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Innovation for place-based transformations

ACTIONbook to build partnerships for fair green and digital transitions

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European Committee
of the Regions

Innovation for place-based transformations

ACTIONbook to build partnerships for fair green and digital transitions

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“Competent people do not compete, competent people cooperate”

Eudald Carbonell, Anthropologist, quoted by **Teresa Riesgo**, Secretary General for Innovation at the Ministry of Science and Innovation of Spain, at the PRI High-Level event on 28 March 2023

Foreword

Iliana Ivanova
Commissioner for Innovation,
Research, Culture, Education and Youth

Vasco Alves Cordeiro
President of the European Committee
of the Regions

In today's rapidly evolving world, societies contend with interconnected challenges that impact our stability and prosperity. These include the effects of the climate crisis and of the digital transition, which influence jobs and key aspects of our daily lives. In this context, innovation emerges as a critical tool for ensuring Europe's successful navigation through these choppy waters, for maintaining its leading role in these changes while safeguarding that these transitions are just and fair for all. Recognising this, the European Commission has introduced the New European Innovation Agenda.

This Agenda is designed to invigorate innovation across all EU territories, including Member States, regions and cities. Since 17 May 2022, 4 Member States, 63 regions, 7 cities and 6 networks of regions and cities in the EU have already adhered to the Partnerships for Regional Innovation and are proving on the ground how to foster the development of innovative solutions and technologies that promote competitive sustainability without leaving any place and anyone behind. The Agenda acknowledges the central role of Europe's territorial and cultural diversity as a springboard for innovation. It also emphasises the need to create adaptive solutions that are tailored to regional and local needs and are more inclusive.

In addition, the Agenda proposes the establishment of territorial missions and transformation agendas, along with strategies for better aligning EU funding with the systemic changes necessary for the EU to tackle its most pressing societal challenges. We expect innovative solutions to improve our industries, our energy supply, our social and economic fabric and all our systems, and we need this change to happen as fast as possible.

Such an ambition obviously requires more than just money. New ways of governance, delivery and working together are at the centre of an innovative Europe. This ACTIONbook on place-based transformative innovation, developed with support from partners across Europe and coordinated by the Joint Research Centre and the European Committee of the Regions, details the dynamics of how these new regional innovation partnerships will function in practice. This book invites all stakeholders to become innovators and to elevate European innovation to new heights.

The time to act is now. We must begin co-creating the EU of tomorrow today, embracing innovative approaches and collaborative efforts to shape a prosperous, sustainable and fair future for our continent.

Declaration

by **Partnerships for Regional Innovation Territories**

Concerned by the challenges our territories face and aware of the need to explore new systemic and transformative approaches to tackle the complexity of the crises affecting our times, 74 territories committed in May 2022 to join the Partnership for Regional Innovation (PRI) pilot project.

The PRI pilot project has been an intense journey, and has introduced territories to new place-based transformative policymaking. We, the territories, realised the immense value of sharing experiences, peer learning and interregional collaboration. We initiated this pathway fuelled by the PRI Playbook (Pontikakis et al., 2022a), which gathered insightful concepts and tools to 'walk the talk'. The insights of The Square (Schwaag Serger, Soete & Stierna, Eds.) have inspired our way ahead.

Now, we are the ones leaving our footprint in this new ACTIONbook, which takes stock of the PRI Playbook, together with the Joint Research Centre and the European Committee of the Regions. We welcome this joint effort and state our will to keep on collaborating in deploying the actions that our territories need for the well-being of our people and the generations ahead.

Preface

by **Sylvia Schwaag Serger** and **Luc Soete**
Co-chairs of the Partnerships for Regional Innovation
Scientific Committee

Four years ago, as announced in the inaugural speech of President Von der Leyen before the European Parliament on 27 November 2019, the European Commission positioned sustainable development together with the digital agenda as the twin core elements of Europe's overall strategy for the present decade. From an external perspective, the European Green Deal (EGD) could be seen as representing Europe's own 'moonshot mission' of the 21st century: its contribution to the United Nations' Sustainable Development Goals. From an internal perspective, the EGD represented Europe's own 'smart specialisation strategy': an internal attempt to take on a leading position in sustainable development and contributing to a new process of what is currently described as competitive sustainability. Viewing the EGD as a combination between an external European 21st century moonshot mission and an internal smart specialisation strategy raises though many territorial challenges as to the respective governance responsibilities of the different actors within the EU, particularly given the space-blind nature of most of the proposed and implemented new sustainable rules and regulations. There were indeed no serious reflections on the territorial, place-based implications of such transformation processes. Some financial support was foreseen to act as a cushion for possible very disruptive features of structural transformations, but little was known about the sort, nature and volume of such transformation processes.

The report on ***Place-based innovation for sustainability*** (McCann & Soete, 2020), which had been prepared just before the COVID-19 outbreak provided a framing and starting point for some initial science for policy reflections of the Partnerships for Regional Innovation (PRI) Scientific Committee members. It revolved around three basic components: strategies, implementation, and monitoring/evaluation. If a bottom-up strategy would now target competitive sustainability, what changes would this imply in terms of strategies, implementation and policy learning? The various papers of experts brought together in the book ***The Square: Putting place-based innovation policy for sustainability at the centre of policy making*** (Schwaag Serger, Soete & Stierna, 2023, Eds.) provide a comprehensive overview of some of the challenges involved and the policy lessons to be learned. They were instrumental in the development of both the joint initiative of the PRI Pilot launched by the European Commission and the European Committee of the Regions, and the JRC ***Partnerships for Regional Innovation Playbook*** (Pontikakis et al., 2022a). The Playbook was developed as a support document with practical policy tools for the PRI Pilot which engaged a large number of regions (63), four Member States, and seven cities which volunteered to co-develop and test the approach, centred on a selection of practical policy tools.

The initial issues raised by the PRI Scientific Committee continued to flow as a red line through many of the practical implementation discussions: how to combine directionality at regional level with bottom-up energy? Through niches in possible new value chains in green energy, clean tech, the circular economy focusing on connecting innovation of local firms and ecosystems with supply and value chains? As the PRI concept emphasized in its title, regions could and should better capitalize on alliances, partnerships and networks.

The Joint Research Centre (JRC) is now entering into a new implementation stage with this new ACTIONbook, which this time focuses fully on implementation, on turning the new concepts that allows one to make sense of the increasing complexity and variety of the territorial problems policymakers face into policies on the ground. We were the co-chairs of the PRI Scientific Committee in a particularly privileged position to contribute with the JRC and the many JRC researchers to these conceptual science for policy reflections. We now look with great trepidation to the implementation of such policies. Indeed, today is the priority time for action!

Introducing the ACTIONbook

Acting now

Addressing complex challenges requires different tools, mindsets and approaches to the ones traditionally used. Climate change, biodiversity loss and rising inequalities are some of the complex and systemic problems we face. Focusing on one – as daunting as it can seem – is not sufficient. Analytical thinking, pursuit of personal achievement and working in silos are manageable and probably preferred, as they are easier to control. Yet, they are not enough to pave the way for the systemic sociotechnical transformations needed to address such problems. Understanding these problems' interlinkages and feedback effects is essential. Innovation alone cannot help us tackle such problems or achieve the transformations needed as set out in the European Green Deal, the EU's own 'socio-economic transformation strategy'. New innovation policies must satisfy two important prerequisites:

1. local and regional stakeholders, including individuals, businesses, knowledge institutions and local authorities, must be meaningfully involved;
2. policy must strive for transformative and system-level innovation to enable and accelerate the required transformations.

Interterritorial collaboration, network governance and coordinated policy and action mixes enable efforts at local, regional and national levels that achieve long-term societal well-being and climate-resilient development (IPCC, 2023). **Building partnerships** is therefore not only a desired objective, but also a prerequisite to move towards societal well-being and secure Europe's open strategic autonomy. Sharing activities, practices and tools for action can help us do just that. This ACTIONbook sets out different activities to build strategic and purpose-driven partnerships in an institution, department, or territory and across boundaries.

Socio-technical system

Socio-technical systems are complex and combine social and technical systems. Interactions between social systems (such as social structures, norms, roles) complement and shape technical systems (such as technology, infrastructures) and vice versa.

Socio-technical system transformations

Socio-technical systems transformations (or here, transformations) imply the co-creation of changes in cultural, social and environmental processes beyond technological ones. Therefore, they are complex and long-term processes, where dominant practices become replaced.

Place-based transformation

Transformations are place-based as local stakeholders and citizens, with their knowledge and skillsets, navigate place specificities to shape socio-technical systems through transformative activities.

Citizen

In this ACTIONbook, we use the word citizen as a synonym for 'the public', 'individuals' or 'people' who are part of society and live in territories.

Territory

Territory refers to cities, regions and Member States. Interterritorial collaboration is used instead of interregional collaboration to reflect these different configurations.

Ecosystem

Ecosystem is used as a short version of innovation ecosystem and as a metaphor. It consists of organisations such as businesses, universities, government agencies, intermediaries, solution providers and many others that, depending on their capacities, activities and interactions, collectively determine a territory's ability to innovate.

Co-creating for action

This ACTIONbook is a result of a co-creative effort with Partnerships for Regional Innovation (PRI) stakeholders – from PRI pilot participants to the PRI Scientific Committee and from academics and experts to our partners at the European Committee of the Regions. It aims to identify activities to help us reflect on **how we can do things differently** and make innovation policies be part of the **collective purpose-driven change** necessary to achieve place-based transformations. It takes a **user-oriented and operational approach** and focuses on how to make policy activities more transformative. It asks questions and hints at answers. However, it is up to the reader to decide what and how to answer, taking into account the challenge at hand and the specific characteristics of the place they are in.

The ACTIONbook is published with two companion documents:

- a collection of practices from Territories who are already experimenting with transformative innovation activities;
- a collection of tools (concepts, methodologies, EU policy initiatives, examples) that the user can decide to experiment with.

If you would like to explore the theory behind this ACTIONbook, please refer to the PRI Playbook (Pontikakis et al., 2022a) and/or the Concepts and Rationales for the PRI Playbook (Pontikakis et al., 2022b), which were published on 17 May 2022.

MAY 2022
PRI Playbook

SEPTEMBER 2023
Workshops with PRI participants

APRIL 2023
Workshop with PRI participating territories

LONG ABSTRACT

INITIAL DRAFT

ABSTRACT

REVISED DRAFT

APRIL 2023
ACTIONbook presented to the PRI Scientific Committee

MAY-SEPTEMBER 2023
ACTIONbook presented at scientific conferences

OCTOBER 2022
PRI Playbook user feedback survey

JANUARY 2024
Innovation for place-based transformations: ACTIONbook, practices and tools published

LATER 2024
Website launch

Design requirements

Simplicity

- Concise text with links to more information on topics of interest
- One page for each activity

Co-created

During the PRI Pilot (May 2022-2023), the JRC worked with territories, academics and practitioners, critical friends and other stakeholders to co-create this ACTIONbook, together with its collection of practices and tools

User-centred

Addressing policymakers when they ask themselves: How we can do things to achieve place-based transformations?

Place-based action

Collecting practices from territories on their transformative approach to innovation

Operational

- Focus on activities with questions to trigger reflection and discussions
- Additional resources from two accompanying documents and website links
- Answers not always provided, but questions asked for you to answer in partnerships

Living documents

Interrelated documents that are updated as necessary and available online

How to use the ACTIONbook

While we may not give you all the answers, we will enable you to find them together, in partnerships.

The ACTIONbook has **six chapters**. Each chapter is divided into **activities** on a thematic basis. These chapters and activities are modular. Depending on your **goal**, some activities can be initiated, continued, or (temporarily) left aside. This ACTIONbook aims to provide you with an overview of activities for transformative innovation. With the task at hand, you can then **filter** what is needed most.

chapter:
Engaging

activities:
- Identifying stakeholders for given societal goals
- Continuously engaging with stakeholders
- Setting up a network governance
- Building legitimacy

chapter:
Envisioning

activities:
- Diagnosing and developing a vision
- Conducting participatory foresight
- Developing transition pathways and roadmaps
- Setting milestones and targets

chapter:
Orchestrating

activities:
- Agenda setting and sharing
- Enabling multilevel cooperation
- Collaborating across departments
- Collaborating across territories

chapter:
Designing

activities:
- Developing a strategy
- Developing the policy and action mix
- Mobilising resources
- Designing ecosystem support
- Designing local missions

chapter:
Implementing

activities:
- Deploying a strategy
- Coordinating the policy and action mix
- Prioritising funds
- Experimenting and demonstrating
- Scaling and mainstreaming

chapter:
Learning

activities:
- Managing and transforming knowledge
- Continuous monitoring
- Evaluating impact
- Learning from experimentation
- Mobilising competences

About the activities

Activities are **ongoing** and take place **in parallel**. This is necessary for transformative innovation as engaging with stakeholders at different levels, while learning in real-time, is fundamental.

Therefore, the activities are not in any particular order. The pages can be shuffled into a different order. For example, you can punch them along the left margin and bind them in a ring binder, so they can be used when needed or in a different order. They can also be used as slides, thanks to their horizontal layout.

The chapters and activities described here are not meant to be faithfully followed but provide **input for reflection and action**.

What an activity is about

Competences: selected from the European competences framework from innovative policymaking. Only most relevant competences for each activity are selected. Codes (e.g., B2, D1) are taken from the abovementioned framework

Practices: learn from other territories and find other examples

Tools: relevant tools from our toolbox

Why an activity is important for transformative innovation

How an activity can be carried out

More: this includes videos and academic and technical resources

USE CASE 1

Building a partnership

At the heart of a dynamic territory, forging new partnerships to achieve the European Green Deal drives territorial development. Agency is crucial, i.e. the ability of those involved to act purposefully and innovate. Building a partnership involves strategically orchestrating of six interconnected activities, led by territorial players committed to fair green and digital transitions.

