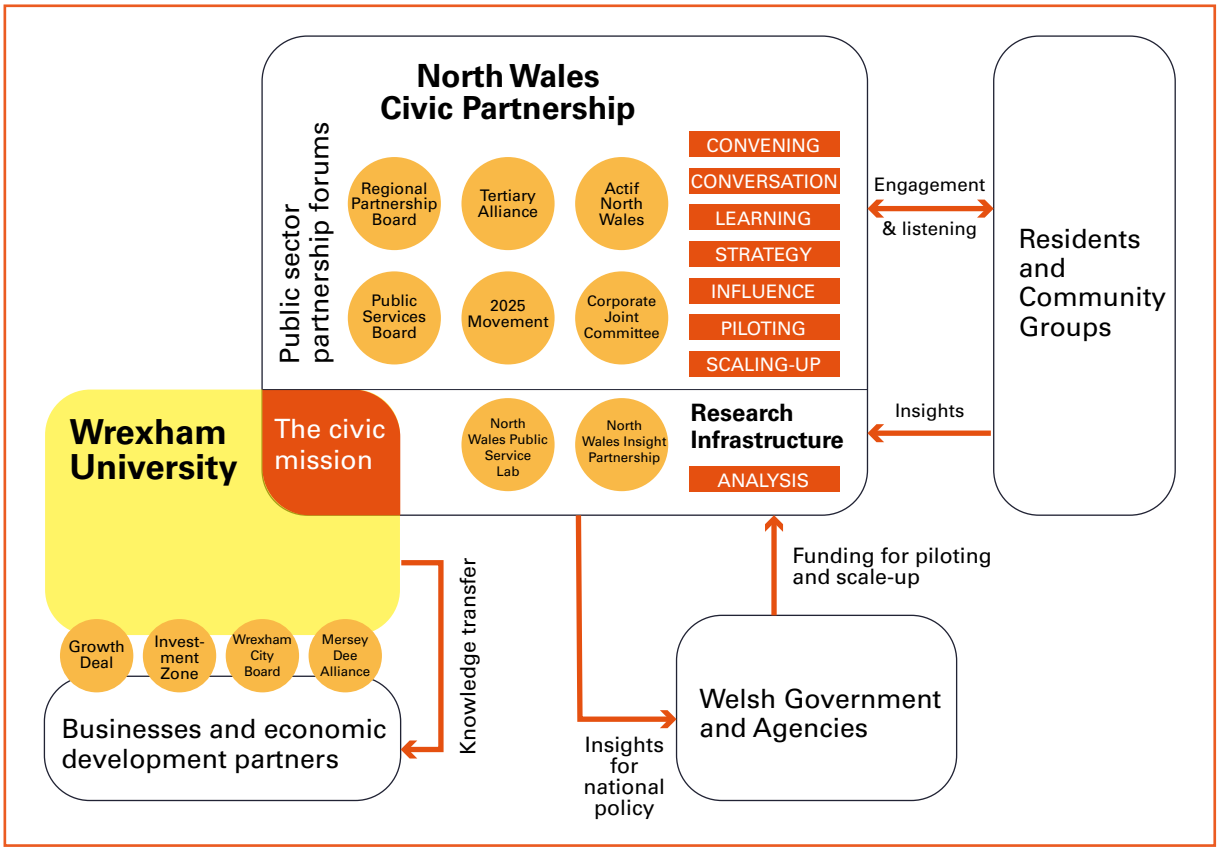


Figure 3. New civic and economic impact assessment model of regional innovation. Part of the Civic and Economic Assessment, Evidence First, City REDi and Wrexham University, October 2025 *The University and its Civic Mission support a wide range of civic and economic partnerships across Wrexham and North Wales. The diagram shows partner organisations and strategic forums, and how partnership adds value, by engaging with communities, businesses and Welsh Government.*

system. That is, cases generate insight, which is stabilised into reusable methods (postcards, narrative approaches, convening practices, evaluation routines) that strengthen platforms and lower the cost of future collaboration (Domanski et al., 2020; Vallance et al., 2020).

Platforms can become professionalised spaces that default to institutional priorities unless inclusion is deliberately maintained through language access, safe engagement formats and outreach through trusted brokers. Engagement outputs can also become "symbolic evidence" if they are not connected to decision cycles and resource allocation. Finally, the normative turn cautions that public value is inherently contested, requiring continuous

attention to whose values guide priorities and whether communities are treated as co-authors rather than beneficiaries (Uyarra et al., 2019). These considerations are why the paper frames stewardship as governance for legitimacy, directionality and inclusion, not as partnership-building alone.

What transfers across Key Cities — the long-term game

The evidence suggests that what transfers most readily is not a set of "projects" but a small number of platform functions that make collaboration, learning and inclusion routine: resourced intermediary capability (brokerage, facilitation, shared routines), blended evidence systems that align data with lived experience, decision-routing that connects voice to authority, and pathway infrastructure that widens capability to participate and benefit. The politically hardest elements to sustain are typically the least visible: convening and brokerage capacity, ongoing relationship maintenance, and evidence/participation infrastructures whose payoffs emerge over multi-year horizons rather than within funding or electoral cycles.

Together, these elements form a practical agenda: resource the platform work, align evidence, route participation into decisions, and design pathways that widen capability and inclusion. In other words, learning travels when evidence, participation and platform routines are designed to shape decisions not just describe them

6. Concluding reflections: leadership, challenges, and the long-term game

The Wrexham approach suggests that building a successful innovation ecosystem is less a technical exercise and more a sustained act of civic leadership. What matters most is not the creation of isolated initiatives, but the patient construction of enabling conditions that make collaboration, learning, and decision influence routine. For civic, city and university leaders, the evidence in this paper points to a small set of practical lessons that can increase the likelihood of building (and sustaining) an inclusive innovation ecosystem.

First, ecosystem development requires deliberate investment in intermediary and stewardship functions. Collaboration does not emerge automatically from proximity, shared strategies, or goodwill; it depends on actors who can convene, broker, translate, and stabilise relationships across institutional boundaries. This work is resource-intensive, often invisible, and politically undervalued, yet it underpins the system's capacity to adapt and innovate.

Second, evidence infrastructures must be plural and aligned. Effective ecosystems integrate administrative data, evaluation learning, and community insight into shared judgement. Without this alignment, decision-making risks becoming either technocratic or anecdotal, weakening legitimacy and reducing the practical value of participation.

Third, participation must be consequential. Engagement processes build trust only when credible routes exist from voice to authority, resource allocation, and visible change. The absence of decision-routing mechanisms is one of the most common and corrosive weaknesses in place-based innovation efforts.

Fourth, inclusion depends on pathway design. Ecosystems that fail to invest in capability-building and access mechanisms risk reproducing existing inequalities, disproportionately benefiting actors already positioned to participate and adopt innovations.

Barriers and how they were addressed. Three barriers recur in the Wrexham evidence. First, fragmentation and duplication across boards and partnerships can stall action; this was addressed by making the system visible (Figure 3) and using the platforms to clarify overlaps, gaps and routes from insight to decision. Second, distrust and uneven participation capacity can limit inclusion; this was addressed through psychologically safe convening (Public Service Lab), accessible engagement formats (including translation and schools-based channels), and decision-routing that made participation more consequential (e.g., City Board engagement). Third, short-term funding and institutional churn can disrupt continuity; this was addressed by embedding learning into reusable tools, templates and routines, and by aligning evaluation to developmental learning so methods could be carried forward even when specific projects ended.

These lessons also illuminate what is hardest to sustain politically. Ecosystem building unfolds over timescales that rarely align with political cycles, funding regimes, or leadership tenures. Relational work, trust-building, and institutional learning are inherently fragile achievements: they are slow to accumulate, difficult to measure, and easily disrupted by organisational churn or shifting policy priorities. Politically, the most difficult elements to sustain are those that lack immediate visibility (stewardship, coordination, and infrastructure-building) despite their centrality to long-term system performance.

Wrexham's model is neither presented as complete nor universally replicable. Its significance lies instead in demonstrating that ecosystem stewardship, while imperfect and continually evolving, can generate durable collaborative capacity when anchored in trust, inclusive participation, and blended evidence practices. The central implication for urban innovation is therefore pragmatic: invest in the "invisible" platform work, protect decision-routing, and treat inclusion and learning as infrastructure, not outcomes.

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Innovator-driven enterprise: an approach to regional ecosystems

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Innovator-driven enterprise: a case study of the University of Bradford's approach to regional enterprise ecosystems

Liam Sutton, P.B. Anand, Sherif El-Khamisy and Paul Thorning

Abstract

UK universities are navigating significant pressures, including financial strain from a contracting international student market, static domestic funding, rapid technological disruption, and a political climate characterised by rising anti-expert sentiment. At the same time, shifts in national industrial strategy and regional policy have created renewed demand for knowledge creation and mobilisation—core university functions—across geographically distributed innovation priorities. These developments present opportunities for universities but also highlight the need for new models that connect knowledge assets to wider ecosystem drivers such as skills, networks and finance.

This paper presents a case study of the University of Bradford's evolving approach to regional enterprise ecosystems. Bradford has long-standing strengths in applied research, SME collaboration, graduate employability and community convening across diverse sectors. Recent developments—including the establishment of the Bradford-Renduchintala Enterprise Ecosystem (BREE), a University of Bradford initiative that nurtures entrepreneurs by providing funding, mentoring, and resources to help turn high-potential teams into high-growth ventures—have prompted deeper reflection on how the university articulates its purpose, enhances its innovation role and moves toward a more financially sustainable institutional model.

This paper analyses the university as a community of scholars which hosts multiple distinct business models, each generating different forms of value and return on investment. This analysis underpins the Innovator-Driven Enterprise strategy, which positions the University of Bradford as an active contributor to—and beneficiary of—the Bradford and West Yorkshire innovation ecosystem. The strategy outlines how universities can both enable regional value creation and capture a fair share of the financial value generated, supporting long-term institutional resilience.

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Introduction

Universities across the UK contribute over £260 billion to the economy annually, in return for less than £19bn public investment (London Economics, 2024). Following

the definition of the university – government – industry Triple Helix (Etzkowitz & Leydesdorff, 1997), it has become ever-better-established that universities are key actors in regional economies through their engagement in regional innovation and knowledge commercialisation (Lawton Smith, 2007). Huggins and Johnston (2009) demonstrated the importance of proper support for knowledge commercialisation and transfer in order to sustain impact and, at the same time, that other aspects of universities' activities are vital too, such as cultural engagement, social inclusion and, broadly, human capital development.

Yet universities face unprecedented challenges to their very viability as going concerns: not just the financial burdens of a deflating international student market and ever-eroding domestic fees but also the technological change of generative AI and the political headwinds of increasing anti-expert, anti-"woke" populism (Jack, 2025). Within institutions, cultural dissatisfaction with perceived mismanagement and over-administration stimulates calls for a rethink and reset about what universities are and what they are for (Jones, 2022). These latter-day drivers necessitate a closer accounting for financial viability, value-add and popular engagement within universities and with wider communities as universities develop their regional roles.

At the same time, trends of international polarisation and fragmenting globalisation prompt greater focus on national capabilities. The UK Government's 2025 Industrial Strategy (Department for Business and Trade, 2025) and its emerging regional policy aim at distributing investment in those capabilities more equitably across places. This presents new opportunities for regional development, opportunities that, in the main, represent demand for knowledge – its creation, its stewardship and its mobilisation – the stock-in-trade of universities. Moreover, these opportunities, while mapped across a relatively small number of economic sectors, represent demand of some degree or another for the panoply of subject areas hosted at universities.

But knowledge is only one factor in successful investment, innovation and growth. The private sector and the enterprise ecosystem depend not only on knowledge inherent in products and services but also the networks by which it interacts with peers, suppliers and customers, appropriately skilled workforces to operate businesses and the finance to enable them to deliver and grow (Roberts, 2025). West Yorkshire Combined Authority's Local Growth Plan (2025) reflects a similar but six-factor "Wheel of Enterprise" (access to: place; finance; skills; innovation; markets; promotion).

The University of Bradford has a strong track record of working with companies to solve technical problems and adopt new inventions, of producing entrepreneurial and work-ready graduates. The University deploys its convening power to connect communities of interest as diverse as lo-

cal SME owners, culture and creativity, international urban development, digital health and industry decarbonisation. It has recently added a modest facility to finance pre-seed start-ups alongside providing educational, networking and know-how inputs to business teams through the Bradford-Renduchintala Enterprise Ecosystem (BREE).

BREE is a team of experienced entrepreneurs, business support professionals and educators based at the University of Bradford that nurtures early-stage entrepreneurs and entrepreneurship-curious technologists by providing funding, mentoring, and resources to help turn high-potential teams into high-growth ventures.

Establishing BREE in 2024, including as we did a plan for long-term sustainability, just before the University began planning a transformational change programme, inspired us to consider the intersections between our enterprise work, how we present what our university is for, and how we move to a more financially sustainable model for our university.

This paper

This paper offers an analysis of the University as a community of scholars: not a single business, but a community that hosts at least seven types of business activity in order to sustain itself. These operate in very distinct ways, with very different value propositions and varied profiles in terms of in-year cash-flow versus long-term return on investment.

This analysis informs the University of Bradford's new knowledge mobilisation strategy, Innovator Driven Enterprise, which places the University at the heart of the innovation and enterprise ecosystem of Bradford and West Yorkshire.

The past and future impact of this approach on that regional ecosystem is illustrated through a case study of the Bradford-Renduchintala Enterprise Ecosystem. The paper goes on to exemplify the global applicability of the principles of Innovator-Driven Enterprise in driving international impact with a brief discussion of Bradford's engagement with the African Development Bank.

These studies show not only how our contributions enable the ecosystem to create value, but also, vitally, how the university can capture shares of the financial value created in moving to a more sustainable future.

Analysis

The University is not a business

Conceptions of the University – what it is, what it is for, how it works – are varied and contested, not least within the institution itself, as well as in its relationships with wider society. There is a basic, widely-shared understanding of what it does – teaching students, undertaking research – even if this is partial and simplistic. Critically, the University's engage-

ment with communities beyond academia and students is vital to its contribution to wide-ranging societal benefit but this vitality is largely invisible outside the institution and often unrecognised within. The Civic University model (Goddard et al., 2016) brings the practice of engagement to the fore, alongside research and education, as three intersecting bases for purposeful, transformational contribution by the academy.

In thinking about these questions, driven by the urgent context set out in the Introduction, we have constructed a rudimentary analogy around: how the foundational institution for finance, i.e. banking, creates money by issuing debt, stewards it in bank accounts and mobilises it through investment; and how the University creates knowledge through research, stewards it by maintaining and growing educated populations across disciplines through teaching, and mobilises it through proactive transfer to actors in wider society. As Margot Finn (2025) puts it, how does the University "produce, regenerate, emancipate" knowledge?

While the stereotypical academic recoils from the stereotypical finance director's description of their university as "the business",[1] universities are large employers and the money has to come from somewhere. How does the banking analogy help?

Knowledge creation, knowledge stewardship, knowledge mobilisation: all three of these require academic leadership and academic labour, just as a bank's finance specialists deliver their core business. However, when it comes to generating revenue, their wider attributes vary significantly: the value they create; who pays for that value and when; how they are regulated externally; how they are managed and supported internally.

Moreover, universities also secure revenues by means that do not depend on academic resource, notably: philanthropy, commercial campus operations, financial investment management and grant funding for infrastructure and administrative capacity. Again, the respective business models of these are very distinctive. Table 1 details these different revenue streams, with their diverse characteristics.

While teaching revenues represent the single largest revenue stream (and, per institution, often outweighing the others combined),[2] the wider business model characteristics of the others warrant deeper reflection – especially when the sector's teaching of home students is reliably deficit-bearing.

In the commercial world, this kind of com-

1 Steven Jones (2022) has elegantly expounded the dissonance of the linguistic contrivances associated with marketisation in UK higher education.

2 TrAC data (Office for Students [OfS], 2025), while compiled within cost categories, do allow inference of revenues from the estimated recovery levels provided per category, so they represent good evidence to support this statement.

Business model	Scholars	Key relationships	Key assets	Value proposition	Funders
Knowledge stewardship [i.e. teaching]	Responsible	Students	Disciplinary knowledge	Educated populations	Students
Knowledge creation [i.e. research]	Responsible	Other researchers	Disciplinary knowledge	Asset creation	Public, Charity, [UoB]
Knowledge mobilisation	Responsible	Non-universities	Disciplinary knowledge	Knowledge application	Business, Public sector
Philanthropy	Consulted	Alumni, other donors	Alumni data, reputation	Make a difference	Donors
Commercial: Campus	Informed	Campus users	Physical	Service	Purchasers
Commercial: Finance	Informed	Trading partners	Financial	Returns on financial investment	Financial services industry
Administrative grants	Informed	Public sector	Professional knowledge	Public impact	Government

Table 1: seven discrete business models operating within the University

plexity is rare in all but the larger conglomerate firms, so our analysis allows us to reconcile our aforementioned stereotypes. We characterise a community of scholars that, like any community, sustains itself financially through diverse external revenue streams, which we can call businesses. In other words, the University is not a business; it is at least seven.

The importance of knowledge mobilisation

Everyone knows that universities teach and do research. Less well-known is that research-active UK universities spend considerably more on research than they receive in research grants, contracts and strategic funding and they balance their books through surplus teaching income (OfS, 2025). As the value of the individual home student tuition fee has dwindled with inflation, so international student fees have become critical. The increasing volatility of the international market now poses an existential challenge.

The TrAC data show that it now costs the UK sector cash to deliver each of the two principal functions one associates with the University – educating home students to degree level and undertaking research.

But our analysis allows us to flip the financial narrative around research. We contend that knowledge creation should be

viewed as investment in University-owned assets that generate future revenue, while funders outside the institution cover most of the cost.

Knowledge mobilisation is how the University applies its assets in enabling partners to create new value. Such applications command pricing per respective markets and, particularly when working with the private sector, result in aggregate project surpluses. At Bradford, we estimate that the university's typical knowledge exchange income of £8-10m p.a. (as measured in the annual HE-BCI Survey (Higher Education Statistics Agency [HESA], 2025) represents surplus of up to £1m p.a., material to the surplus / deficit position in an organisation of ca. £140m turnover in 2024-25 (University of Bradford, 2025).

Thus, we believe that investment in growing such reliable surpluses is an important, strategic hedge for the University against the new volatility of international student revenues, as well as being vital in growing the societal value that is only generated by University knowledge mobilisation.

Innovator-Driven Enterprise

Innovator-Driven Enterprise (IDE) is the University of Bradford's sub-strategy for knowledge mobilisation, articulating how the institution applies its expertise, capabilities and intellectual assets to enable external partners to generate economic and societal value. While IDE depends on the knowledge created through research and sustained through teaching — and is often delivered by the same academic staff — it is conceptually distinct from those domains. Its purpose is expressly open, applied and partnership-oriented, responding to external demand by supporting organisations to exploit university knowledge and capabilities in ways that address real-world challenges and opportunities.

IDE is informed by the wider national and regional context in which the University operates. As public funding tightens, mission-driven policy intensifies, and technologies such as AI reshape labour markets and innovation systems, universities are increasingly required to demonstrate their relevance through contribution to regional productivity, resilience and growth. In this environment, knowledge mobilisation becomes not an ancillary activity but a strategic function: a means of translating expertise, facilities and networks into mechanisms that support partners to innovate, adapt and thrive. The University's role, therefore, encompasses not only knowledge generation but the creation of conditions in which that knowledge can be effectively deployed beyond the institution.

