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WP4 – Roadmap for policy transformational change

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Partners short names / Legal name

APRE	Agenzia per la Promozione della Ricerca Europea
FONDAZIONE CMCC	Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici
ICLEI	International Council for Local Environmental Initiatives
IIASA	Internationales Institut für angewandte Systemanalyse
SEI-Ox	Stockholm Environment Institute, Oxford Office Limited
UNIGE	Université de Genève

Abbreviations

CCA	Climate Change Adaptation
CSO	Civil Society Organisation
CSRD	Corporate Sustainability Reporting Directive
EBRD	European Bank for Reconstruction and Development
ECCA	European Climate Change Adaptation Conference
ECSA	European Citizen Science Association
EEA	European Environmental Agency
EESC	European Economic and Social Committee
EIB	European Investment Bank
EU	European Union
Euresfo	European Urban Resilience Forum
IPCC	Intergovernmental Panel on Climate Change
JRC	Joint Research Center
CC-DEMOS	Competence Center for Participatory and Deliberative Democracy of the Commission's Joint Research Center
M&E	Monitoring and Evaluation
NGO	Nongovernmental Organisation
RAST	Regional Adaptation Support Tool
TCFD	Task Force on Climate-related Financial Disclosures



1. Executive Summary

Climate change demands comprehensive adaptation strategies that are not only effective but also equitable and socially accepted. Meaningful citizen and stakeholder engagement is the cornerstone of such strategies, promising to harness local knowledge, build public trust and ensure just adaptation outcomes. However, despite strong European Union (EU) policy support and many inspiring local initiatives, engagement in climate adaptation across Europe remains fragmented, often reduced to tokenistic exercises that struggle to achieve their potential.

This Adaptation AGORA policy white paper addresses the critical gap between high-level ambition and on-the-ground implementation. It argues that to move from isolated successes to a new standard of climate governance, Europe must adopt a holistic approach to scaling engagement. This requires moving beyond replicating successful pilots (scaling out) to simultaneously impacting laws and policies (scaling up), shifting cultural values toward participation (scaling deep), and strengthening the internal capacities and means for action of the organizations responsible for implementation (scaling in and down). Without this multi-dimensional strategy that builds systemic enabling conditions, engagement practices risk reinforcing inequalities, fostering public distrust and undermining long-term adaptation goals.

To catalyse this transformation, this white paper presents a strategic roadmap developed from a comprehensive analysis of current research, policies and practices. It builds on a synthesis of evidence from academic literature, EU policy instruments, EU-level documents, participatory practices, and empirical insights from the Adaptation AGORA project. The roadmap is structured around four interconnected pillars, which collectively address the institutional, financial, cultural and practical challenges hindering the scaling of stakeholder and citizen engagement:

1. **Institutionalizing engagement:** Embedding citizen and stakeholder engagement as a formal, standardised component of climate adaptation governance across all levels and sectors. This includes strengthening EU leadership, establishing clear legal mandates, mainstreaming engagement into socio-economic sectors, and embedding principles of climate justice into policy frameworks.
2. **Strengthening local capacity:** Empowering local authorities, as the primary actors involved in adaptation, with the dedicated funding, robust internal structures, targeted training and sustained political commitment necessary to design and implement high-quality and effective engagement processes.
3. **Empowering citizens and stakeholders:** Ensuring all members of society, particularly vulnerable and marginalized groups, have the awareness, opportunity, and capacity to participate meaningfully. This involves enhancing climate literacy, removing practical barriers to participation, and actively supporting community-led adaptation and citizen action initiatives.



4. Sharing and applying knowledge and best practices: Fostering a culture of continuous learning and improvement by strengthening knowledge exchange platforms, facilitating cross-cultural dialogue, promoting the use of diverse and context-tailored methodologies and ensuring transparency through robust feedback and evaluation mechanisms.

This roadmap provides 16 actionable policy and governance recommendations for European, national, regional and local actors. These recommendations are grounded in the Adaptation AGORA project's theoretical and practical insights from systematic analysis of engagement contexts and pilot activities, ensuring they are both evidence-based and relevant to real-world challenges. Pillars and recommendations were refined and validated through interaction with the target audience during several major European events (Grenoble Biennale of Cities in Transition 2025, European Climate Change Adaptation Conference 2025, European Urban Resilience Forum 2025). Feedback was gathered from a diverse group of over 60 stakeholders, including policymakers from municipal to EU levels, practitioners from public authorities and civil society, and researchers in the field of climate adaptation and governance.

The roadmap is not intended to be a one-size-fits-all blueprint framework. It provides a flexible guidance and directions to support policymakers and practitioners, and to empower civil society to collectively build a climate resilient and democratic Europe.



2. The imperative for scaling citizen and stakeholder engagement practices for climate adaptation

Climate change presents a complex and evolving challenge to Europe, demanding not only ambitious mitigation efforts but also comprehensive adaptation strategies ¹. The unavoidable impacts of a changing climate, from extreme weather events to altered ecosystems, necessitate a proactive and collective societal response ². To develop adaptation strategies that are both effective and just, it is imperative to move beyond traditional governance models and embrace meaningful citizen and stakeholder engagement that considers diverse values, voices and principles of justice and equity ^{3,4}. However, while inspiring initiatives exist, they often remain isolated measures and pilots. The Adaptation AGORA EU-funded project developed this policy white paper and its roadmap to move towards identifying the systemic enabling conditions necessary to transform isolated successes into a new standard for climate adaptation governance across Europe.

2.1. The role of citizen and stakeholder engagement: Promise and pitfalls for effective adaptation

Citizen and stakeholder engagement is fundamental to successful climate adaptation, promising more effective, equitable, and resilient outcomes by identifying, prioritizing and implementing solutions through the mobilization of diverse actors and knowledge systems. However, evidence shows that engagement efforts are frequently undermined by procedural and structural barriers, limiting their scope and impact.

Consistent with the definition proposed by Reed in 2008 ⁵, we refer to citizen and stakeholder engagement as a process through which individuals, groups or organizations are involved in taking an active role in making decisions that affect them.

The promise of successful engagement

The core benefits, supported by extensive research ⁶⁻¹², are manifold:

- Increased knowledge, learning and understanding: Public engagement through deliberative processes can facilitate understanding of climate change impacts and adaptation solutions, thus increasing social acceptance.
- More effective and relevant solutions: Engagement harnesses invaluable local, traditional, and lived-experience knowledge, ensuring adaptation measures are tailored to specific contexts and vulnerabilities. It can also help to identify the most appropriate (and desirable) forms of adaptation, new solutions, and their viability.
- Enhanced legitimacy, equity and ownership: By promoting inclusivity and representing marginalized voices, co-developed adaptation plans are perceived as more equitable. This enhances legitimacy, increases public trust and fosters a sense of shared ownership.



- Increased adaptive capacity and resilience: Collaborative processes build trust between communities and institutions, strengthen local governance and mobilize the collective action necessary to respond to long-term climate challenges.
- Navigating complexity: Engagement provides a crucial platform for navigating complex trade-offs, addressing power dynamics and addressing potential conflicts before they hinder adaptation action.

Risks of engagement practices

However, while the benefits of engagement are clear, the risks associated with its poor implementation are equally significant and often underestimated by policymakers. Citizen and stakeholder engagement is not a neutral process and when conducted without the necessary resources, capacity and supportive structures it can become counterproductive ¹³.

Attention should be paid at the process level, where unclear objectives, inadequate facilitation, poor inclusion of participants inputs or the exclusion of key voices can lead to undemocratic outcomes by reinforcing power inequalities, marginalizing minority voices and creating distrust among participants ¹⁴.

More importantly, these procedural barriers often result from deeper structural barriers. Indeed, engagement initiatives could fail to achieve their objectives because the surrounding institutional and governance systems are not designed to support them ¹⁵. Local authorities lack dedicated resources, training and mandates, leaving practitioners with responsibility but no capacity ¹⁶.

Thus, even well-intentioned engagement risks becoming a tokenistic “box-ticking” exercise and causing tangible harm. This is particularly true when the timing appears politically motivated, for instance, when conducted too close to an election period, which may make the effort appear to be a political manoeuvre. Such processes undermine immediate adaptation goals, reinforcing social inequalities and creating long-term public fatigue and distrust over institutions, especially when initial promises about how input will be used are not transparently fulfilled ^{17,18}.

To effectively scale engagement and move from promise to practice, policy must shift from simply encouraging participation to strategically and systematically building institutional and social enabling conditions that allow engagement practices to unfold their potential to promote societal resilience ¹⁹.



2.2. The European policy landscape: Current state of engagement in climate adaptation

The latest European policies and regulations have shown an increased recognition of the crucial role of stakeholder and citizen engagement in climate adaptation and resilience, drawing on the experience from local and regional implementation in the last few decades.