The **first step** is **Identifying stakeholders for given societal goals.** This maps the stakeholders whose participation is beneficial to the goal. As the strategy evolves, actively identifying new stakeholders ensures inclusive dialogue.

The **next step** is **Developing the policy and action mix.** Stakeholders must design a strategic framework together that aligns policies with actionable initiatives. This mix becomes the roadmap for the desired future. This involves both developing strategies and setting out steps for practical action.

Building a partnership inspired by the European Green Deal requires synchronised efforts in diagnosis, strategy development, mobilisation and experimentation by **Continuously engaging with stakeholders.** This empowers everyone to shape their destiny and foster a culture of innovation and collaboration that drives the territory to a fair transition.

At the same time, territorial players could foster identifying and **Mobilising competences**. They can tap into the diverse skills, knowledge and resources available in the territory, unlocking the potential in traditional sectors as well as emerging areas and fostering cross-sector collaboration to capitalise on collective territorial capabilities.

Partners can join forces in **Diagnosing and developing a vision** and assess strengths, weaknesses, opportunities and threats. This assessment builds the foundation for a shared vision for the territory. This vision, a collective endeavour, becomes the driving force, uniting everyone under a common goal.

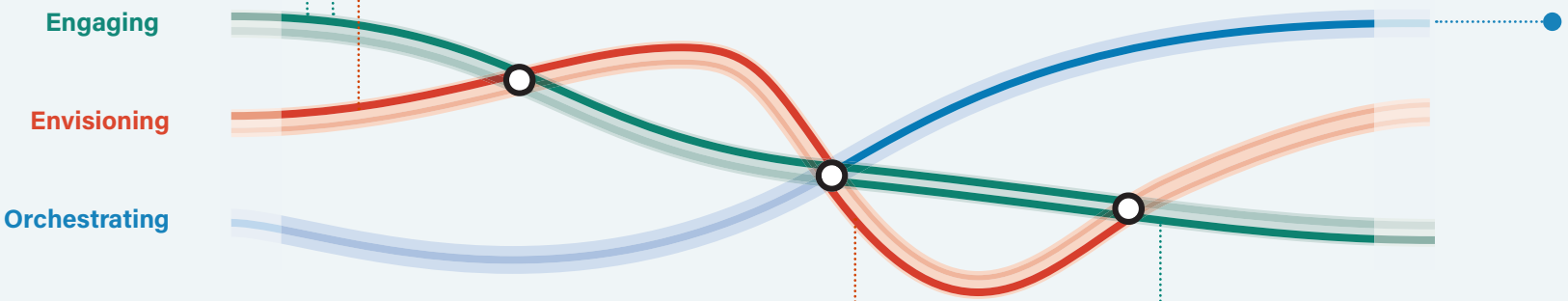
The final activity is **Experimenting and demonstrating**. Those involved must take risks and experiment with innovative approaches. This means rethinking narratives, recognising collective resources and implementing pilots to build confidence and gain further support.

USE CASE 2

Setting up an Open Discovery Process

The Open Discovery Process (or ODP) is critical to continuously engage with a broader range of stakeholders and co-create plans, for example, to design a local mission or formulating a policy and action mix. The ODP is based on inclusivity and transparency, and provides directionality by having stakeholders working backwards from societal problems to agree on a shared vision. For this, enabling and setting up a networked governance is key.

Fundamental and fundamentally intertwined activities for setting up an OPD include **Diagnosing and developing a vision**, **Identifying stakeholders for given societal goals** and **Continuously engaging with stakeholders**. Conducting a preliminary diagnosis gives a snapshot of the current system and its performance (where we are based on what we have done). Identifying stakeholders happens in parallel, and by going beyond usual suspects, helps develop a common vision (where we want to go). With early engagement, a sense of trust and ownership can be achieved.



Jointly, **Enabling multilevel cooperation** is powerful as it allows shared ownership and responsibility. Involving higher level strengthens the ODP, while lower level have access to knowledge and understanding of local challenges, opportunities and stakeholders.

Then, **Developing transition pathways and roadmaps** enables to understand what needs to change and what roles, competences and responsibilities may be needed to achieve such a vision.

In relation to this, **Setting up a network governance** can help strengthen links among stakeholders and create synergies across governance levels and departments and across stakeholder groups. The ODP can be a platform to enable network governance, and network governance is necessary to orchestrate the ODP.

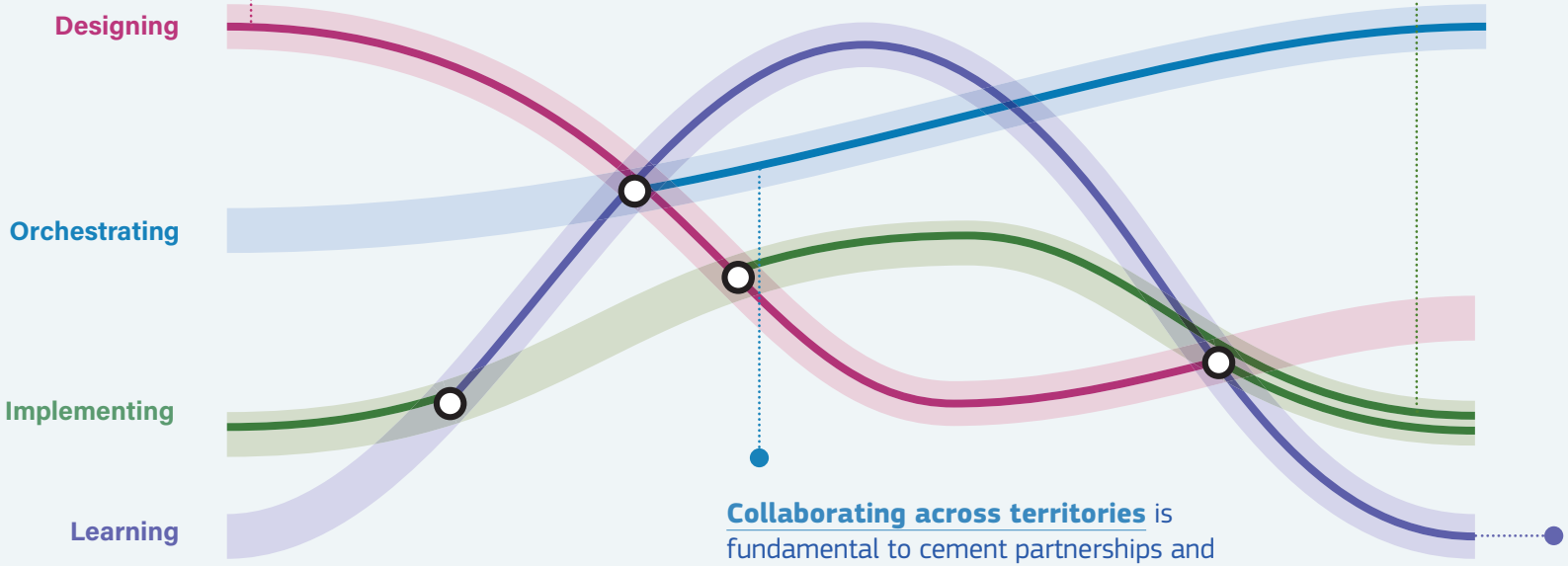
USE CASE 3

Boosting European value chains through interterritorial collaboration

Interterritorial collaboration and knowledge exchange is fundamental to foster dynamic and innovative ecosystems where different players benefit from mutual interaction. Collaboration among European territories can help strengthen European leadership, resilience and secure open strategic autonomy, such as is the case of our semiconductor industry.

Once you have identified your main partners and stakeholders, for example through setting up an Open Discovery Process (ODP, see use case 2), **Developing a strategy** may become necessary. Going beyond business and academia is instrumental to enable value chains to work in orchestration with the whole system. A variety of policies and stakeholders need to be coordinated: from education and training, to nature preservation, from an industrial strategy to designing adequate infrastructures. The new, or newly updated, strategy can take into consideration new partners, as well as their assets, your mutual synergies and shared goals.

Functional to **Deploying a strategy**, (re)**Prioritising funds** can help identify what type of funds are more compatible with the goals at hand and, mostly, with interterritorial partnerships.



Collaborating across territories is fundamental to cement partnerships and synergies with other cities, regions and Member States, thus fundamentally achieving an interterritorial (or even international) ODP.

For this, learning through an appropriate and transformative **Continuous monitoring** system can help track what works and what does not, thus helping take action as needed. Tracking progress on a variety of indicators, beyond economic ones, is prioritised.

Engaging

WHAT ▪ The engaging phase focuses on identifying and mobilising the groups concerned who can help develop, implement and evaluate innovation strategy and policy. These groups contribute with their engagement, resources and power to achieve the strategy and make change happen. These stakeholders are change-makers **who work collectively to address societal goals**. The scale and nature of sustainability challenges faced by territories means there is a need to reach out to different groups and **foster challenge-led innovation partnerships** cutting across sectors, disciplines, territories and governance levels. Engaging with a **diverse and broad range of stakeholders** is necessary to envisioning different desired, probable and alternative futures and planning the necessary steps and actions today to achieve a sustainable territory tomorrow.

BENEFITS ▪ The engaging phase is important to identify stakeholders and have them on board to share the effort and resources for the same societal goals. This helps strengthen partnerships, both within a territory and with other territories. By engaging with other stakeholders, including colleagues in other departments, not only are resources optimised in projects that have a common goal, but it also helps prevent duplication and putting efforts into activities that are not meaningful to the community and society. Some benefits of participatory policymaking include taking advantage of **collective intelligence**, including different viewpoints, **more buy-in and a sense of ownership**. These intangible benefits can lead to very tangible outcomes. For example, collective intelligence and expert knowledge can help avoid disjointed solutions to complex problems, which need tailored, place-based and inclusive measures.

- Have you systematically applied criteria to identify stakeholders?
- Can you broaden the diversity of the stakeholders involved?
- Have you created opportunities for a wider range of stakeholders to participate and be represented?

activity:

Identifying stakeholders for given societal goals

activity:

Continuously engaging with stakeholders

- What activities have you planned to involve stakeholders in your entire initiative?
- What spaces have you designed to empower stakeholders?
- Do you have a strategy to address opposing views and conflicting interests?

- Have you mapped specific opportunities to act in synergy with local, national, EU and/or global policymakers?
- Have you mapped specific opportunities to act in synergy across policy areas and departments?
- Have you mapped specific opportunities to act in synergy across stakeholder groups?

activity:

Setting up a network governance

activity:

Building legitimacy

- Can you grow support and engagement over time for more ambitious action?
- Do you have a strategy to manage resistance to change?
- Do you have a strategy to engage the public in your transformative policy initiatives that involves making evidence available?

chapter: **Engaging** / activity:

Identifying stakeholders for given societal goals

WHAT ▪ More complex and difficult to solve (or wicked) problems affect many stakeholders. However, it is important to identify those groups and individuals concerned who can share their knowledge, expertise and ideas in participatory processes and agree on **common goals through a common understanding**. These stakeholders are therefore those who are affected by a common problem and are willing to contribute to achieving common goals. It is important to keep an exploratory mind as some groups who may not be concerned today may become so in the future. Furthermore, as some stakeholders may not be able to directly contribute, it is still essential to give them a voice. This can help (technological) innovation serving as a solution rather than exacerbating problems.

WHY ▪ Innovation has contributed to some of the socio-ecological problems we face, such as the loss of biodiversity, climate change and a rise in inequalities. Yet, it also provides opportunities to address, adapt, and revert complex problems. Technology alone cannot do the job if social systems (behaviours, norms, incentives) do not follow suit. This is why we talk about sociotechnical transitions in innovation policy. To enable a sociotechnical transition, a set of stakeholders for a given societal goal must be included **from the beginning**. This helps ensure that innovation is inclusive and democratic and solves societal challenges. These stakeholders can contribute with **their diverse knowledge, norms and behaviours and take on new and different roles**, which may be needed in a transition. Identifying stakeholders at an early stage and working with them in as many phases as possible can considerably improve the way they participate and their contribution to achieving the set goals.

HOW ▪ Identifying a broad range of stakeholders can be costly, but the social, environmental and economic cost of not doing it can be higher. Among government, industry and academia, civil society represents many significant voices, which risk being diluted. **Rather than trying to fit players in pre-defined groups, look at your territory and identify potential partners beyond the usual ones**. With a clear understanding of your stakeholders, you can then determine their level of involvement and the engagement necessary to set out your strategic goals together. You can involve them in setting up a **shared space for dialogue**. Identifying stakeholders is a fundamental step in an interterritorial Open Discovery Process (PRI Playbook). To help with this activity, you can use the **actor tree**. It is a visual tool that helps you identify, list and categorise stakeholders around a challenge.

competences

- B2 Systems thinking
- C2 Identifying evidence needs
- C3 Connecting to experts
- E2 Planning & designing citizen engagement

+ practices

P08 P09 P29

+ tools

T06 T07 T09 T11
T39 T44 T45 T47
T48 T49 T65 T73

+ more

Actor tree (webinar)

PRI Playbook

Regional systems and strategies for sustainability transitions

Typology of intermediaries in sustainability transitions

chapter: **Engaging** / activity:

Continuously engaging with stakeholders

WHAT ▪ Continuous engagement includes dialogue with and among stakeholders, participation and active inclusion in the strategy and partnerships. It is an ongoing activity and a shared space to make engagement instrumental at every stage of the policy process. Stakeholders know they have a space where it is possible to contribute and discuss current and future activities. For this, **building trust** is essential to ensure an open and constructive exchange of ideas. It is also important to create a physical space, online and offline, where everyone can work together. Engaging with the public and local stakeholders is an important part of this activity.

