

# Innovation Strategies for System-level Transformation

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**SCHOOL OF  
INNOVATION  
AND TECHNOLOGY  
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# Project Overview

“Innovation Strategies for System-Level Transformation” explored how to implement innovation policies to drive regional transformation through a participatory, design-led process with policy practitioners, experts and academics. The interlinked workshops, held between March and May 2024, aimed to address the challenges identified in achieving transformational change through innovation policies, focusing on design, mobilisation, implementation, and evidencing success.

Across Europe there is growing interest in transformative innovation policies and how this can drive change and improved performance (economic and wider social/ environmental). The Scottish Government’s National Innovation Strategy, which emphasises making Scotland fairer, more equal, wealthier, and greener, provided the framework for exploring such challenges in Scotland. In this context, we organised workshops with several Scottish and international stakeholders, showcasing cases from international organizations on their innovation projects and strategy processes, to provide diverse perspectives and insights that could enhance Scotland’s approach to innovation.

The first workshop focused on policy design and stakeholder mobilisation. The second workshop explored policy implementation and evidencing change. The final workshop synthesised learnings, identified best practices and knowledge gaps, and made recommendations

for future innovation policy. International partners collaborated with Scottish participants to co-design solutions and critically engage with the planned developments, aiming to maximize the impact and drive long-term transformation in Scotland’s innovation landscape.



# Background & Context

## Challenges for Innovation Policies

Understanding the innovation process is extremely challenging and has evolved from a linear model to understanding the multi-player dimensions of effective innovation (Caraca et al 2009). Wise and Arnold (2022) reviewing Transformative Innovation Policies (TIP) highlight the shifting focus of academic research and innovation investments from economic growth and competitiveness to tackling societal challenges and generating environmental and societal impact. They call for new questions and more active roles for policymaking agencies in strategic dialogues as they move towards a more system-impact approach. Wider systemic approaches to regional economic development are also reflected in regional innovation systems and smart specialisation strategies literature (Aranguren et al., 2017; Foray, 2018), together with the importance of place-specific policy design and implementation (Tödtling and Trippl, 2005). Innovation and entrepreneurship are 'place-based' activities, requiring regional systems that provide support, resources, and enable the flow of people and ideas (e.g., Wurth et al., 2022).

## Towards System-level Transformation

The academic literature has direct implications for innovation policy. Cluster policies are increasingly leveraged to support the wider regional innovation system and as conduits for addressing social challenges. In Circular Econ-

omy and nature-based enterprises (Kooijman et al. 2021), an extended definition of 'value creation' that includes ecological and social value often underpins regional (e.g. city) strategies. This is reflected in the EU's focus on twin transition, going beyond innovation in regional development to encompass green transition for continued growth, adaptability, and resilience. Georgieva et al. (2021) highlight the growing importance of place-based policy responses, capacity building, networking and cooperation to target growth potentials of individual regions/ areas to enable complex territorial transitions. Smith et al (2020) emphasise the collision between theory and practice for the effective evaluation of these policies. Wilson et al (2022) propose a framework of effects for clusters (i.e. regional concentrations of companies and associated institutions that enable partnerships for economic development) and territorial triple helix collaborations, including capturing system-level effects, but highlight that more work needs to be done in this area.

## Scotland's Innovation Strategy

In Scotland in particular, the recently published National Innovation Strategy highlights innovation as a key tool for a fairer, more equal, wealthier, and greener country. The strategy emphasises the importance of transformational innovation policy interventions. A key example is the move towards long-term innovation infrastructure investments by the Scottish Funding Council, recognising the need for sustained



commitment to transformation.

The rationale for this SUII programme was to explore the **key challenge areas** in achieving transformation through innovation policies, identified by policy partners as:

**Design:** Identifying what needs to be done in an ever more complex environment

**Mobilisation:** Engaging the right range of stakeholders and partners

**Implementation:** Delivering effectively

**Evidencing success:** Demonstrating the impact of our interventions to show long-term value and ensure continuity of investment in a challenging public spending environment.

In the context of complex innovation ecosystems and policy, the space for reflection and cross-pollination is often lacking. By connecting policy practitioners across Scotland and Europe around the challenges of system-level transformation policy, this SUII programme presented an ideal opportunity to exchange experiences and knowledge between national, regional and international partners in a multi-disciplinary setting. The participatory design-led approach provided the opportunity for an iterative, ongoing interaction and dialogue between partners and stakeholders who all contribute to possible insights and solutions.