Building upon the foundations of the Rio Declaration (1992) and the Aarhus Convention (1998), global policy frameworks have increasingly strengthened the role of public participation over different levels of decision making. Multiple global frameworks, such as the Sustainable Development Goals (2015-2030), Paris Agreement (2015) or Sendai Framework for Disaster Risk Reduction (2015-2030) and the scientific content of the Working Group II contributions to the IPCC Sixth Assessment Report¹, underscore the necessity of inclusive and multi-stakeholder participation for achieving effective and just global climate action and sustainable development²⁰.

The EU is making tangible progress in fostering participatory and deliberative democracy, creating mechanisms that are increasingly applied to systemic challenges like climate change. This includes establishing citizen consultations, dialogues and direct participation in EU policymaking (e.g. European Citizens' Initiative, Have Your Say portal). These democratic principles were significantly strengthened by the groundbreaking Conference on the Future of Europe in 2021 and 2022, which prominently featured European Citizens' panels and the launch in 2021 of the Competence Centre on Participatory and Deliberative Democracy that provides tools, resources and methodologies to build best practices across different levels of governance in the EU.

Furthermore, EU adaptation policy frameworks, notably the EU Adaptation Strategy (2021), provide a foundational mandate and active support for broad societal involvement. Recently, public participation has been boosted by the Adaptation to Climate Change Mission²¹ which requires participating ~150 regions and communities to ensure citizen involvement at all stages of adaptation planning and in co-creating innovative solutions. To that end, the Mission Implementation Platform ([MIP4Adapt](#)) and the associated EU-funded projects (e.g. [Adaptation AGORA](#), [CLIMAS](#), [REGILIENCE](#), [ARSINOE](#), [IMPETUS](#), [Pathways2Resilience](#), etc.) provide substantial research, resources and support specifically designed to facilitate engagement activities²².

The current policy landscape successfully promotes why engagement is important but often lacks detail on how it can be systemically integrated, resulting in an uneven and fragmented implementation of these frameworks at national, regional, and local levels. While individual national governments and regional and local authorities across Europe have developed exemplary engagement practices for climate adaptation (e.g. Ireland's Citizens' Assemblies, Belgium Citizens' Council, French Citizens' Convention for Climate, Participation Observatory in the Emilia-Romagna region, Italy), they often remain isolated best practices rather than mainstream, standardised approaches¹⁵.



This disconnect between high-level policy ambition and on-the-ground implementation highlights a critical gap that we are trying to address in this policy white paper ²⁰. While best practices are constantly developing, there is a lack of a coherent and strategic framework to guide their systematic scaling across diverse European contexts.

2.3. A framework for scaling: Dimensions to consider for the scaling of engagement practices

Citizen and stakeholder engagement is increasingly promoted in public policy debates. This approach is presented as a means of developing innovative and effective solutions to meet complex societal needs such as adapting to climate change. As with any social innovation, demonstrating success in isolated contexts is only the first step and the critical challenge now lies in its scaling.

To build this roadmap we adopted a multi-dimensional framework for scaling social innovations, adapted from the work of Moore et al, 2015 ²³ and Sánchez Rodríguez et al., 2021 ²⁴ (Figure 1). This approach moves beyond simple replication of successful initiatives to consider the institutional, cultural and organizational changes necessary for engagement to become truly embedded in adaptation policies and actions. It allows for a holistic analysis of the different types of interventions required and provides a structured lens through which to organize our policy recommendations along five interconnected dimensions:

➤ **Scaling up: Impacting law and policy**

This dimension refers to the process of influencing social structures such as formal rules, regulations and policies at different levels of governance, to allow good practices to be adopted more extensively. It is about creating the official mandates and institutional authorization for engagement to take place systemically.

➤ **Scaling out: Impacting greater numbers**

This dimension refers to the horizontal spread of engagement practices to reach more communities and geographical areas. This means spreading or repeating successful local engagement models or approaches to new localities or expanding engagement within a single area to involve a broader and more diverse population.

➤ **Scaling deep: Impacting cultural roots**

This dimension addresses the fundamental shifts in values, informal norms and beliefs that underpin behavioural changes. In this context, it involves fostering a culture where participation is considered as a component of democratic governance, fostering trust, justice and equity into collective approaches to adaptation.



➤ **Scaling in: Strengthening organizational capacities**

This dimension focuses on improving the internal capacity of the organizations responsible for engagement that are primarily local and regional authorities. It involves building the necessary institutional structures, functions, processes, skills and resources to allow these organizations to implement the good practices it is trying to promote.

➤ **Scaling down: Providing the means for action**

This dimension refers to ensuring that changes in laws, policies or norms, have the necessary means to implement the envisaged good practices and processes on the ground. It involves ensuring that strategies and resources are tailored to and effectively reach the local actors and individual level.

We have therefore considered these five interconnected dimensions of scaling to define the roadmap's pillars and recommendations, leading to an overall strategy that targets not only the breadth of engagement, but also its depth, institutional support and local feasibility.

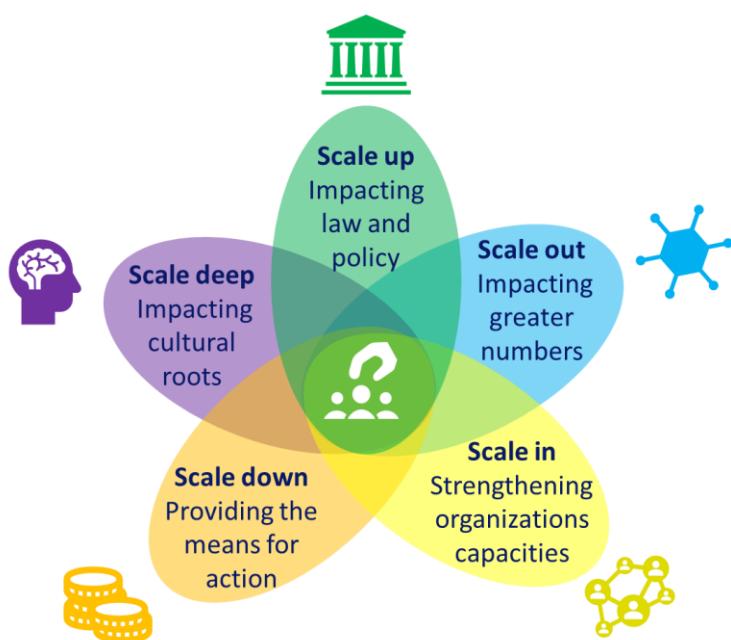


Figure 1. Dimensions to consider for the scaling of engagement practices. Adapted from Moore et al. (2015) and Sánchez Rodríguez et al. (2021).

3. Policy white paper aim and scope

The primary aim of this policy white paper is to catalyse transformational change by providing strategic guidance to foster the scaling of meaningful citizen and stakeholder engagement in climate adaptation governance and policy across Europe.

Core objectives and approach

Drawing on evidence and insights generated through the Adaptation AGORA project and a comprehensive analysis of policies and practices across Europe, we designed a roadmap that fosters enabling conditions supporting policymakers and practitioners to implement engagement processes by:

- Addressing systemic challenges by targeting coherent areas of strategic intervention.
- Proposing a set of actionable policy and governance recommendations leading actions at European, national, regional, and local levels.
- Guiding the development of supportive institutional structures, funding mechanisms and capacity-building initiatives that are prerequisites for effective engagement.

This document contributes to the evolving field of climate and democracy governance by offering a shared understanding of future challenges and a foundation for action. Its focus is on the governance and policy structures required to support, sustain and scale meaningful engagement. It does not provide a technical manual of specific engagement methods but rather addresses the systemic environment in which those methods can succeed.

This roadmap is not a rigid, one-size-fits-all blueprint, but can serve as a flexible strategic framework. It provides directions while encouraging the adaptation of recommendations to the unique historical trajectories, local specificities and current priorities of diverse European contexts.

Intended audience and relevance

This roadmap is dedicated to all actors who have an instrumental role in creating these enabling conditions. This includes policymakers at all levels who design the rules and allocate resources; practitioners who need to advocate for supportive conditions to do their work effectively; and researchers, civil society organisations (CSOs) and other stakeholders who contribute to building a more participatory climate governance landscape.

We envision this roadmap as a valuable resource to:

- Create a shared understanding and common strategic direction for diverse actors.
- Offer concrete ideas for policy design, legislation, funding programs, and strategies that foster meaningful engagement.
- Provide clear arguments for dedicating resources to capacity building, institutional reforms, and long-term engagement support.



- Provide support for advocacy, for identifying research gaps and for holding institutions accountable for following best practices.