WHY ▪ This activity is key to have everyone make an effort to achieve targets that go **in the same direction**. This ongoing activity enables stakeholders to create **common narratives and mental models**. This is possible through experimenting with the introduction of ideas that are interpreted together through a vocabulary owned by stakeholders. Thanks to this engaging activity, stakeholders can develop a sense of **ownership** over the process and its expected outcomes. In fact, those involved can contribute, from envisioning a direction and agreeing on goals to orchestrating people and resources, and ultimately to implementing a common strategy. Without stakeholders' contributions and endorsement, it would be difficult to transform plans into action..

HOW ▪ A clear identification of stakeholders is the first step to put in place continuous engagement. This activity feeds into all processes and is necessary for some activities, such as agenda-setting and sharing, multilevel and interterritorial collaboration and implementing activities. Three enabling factors are seeds for successfully engaging with stakeholders:

- Intrapersonal disposition: **self-awareness**, the ability to focus on your intentions and actions, and self-regulation, understanding and managing your own behaviour and actions, are cultivated to increase self-insight, and take and give meaningful feedback;
- Interpersonal competences: **empathy**, **trust**, **collaboration** are important for effective teamwork;
- Infrastructure:
  - soft infrastructure: **leadership support** is essential to empower individuals;
  - hard infrastructure: **online and offline platforms** where stakeholders can come together.

Stakeholders feel empowered and become owners of the agreed outcomes. They feel more motivated to invest time and resources in something they contributed to deciding on. A possible drawback is that they may be more resistant to change a course of action or blind to outside change.

competences

- E1 Engagement mindset
- E5 Conducting stakeholder consultation
- F4 Empathy & emotion
- F5 Communities of practice & networking

+ practices

P02 P08 P15 P19
P22 P29 P30 P31

+ tools

T02 T08 T09 T10
T17 T20 T29 T30
T34 T53 T60 T73

+ more

Self-awareness (video)

Impact of digital transformation on public governance

Multi-level governance and division of labour

Visual toolbox for system innovation

chapter: **Engaging** / activity:

Setting up a network governance

WHAT ▪ Successful transformations require taking on board all relevant powers to make change happen. Network governance considers **synergies across governance levels, departments and stakeholder groups**. It supports a multipolicy and multilevel stakeholder engagement, fostering the creation of shared knowledge among different government layers, academia, companies and civil society through an Open Discovery Process. In line with developing transformation agendas, network governance can be the result of an **iterative process and the interplay of different groups and institutions.** Setting up a network governance relies on clearly identifying stakeholders for the given societal goals and continuously engaging with them. These stakeholders must have a common understanding and a sense of ownership over selected processes, objectives and strategies. This helps build legitimacy and address the unintended effects of transformation.

WHY ▪ Collaborative transformation agendas are developed through an inclusive process. They aim to tackle a common challenge in a specific territory. A well-developed network governance is key to shaping an initial ambition into a concrete agenda that takes into account many stakeholder views. The agenda can in turn further shape network governance and involve additional groups when deemed to be relevant. Such agendas are **demand-driven and respond to territorial interests, needs and problems. They connect the place-based context with broader strategies and agendas**. A network governance aims to incorporate the different views, create a common understanding and identify pathways that support many interests and objectives.

HOW ▪ Fostering a network governance that encourages reflective and experimental structures can entail several actions.

- **Engagement** processes involving many stakeholders can foster synergies, balance trade-offs, miwnimise conflict and keep on board those who may be adversely affected by the transformation.
- The **mobilisation of competences** within the network facilitates the distribution of roles and functions between the different actors, creating the conditions for a collaborative structure that makes decisions, sets goals and manages daily operations of the network.
- **Experimenting** is another form of combining stakeholder interests and identifying joint pathways that combine different views and user needs.
- The **Open Discovery Process** (ODP) can be the platform that enables engagement, deliberation and co-creating paths with different sets of stakeholders. The process can repurpose established participatory governance approaches to sustainability and introduce new ways of working across silos. This can be based on the desired economic, societal and environmental goals. The ODP can also be introduced gradually. This could include introducing a traditional Entrepreneurial Discovery Process (EDP) or combining people from two or more different departments in an ODP. For example, work with stakeholders affected by climate adaptation can be combined with the work involving innovation policy stakeholders.

competences

- E1 Engagement mindset
- F2 Collaborative processes
- F5 Communities of practice & network
- G1 Communication mindset

+ practices

P17 P23 P25 P26 P32

+ tools

T13 T29 T32 T42 T45 T47 T48 T50 T51 T54

+ more

Capacities for transformative innovation in public administrations and governance system

Governance networks in the public sector

Governance and sustainability

Linking S3 and EIT communities

chapter: **Engaging** / activity:

Building legitimacy

WHAT ▪ Building legitimacy is important to: (i) achieve and maintain agreement on the development of transformation goals and vision; (ii) manage cooperation among many public administrations; and (iii) justify public action and the use of public funds. The role of policy is to provide evidence that informs the public debate on transformation by providing alternative visions of the future that would not exist without government support, despite their high public value. Justifying transformative policy touches many interests and requires **greater public engagement** than typical stakeholder consultations. Impartial evidence is key to fighting misinformation from those seeking to delay change for private gain.

WHY ▪ Public policies need to be legitimate and seen to be legitimate to support specific transition pathways and effectively overcome resistance to change. There is a lack of many positive visions, so negative visions and arguments about redistribution sometimes dominate the public discourse on transitions. Building legitimacy is more than just a one-off task for early on in the envisioning phase: it must be an ongoing concern. It is crucial to act strategically when seeking legitimacy for transformative innovation policy because organised resistance can be tactical and adaptive. There can be very different interpretations of the same evidence or deliberate attempts to mislead public opinion for personal gain. Therefore, **impartial evidence and rigorous analysis, together with spaces for stakeholder consultation that give a voice to the most vulnerable,** can help improve the quality of the public debate on transitions and boost the possibility that widely supported targets will emerge.

HOW ▪ Strategies for building legitimacy for action can be based on an executive or legislative foundation or logically derived from clear evidence. Technical and scientific work play a crucial role in informing the policy process. To strengthen legitimacy, it is essential to engage with stakeholders and the public in envisioning, policy design and implementation by applying participatory governance methods (as proposed in the Open Discovery Process). Practitioners can do some or all of the following to build legitimacy for transformative policies.

1. **Seek a formal mandate** within your organisation and the public administration to develop transformative policies.
2. **Support scientist**s who provide impartial evidence of the costs and benefits of alternative scenarios and, where possible, encourage research into pathways with positive outcomes.
3. **Develop a strategic intelligence system** in the public administration that develops evidence-based rationales for transformative visions and action. Facilitate new rationales for public measures, such as directionality and market failure, both pointing to the need for broader coordination and a broader policy mix.
4. **Encourage and support public meetings, consultations and spaces** for pathway exploration and co-creation, drawing inspiration from the many tools for participatory governance in innovation (policy labs, hackathons, regulatory sandboxes, etc.).
5. **Protect participatory governance processes** from misleading narratives for private gain by linking decisions to impartial evidence and strengthening a culture of monitoring and evaluation for the long-term good of society.

competences

- C1 Scientific & data literacy
- C4 Gathering evidence
- E3 Conducting citizen engagement
- G5 Dealing with mis- and disinformation

+ practices

P18 P26

+ tools

T02 T03 T08 T10
T18 T30 T40 T46
T52 T67 T69 T70

+ more

International attitudes toward climate policies

Public trust in government

Tips: how governments can find their legitimacy

Envisioning

WHAT ▪ Envisioning is a deliberative process of thinking about the future in which **multiple groups** continuously develop and apply actionable knowledge to **anticipate change** as needs and context change over time in complex and uncertain circumstances. It encompasses a set of competences, methods and practices that apply to individuals, organisations, administrations and innovation communities. It is a dynamic process that involves an **interplay between anticipation, evaluation and learning** to generate new collectively generated knowledge at each stage of the policy process through a forward-looking process.

BENEFITS ▪ Envisioning helps understand **where you want to be, where you are now and what steps you need to take to achieve a vision**. It is linked to engaging because envisioning can be a participatory process and stakeholders can include their collective intelligence and perspectives to develop a vision.

activity:

Diagnosing and developing a vision

- Do all stakeholders recognise the identified challenges?
- Have you conducted a gap analysis to identify your capability, coordination and resource needs?
- What have you learnt from other territories that have experienced similar challenges?

activity:

Setting milestones and targets

- Have you developed or used a system to select key performance indicators (KPIs) to measure the progress of the ecosystem's transition to its future state?
- Have you set time-bound target values for the KPIs?
- Have you collectively agreed on the lead indicators that can effectively capture the progress to achieving the KPI targets?

activity:

Developing transition pathways and roadmaps

- Have you used evidence to identify current activities and practices that should emerge or be phased out in your system?
- Have you used evidence to identify the parts of the current ecosystem that need to be preserved and reshaped to become part of the emerging one?
- Have you developed a roadmap to move the ecosystem from its current state to its future state?

activity:

Conducting participatory foresight

- Have you gathered collective intelligence to frame the challenges that need to be tackled?
- Have you applied specific strategies to avoid representation bias or gaps in refining the main challenges and opportunities?
- Have you ensured that the everyone is in favour of the future you are trying to build?

chapter: **Envisioning** / activity:

Diagnosing and developing a vision

WHAT ▪ This activity seeks to answer the question: **'Where are we now and where can we go from here?'**. It does so, initially, independently of where we want to go. A diagnosis can have many aspects. It can look at how the system performs now to gain an understanding of its strengths and weakness. It can also look prospectively at opportunities and threats, which also means looking outside the system and into the future. This is how vision development begins, and it should feed into a broader process of engagement, deliberation, alignment, exploration and a conscious pursuit of positive transition pathways. **System-level innovation**, or territorial transformation, is the far-reaching reconfiguration of a system to serve new or changed societal needs in response to a strong impulse for change. Therefore, to identify promising pathways, it is important to match territorial assets with strong impulses for change. Some of these will be global impulses, typically referred to as megatrends (e.g. sustainability, geopolitical tensions, emerging technologies), whereas others will be local.

WHY ▪ **Diagnostic methods** are necessary to inform policy debates about transformation. Good diagnostics can help you to act as focusing devices, targeting limited policy attention and resources. Diagnostic tools and methods aiming to address transformation require looking in detail at specific needs to create new anticipatory capabilities. This helps balance the traditional strong focus on the supply-side/production sector with a strong focus on the demand side and user needs. In addition, it also reveals more important factors that may shape the global context in the coming years. **Positive collective visions** are in short supply in a world facing many escalating crises. The challenge lies in that these positive visions may not be apparent to any one stakeholder, and accepting them may require an independent mediator. Supporting the creation of positive visions may well be one of the most valuable public goods governments can provide.

HOW ▪ Diagnostic methods combine gathering evidence with stakeholder discussions and collective imagination. Methods for a system-level diagnosis include system mapping (such as network analysis), policy evaluation inspired by system dynamics (such as causal loop diagrams) or policy reviews with a transformative framing (such as the POINT methodology developed by the Joint Research Centre). To choose the right diagnostic method to try and answer our first question (Where are we now and where can we go from here?), you should first answer the following questions.

1. What is the policy objective of the diagnostic? Link the diagnostic to planned or ongoing processes of policy development and/or reform (e.g. a new innovation strategy).
2. What is the diagnostic approach or method to be used, considering the policy objective?
3. How will the findings of the diagnosis link back to policy development and/or executive decisions?
4. How will the findings of the diagnosis feed into developing a vision?

competences

- A1 Identifying & framing policy problems
- C6 Working with data & models
- D2 Scanning for change
- G5 Dealing with mis and disinformation

practices

P10 P14 P22 P28 P29 P30

tools

T05 T15 T24 T28 T43 T53 T60 T61 T62 T63 T65 T73

more

Causal loop diagrams (course)

Evidence-grounded positive future visions

Projecting Opportunities for INdustrial Transitions (POINT)

Systems based methods for research & innovation policy

System mapping toolkit (dashboard)

chapter: **Envisioning** / activity:

Conducting participatory foresight

WHAT ▪ Future comes from all of us; **the future is a collective and shared responsibility**. This is not only for current generations but also all future generations (intergenerational fairness). This means that our decisions should be based on comprehensive and long-term perspectives. Participatory foresight is a range of approaches to support decision-making and action on contentious and long-term challenges. It involves stakeholders, including the public, exploring or shaping potential scenarios by harnessing their **collective intelligence and perspectives.** Participatory foresight exercises aim to democratise and encourage long-term thinking to inform collective action in the present. They build collective intelligence about the future by helping people assess change in the long-term, draw out knowledge and ideas about how the future could look and develop shared mental images of the future people want.

WHY ▪ Participatory foresight can be used at any stage. It enables a **more democratic, inclusive and collaborative approach** to envisioning and shaping the future. This leads to better outcomes, greater stakeholder satisfaction and more effective long-term strategies. It enables the public to influence the long-term future. It is a tool to foster innovation and creativity and supports better decision-making through a wide range of information, options and perspectives that inform decisions. This way, it contributes to social acceptance and legitimacy by promoting **transparency, inclusivity and democratic decision-making.** It helps **build the anticipatory capacity** of every individual, community, organisation and government to continuously develop and apply actionable knowledge to anticipate changing scenarios as needs and context change over time in complex and uncertain circumstances.