Within this framing, IDE places the innovator at the centre of the system. Innovators may be academics, students, entrepreneurs, community stakeholders or external specialists — what unites them is their capacity to identify opportunities, articulate problems and engage collaboratively in developing solutions. IDE structures the University's mobilisation activity around

enabling these innovators to access the intellectual, human and infrastructural resources required to create impact. Doing so requires deliberate institutional design: project management literacy, transparent governance, commercially informed decision-making, enabling processes and a willingness to take managed risks in pursuit of value creation.

Crucially, IDE provides mechanisms of reciprocity through which the University can capture an appropriate share of the value created through its contributions to the ecosystem. This includes revenue from commissioned projects and partnerships, as well as longer-term returns derived from intellectual property, equity participation and investment-enabled growth. Such returns strengthen the institution's financial sustainability while reinforcing its civic mission, enabling reinvestment into research, teaching and facilities.

The practical application of this approach is exemplified in one of IDE's key components, the Bradford-Renduchintala Enterprise Ecosystem (BREE); a detailed case study follows in the next section. And this approach applies beyond the local and regional. Bradford's partnerships extend internationally, and the subsequent discussion of the African Development Bank also foregrounds the impact and reciprocity the University can elicit by centring the innovator in its knowledge mobilisation work.

Case study: Bradford Renduchintala Enterprise Ecosystem

The Bradford-Renduchintala Enterprise Ecosystem (BREE) provides a concise example of the Innovator-Driven Enterprise approach in practice. Established in 2024 through philanthropic investment from alumnus Dr Murthy Renduchintala and matched by University support, BREE strengthens Bradford's innovation capacity by offering structured early-stage assistance to individuals and teams developing new ventures. Its purpose is to enable innovators—students, academics, entrepreneurs and community specialists—to access the knowledge, networks and resources necessary to turn ideas into viable, growth-oriented enterprises.

BREE works by taking prospective innovators through one of three entry routes[3] with a view to starting up new businesses and inviting those businesses to join

3 Three entry routes: (1) entrepreneurship cohorts, taking potential founders from discrete groups (such as students, university staff and external, minoritised communities) through a defined education, ideation and networking programme; (2) enterprise fellowship, a 1-year, cohort-based programme for enterprise-curious university staff with knowhow to exploit, in which individuals are assigned a personal business mentor and up to £10k commercial development funding; (3) open innovation workshops, bringing together people from established organisations around a set of challenges or opportunities over the course of several days' residential hothousing, looking to establish new, collaborative, technology ventures.

BREE's core programme.

BREE's core programme functions more as an "always-on" ecosystem rather than a time-limited accelerator programme, combining education, mentoring and development activity with access to University expertise and facilities, and supplementing these with modest pre-seed financial support. Within its first 18 months, it supported more than 60 new teams across West Yorkshire's priority sectors, building both their technical capability and their connections to a wide network of industry and civic partners. This blend of knowledge capital, social capital and targeted investment has been central to its effectiveness.

A distinctive feature of BREE is its balanced commercial model. While designed to generate regional economic and social value, it also allows the University to participate directly in the financial value created. Some companies pay a modest annual fee; the majority enter into an advance subscription agreement enabling the University to acquire up to 20% equity after two years. Conservative assumptions suggest that the ventures supported in BREE's first 18 months will have a combined value

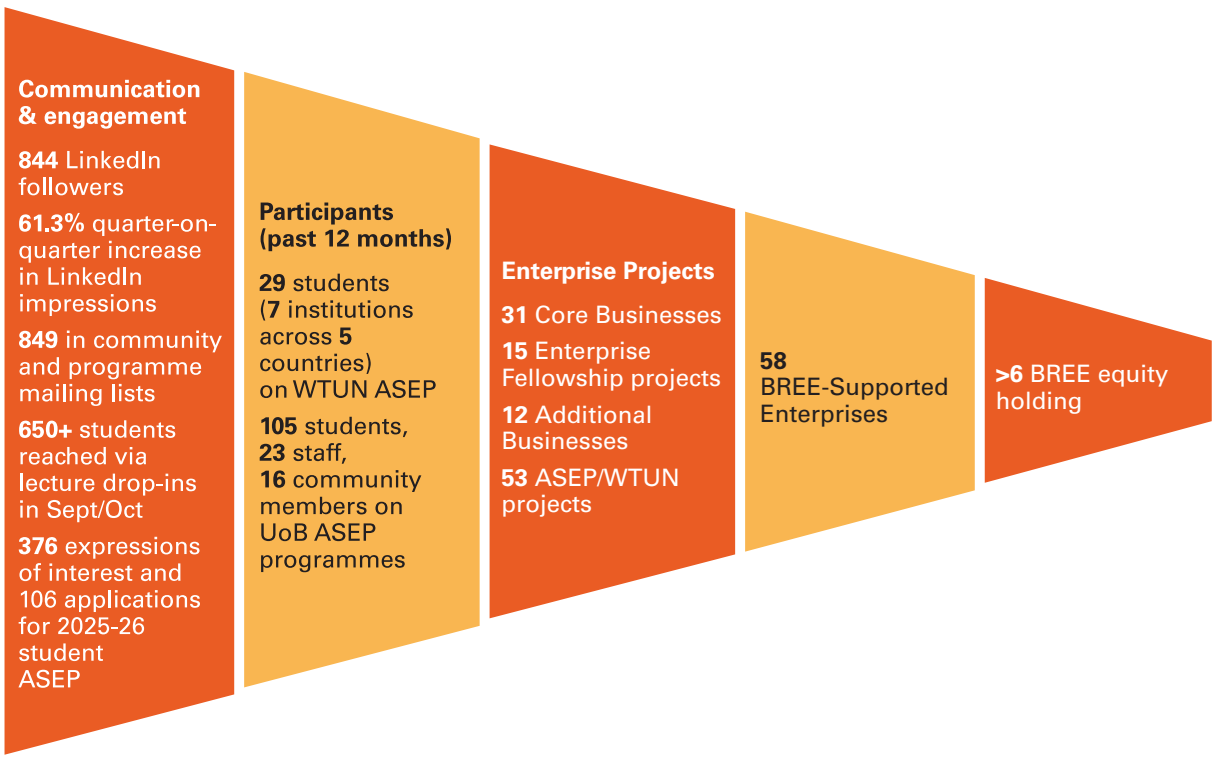

Figure 1. BREE activity pipeline as of January 2026 [ASEP = Accelerated Student Entrepreneurship Programme; WTUN = World Technology Universities Network]

of at least £10 million by 2028, of which approximately £1 million would accrue to the University. Figure 1 illustrates the impact of BREE to date.

This combination of civic benefit and value capture demonstrates how knowledge mobilisation can support regional prosperity while enhancing institutional sustainability.

Case study: Knowledge mobilisation for African development

Since 2010, academics in Bradford's Department of Peace Studies and International Development have been engaged in knowledge mobilisation and knowledge transfer partnership with the African Development Bank (AfDB) for building the skills of young professionals (YPs) of the AfDB. The YPs already possess significant education and skills while the programme aims to enhance those skills with in-depth understanding of policy analysis including for emerging economies, and countries with fragile and conflict-affected contexts. With five cohorts completed so far, the programme amounts to nearly £1 million income to the University and with around 150 African professionals equipped with advanced analytical and critical research skills. During the fourth cohort, when the COVID-19 pandemic posed significant challenges many of the YPs of that cohort directly applied the knowledge gained from the programme in designing cash transfer and support programmes in many African nations.

In this case, the reciprocity mechanism is, straightforwardly, charging commercial fees for service. But the programme is another example of innovator-centred social impact as each YP can be considered a social and policy innovator within the Bank, mobilising knowledge to solve the real-world problems impacting on the well-being and quality of life of several thousands of African citizens during a very short period of time.

Conclusion

The analysis presented in this paper highlights both the urgency and the opportunity facing universities such as Bradford. Operating amid financial constraints, shifting political priorities and accelerating technological change, institutions can no longer rely solely on traditional models of research funding, tuition income or reputational capital. Yet these same conditions have created renewed demand for the kinds of capabilities universities possess: deep disciplinary knowledge, applied research expertise, and the ability to convene diverse actors around shared challenges. The regional policy landscape, with its emphasis on mission-driven innovation and place-based growth, reinforces the need for universities to adopt strategic approaches that connect their intellectual assets to external demand in purposeful, sustainable ways.

Innovator-Driven Enterprise provides one such approach. By articulating how knowledge mobilisation is organised, resourced

and governed, the strategy enables the University of Bradford to position itself as a key component of the regional enterprise ecosystem—supporting organisations to innovate while securing appropriate returns for the institution. IDE is neither a departure from the University's civic mission nor a narrow commercial pivot; rather, it is a structured means of ensuring that academic expertise, research outputs and institutional capabilities translate into tangible outcomes for partners, communities and the regional economy. The case of the Bradford-Renduchintala Enterprise Ecosystem illustrates how this can be achieved in practice, demonstrating the value of enabling innovators through targeted support while adopting mechanisms that ensure long-term institutional benefit. The case of the African Development Bank partnership demonstrates how mobilising knowledge by educating international cohorts of young professional innovators accelerates the pace and reach of University impact.

Taken together, the arguments and evidence in this paper suggest that a university's contribution to innovation and growth must be matched by an ability to participate in the value it helps to create. For Bradford, IDE represents a pathway toward such a balanced model—one that reinforces the University's relevance, strengthens its financial resilience and enhances its capacity to support the region's social and economic ambitions. In doing so, it offers a blueprint for how civic universities can remain vital, adaptive and impactful within an increasingly complex and demand-driven innovation landscape.

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Statement on the use of generative AI

Initial drafts of several sections of this manuscript were generated using Microsoft Copilot to integrate several internal, University of Bradford documents written originally by the corresponding author. All four authors have reviewed and edited the final manuscript and, following helpful comments from the editorial team and two anonymous reviewers, further, substantial, human revisions have been made.

Unlocking shared commercialisation pathways: the case for regional practice in university innovation

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Unlocking Shared Commercialisation Pathways: The Case for Regional Practice in University Innovation

Albi Lamaj

Unlocking shared, uneven and often unseen pathways: Designing a place-rooted shared technology transfer model for regional commercialisation in the West Midlands

Abstract

Innovation in the United Kingdom is frequently framed as a national strength, yet access to commercialisation pathways remains uneven across institutions and places. While research and applied innovation capacity are widely distributed, spinout formation, early-stage investment, and commercial legitimacy continue to concentrate within a small number of universities and regions. As a result, many high-potential innovations emerging from civic and post-1992 institutions remain under-translated rather than under-invented.

This paper examines DigiSpinWM, a six-month regional intervention delivered collaboratively by Coventry University, Birmingham City University, and the University of Wolverhampton. Funded by Research England, the programme tested whether three autonomous institutions could operate as a shared early-stage technology transfer environment without merging governance structures. In this study, the "pathway" is conceptualised not as a neutral pipeline but as a structured delivery process through which research is defined, validated, and legitimised through shared stages and external touchpoints.

DigiSpinWM was structured around three core design choices: a single shared entry point to reduce opacity and fragmentation; sprint-based, learning-led development to accelerate articulation and validation; and early civic and industry engagement to broaden routes to legitimacy beyond venture capital narratives. These were supported by a harmonised Code of Principles aligned with national spinout guidance and a minimum viable digital workflow to coordinate activity across institutions.

The evaluation draws on a baseline cross-university questionnaire (n = 58), programme monitoring data, semi-structured interviews, and delivery artefacts. Analysis is descriptive and thematic, intended to interpret system behaviour rather than establish causal attribution. Outcomes are therefore presented as early "system signals", including increased founder clarity, improved confidence in articulating value propositions, and earlier engagement with external partners, benchmarked against

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pre-pilot perceptions of fragmented entry points and procedural opacity.

Across the pilot, forty innovations entered through shared intake, eleven progressed to full pitch articulation, and several advanced to external funding or pilot discussions. Rather than claiming wholesale reform, the paper argues that deliberate redesign of early-stage practice can reduce fragmentation and widen participation without institutional merger. DigiSpinWM is positioned as a place-sensitive, transferable design approach for strengthening regional commercialisation capability through collaborative practice.

1. Introduction: Uneven access and the problem of translation

Universities occupy a central position within the United Kingdom's innovation system, generating new knowledge, educating skilled graduates, and contributing to economic and societal value through knowledge exchange and commercialisation (Research England, 2022). Over the past decade, this role has been reinforced through public policy, funding mechanisms, and performance frameworks that place increasing emphasis on translation, commercial engagement, and demonstrable impact beyond academia. Yet despite sustained policy attention and significant public investment, commercialisation outcomes remain uneven across institutions and geography, revealing persistent disparities in who is able to access and progress through innovation pathways.

National evidence indicates that spinout formation, early-stage investment, and access to experienced commercial networks are concentrated within a relatively small number of universities, predominantly located within the Oxford–Cambridge–London corridor (Department for Science, Innovation and Technology [DSIT], 2023; Ulrichsen & Miller, 2023). At the same time, universities across the UK, particularly civic and post-1992 institutions, continue to generate applied research with clear commercial, public-sector, and societal relevance. The issue is therefore not a shortage of invention but a persistent imbalance in translation. This imbalance cannot be explained solely by differences in research quality, intellectual property ownership, or capital availability. Rather, it reflects the cumulative effects of fragmented entry points, uneven institutional capability, opaque progression processes, and unequal access to early commercial legitimacy. For founders working on applied, interdisciplinary, or mission-led innovations, commercialisation pathways can appear inconsistent, difficult to navigate, and dependent on informal knowledge or personal networks rather than transparent and learnable criteria.

Research on regional and place-based innovation has long emphasised that proximity, networks, and institutional practice shape who is able to participate in innovation systems (Cooke, 2005; Uyarra, 2010). From this perspective, commercialisation is not a neutral or purely technical trans-

fer activity but a socially and institutionally constructed process. Participation depends not only on the quality of research outputs, but on how support is organised, how legitimacy is conferred, and how early-stage ideas are recognised, interpreted, and developed within particular places. Access to translation pathways is therefore conditioned by system design, as illustrated in Figure 1.

While innovation policy increasingly emphasises aggregate indicators such as growth, productivity, and spinout volume, these measures can obscure variation in how commercialisation is experienced at institutional and individual levels. Universities outside established innovation centres may report strong disclosure activity and applied research outputs yet struggle to convert these into investment-ready propositions or adoptable solutions. In many cases, the missing element is not technical quality but the availability of early legitimacy-building conditions, including shared commercial language, structured feedback, and credible external touchpoints. The limiting factor is there-

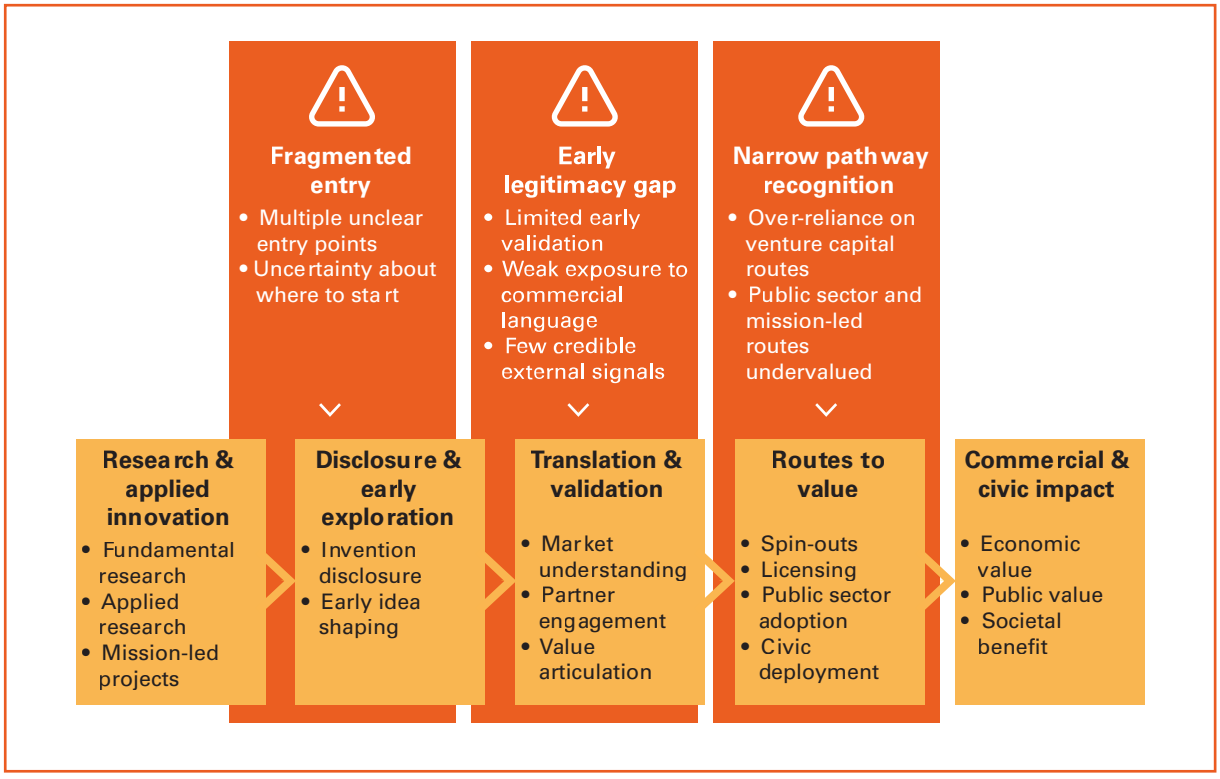

Figure 1. Conceptual flow from research activity to commercial and civic value, indicating common friction points experienced outside established innovation centres. Friction points are typically more pronounced in regions and institutions operating outside dense innovation ecosystems.

fore less about invention itself and more about access to pathways that make translation learnable, navigable, and socially validated.

This framing shifts attention away from individual capability and towards institutional and system design. If innovation capacity is widely distributed, the uneven distribution of translation pathways demands explanation. Universities outside established innovation centres often operate in close alignment with regional industrial strengths, public-sector needs, and civic priorities, yet encounter structural barriers within conventional commercialisation models. This misalignment is particularly visible in domains that do not fit neatly within dominant venture capital trajectories, including applied digital systems, public-sector technologies, cultural and creative innovation, and mission-led research.

In such contexts, the absence of early commercial legitimacy, rather than the absence of opportunity, becomes the binding constraint. Founders may lack access to timely feedback, shared commercial language, or structured opportunities to test and refine value propositions. As a result, promising innovations can stall before meaningful exploration occurs, reinforcing geographic and institutional inequalities within the UK innovation system. This paper positions DigiSpinWM as an intentional response to these structural conditions. Rather than focusing solely on ownership models, incentives, or capital supply, it examines how shared regional practice can reshape access to commercialisation by redesigning how translation pathways are structured, experienced, and coordinated in practice.

2. Policy context and the origins of DigiSpinWM

DigiSpinWM emerged within a national policy context marked by growing concern over the uneven performance, accessibility, and credibility of university commercialisation across the United Kingdom. Across successive funding cycles, government and sector bodies have placed increasing emphasis on the role of universities in driving innovation-led growth, productivity, and regional development. Yet despite this policy attention, evidence continues to show that commercialisation outcomes, particularly spinout formation and early-stage investment, remain concentrated within a relatively small number of institutions and places.