4. Roadmap development

The roadmap development process was designed to be evidence-based, structured, and iterative, ensuring that the final output is both grounded in research and relevant to the practical needs of policymakers and practitioners. The development followed three distinct phases: (1) Research evidence and lessons learned synthesis, (2) Strategic pillars and recommendations identification and framing, and (3) Iterative refinement and validation. The detailed methodology is provided in the appendix.

Phase 1: Research evidence synthesis

The initial phase focused on building a comprehensive evidence base by systematically synthesizing knowledge from multiple sources grounded in the current state of science, policy, and practice. The primary inputs included:

- **A systematic review of academic literature** focusing on barriers and enablers for effective stakeholder and citizen engagement in climate adaptation (as seen in Adaptation AGORA deliverable 4.1²⁵).
- **An analysis of European adaptation policy** instruments and **participatory practices** at the EU and national (in Spanish and German context) levels to identify gaps, strengths, and weaknesses (as seen in Adaptation AGORA deliverable 4.2^{26,27}).
- **Empirical lessons learned** gathered from engagement practices conducted within the Adaptation AGORA project, employing surveys, semi-structured interviews, and focus groups with diverse participants²⁸⁻³¹.
- **A comprehensive review of EU-level documents, guidance materials, roadmaps, guidelines, and reports** to align the roadmap with current European strategic priorities, guidelines and legal frameworks.

The output of this phase was a rich repository of key challenges, successful approaches, contextual factors and policy ideas that formed the raw material for the roadmap.

Phase 2: Strategic pillars and recommendations identification and framing

The second phase focused on structuring the synthesized insights into a coherent and logical roadmap. To move beyond a simple list of recommendations, a conceptual model was adopted.

- **The social innovation scaling framework** was adopted as a guiding lens ensuring that the multiple and interconnected dimensions of scaling were covered by the roadmap.



- **Building on the framework, strategic policy areas fostering engagement practice scaling** from phase 1 insights have been identified. This analytical process revealed four overarching strategic pillars addressing identified challenges and scaling dimensions.
- **Recommendation revision** based on an initial list of potential recommendations refined through a process of consolidation resulting in four distinct, high-level recommendations per pillar. Each of the 16 recommendations has been formulated using a comprehensive structure defining the rationale and challenges addressed, the expected benefits, a set of implementation mechanisms and actors to be involved.

This structure was chosen to make each recommendation more transparent, robust, and directly usable for policy and planning processes.

Phase 3: Iterative refinement and validation through stakeholder engagement

The drafted pillars and recommendations were then refined and validated through direct engagement with the target audience through a series of interactions at major European events:

- **Grenoble Biennale of Cities in Transition 2025:** This event served as an early opportunity to present the concepts of the roadmap to 12 local practitioners and policymakers. The feedback gathered helped to validate the key challenges faced by cities implementing engagement practices for adaptation.
- **European Climate Change Adaptation Conference 2025:** An interactive workshop session was designed specifically to engage researchers, practitioners and policymakers in a deep dive on the roadmap. 33 participants worked in groups, one for each pillar, to validate the recommendations and identify concrete implementation mechanisms and actions. This feedback was crucial to provide practice-oriented recommendations.
- **European Urban Resilience Forum 2025:** Within a session organized by the Pathways2Resilience project and ICLEI Europe focused on bridging the science-practice gap, the roadmap was presented to 15 regional and local practitioners. We aimed to explore how expert knowledge and frameworks, like this roadmap, can be effectively translated for regional and local governments. Feedback from this session directly informed how the roadmap should be framed to increase its usability and relevance.

The insights from these three events were systematically collected and used to iteratively refine the descriptions, actions, and framing of the roadmap, ensuring the final version is not only evidence-based but also co-designed with its target audience.



5. The roadmap: Four strategic pillars for scaling citizen and stakeholder engagement in climate adaptation

5.1. The context for action: Key challenges to scaling engagement

To effectively scale citizen and stakeholder engagement, it is crucial to first acknowledge the current context in which engagement practices occur and the complex and interconnected challenges that hinder its mainstreaming and meaningful implementation. According to research undertaken within the Adaptation AGORA project^{26,31} and in particular the systematic literature review^{15,25} these challenges can be broadly categorized into two groups: common cross-cutting challenges and contextual disparities across European Regions.

5.1.1. Common cross-cutting challenges

Practitioners and policymakers consistently face a set of common challenges inherent in the practice of engagement itself:

- **Challenge C.1 – Lack of inclusivity, especially in the engagement of vulnerable and marginalized groups:** These groups often face a combination of practical challenges to engage (literacy, financial, digital, language...) associated with deeper systemic barriers including power imbalances, historical distrust of authorities, and the priority of immediate daily-life struggles over climate concerns (see Box 1). Moreover, vulnerability is a moving concept, the groups considered vulnerable can vary significantly depending on the specific context. There is a lack of inclusion strategies for these groups, including the younger generations.
- **Challenge C.2 – Accessibility of engagement formats and consideration of participants needs:** Many engagement processes fail to consider the diverse needs, constraints, and socioeconomic realities of their participants. This may lead to accessibility issues related to e.g., channels for participation (e.g., in-person vs. online), timing, location, and language, which can exclude important segments of affected actors and communities. The availability of compensation incentives and resources can also make a difference.
- **Challenge C.3 – Engagement process design and management complexities:** The process of co-production itself is inherently complex. Facilitators often lack experience and training, leading to challenges in managing diverse expectations, navigating different ways of working, and defining clear roles and responsibilities. The use of technical and scientific language can create barriers, and a failure to involve participants early enough in the process can undermine ownership and trust from the outset.
- **Challenge C.4 – Lack of transparency, trust and impact evaluation:** There is a growing participants' fatigue and public disillusionment due to the lack of clear and transparent



feedback on how citizen inputs influence decisions. This absence of robust monitoring and evaluation (M&E) undermines trust and the perceived impacts of participation.

5.1.2. Contextual disparities across European Regions

Beyond cross-cutting challenges, to navigate the significant regional and local differences any effective strategy to scale engagement must be sensitive to the following contextual factors:

- **Challenge C.5 – Diverse engagement cultures and perceptions:** Public receptiveness and attitudes to engagement is not uniform. It is shaped by region's democratic habits, historical experiences with social movements, and the level of public trust in authorities and institutions. These factors are often compounded with a lack of awareness about engagement opportunities. Member States and regions adopt different combinations of political representation and participation resulting in important differences in the adopted engagement practices.
- **Challenge C.6 – Perceptions of climate risk:** Awareness level and perceived urgency of climate change adaptation vary significantly among localities. Motivation to engage is often lower in regions that are less affected, a challenge that must be combined with the different levels of climate literacy. This is exacerbated by the pervasive issue of mis/disinformation, which can undermine public understanding and trust in adaptation measures.
- **Challenge C.7 – Uneven political will, stability and power imbalance:** The success of engagement is highly dependent on the political will of local and regional authorities to share power and support participatory decision-making. This commitment is often restricted by short-term political agenda and priorities, elected representatives' fear of losing power, facing opposition and damaging reputations. These issues are rooted in deeper systemic challenges, including fundamental power imbalances, historical distrust of and in authorities, and an underestimation of local knowledge, which can disrupt the long-term, trust-based efforts required for effective engagement.
- **Challenge C.8 – Unequal local authority capacities and resources:** Meaningful engagement is resource-intensive and local authorities face significant inequalities in financial resources, access to skilled staff, and administrative capacities. Furthermore, institutional silos and bureaucratic burdens often hinder coordinated and cross-departmental action.
- **Challenge C.9 – Fragmented policy and regulatory support:** Across Europe, there is a lack of clear legal mandates or standardized guidelines for citizen engagement in climate adaptation. This leaves such processes voluntary, *ad-hoc* and often dependent on individual champions rather than being systemically embedded in governance structures.



Box 1. Gender and intersectionality issues

One issue that cuts across all the above is gender. Gender inequalities are crucial to consider in the design of adaptation policies, as they shape how climate change is experienced and impacts different segments of the population. Social norms create gender inequalities in access to resources, employment, and power, which influence the level of exposure and vulnerability to the impacts of climate change. For instance, in many regions where women are primarily responsible for collecting water and food, their exposure and vulnerability to droughts is increased. Another example that was identified during Adaptation AGORA participatory sessions is the increased vulnerability of elderly women and single mothers in (peri)urban areas during heat waves, due to their lower incomes (salaries or pensions) compared to men, which can exacerbate energy poverty and reduce access to means of protection from the heat (such as air conditioners, although these are a maladaptive solution to extreme heat as they expel hot air outside, consume a lot of energy and are high emitters of greenhouse gases). Gender identity also intersects with other structural inequalities based on race, social class, (dis)ability, religion, sexual orientation, age, and income, influencing how climate change and its impacts are experienced, as well as vulnerability and response and adaptation capacities. Globally, mitigation and adaptation strategies have yet failed to consistently and comprehensively include gender inequalities, which reinforces the need for engaging these populations in designing and implementing adaptation strategies that are fitted to their needs, inclusive, and substantive.