HOW ▪ Participatory foresight includes using immersive forms of storytelling, gamification, design, art and deliberation. This enables people to experience unimaginable scenarios and provide an imaginative alternative to traditional analytical tools for thinking about the future. It builds collective intelligence about the future by helping people diagnose long-term change and gather knowledge and ideas about what the future might look like. It develops collective mental images of the future that people want. The three following approaches to participatory foresight are broadly applied.

- **Citizen-visioning** is a method through which people develop a shared vision of their preferred future as a community.
- **Futures dialogue** provides a flexible framework for structuring discussions about the future between stakeholder groups and is often used when issues must be considered at different governance levels.
- **Narrative generation** is a technique for creating qualitative storylines about the future. To be effective (in their ability to shape how people think about the future), these narratives need to be participatory, multidimensional and pragmatic.

Parties involved can be closely related to the future under discussion, like experts, and those who have a general interest, like the public. When developing participatory foresight, there should be a strong emphasis on involving the public.

competences

- D2 Scanning for change
- D3 Understanding change
- D4 Influencing change
- G4 Storytelling & visual literacy

+ tools

T02 T08 T10 T12 T15 T17 T24

+ more

Futures 4 Europe

Participatory foresight and reflexive innovation

The rise and promise of participatory foresight

chapter: **Envisioning** / activity:

Developing transition pathways and roadmaps

WHAT ▪ Transition pathways and roadmaps can be used to explore the processes of change to enable transitions to sustainability. They outline the different steps, actions and **interrelationships between those involved**, **resources and policies** to achieve a vision. It is about considering what might happen to better understand what drives change and explore areas where decisions need to be taken. Enriched by a participatory process, **transition pathways and roadmaps facilitate stakeholder engagement** in designing and implementing areas for action in a transformation.

WHY ▪ **Navigating the uncertainty** about the future requires mechanisms to explore consistent measures over time and across government levels, sectors and territories. The choice of mechanism depends on the capacity of the agency to influence the outcome of future events and the degree of uncertainty faced by policymakers.

- **Transition pathways** help outline the timing, scope and scale of change required for a territory, sector or economy. They can help identify many alternative routes to a desired vision or aspirational scenario under uncertain conditions by enabling the emergence of innovative ideas in the community.
- **Roadmaps** give a preferred, structured, temporal and often graphical representation of the direction to lead a society or sector to its desired endpoint. They are ideal for exploring the dynamic relationships between resources and organisational goals in an innovation system and programme.

Policy developments can use combinations of transition pathways and roadmaps. This is because roadmaps can **integrate different future-oriented aspects** by being aware of diverse visions and include many transition pathways. This interplay helps develop a **collective anticipatory capacity** by looking at the diversity of innovative options and technologies that are being tested and tried out simultaneously in different contexts.

HOW ▪ **Evidence and data** are crucial for design and implementation. **Transition pathways and roadmaps** produce **actionable knowledge** for policymaking.

Transition pathways:

1. require less structured information, which includes future signals, trends, narratives and visions shared by the community;
2. benefit from decision-making and consensus-building;
3. stimulate discussion on how change occurs through a systemic view, looking at projects and programmes simultaneously.

Roadmaps:

1. rely on indicators to measure time, resources and outputs, often using multiple layers to show relationships between policies, markets, products and technologies;
2. emphasise the need for stakeholders alignment;
3. (often in conjunction with action plans) can play a more specific instrumental role in analysing the feasibility and implementation capacity in evaluations or impact assessments, carried out when specific programmes or instruments are being developed.

In practice, **they are both usually combined** with workshops to promote knowledge-generation and exchange.

competences

- B1 Creative thinking
- B5 Managing transformations
- D4 Influencing change
- E5 Conducting stakeholder consultation

practices

P10 P30 P31

tools

T15 T24 T27 T28
T53 T61 T62 T65

more

A framework for mission-oriented innovation policy roadmapping for the SDGs

Exploring transition pathways to support food system transitions

Science, technology and innovation policy roadmaps for the SDGs

Towards a fair and sustainable Europe 2050

UN technology facilitation mechanisms

chapter: **Envisioning** / activity:

Setting milestones and targets

WHAT ▪ As set out in the European Green Deal, the EU aims for a sustainable economy in the long-term by using resources much more efficiently. This will be achieved by moving to a clean circular economy and tackling climate change, reversing biodiversity loss and reducing pollution. Setting milestones and targets supports the policy process by using a broader range of information, options and perspectives to identify patterns of change and draw up a clear set of outcomes

WHY ▪ Milestones and targets can serve as analytical elements for planning and implementation. They can help identify risks, opportunities and trade-offs of different scenarios, transition pathways and roadmaps for innovation ecosystems. This helps make decision-making more informed and effective. Effective and efficient strategies must have targets in place to successfully mitigate the impact of unexpected changes and events. They should take into account various aspects, such as climate change and geopolitical dynamics, and more predictable and embedded innovation processes, such as digital transformation. Milestones and targets for innovation ecosystems are essential as they are easy to understand and help simplify policy and communication strategies. They facilitate exploring patterns of change while building a collective understanding of potential challenges and opportunities in the face of uncertainty. This improves the overall anticipatory capacity of the whole ecosystem to orchestrate implementing transformative strategies.

HOW ▪ An **ecosystem** is **characterised by** three main components: **area**, **integrity** and **risk of collapse**. Milestones and targets should be chosen carefully to describe the action needed for the goals to be met. **Targets** should address the pathways to the innovation ecosystem's loss and recovery. These can include protecting remnants of threatened ecosystems, restoring their area and integrity to reduce the risk of collapse and preserve their intact parts. **Milestones** are to be used to capture differences in the ecosystem's area, integrity and its risk of collapse. A science-based vision, anchored in well-formulated action targets and fit-for-purpose milestones, is fundamental for helping reverse biodiversity loss and ensuring a long-term sustainable future. Analysing the relationships between goals, milestones and targets facilitates understanding systemic change at both the ecosystem and policy programme levels. This insight shows how policy programmes operationalise goals across various activities, from experimenting to mobilising resources, learning and evaluating.

competences

- B2 Systems thinking
- C2 Identifying evidence needs
- D1 Anticipatory mindset
- D4 Influencing change

practices

P11 P21

tools

T06 T07 T15 T27 T43 T46 T54 T57 T63

more

Lessons from implementing climate goals in the process industry

Mission-oriented research & innovation

RRF scoreboard. Milestones and targets

Orchestrating

WHAT ▪ Transformation happens in places affected by many (formal and informal) powers and interests. Orchestration considers how we can identify and take on board all relevant powers to make change happen. The main aspects of orchestrating include agreeing on how to increase ownership of the transformation required and setting up tailored governance structures. Investment in effective orchestration makes it possible to increase the power to act, widens the scope of policies beyond innovation policies (including supply- and demand-side policies), diversifies budgets that can be leveraged and accelerates place-based transformation. It involves **vertical and horizontal coordination**, **interterritorial coordination** and **setting the agenda** to drive this coordination. Building **ownership** and **trust** is essential if we want others to act on (and spend budget on) our transformation agenda. As trust builds, continued investment in orchestration is critical.

BENEFITS ▪ Good orchestration increases the capacity and power to act, in terms of planning and implementation, human and financial resources available, instruments, etc. It can also help remove many bottlenecks to implementing a transformative agenda. After all, systemic change requires systemic collaboration. Prioritising the most relevant powers can help reduce coordination costs.

activity:

Agenda setting and sharing

- Have you provided for a balance between top-down plans with bottom-up initiatives when setting your agenda?
- Do you see agenda setting as an iterative process?
- Are the views of potential winners and losers incorporated into the transformation agenda?

activity:

Collaborating across departments

- Have you set out ways to make each department take more ownership so that they can design and implement a shared vision together?
- Have you crafted mechanisms or resources to increase any required capacity to achieve a vision?
- Have you consider the roles required to get different departments to work better together?

activity:

Collaborating across territories

- Do you consider your innovation ecosystem to have been open and internationally connected over the last 5 years?
- Have you facilitated any governance arrangements for interterritorial collaboration?
- Has your territory developed a long-term vision on cooperation or seized any collaboration opportunities?

activity:

Enabling multilevel cooperation

- Have you set up a system to select which policies are needed to implement your agenda?
- At what governance level(s) are these policies designed and run?
- Have you devised different mechanisms to align and coordinate at different levels?

chapter: **Orchestrating** / activity:

Agenda setting and sharing

WHAT ▪ Shared agendas for place-based transformative innovation are developed through an inclusive and collaborative process, to address a common challenge in a specific territory. They are built through multipolicy and multilevel collaboration, generating shared knowledge among different government levels, academia, companies, civil society and other parties through an Open Discovery Process. The agendas are designed to drive change and have a long-term social, environmental and economic impact. They are adaptive and can react to the unexpected. They encourage experimenting and rely on collective learning for monitoring and capacity building. Agendas are demand-driven and respond to a territory's specific needs and problems. They connect the place-based context to broader strategies and agendas from local, regional, national, EU and international levels and open avenues for interterritorial cooperation.

WHY ▪ Sustainability transitions require creating coalitions of willing stakeholders in territories to grasp opportunities, overcome barriers, set up new governance structures and foster the emergence of business models aligned with a new paradigm. Initially, these agendas may be proposed by stakeholders who are deeply committed. However, the agendas must also have the capacity to mobilise other groups and individuals and provide the necessary infrastructure to ensure the shared agenda is effectively governed.

HOW ▪ To build a shared innovation agenda for place-based transformation, **it is crucial to engage with stakeholders and strengthen their commitment to the transformation and shared vision.** Widening the engagement and orchestration around an initial agenda may lead to a revised or optimised agenda. Therefore, early engagement can increase ownership among both public and private groups. Those involved need to be aware of the influence of different mindsets, values and beliefs on the process. They must also be willing to embrace uncertainty and complexity and adopt a systems thinking approach. Incorporating the views of potential winners and losers of a transition upfront and anticipating potential unintended effects of the transformation can increase ownership, build trust and lead to a more successful implementation.

Understanding a given challenge and laying the groundwork for collective action is essential. This involves determining the scope of the challenge in the territory and setting out a shared vision of the future.

Co-designing and testing innovative solutions through the shared agenda is a key step. This collaborative approach allows for diverse perspectives and expertise to be integrated, leading to more effective and sustainable outcomes.

Ultimately, the aim is to have a systemic impact and make progress in achieving the shared vision. This requires continuously learning about monitoring and adapting strategies.

competences

- D1 Anticipatory mindset
- E1 Engagement mindset
- F2 Collaborative processes
- G3 Speaking with impact

+ practices

P06 P21 P25 P30

+ tools

T08 T10 T15 T17
T35 T45 T47 T48
T59 T72 T73

+ more

Shared agendas in transformative innovation policies

Shared agendas for sustainability and social change

Limits and benefits of participatory agenda setting for R&I

chapter: **Orchestrating** / activity:

Enabling multilevel cooperation

WHAT ▪ Multilevel cooperation is critical to address the multiple and simultaneous transformation processes that need to be activated and jointly managed by steering synergies across territorial levels and sectors. Places are affected by actions taken at different governance levels, from the most local level to EU level. Territories implementing transformation agenda usually only have some responsibility over and knowledge of the relevant policies and action that require involving other governance levels. Multilevel cooperation can be about (bidirectional) information and data sharing, awareness raising and increasing ownership, strategy co-design and collaboration on implementation. Territories are also well positioned to bring different EU policies and funding instruments together with national and local ones and implement them. Territorial experimentation can provide lessons learnt that can be shared with higher levels of governance.

WHY ▪ Cooperation can enable the building of a distributed capacity between different European actors, including governments, civil society and businesses at every level, to act in complex and uncertain conditions. Involving higher governance levels makes it possible to increase the power to act with relevant policies and funding across different governance levels. Understanding lower levels is crucial for identifying barriers to implementation and alternative solutions and promoting local needs. It also builds capacity to act on and learn about the relevance or obsolescence of territorial policies as well as trade-offs and contradictions. Multilevel cooperation also enables mobilising and sharing resources that create synergies in how funds are used.

HOW ▪ Different actions can help multiple actors to go beyond managing different resources, competences and processes and look at the big picture; in particular, how we can build distributed capacities to facilitate decision-making and innovation in policymaking at system level.

- It is essential to know all relevant policies, why they are relevant, and how responsibilities are distributed. Tools like power maps are useful to build a territorial transformation agenda.
- Facilitating co-creation processes to make sense of the overall challenges and place-based context and identify key principles for collaboration in participatory policy design and implementation.
- Negotiations between governance levels can increase collaboration, promote a sharing and learning culture, and involve lower levels in planning and implementation.
- Making coordination more efficient and applying good practices is crucial for limiting coordination costs.
- Implementing foresight processes to explore the emergence and evolution of collaborations at different levels (including governance models) with the aim of developing multi-actor anticipatory capacity to catalyse transformative change for sustainability transitions.

competences

- A5 Policy advice
- B2 Systems thinking
- F1 Collaborative mindset

+ practices

P05 P07 P20 P26

+ tools

T05 T11 T13 T32
T33 T35 T49 T50
T51 T57 T71 T72

+ more

Multilevel governance tools

Multilevel governance for smart specialisation

Systemic and multilevel transformative governance

chapter: **Orchestrating** / activity:

Collaborating across departments

WHAT ▪ Developing and implementing transformative change across the EU and in its territories requires involving policies beyond innovation. This requires creating a common understanding, nurturing common ownership, and developing a holistic approach to solving problems by aligning different departments, their policies and their budgets. Transformative policies require engaging people with a passion for discovery, co-creation and experimenting and the institutional capacity to deploy them. It is key to connecting teams who can stimulate knowledge sharing, develop system thinking, steer multi-actor processes, foster synergies and trade-offs and minimise conflicts. These people must also have a strong capacity to communicate and collaborate even when there is a lot of uncertainty.