## REFERENCES

- Aranguren, M. J., Magro, E., & Wilson, J. R. (2017). Regional competitiveness policy evaluation as a transformative process: From theory to practice. *Environment and Planning C: Politics and Space*, 35(4), 703-720. <https://doi.org/10.1177/0263774X16662469>
- Caraça, J. M. G., Lundvall, B.-Å., & Mendonça, S. (2009). The changing role of science in the innovation process: From Queen to Cinderella? *Technological Forecasting and Social Change*, 76(6), 861-867. <https://doi.org/10.1016/j.techfore.2008.08.003>
- Foray, D. (2018). Smart specialization strategies as a case of mission-oriented policy—a case study on the emergence of new policy practices. *Industrial and Corporate Change*, 27(5), 817-832. <https://doi.org/10.1093/icc/dty030>
- Georgieva, N., Downes, R., & Bachtler, J. (2021). COVID Recovery and the Long Term Challenges for Regional Policies. (21 ed.) University of Strathclyde. [https://pureportal.strath.ac.uk/files/137232711/Georgieva\\_et\\_al\\_EoRPA\\_COVID\\_Recovery\\_and\\_the\\_Long\\_Term\\_Challenges.pdf](https://pureportal.strath.ac.uk/files/137232711/Georgieva_et_al_EoRPA_COVID_Recovery_and_the_Long_Term_Challenges.pdf)
- Hult, M., & Lennung, S. (1980). Towards a definition of action research: A note and bibliography. *Journal of Management Studies*, 17(2), 241-250. <https://doi.org/10.1111/j.1467-6486.1980.tb00087.x>
- Kooijman, E. D., McQuaid, S., Rhodes, M.-L., Collier, M. J., & Pilla, F. (2021). Innovating with Nature: From Nature-Based Solutions to Nature-Based Enterprises. *Sustainability*, 13(3), 1263. <https://doi.org/10.3390/su13031263>
- Smith, M., Wilson, J. R., & Wise, E. (2020). Evaluating clusters: Where theory collides with practice. *Regional Science Policy and Practice*. <https://doi.org/10.1111/rsp3.12279>
- Tödtling, F., & Trippel, M. (2005). One size fits all? *Research Policy*, 34(8), 1203-1219. <https://doi.org/10.1016/j.respol.2005.01.018>
- Wilson, J., Wise, E., & Smith, M. (2022). Evidencing the benefits of cluster policies: towards a generalised framework of effects. *Policy Sciences*, 55(369-391). <https://doi.org/10.1007/s11077-022-09460-8>
- Wise, E., & Arnold, E. (2022). Evaluating Transformation – what can we learn from the literature? *Papers in Innovation Studies 2022/10*. Lund University, CIRCLE - Centre for Innovation Research. [https://ideas.repec.org/p/hhs/lucirc/2022\\_010.html](https://ideas.repec.org/p/hhs/lucirc/2022_010.html)
- Wurth, B., Stam, E., & Spigel, B. (2023). Entrepreneurial Ecosystem Mechanisms. *Foundations and Trends in Entrepreneurship*, 19(3), 224-339. <http://dx.doi.org/10.1561/03000000089>

# Programme Team

The programme team was led by the School of Innovation and Technology at the Glasgow School of Art and the European Policies Research Centre at the University of Strathclyde. The team brings together expertise on cluster design and evaluation, building triple helix collaborations, policymaker-driven research on regional innovation policy and multidisciplinary experience of both top-down and bottom-up approaches to system-level transformation.

The core programme team was supported by national and international policy practitioners with a range of responsibilities in the innovation and system transformation policy practice and delivery. These included Scottish Funding Council, Scottish Enterprise, Scotland Europa, University of Lund (Sweden) and Orkestra Basque Institute of Competitiveness.



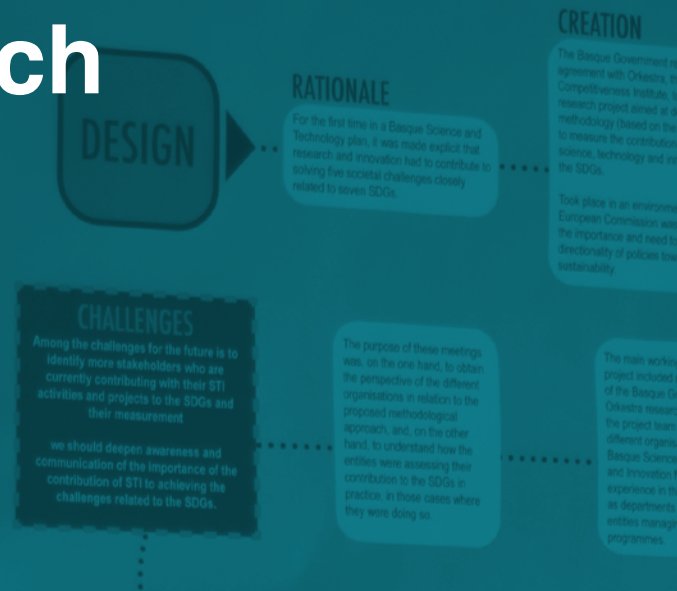
# Objectives

The main objective was to connect policy practitioners across Scotland and Europe in a forum for reflection, discussion, exchange of experience and new collaborations to address common challenges in achieving system-level transformation. While there's general consensus on the need for innovation policies to target transformation to meet societal challenges (the 'what' and the 'what for'), there are large gaps in the understanding of the 'how'. These workshops aimed to contribute to this understanding, with valuable insights in the following areas:

- Increase understanding of successful approaches to design, mobilise and evidence impact for territorial transformation innovation policies;
- Inform and engage policy and practice across Scotland to implement innovation policy agendas;
- Increase codified knowledge of the conditions required for successful innovation policy implementation;
- Improve system-level innovation evaluation approaches to better evidence value generated from investments, and learning for improvement;
- Strengthen Scotland's connection to EU networks progressing innovation policy agendas;
- Position Scotland as a thought leader in territorial innovation policy and research.