These concerns were articulated in the Independent Review of University Spinout Companies, commissioned by the UK Government and published in 2023 (Department for Science, Innovation and Technology [DSIT], 2023). The Review identified persistent system-level challenges, including slow and inconsistent processes, limited transparency for founders, uneven access to commercial expertise, and significant variation in institutional practice across the sector. Crucially, it concluded that these issues could not be resolved

through changes to equity ownership models or increased capital supply alone. Instead, it emphasised the need for structural improvements in how commercialisation is organised, delivered, and experienced in practice, particularly at early stages.

Alongside the Review, sector-led guidance such as the University Spinout Investment Terms (USIT) Guide sought to promote clearer, more consistent, and founder-aligned approaches to equity, intellectual property, and governance (TenU, 2023). While this guidance established an important reference framework, its implementation has remained uneven, particularly within institutions with constrained specialist capacity or smaller technology transfer teams. The resulting gap between policy intent, formal guidance, and day-to-day operational practice has itself generated friction for founders navigating commercialisation pathways across institutions and regions.

In parallel, Research England has positioned commercialisation capability as a core component of research impact and knowledge exchange. Through strategic guidance and targeted funding calls, it has emphasised the need to accelerate translation, reduce duplication, and ensure that public investment in research delivers economic and societal value across all regions, not only those with established innovation ecosystems. In doing so, Research England has endorsed shared technology transfer approaches, recognising that structural capacity constraints are often too significant for individual universities to address independently.

Within this context, several UK regions have begun to explore collaborative or shared models of commercialisation delivery. These initiatives reflect a growing recognition that uneven outcomes are not simply the result of institutional underperformance but of system design choices that concentrate expertise, legitimacy, and opportunity within a limited set of locations. DigiSpinWM was conceived as part of this broader movement, while deliberately differentiating itself in its emphasis on shared practice rather than shared governance.

DigiSpinWM did not seek to create a new regional organisation, merge technology transfer offices, or impose uniform institutional policies. Instead, it operationalised national policy recommendations through a place-based, practice-led intervention focused on how commercialisation pathways are structured, navigated, and experienced by founders. The emphasis was on reducing friction at the point of entry, accelerating learning rather than compliance, and widening the routes through which early legitimacy could be established. Institutional technology transfer offices were treated as essential partners and delivery agents, not structures to be replaced.

Partner selection was deliberate rather than opportunistic. The programme built on an established West Midlands partnership between Coventry University, Bir-

mingham City University, and the University of Wolverhampton, developed through prior collaboration on regional innovation, skills development, and economic growth initiatives. This pre-existing trust and strategic alignment enabled rapid progression toward shared delivery without extensive renegotiation of governance or ownership arrangements. The partner institutions were united by a shared commitment to applied research, civic engagement, and regional economic development, rather than similarity in institutional scale or commercialisation maturity.

The West Midlands provided a relevant context for this experimentation. The region includes multiple universities with strong applied research portfolios and established connections to public services, industry, and civic organisations, yet it sits outside the UK's most concentrated centres of venture capital and spinout investment. Technology transfer functions across the region face shared pressures, including constrained specialist capacity, uneven access to commercial networks, and fragmented early-stage support pathways. These conditions are not unique to the West Midlands but are indicative of structural challenges faced by many civic universities across the UK. DigiSpinWM was therefore designed in response to both national policy signals and regional structural realities. It positioned itself not as a comprehensive solution to all commercialisation challenges, but as a demonstrator of how deliberate design at the level of shared practice can mitigate capacity constraints, widen access to translation pathways, and reshape early-stage system behaviour in ways that are adaptable beyond a single region.

3. Universities, place, and commercial legitimacy

Universities occupy a distinctive position within cities and regions, operating simultaneously as global knowledge institutions and civic anchors embedded in local economies, public services, and cultural networks. This dual role has been widely examined within the civic university literature, which emphasises the responsibility of universities not only to generate knowledge but also to contribute actively to the social, economic, and cultural life of their places (Goddard & Vallance, 2013; Goddard et al., 2016). In regions such as the West Midlands, universities are among the largest and most stable institutions, playing central roles in skills development, applied research, regeneration, and public-sector innovation. Yet despite this embeddedness, access to commercialisation pathways remains uneven. Technology transfer activity is typically organised through institution-specific structures shaped by differing histories, resourcing levels, disciplinary strengths, and risk appetites. Institutional autonomy in this domain is both appropriate and necessary; however, in aggregate, these differences generate fragmentation at a system level. From a founder's perspective, commercial-

isation pathways can appear opaque, inconsistent, and reliant on informal knowledge or personal networks rather than transparent and learnable processes. This unevenness should not be interpreted as institutional weakness or lack of intent. Rather, it reflects structural conditions in which commercial legitimacy is unevenly distributed across places, networks, and intermediaries.

Commercial legitimacy is not simply a function of technical quality, intellectual property strength, or market size. It is relational and cumulative. Legitimacy develops through repeated exposure to commercial language, early validation by credible external actors, and proximity to decision-makers able to confer confidence in a proposition. Research on regional innovation systems demonstrates that these conditions are more readily available in dense innovation environments, where investors, intermediaries, experienced founders, and advisors reinforce one another through proximity and repetition (Cooke, 2005; Uyarra, 2010). Outside established innovation centres, the absence of such density creates a structural disadvantage. Founders may struggle to articulate value propositions in ways that resonate with external audiences, not because their innovations lack merit, but because opportunities for early feedback, validation, and shared learning are constrained. This challenge is particularly pronounced in universities with smaller or resource-constrained technology transfer teams, where specialist commercial expertise cannot be deepened across all domains simultaneously.

The effects are most visible in applied, interdisciplinary, and mission-led innovations. In these domains, routes to value often involve public-sector adoption, service integration, procurement, cultural engagement, or partnership-based deployment rather than venture capital investment alone. Conventional commercialisation models, however, frequently privilege venture-led trajectories, narrowing what is recognised as credible progress. In such contexts, commercial risk is framed predominantly in financial terms, while the risk of non-translation, including lost public value, unrealised societal benefit, and founder disengagement, remains comparatively invisible. From a place-based perspective, this reflects a misalignment between where innovation is generated and how legitimacy is constructed. Civic universities often produce research aligned with regional industrial strengths, public-service needs, and social priorities, yet lack access to early legitimacy-building mechanisms that reflect these alternative routes to value. The result is not an absence of opportunity, but an absence of structured pathways through which relevance, use, and impact can be recognised and advanced.

DigiSpinWM was designed as an intervention at this level of practice. Rather than attempting to equalise institutional capability or standardise governance, it aimed to reduce legitimacy asymmetries by creat-

ing shared pathways, a shared commercial language, and shared points of validation across universities operating within the same place. In doing so, legitimacy was treated not as an asset possessed by individual institutions, but as something that can be cultivated collectively through coordinated regional practice.

This framing positions commercialisation as a place-sensitive, system-level activity rather than a purely institutional function. It establishes the conceptual basis for understanding why shared regional approaches can widen participation in innovation systems without diluting standards or undermining institutional autonomy, and why interventions focused on practice rather than structural reorganisation offer a credible route to more inclusive and effective commercialisation outcomes.

4. Methodological approach: DigiSpinWM as a systems intervention

This paper adopts a practice-based, reflective methodological approach. DigiSpinWM was not designed as a controlled experiment, comparative evaluation, or assessment of institutional performance. Instead, it operated as an intentional systems intervention, introduced into a live regional commercialisation environment and examined through structured design, delivery, and reflection. The objective was not to isolate causal variables but to assess whether deliberate changes to how commercialisation is organised and enacted could address structural challenges in access, coherence, and legitimacy. This approach is suited to contexts in which counterfactuals are difficult to establish and where system behaviour is shaped by institutional routines, professional norms, relationships, and place-based conditions rather than discrete inputs. It aligns with design-led and case-based research traditions that prioritise learning from situated practice and generate transferable insight without claiming statistical generalisability (Flyvbjerg, 2006; Yin, 2018).

4.1 Establishing the baseline: pre-pilot questionnaire as primary research

Prior to programme delivery, a structured questionnaire was distributed across Coventry University, Birmingham City University, and the University of Wolverhampton. Circulated to innovation-active academic and professional services communities and completed before any DigiSpinWM activity commenced, it established a baseline understanding of how commercialisation pathways were experienced before intervention. The questionnaire explored awareness of intellectual property, Technology Transfer Office support, and commercialisation processes; perceived clarity of entry points; confidence in articulating value propositions; prior engagement with technology transfer mechanisms; and perceived barriers to progression. Responses were analysed descriptively to identify recurring patterns rather than to generate statistically generalisable findings. The results (Appendix 1) highlighted shared experiences across institutions, including

unclear entry points, uncertainty around progression, and limited early exposure to commercial language (Lamaj, 2024c).

These baseline insights directly informed the design logic of DigiSpinWM. The intervention targeted fragmentation and early-stage opacity through a small number of deliberate design decisions. First, a single shared intake process was implemented across the three partner universities to address the well-documented problem of fragmented and unclear entry points to commercialisation support (DSIT, 2023). Regardless of institutional origin, founders encountered a common set of initial questions, templates, and development language, reducing early friction without imposing uniform outcomes.

Second, DigiSpinWM adopted a sprint-based, learning-led development approach in place of traditional linear commercialisation pathways that often require detailed planning and formal commitment before core assumptions are tested. Short, time-bound sprints focused on definition, validation, and articulation, drawing on lean and experiential learning principles (Blank, 2013; Ries, 2011). Progress was framed in terms of increased clarity and founder confidence rather than advancement toward incorporation or investment.

Third, engagement with civic, public-sector, and industry partners was embedded early rather than positioned as downstream validation. This was particularly significant for innovations whose routes to value lay outside dominant venture capital trajectories, enabling legitimacy to be constructed through relevance, use, and contextual fit rather than investment alone (Stirling, 2015; Mazzucato, 2021). Across all three design elements, progression was understood as iterative learning rather than movement toward a single predefined commercial outcome.

4.2 Shared practice, not shared governance

A defining feature of DigiSpinWM was the explicit separation of shared practice from shared governance. The programme did not seek to merge technology transfer offices, harmonise institutional policies, or centralise legal and commercial decision-making. Each university retained autonomy over intellectual property ownership, risk appetite, and formal approval processes.

Collaboration operated through shared practice: joint case review, aligned tools and templates, shared workshops, and the development of a common commercial language. This distinction mitigated governance and reputational risk while addressing the fragmentation experienced by founders navigating multiple institutional systems within the same region. DigiSpinWM therefore functioned as a collaborative layer rather than a replacement structure, enabling coordinated early-stage development without diluting institutional autonomy (Figure 2).

4.3 Enabling instruments, monitoring, and learning boundaries

Two enabling instruments were developed to support the operation of shared practice within DigiSpinWM. First, the programme included the design and testing of a minimum viable digital platform intended to function as a shared operational layer across institutions. The platform was designed to support consistent intake, case tracking, documentation, and progression through sprint activity, and was explicitly

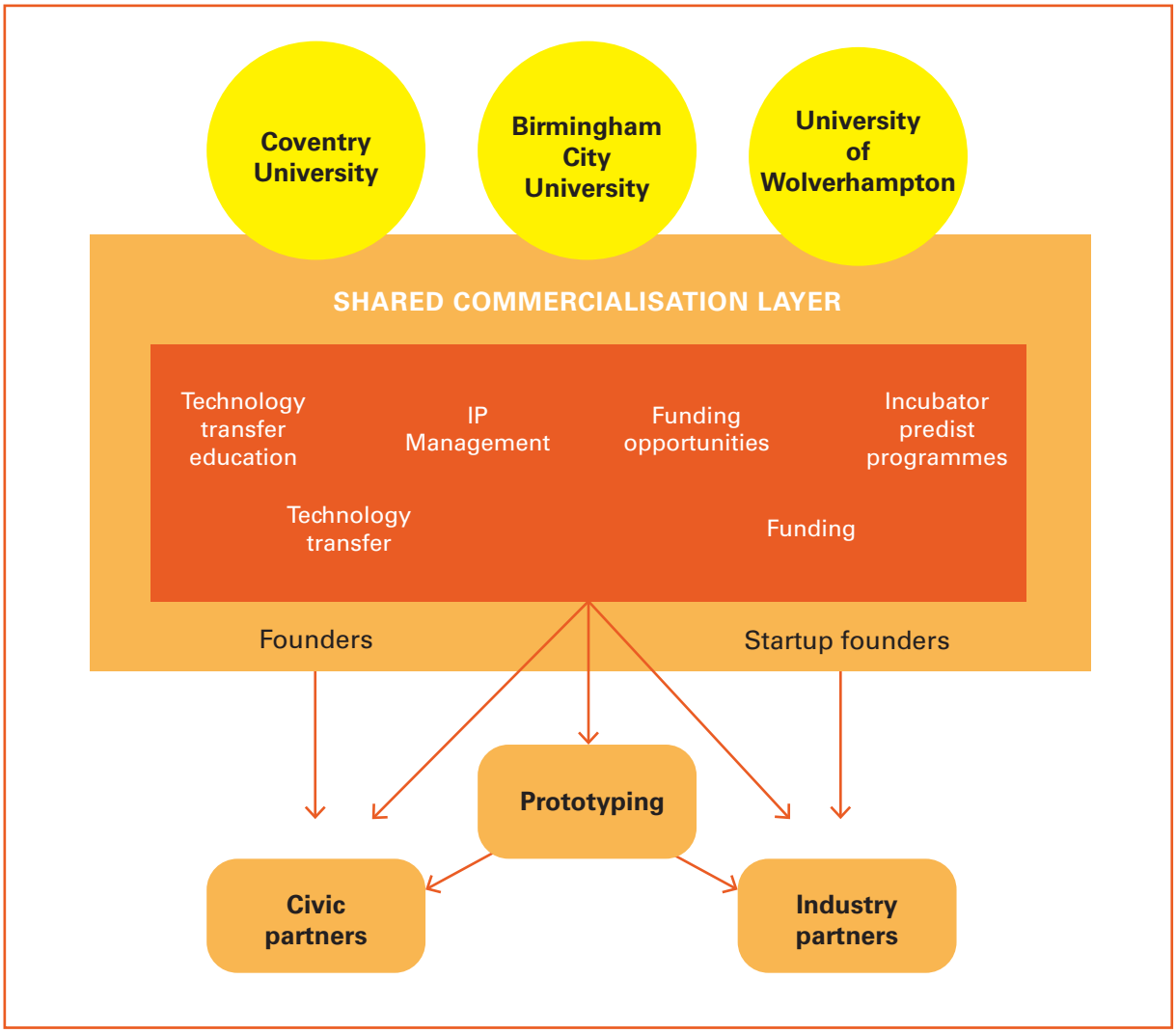

Figure 2. DigiSpinWM as shared practice rather than shared governance. A conceptual diagram showing three autonomous universities connected by a shared commercialisation layer, linking founders to civic and industry partners while retaining institutional governance and ownership.

positioned as an enabling tool rather than a replacement for existing institutional systems. Although not deployed as a fully live operational system during the pilot, its underlying design principles informed the structuring of shared workflows, documentation standards, and case coordination throughout delivery.

Second, programme partners jointly developed a Uniform Spinout Code of Principles to support shared technology transfer practice. The Code articulated a limited set of agreed, non-binding principles relating to equity expectations, intellectual property treatment, founder engagement, and routes to value. Its purpose was not to prescribe uniform outcomes, but to reduce ambiguity and provide a shared reference framework for early-stage discussions across institutions. The Code drew on national policy guidance, including the Independent Review of University Spinout Companies and the University Spinout Investment Terms (USIT) Guide, and reflected emerging sector norms rather than bespoke programme-specific rules.

Evaluation of DigiSpinWM was informed by a Theory of Change framework, applied as an evaluative device rather than a predictive or causal model. Rather than relying solely on conventional performance metrics such as spinout counts or investment raised, the programme employed a set of monitoring signals to track changes in experience and behaviour. These included founder-reported clarity of pathway, confidence in articulating value propositions, engagement with external partners, and perceived coherence of support across institutions. The signals were interpreted as indicators of system movement rather than as measures of direct success or formal attribution.

As a systems intervention delivered within a live regional environment, DigiSpinWM was not designed to support causal inference or counterfactual comparison. This limitation was deliberate. Several learning boundaries emerged through delivery. The six-month duration proved effective for early-stage definition and articulation, but insufficient for sustained investor engagement, procurement processes, or regulatory navigation. Institutional differences re-emerged at later stages where governance necessarily diverged, reinforcing the importance of clearly distinguishing shared practice from formal institutional decision-making. These insights inform the design logic for DigiSpinWM Phase 2, indicating the need for longer runways, staged depth, and differentiated pathways aligned to innovation maturity.

5. A design framework for regional commercialisation systems

Drawing on the design, delivery, and reflective evaluation of DigiSpinWM, this section proposes a design framework for understanding and intervening in regional commercialisation systems. The framework links three interrelated elements: identifiable system challenges, intentional design responses, and observable monitor-

ing signals. Its purpose is not to prescribe a single operating model or claim optimality, but to offer a practical analytical lens for diagnosing fragmentation within university innovation systems and designing shared interventions that widen access to commercialisation while respecting institutional autonomy. Fragmented entry points, slow progression, and uneven legitimacy are conceptualised as the cumulative effects of institutional routines, resourcing constraints, and inherited assumptions about commercial value. DigiSpinWM approached these conditions as design problems rather than performance deficits. This framing avoids attributing uneven outcomes to individual institutional weakness and instead positions access disparities as a sector-wide structural condition.

This approach shifts attention away from outcome-led optimisation toward practice-led system behaviour. Rather than focusing solely on the number of spinouts produced or the volume of investment raised, it asks whether innovators can access pathways, understand progression, and build legitimacy in a timely and coherent manner. Design responses were formulated in relation to observed system dynamics, informed by baseline questionnaire findings and aligned with national ecosystem analyses (DSIT, 2023; Ulrichsen & Miller, 2023). The framework does not assume linear causality. Instead, it recognises that changes in commercialisation experience emerge through interaction between institutional practice, founder behaviour, and place-based context. Accordingly, the design responses were intentionally modest in scope but systemic in intent.

Table 1 summarises the framework as applied within DigiSpinWM, linking commonly observed system challenges with

Design challenge	DigiSpinWM design response	Design logic	Monitoring signals
Fragmented & opaque entry points	Single shared "front door" across three universities	Reduced friction increases early-stage engagement	Founder-reported clarity; reduced early drop-off
Slow, diffuse progression	Sprint-based development; focus on articulation & validation	Learning-led progression accelerates clarity	Time to value proposition; founder confidence
Weak real-world grounding	Early civic and partner engagement	Early testing strengthens legitimacy	Named partners; number of pilots/trials
Narrow definitions of value	Acceptance of multiple value pathways	Broader definitions widen participation	Diversity of projects progressing

Table 1. Design challenges, design responses, and indicative monitoring signals in DigiSpinWM.

corresponding design responses and the monitoring signals used to observe whether practice shifted in the intended direction. The table should be read as a rule-of-thumb framework rather than a scorecard. It does not imply guaranteed outcomes or linear progression. Instead, it makes explicit the relationship between design intent and observable change, enabling reflective assessment rather than performance ranking.