WHY ▪ Transforming systems requires critical mass for action. The more all relevant policies contribute to the transformation agenda, the more effective and faster the systems transform. The traditional siloed department structure in public administrations is at odds with growing calls to urgently deliver seamless answers to the interlinked challenges territories face today. However, cultural factors in public administrations may hinder the sorely needed joint efforts. These factors include the fragmented ownership of processes, the challenges in sharing information, competition for resources, lack of trust, a perceived loss of power, and litte incentive for cooperation.

HOW ▪ Identifying (e.g. through systems mapping or power maps) and prioritising relevant policies and departments can be a good starting point. This allows for increasing the ownership of the territorial transformation required help setting up a customised whole-of-governance approach. Involving different policies and budgets from all relevant departments.. can lead to accelerating implementation of transformative agendas by involving different policies and budgets. Working with supply-side policies (such as innovation vouchers) and demand-side policies (such as fiscal policies and regulations) can change systems faster. Concrete ways for supporting horizontal coordination include supporting strong political leadership, calculating the cost of no action for each ministry, interdepartmental teams with a rotating presidency. Testing collaboration through small wins before scaling up to a more structured collaboration can help to build trust. Finding the right balance between top-down and bottom-up steering of horizontal collaboration is context dependent and can vary across territories. Finally, a thorough assessment of existing obstacles to cooperation and the identification of possible solutions can help understand and solve difficulties in collaboration processes.

competences

- B2 Systems thinking
- C3 Connecting to experts
- F1 Collaborative mindsets

+ practices

P14 P16 P18 P21

+ tools

T05 T11 T14 T32
T33 T34 T35 T50
T51 T57 T71 T72

+ more

A model for inclusion in collaborative governance

A vital ingredient for partnerships

Mobility as a service in Finland

chapter: **Orchestrating** / activity:

Collaborating across territories

WHAT ▪ Interterritorial collaboration can take many forms, including networks and platforms, joint projects, cross-border clusters, twinning, strategic partnerships and alliances. The type of collaboration depends on several factors, such as the specific context, the groups involved (e.g. regional administrations, cities, universities, businesses, civil society organisations), the objectives, and the available resources and constraints in the territories involved.

WHY ▪ The rapid environmental, social, and economic changes that societies face today can be addressed more effectively if territories collaborate and leverage each other's expertise, capabilities and resources. Major challenges have no borders, making such collaboration essential. The EU can accelerate innovation to tackle its biggest challenges and bridge the innovation divide by promoting interterritorial collaboration.

HOW ▪ Starting with networking and exploratory activities, territories can advance by designing and implementing projects together. In later phases, territories could mobilise joint capacity, manage common resources and share investment risks. The EU supports interterritorial collaboration with initiatives targeted at regional administrations (e.g. Interreg), the research and development community (for example, Horizon Europe) and clusters (e.g. Euroclusters) or ecosystems (e.g., European Innovation Ecosystems and Regional Innovation Valleys). Joint initiatives could be based on shared infrastructure, climate adaptation shared risks or skills development (through Erasmus+). However, developing a **forward-looking, comprehensive, and stepwise roadmap on interterritorial collaboration** could help achieve major goals and have a bigger local impact.

Recommendations at local level

- Promote **local ownership** by ensuring commitment from high levels of government and enough resources to support long-term interterritorial collaboration.
- Set a **clear vision** and **promote agreements** involving all stakeholders to discuss your territorial challenges and local missions and identify areas relevant to other territories (from benchmarking to joint initiatives).
- Facilitate **decision-making** by identifying bottlenecks, gaps and enablers for interterritorial collaboration, reviewing governance barriers and spotting internal investment needs for place-based innovation. In addition, encourage learning by regularly monitoring and evaluating the process with your stakeholders.
- Develop and **nurture relationships** by identifying and facilitating exchanges with relevant territories (complementarities, economies of scale, shared value chains, gathering critical mass, etc.) and networks that can give you an external perspective of your territory.

Recommendations at interregional level

- Develop an **interterritorial narrative** based on common challenges and missions; co-create a map of key stakeholders involved in the targeted local missions.
- **Design a toolbox** that enables a step-by-step flow so that the collaboration process can evolve and learn though regular monitoring and evaluation.
- Build a strong **governance model for collaboration** by sharing costs and benefits, reflecting on their distribution and evolution, and building trust to develop strong relations over time.

competences

- B2 Systems thinking
- C3 Connecting to experts
- F2 Collaborative processes

+ practices

P03 P05 P10 P11 P18 P20

+ tools

T11 T14 T34 T35 T44 T45 T57 T68 T70

+ more

Cross-border government innovation

Interregional cooperation and Smart Specialisation

Opportunities for regional collaboration and economic cohesion

Designing

WHAT ▪ Activities that involve the designing of a strategy cover the approaches used in strategy development. These activities involve dealing with choice of policy, allocating resources, providing a purpose and engaging with stakeholders, and focusing on the benefits of engaging with local ownership. Designing is a crucial step for successfully implementing a policy and ultimately for achieving its goals. Choosing the **right policy instruments** and **aiming for additional actions** ensure effective implementation and a positive impact. Resource allocation and scheduling are crucial for the efficient use of resources and timely delivery. Engaging local stakeholders in designing strategy and choosing policy is needed for relevance and effectiveness, resulting in more inclusive and contextually appropriate strategies that are more likely to result in positive outcomes for the community.

BENEFITS ▪ Designing a strategy is important not only to properly assess and plan actions, but also to **build legitimacy and gain support** from different stakeholders. Effective strategy design will most certainly help achieve desired and planned outcomes, and will increase the **efficiency of the policies and actions taken**. Inclusive design will enhance the quality and relevance of the chosen policy to the affected stakeholders. Inclusive design is also needed to increase **public trust** in the strategy as a solution and its implementing actions.

activity:

Developing a strategy

- Have you developed clear criteria for allocating resources and scheduling the delivery of policy instruments?
- Do you have mechanisms to set out governance roles, responsibilities and authorities for decision-making?
- Have you aligned communication plans with your strategy?

activity:

Mobilising resources

- Have you helped design a process for selecting and mobilising resources?
- Have you designed actions to take when facing a lack of resources?
- Do engaged stakeholders contribute to your plans with their resources?

activity:

Designing local missions

- Have you designed a policy framework as a coordinated set of policy and regulatory measures to address well-defined objectives?
- Have you helped design specific coordination arrangements to support a local mission?
- Have you helped design policies to overcome barriers that prevent the mission from being achieved?

activity:

Developing the policy and action mix

- Have you designed mechanisms to ensure policy development is clear, place-specific and action-oriented?
- Have you considered a balanced blend of possible policy instruments?
- Do your policy instruments work in synergy with your policy and action mix?

activity:

Designing ecosystem support

- Have you assessed the breadth/size of the relevant place-based ecosystems affected by your strategy?
- Does your policy development support ecosystem-wide transdisciplinary arrangements, joint solution development and adoption?
- Have you designed support for engaged stakeholders in a systemic and synergetic manner?

chapter: **Designing** / activity:

Developing a strategy

WHAT ▪ A strategy is a vision with a plan to achieve results and provides rules for action. Having a well-developed strategy is critical to achieving successful change. To create a strategy, there are two potential paths: **drafting a new document or building upon an existing strategic framework**. A strong strategy links available tangible and intangible resources with stakeholders within a set timeframe and with measurable goals and impacts. Furthermore, a successful strategy identifies the **actions to be taken and those to be avoided**, to achieve the most leverage possible. A strategy provides a clear understanding of how other processes are governed, such as how actions are taken, how the learning process will be implemented and, if needed, when and how the strategy itself can be modified. Moreover, a good strategy should inspire action and provide a clear purpose, rather than simply listing a series of tasks that need to be accomplished.

WHY ▪ A well-designed strategy is the cornerstone of successful change, and a key reference for **aligning and directing future actions** allowing for **longer planning periods**. Effectively communicating the vision and rules of engagement with stakeholders is a critical component of success. A transformative vision requires an inspiring strategy to provide **legitimacy for its actions**. While the strategy itself is not transformative, the process represents the required transformation. A strategy needs to coordinate changes across many usually uncoordinated actions encoded with transformative ambition. Thus, a strategy should embed the knowledge of what it **directly controls and what it might influence**.

HOW ▪ Effective strategy development is crucial in driving transformative change and can be considered part of a broader transformative effort. The transformative aspect should extend beyond strategy development and focus on how open and dedicated stakeholders are in engaging with it. From the beginning, it is important while developing a strategy to **build the capacity for successfully implementing it.**

1. Recognise a **need** and **space** for developing a strategy and build legitimacy to develop it. Start by agreeing on the vision that can align political priorities with practical realities and translate them into operational tasks.
2. Analyse the current state of play and map expectations for the future. This requires taking **different scenarios** into account, supported by data to provide greater clarity and better decision-making.
3. Engage with all parties, including those who may provide valuable inputs for the implementation or who will be affected by the strategic shifts in policy. By involving all key participants, the process will develop a sense of **collective ownership**, which sets the stage for successful implementation.
4. A sound and well-communicated strategy document is not enough on its own; effective implementation requires mobilisation of resources and engaging with all stakeholders for taking action and for benefiting from **mutual learning**.

competences

- A1 Identifying & framing policy problems
- A2 Designing & evaluating policy
- B5 Managing transformations
- F3 Convening & facilitating

+ practices

P03 P11 P31

+ tools

T27 T33 T37 T53 T57 T59 T60 T61 T63 T67

+ more

A plan is not a strategy (video)

How to create an 'Innovative' national innovation strategy

Innovation strategy – What is it and how to develop one?

chapter: **Designing** / activity:

Developing the policy and action mix

WHAT ▪ A well-designed policy and action mix (sometimes referred to as a policy mix) is needed to **address policy complexity** and push for desirable change. Governments are increasingly reconsidering their policies in response to urgent societal and environmental challenges. They seek to align public measures across different policy areas and take advantage of innovations within systems that could potentially **drive transformative change**. The policy mix involves using a **combination of various policy instruments and linked stakeholder actions** to achieve a set of policy goals. For example, governments may use regulatory policies such as laws, regulations and standards to achieve environmental policy goals. In addition, a policy mix can include financial incentives such as subsidies, tax credits and grants to promote the adoption of environmentally-friendly practices. Moreover, governments can roll out certain initiatives, public awareness campaigns, and education and training programmes, encouraging a change in behaviour **not only at producer level, but also at consumer level**.

WHY ▪ The policy and action mix approach acknowledges that no single policy instrument or action is sufficient to tackle complex and interlinked challenges. Instead, it recognises the importance of combining various instruments and actions tailored to specific contexts and goals. Such an approach ensures that various measures encourage **directionality**, **synergies** and **complementarities**, promotes **stakeholder ownership** and **change**. Overall, the policy and action mix approach enables policymakers to create comprehensive and effective strategies to achieve policy goals by combining different policy instruments and other actions to create positive change.

HOW ▪ A policy and action mix can potentially include further actions and avail of budgets from other policy areas to tackle common challenges.

1. Identify the problem along with stakeholders. It is important to include stakeholders from start and **share problem ownership**.
2. Set the policy goals, which should be measurable and achievable within a given time frame. Allow for corrections while implementing.
3. Ensure **the existing sets of policies are consistent with each other** and ensure policy mixes for transformation do not emerge in a vacuum.
4. Identify **missing policy instruments** and mechanisms to co-opt actions that are most appropriate to achieve the policy goals.
5. Develop an **implementation plan** by allocating resources, a timeframe, responsibilities and communication activities.
6. **Monitor, discuss, evaluate, refine** and **make corrections** to the implementation plan.

competences

- B2 Identifying & framing policy problems
- B5 Managing transformations
- D4 Influencing change

+ practices

P06 P16 P31

+ tools

T04 T06 T11 T22 T49 T50 T51 T67 T64

+ more

Aligning smart specialisation with transformative innovation policy

Policy mixes for addressing environmental challenges

Policy mixes for digital transformation

chapter: **Designing** / activity:

Mobilising resources

WHAT ▪ An important task for government is identifying and mobilising the necessary human and financial resources to address societal challenges. Resources can come from different stakeholders through different means. Overall, this process involves a combination of resources, mechanisms and partners. For place-based transformative innovation to remain a goal of the resource mobilisation process, new thinking needs to be developed along with challenging current routines. Both human and financial resources play a major role. On the one hand, to tackle a societal challenge, existing human resources may have to be redeployed, often with investments in training and education and/or attracting new human resources to the territory. On the other hand, mobilising financial resources may be needed to tackle problems that are too costly for individual budgets, where ideally a combination of public and private funding would enable innovation activities and technology investments to be rolled out.

WHY ▪ Diversifying and expanding the resource base is essential, particularly in tackling current challenges, which can have exceptional resource demands. We need to **work backwards** from a challenge; this means **applying a challenge-oriented focus**, rather than a sectoral or departmental focus that most funds have. This acts as an organising principle and leads to the development of a theory of change, that includes multiple funds and various types of human resources that might otherwise not be mobilised. Such a way of thinking and working could mobilise new sources and trigger previously unexplored synergies between resources. Under the prism of a societal challenge, existing innovation funds may have to rebalance the support offered, for example, in favour of non-R&D innovation activities and help small and medium sized enterprises invest in adapting, adopting and deploying technology. A key part of the effort to mobilise resources to deal with challenges is to ensure different funds are **aligned and consistent,** identifying and addressing possible conflicting objectives.