# Methodological & Analytical Approach



As an input into the workshops, case studies were developed using a 5 Ps framework (Purpose, People, Practice, Performance, Problems/Possibilities), design-based storytelling and relational mapping techniques to allow comparisons and collective learning across diverse cases. These were designed to support accessible and communicative ways to address the following questions:

- **PURPOSE** - why were we doing this and what did we aim to achieve?
- **PEOPLE** - who was involved and who was interested in the outcome?
- **PRACTICE** - what did we do, put in place and what were the immediate outputs?
- **PERFORMANCE** - how are we progressing towards our ambitions and any outcomes?
- **PROBLEMS/POSSIBILITIES** - what challenges did we encounter, what did we learn and what could be improved?

From answering these questions, visual summaries of each case study were produced telling the journey of the innovation policy using the key challenges: design, mobilisation, implementation and evidencing success. These were shared remotely and exhibited at each workshop, with specific cases used as “lightning talks” to stimulate further sharing and group discussions. The workshops followed an action research approach (Hult & Lennung, 1980) – simultaneously building knowledge and supporting practical problem-solving (or improving practice) through an interactive learning process between researcher and practitioner.

For the first and second workshops, these interactive discussions were captured and shared through visual and digital tools designed to operate both in person and virtually (Miro-based). This allowed for hybrid participation with engaging discursive design methods and mapping. Participants responded to each challenge area by discussing and identifying *essential* practices, *pitfalls* they experienced, and *transformational*





factors to developing and delivering innovation policy. Each workshop fed into the next, informing the discussions and outputs to support meaningful knowledge exchange during the programme. It was a journey for partners and participants, allowing for iterative and continuous learning, which has informed the documented process, and helped to validate key outputs for future learning and collaboration.

The third and final workshop synthesised the learnings from the first two workshops to identify good practices (e.g. in approaches to collaboration, evaluation or mobilisation), gaps in knowledge (e.g. in forms of evidence or impact) and opportunities for future collaboration (e.g. for research or further knowledge exchange). Thematic co-analysis and co-evaluation approaches, through identified thematic groupings, were used to allow participants to engage with the insights gathered and therefore allowed for the validation of findings and formed the basis of recommendations on what could be done differently to maximise the impact and success

of future innovation policy. Alongside the visual materials and engaging discussions produced across this final event, video recording documented activities, discussions and reflections to complement and add to the video interviews from earlier stages for clear, engaging and communicative material to support dissemination.

# Workshop 1: Policy Design & Mobilising Stakeholders

## SUMMARY

The first project workshop was held on Friday, 22 March 2024. It focused on the key factors progressing **policy design**, and for the engagement and **mobilisation** of stakeholders.

Thirty-two workshop participants came from across Scotland and included enterprise agencies, innovation centres, Scottish Funding Council, economic development consultancies, local authorities and researchers from a diverse range of disciplines. International participants joined online from Sweden, the Basque country and Denmark as well as Scottish attendees.

## ACTIVITIES

The programme was introduced from the lead partners (SIT and EPRC), followed by an introductory keynote from **Orkestra** (Basque Institute of Competitiveness), outlining why this timely debate around the challenges for system level transformation has gained importance across Europe. Case studies were gathered from various partner organisations from Scotland and internationally. These were displayed as an exhibition at the workshop, with five minute “lightning talks” per presenter highlighting key learnings from selected cases:

**Scotland Can-Do Innovation** from Scottish Enterprise, involving a tailored pre-commercial procurement approach to drive innovation aimed at boosting economic growth while enhancing public services.

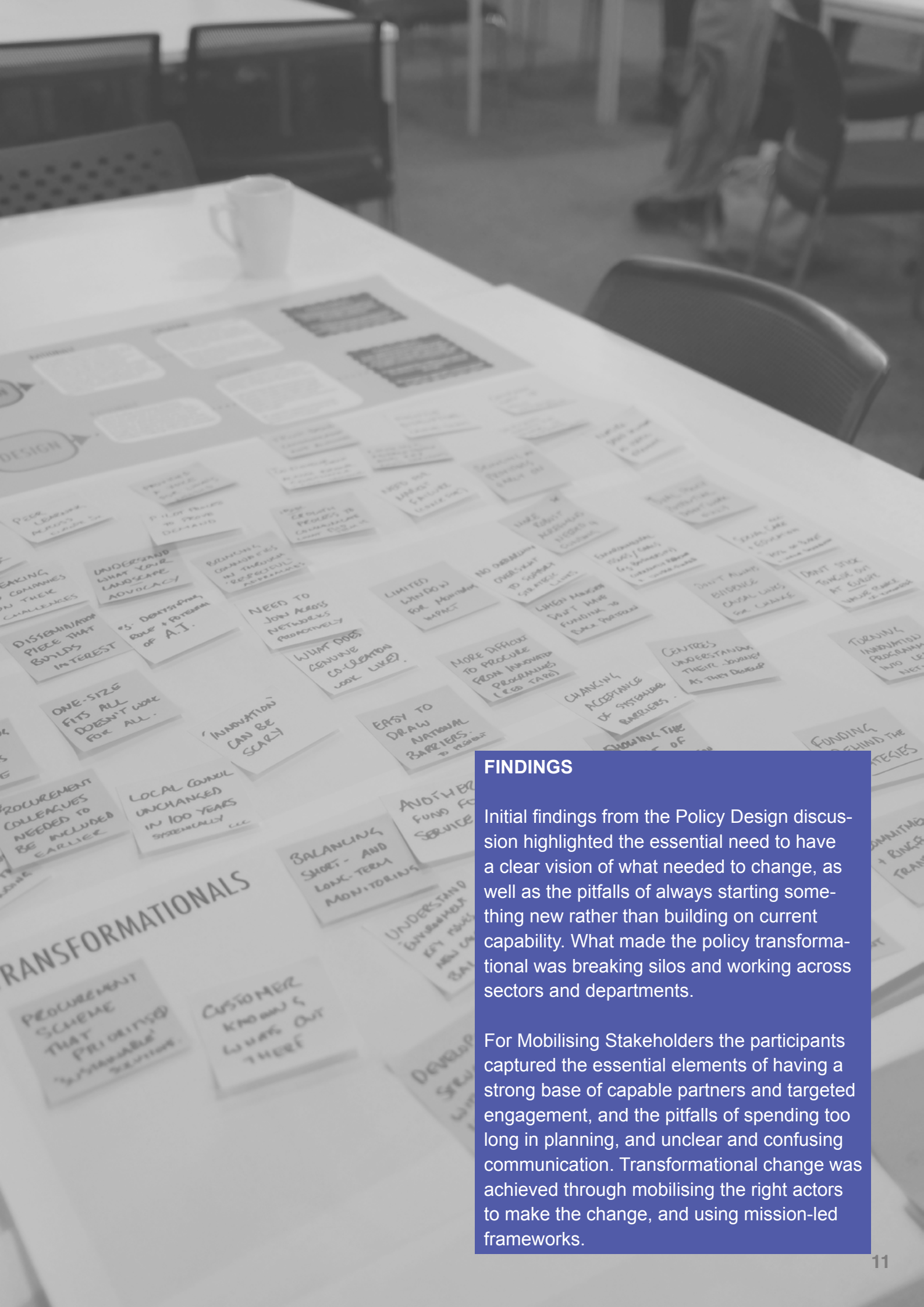
**Connecting Nature** from Glasgow City Council focused on implementing Nature Based Solutions (NBS) to address urban challenges sustainably.