5.2. Strategic pillars and associated policy recommendations

The policy roadmap is displayed visually in Figure 2 below. In the following subsections, each pillar and its associated recommendations will be presented.



Figure 2. Pillars and recommendations of the policy roadmap from scaling citizen and stakeholder engagement in climate adaptation.

5.2.1. Pillar 1: Institutionalizing citizen and stakeholder engagement in public and private actions across scales and sectors.

Citizen and stakeholder engagement need to transform from sporadic or voluntary initiatives to a systematic, embedded and standardized process within the formal structures and processes of climate adaptation governance across Europe. This pillar addresses this critical need by transitioning citizen engagement into a core component of governance and action.

Therefore, this pillar focuses on creating the necessary institutional architecture to make meaningful engagement a standard, recognized, and integral part of policy making, planning, and implementation. It establishes formal mandates and policy frameworks to institutionalize citizen engagement (Scaling up – **Erreur ! Source du renvoi introuvable.**). It requires engagement to be mainstreamed across all societal sectors, including a greater variety of actors and private organizations (Scaling out). This pillar also embeds the core principles of just resilience into these frameworks, shifting the underlying norms and values of governance (Scaling deep) and providing local authorities with the formal legitimacy and funding needed to implement engagement activities on the ground (Scaling down).



This requires strong leadership and coherent mechanisms at the EU level to guide and support these efforts across Member States. It also means establishing clear legal and policy frameworks to integrate participation into existing democratic mechanisms (e.g. electoral and representative democracy) and extending engagement practices beyond public administration into diverse socio-economic sectors.

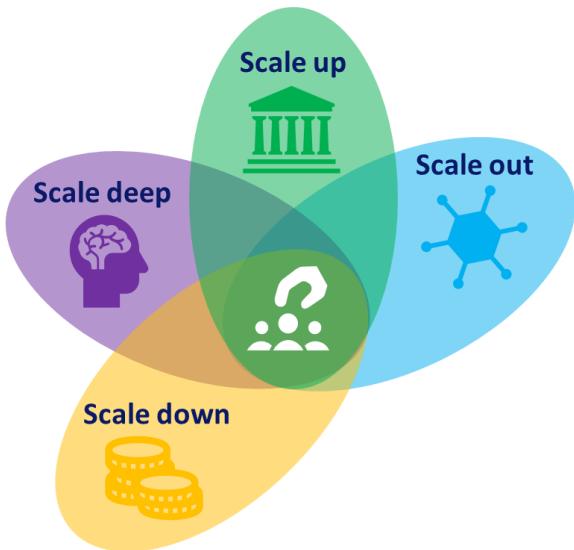


Figure 3. Scaling directions addressed by citizen and stakeholder engagement institutionalization.

Recommendation 1.A: Strengthen EU leadership and culture of citizen engagement

- **Main objective:** Provide the high-level political, cultural and institutional framework to drive and support the broader institutionalisation of participatory democratic practices and mechanisms across Europe. Policies should focus on strengthening EU leadership in citizen engagement by developing clear guiding principles and enhancing the visibility, accessibility, representativeness, and responsiveness of EU-level engagement mechanisms, ensuring effective communication and monitoring of how citizen inputs influence EU outcomes. These strengthened democratic tools must then be effectively and systematically leveraged for the complex challenges of climate adaptation.
- **Expected benefits:**
 - Stronger political signal reinforcing the importance of engagement in the context of existing representative institutions;
 - Greater coherence in engagement practices across EU policies;
 - Increased citizen trust in EU institutions and climate policies;
 - Improved quality and relevance of EU-level adaptation strategies;
 - Potential for positive influence on national engagement practices;
 - Better connection between citizens and EU decision-making.



- **Rationale/Challenges:** The EU plays a critical role in setting the agenda, providing resources, and establishing norms for climate action, including the mainstreaming of citizen engagement. Strengthening EU-level mechanisms and demonstrating leadership can inspire and support action at national and local levels. Calls for improved EU participatory mechanisms, better communication, and clear monitoring of results have emerged strongly.
- **Examples of implementation actions and mechanisms:**
 - Develop and adopt an EU Charter for Citizen engagement in EU Affairs, to provide shared principles.
 - Enhance existing EU digital participation platforms (e.g. 'Have Your Say') for better user-friendliness, accessibility (multilingualism), interactivity, and transparent feedback loops on how input is used.
 - Formalize and potentially expand the use of representative European citizens' panels and assemblies on climate adaptation topics, ensuring robust methodologies, expert input, clear mandates, and transparent institutional responses to recommendations.
 - Improve communication strategies to raise awareness of EU engagement opportunities among diverse publics.
 - Establish clear mechanisms within EU institutions to monitor and publicly report on the uptake and influence of citizen contributions from various participatory processes.
 - Ensure EU funding programs (e.g. Horizon Europe, LIFE) continue and potentially increase support for innovative engagement projects and the mainstreaming of Citizen engagement mechanisms (e.g. observatories).
- **Key actors involved:**
 - EU level: European Commission (Secretariat-General, DG CLIMA, JRC), European Parliament, Council of the EU, Committee of the Regions, European Economic and Social Committee (EESC), EU agencies (EEA), EU-level CSO networks.
 - National level: National governments (as participants in EU processes).

Recommendation 1.B: Establish formal mandates and frameworks for citizen engagement in the adaptation cycle

- **Main objective:** Increase consistency and quality of engagement across Europe by creating the necessary formal structures and requirements for engagement to become a standard part of adaptation governance. Establish clear legal and policy frameworks at EU, national, regional, and local levels that formally integrate and, where appropriate, mandate meaningful engagement as a systematic component throughout the entire climate



adaptation cycle (e.g. Regional Adaptation Support Tool (RAST) and Regional Resilience Journey), from planning to implementation and monitoring, including transparent mechanisms to track uptake and impact.

➤ **Expected benefits:**

- Increased consistency and quality of engagement across Europe;
- Mainstreaming engagement as standard practice, moving beyond ad-hoc initiatives;
- Enhanced legitimacy and public acceptance of adaptation policies;
- Improved policy effectiveness through integration of diverse types of knowledge;
- Greater accountability of public authorities;
- Inclusion of new standardized democratic procedures that involve citizens in existing representative democracy systems.

➤ **Rationale/challenges:** Currently, citizen engagement in climate adaptation often remains voluntary, fragmented, and dependent on fluctuating political will (as mentioned in challenge C.7). Lack of formal integration leads to inconsistencies and missed opportunities for leveraging local knowledge (challenge C.9). Existing institutional barriers and siloed approaches hinder effective co-production (challenge C.8). Establishing clear frameworks and mandates, supported by strong institutional backing and potentially making participation legally binding in certain contexts, is crucial for ensuring engagement is systematic, sustained, and influential across all governance levels. This addresses the need for structural changes to institutionalize public participation and provides the predictability needed for long-term planning and accountability.

➤ **Examples of implementation actions and mechanisms:**

- Develop models of hybrid representative democracy that integrate different forms (electoral, participatory) of political representation and participation into climate adaptation policy and decision making.
- Design new directives or reinforce existing legislation (e.g. Aarhus Convention implementation, Climate laws) setting standards for citizen engagement in national/regional adaptation planning and significant adaptation projects.
- Develop or revise national and regional adaptation strategies and laws to explicitly require and guide engagement processes at relevant phase of the cycle (planning, implementation, monitoring).
- Develop clear administrative guidelines or a “code of conduct” defining scope, methods, target groups, expected outputs, including how inputs will be considered and feedback provided (Adaptation Support Tool, Regional Resilience Journey).



- Integrate engagement requirements into existing local planning instruments like Sustainable Energy and Climate Action Plans. Include clauses for inter-municipality cooperation within political mandates to address cross-border issues.

→ **Key actors involved:**

- EU level: European Commission, European Parliament, Council of the EU.
- National level: National governments and parliaments, environmental agencies.
- Regional and local level: Regional and local authorities, planning departments.

Recommendation 1.C: Mainstream engagement across socio-economic sectors, including the private sector

➤ **Main objective:** Expand the scope of citizen engagement beyond government structures into the fabric of the economy and different societal sectors. Promote and incentivize the integration of citizen engagement to co-produce climate adaptation strategies and actions across all relevant socio-economic sectors moving beyond silos (e.g. energy, transport, agriculture, health, finance), and explicitly encouraging private sector participation, investment, and responsibility in co-developing and implementing adaptation solutions.

➤ **Expected benefits:**

- More comprehensive and integrated adaptation solutions across sectors;
- Breaking down institutional silos;
- Leveraging private finance and innovation for resilience;
- Increased relevance and ownership of adaptation measures across society;
- Potential for co-benefits (e.g. green jobs, improved health outcomes).