A central feature of the framework is its approach to monitoring, oriented toward learning rather than control. Conventional commercialisation metrics, such as spinout counts or investment raised, primarily capture late-stage outcomes and often privilege institutions and projects already embedded within established innovation networks. DigiSpinWM complemented these measures with qualitative and experiential signals, examining whether founders understood their pathway, felt more confident articulating value propositions, and engaged with external partners earlier and more substantively. These signals were interpreted as indicators of system movement rather than as proxies for success, reflecting the view that change in commercialisation practice is gradual, cumulative, and relational.

While the framework is grounded in the West Midlands context, it is not confined to that region. The challenges it addresses, including fragmented access, slow progression, and uneven legitimacy, are widely documented across the UK university sector. At the same time, the framework is intentionally place sensitive. It assumes that effective commercialisation systems must reflect local institutional configurations, civic relationships, and regional priorities. It should therefore be understood as a set of adaptable design principles rather than a fixed organisational model. Different regions may adopt alternative delivery mechanisms, partner configurations, or development tools while retaining the underlying logic of shared access, learning-led progression, and early legitimacy-building. In this sense, DigiSpinWM does not propose a single correct way to organise regional commercialisation; rather, it demonstrates that deliberate practice-level design can meaningfully reshape how innovation systems are experienced by those within them.

6. Implementation and observed outcomes

Within the six-month pilot window, DigiSpinWM generated a set of early outcomes best interpreted as system signals rather than evidence of wholesale commercialisation reform. These signals relate to shifts in clarity, pace, legitimacy-building, and founder confidence, indicating whether shared practice altered how commercialisation was experienced across institutions.

Across the pilot, forty innovations were submitted through the shared intake process. These spanned a wide range of maturity levels, disciplines, and routes to

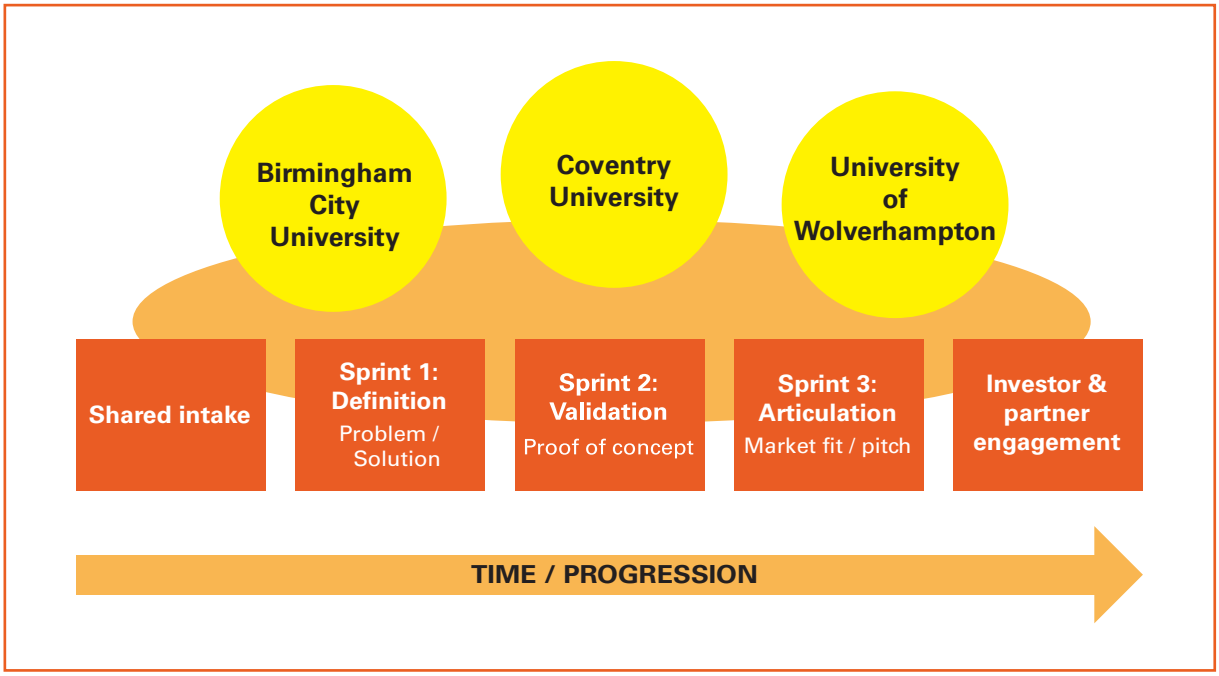

Figure 3. DigiSpinWM shared intake and sprint progression model. Conceptual illustration of how innovations move from shared regional intake through staged sprint activity.

value, including digital technologies, applied engineering, public-sector tools, and mission-led innovations. Participation was not restricted to projects already aligned with venture capital models, reinforcing the programme's intention to widen access rather than filter for a narrow subset of "investment-ready" ventures.

Figure 3 presents the shared intake and sprint progression model implemented within DigiSpinWM. It illustrates how innovations entered through a single regional front door and progressed through staged definition, validation, and articulation activities, while retaining flexibility around eventual outcomes and institutional decision-making.

Rather than treating progression as a linear pipeline toward spin-out formation, DigiSpinWM framed advancement in terms of increased clarity and iterative learning. Founders reported a stronger understanding of commercial pathways, greater confidence in articulating value propositions, and earlier engagement with external partners. These shifts were most evident among teams with limited prior exposure to technology transfer processes, suggesting that shared practice reduced early-stage friction and procedural opacity.

6.1 Engagement and regional reach

Of the forty innovations submitted, six reached a level of articulation sufficient to support early investor or partner engagement within the pilot period. These cases were not presented as measures of success but as indications that shared, time-bound practice can accelerate learning and legitimacy-building under constrained conditions. Figure 4 summarises the distribution and progression of submissions within DigiSpinWM, illustrating both the breadth of participation and the differentiated pathways taken by projects across the pilot window.

Fig. 4. Innovations submitted and progression during DigiSpinWM. Illustrative overview of submissions, sprint engagement, and onward pathways.

The diversity of innovations supported was treated as a feature rather than a filtering problem. Projects pursuing public-sector adoption, licensing, or collaborative deployment progressed alongside those exploring spin-out pathways. In several cases, early civic or industry engagement conferred legitimacy through relevance and use rather than investment alone, reinforcing the importance of non-venture routes within regional innovation contexts. Observed outcomes should therefore be interpreted as early system signals rather than attributable programme effects. The six-month duration was sufficient to surface changes in experience and behaviour but insufficient to evidence downstream commercial performance. Nonetheless, these signals suggest that relatively modest interventions at the level of shared practice can materially improve access, coherence, and confidence within regional commercialisation systems.

6.2 Interpreting outcomes and system signals

Beyond observable progression outcomes, DigiSpinWM generated changes in how commercialisation was experienced by founders and professional services staff. Monitoring signals, used here to denote early indicators of change in experience and behaviour rather than formal performance metrics, were drawn from reflective feedback, delivery artefacts, and structured evaluation activities.

Founders frequently described DigiSpinWM as functioning as one system rather than three parallel institutional process-

es. Shared language, aligned tools, and coordinated timing reduced duplication and early confusion, particularly for those unfamiliar with commercialisation pathways. For professional services staff, joint delivery and shared case review enabled peer learning and reduced isolation, especially where specialist capability was unevenly distributed across institutions.

As a time-limited pilot, DigiSpinWM was not intended to demonstrate causal impact or long-term commercial success. The indicators observed do not substitute for downstream commercial performance measures but instead signal whether early conditions for translation are improving. Taken together, they suggest that shared regional practice can reduce fragmentation and accelerate early-stage learning without institutional merger or loss of governance autonomy.

7. Civic anchoring and non-venture routes to legitimacy

DigiSpinWM embedded early engagement with civic, public-sector, and regional partners as a deliberate design feature rather than a downstream impact activity. This reflected the applied and place-based character of much of the innovation emerging from the partner universities, where routes to value frequently involve service adoption, partnership-based delivery, or public-sector integration rather than venture capital investment alone.

Civic anchoring enabled founders to test assumptions, clarify use contexts, and refine value propositions in dialogue with credible external actors. It also created alternative sources of early legitimacy in domains where market signals are weak or slow to materialise. For applied and mission-led innovations, validation through relevance, use, and partnership often proved more meaningful at early stages than investor interest alone.

This approach did not displace investor-led pathways but broadened the range of legitimate progression routes available to founders. In several cases, early civic engagement strengthened subsequent investor discussions by providing evidence of demand, feasibility, or contextual fit. By recognising multiple routes to legitimacy, DigiSpinWM reduced pressure on founders to conform prematurely to venture capital narratives and supported more confident decision-making regarding pathways to impact.

From a systems perspective, civic anchoring also reinforced the role of universities as place-based anchors within regional innovation ecosystems. By aligning commercialisation activity with local public-service and industrial priorities, DigiSpinWM demonstrated how shared regional practice can widen participation while maintaining commercial credibility.

8. Conclusion

This paper has examined DigiSpinWM as a practice-based regional intervention ad-

dressing persistent unevenness in access to university commercialisation pathways. It has argued that fragmentation, slow progression, and uneven legitimacy are not inevitable features of innovation systems, but outcomes shaped by accumulated institutional practices and design choices. By introducing shared commercialisation practice across three autonomous universities, DigiSpinWM demonstrated that access can be widened and early learning accelerated without institutional merger or loss of governance autonomy.

The programme's core features (a shared front door, sprint-based development, early civic engagement, harmonised principles, and enabling digital infrastructure) operated as a coherent systems intervention aligned with national policy intent and regional conditions. DigiSpinWM reframed commercialisation as a place-sensitive practice, surfacing applied, public-sector, and mission-led innovation pathways often marginalised within dominant venture capital narratives.

The design framework presented here offers a transferable analytical lens for regional innovation systems. It does not prescribe a single organisational model or propose the replacement of existing technology transfer offices. Instead, it provides evidence that shared practice can complement institutional capability by reducing fragmentation, improving coherence, and widening participation.

For policymakers and funders, the findings suggest that collaborative, practice-led approaches can strengthen regional commercialisation ecosystems. For universities and regions, the paper reinforces the value of shared language, shared learning, and shared infrastructure in aligning innovation with public value. DigiSpinWM provides evidence that access can be widened and early learning accelerated without institutional merger or loss of governance autonomy.

9. Limitations and unresolved challenges

As a time-limited pilot, DigiSpinWM prioritised testing early-stage system behaviour over comprehensive commercial outcomes. While the intervention improved regional coherence and early legitimacy-building, the six-month duration was sufficient only for definition and articulation, not for longer-cycle activities such as sustained investor engagement, procurement processes, or regulatory planning. Although shared practice reduced early-stage friction, institutional differences in risk appetite and governance necessarily re-emerged at later stages. This reinforces the importance of clearly defining where collective regional collaboration concludes and institutional autonomy resumes within any shared commercialisation model.

The pilot also suggested that digital infrastructure functions as an enabling tool rather than a complete solution. While shared platforms improved workflow and visibility, scaling requires sustained investment in specialist human expertise

Challenge identified	Evidence from pilot	Implications for replication/ Phase 2
Duration constraints	Six months was sufficient for early definition but too short for investor engagement or regulatory planning.	Future regional models require longer runways (e.g., 18-24 months) to support ventures through advanced commercial cycles.
Institutional variation	Differences in risk appetite and governance remained visible at later stages.	A clear "hand-off" point must be defined where regional collaboration ends and institutional autonomy resumes.
Infrastructure limits	Digital platforms improved workflow but could not replace human judgment or specialist expertise.	Technology should be viewed as an enabler; scaling requires sustained investment in professional services "people capital".
Trust dependency	The pilot relied heavily on existing West Midlands partnerships and professional service trust.	In regions without established collaboration, an initial phase of relationship-building and incentive alignment is essential.
Outcome attribution	Changes in founder confidence and pace cannot be fully isolated from the wider policy context.	Longitudinal studies are required to determine if early "system signals" translate into durable, long-term commercial success.

Table 2. Lessons learned and sector implications

and professional judgement. In addition, DigiSpinWM benefited from pre-existing trust among West Midlands partners, indicating that replication elsewhere would require deliberate relationship-building and local incentive alignment.

These limitations are summarised in Table 2, alongside their implications for replication and future phases. Rather than weakening the intervention, they clarify the conditions under which shared regional commercialisation practice is most likely to succeed and reinforce the argument that access to innovation pathways is a deliberate design choice rather than an automatic system property.

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Appendix 1: DigiSpinWM baseline commercialisation questionnaire, summary of findings

Purpose and timing

A baseline questionnaire was distributed across Coventry University, Birmingham City University, and the University of Wolverhampton in October 2024, prior to the delivery of DigiSpinWM. The purpose of the questionnaire was to capture how staff and researchers experienced technology transfer and commercialisation pathways before the intervention and to inform the design of a shared regional approach. All responses were collected before any DigiSpinWM activity commenced.

Sample and scope

The questionnaire received 58 responses from academic and professional services staff across the three institutions. Responses were anonymous and represented a range of disciplinary backgrounds and levels of prior engagement with commercialisation activity. The questionnaire was exploratory and diagnostic in nature, intended to surface shared patterns of experience rather than to generate statistically generalisable findings.

Key themes explored

1. awareness and understanding of existing technology transfer and commercialisation support;
2. perceptions of clarity, consistency, and accessibility of current pathways;
3. confidence in engaging with intellectual property and commercialisation processes;
4. views on the potential value of a shared or collaborative technology transfer model; and
5. perceived barriers and opportunities

for improving early-stage translation.

Headline findings

Analysis of responses revealed several consistent themes across institutions:

- General support for collaboration, with some uncertainty: Many respondents expressed support for the idea of a shared or collaborative technology transfer model, particularly where it could improve access to expertise, consistency of support, and speed of progression. A proportion of respondents indicated uncertainty, reflecting limited familiarity with how such a model might operate in practice rather than opposition to the concept.
- Perceived fragmentation and lack of clarity: Respondents frequently reported that existing commercialisation pathways were difficult to navigate, particularly at early stages. Entry points were often perceived as unclear, processes as opaque, and progression routes as insufficiently signposted.
- Variable confidence and understanding: Confidence in engaging with intellectual property and commercialisation processes varied widely. Several respondents indicated limited understanding of technology transfer mechanisms, IP processes, and commercial terminology, especially among those at earlier stages of engagement.
- Structural rather than individual barriers: Barriers to commercialisation were commonly framed as systemic rather than personal. These included limited visibility of support, inconsistent processes, resource constraints, and reliance on informal knowledge or individual relationships to progress ideas.
- Strong appetite for improvement and learning: Open-text responses frequently highlighted a desire for clearer guidance, better communication, increased capacity, and more proactive engagement. Respondents emphasised the value of shared learning, access to broader expertise, and earlier engagement with external partners.

Implications for programme design

The questionnaire findings were used diagnostically to inform DigiSpinWM's design. In particular, they reinforced the need for:

- a single, clearly signposted entry point to reduce early-stage friction;
- learning-led, time-bound development to build confidence and clarity;
- shared language and aligned practice across institutions; and
- earlier exposure to external perspectives to support legitimacy-building.

The questionnaire did not function as an assessment of institutional performance.

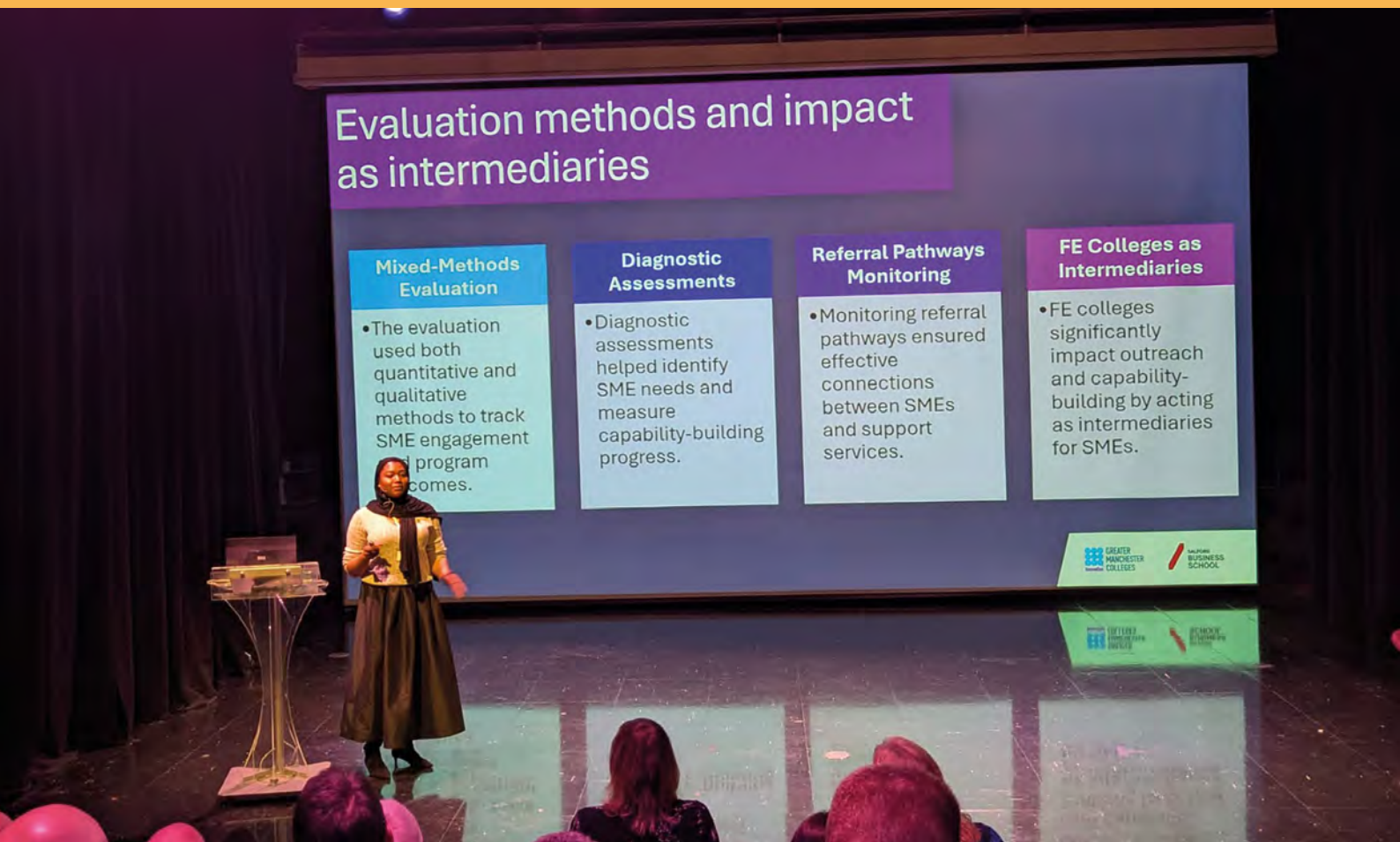
Instead, it provided a baseline understanding of how commercialisation pathways were experienced across the region prior to the introduction of shared practice.

Image on page 172: i-PLACE 25 Civic Reception at Host, MediaCity, hosted by the Ceremonial Mayor of Salford, Cllr. Heather Fletcher.