**Net Zero Industrial Cluster Exchange (NICE)** from EPRC, facilitating knowledge exchange and best practices among regions transitioning to net zero industrial clusters.

**System Demonstrators for Climate Neutral Cities** from Lund University, addressing deep structural challenges within specific systems, aiming to accelerate the transition to climate neutrality, a collaborative approach led by Vinnova and Viable Cities in Sweden.

Following the talks, participants were divided into discussion groups (one ‘online’ for remote participants) to discuss the main issues and challenges to emerge from the case studies and drawing from participants’ own experiences. Initially the group discussed **policy design** and in a second iteration the discussion moved on to the key elements in **mobilising stakeholders**.

These discussions focused on exploring the *essentials* we need to include and the *pitfalls* we need to avoid. In addition, the participants discussed what makes a policy intervention truly *transformational*. Led by a facilitator and using post-it notes, the discussions were lively and engaging and concluded with short feedback sessions for the group as a whole.



## FINDINGS

Initial findings from the Policy Design discussion highlighted the essential need to have a clear vision of what needed to change, as well as the pitfalls of always starting something new rather than building on current capability. What made the policy transformational was breaking silos and working across sectors and departments.

For Mobilising Stakeholders the participants captured the essential elements of having a strong base of capable partners and targeted engagement, and the pitfalls of spending too long in planning, and unclear and confusing communication. Transformational change was achieved through mobilising the right actors to make the change, and using mission-led frameworks.

# Workshop 2: Implementation & Evidencing Success

## SUMMARY

The second workshop in the series was held on 16 April 2024, in Scottish Enterprise's Collaboration Space. The workshop focused on how to effectively deliver and implement innovation policies, and the issue of how to evidence the achieved change.

Over 40 participants were involved, with Scottish attendees joined by a number of international participants involved in the [Interreg Europe COMMIT project](#), a follow-up on the Net Zero Industrial Cluster Exchange (NICE) network that was presented as a case study in the first workshop. EPRC is the lead for NICE and Advisory Partner in COMMIT, and co-lead of the present SUII project. Virtual online participation also enabled the involvement particularly of international and other partners not able to make the journey to Glasgow.

## ACTIVITIES

Drawing from the experience of our collaborators, other case studies were again displayed as an exhibition at the workshop, and five-minute "lightning talks" highlighted some key learnings and acted as input into the discussions:

**Contribution of Basque Science, Technology and Innovation Plan (STIP) to SDGs** from Basque Government, through explicit societal challenges, reflecting a commitment to sustainability and initiating a project to measure STIP's contribution to SDGs.

**Vision Denmark** (digital media and creative industries cluster) from Aalborg University focusing on the digital visual sector, it aimed to address common challenges faced by SMEs and larger firms in the industry.

**Cross-cutting Tractor-effect Initiatives** from the Basque Government, initially focusing on healthy ageing, electric mobility, and the circular economy, with the aim for tangible results to Basque society.

**Transforming CSIC to BE-ST** to delivery against the journey to net zero from Built Environment Smarter Transformation prioritising collaboration, inclusive decision-making, and proactive engagement to ensure successful adaptation to change.