➤ **Rationale/challenges:** Climate adaptation is not only a public sector responsibility, and it requires action across all parts of society and the economy. Current approaches are often siloed within environmental or planning departments (challenge C.8), neglecting the specific adaptation needs and potential contributions of sectors like agriculture, health, tourism, or finance. Furthermore, public funding alone is insufficient; engaging the private sector can unlock additional resources, innovation, and expertise. Mandating cross-sectoral strategies that include engagement and fostering public-private partnerships are crucial for holistic and effective adaptation.



➤ **Examples of implementation actions and mechanisms:**

- Mandate through national policy that key socio-economic sectors (e.g. transport, agriculture, health) develop climate adaptation plans that incorporate affected stakeholder and citizen perspectives on risks and solutions.
- Integrate citizen engagement considerations into sectoral policies and funding streams (e.g. Common Agricultural Policy, regional development funds).
- Develop financial and non-financial incentives (e.g. public procurement criteria, recognition schemes) for businesses that integrate engagement into their adaptation efforts.
- Link citizen and stakeholder engagement requirements to mandatory corporate sustainability and climate risk reporting frameworks (e.g. CSRD, TCFD), requiring companies to report on how they engage affected communities in their adaptation planning.
- Establish or support multi-stakeholder platforms, regional climate hubs, or communities of practice focused on specific sectors or cross-sectoral challenges.
- Develop guidance materials tailored to specific sectors on how to effectively engage stakeholders and citizens in their adaptation planning.

➤ **Actors involved:**

- EU level: EU general directions (DGs) such as CLIMA, GROW, and all sectoral DGs, EIB, EBRD.
- National level: National ministries (environment, economy, agriculture, health, transport, etc.), industry regulators, financial institutions (e.g. national banks).
- Regional and local level: Regional/local authorities, chambers of commerce, financial institutions.
- Others: Private sector companies and associations, research institutions.

Recommendation 1.D: Embed environmental and climate justice in the policy framework

➤ **Main objective:** Ensure that engagement practices are grounded in justice and equity, addressing power imbalances and promoting inclusive resilience that prioritises vulnerable, marginalised and under-represented voices. Embed principles of environmental and climate justice as a core requirement within all climate adaptation policies and associated citizen engagement frameworks. Make sure that no one is left behind in climate adaptation policies by equally distributing the benefits of adaptation and avoiding placing the burden of adaptation on vulnerable groups. To do so, ensure that dedicated strategies, resources, and methodologies are employed to actively prioritize the inclusion, meaningful participation and specific needs of vulnerable and historically marginalized groups.



➤ **Expected benefits:**

- Fairer and more equitable adaptation outcomes;
- Reduced vulnerability of marginalized communities;
- Increased social cohesion and trust in governance;
- Prevention of maladaptation (i.e., adaptation solutions that lead to an increased vulnerability) that harms vulnerable groups or unfairly burdens some parts of the population, potentially increasing inequalities;
- Alignment with EU fundamental rights and Sustainable Development Goals.

➤ **Rationale/challenges:** Climate change impacts disproportionately affect vulnerable populations, yet these groups often face the greatest barriers to participating in decision-making (challenge C.1). Without explicit attention to justice, adaptation policies risk reinforcing or even exacerbating existing inequalities. Consistently embedding justice principles at all governance levels and at all levels of the adaptation policy cycle is essential for achieving “just resilience” and ensuring engagement processes are truly inclusive and equitable. This requires moving beyond tokenistic inclusion to ensure vulnerable groups have genuine influence. Mandating the identification and targeted engagement of these groups is crucial.

➤ **Examples of implementation actions and mechanisms:**

- Explicitly integrate environmental and climate justice principles into EU, national, regional, and local adaptation strategies and the formal frameworks mentioned in recommendation 1.B.
- Mandate participatory social vulnerability assessments as part of climate risk assessments, identifying groups most at risk, including the spatial mapping of vulnerability.
- Develop and fund targeted inclusion strategies tailored to the specific needs and contexts of vulnerable and “difficult to reach” groups (e.g. using trusted intermediaries, providing translation, childcare, compensation).
- Allocate dedicated budget lines within adaptation funding for inclusive and equitable engagement activities, leveraging EU funding mechanisms (e.g., Cohesion Funds, Horizon Europe).
- Build capacity among public authorities and facilitators on justice principles, gender mainstreaming and inclusive, power-sensitive facilitation techniques.
- Require reporting on how the perspectives and needs of vulnerable groups have influenced adaptation planning and outcomes.
- Learn from existing models like the Scottish Just Transition Commission to inform the creation of new governance bodies focused on distributional and procedural justice.



➤ **Key actors involved:**

- o EU level: EU funding for justice and social inclusion
- o National level: National governments, policymakers, human rights bodies.
- o Regional and local level: Local authorities and governments, social services departments.
- o Others: CSOs representing vulnerable groups, community leaders/intermediaries, research institutions (social sciences).



5.2.2. Pillar 2: Strengthening capacity and resources for local authorities to implement effective engagement mechanisms.

This pillar directly empowers local authorities, the critical level for adaptation implementation and citizen interaction, by equipping them with the necessary capacities and resources to design, manage, and sustain high-quality engagement processes. Recognizing that local institutions often face significant constraints (financial, structural, human resources, technical capacities), the strategic objective aims to build their internal operational strength.

This pillar strengthens the internal organizational capacities of local authorities through enhanced skills, robust structures and strategic partnerships (Scaling in - Figure 4). It provides local authorities with the dedicated funding and practical capacities necessary to translate strategy into action (Scaling down) and by embeds engagement principles into local policies, thereby elevating participation from an ad-hoc activity to a formal part of local governance (Scaling up). This capacity building will, in turn, enhances their ability to participate and replicate successful practices (Scaling out). Finally, by fostering lasting political commitment, it contributes to shift the local governance culture towards valuing engagement as a core component of effective climate adaptation (Scaling deep).

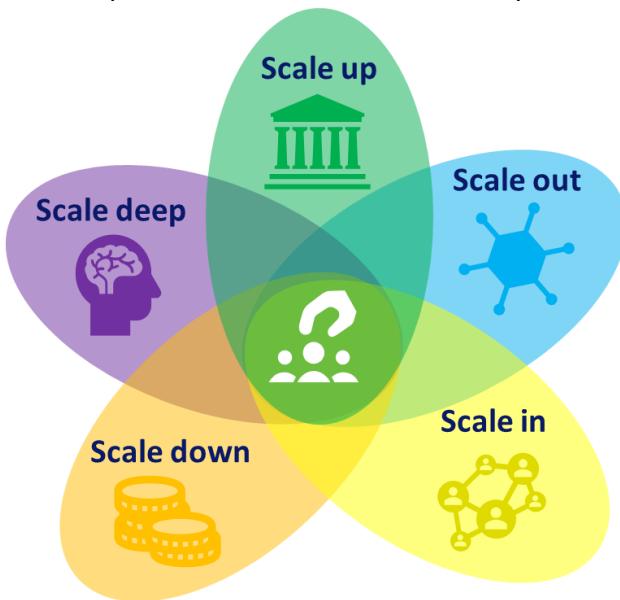


Figure 4. Scaling directions addressed by strengthening local authorities' capacity and resources.



Recommendation 2.A: Secure dedicated and sustainable funding for local climate adaptation engagement

- **Main objective:** Provide the essential financial resources needed to build and exercise local capacity for engagement. Secure dedicated, adequate and sustainable funding streams specifically allocated for designing, implementing, and evaluating citizen and stakeholder engagement processes within local climate adaptation initiatives.
- **Expected benefits:**
 - Increased ability of local authorities to conduct high-quality, sustained engagement;
 - Reduced barriers to participation for citizens (through compensation/support);
 - Greater scope and ambition of engagement projects;
 - Improved planning and professionalization of engagement activities.
- **Rationale/Challenges:** Lack of stable, long-term funding is a critical barrier preventing local authorities from initiating, scaling, and sustaining meaningful engagement activities (challenge C.8). While pillar 1 advocates for higher-level resource considerations, effective local implementation requires dedicated financial mechanisms at the municipal level. Sustainable funding allows for proper planning, compensates participants where appropriate, supports necessary logistics, and ensures engagement is an integral part of adaptation efforts.
- **Examples of implementation actions and mechanisms:**
 - Ensure climate adaptation funding programmes include specific allocations for local engagement activities and simplify access for municipalities.
 - Mandate gender-responsive budgeting in local climate action plans.
 - Dedicate a percentage of climate adaptation or environmental budgets specifically for engagement processes, moving beyond project-based funding.
 - Explore and pilot innovative local funding mechanisms, such as adaptation-focused participatory budgets, local climate bonds, leveraging public-private partnerships for engagement activities.
 - Provide guidance to local authorities on accessing available EU and national funding streams for engagement.
- **Key actors involved:**
 - EU level: EU funding programs (e.g. LIFE, Cohesion Policy), EIB, EBRD.
 - National level: Regional/national governments (ministries of finance, environment), fundings institutions, national banks.