Host

Reaching further: integrating FE Colleges into place-based ecosystems for inclusive innovation

Dr Anisa Kabir Abdulfatah, University of Salford, Coral Grainger, Manchester Metropolitan University, Dr Kate Webb, The KWP Ltd and Prof. Mandy Parkinson, University of Salford



Reaching further: integrating FE Colleges into place-based ecosystems for inclusive innovation

Anisa Kabir Abdulfatah, Coral Grainger, Kate Webb, Mandy Parkinson

Abstract

Innovation ecosystems are increasingly conceptualised as governance-driven arrangements that foster regional competitiveness through collaboration among academia, industry, government, and civic society (Ketonen-Oksi & Valkokari, 2019). Despite the emphasis on actor diversity and interdependence within ecosystem frameworks, dominant models such as the Triple Helix (Etzkowitz & Leydesdorff, 1995) and Quadruple Helix (Carayannis & Campbell, 2009) continue to privilege universities as the central academic actors, often marginalising the role of other educational institutions. This has led to the persistent under-recognition of Further Education (FE) colleges, which operate at the intersection of education, enterprise, and civic society, and are deeply embedded within local communities, frequently in areas of significant economic and social exclusion. Further Education (FE) colleges are publicly funded institutions that deliver a broad spectrum of academic, technical, and professional qualifications, primarily serving learners aged 16 and above (Department for Education, 2023). FE Colleges operate at the intersection of education, enterprise, and civic society, and are deeply embedded within local communities, frequently in places of significant economic and social exclusion.

Drawing on empirical insights from a qualitative evaluation of the Greater Manchester Further Education Innovation Programme (GMFEIP), a pilot project funded by Innovate UK to test the potential of colleges to boost local business innovation and growth, this paper examines the intermediary role of FE colleges in mediating access to innovation for small and medium-sized enterprises (SMEs) and marginalised communities. Data were generated through semi-structured interviews with programme staff, FE college representatives, SMEs, apprentices, and strategic partners, and analysed thematically to capture the lived experience of innovation intermediation in practice.

Findings demonstrate that FE colleges function as embedded innovation intermediaries, widening participation in regional innovation activity, translating innovation into context-specific problem solving, and reshaping local perceptions of innovation (Nelles et al., 2022). The evidence suggests that the sustained contribution of FE col-

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leges to regional innovation ecosystems requires a shift from episodic involvement to their deliberate and strategic integration within governance frameworks. This paper argues that innovation ecosystems are not self-organising but necessitate purposeful structuring and adaptive governance arrangements and concludes that recognising FE colleges as core civic and applied knowledge actors is essential for advancing place-based and inclusive innovation (Uyarra et al., 2017).

1.0 Introduction

This paper critically examines the intermediary function of Further Education (FE) colleges in fostering inclusive, place-based innovation, with a specific focus on the Greater Manchester Further Education Innovation Programme (GMFEIP). Drawing on empirical evidence from a qualitative evaluation of GMFEIP, the study situates FE colleges within contemporary debates on innovation ecosystems, governance, and intermediation (Ketonen-Oksi & Valkokari, 2019; Uyarra et al., 2017; Howells, 2006; Kivimaa et al., 2019). The analysis demonstrates that the contributions of FE colleges extend beyond traditional skills provision to include boundary-spanning activities, confidence-building among marginalised groups, and the translation of innovation into practices that are both accessible and contextually relevant (Feser, 2023). In foregrounding FE colleges as civic and applied knowledge actors, the paper challenges the prevailing emphasis on universities as the primary academic anchors within innovation ecosystems (Etzkowitz & Leydesdorff, 1995; Carayannis & Campbell, 2009) and advances a more inclusive, territorially grounded perspective on the organisation and experience of regional innovation.

Innovation ecosystems are increasingly understood as critical infrastructures for regional productivity, economic competitiveness, and social wellbeing, sustained through structured collaboration among universities, industry, government, and civic society (Ketonen-Oksi & Valkokari, 2019; Baldwin et al., 2024). This growing recognition has been accompanied by a strong policy emphasis on place-based innovation, reflecting concerns about spatial inequality and uneven economic development (Asheim et al., 2019; McCann & Soete, 2020). Despite this shift, participation in innovation ecosystems remains highly uneven, particularly among small and medium-sized enterprises (SMEs), microbusinesses, and firms located in economically marginalised communities (Department for Business and Trade, 2024).

Empirical evidence consistently shows that traditional innovation support programmes tend to engage a relatively narrow subset of firms (Enterprise Research Centre, 2023). These typically include organisations already engaged in research and development, businesses with established relationships with universities, or firms possessing the internal capacity to navigate complex innovation systems (UK

Research and Innovation [UKRI], 2024). By contrast, microbusinesses, sole traders, family-owned firms, minority-owned enterprises, and early-stage ventures are significantly less likely to participate in university-led innovation initiatives (Department for Business and Trade, 2024; Uyarra et al., 2017). Barriers extend beyond financial or technical constraints to include limited awareness of available support, low confidence in engaging with formal innovation actors, and perceptions of innovation as synonymous with advanced technology or research intensity (Coyle & Selvi, 2024).

Prevailing conceptual frameworks, most notably the Triple Helix (Etzkowitz & Leydesdorff, 1995) and its extension into the Quadruple Helix (Carayannis & Campbell, 2009), have been instrumental in foregrounding the importance of multi-actor collaboration within innovation systems. However, while analytically influential, these models continue to privilege universities as the primary academic anchors within innovation governance. This emphasis risks obscuring the contributions of other educational institutions whose roles are more locally embedded, practice-oriented, and closely aligned with regional labour markets (Gloster et al., 2015).

To move beyond actor-hierarchical assumptions embedded within dominant ecosystem models, this paper draws on Actor–Network Theory (ANT) as an interpretative lens (Callon, 1986; Latour, 2005). ANT conceptualises innovation not as the output of privileged institutional actors, but as the outcome of negotiated alignments among heterogeneous human and non-human actors, including organisations, funding mechanisms, policies, diagnostic tools, and relational practices. From this perspective, innovation ecosystems are not self-organising entities but are continually assembled, stabilised, and reshaped through governance arrangements and intermediary work (Baldwin et al., 2024). Applying ANT enables a more granular analysis of how FE colleges enrol, connect, and translate across institutional boundaries, and how their relative positioning within governance structures shapes the inclusivity and durability of regional innovation systems.

Further Education (FE) colleges occupy a distinctive position within regional landscapes. Embedded within local economies and communities, FE institutions maintain long-standing relationships with employers, apprentices, and non-traditional learners, and operate at the interface of skills development, applied knowledge, and workforce innovation. These characteristics position FE colleges as potential intermediaries capable of widening access to innovation support, particularly for firms and communities less likely to engage with university-led initiatives. Yet, despite this embeddedness, FE colleges remain largely absent from dominant innovation theories, policy strategies, and governance arrangements. This paper therefore examines how integrating FE

colleges within regional innovation governance reshapes ecosystem participation and reconfigures the relational architecture of place-based innovation.

Cumulatively, these dynamics suggest that innovation ecosystems designed primarily around universities and high-technology clusters risk systematically failing to reach many of the firms and communities most in need of innovation support. Rather than positioning this as a deficit, this paper reframes the challenge as one of ecosystem design. It argues that integrating Further Education colleges as collaborative partners alongside Higher Education and established ecosystem stakeholders, offers a practical pathway towards more distributed, inclusive and territorially grounded innovation systems capable of extending participation beyond established innovation districts.

This paper makes three interrelated contributions to research on innovation ecosystems, intermediation, and place-based innovation. First, it addresses the persistent absence of Further Education colleges within dominant ecosystem frameworks by providing empirical evidence of their intermediary role in widening participation in innovation. While existing literature has focused primarily on universities, research institutes, and formal R&D actors (Etzkowitz & Leydesdorff, 1995; Carayannis & Campbell, 2009; Budden & Murray, 2019), this study demonstrates that locally embedded educational institutions can act as critical access points for firms and communities typically excluded from innovation support.

Second, the paper advances theoretical understanding by applying Actor–Network Theory to the study of regional innovation ecosystems. In doing so, it shifts analytical attention from static institutional roles to the relational and socio-technical processes through which innovation ecosystems are assembled, stabilised, and governed (Callon, 1986; Latour, 2005; Baldwin et al., 2024). This perspective reveals how governance structures, diagnostic tools, funding mechanisms, and intermediary practices operate as non-human actors that shape participation, legitimacy, and capability-building within the ecosystem.

Third, the paper contributes new empirical evidence from a large-scale, place-based innovation programme. The findings demonstrate how intentional governance design, coordinated delivery structures, and sustained intermediary functions enable FE colleges to engage businesses previously disconnected from innovation systems and to support early-stage capability-building outcomes. In doing so, the study extends existing research on inclusive and place-based innovation (Asheim et al., 2019; McCann & Soete, 2020; Uyarra et al., 2017) by showing how ecosystem participation can be broadened through deliberate system-level integration of new institutional actors.

1.1 Research Aim

The aim is to examine the role of Further Education colleges as place-based innovation intermediaries and their contribution to widening access to regional innovation systems.

2.0 Literature review

Innovation ecosystems are increasingly recognised as critical infrastructures for inclusive and resilient regional economic development, sustained through coordinated interaction among diverse actors and institutions (Ketonen-Oksi & Valkokari, 2019; Baldwin et al., 2024). While the concept remains contested, scholarship consistently emphasises actor diversity, interdependence, and the importance of governance arrangements that enable collaboration and value co-creation across organisational boundaries (Autio and Thomas, 2020; Grandstrand & Holgersson, 2020). A growing body of work therefore highlights that ecosystem durability depends less on individual projects and more on institutional coordination, shared strategic direction, and mechanisms that support repeated interaction and knowledge exchange (Asheim et al., 2019; Rigby et al., 2021).

Actor-Network Theory (ANT) provides an analytical lens for examining these dynamics by conceptualising innovation as emerging from the alignment of heterogeneous human and non-human actors, including organisations, policies, technologies, and organisational routines (Callon, 1986; Latour, 2005). From this perspective, innovation ecosystems are continually assembled and stabilised through governance structures, tools, and intermediary practices that shape participation and collaboration (Parent-Rocheleau & Parker, 2022; Baldwin et al., 2024).

Despite the growing emphasis on coordination and intermediation, the role of Further Education (FE) colleges remains largely overlooked within dominant innovation ecosystem frameworks (Gloster et al., 2015). The Triple Helix model (Etzkowitz & Leydesdorff, 2000; Cai & Amaral, 2021) and the MIT stakeholder framework (Budden & Murray, 2019; 2022) both foreground universities as primary academic anchors, often marginalising locally embedded educational institutions. Yet FE colleges possess strong community and employer relationships that position them as potential intermediaries capable of engaging SMEs, non-traditional learners, and organisations less likely to access university-led support.

Recent work associated with the Greater Manchester Further Education Innovation Programme (GMFEIP) proposes a complementary "Radial Innovation Network" model (figure 1) that decentralises innovation activity through FE-led hubs embedded across local boroughs (Grainger et al., 2025). Rather than replacing universities, this approach positions FE colleges as entry points that translate innovation into practical activity, build organisational confidence, and broker pathways into wider

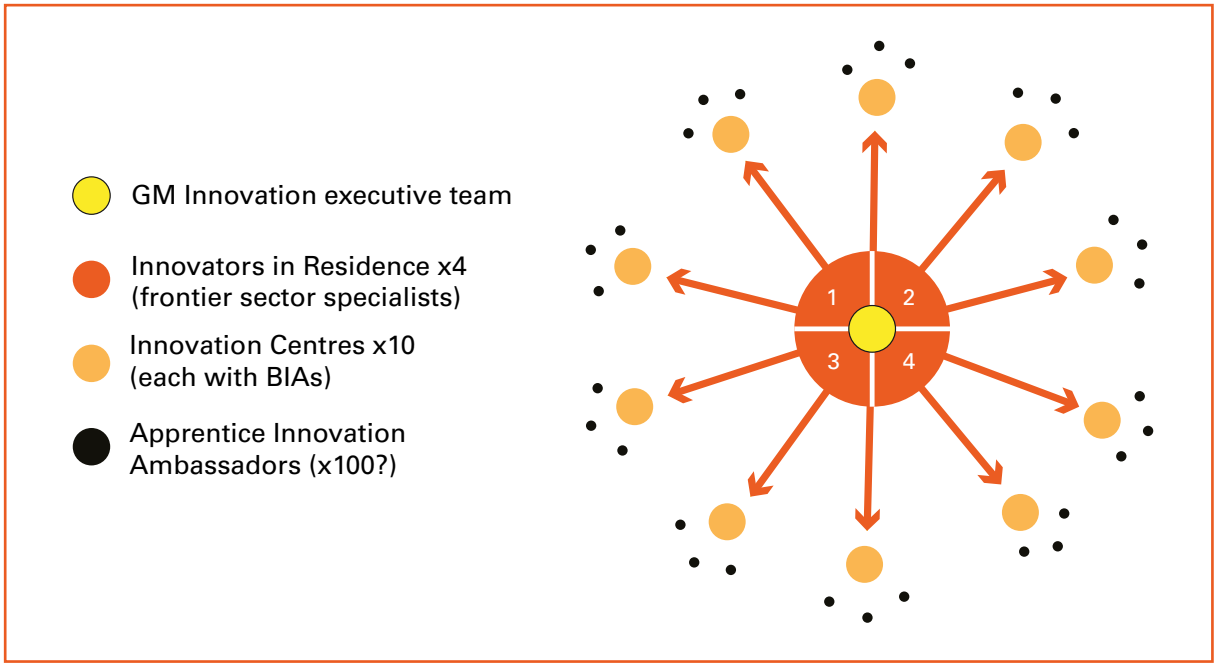

Figure 1. The Radial Innovation Network

ecosystem support. This aligns with place-based innovation scholarship emphasising the need for locally embedded intermediaries to broaden participation and diffuse innovation beyond established innovation districts (Uyarra et al., 2017; McCann & Soete, 2020; Howells, 2006; Kivimaa et al., 2019).

Early evaluation evidence from GMFEIP supports this conceptual shift. By March 2025, the programme had engaged more than 1,000 businesses and trained 74 Innovation Ambassador apprentices, demonstrating the potential of FE-led hubs to reframe innovation as practical problem-solving and to reach organisations previously disconnected from formal innovation systems (Grainger et al., 2025).

Cumulatively, the literature highlights a clear gap: while innovation ecosystems are understood to depend on governance, coordination, and intermediation, the role of FE colleges as locally embedded innovation actors remains under-theorised. This paper responds to that gap by examining how integrating FE colleges within regional innovation governance reshapes participation and strengthens the relational architecture of place-based innovation.

Figure 1 illustrates the Radial Innovation Network model underpinning GMFEIP, through which knowledge radiates out from the established ecosystem, to connect and engage underserved businesses and communities.

In the GMFEIP Radial Innovation Net-

work illustrated in figure 1, four Innovators-in-residence, each aligned to a growth sector of the regional industrial strategy (orange), are employed to work peripatetically across all nine colleges in the partnership, gather and curate knowledge from the triple helix, and share that with the Colleges, through staff CPD.

Each College campus hosts a local Innovation Centre (ochre), that operates as a place-embedded entry point, delivering diagnostics, workshops, brokerage and referrals into universities, Growth Hub services, sector partners and national innovation programmes. GMFEIP designed a new programme of Innovation Literacy Training that is delivered in the innovation centres, which empowers apprentices placed in industry to become Apprentice Innovation Ambassadors (black) taking knowledge and skills for innovation adoption back to their host employers. Through this structure, FE colleges extend the reach of the ecosystem into underserved boroughs, sectors and organisations that are less likely to engage with university-led support. The radial model therefore positions FE colleges as locally trusted intermediaries that translate innovation into practical, accessible activity while coordinating pathways into the broader system.

GMFEIP activity is coordinated by small central team (yellow) led by a programme director who is responsible for the design and delivery of the programme, and who oversees the flow of knowledge between all parts of the network and the partners in the Triple Helix, in a manner which demonstrates Actor-Network Theory.

3.0 Methodology

Guided by the aims of the Greater Manchester Further Education Innovation Programme (GMFEIP) and debates on inclusive, place-based innovation, this evaluation is structured around three interrelated research questions. The study examines:

1. What role Further Education (FE) colleges play in enabling inclusive, place-based innovation for SMEs in underserved communities.
2. How effective FE colleges are as innovation intermediaries in widening access to innovation support and building SME capability.
3. Why inclusive innovation requires the intentional integration of FE colleges into regional innovation governance structures.

These questions inform the study design, data collection, and analytical strategy, framing FE colleges as relational, place-embedded actors within regional innovation ecosystems.

In line with established methodological practice, this evaluation employs a qualitative case study design to interrogate the intermediary role of Further Education (FE) colleges in fostering inclusive, place-sensitive innovation within the Greater Manchester Further Education Innovation Programme (GMFEIP) (Yin,

2018). Rather than seeking statistical representativeness or generalisability, the study is oriented towards elucidating emergent impacts, implementation processes, and the contextual determinants of early outcomes, consistent with the literature's emphasis on situated analysis (Braun & Clarke, 2006; Grainger et al., 2025). To achieve this, more than twenty summary case studies were systematically developed, predominantly focusing on employers and apprentices as core stakeholders. These case studies trace the pathways through which innovation support was accessed and utilised, the perceived effects on organisational and individual practice, and the contextual variables shaping resultant outcomes. Synthesising qualitative data across multiple stakeholder groups and temporal junctures, the case studies serve as analytic devices to surface cross-cutting themes and patterns, thereby advancing a nuanced understanding of FE colleges' contributions to regional innovation ecosystems (Nishimura & Okamuro, 2011; Rigby et al., 2021).

Data collection was conducted across two sequential phases. The initial phase comprised sixty-one semi-structured interviews conducted between September 2024 and March 2025, involving programme staff, FE college representatives, SMEs, apprentices, and partner organisations. A purposive sampling strategy was adopted to ensure diversity in organisational role, sector, and degree of programme involvement. Recruitment was primarily facilitated via established programme networks, which enabled access to pertinent stakeholders but also introduced a recognised risk of positive selection bias, duly considered in the analytical process. The subsequent phase of delivery and data collection remains in progress (September 2025–March 2026). As of January 2026, a further twenty-seven semi-structured interviews had been undertaken with employers, apprentices, and external strategic partners, including representatives from universities. These individuals were reengaged with prior consent to strengthen longitudinal analysis. To address potential self-selection bias, interview findings were systematically triangulated with programme monitoring data, comprising participation records and feedback surveys.

3.1 Data analysis

Consistent with established methodological standards, qualitative data analysis was conducted using an inductive thematic approach, guided by Braun and Clarke's six-phase framework (Braun & Clarke, 2006). Interview transcripts underwent repeated, systematic review and manual coding, enabling the identification of recurring patterns and themes across diverse stakeholder groups. Initial codes were refined iteratively into broader thematic categories, reflecting principal domains of programme impact, such as enhanced confidence and capacity for innovation, evolving organisational attitudes towards innovation, and the distinctive intermediary

role of FE colleges within local innovation ecosystems. Theme development was collaboratively reviewed within the research team to promote analytical robustness and reflexivity.

Data saturation was appraised pragmatically within individual stakeholder groups, with saturation deemed achieved where no substantively new themes emerged. However, in light of participant diversity and the ongoing progression of the second data collection phase, saturation is regarded as partial. The analysis therefore privileges emergent thematic patterns and perceived change, rather than asserting completeness or generalisability.