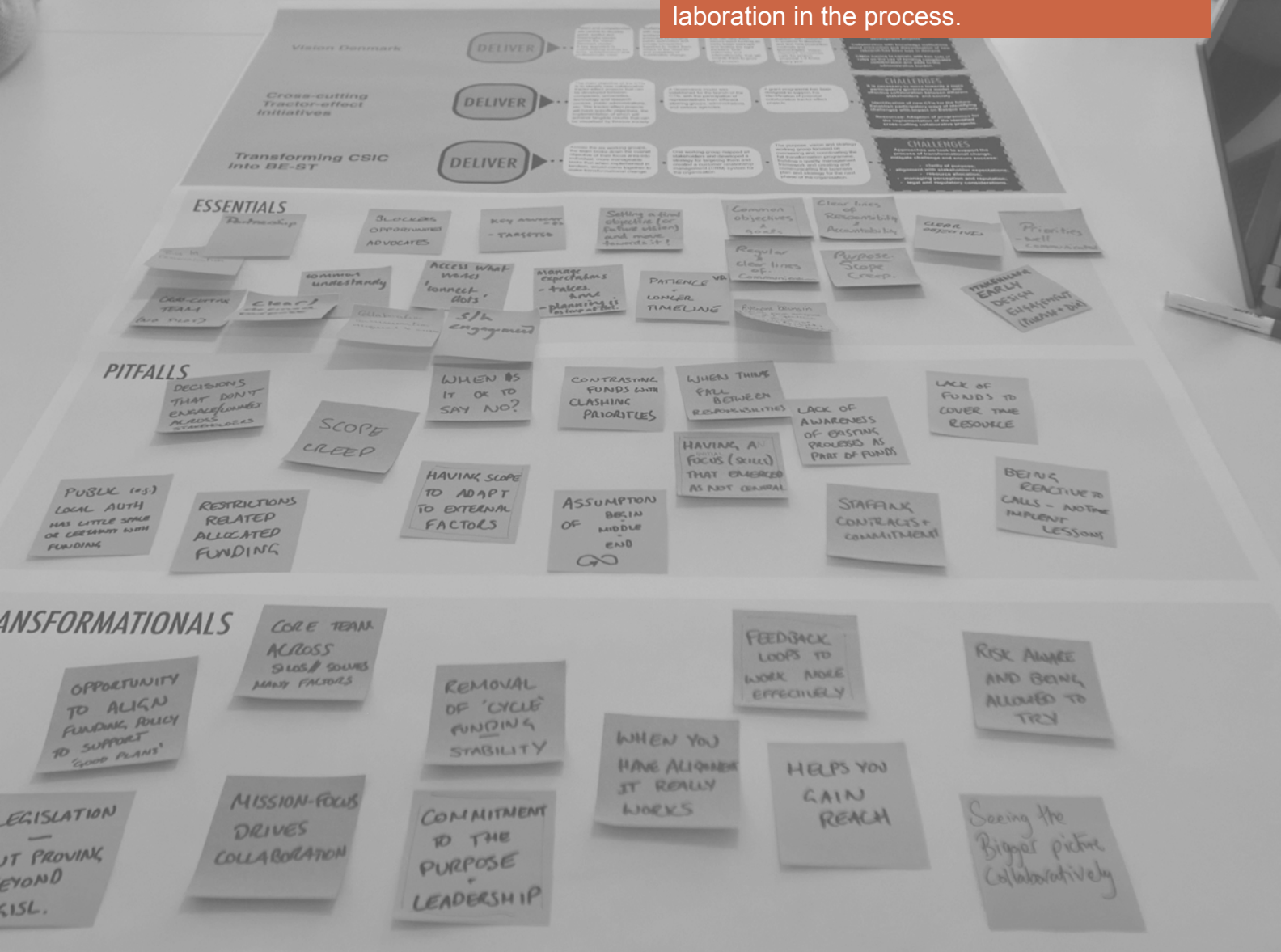
Evaluating the **Innovation Centre Programme** by Scottish Funding Council investing in long-term infrastructure to foster collaboration among universities, colleges, and the public-private sector to harness academic expertise for both societal and economic benefits.

Similar to Workshop 1, participants were divided into discussion tables (including a "virtual table" online) to use case studies and participant experiences to explore issues around policy **implementation**, and in a second round on the challenging area of **evidencing success**. Once again, the workshop discussions focused on the *essentials*, *pitfalls* and what makes a policy intervention truly *transformational*, with highlights from each discussion shared for feedback.

## FINDINGS

Initial findings from the Delivery and implementation discussion highlighted the essential need to build space for dialogue and connection, as well as the pitfalls of short-termism and the lack of clear measures for success. What made the policy transformational was being brave on dynamic and long term funding, and multi-stakeholder alignment.

In the Evidencing Success discussion, essential aspects were raised of story telling skills and the use of wider indicators for system change, whilst the pitfalls highlighted the lack of adequate available data and not having a common language. Transformational elements included embedding evaluation as a learning tool right at the start, and wide collaboration in the process.



# Workshop 3: Learnings & Recommendations

## SUMMARY

The final workshop in the series was held on 16 May 2024 at SUUI. The workshop had a continuity of participants drawing on the two earlier events and involved international partners from Sweden, the Basque country and Denmark, as well as participants from across Scotland, including enterprise agencies, innovation centres, the Scottish Funding Council, economic development consultancies, local authorities and researchers.

The day kicked off with perspectives from the European Union and Scotland, setting the scene for the day's discussions:

**Peter Wostner** from the Institute for Macroeconomic Analysis and Development in Ljubljana shared his experience of shaping the Smart Specialisation Strategies in Slovenia, and his recent research on transformative innovation policy. His key messages included the imperatives of experimentation in policy-making, clear aims and directionality, and collaboration and collective action.