- o Regional and local level: Local authorities (finance/budget departments, climate/environment departments), associations of local governments.

Recommendation 2.B: Establish robust internal structures and processes for coordinated, accountable, and adaptive engagement

- **Main objective:** Address the organizational and procedural aspects of local capacity, ensuring engagement is managed professionally and accountably. Establish robust internal structures, clear mandates, and coordinated processes within local authorities to manage citizen engagement effectively, ensure accountability, facilitate cross-departmental collaboration, and allow for adaptive management based on monitoring and evaluation.
- **Expected benefits:**
 - o Improved coherence and consistency of engagement activities;
 - o Enhanced institutional learning and adaptation;
 - o More efficient and effective use of resources for engagement;
 - o Increased transparency and accountability towards citizens;
 - o Stronger trust between citizens and the municipality.
- **Rationale/Challenges:** Engagement efforts often fail due to fragmented responsibilities, lack of coordination between departments (silo effect), and unclear lines of accountability (challenges C.8 and C.9). Establishing dedicated units or clear focal points, along with cross-departmental frameworks, can ensure engagement is integrated, consistent, and avoids duplication.
- **Examples of implementation actions and mechanisms:**
 - o Designate a specific department, unit, or an appointed person within the municipality with a clear mandate for coordinating and supporting citizen engagement.
 - o Develop internal protocols or frameworks requiring and facilitating cross-departmental collaboration on engagement initiatives related to adaptation.
 - o Integrate engagement planning into regular municipal work processes and project management cycles.
 - o Establish formal, transparent feedback systems to communicate back to participants how their input was used.
 - o Implement systematic M&E for engagement processes, assessing both process quality and influence on outcomes to adapt and improve future engagement strategies and involving local actors as certified auditors of engagement process performance.



➤ **Key actors involved:**

- Regional and local level: local authorities (Mayor's office, municipalities' management, planning, environment and communications departments, potentially dedicated participation unit, audit/evaluation offices).

Recommendation 2.C: Enhance local capacity through targeted training, accessible knowledge, and strategic partnership

➤ **Main objective:** Address the human capital, knowledge, and network dimensions of local capacity for engagement. Enhance the capacity of local authorities and their partners by providing targeted training, ensuring easy access to relevant knowledge and data, and fostering strategic partnerships with civil society, research institutions, private sector and other relevant actors. Provide specific skills for mediating conflicts, managing highly politicized discussions, tackling misinformation with transparent communication and rebuilding trust.

➤ **Expected benefits:**

- Improved skills and confidence of local staff and partners in running engagement processes;
- Better-designed, more inclusive, and effective engagement;
- Enhanced use of evidence and best practices;
- Stronger collaboration between municipalities and other actors;
- Increased innovation through knowledge sharing.

➤ **Rationale/challenges:** Effective engagement requires specific skills, knowledge, and networks that local authorities may lack (challenge C.8). Staff need training in facilitation, inclusive methods, conflict management, and understanding climate (challenge C.3). Access to context-specific data, best practices, and engagement tools is needed. Furthermore, partnerships are vital for reaching diverse communities, leveraging external expertise (e.g., knowledge brokering by academics), sharing resources, and building trust. Building this multi-faceted capacity is essential for designing and delivering high-quality, impactful engagement. Engagement occurs in a messy world with distrust, political instrumentalization, conflict, misinformation, and the “fear of authorities” to engage (challenges C.4 to C.7).

➤ **Examples of implementation actions and mechanisms:**

- Develop and disseminate practical training modules and toolkits on co-production methods, inclusive facilitation, digital/non-digital engagement techniques, and



climate adaptation communication for municipal staff and community representatives.

- Provide specialized training for municipal staff in conflict mediation, misinformation response, and strategies for rebuilding trust in polarized environments.
- Establish accessible knowledge platforms providing relevant information, data, case studies, and tools in relevant languages.
- Promote peer-to-peer learning networks among municipalities, potentially through existing structures like the Covenant of Mayors or national associations.
- Facilitate local partnerships between local authorities, academics, civil society, community groups, and potentially private sector entities for knowledge exchange, joint project implementation, and outreach.
- Support the role of intermediaries or 'knowledge brokers' connecting different actors.
- Invest in building the capacity of local civil society representatives and community groups to engage effectively.

➤ **Key actors involved:**

- National level: National/regional agencies.
- Regional and local level: Local authorities, human resources dept., climate/environment dept., community relations, associations of local and regional governments and city networks (e.g., community of municipalities, ICLEI).
- Others: CSOs and NGOs (e.g., ECSA); universities and research institutions, professional associations (planners, facilitators), training providers.

Recommendation 2.D: Foster and sustain political and institutional commitment to citizen engagement in local climate adaptation

➤ **Main objective:** Foster political and institutional backing, essential for a rooted engagement and capacity-building effort. Foster and sustain high-level political and institutional commitment within local authorities, ensuring citizen engagement is recognized as a core component of democratic climate governance and is embedded structurally to sustain beyond short-term political cycles.

➤ **Expected benefits:**

- Increased likelihood of engagement initiatives being initiated, adequately resourced, and sustained over time;
- Greater political and administrative buy-in;
- Enhanced democratic legitimacy of local climate action;
- More resilient engagement processes and less vulnerable to political shifts.



➤ **Rationale/Challenges:** Lack of consistent political will is a major impediment to scaling and sustaining engagement (challenge C.7). Engagement seen merely as optional or a potential risk will remain fragile. Securing long-term commitment requires framing engagement as valuable for achieving better, more legitimate adaptation outcomes and integrating it into the municipality's strategic vision and standard operations. Strong leadership signals its importance, but structural embedding helps ensure continuity despite political changes.

➤ **Examples of implementation actions and mechanisms:**

- Integrate citizen engagement principles and commitments explicitly into the municipality's overall strategic plan, climate action plan, and establish a mandatory accountability mechanism, such as an annual public report, to track their implementation.
- Promote awareness among elected officials and senior management about the benefits of engagement for climate adaptation and public action (e.g. through briefings, showcasing successful local examples, highlighting links to funding opportunities).
- Promote engagement as a risk management tool that reduces political opposition, litigation, and project failure directly contributing to institutional goals.
- Establish mechanisms (like the internal structures in Rec 2.B) that institutionalize engagement practices, making them less dependent on individual political champions.
- Encourage participation in national and international city networks that promote and normalize citizen engagement in climate action, and actively leverage EU programs (such as the Mission on Adaptation or the Covenant of Mayors) to champion political leadership and gain international visibility.
- Develop clear communication strategies that frame engagement positively, emphasizing shared responsibility and democratic values.
- Ensure continuity of engagement processes across election cycles by establishing non-partisan frameworks or oversight bodies where appropriate.
- Leverage political leadership and the role of the mayor to signal the importance of engagement and provide institutional backing.

➤ **Key actors involved:**

Regional and local level: Mayors, city councillors, senior municipal management, political parties (local branches), local government associations, city networks.



5.2.3. Pillar 3: Empowering stakeholders and citizens to take an active and meaningful role in adaptation actions.

This pillar directly empowers citizens and diverse stakeholder groups to become active and influential participants in climate adaptation, moving beyond passive consultation. It strategically aims to foster the necessary awareness, motivation, skills, and opportunities for meaningful engagement, particularly addressing barriers faced by often-excluded groups.

Pillar 3 fundamentally impacts cultural roots and fosters climate literacy across society, building awareness and empowering citizens to see engagement as a valuable and accessible activity (Scaling deep – Figure 5). By proactively removing practical and economic barriers for vulnerable groups and supporting grassroots actions, it directly provides the means for action (Scaling down). This empowerment at individual and community level creates a broader and more committed citizen base, which in turn increases the number and diversity of people actively engaged in adaptation (Scaling out) and supports greater public and political demand for the institutionalization of participatory governance (Scaling up).

This involves mandating and supporting the inclusion and influence of affected and vulnerable populations and creating avenues for direct citizen contribution through community-led adaptation actions and citizen actions initiatives.