4.0 Findings

4.1 Overview of interview findings

Across both phases of data collection, sixty-one semi-structured interviews and twenty-seven follow-up interviews produced consistent evidence of how FE colleges engage businesses, apprentices and regional partners. Four recurring themes were reported across stakeholder groups. First, FE colleges were widely described as accessible and trusted entry points into innovation support, particularly by SMEs with no prior engagement in formal programmes. Second, businesses emphasised the value of FE-led brokerage in navigating a complex support landscape through introductions, referrals and signposting. Third, early outcomes were most often described in capability terms, including increased confidence, organisational readiness and awareness of innovation opportunities, rather than immediate technological outputs. Finally, programme staff and partners reported growing coordination across the FE network, stronger relationships with universities and regional actors, and increasing recognition of FE colleges as credible innovation contributors. The following sections explore these themes in greater depth, and the vignettes provide illustrative examples drawn from the evaluation data, demonstrating how these themes were experienced in practice across different work packages and stakeholder groups.

4.2 FE Colleges as locally embedded access points for inclusive, place-based innovation

The findings demonstrate that Further Education (FE) colleges facilitate inclusive, place-based innovation predominantly through their reach, accessibility, and deep local embeddedness, rather than through a focus on technological specialisation. Evidence drawn from programme diagnostics indicates that FE-led provision is engaging a distinct cohort of businesses that exist outside established innovation channels, thereby complementing, rather than duplicating or displacing the activities of existing innovation actors. The evaluation offers robust evidence that FE colleges serve as effective, locally embedded gateways to innovation, particularly for SMEs with no prior experience of innovation support. Figure 2 illustrates the

number of businesses engaged in 2025 and the diverse pathways these businesses followed to access innovation support.

Interview accounts suggest that place-based innovation operated through both geographic and relational proximity. Innovation Centres were embedded within local boroughs, enabling engagement via existing employer relationships, community events and locally delivered workshops and diagnostics. Participants also described FE colleges as sharing local workforce and sector challenges, which helped frame innovation around immediate operational problems rather than abstract technological agendas. In this evidence, "place" therefore refers both to physical accessibility and to locally grounded problem framing that shaped how innovation was accessed and applied.

By the end of September 2025, the programme had engaged a total of 1,666 employers, including 624 during the initial six months of Year 2 alone. The introduction of a revised diagnostic tool in July 2025 provided particularly compelling evidence of inclusive outreach. Among the 135 businesses completing the new diagnostic between July and September, 88% indicated that they had not previously accessed any form of innovation support. Furthermore, 28% cited lack of awareness or uncertainty regarding where to start as their principal barrier to productivity improvement. These data substantiate the programme's success in reaching businesses that have been inadvertently excluded from established innovation systems, rather than diverting support from firms already engaged in innovation activity.

These findings strongly reinforce long-standing evidence that traditional innovation support mechanisms disproportionately engage firms already positioned to innovate, particularly those with prior R&D experience and established links to universities (Enterprise Research Centre,

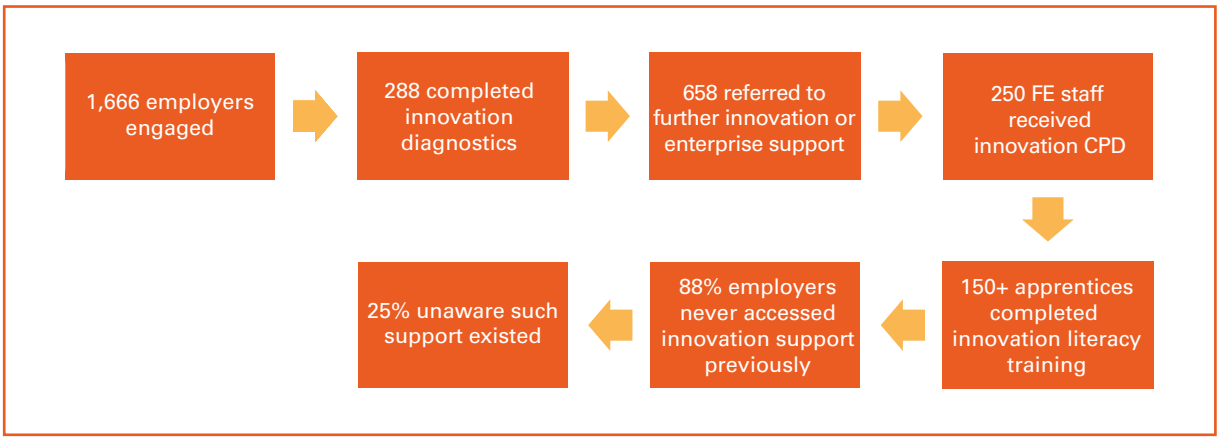

Figure 2. Number of businesses engaged in GMFEIP

2023; UKRI, 2024). The GMFEIP evidence extends this literature by demonstrating that FE colleges can successfully engage businesses that sit outside these established pathways, including microbusinesses and firms embedded within the foundational economy. In doing so, the findings provide empirical support for recent calls to broaden the institutional base of innovation ecosystems and to recognise locally embedded intermediaries as critical actors in widening participation (Ketonen-Oksi & Valkokari, 2019; Kivimaa et al., 2019). Figure 3 displays the number of businesses with no prior engagement in innovation support.

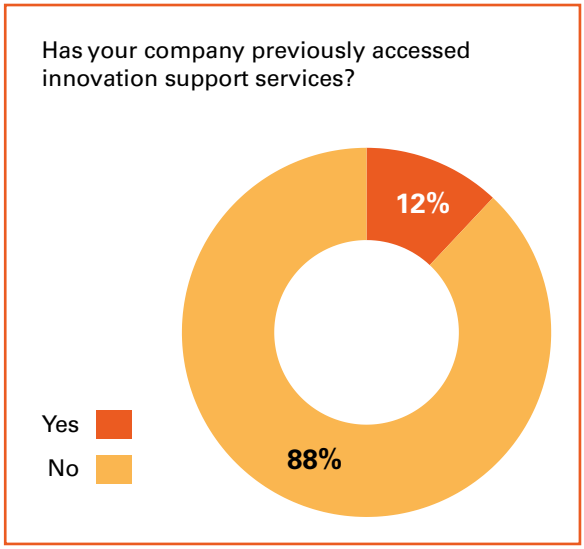

Figure 3. Businesses with first-time engagement through FE-led support

As evidenced in Figure 3, a significant share of participating organisations had not previously engaged with formal innovation support, underscoring the role of FE colleges in broadening access to innovation for firms and organisations traditionally overlooked by mainstream innovation policy mechanisms. An example of this is Case study one of the FE led innovation participants shown in Vignette 1 below.

Vignette 1: First encounter with innovation support through FE

The owner of a small service-based SME first engaged with formal innovation support through Hopwood Hall College's Innovation Centre, having no prior experience of structured innovation programmes. Through one-to-one guidance and tailored workshops delivered by FE innovation staff, innovation was framed around everyday operational challenges rather than technical adoption. This approach reduced barriers to participation, built confidence, and led to the integration of digital tools into routine business practice demonstrating how FE colleges act as accessible entry points for SMEs previously disconnected from innovation ecosystems.

Participant reflection

"He's changed my life – though he laughs when I say that."

The resulting efficiencies enabled the owner to reduce working hours following cancer treatment while maintaining business output.

Vignette 1 demonstrates how FE-led innovation support functions as a low-threshold entry point for SMEs with no prior engagement in formal innovation programmes. By

framing innovation around everyday operational challenges and delivering support through a local Innovation Centre, the FE college reduced perceived risk, built confidence, and enabled sustained engagement. The case shows how incremental digital adoption can generate meaningful productivity gains, reinforcing the role of FE colleges as trusted, place-embedded intermediaries that translate innovation into practical and contextually relevant change for small businesses.

Qualitative case evidence across the evaluation substantiates this pattern. In the case of a content marketing SME supported by The Manchester College, innovation was similarly framed as practical improvement and strategic clarification rather than technical experimentation. The Business Innovation Advisor provided targeted guidance, network introductions, and referrals into wider ecosystem support, reinforcing the firm's strategic direction and accelerating progress. This is shown in vignette 1 below:

Vignette 2: FE brokerage translating innovation into practical business improvement

A content marketing agency engaged with a Business Innovation Advisor at The Manchester College to strengthen links with the regional tech and innovation ecosystem. FE-led brokerage provided targeted guidance, introductions to innovation networks and referrals to wider ecosystem support, accelerating the firm's development pathway. As the founder reflected, the support brought

"Deep industry knowledge and generous networks" that helped them "Move faster and with greater confidence".

Vignette 2 demonstrates the brokerage role played by FE colleges within the regional innovation ecosystem. Rather than delivering innovation directly, the college acted as a trusted intermediary that connected the business to relevant networks, opportunities and specialist support. This reduced the complexity of navigating the wider ecosystem and accelerated the firm's innovation journey. The case highlights how FE-led brokerage builds confidence, expands networks and supports progression into more advanced innovation activity, reinforcing the intermediary function identified across the evaluation.

Across these and other cases, innovation was consistently conceptualised as incremental problem-solving, organisational learning, and confidence-building, rather

than as formal research activity. This approach appears to mitigate intimidation and lower perceived barriers to participation, particularly for SMEs, microbusinesses, and organisations embedded within underserved communities. The evidence indicates that inclusive innovation is less contingent on proximity to centres of research excellence, and more reliant on locally trusted institutions capable of translating innovation into familiar, practical, and accessible forms.

The place-based structure of FE provision further underpins this inclusive reach. Innovation Centres embedded within local communities operated as proximate and trusted gateways, with first engagement typically occurring through FE-led workshops, diagnostics, or informal conversations, often initiated via community events or established employer relationships.

Through this relational approach, innovation activity was observed to diffuse outward from colleges into the wider local economy, extending beyond central innovation districts.

Collectively, these cases reinforce the position of FE colleges as locally embedded anchors within regional innovation systems. By broadening access, translating innovation into applied practice, and engaging organisations at the periphery of conventional innovation structures, FE colleges enable more inclusive, place-based innovation.

4.3 FE Colleges as Innovation Intermediaries and Capability Builders

The evaluation substantiates the position of Further Education (FE) colleges as effective innovation intermediaries within the regional ecosystem, rather than merely acting as endpoints for innovation activity. Quantitative referral data, supported by detailed qualitative case accounts, demonstrates that FE colleges alleviate the complexities SMEs encounter when navigating the innovation landscape by serving as trusted brokers and connectors to external expertise, support services, and professional networks. Rather than delivering innovation in isolation, FE colleges enable businesses to access and engage with innovation incrementally, at a pace aligned with organisational needs. Crucially, the evidence reveals that intermediary effectiveness is underpinned by relational and cumulative processes; diagnostics, referrals, innovation literacy training, and sustained engagement collectively reinforce one another, amplifying impact over time.

Since the programme's inception, FE colleges have facilitated 658 business referrals into the broader innovation ecosystem, including 296 referrals during the first six months of Year 2. Referral activity is framed within the evaluation as a central intermediary function, underpinned by structured yet adaptive innovation diagnostics that identify organisational needs and direct firms towards relevant external support, such as universities, Growth Hub services, sector partners, and national in-

novation programmes. Notably, diagnostic and case evidence indicate that many participating businesses lacked prior awareness of, or engagement with, formal innovation support, and that FE-led brokerage frequently constituted their first meaningful point of entry into the wider innovation ecosystem.

The evaluation presents case-based evidence that substantiates the intermediary function of FE colleges within the innovation ecosystem. This is supported by diagnostic data showing that 88% of participating businesses had never previously accessed innovation support, alongside case evidence in which SMEs explicitly described FE-led engagement as their initial and enabling route into external innovation services. For example, Alison, an SME owner supported through Hopwood Hall College's Innovation Centre, described having no prior engagement with structured innovation programmes and noted that FE-led, problem-focused support was instrumental in building the confidence and practical understanding required to engage with digital tools and wider business networks.

In numerous instances, the primary impact was not the direct uptake of new technologies, but rather the enhancement of strategic awareness, organisational readiness, and the capability to approach innovation as a gradual, iterative process (Uyarra et al., 2017; Coyle & Selvi, 2024). This pattern is consistent with UK evidence on SME innovation, which shows that early-stage innovation support most commonly builds confidence, absorptive capacity, and readiness for change prior to measurable technological adoption according to insights from the productivity institute by Coyle & Selvi (2024). This translational role was especially prominent where innovation support was closely aligned with operational priorities, enabling tailored interventions that enable innovation to be understood and applied incrementally rather than solely abstract or technical, addressed the specific needs of participating organisations.

These findings align closely with scholarship on innovation intermediaries, which emphasises the importance of brokerage, translation, and capability-building functions in enabling firms to engage with complex innovation systems (Howells, 2006; Kivimaa et al., 2019). Rather than acting as endpoints of innovation activity, intermediaries reduce navigation barriers, build absorptive capacity, and support firms in progressing incrementally toward more formal forms of innovation engagement. The evidence from GMFEIP extends this literature by demonstrating how FE colleges perform these intermediary functions through relational and trust-based engagement with SMEs that lack prior experience of innovation support. From an Actor–Network Theory perspective, these activities can be understood as processes of translation and enrolment, through which FE colleges stabilise relationships between businesses, universities, funding

programmes, and regional support services (Callon, 1986; Latour, 2005). In this way, intermediary effectiveness emerges not from isolated interventions, but from the gradual alignment of heterogeneous actors and resources within the regional innovation ecosystem (Baldwin et al., 2024).

The findings also invite comparison with the dominant "innovation district" model, which concentrates innovation activity within dense urban clusters anchored by universities and research institutions. While such districts can generate significant economic value, they are often geographically and institutionally distant from many SMEs and community-embedded organisations. The GMFEIP demonstrates an alternative distributed model, in which FE-led innovation centres extend ecosystem reach across multiple boroughs and sectors. This evidence suggests that cities without dense innovation quarters, or those seeking to broaden participation beyond them, may benefit from FE-centred and place-distributed approaches that complement rather than replace existing university-led assets.

In addition, the evaluation provides evidence of capability-building through the delivery of Innovation Literacy training to apprentices, with over 150 Apprentice Innovation Ambassadors completing the programme by September 2025. Vignette 3 illustrates that apprentices have developed the confidence to initiate workplace improvements, introduce digital technologies, and contribute to organisational change. These outcomes, while emergent, are characterised as significant, particularly within SMEs where internal capacity for innovation is constrained, demonstrating the early but substantive impact of targeted skills development on organisational practices.

Vignette 3: Innovation literacy programme through apprenticeship pathway

Maya, an apprentice at MBDA, participated in the Innovation Literacy Programme after being identified by her FE college assessor to join the programme. The invitation itself increased her confidence and sense of capability:

"It was my college assessor who said, 'You'd be a good fit for this.' That really boosted my confidence."

Following the training, she co-developed a collaborative apprentice email system that redistributed work across departments, reducing downtime and improving engagement. She described a clear shift in how she approached problems at work:

"Now, if I see something that doesn't make sense, I ask why it's there and if nobody knows, I get rid of it."

Vignette 3 illustrates how FE colleges support innovation through workforce capability building rather than direct technological intervention. In this case, the college delivered the Innovation Literacy Programme and identified the apprentice

as a suitable participant, demonstrating the role of FE staff in recognising potential innovators and facilitating access to innovation skills. The resulting workplace improvement, the creation of a collaborative apprentice email system at MBDA, shows how innovation can diffuse through people embedded within organisations. This example reinforces the intermediary role of FE colleges in developing innovation capability, confidence, and problem-solving behaviours that enable incremental organisational change.

Additionally, Work Package 2 activity, led by Innovators in Residence, serves to further consolidate the intermediary function of FE colleges within the regional innovation ecosystem. By embedding sector specialists with up-to-date industry expertise, the programme facilitates the transfer of contemporary knowledge from the Triple Helix into college environments, fosters strategic links with universities and regional innovation assets, and enhances the capacity of FE staff to engage effectively and credibly with businesses. The evidence shows that these collaborative relationships are now developing durability, extending beyond isolated interventions and thereby advancing longer-term connectivity across the ecosystem. As articulated in vignette 4, this emerging persistence marks a significant step towards sustained integration and relational impact.

Vignette 4: Expanding participation in the innovation ecosystem

Through the Innovators in Residence work package, FE colleges began contributing to curriculum specialist boards, employer forums and regional innovation discussions across frontier sectors. Innovators worked with FE staff, universities and industry partners to co-develop sector insights, support curriculum planning and convene cross-institution collaboration.

In the engineering strand, this collaboration culminated in a jointly authored position paper involving FE colleges, HE partners and employers, which fed directly into the Graphene Advanced Materials and Manufacturing Alliance (GAMMA) board. A programme manager reflected on the scale of change: "We're sitting around tables we wouldn't have been at 18 months ago."

This illustrates how structured coordination created legitimate routes for FE colleges to participate in system level spaces, shifting their role from delivery partners to recognised contributors within the wider governance network.

Vignette 4 illustrates how coordinated programme design has repositioned FE colleges within regional innovation governance. Through Work Package 2 and the Innovators in Residence model, FE colleges became active participants in cross-sector boards, curriculum specialist groups and regional strategy discussions. The quote reflects a shift from peripheral engage-

ment to recognised participation in decision-making spaces, demonstrating how structured coordination can elevate FE colleges from delivery partners to contributors shaping the wider innovation ecosystem

4.4 The need for intentional system-level integration of FE Colleges

These findings align with scholarship on innovation ecosystem resilience, which emphasises that enduring impact depends less on programme duration than on robust governance, formalised structures, and sustained coordination (Nishimura & Okamuro, 2011; Whetsell et al., 2019). The GMFEIP demonstrates that ecosystem durability is achieved through shared governance, clearly delineated intermediary roles, and mechanisms that enable ongoing collaboration, rather than through episodic or time-limited interventions. Importantly, the findings extend this literature by showing that principles derived from R&D-intensive consortia are equally applicable to inclusive, place-based innovation systems, particularly where actors lack established legitimacy within innovation policy (Ketonen-Oksi & Valkokari, 2019).

The evidence indicates that the contribution of Further Education (FE) colleges to inclusive innovation remains inherently fragile unless these institutions are purposefully embedded within regional governance and delivery structures. This precarity reflects long-standing critiques of dominant innovation ecosystem models, including the Triple Helix, which have historically privileged universities as primary innovation brokers while marginalising other educational institutions (Etzkowitz & Leydesdorff, 2000; Cai & Amaral, 2021). The evaluation demonstrates how this marginalisation manifests in practice, with FE-led innovation activity remaining vulnerable in the absence of formal governance recognition.

This finding resonates strongly with wider scholarship on innovation ecosystem governance, which emphasises that ecosystem durability depends on formal coordination, shared institutional recognition, and sustained alignment between actors (Nishimura & Okamuro, 2011; Whetsell et al., 2019; Ketonen-Oksi & Valkokari, 2019). The evidence also reflects longstanding critiques of dominant innovation models, particularly the Triple Helix, which have historically privileged universities as primary academic actors within innovation governance (Etzkowitz & Leydesdorff, 2000; Cai & Amaral, 2021). The GMFEIP provides empirical evidence of how this structural omission manifests in practice, demonstrating that FE-led innovation activity remains vulnerable without formal recognition and strategic embedding. From an Actor–Network Theory perspective, this fragility can be understood as a challenge of network stabilisation, in which the legitimacy of FE colleges as innovation actors must be continually negotiated and reinforced within governance structures (Callon, 1986; Latour, 2005).