HOW ▪ Mobilising resources is a balanced exercise that requires several competences and skills, such as negotiating and critical thinking, as well as communication skills. Through collaboration, regional authorities can focus on upscaling and pulling together a sufficient critical mass of resources needed to tackle challenges, such as building a better and competitive inclusive society. This process could help provide a clear direction for change by means of using the complementary assets of two or more regions, which will in turn step up the transformative process of each region and maximise the resources available to each of them. To speed up mobilisation of resources, regions can use existing complementary tools while setting up an interregional governance system for better collaboration. There is also the possibility of using a broad pool of regional and national actors, selected through mutual collaboration. Such a process aims to strengthen the link between knowledge producers and firms and could lead to better use of the different assets available.

competences

- A3 Negotiating
- A5 Policy advice
- B3 Critical thinking

+ practices

P04 P07 P12 P28 P32

+ tools

T04 T19 T22 T23
T26 T30 T31 T32
T33 T37 T38 T64

+ more

Capacities for transformative innovation in public administrations and governance system

Innovation portfolios

Portfolios for the public good

chapter: **Designing** / activity:

Designing ecosystem support

WHAT ▪ An innovation ecosystem consists of organisations such as *businesses, universities, government agencies, intermediaries, solution providers* and many others that, depending on their capacities, activities and interactions, **collectively determine** a territory's ability to innovate. The characteristics of **highly developed innovation ecosystems** include:

- appropriate and timely funding;
- sufficient human resources with the right competences;
- capable public administrations; and
- social conditions favouring trust and collaboration, such as openness, respect for the law and effective regulation.

Making good use of available resources requires the right balance between collaboration and competition, between stability and adaptability. Some ecosystems tend to be less friendly for innovation. In less innovative territories it is common to have business sectors where:

- most businesses do not feel compelled to innovate;
- universities are disconnected from societal needs;
- there is insufficient capacity to attract and retain talent.

WHY ▪ The ability to innovate depends on each ecosystem. The government can play an important role in bringing stakeholders together and promoting common understanding, direction, knowledge exchange, cooperation, pooling of resources and learning. A key role for public policy is to **steer the purpose** of innovation towards societal well-being and look at the needs of the ecosystem from a broad and long-term perspective. For example, companies in the territory may be part of global value chains (e.g. in fossil fuel industries) that are profitable in the short-term but have a questionable future.

HOW ▪ Thriving ecosystems can take decades to develop, so it is important to allow sufficient time to develop capacity and monitor and evaluate its impact.

1. Designing suitable support policies depends on the presence in the ecosystem of: (i) **a vision for long-term territorial development**, and (ii) an accurate **diagnosis of bottlenecks** that prevent the vision from being implemented. Both need to be accompanied by continuous feedback, as part of an Open Discovery Process.
2. Identify ways to make the different parts of the ecosystem operate in a manner consistent with the territory's societal objectives: this means mechanisms for networking among those involved, support for intermediary organisations that represent large common-interest groups, and solution providers such as competence centres and technology-transfer offices.
3. Mobilise resources from multiple funds to address ecosystem bottlenecks: it is important that there be a balance between support for **global competitiveness and support for capacity building,** including ability to address local challenges. Providing support for ecosystem players that are champions of societal goals should be a priority.
4. Seek to support the local ecosystem by influencing policy processes **in areas other than innovation and at other territorial levels**: particular attention needs to be paid to policies and investments that have an impact on the physical environment of your territory (e.g. large transport infrastructures) as they stand to lock-in unsustainable behaviour while representing major opportunities for developing the capabilities of local production.

competences

- B2 Systems thinking
- B5 Managing transformations
- F2 Collaborative processes

+ practices

P01 P03 P04 P15
P18 P23 P24 P28

+ tools

T01 T04 T09 T12
T21 T25 T28 T44
T52 T55

+ more

Building an innovation ecosystem (video)

Innovation ecosystems review and definition

Transformative governance of innovation ecosystems

What is an Innovation Ecosystem? (video)

chapter: **Designing** / activity:

Designing local missions

WHAT ▪ Missions are **coordinated packages of policy and regulatory measures**, tailored to roll out action in innovation to address well-defined societal objectives or complex problems within a set timeframe. Missions often require to make difficult decisions without a strong consensus among all participants. Yet the majority should come to an overall agreement on how to reach their goal. Missions provide directionality and common ground for experimentation. They also create space for potential novel solutions. For instance, a mission to provide healthy school meals can lead to innovating food packaging and delivery, besides providing healthier nutritional components. Overall, missions can inspire creativity and collaboration among individuals and organisations working towards a common goal. Local missions, or missions, can be geared towards tackling economic matters or challenges and must avoid promoting 'more of the same' solutions. Their objectives should still be attainable, to prevent disappointing results. Mission-oriented innovation policies should allocate extra resources for coordination, bridging instruments, and demand creative measures to achieve desired impacts.

WHY ▪ Local missions tackle issues alongside local stakeholders who may by underrepresented in policy discussions. The local mission approach is to launch a **call to action** rather than a plan for activities. Missions can help develop policies geared towards setting priorities in tackling societal challenges (and funding), which can complement other priority-setting methods. Therefore, they can act as an **organising principle for collaboration** in complex and fragmented decision-making structures. Local missions allow different policy groups to work together, creating a more inclusive and aligned policy framework. To achieve the desired change, it is important to move beyond R&D efforts and include portfolios of actions in regulation, skills, business investment, consumption subsidies, physical and digital infrastructure, among others. The changes should also include **modifications to production systems and consumption patterns**.

HOW ▪ Missions highlight inclusiveness as a driving force for chosen themes and engaged groups.

1. Set the foundations for collective actions to generate trust, collaboration and networks, and build consensus around a shared vision for the territory after transformation. **Collectively try to answer: how do we see our territory after transformation?**
2. Define the local mission by specifying its goal, duration, geographic boundary, ambition, problem framing and existing partial solutions. Conduct an analysis of possibilities for driving change through planned action and applying a theory of change. Together **with stakeholders, look for opportunities by matching the identified challenge with possible solutions in the territory and beyond.**
3. Identify transformative tasks, such as creating legitimacy and leadership (mandate to represent entire sectors); multilevel, multi-actor and multi-instrumental coordination and alignment (create systemic synergies); reflexivity, learning and experimenting; and resolving conflicts. Remember that **a local mission is not a vehicle for everybody to fit in, or to find silver bullets or win-win situations.**
4. Evaluating outcomes can be challenging. The process is not linear, with many direct and indirect relationships involved. Therefore, **it takes a long time for the results to become clear.**

competences

- A1 Identifying & framing policy problems
- D4 Influencing change
- F2 Collaborative processes

+ practices

P02 P19 P20

+ tools

T06 T07 T11 T27
T32 T36 T53 T66

+ more

Micro-missions and the role of universities

Mission Oriented Innovation (webinar) - Jeffrey Sachs

OECD Mission-Oriented Innovation policies online toolkit

Implementing

WHAT ▪ Implementation of a strategy always requires adaptation to changing realities. The actual deployment of a strategy requires translating objectives into an action plan and introducing arrangements for the plan's revision in response to monitoring. The policy mix will have to be tailored to societal goals and be responsive to changing circumstances. Hard decisions must be made about prioritising limited public funds, which have to be well-justified and geared towards tackling challenges. Implementation is not just about putting a plan into action but also about enabling experimentation and learning, which are essential in opening up pathways to the solutions for complex problems. Flexibility and responsiveness in the policy mix is also important for scaling up good solutions once they emerge.

BENEFITS ▪ Implementing is crucially important for transformative innovation policy. It is the stepping-stone between planning and operational impact on public investments, on governance reforms, on new regulations and changes to skills provision. Implementing tests the adequacy of prior planning. Policymakers need to be prepared for the unexpected and be ready to recognise issues, negotiate changes, compromise and adapt. Good implementation translates into impact, which strengthens trust, enables further engagement and supports visions that are more ambitious.

activity:

Deploying a strategy

- Have you agreed the policy instruments with the beneficiaries?
- Have you identified organisational changes to implement the strategy effectively?
- From the start, can the strategy avail of indicators and evaluation procedures adapted to its systemic nature?

activity:

Coordinating the policy and action mix

- Have you set out roles, practices and tasks to coordinate the policy and action mix?
- Do you have channels to communicate feedback to various government departments?
- Have you put in place mechanisms to check whether implementation is going as planned within the ecosystem?

activity:

Prioritising funds

- Have you created space for a deciding body on funding mix sources and priorities?
- Have you ensured that funding per priority is sufficient and proportional?
- Have you created buffers to account for and address uncertainty and build resilience into your priorities?

activity:

Experimenting and demonstrating

- Do you have any criteria to select and prioritise ideas for experimentation?
- Have you integrated experimentation in your strategy?
- Have you implemented any recognition mechanisms to promote the design of projects with system-level potential?

activity:

Scaling and mainstreaming

- Have you set up mechanisms to mainstream successful experiments?
- Have you implemented practices to end unsuccessful experiments?
- Have you implemented any support mechanisms to scale local solutions with global potential?

chapter: **Implementing** / activity:

Deploying a strategy

WHAT ▪ This activity aims to translate strategy aspirations into an operational **action plan** with a clear **timeline**, **governance arrangements** and **delivery mechanisms**. Deploying a strategy is not a given but depends on:

- setting up suitable organisational arrangements;
- identifying the appropriate delivery mechanisms;
- seamless coordination between partners within government and with stakeholders; and
- closely monitoring progress in implementation so that any unforeseen bottlenecks are lifted in time.

Organisational arrangements must ensure responsiveness in view of:

- essential interactions and feedback from parallel processes, such as monitoring and evaluating, the Open Discovery Process, and a policy and action mix;
- unforeseen bottlenecks in implementation and other contingencies, such as new priorities emerging;
- new opportunities for synergies or broadening the strategy's potential impact.

WHY ▪ A transformative innovation strategy requires policymakers to act across administrative boundaries. It calls for new ways of working across silos and strengthening the capacities of public administrations to take on new tasks. Unless appropriate organisational arrangements are identified, the transformative ambition behind the strategy for a transition may stumble. Exceptional times require exceptional measures, such as planning for a period of deep transition. In a transition setting, there are two overarching tasks for development policy. First, the need to support emerging niches that can be the basis of future competitiveness and development. Second, the need to support incumbent actors whose competitive advantages may be challenged so that they transform seamlessly.

HOW ▪

Goals of a strategy. Start with creating a process for translating aspirations into an action plan. It is key to operationalise policy tasks and map them in the policy system, both within the administration and across government areas and levels. This process requires considerable consultation.

Putting in place governance arrangements. Mapping goals to tasks across departments and levels underlines gaps in responsibility. If policy tasks are difficult to map on existing structures, there may be a need to create new units, mobilise competences or strengthen capacities of existing units. Working on tasks across silos requires accountability and feedback mechanisms.

Delivery mechanisms. A transformative directionality usually requires more than one delivery mechanism. Project-based funding with a transformative ambition can be organised in a project portfolio sharing a common challenge and funded by multiple sources, including non-innovation funding. Funding for intermediation mechanisms such as clusters, competence centres and training institutes is also relevant. A policy lab or regulatory sandbox may be needed to identify the right delivery mechanism.

Reflection and learning. Decision-making involves decisions on how to draft an action plan, with whom, and on how to reach an agreement. Monitoring whether the appropriate capacities are in place feeds into decisions on future activities. Furthermore, checking if the principal delivery mechanism is fit for the task helps pre-empt, or decrease, future problems.

competences

- A3 Negotiating
- B5 Managing transformations
- D4 Influencing change

+ practices

P02 P06 P16 P32

+ tools

T20 T22 T23 T26
T28 T33 T39 T58
T59 T60 T64 T66

+ more

Putting a plan into action (online guide)

The design and implementation of mission-oriented innovation policies

Toward sound policy implementation

Coordinating the policy and action mix

WHAT ▪ A policy and action mix can be thought of as a coherent portfolio of actions across areas by various stakeholders for a given challenge. A policy and action mix is at the heart of implementation: it includes concrete policies, programmes and instruments. It also aims to go beyond the actions of government to influence and co-opt actions by other stakeholders. A coherent policy and action mix cannot emerge spontaneously but results from a long process of coordination, deliberation and co-creation of opportunities that did not previously exist. Various agencies and other bodies implement a policy and action mix by means of financial and non-financial measures, together with complementing actions by stakeholders in different configurations. Coordination of different parallel policies and actions ensures that there is coherence and synergy, helps avoid duplications and increases effectiveness. Knowledge about what is happening elsewhere is key and allows changes to be made to previous plans and improves the consistency of actions taken towards tackling a challenge. Involving stakeholders in coordination and learning allows for the co-creation of opportunities and more effective implementation.

WHY ▪ Governments in multiple levels working together with stakeholders can enable greater coherence in design and coordination of policies and actions by following the principles the Open Discovery Process (ODP). The ODP is a process geared towards coordinating responses to challenges that involves collective deliberation to develop a shared understanding of the societal challenges and of ways in which they can be addressed before developing shared agendas. A goal of the ODP is to encourage additional voluntary actions that help achieve the goal beyond the strict conditions attached to funding. Changes to the policy and action mix depend on monitoring and learning, where including stakeholders is needed to build and maintain trust and shared ownership of the mutual goals and therefore the coherence of policies and actions.