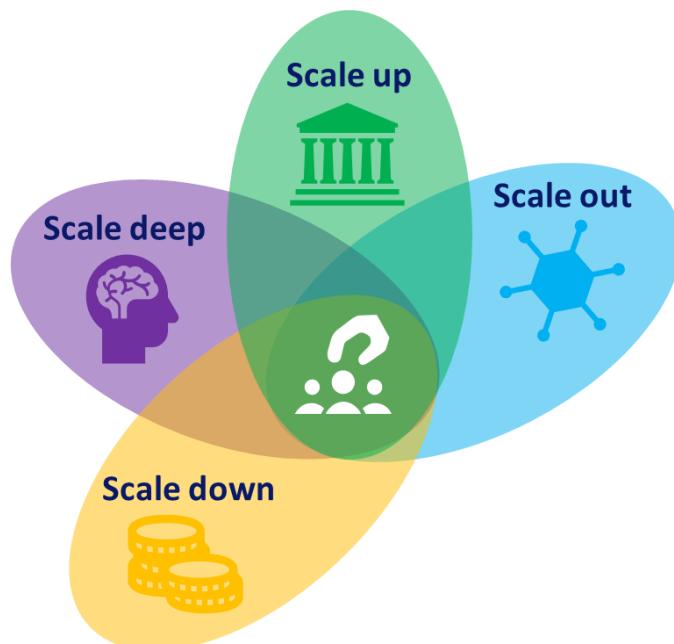


Figure 5. Scaling directions addressed by stakeholders and citizens empowerment to engage.



Recommendation 3.A: Enhance climate adaptation and citizen action literacy and awareness across society

- **Main objective:** Build the foundational knowledge and awareness necessary for citizens to feel empowered and equipped to engage meaningfully. Enhance climate adaptation and citizen actions literacy and awareness across society through sustained, accessible public education campaigns using plain language, and by systematically integrating adaptation and engagement concepts into educational curricula at all levels.
- **Expected benefits:**
 - Increased public understanding and knowledge about climate risks and adaptation;
 - Enhanced awareness and capacity of citizens to engage meaningfully;
 - Greater motivation for participation and individual action;
 - Improved long-term societal resilience through informed citizenship.
- **Rationale/Challenges:** Meaningful participation requires a foundational understanding of climate change impacts, adaptation options, and the role citizens can play. Citizens themselves highlighted educational gaps and a lack of awareness hindering motivation to engage (challenge C.6). Public education campaigns using clear, relatable language and focusing on local impacts can bridge this gap (challenge C.3). Integrating adaptation into school curricula ensures long-term, systemic capacity building for future generations.
- **Examples of implementation actions and mechanisms:**
 - Develop and fund national and regional public awareness campaigns on climate adaptation, using diverse media (including traditional channels like local radio/print) and tailoring messages to local contexts and concerns.
 - Mandate and support the integration of climate change adaptation and citizen action topics into formal education curricula from primary to tertiary levels, while promoting schools as hubs for hands-on community resilience projects.
 - Invest in equitable access to quality climate adaptation education for all, including bettering the connection between the teaching and scientific communities.
 - Foster a culture of engagement by providing resources and opportunities for citizens to develop and lead climate adaptation initiatives in their own languages, promoting a sense of ownership and participation in the process.
 - Enable transparent and accessible practices and media that promote critical thinking and challenge misinformation and disinformation about climate adaptation.
 - Develop accessible educational materials (infographics, videos, factsheets) in multiple languages, avoiding technical jargon.



- Develop public communication campaigns that proactively address misinformation and sources of public distrust.
- Support informal education initiatives through museums, libraries, community centres, and civil society organisations.
- Train educators and communicators on effectively conveying climate adaptation and engagement concepts.
- Promote transdisciplinary co-creation and knowledge sharing to identify climate adaptation solutions through the sharing of practices and experiences.

➤ **Key actors involved:**

- National level: National and regional ministries of education and environment.
- Regional and local level: Institutions in charge of education.
- Others: Education CSOs and NGOs, media, schools and universities, science communication professionals, museums and libraries.

Recommendation 3.B: Ensure equitable access to engagement by removing barriers and improving outreach

➤ **Main objective:** Empower citizens directly by ensuring they have the practical means and information needed to access and participate in engagement opportunities. Ensure equitable access to climate adaptation engagement opportunities by implementing proactive, targeted communication strategies to reach all segments of the population and systematically removing practical and economic barriers to participation.

➤ **Expected benefits:**

- More diverse and representative participation in engagement processes;
- Reduced socioeconomic barriers to participation;
- Increased legitimacy of engagement outcomes;
- Empowerment of groups previously excluded.

➤ **Rationale/Challenges:** Participation is often skewed towards already engaged or privileged groups due to various barriers. Financial constraints, lack of time (care duties, job constraints), mobility issues, and language barriers prevent many from participating (challenges C.1 and C.2). Providing compensation or support (childcare, travel) is crucial for equity. Furthermore, simply announcing opportunities isn't enough; targeted outreach through diverse channels, including non-digital ones and trusted community networks, is needed to reach those often missed.



➤ **Examples of implementation actions and mechanisms:**

- Systematically offer financial or non-financial compensation, reimbursement for travel/childcare, or other relevant incentives for participation, particularly for underrepresented groups. "Citizen engagement can't be done for free".
- Develop multi-channel communication strategies using diverse formats (digital, print, local radio, community meetings) and languages tailored to different target groups.
- Partner with community organizations, social services, and local leaders who have established trust and networks within specific communities.
- Ensure engagement activities are held at accessible times and locations.
- Provide options for both online and offline participation to cater to different needs and capacities.
- Simplify and tailor communication about engagement opportunities, clearly stating the purpose, time commitment, and support available, framing them around local realities instead of abstract concepts.

➤ **Key actors involved:**

- National level: National funding bodies (providing guidelines/funding for support measures).
- Regional and local level: Local authorities, social services.
- Others: CSOs (e.g., ECSA), community leaders/groups, engagement practitioners and experts.

Recommendation 3.C: Support the meaningful inclusion and influence of vulnerable groups

➤ **Main objective:** Empower specifically vulnerable citizens by ensuring their voices are not only heard but also influential in shaping adaptation actions that affect them most. Mandate the explicit consideration of pre-existing inequalities and ensure the meaningful inclusion and demonstrable influence of vulnerable and marginalized groups within climate adaptation planning and decision-making processes through tailored support and methodologies. These processes should include younger generations, who will be most affected by the consequences of climate change.

➤ **Expected benefits:**

- More equitable adaptation policies that address the specific needs of those most affected;
- Reduced risk of maladaptation harming vulnerable groups (as detailed in Rec. 1.D);
- Increased trust and social cohesion;
- Empowerment of marginalized communities;



- Fulfilment of justice and equity principles.
- **Rationale/Challenges:** Vulnerable groups and younger generations are disproportionately affected by climate change but systematically underrepresented in decision-making (challenge C.1). Achieving “just resilience” requires moving beyond tokenistic inclusion to ensure these groups have genuine influence (power-sensitive participation). This necessitates specific mandates, tailored approaches recognizing their specific needs and constraints (challenge C.2), and ensuring their input is demonstrably considered.
- **Examples of implementation actions and mechanisms:**
 - Mandate within adaptation policy frameworks (linked to Rec 1.B & 1.D) that vulnerability assessments identify key groups and require targeted engagement strategies for them.
 - Require adaptation plans to report specifically on how vulnerable groups were involved and how their input influenced decisions.
 - Co-design engagement processes with representatives of vulnerable groups (women-led, minority groups), to ensure methods are appropriate, accessible, and culturally sensitive.
 - Provide dedicated support (e.g. capacity building for participation, translation services, safe spaces for dialogue) tailored to the needs of specific groups.
 - Utilize methods that empower marginalized voices, potentially including community-driven assessments or partnerships with representative organizations.
 - Train facilitators in power-sensitive and inclusive methodologies.
- **Key actors involved:**
 - National level: National authorities’ components, human rights organizations.
 - Regional and local level: Local and regional authorities (policy makers, planning depts., social services).
 - Others: CSOs representing vulnerable groups, community leaders, local human rights organizations, research institutions (social vulnerability).

Recommendation 3.D: Promote and support citizen-led adaptation and grassroots initiatives

- **Main objective:** Empower citizens by supporting their capacity to initiate and implement adaptation actions and contribute directly to knowledge generation and monitoring. Actively promote and provide tangible support (financial, technical, administrative) for citizen-led adaptation initiatives and citizen action programs (e.g. citizen science) related to climate impacts and adaptation monitoring to avoid maladaptation.



➤ **Expected benefits:**

- Increased local adaptation action driven by communities;
- Enhanced sense of agency and ownership among citizens;
- Improved local data and monitoring capacity;
- Stronger social capital and community networks;
- Innovative and context-specific adaptation solutions.

➤ **Rationale/challenges:** Empowerment extends beyond participating in government-led processes to enabling citizens to take direct action themselves. Supporting grassroots initiatives fosters ownership, taps into local creativity and energy, and can lead to highly context-specific solutions. Citizen programs such as citizen science involve the public directly in action/research and monitoring, enhancing understanding, data collection, and potentially informing adaptive management. Supporting these activities empowers citizens as active agents of change and contributors to resilience building, moving beyond a passive recipient role.