The findings therefore extend ecosystem scholarship by showing that inclusive innovation requires not only participation mechanisms but also the deliberate institutionalisation of intermediary roles within regional innovation governance (Baldwin et al., 2024).

Furthermore, empirical case evidence shows that value within the ecosystem is generated through sustained, iterative engagement rather than discrete interventions. Businesses and partners consistently reported that benefits accrued through repeated interaction, ongoing advisory support, and evolving collaborative relationships involving staff, students, and external actors. These findings highlight the relational and cumulative nature of innovation outcomes and underscore their susceptibility to erosion without intentional structural integration. In theoretical terms, this aligns with Actor-Network Theory, which conceptualises innovation as emerging from stabilised relationships among heterogeneous human and non-human actors, rather than from isolated technological outputs (Callon, 1986; Latour, 2005; Baldwin et al., 2024).

A consistent theme concerns the importance of intentional system-level design. Prior to GMFEIP, FE engagement with innovation was fragmented and episodic, often dependent on individual relationships rather than formal governance arrangements. In contrast, the programme's coordinated architecture spanning nine colleges across ten boroughs, supported by shared work packages, common diagnostic tools and cross-college collaboration, provided a framework for collective visibility and legitimacy. The evidence suggests that the impact of innovation tools and diagnostics would have been significantly reduced without a shared vision, agreed protocols and coordinated governance. This shift from episodic engagement to structured coordination is illustrated through Work Package 2 activity, where Innovators in Residence and cross-college collaboration enabled FE colleges to move from peripheral participation to recognised contributors within regional innovation governance.

Additionally, a further implication concerns the evolving relationship between Further Education and Higher Education within the regional innovation ecosystem. Evidence from the evaluation indicates that FE colleges frequently operate as early-stage engagement partners, providing diagnostics, confidence-building and brokerage before referring businesses into university-led research, specialist facilities and national innovation programmes. Rather than substituting for university activity, FE colleges extend its reach by preparing businesses to engage with more advanced innovation support. This emerging division of labour suggests a more integrated model in which FE and HE function as complementary actors, combining local trust and access with specialist research and technical expertise. Such collaboration strengthens knowledge diffusion across the ecosystem and supports

progression pathways for businesses from first engagement through to advanced innovation activity. Vignette 5 provides an example of how intentional coordination is enabling FE colleges to participate in sustained cross-institutional collaboration and knowledge exchange.

Vignette 5: Cross-sector collaboration through FE-led brokerage

Through Work Package 2 and the Innovators in Residence model, FE staff began developing sustained partnerships with universities and sector stakeholders.

One Innovator described collaborating with the University of Salford to deliver a Greater Manchester Esports webinar series, bringing together college and university leads for monthly sessions focused on knowledge exchange and identifying practical collaboration opportunities. This work led to joint CPD delivery with industry partners and ongoing plans for a business-facing Esports showcase event connecting education, employers, and the wider sector.

"I met with a Professor at the University of Salford through DreamLab at MITIH. We collaborated on launching a Greater Manchester Esports webinar series, bringing together college and university Esports champions for a monthly one-hour session. Each session included a 15-minute insight talk, followed by discussion and a focus on identifying practical collaboration opportunities".

This case illustrates a joined-up model in which FE extends employer reach and applied delivery, while universities contribute specialist expertise and convening capacity.

Vignette 5 illustrates how coordinated programme design is enabling FE colleges and universities to operate as complementary actors within the regional innovation ecosystem. Rather than isolated or ad hoc collaboration, these activities demonstrate the emergence of sustained, repeat engagement across institutions and sectors. The case provides concrete evidence of how structured coordination mechanisms are supporting the integration of FE colleges into wider innovation governance and knowledge exchange networks

Overall, the findings demonstrate that inclusive, place-based innovation requires the deliberate and formal integration of FE colleges within regional innovation systems. This entails explicit recognition within governance frameworks, strategic alignment across institutions, and sustained investment in intermediary functions that enable brokerage, translation, and diffusion (Howells, 2006; Kivimaa et al., 2019). System-level embedding is therefore not an optional enhancement, but a necessary condition for sustaining widened participation and capability building within regional innovation ecosystems.

5.0 Conclusion

The findings carry a clear implication for the future design of regional innovation ecosystems. Innovation systems that exclude Further Education institutions risk systematically under-reaching the firms, workers and communities most in need of innovation support. Widening participation in innovation is therefore not simply a question of increasing programme funding or expanding university-led provision, but of redesigning ecosystem architecture to better connect higher and further education and to embed locally trusted intermediaries within governance and delivery structures.

Drawing on interim evaluation evidence from the Greater Manchester Further Education Innovation Programme, this paper demonstrates that FE colleges occupy a structurally distinct and historically under-recognised position within regional innovation systems. Rather than functioning as endpoints of innovation activity, FE colleges act as locally embedded intermediaries that translate innovation into accessible forms, broker relationships across the ecosystem and enable sustained engagement among organisations previously disconnected from formal innovation support.

The evidence further suggests that inclusive innovation is enabled less through technological specialism than through accessibility, relational trust and sustained engagement. By reducing navigation barriers, strengthening organisational readiness and supporting diffusion through workforce development and apprenticeship pathways, FE colleges contribute to the relational infrastructure that underpins long-term innovation capability.

However, these intermediary contributions remain fragile without formal recognition and integration within innovation governance. The GMFEIP demonstrates how coordinated programme design, shared diagnostics and cross-college collaboration can reposition FE colleges from peripheral delivery partners to recognised ecosystem actors. Viewed through an Actor–Network Theory lens (Callon, 1986; Latour, 2005), this reflects processes of network stabilisation in which governance structures, funding mechanisms and intermediary practices align to support the persistence of inclusive innovation beyond individual projects.

Empirically, the study provides interim qualitative evidence that FE colleges widen participation and build early-stage innovation capability among organisations typically marginalised within university-centred models. Conceptually, it positions FE colleges as civic and applied knowledge actors central to distributed and place-based innovation systems. The findings suggest that cities without dense innovation districts, or those seeking to broaden participation beyond them, may benefit from FE-centred and distributed ecosystem models that complement existing university-led assets.

Future research should examine the long-term sustainability of these intermediary roles and explore how redesigned ecosystem governance can support more inclusive and territorially grounded innovation across diverse regional contexts.

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Landing a Morecambe Bay culture innovation ecosystem

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LANDING A MORECAMBE BAY CULTURE INNOVATION ECOSYSTEM

Nathan Jones and Edward Simpson

Abstract

This paper argues that culture can function as research-and-development infrastructure for place. In doing so, it introduces the culture innovation ecosystem as a concept distinct from both the creative cluster and the innovation ecosystem. Creative clusters concentrate sectoral activity through proximity; innovation ecosystems coordinate actors, activities and artefacts toward innovative performance. Culture innovation ecosystems do something neither fully captures: they produce shared reference objects, recurring convenings and durable public formats that make a place more describable to itself and more legible to the institutions shaping its future.

The central concept we introduce is landing, after Bruno Latour: the work of translating situated cultural encounter into artefacts and routines that travel into planning, health, regeneration, and community contexts, for which culture is uniquely suited. Landing enables innovation ecosystems to be sustained in place, and networked across diverse communities and related variety sectors, and therefore mature with and for that place.

We ground this argument in Morecambe Bay, North West England, a place where large-scale energy, defence and regeneration programmes are reshaping coastal communities whose cultural infrastructure remains episodic and dispersed. A five-year Lancaster University track record is read as a programme of landing practices, with cases spanning participatory coastal futures tools, wellbeing walking formats, youth-led visual testimony, AI-embedded architectural practice and immersive scenario convening. We then propose *Twilight Commons* (with Deco Publique) as a landing practice for bay-wide coordination, and a returning Morecambe Bay Triennial as the activation regime that periodically recomposes actors and advances ecosystem maturity at scale.

Subscribe and watch Nathan's talk at MediaCity on the i-PLACE Channel at www.youtube.com/@i-Place

Introduction

Morecambe Bay is a coastal–rural territory in North West England. Like many regions of its kind, it is composed through an interplay of natural ecosystems and built infrastructures. River catchments and upland landscapes pour into one of the UK's largest continuous intertidal zones, where sands, saltmarshes and tidal channels shift, deposit and re-cut the very ground on which human and more-than-human populations live. Across the same terrain sits an infrastructure assemblage with

strategic roles in the green transition and other globalised dynamics. Offshore wind lands from the Irish Sea. A nuclear complex operates at Heysham, with further nuclear infrastructure up the coast at Sellafield. Defence-industrial production is concentrated at the Bay's northern tip in Barrow-in-Furness.

In Morecambe Bay, strategic systems sit in close proximity to protected landscapes and the visitor economies that trace them. Morecambe was one of Britain's first seaside resorts, and Lancaster is often described as the gateway to the Lake District. Rail corridors, the M6 and branch routes connect these towns and the Cumbrian coast to metropolitan centres across the North West. Uneven prosperity between towns, locally monopolised post-industrial and seasonal labour markets, and the practical constraints of mobility, access, housing and safety echo patterns seen across coastal communities nationwide (De Graaf et al., 2025). These ecologies and infrastructures overlap, interfere and co-produce the Bay's conditions, so national decisions about climate adaptation, energy transition, tourism, pollution and national security register early in ordinary life.

A third ecology is at work here—alongside, and braided through, the ecosystems it connects to—and it is the subject of this paper: a culture innovation ecosystem. Across the Bay, cultural and creative research is episodically brilliant yet structurally dispersed: distributed across places, platforms and disciplines, spread thinly across short project cycles, and concentrated in a wide range of practices at Lancaster University on and off campus. These practices are nonetheless tightly coupled to the land and to the pressures reshaping it. They produce shared reference objects, convene publics, and develop methods for noticing and describing change in forms that can travel. In doing so, they make the Bay more describable to itself, and more legible within the institutions and funding systems now shaping its future at pace.

The fate of culture in this region is nationally significant. The Bay is entering a period of accelerated transformation, driven by major public and industrial programmes, and this sits within a wider national diagnosis: that coastal and post-industrial places are carrying a disproportionate share of the UK's transition work in decarbonisation, energy security, climate adaptation while remaining comparatively under-served by long-term cultural infrastructure and investment. In this context, culture is one of the few mechanisms capable of holding publics, institutions and place in sustained relation as conditions change. The Key Cities report *On the Waterfront* (De Graaf et al., 2025) argues that coastal communities have faced decades of systemic disadvantage and underinvestment, reinforced by policy initiatives that are often fragmented, short-term, poorly targeted and inadequately funded. It also notes how Treasury rules, including cost–benefit tests tied to land value uplift, can

hinder regeneration by failing to account for the costs and constraints that coastal places carry.

In Morecambe Bay, these pressures converge in live projects, and will be tested in the case of large funding commitments. Morecambe, is remaking its identity around Eden Project Morecambe, backed by £100m Levelling Up funding and a recently announced £40m Pride in Place award. Barrow-in-Furness is the focus of a £200m regeneration agenda delivered through Team Barrow and its partnership between industry, higher education and local authorities. Across Lancashire and Cumbria, the transition economy is projected to reshape jobs, skills and supply chains, intensifying the Bay's role as a test landscape where decarbonisation, industrial strategy and place-making collide. The decisive issue is whether institutions and communities can orient and transition quickly enough without losing shape and purchase on the land, so value becomes cumulative in place rather than washing through under the 'wash' of project-based funding.

Cultural capacity in the Bay will be important to this transition. It currently surfaces as a shifting field of small projects, festivals, pilots and short commissions that do strong work and then vanish as funding rounds close. In that sense the cultural sector resembles the mutable channels of the intertidal zone itself: it can look permanent at a distance, then slide and writhe under pressure, re-cut by the expediencies of the wider world. This volatility is a constraint, but it is also a resource. Because culture moves with the tides, it is a diagnostic of how the Bay is organised and how it is changing: what can be convened, what can be made legible, what can be held. At the same time, it makes the case for continuity, meaning connective approaches to cultural place-making routed through research structures capable of retaining learning long enough for it to accumulate. This paper treats culture as R&D infrastructure for place: a way of prototyping shared narratives, publics and partnership routines so that change is retained, recombined and governed locally rather than extracted.

We develop this proposition in three steps. First, we set out why Morecambe Bay is better understood through innovation ecosystem logic than through cluster framings. Second, we ground the claim in a five-year regional track record, presenting a set of representative examples of culture innovation as landing practice and showing what it means for outputs to travel into institutional use. Third, we describe a new approach we are taking to the University's role in our cultural ecology. Our plan for Twilight Commons, developed with Deco Publique, is designed to allow a range of practices to compound at bay-wide scale, form a connected group of "triple helix" culture partners and local authorities with the university as a continuity layer that holds learning in relation, and proposing the Morecambe Bay Triennial as a re-

turning public platform that periodically recomposes actors and refreshes shared methods so learning remains usable over time.

Innovation ecosystems

A culture innovation ecosystem is a name we give to a particular kind of arrangement in which cultural forms provide connective tissue – between innovation actors, activities and artefacts, and the place in which they take place. In this arrangement, knowledge about and from a place can move between proximate sectors and across "related variety" activities that share skills and practices, creating value in more than one domain and feeding back into how the place is shaped over time (Frenken et al. 2007). Culture innovation ecosystems differ from the more commonly used term "creative clusters" in multiple ways, and we set out those differences in this section. We also argue that they differ from innovation ecosystems as they are often understood, because culture offers something distinctive: it produces shared reference objects, recurring convenings and durable public formats that allow knowledge to remain legible and actionable across institutional boundaries.

Investment in creative innovation has often been structured through cluster logic, most notably by UKRI through its Creative Industries Clusters Programme (UKRI, 2024). In cluster framings, spatial proximity is treated as the driver of exchange and policy attention gravitates toward dense concentrations of firms, labour and capital (Porter, 1998; Scott, 2006). In the UKRI–AHRC model, public R&D funding is used to concentrate sector development within a defined locality, typically through a university-anchored consortium that convenes firms, cultural organisations and public partners around a shared programme of innovation activity. Liverpool City Region's MusicFutures cluster is an illustrative case. Announced as a £6.75m UKRI Creative Cluster for the music sector and led by the University of Liverpool in partnership with Liverpool John Moores University, it positions the city region as a hub for music R&D by bringing together artists, entrepreneurs, businesses and researchers around technology, sustainability, talent development and new business models within a single sectoral frame.

Morecambe Bay demands a different innovation geometry. As we suggest above, the opportunity here is to link cultural practices about and of place to one another, and to connect the innovations made through culture to the practical demands of transition across related sectors. Rather than concentrating activity within a single sectoral frame, the model we suggest for a Bay "cluster" requires connective infrastructure that can connect knowledge between fluid land-sea contexts, and similarly transitional visitor economies, education, public health, regeneration, energy and security sector. In this setting, innovative performance depends less on concentration and more on the ability to

convene dispersed actors, and translate place-based insight into shared reference objects and routines that remain legible and actionable over time.

Innovation ecosystem approaches fit better than cluster framings for the Bay because they treat innovation as a system outcome rather than a property of a dense local sector. Instead of assuming that proximity and concentration drive performance, ecosystem accounts focus on how actors coordinate, how outputs circulate, and how local rules and material conditions enable or block collaboration (Adner, 2006; Gulati et al., 2012; Granstrand & Holgersson, 2020). We use Granstrand and Holgersson because their review makes the ecosystem idea operational. It includes not only organisations and collaborations, but also artefacts, institutions and the full spectrum of relations, including substitutes as well as complements (Granstrand & Holgersson, 2020). In their definition, an innovation ecosystem is the evolving set of actors, activities and artefacts, together with the institutions and relations that matter for innovative performance (Granstrand & Holgersson, 2020).

This definition matters for Morecambe Bay for two reasons. First, it foregrounds artefacts as core system elements. That is helpful for cultural research because it produces artefacts almost as a matter of course, including artworks, formats, archives, tools, maps, prototypes and datasets that can circulate, stabilise learning and keep knowledge usable beyond the originating project (Granstrand & Holgersson, 2020). Second, it makes complement and substitute dynamics visible. Cultural commissioning in complex sites depends on complements arriving together, including permissions, access, safety, audiences, and intellectual legitimacy – as press or other media distribution – and other forms of activation within important 'actors' in the region. Substitutes such as one-off events can displace local capability and prevent learning from accumulating – particularly pertinent to Universities. We return to this later in the context of the idea of 'ecosystem maturity', arguing that festivals are a potent prototyping form for culture innovation ecosystems, because they can temporarily assemble the ecosystem's actors, artefacts and institutional conditions in one public setting and test whether knowledge and partnerships travel beyond the event.

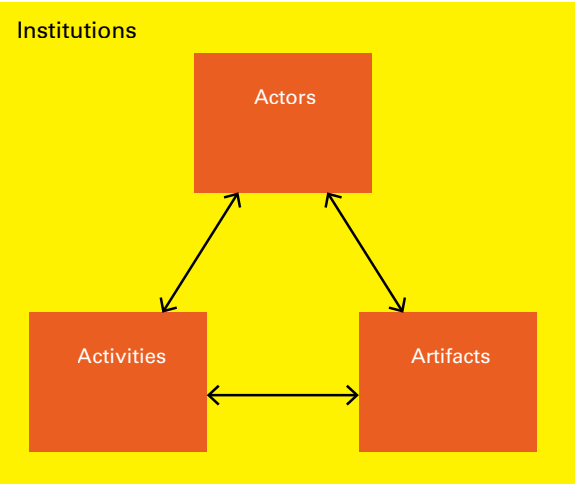

Figure 1. Granstrand and Holgersson's innovation ecosystem diagram (2020)

Two further literatures sharpen this mechanism. Work on "related variety" shows how innovation is generated through circulation across distinct but connected activities that share skills and practices, rather than through single-sector specialisation of the kind cluster policy often assumes (Frenken et al., 2007). In coastal and remote contexts, research on creative economies extends this logic by emphasising connectivity mechanisms, including corridor-like structures, that link dispersed micro-clusters and improve investment efficiency (Willis et al., 2025). Place-based development research similarly argues that interventions gain traction when they are calibrated to territorial conditions rather than imported as generic instruments, and that in coastal places effective interventions are more often distributed across sites and institutions than consolidated into a single hub (Barca et al., 2012). Taken together, these accounts point to a second-order question for the Bay. The issue is not only whether innovation occurs, but whether knowledge, relationships and institutional capacity carry through handovers so that performance becomes cumulative.

Culture innovation: continuity and landing

The above brings us to a continuity problem: how place-based knowledge stays in view and is carried forward as people, projects and priorities change. Innovation is often described as rupture, while culture suggests continuity. Cultural innovation practice lives inside this tension as an ordinary condition. A festival returns and re-forms, an archive grows and makes new readings possible, and site-specific practice renews itself through changing attachments. Innovation brings change, but maturity prevents change from evaporating. Essmann and Du Preez (2009) make a similar point in organisational terms. They note that maturity and innovativeness have often been treated as opposites, yet their assimilation is necessary for long-term prosperity because organisations require an innovation capability that produces consistent outputs rather than isolated breakthroughs. They describe maturity as a progression of capability "plateaus," where innovation moves from ad hoc and inconsistent outputs toward more formalised, supported and integrated practice. This matters here because without maturity in the ways cultural innovation work is held and carried forward, what we learn about place remains episodic and lacks a structure around which it can cohere.