**Alasdair Macleod** from the Scottish Government described the thinking behind Scotland's Innovation Strategy and the programmes now being taken forward into delivery.

## ACTIVITIES

Following analysis of the outputs from the first two workshops some key principles had been

drafted for successful Innovation Strategies aiming for system-level transformation, drawing from the essentials, pitfalls and transformational elements highlighted in those dynamic discussion. These covered five themes (Learning; Understanding context, assets, and needs; Leadership; Development Structures; Cultivating Partnerships), which were presented as a visual tool titled the Principles Canvas.

The morning session of the third and final workshop interrogated these principles in breakout discussion groups, identified any missing elements and prioritised the most important across the five themes for each group.

In the afternoon, a panel from Scotland and Europe, drawn from government, funders, innovation delivery organisations and academic researchers, fielded questions about the impact of these principles on the participants' projects and work, and how the outputs of the project could be best used to bring about real change.

The participants then broke into discussion groups to build an idealised innovation journey, showing what would be different from current approaches. Finally each participant reflected on their own practice and described the actions and collaborations they wanted to take forward as a result of their engagement with the project.

## FINDINGS

Reviewing the Principles Canvas highlighted some gaps in the definitions for the Principles to give greater clarity for each theme. Much of the discussion highlighted the interrelation and interdependency of the different aspects (i.e. all contributed to system level change). Improvements were noted to develop a final version of the canvas (see p16-19).

The panel discussions highlighted the opportunity to use the Principles Canvas as a “checklist” for innovation policy, acting as a toolkit to help policy makers design, mobilise, implement and evidence truly transformational innovation policy.





# Overview of Findings

The analysis of the outputs from the first two workshops enabled the development of the five themes of the **Principles Canvas**, which were further challenged and refined by the discussion and debate at the third workshop. The design of the Canvas was deliberate to show the linkages and interaction between the different themes, with Learning at the core.

To give depth to the headline titles and to ensure a common understanding of each theme, the following definitions and descriptions help explain the content of the Principles Canvas.

## Understanding the Context

Innovation for system-level transformation requires engaging with system-level challenges and opportunities, involving a diverse range of stakeholders, in co-developing an understanding of what positive change means. Therefore, a process is needed that develops and demonstrates strong understanding of what matters in the context, what different needs key stakeholders have and what assets are already there to build from.

### PRINCIPLES

The Understanding the Context principles emphasise the need to get specific about what the challenges and opportunities are, and that stakeholders across the system are able to help define them. By opening up the scope of conversations and research via these principles, a

more refined and shared understanding should emerge that clarifies the goals and objectives that can support leadership, development structures, learning and partnerships going forward.

## Leadership

Innovation for system-level transformation needs leadership to create the opportunities, possibilities and direction to bring diverse stakeholders together. There are particular challenges with leadership for system-level transformation by which innovation policies and strategies are enabled to progress or doomed to collapse.

### PRINCIPLES

The Leadership principles try to ensure consideration of the needs for system-level change you're trying to make and for the needs of key stakeholders to remain committed. By balancing clarity in how leaders can communicate the vision with an adaptability to pull the necessary 'levers' to respond to identified opportunities, governance processes should emerge that enable greater mobilisation and buy-in for all.

## Development Structures

Innovation for system-level transformation cannot grow, flourish or sustain without committed support structures in place. It involves active facilitation, cultivating innovation ecosystems of diverse stakeholders and relationships, collab-





orating through projects and programmes of investment and support structures, to support long term change.

## **PRINCIPLES**

The Development Structures principles reflect the challenges for generating and facilitating innovation ecosystems over the long term to achieve the collective vision. By facilitating access to a wide range of opportunities and building the capacity to learn from all outputs and outcomes, the longer-term ambitions of system-level transformation should become more realisable and impactful.

## **Cultivating Partnerships**

Innovation for system-level transformation depends on collaboration between diverse areas of knowledge and stakeholders associated with the systems or challenges in question. It is not enough to simply bring different people and organisations together. Innovation strategies must develop ways that stakeholders understand their role(s) within the system and their potential contribution to the innovative visions outlined.

## **PRINCIPLES**

The Cultivating Partnership principles foreground the value and roles different stakeholders and partners can have in effective innovation ecosystems. By listening to and appreciating the needs and perspectives of

constituent actors in driving change, you should directly enhance the collective understanding, governance, support and learning processes that generate innovative collaborations for system-level transformation.

## **Learning**

Innovation for system-level transformation is not a linear process. Knowing what actions are working well, how actions are working well and what is affecting how actions are working well requires space and processes to learn and evaluate. Such learning is not constrained to core policy or delivery actors, but should support system-wide learning for transformation to take hold sustainably.

## **PRINCIPLES**

The Learning principles underline and expand upon the role of evidence, encouraging an open and iterative approach to what counts as good evidence and how best to capture it. By sharing the process of defining what contributes to effective innovation for transformation, a system-level capacity for collaboration and innovation should take hold. Ongoing evaluation data helps to inform and improve.

# Outputs

The programme produced a number of outputs, which can be found on the [programme SUUI landing page](#):

- Output Reports from each event, gathering the contributions and ideas, but also showing the process of integrating those experiences, including presentations (key notes and plenary) and summary reports;
- Final report describing the outputs for each event, and also the overall outputs, findings and recommendations;
- Series of case studies used during the workshops to share experiences, produced in a sharable digital format;
- Video recording of the programme and edited collation, both short and long, for wider dissemination;
- Key recommendations for good practice in designing, mobilising and evidencing impact for territorial transformational innovation policies captured in the Principles Toolkit; and
- New networks established within Scotland and with European partners with potential to investigate further research and funding opportunities, as well as to collaborate on practical delivery of support.