HOW ▪

1. Start by framing actors inside and outside of the system you plan to coordinate. Coordination can evolve over the time to include indirect actors, and the ones you would like to influence.
2. Set up a mechanism for coordination across policy portfolios following the ODP's challenge-led logic. Exchanging information provides opportunities to gradually join up different portfolios.
3. Set up a system for monitoring the implementation of the policy and action mix using quantitative and qualitative approaches. Regular monitoring can help gather signals and data on the development of planned indicators, and the achievement of overall progress and coherence for accountability and communication.
4. While monitoring provides data, learning from monitoring outcomes can provide a deeper understanding how the policy and action mix is working towards achieving initially desired goals. Learning could be carried out with involved stakeholders to understand if the implementation is moving in the right direction and if that direction is still shared and the same.
5. Learning through monitoring can provide space for making changes within the policy, or changes in the policy environment, based on new demands, and evidence of implementation problems

competences

- B2 Systems thinking
- B5 Managing transformations
- D4 Influencing change

+ practices

P06 P25 P32

+ tools

T20 T32 T34 T47
T50 T51 T55 T70

+ more

Applying policy mix thinking to social innovation

Instruments for Policy Integration

Transformative policy mixes in socio-technical scenarios

chapter: **Implementing** / activity:

Prioritising funds

WHAT ▪ Place-based innovation funding and related support to industry is usually allocated according to 'priorities', often corresponding to industrial sectors, activities or areas of strategic importance. The assumption is that by focusing funding on some areas, the impact on economic growth and employment is likely to be greater. Transformative innovation policy also considers broader impacts on society and the environment. The correctness of decisions on funding priorities depends on how uncertain the future states of complex systems are. For this reason, these decisions are always difficult to take and are frequently contested. In practice, policymakers follow some loosely defined rule-of-thumb, which follows some tried-and-tested principles. The purpose of a rule-of-thumb for making choices is as much about ensuring a positive impact on social welfare as it is about legitimising the choices made, so openness, stakeholder engagement and deliberation are important too.

WHY ▪ Prioritising is essential, because public resources are scarce and some outcomes require large amounts of funding, which only few, typically governments, can afford. Public funding should be directed to ends that **maximise people's social welfare** and guided by the principle of **additionality**: public investment should be additional to investments by businesses and people (as opposed to substituting them). Setting funding priorities correctly can help: i) develop knowledge capabilities that are in tune with place-based assets and ambitions; ii) strengthen the competitiveness of domestic firms; iii) help industry develop new production capabilities and enter growing markets; iv) reskill workers and repurpose assets in new areas: and v) address gaps in an innovation ecosystem.

HOW ▪ How can you know which areas to prioritise in order to have the greatest impact? One criterion can be to prioritise areas that draw on a territory's unique assets and/or are in close proximity to its internationally traded competitive advantage. Such an approach is not sufficient for a sustainability transition, which also involves creating new competitive advantages and ensuring long-term societal well-being. The challenge-oriented approach offers a **new approach for priority setting**, and **can complement** the approach abovementioned. The challenge-oriented approach aims to focus public resources on domains, **close to local societal challenges broadly shared and understood by the public**. This is compatible with public engagement and creating new knowledge and production capabilities. Some questions to consider include:

- How do place-based challenges and long-term societal visions translate into public funding priorities?
- How do you balance generic (or cross-cutting) funding (e.g. for capacity building or ecosystem support) versus field-prioritised funding (e.g. for agro-food, tourism, energy, mobility)?
- How do you balance public support for strong sectors with public support for diversification into new areas?
- How do you engage stakeholders in decisions about priorities?
- How can public funding priorities be used to balance the interests of powerful incumbents in dominant sectors with those of companies in other sectors important for the transition?

competences

- A3 Negotiating
- B3 Critical thinking
- B5 Managing transformations
- D1 Anticipatory mindset

+ practices

P14 P17 P21 P24 P27

+ tools

T22 T23 T35 T37 T49 T52 T57

+ more

Industrial diversification talks

Public procurement, innovation and industrial policy

Priority setting in regional innovation strategies

chapter: **Implementing** / activity:

Experimenting and demonstrating

WHAT ▪ Experimentation in policymaking comprises a wide spectrum of approaches. It can involve providing a set leeway to a policy's design intending to give space and show the impacts of possible future policies or existing policies and their effectiveness, which may need amendments to keep momentum with today's economic and technological advancements.

WHY ▪ Generally experimentation is triggered by a need: i) for a change in policy and practice, ii) to keep momentum with competition or iii) to deal with challenges in more effective ways. Experimentation can also lead to the regulator model being extended to different markets. It can also be a response to create business and employment possibilities in an area or region to boost the confidence of the population, and avoid brain drain and a decline of the regional population. Applying flexibility to help experimentation is key to shaping a long-term sustainable path, which is agile, innovation-friendly, evidence-based and resilient. For example, regulatory experimentation fosters competitiveness, growth and regulatory learning while it also equips the economy to safeguard against systemic shocks and disruption. Over the years, different modes of experimentation have emerged, for example: i) prototyping and testing new programmes, business models or governance configurations; ii) regulatory sandboxes; iii) public-private cooperation; iv) public services; and v) public procurement.

HOW ▪ Experimenting starts by identifying objectives, needs and limitations. The intention is to develop a vision for the demonstration phase and increase the probability that the testing mix, including policy and people, will have the right tools and capacities leading to successful outcomes. Experimentation can be carried out through demand-driven innovations or instruments for market development, such as innovation offices, innovation hubs and labs and accelerators. These tools apply methodologies including design thinking, idea-management processes, open innovation, crowdsourcing and human-centric types of designs. For example, setting up an **innovation lab** would need to attract interested companies hoping to make a technological leap. However, experienced market players may prefer to set up an accelerator as a fixed-term programme, which aims to accelerate the innovation of start-ups and scale-ups. Another method to use in experimenting, particularly from a regulatory point of view, is a **regulatory sandbox**. This tends to promote innovation, identify regulatory barriers to innovation, and expand knowledge on market developments. Usually it is set up for a limited time and in a limited part of a sector or area under regulatory supervision and enables a real-world environment for testing innovative technologies, products, services or approaches. **Innovation hub**s help companies to carry out innovation. They are set up to foster an open and informal dialogue about a product. For facilitation purposes, one innovative hub is created per jurisdiction. Innovation hubs are seen as very popular, together with regulatory sandboxes.

competences

- B1 Creative thinking
- C2 Identifying evidence needs
- D1 Anticipatory mindset

+ practices

P01 P03 P08 P09
P15 P19 P25 P27

+ tools

T01 T07 T21 T25
T36 T42 T58 T62
T66 T68

+ more

Experimenting with transformative innovation policies

Guidance on regulatory sandboxes

Roles of Experimentation in Transformative Innovation Policy

chapter: **Implementing** / activity:

Scaling and mainstreaming

WHAT ▪ Scaling refers to adjusting policy support for successful innovations to ensure they have a positive impact across society as a whole. Scaling is multidimensional and may be introduced by changes in: (1) budget and the geographical coverage of policies; (2) objectives and targets of policy instruments; (3) types of instruments used to provide direct and indirect support to innovation (e.g. shift from individual programme to instrument portfolio); and (4) the range of supported innovative activities and target groups. Scaling requires a strategic reflection on what can be meaningfully scaled up (or down), how to adapt support to locally tested solutions to ensure they can be applied in different geographical and socio-economic contexts, as well as when to deploy the policy support to achieve a transformative impact. Policy approaches considered applying scaling in a coherent way across the board in the design and implementation of entire programmes or portfolios. Scaling up policy support may require a stronger political and social mandate for increasing investments in fostering specific innovations and transition pathways.

WHY ▪ Supporting successful innovations at the right scale is key for making policies more effective and focusing policy support on innovations accelerating the transition to sustainability.

HOW ▪ Policymakers need to critically reflect upon which innovation areas should be boosted with policy support. How do we delineate innovation areas that hold a promise of a transformative impact? What is the right scale and timing for the action? What are the impact pathways to achieve transformative change? Scaling up may not necessarily mean higher funding for the successfully demonstrated solutions but rather an investment in developing specific capacities and enabling environments needed to absorb and diffuse existing solutions.

1. Learn from experiments and demonstrations to inform decisions on what and how to scale. Support intermediary organisations and networks to continuously collect and combine lessons from experiments and niche innovations carried out in different contexts and territories.
2. Think of possible transition pathways and take the perspective of the systems to understand how to scale niche innovations to gradually achieve wider impact.
3. Implement various instruments to provide comprehensive support to niche innovations, combining direct financial support with creating demand for innovations and improving enabling conditions for innovations to be scaled.
4. Continue to experiment with innovative approaches that can further accelerate the scaling of successful innovations (e.g. social innovations can be supported to speed up deployment of tested technological solutions).

competences

- B2 System thinking
- B5 Managing transformations
- D4 Influencing change

+ practices

P05 P12 P24

+ tools

T01 T13 T21 T22 T25 T31 T33 T40 T65

+ more

Lessons for implementing challenge-led missions in smart specialisation

Scaling impact – four principles and case studies

Scaling impact – four principles and case studies

The integration of key transformative R&I principles in European policies

Learning

WHAT ▪ Learning improves the knowledge base of research and innovation policies by developing new evidence to better design and implement policy measures. Policy learning is a continuous process involving policymakers and stakeholders who collectively reflect on the objectives, governance and results of policy. It comprises various processes and organisational arrangements, including formal processes for impact assessment, monitoring and evaluation, as well as many formal and informal interactions with knowledge communities and stakeholders from across governance levels. The transformative ambition of innovation policies requires a more robust approach to policy learning. This is not only about purely analytical efforts. There is a need to better understand and measure how policy measures can contribute to system-level change to achieve sustainability goals. New processes and environments can help enable place-based learning and unlearning. The processes need to be closely associated with policy and governance experimentations in which innovations are tested and scaled to achieve a transformative impact.

BENEFITS ▪ Effective governance requires a sustained and iterative commitment to learning and evaluation to reinforce innovation processes. As new evidence and new voices emerge, they can influence new and existing policies. It is critical to think about learning as a continuous journey and to recognise that over time, new insights and different voices can change perspectives and influence the formulation and implementation of policies and actions. In this dynamic interplay of evaluation, learning and innovation, territories can foster resilience, adaptability and effectiveness, creating a governance ecosystem that thrives on progressive development rather than static persistence.

activity:

Managing and transforming knowledge

- Do you systematically collect and store knowledge flexibly, according to the challenge?
- Have you adopted practices that enable your evidence and knowledge to feed into your decision-making?
- Have you introduced a diverse array of sources of knowledge?

activity:

Continuous monitoring

- Have you managed to reach a consensus over how you monitor your outcomes?
- Have you adopted some criteria to choose the data sources for your monitoring system?
- Who makes decisions based on your monitoring results?

activity:

Evaluating impact

- Have you identified assessment methods to be used to evaluate impacts?
- Have you decided when and with whom to evaluate the implementation of a strategy?
- Have you agreed and shared views on how to prioritise the different types of impact with relevant stakeholders?

activity:

Learning from experimentation

- Have you identified and applied criteria to assess the success of your experiments?
- Have you adopted a process to document the output and lessons learnt from your experiments?
- Have you developed mechanisms to learn from experiences of other territories?

activity:

Mobilising competences

- Have you adopted a mapping practice to identify relevant competences needed to address a challenge?
- Have you identified stakeholders with relevant competences with whom you can partner for a challenge?
- Do you have mechanisms to assess whether to develop or outsource competences?

chapter: **Learning** /activity:

Managing and transforming knowledge

WHAT ▪ Knowledge management accompanies the various activities and is maintained over time as a crucial mechanism for innovation and learning. It enables the exchange, combination and adaptation of broad knowledge between stakeholders, applied in flexible and dynamic environments using team skills, methods and knowledge infrastructures. Harvesting from different sources enables a system perspective. Orchestrating the knowledge flow and effective communication are critical to running operations. Transforming data, insights and lessons learned into actionable knowledge through continuous feedback and learning loops is crucial to enable links and strengthen synergies between different activities.

WHY ▪ Providing actionable knowledge requires a combination of harvesting and documentation, with conceptualisation and analysis to highlight key patterns and insights that can be integrated into other activities. This transformed knowledge enables multiple stakeholders to act by following a challenge-led approach such as the following:

A systemic perspective, through evidence gathering with alternative mechanisms, that recognise the nested nature of systems, addressing the different needs of various indicators to conduct monitoring, evaluation and learning by introducing, future-oriented inputs at each stage.

Outcome-oriented, aiming to integrate data, knowledge and shared meanings into a story that allows to examine impacts by collecting examples of what has changed. This is useful for building trust, supporting two-way communication and activating subsequent decision-making processes.

Policymakers can make knowledge management a common practice to help identify signals to measure and track changes in the various parts of the system (actions, relationships, policies and practices) and then retrospectively determine whether and how an action contributed to those changes, alongside other activities such as monitoring, evaluation, design, orchestration and implementation.

HOW ▪ Operational knowledge management requires a wide range of formats and resources to meet different needs and audiences. Some practices can ease implementation and enable the application of knowledge developed as part of the policy process.

Scoping and framing through a better understanding of how to monitor system dynamics by introducing different types of indicators, with a particular focus on contextual indicators that capture real-time signals of emerging changes.

Integrating a forward-looking perspective as a common element based on inputs developed through foresight processes such as horizon scanning, megatrend analysis and related sense-making exercises.

Harvesting and documentation. This focuses on managing information and includes two interrelated actions: nurturing the flow of information and reframing ideas as part of the ongoing policy process.

Developing actionable knowledge. This focuses on conceptualising and analysing the combined data, co-created knowledge and insights to highlight the main patterns and achieve some degree of synthesis.