This continuity question is politically consequential in transition territories that are structurally important yet weakly represented. Borgström's notion of "ghost acreage" names lands that sustain wider systems while remaining only partially legible within the decision frameworks that shape them (Borgström, 1965). Latour reframes this as a problem of orientation under climate transition. Attachments and dependencies remain under-described and

therefore difficult to negotiate politically (Latour, 2018). Landing names the practical work of making those dependencies explicit enough to enter civic and institutional deliberation (Latour, 2018). A territory becomes a political entity when its publics can describe and evidence its conditions and carry those descriptions into the institutions shaping its futures. The practical question is how those descriptions are kept in view, how they survive handovers and changing agendas, and how they continue to govern what happens next.

In this paper, we treat culture innovation as landing practice. It names cultural work that regenerates methods and formats in ways that change how research, public experience and civic systems operate. It brings shifts in energy transition, climate risk governance, regeneration, mobility and security infrastructures into contact with everyday life through cultural activity. It takes site-specific form, developing situated and methodologically inventive ways of building culture among publics and the territory they occupy. What is encountered, what is made legible, and what is carried forward varies by site and by sectoral interface. Culture does connective work through reference objects, including artworks, experiences, maps, archives, prototypes, commissions and datasets. These objects are made about and for place, shaped for internal and external legibility, and able to travel across institutional contexts.

This political question points toward a further structural requirement for a Bay-scale culture innovation ecosystem: a collaboration architecture that holds the three principal actors, university, industry and civic authority, in productive relation over time despite turnover in personnel, priorities and funding windows. The triple helix model describes this arrangement as a dynamic, co-evolving system in which knowledge production, economic application and governance capacity generate innovation through their interaction rather than in isolation (Carayannis & Campbell, 2010). In a ghost acreage territory, the triple helix becomes vitally important because it provides a stable collaboration architecture through which a place can convert situated knowledge into durable governance and economic practice. When a territory bears structural weight for wider systems yet remains under-described in the decision frameworks shaping it, innovation tends to arrive as external programmes and extractive delivery. The triple helix offers a way to hold knowledge production, application and civic authority in productive relation so that reference objects, methods and evidence can be translated into commissioning routines, planning decisions, investment choices and long-term stewardship. The practical question, in a dispersed coastal–rural territory with split jurisdictions and episodic delivery, is whether that architecture can be instantiated and sustained through handovers.

Track record as landing practice

We now turn to a five-year track record in which Lancaster University has used creative industries-led research to test what it takes for cultural practice to operate as connective infrastructure across the Morecambe Bay region. Through targeted use of AHRC Impact Acceleration Account (IAA) funding, alongside nature and culture research supported by the British Academy, Arts Council England and EPSRC, the University has worked across environmental transition, civic systems, education, digital research and industrial contexts. Read through the lens developed above, this record can be understood as a programme of experiments in landing: how a territory becomes describable to itself, and how those descriptions enter the institutions shaping its future.

Across the five-year period, it is clear that practices of landing connect to wider systems in the Bay. Forty-five per cent of IAA projects generated new products or processes, including digital tools, educational resources and place-based innovation toolkits. Sixty-one per cent of collaborations continued beyond individual award lifetimes. AHRC IAA investment generated approximately £5 million in follow-on and leveraged funding, around £7 for every £1 invested. The figures indicate complementary and connected activities. Outputs that were taken up in new contexts, attracted co-investment, and sustained cross-sector relationships beyond the initiating commission each represent a new node in the culture innovation ecosystem.

The diversity of follow-on sources also shows those connections holding across domains. Work moved between land management and community engagement, property and regeneration, Arts Council programmes, health and visitor economy models, and security and infrastructure contexts. This is ecosystem behaviour in practice: reference objects and methods circulate between domains and embed within new institutional settings.

The connective pattern becomes most visible when the record is read side by side. Across the portfolio, projects share a logic of transfer. Knowledge generated in one setting informs work elsewhere. Relationships formed in one award extend into the next. Methods strengthen through repetition across sites. The practical constraint is continuity. Attention and capacity move on, and what has been learned remains distributed across files, networks and artefacts rather than consolidating as a shared method that others can pick up and extend.

We make that connective logic explicit by presenting a set of representative examples of culture innovation as landing practice. Debbi Lander's Arts and Culture Review of Lancaster University (2024) identifies a distinctive culture innovation strength at the institution: a capacity to use cultural practice as connective infrastructure, enabling ideas to move across faculties and connecting research to place through events, encounters and artefacts

(Lander, 2024). Lander links this to an interdisciplinary artist–scientist heritage at Lancaster, including the nineteenth-century thinker John Ruskin, whose collections are held by the University, and to contemporary research environments in digital humanities, environment, future places and mobilities, where creative methods help generate shared questions, publics and forms of evidence (Lander, 2024). In these terms, culture innovation becomes a way of making complex conditions perceptible and transferable across disciplinary silos and institutional boundaries.

1. Paul Cureton's Morecambe Area Gaming Environment provides one example of how landing can be designed into civic decision-making (Cureton, 2025). The innovation sits in the translation of numerical coastal modelling, GIS and scenario logic into participatory formats that communities can enter and work with, converting uncertain futures into shared objects for discussion. The

Figure 2. MAGE – a serious game about planning coastal areas and climate change

cultural work sits in the construction of shared reference situations, where uncertainty becomes discussable and trade-offs become collectively legible. Landing occurs when scenario objects can return across planning windows and support continuity in how communities and institutions reason together. (Further examples include: Coastal Nature Lab (Pollastri & Ilic, 2025) and field-deployed prototyping on the salt flats; design-led coastal futures toolkits and adaptation pattern resources.)

2. Walking for Wellbeing, led by Professor Simon Bainbridge, offers a different landing pathway, working through reading, movement and interpretation (Bainbridge, 2025). The innovation sits in the portability of the format across sectors, particularly where wellbeing and cultural engagement intersect. The cultural work sits in collective traversal and shared attention, using texts and archival encounters as prompts for perception. Landing occurs when Bay encounter is carried into health, coaching and organisational settings as a reference experience that can be revisited and used. (Further examples include: Litcraft (Bushell & Butler, 2025; Bushell, 2025) and navigable literary environments; other literary and archival walking formats around the Bay.)
3. Dr Celine Germond-Duret's SeaSights project shows how voice and representation can become infrastructure (Germond-Duret, 2025.). The innovation sits in the method as a form of evidence production that is grounded and portable. The cultural work sits in image-making and interpretation as a public act, turning lived experience into shareable reference objects. Landing occurs when those images and narratives enter strategy and policy discussion as durable testimony of transition conditions, including concerns about affordability, exclusion and future opportunity. (Further examples include: Voice of the North (Nance, 2025) and accent visualisation translated into cultural outputs; A Future Archive and the deposit of contemporary community work into Lancashire Archives (Missero & Nance, 2025).
4. AI:Lab, led by Professor Des Fagan in collaboration with Grimshaw Architects, shows landing achieved through embedded practice (Fagan, 2025). The innovation sits in the use of AI as a design method within a live architectural workflow for Eden Project Morecambe, enabling rapid exploration of trade-offs at the point where decisions about form, structure, mobility and carbon are made. The cultural work sits in making sustainability reasoning

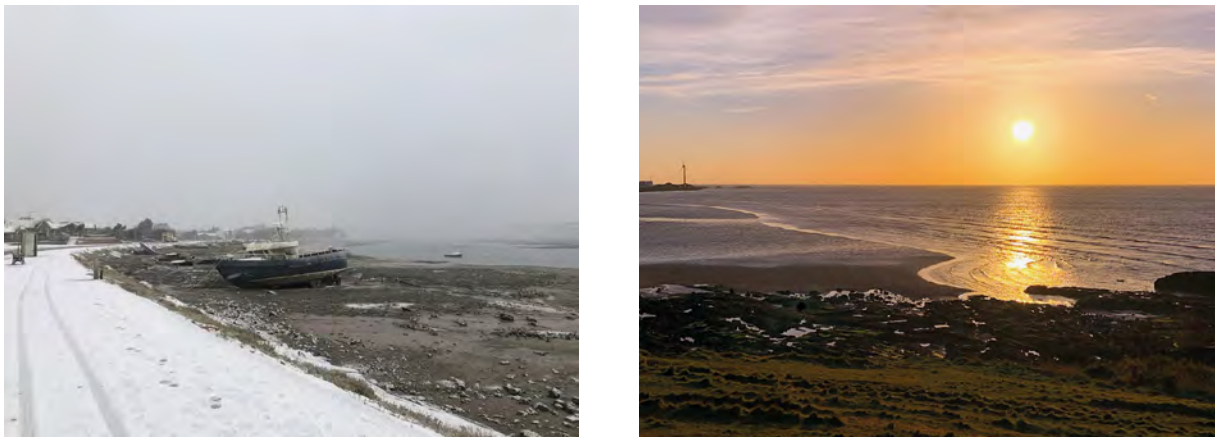

Figure 3. Seasights. *"Through photography, the project empowered young people from England's north west coast to share their perspectives on local economic developments."*

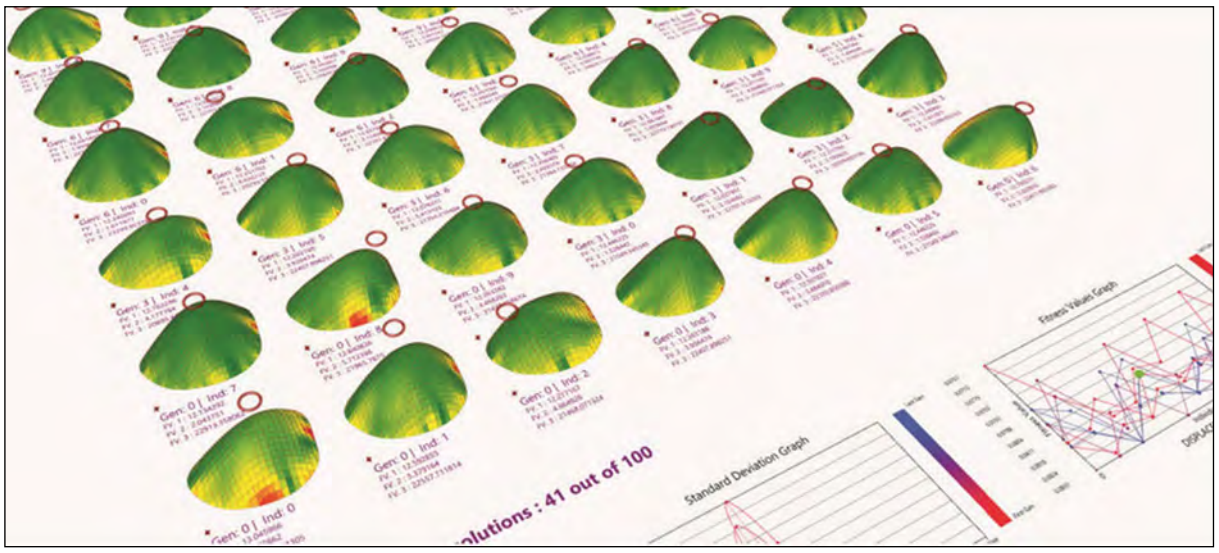

Figure 4. An illustrative image showing the translation of shell shapes to architecture design supported and analyzed for heat retention using AI assistance. Des Fagan

Figure 5. Images showing installation, dialogue and mapping. in Liz Clough's *The Circle, A Whole, A Sun, A Meeting*

legible as a shared working process rather than a report delivered after the fact. Landing occurs when methods become routine and travel across projects as part of professional workflow, changing how decisions are made while they remain pliable. (Further examples include: sensor-led environmental work that treats monitoring as cultural practice, with artefacts operating as data devices, public engagement tools and policy resources (Griffiths, 2025).

5. The Unsecurities Lab shows landing through immersive practice as a research environment (Jones, 2025). The innovation sits in the use of an artwork as a bounded world that supports interdisciplinary scenario work and generates documentation that can enter subsequent research and institutional practice. The cultural work sits in the shared reference situation created by immersion, where participants who do not share frames can meet, test assumptions and generate usable descriptions. Landing occurs when the encounter becomes a stable object of thought and a shared point of orientation across domains. (Further examples include: performance and collective making formats that generate shared maps and

descriptions as part of the research situation.)

Read together, the examples above show landing as a connective practice. Landing links situated encounter to uptake by producing reference objects and working habits that can be taken up beyond the originating context. When these connections hold, they begin to describe an ecosystem pattern, in which artefacts circulate between actors and activities and ecosystem maturity evolves as those artefacts travel between different circumstances. The question that follows is whether the Bay has the continuity infrastructure to hold landing outputs in relation, keep them readable over time, and allow them to compound into cumulative capability for the region.

Twilight Commons: towards a new cultural temporality in the Bay

Morecambe Bay produces a familiar coordination problem for place-based development, especially where cultural provision, transport, safety, environment and investment decisions sit in different institutional silos. The Bay's cultural producers and university together are beginning to cultivate the possibility of shared programme logic to address this issue. Several organisations and both local authorities that service the Bay have signalled support for the idea of a Morecambe Bay Triennial: a returning cultural vehicle that can be owned across boundaries and sustained through multi-year planning horizons.

In this context, the university's role can be to produce culture innovation products, and to help convene the stakeholders. We can provide methodological framing that makes culture innovation activity legible to research and innovation funding, and meeting infrastructure through which dispersed priorities are translated into a shared agenda. This is also a question of landing: creating situations in which partners and publics can understand what the Bay's communities and systems depend on, and make those dependencies traceable enough to enter policy, planning and institutional practice. Twilight Commons, a new project developed by Lancaster University with Deco Publique in response to an AHRC call on overcoming barriers to culture, is positioned as an early-stage test of this function. It is a one-year development project designed to establish a cross-Bay culture research network, prototype shared methods and develop governance habits capable of carrying learning forward into a Triennial edition.

Twilight Commons is structured around a partnership between the University and grassroots cultural organisations working across Morecambe and Barrow. Its research proposition uses twilight as both a practical access threshold and an analytic lens for cultural participation. The planned programme combines co-designed twilight walks, sensory mapping and artistic research to surface how light, mobility, perceptions of safety and ecological conditions shape who participates in public culture

after dark. These methods are intended to generate shared objects that can move across institutions, including access maps, commissions and public showings, and an open toolkit that can support cultural planning in other coastal towns facing similar constraints. In ecosystem terms, the project is designed to align actors, activities and artefacts so that situated encounter form a kind of institution, or is legible to those institutions that dictate the future of the region. Twilight Commons therefore operates as a coordination scaffold: it links field-based encounter with the production of institutionally usable outputs, and it brings cultural partners, civic actors and researchers into the same working spaces. The aim is to ensure that what is learned in and about our place can energise how resources are used in that place.

A contemporary art triennial is a recurring exhibitionary event-form that sits between the one-off event and the permanent institution, functioning as a temporary institution that assembles commissioning, publics, expertise and attention into a time-bounded platform, then dissolves and re-forms with each edition (Kennedy, 2014). In this sense, triennials operate as field-configuring events: they align stakeholders, concentrate resources and set agendas, creating conditions in which relationships and methods can be recomposed rather than continually rebuilt from first principles (Morgner, 2017). The multi-year interval is also practical, reflecting the time required to commission and produce work at scale while preserving the event-character of the form (Kolb & Patel, 2018).

In Morecambe Bay, a Triennial would provide the longer continuity structure around which the Twilight Commons sequence can be sustained and extended. A three-year interval creates time for methods developed through Twilight Commons to mature and be elaborated, drawing different expertise into dialogue with the Bay's specific conditions and deepening relationships across the wider cultural network. It also aligns with the time structure of undergraduate degrees, creating a skills and participation pipeline in which cohorts can enter, train, contribute and complete their studies within a single edition. At the University we imagine an environment in which students from across campus can learn through practices that move between outside encounter and inside translation: working in coastal conditions where infrastructures, risks and dependencies are registered in place, then translating those encounters into forms that can be used across institutions, and seeing maps, prototypes, archives, datasets, installations and toolkits come into being and be applied in public and policy contexts. And – vitally – to see these practices emerge through a three year, long term cycle of planning, situated culture innovation, and prototyping in place. Cultural practitioners will extend this work at scale through the Triennial itself, using the interval between editions for residencies, data collec-

tion and prototyping, and the edition itself to create shared reference points for deliberation across local authorities, cultural organisations, researchers, environmental bodies and communities. Over successive editions, this would strengthen the Bay's capacity to sustain inquiry, carry learning forward and make lived territorial conditions legible within decision-making.

Conclusion

Morecambe Bay is becoming a test landscape where climate transition, industrial change and everyday life collide. This paper has described a set of cultural research practices that have developed in response to that condition, and it has proposed a way of thinking about those practices that yields a workable framework for culture innovation ecosystems in coastal–rural locations. The central practical question is whether innovation in such territories compounds locally or leaks away through discontinuous delivery and external capture. An innovation ecosystem frame makes that question actionable because it treats innovative performance as an outcome of an evolving configuration of actors, activities, artefacts and institutions, shaped by complement and substitute dynamics and by more-than-human constraints.

Latour's concept of landing provides practical language for how cultural practice can operate inside this ecosystem. Landing names the work of making attachments, limits and obligations explicit enough to become shared reference objects that connect into civic and institutional decision-making. Read through this lens, the five-year record at Lancaster University shows landing produced through multiple pathways, including futures tools and design experiments that open decision space, cultural formats that remake how landscape is encountered, participatory methods that translate lived experience into civic evidence, workflow-embedded techniques that carry ecological signals into professional systems, and immersive artworks that compose temporary research environments for cross-domain reasoning. These practices move in two directions, taking people into the Bay and bringing the Bay into institutions. Taken together, they describe the operative ingredients of a culture innovation ecosystem.

The record also clarifies the maturity problem. Innovation brings change; maturity keeps change from evaporating. Without continuity in how outputs are held and carried forward, learning remains project-bound and compounding stays uneven. This is why Twilight Commons matters. Developed with Deco Publique, it is an explicitly connective intervention designed to compose dusk encounters, translate them into partner-usable forms and establish MB_CultureResearch as an ongoing network built through delivery. In innovation ecosystem terms, it strengthens the institutional and relational layer of the system so artefacts and methods remain readable through handovers and available for reuse.

Continuity still leaves a further requirement: a returning public form that can reassemble the ecosystem at bay-wide scale, renew alignment, refresh shared reference objects and synchronise complements across permissions, access, safety, fabrication capacity and legitimacy. Deco Publique's proposed Morecambe Bay Triennial is positioned as that activation regime. It changes the temporal shape of the ecosystem from one-off delivery to cumulative practice by providing an edition structure through which methods, partnerships and reference objects can be reworked in public and carried forward. Taken together, the practices described in this paper, the continuity infrastructure prototyped through Twilight Commons, and the Triennial as a returning event-form constitute a workable framework for culture innovation ecosystems in coastal–rural transition territories.

The stakes are straightforward. If the Bay's descriptions remain fragmentary, decisions about climate adaptation, energy transition and security will continue to arrive as external forces, felt early in ordinary life but negotiated elsewhere. If landing practices can be produced, retained and translated through continuity infrastructure, and then reactivated through a returning public form, coastal–rural territories gain a stronger capacity to describe their conditions, evidence their constraints and govern their futures in forms strong enough to travel and durable enough to compound.

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