As well as a final report, the findings and principles generated from the workshop series are being shared with Scottish and European partners (such as through the EPRC seminar se-

ries, the TCI network, and EDAS) to embed this approach in future innovation policy delivery.

Other dissemination opportunities being explored include presenting at Regional Studies Association (RSA) Conference and TCI Global conference, and inclusion in the general EPRC seminar series are also planned for the autumn.



# Outcomes

This programme envisaged a range of beneficiaries (reflected in the programme team and wider participation) covering four broad areas, all of which we have delivered against:

- **Policymakers:** Scottish Government, Scottish Funding Council, local city councils, enterprise agencies, were all involved in the workshops, as well as international policy and practitioner partners, such as from the Basque Government, and through the participation of the Interreg COMMIT programme members;
- **Academics:** partners and other researchers in innovation and system-level transformation related fields in Scotland and across Europe were actively engaged, including presenting cases, keynotes (in the first and the final workshop), and engaging in the panel discussions;
- **Innovation support structures:** organisations helping to stimulate innovation within a sector or region were strongly represented throughout, including all of the Innovation Centres that have received long term infrastructure investment, clusters representing circular economy and green energy approaches, nature-based and civic innovation regional projects, as well as links to European and global networks of such organisations (e.g. TCI – the global network of cluster practitioners);
- **Economic development professionals:** through EDAS engagement and dissemination, economic development consultancies and practitioners involved in strategy and evaluation of

innovation policy were actively involved. Dissemination of outputs will share this more widely with other professionals looking to improve their knowledge and understanding of regional collaborative innovation agendas.

Impacts from the programme of work included:

- Greater understanding of successful approaches in designing, mobilising and evidencing impact for territorial transformational innovation policies;
- Informed and engaged policy and practice across Scotland, to implement innovation policy agendas, with external learning from international partners informing different approaches;
- Increased codified knowledge of the conditions required for successful innovation policy implementation, now presented as a **Principles Canvas for System-level Transformation**;
- Improved understanding of system-level innovation evaluation approaches leading to better evidence of value generated from investments, and learning for improvement;
- Stronger connections to EU partners and networks progressing innovation policy agendas;
- Positioning Scotland as a thought leader in territorial system-level innovation policy and research through integrating academic knowledge, public sector bodies and intermediate innovation support organisations, through leading this discussion and debate.

# Innovation Strategies for System-level Transformation

## Principles Canvas

### UNDERSTANDING THE CONTEXT

**Develop a system-level understanding of key challenges, opportunities and levers.**

Are you gaining a whole-system perspective (i.e. supply-demand, private-public, social-economic)?

What are the system dynamics that represent the flows & barriers?

Can you map the system in a way that helps shared understanding?

Can you consider the external & global factors to support sustainable positioning?

**Be sure to know what is already out there, and build on it.**

What are the existing assets and actors in the system?

Do different stakeholders know their role in the system?

Can you avoid duplication of effort?

**Build a strong understanding of what preferable change looks like.**

Can you show the value being created?

Will you understand the differences in processes as well as results?

Do you have evaluation frameworks built on theories of change?

**Consider your scope to address multiple needs and demands.**

How broad a scope of stakeholders need to be mobilised?

How can you consider short & long term needs & demands?

Will you need to reflect local interpretations of evidence?

Are your goals linked to national governance?

**Establish what is good evidence and why it matters.**

**Establish and experiment with a range of effective tools and methods.**

Will your data collection be timely, defined and achievable?

Are you able to develop new, appropriate methods to fit your context?

Are you making effective use of digital tools?

Are you able to establish effective feedback loops?

**Provide space for innovation and risk-taking.**

How are you encouraging innovation and supporting learning from failures?

How will you prevent spending too long in planning?

What can increase support for new start initiatives?

**Build in scope for system-level learning and capacity for collaboration.**

How can you ensure clear understanding of the context across your stakeholders?

How can existing assets and capacity be used to support learning and collaboration?

What needs are there for strengthening system-level thinking and storytelling?

How can you avoid focus on short-term or purely technical solutions?

**Invest in robust, multi-stakeholder network facilitation.**

Can you support a team committed to facilitating collaboration?

How can you ensure involvement and alignment across siloed structures?

What are suitable resource commitments to support the network?

**Apply long-term structures of funding and support that match long-term thinking.**

What needs to be put in place to support long-term commitments?

Can you make funding accessible and dynamic so you can respond to emerging opportunities or needs?

Can you identify a roadmap of short-term, medium-term and long-term goals?

**Build in clear methodologies for diverse monitoring and evaluation from the start.**

Do you have clear measures for success, with sound and tested methods?

Do you have wider indicators for system change (e.g. for second or third order effects)?

Do you have protocols that support transparency, confidentiality and access to important data points over the long-term?

Are you evaluating from the start?

**Build co-evaluation capacity across key partnerships.**

### DEVELOPMENT STRUCTURES

As well as the reports a key output is this checklist for innovation policy, built into an easy to use tool for policy makers when designing, mobilising, implementing and evaluating their innovation policy. It is anticipated that some of the partners in the programme will take forward piloting the use of the toolkit with their innovation policies.