Developing a knowledge infrastructure that includes practices, a dedicated team and facilities to ensure continuous knowledge transfer between those involved in building, operating and using the infrastructure.

competences

- C4 Gathering evidence
- C6 Working with data & models
- G1 Communication mindset
- G4 Storytelling & visual literacy

practices

P08 P12 P13 P19 P22

tools

T13 T34 T38 T41 T43 T54 T56 T68

more

Diffusion of innovation knowledge and lessons

Knowledge management as a service (webinar)

Transitions Hub knowledge library

chapter: **Learning** /activity:

Continuous monitoring

WHAT ▪ Monitoring transformative innovation policies involves the systematic collecting, analysing, and reporting of data and information to assess the progress of these policies in achieving their intended goals and impacts. Under a traditional approach, monitoring refers to a periodic process of analysing the outputs. In the context of transformative innovation policies, it goes further and focuses on examining their outcomes and impacts. In both cases, it should be carried out while the policy measure is being rolled out, to correct any deviation from desired objectives and goals. Monitoring should be closely aligned with the impact evaluation process, which occurs after policies are implemented to assess whether expected goals were achieved (effectiveness), the efficiency of measures, and the sustainability of impacts.

WHY ▪ Monitoring transformative innovation policies is needed to:

- **ensuring that the policies are on track** to achieve their long-term complex goals of transformative innovation policies;
- **identifying and addressing challenges early on,** particularly during the experimental phases that are integral to transformative policies, in order to reduce unintended consequences;
- **building public trust and support** for transformative innovation policies, as monitoring and reporting on the progress can increase public scrutiny and engagement as regards these policies.

The approached used in the monitoring of transformative policies overcome the limitations of traditional monitoring approaches, which rely predominantly on economic indicators and often focus on providing inputs and outputs to subsidised beneficiaries. They differ in scope, dimension, periodicity and focus of analysis due to their specific characteristics, for example, by moving away from the traditional practice based on using regional data by EU national statistical offices, which often leads to the usual delays between the publication of the data, the observed phenomena and the analysis.

HOW ▪ The monitoring and evaluation of transformative innovations introduce new priorities and practices, such as the following.

- Focusing on **outcomes and net impacts** by assessing the progress of the transition process and the broader impact of the policy on society. This requires a mix of quantitative and qualitative data and a participatory approach involving stakeholders from different sectors.
- Prioritising the **tracking of progress across a broader range of indicators**, including, e.g. environmental, economic equality and governance indicators.
- Improve monitoring by **integrating real-time information** from big data analytics. This can include i) using data from online job postings to track labour market dynamics in specific regions or sectors, ii) leveraging data on the performance of sustainable investment funds in financial markets, or iii) using text mining on social media to analyse public attitudes towards sustainability and environmental issues.

competences

- B2 Systems thinking
- C4 Gathering evidence
- C5 Assessing evidence
- C6 Working with data & models

practices

P07 P10 P13 P17

tools

T03 T18 T19 T24
T38 T39 T40 T41
T42 T43 T56 T69

more

Monitoring and evaluation of transformative innovation policies

Practices for monitoring and evaluation

Territorial economic data viewer

chapter: **Learning** /activity:

Evaluating impact

WHAT ▪ Evaluating the impact of transformative innovation policies encompasses all the analytical efforts required to assess the achievement of expected policy outcomes. This involves gauging how these policies have successfully met their intended goals while also taking any unintended consequences and impacts into account. Importantly, an impact evaluation should be closely coordinated with other two evaluation processes: (i) the design (or *ex ante*) evaluation, which focuses on assessing the coherence, consistency, feasibility, effectiveness and efficiency of the policy measures and instruments designed to promote the desired transformation, and (ii) the continuous monitoring process, which refers to the ongoing and systematic observation and evaluation of how these policies are implemented.

WHY ▪ Evaluating the impact of transformative innovation policies is key for different reasons:

- it provides **evidence-based information on the effectiveness and efficiency** of these policies, presents the degree to which high-level strategic intentions and visions effectively translate into changes in real-world behaviour;
- it fosters the generation of knowledge and new experiences in transformative. innovation, a critical element in shaping and improving **policy design and implementation**;
- it enables **engagement and increases the legitimacy and acceptance** of the policies, as stakeholders can share their knowledge and experiences;
- it plays a central role in **steering the use of public money** to make it more efficient and effective, allowing for public scrutiny and engagement.

The evaluation of transformative innovation policies aims to take a systems perspective by going beyond the scope addressed by traditional innovation policies, which target specific and limited groups and therefore require the inclusion of additional evaluation criteria, such as equity and acceptability, alongside traditional criteria.

HOW ▪ Evaluating transformative innovation policies is a multidimensional process of several steps, and the collection and analysis of different types of data and evidence.

- Developing a robust monitoring and evaluation system must occur **in parallel with policy design to support the establishment of quantifiable goals** and the corresponding policy measures needed to achieve them. For this, it is crucial to plan the different steps, involve relevant stakeholders, set indicators, identify data sources and specify evaluation methods.
- The next step involves identifying the expected impact and then designing the transformative action and identifying the inputs to achieve them. Inputs include not only funding opportunities but also **multilevel governance, the policy mix and stakeholder engagement.**
- Prioritising broader impacts on the territory by extending the assessment of outcomes **beyond the direct impacts at the beneficiary level** to include spillover effects in the territory and the entire value chain.
- Using a **mix of techniques and methods for evaluation** to address complexity through different perspectives by including and analysing the results from different groups and situations (i.e. counterfactual analysis) with other qualitative and quantitative approaches.

competences

- A2 Designing & evaluating policy
- B3 Critical thinking
- C5 Assessing evidence

+ practices

P04 P13 P17 P27

+ tools

T03 T18 T38 T39 T40 T41 T56 T63 T69

+ more

- A formative approach to the evaluation
- How to evaluate innovation strategies
- Monitoring and evaluation of transformative innovation policies
- Towards Systems that Work for People and the Planet
- Transformative innovation resource labs and tools

chapter: **Learning** /activity:

Learning from experimentation

WHAT ▪ Given the complexity of sustainability challenges, monitoring and evaluation (M&E) systems need to include a stronger emphasis on reflexivity and critical thinking. Reflexivity is the ability to collectively reflect and continuously learn from evidence collected through monitoring, evaluation and foresight. Policy learning is a long-term process involving iteration, comparison and prioritisation, based on deliberation and evidence. Learning from pilot actions and experiments is a crucial policy task. Experimentation nurtures spaces for learning that demonstrate what 'works' not just in terms of technologies, but also in terms of behaviour, organisation and public governance. Learning from failure is key yet difficult, as it clashes with the notions of accountability, reputation and reward in public administration. Effective learning results in changes in the direction of strategic policy and organisational structure, and not only in changes in instrument design.

WHY ▪ Policymaking needs an ongoing reflection to make sense of existing, often incomplete, evidence used to design innovation policies. The key outcomes of reflexive policy learning is the strengthened capacity to change policy course and process, including M&E, with new evidence. Confronting stakeholder perspectives on sustainability challenges helps identify synergies and trade-offs between available policy options and navigate complex transition choices. Experimentation is unlikely to have an impact unless the conditions are in place for learning. An environment conducive to learning and wider roll-out includes governance mechanisms that, for example, link evaluation to policy reforms. Learning is one of the most powerful levers for transformation and is often the weakest link in policy action to support innovation.

HOW ▪

1. Support experimentation, networking and learning in niches of key importance for the transition

- R&I projects are clearly important, as it is within these that technologies and use practices interact. However, policy experimentation is arguably of greater importance if enabled and supported.

2. Critically review and redesign policy learning processes

- Review your M&E system with experts and stakeholders. Identify strengths and weakness in your system taking into account the challenges of transformative innovation policy.
- Enable critical reflection on policy and collective learning from monitoring, evaluation and experimentation. Engage stakeholders and experts in co-designing governance arrangements and spaces for reflexive learning and unlearning in your territory.

3. Embed reflexivity in the M&E system

- Support the use of formative evaluation approaches, including analysis of transformative outcomes and distributional impacts. A reflexive M&E system draws on a multi-disciplinary approach to analyse diverse outcomes and capture intended and unintended effects of policies.
- Support activities and increases capacities for learning within public administration and the broader system. Invest in capacities needed to co-design and nurture learning environments and use formative evaluation approaches.

competences

- B3 Critical thinking
- B4 Learning and unlearning
- C2 Identifying evidence needs
- C4 Gathering evidence

practices

P01 P20 P27 P28

tools

T02 T29 T36 T42 T46 T58 T61 T62

more

A framework for reflection – sustainability in S3

Benefits and lessons of experimental innovation policy

Brief introduction to policy experimentation

Regulatory learning in experimentation spaces

chapter: **Learning** /activity:

Mobilising competences

WHAT ▪ Acquiring competences is a lifelong learning activity. This is also true for civil servants, who are tasked with dealing with new opportunities and challenges, or old challenges that require new approaches. Competences are described as a dynamic combination of knowledge (facts, concepts, ideas), skills (abilities based on that knowledge) and attitudes (intentions and dispositions to activate skills and knowledge). To trigger systemic change, civil servants need to develop competences for innovative policymaking, which are grouped into seven clusters:

- **Advise the political level;**
- **Innovate;**
- **Work with evidence;**
- **Be futures literate;**
- **Engage with citizens and stakeholders;**
- **Collaborate;**
- **Communicate.**

These clusters contain the competences used in this document, which are interlinked and equally important. Such clusters are built on the idea that complex issues like the green and digital transitions require:

- engaging with the public and other stakeholders;
- envisioning different types of future to develop a desirable future-oriented perspective;
- orchestrating resources to go in the same direction, to design and implement plans and actions for place-based transformative innovation;
- learning from action and in collaboration with others.

Change-makers in the public sector need to acquire such competences to foster transformative innovation and to be able to make it place-based and place-relevant.

WHY ▪ Public officials, policymakers and any professionals working on territorial development are increasingly tasked to make plans, actions, strategies and policies – and rethink existing ones - to address complex and interlinked problems. The increasing complexity of their job requires them to become actors of change, or sustainability innovators in the public sector. Their job as sustainability innovators requires expert knowledge and requires transversal competences. It demands the capacity to value, plan, and enact place-based transformative innovation, think systemically and generate solutions that create value, to be futures-oriented, and become change thinkers and makers.

HOW ▪

- **Lifelong learning** is a key concept. Competences need to be constantly updated to keep the pace with global rapid development, environmental and social complex problems (e.g., biodiversity loss and rising inequalities), and changing working conditions.
- Innovation competences can be developed or outsourced. If human resources are limited, it is in fact possible to form strategic partnerships with agencies and people who have those competences. We can then talk about **networks of competences**.
- This can be done **within and beyond organisational boundaries**, being able to collaborate, ensuring diversity of perspective, critical thinking, (un-)learning, cultivating creativity and trust are key competences to build into **collective intelligence.**
- It it critical to agree on common goals and shared interests to form**strategic partnerships** to form networks of competences.

competences

- B3 Critical thinking
- B4 Learning and unlearning
- C3 Connecting to experts
- D1 Anticipatory mindset

+ practices

P02 P04 P05 P07
P09 P11 P16 P23

+ tools

T01 T12 T13 T14
T15 T16 T36 T38
T41 T44 T55 T68

+ more

Competences for policymaking and advice (podcast episode)

Competence framework on innovative policymaking

Smart4Policy. Test yourself! (self-reflection tool)

Moving into ACTION

Producing this ACTIONbook was a natural development for us. We seized the opportunity to put territorial players at the forefront of transformative change. The essence of this collection of activities lies in their ability to break down silos and unite regional departments under a common goal. We have used the Partnerships for Regional Innovation (PRI) pilot project as a space to weave a tapestry of collaboration in which those involved are not just participants, but essential architects of change. As we reflected on the collaboration between territorial players, the Joint Research Centre and the European Committee of the Regions, we realised that we have not yet reached our full potential. This new joint step is a call to action. It is about putting ideas and aspirations into practice, leading to tangible outcomes with positive impacts. At the heart of this ACTIONbook is the belief that it should be an empowerment tool that stimulates the formation of user groups comprising a wide range of partners. PRI is not just an initiative, but a catalyst for creativity, an incubator for imaginative solutions and a launch pad for new initiatives. To all city, regional, and national stakeholders: let us catapult our territory into an era where collaboration is not just a buzzword, but the heartbeat of pathways to transformative innovation and resilience that will matter for future generations.

How can we develop a system where we are more focused on collaboration and cooperation between regions in macro-regions? Because we need to find good neighbours.

Vasterbotten

How can we engage multiple government departments and stakeholders with a low annual budget? It is about orchestration among actors and much work.

Navarra

The high-level meeting of the ministers before the first operational meeting was very long. How to move faster into action?

Slovenia

PRI has been seen as an opportunity to work across regional departments and to engage stakeholders to work more closely together, both within and across sectors.

Vukovar–Srijem

We need to create value together through mutual learning and learning by doing. Value is practical experience. Partnership development is value for now and mostly for the future.

Cities 4.0

We have many bottom-up initiatives and the national level was not necessarily aware of. How can we connect them across levels?

Northern Netherlands

We have to acknowledge that our past collaboration had not reached its full potential. We need to concentrate in making things happen, not just exchanging experiences.

Mid Sweden

What will be harder is to engage stakeholders who might not be part of certain projects, like smaller firms or the public. A still largely open question is how to engage end-user stakeholders who might be affected by innovations instead of developing them.

Extremadura

Some transformations are slow. When there is a new government, at the onset, some steps are backwards then onwards. So, it is not always a straight path.

Helsinki region

Managing the budget is a nightmare. R&I instruments/ calls that are not rooted in (EU) R&I policy schemes may face a difficult time when trying to comply with e.g. auditing requirements and state-aid regulation.

Slovakia

The region's main objective is to support businesses in turning the climate change challenge in an opportunity for innovative industrial restructuring, especially in the core manufacturing sector for the region – automotive.

Abruzzo

PRI should become a tool to create ad hoc user groups at the initiative of partners to develop innovative solutions and paths to solve complex problems.

Madrid

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