# LEADERSHIP

# NING

Can you identify who benefits, and how, from the start?  
 Do you have appropriate indicators for your objectives to support comparability?  
 Do you have access to the right data?

## Ensure the right leadership and culture is in place.

Is your leadership able to influence and mobilise the right stakeholders?  
 Is there the will and culture to make change at the policy level?  
 Do you have the right mix of people, talent and power to drive change across the system?  
 Is there shared ownership and trust in the challenges, vision and mission.

## Be flexible to learn what is needed for long-term transformation.

How can you apply mission-led frameworks that support long-term collaboration?  
 Are you looking beyond the 'easy things to count' to see what's important to the system?  
 Do you have flexibility to identify and target the best opportunities?  
 Are there analytical and communication skills in your leadership to know the right stories to tell?

## Have a long-term vision and mission within which everyone understands their roles.

Is your vision, goals and mission clear for all stakeholders?  
 Is your vision truly transformational and showing clear needs for collaboration?  
 Are the roles for your key partners clear in relation to your vision and mission?  
 Do you need long-term, joint ownership of the vision, (e.g. including public sector)?

## Consider how stakeholders can access leadership

Is your leadership structure clear for all stakeholders?  
 Have you got wide backing across your decision-makers and partners?  
 Do your governance models allow access to your leadership structure?  
 Does your leadership have the powers to overcome institutional inertia (i.e. 'stick with it'?)

## Identify and use the significant stories to influence what happens next.

Are you able to clearly distinguish between policy and strategy?  
 Can you produce live, agile case studies to demonstrate value and learning?  
 Do you have sufficient storytelling skills that resonate across audiences?  
 Is there a system-level vision to link evidence and monitoring?

Is there sufficient quantitative and qualitative data analysis skills across your partners?  
 Are you able to use evaluation data to learn, make sense of outcomes and improve?  
 Can you ensure wide collaboration in the evaluation process?  
 Can you make data and evidence visible to multiple stakeholders?

## Cultivate existing partnerships, leaders and individuals as 'change drivers'.

Do you have a clear sense of who does what within the system?  
 Is there a strong existing base of capable actors and trust to build from?  
 Do you know how to involve the right people who can help make things happen at the right time?

## Be adaptable to stakeholder situations to support collaboration.

Do you have clear asks of each of your partners/stakeholders, and a clear sense of their capacity to participate?  
 Are you providing space to listen to partner concerns, questions and needs?  
 Can you bring large- and small-scale partners together effectively?  
 Can you develop a common language to support shared understanding?

## Value a diverse range of stakeholders and perspectives.

Are you able to engage with ALL stakeholders?  
 Are your ways of engaging and reporting to stakeholders suitable for them?  
 Who are the 'new' actors you need to mobilise, and how innovative can your engagement be to reach them?  
 Have you gained the right level of civic participation?

## Ensure transparent, clear and bespoke communication & engagement.

Can your engagement build trust through co-developed needs and goals?  
 Are you communicating updates, findings and benefits with your networks?  
 Can you target your communication to ensure commitment and support for key priorities and needs?  
 Can you attract additional investment by showing benefits and wider value?

# CULTIVATING PARTNERSHIPS

# Evaluation Survey

To add valuable learning an evaluation survey was sent out to all participants to assess the value of the overall project findings and the participatory process involved.

Respondants agreed (or agreed strongly) that the workshops were:

- well prepared
- well facilitated
- engaging
- useful

In addition the respondents agreed (or strongly agreed) that the workshops process had helped sharing in the group, and that the discussions and materials helped build understanding.

Most importantly the respondents agreed (or strongly agreed) that the workshop process helped those involved to come up with new insights and ideas, and that participants made valuable new connections.

Respondants highlighted the good dialogue across different policy/innovation areas in the project and the valuable sharing of international practices.

# Conclusion

The SUII programme successfully facilitated knowledge exchange and collaboration among policy practitioners, providing valuable insights and recommendations for achieving system-level transformation through innovation policies. The findings and principles developed during the programme have been shared with Scottish and European partners to embed these approaches in future innovation policy delivery. The evaluation responses from participants highlighted the value of the process as well as the importance of the results and the opportunity to build meaningful collaborations.

The project also developed into a toolkit which will potentially be used by partners to “test” new policy approaches here in Scotland and internationally.

To generate meaningful scientific and policy impact beyond the lifetime of the project, findings have already been shared through the TCI policy workshop, through EDAS communications and further sharing and dissemination opportunities are already planned.

SUII funding proved an excellent mechanism to support the collaboration needed helping to bring together partners across the Scottish ecosystem, alongside international partners in policy and practice, to explore and co-design solutions to this shared challenge.

## FURTHER RESOURCES

For access to all outputs and our accompanying project videos (produced by Louise Mather) please visit the Scottish Universities Insights Institute (SUII) Innovation Strategies project page:

<https://www.scottishinsight.ac.uk/Programmes/OpenCall202324Round1/InnovationStrategies.aspx>

European Policies Research Institute (EPRC)

<https://eprc-strath.org>

School of Innovation and Technology, The Glasgow School of Art

<https://sit.gsa.ac.uk>

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Please visit:

[www.scottishinsight.ac.uk/Programmes/OpenCall202324Round1/InnovationStrategies.aspx](http://www.scottishinsight.ac.uk/Programmes/OpenCall202324Round1/InnovationStrategies.aspx).



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