➤ **Examples of implementation actions and mechanisms:**

- Establish dedicated small and flexible grant schemes or funding mechanisms accessible to community groups for local adaptation projects (e.g. greening initiatives, local awareness campaigns, mutual support networks).
- Provide technical assistance and administrative support from local authorities to help community groups navigate regulations and implement projects.
- Develop and support citizen action/science programs focused on monitoring local climate impacts (e.g. heat mapping, flood reporting, biodiversity monitoring) or the effectiveness of adaptation measures.
- Create platforms or formal pathways for sharing results and experiences from citizen-led initiatives and citizen science (linking to knowledge platforms in Rec 2.C).
- Integrate data from credible citizen science projects into official monitoring and reporting where appropriate.
- Facilitate partnerships between citizen groups, local universities, and local authorities for co-designed projects.

➤ **Key actors involved:**

- National level: National funding institutions.
- Regional and Local level: Local authorities (environment dept., community development).
- Others: CSOs and NGOs (e.g., ECSA), community groups/activists, research institutions, citizen science platforms/associations.



5.2.4. Pillar 4: Sharing and applying knowledge and best practices to facilitate the co-production of just and tailored adaptation actions.

This pillar enhances the quality, effectiveness, and appropriate application of co-production practices across the diverse geographical, cultural, and political contexts of Europe through improved knowledge sharing, mutual learning, and contextual adaptation. It aims to replicate successful approaches by ensuring that valuable knowledge, practical experience, and innovative methods are effectively captured, disseminated, critically evaluated, and thoughtfully adapted.

Pillar 4 primarily establishes the infrastructure (platforms, Communities of Practice) and processes (cross-cultural learning, tailored methods) necessary for the effective replication and dissemination of engagement practices to greater numbers of people and places (Scaling out - Figure 6). It simultaneously promotes a culture of learning, transparency and accountability, which helps build trust and shifts norms around how knowledge is valued and shared (Scaling deep). It also enhances practitioners and organizations internal capacities by strengthening the knowledge base and methodological repertoire (Scaling in). Finally, it demonstrates the tangible impact and value of engagement and provides the evidence and justification needed for high-level policy support and institutionalization (Scaling up).

This strengthens knowledge exchange infrastructure, fostering cross-cultural dialogue, promoting methodological diversity and tailoring, and establishing robust feedback and evaluation systems to ensure transparency, accountability, and continuous improvement as practices diffuse.

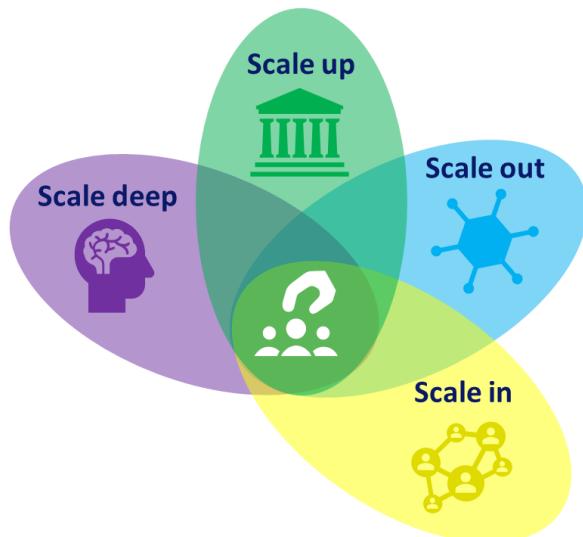


Figure 6. Scaling directions addressed by shared and applied knowledge and best practices.



Recommendation 4.A: Strengthen knowledge exchange through accessible platforms and multi-level communities of practice

- **Main objective:** Provide the necessary infrastructure and networks for good practices and knowledge dissemination and collaborative learning, focusing on integrating with and enhancing existing platforms rather than creating duplicative new ones. This involves strengthening the sharing, adaptation, and application of co-production knowledge across Europe by supporting accessible, multi-lingual knowledge platforms and by actively fostering robust Communities of Practice at European, national, and local levels.
- **Expected benefits:**
 - Reduced duplication of effort;
 - Faster uptake of effective practices;
 - Improved quality and consistency of engagement across Europe;
 - Enhanced capacity of practitioners through peer learning;
 - Fostering innovation through cross-fertilization of ideas;
 - Better adaptation of practices to diverse contexts.
- **Rationale/Challenges:** Scaling out effective co-production requires mechanisms for practitioners, policymakers, and citizens to easily access and share lessons learned, best practices, tools, and relevant data (challenge C.3). Centralized, user-friendly platforms providing relevant information in multiple languages can overcome knowledge fragmentation. Complementing this, dynamic communities of practice enable vital peer-to-peer learning, collaborative problem-solving, and the adaptation of practices to different contexts. Strengthening both static updated resources and dynamic networks is crucial for effective knowledge dissemination and capacity building across diverse European settings.
- **Examples of implementation actions and mechanisms:**
 - Invest in developing and maintaining accessible online platforms by building upon and ensuring interoperability with successful existing initiatives (like weADAPT and MIP4Adapt), offering curated resources on co-production for adaptation.
 - Create community-based physical spaces for engagement and education tailored for different communities' needs and contexts.
 - Establish and support multi-level Communities of Practice focused on citizen engagement in climate adaptation, connecting practitioners, policymakers, researchers, and potentially citizen representatives across different governance scales (such as AGORA Community Hub and EU Mission Community of Practice and Thematic Working Groups).



- Facilitate regular online and offline meetings, workshops, and webinars within these Communities of Practice for knowledge sharing and joint reflection.
- Promote the documentation and sharing of both successful and challenging engagement experiences to foster realistic learning.
- Ensure platforms and Communities of Practice actively disseminate information about innovative methods and tools, including those for inclusive engagement (Rec 4.C) and evaluation (Rec 4.D).

➤ **Key actors involved:**

- EU level: EU (EEA, JRC, DG CLIMA).
- National level: National/regional environment/adaptation agencies.
- Regional and local level: city networks (e.g. community of municipalities, ICLEI).
- Others: CSOs, professional associations, research institutions, practitioners.

Recommendation 4.B: Facilitate cross-cultural learning and dialogue on engagement practices

➤ **Main objective:** Foster mutual understanding and promote progress in engagement practices across diverse cultural contexts. Facilitate structured cross-cultural learning initiatives and dialogue platforms specifically designed to bridge diverse regional experiences, expectations, and cultural perspectives on citizen engagement, promoting mutual understanding and the progression of practices.

➤ **Expected benefits:**

- Increased awareness and understanding of contextual factors influencing engagement;
- Improved ability to tailor engagement strategies effectively across diverse European regions;
- Reduced risk of imposing inappropriate models;
- Enhanced collaboration and trust between actors from different backgrounds;
- More nuanced and culturally sensitive scaling of practices.

➤ **Rationale/Challenges:** Europe exhibits significant regional differences in public perception, familiarity, and traditions regarding citizen engagement (challenge C.5). Directly transferring practices without considering these cultural contexts can lead to failure or mistrust. Effective practice replication requires spaces for actors from different backgrounds to understand these nuances, share experiences constructively, and learn how to adapt approaches sensitively. Structured dialogue can help overcome assumptions and build common ground for collaboration across diverse European settings.



➤ **Examples of implementation actions and mechanisms:**

- Organize dedicated cross-national or regional workshops and forums focused on sharing experiences with engagement across different cultural and political contexts (e.g. peer learning workshops, Adaptation AGORA).
- Strengthen national or regional level hubs that translate the recommendations and best practices to the specific context and institutional specificities.
- Develop twinning programs or visits allowing practitioners and policymakers from different regions to observe and learn from each other's approaches.
- Integrate modules on cultural sensitivity and contextual adaptation into training programs for engagement practitioners (linking to Rec 2.C).
- Support research analysing the influence of cultural and political contexts on engagement effectiveness and how to navigate these differences.
- Utilize Communities of Practices (from Rec 4.A) as safe spaces for open discussion about challenges and successes related to cultural differences in engagement.
- Develop guidance materials specifically addressing how to adapt engagement methodologies for different cultural settings within Europe.

➤ **Key actors involved:**

- EU level: EU institutions (e.g. Committee of the Regions, EESC).
- National level: National/regional governments.
- Regional and Local level: city networks.
- Others: CSOs (e.g., ECSA), cultural institutions, research institutions (social sciences, political science), training providers.

Recommendation 4.C: Promote diverse, inclusive, and context-tailored engagement methodologies

➤ **Main objective:** Promote tailored and diverse engagement methodologies to ensure processes are inclusive, relevant, and fit-for-purpose across varied European situations. Promote the use of diverse and inclusive engagement methodologies, encouraging the flexible, context-sensitive application of digital, non-digital, and hybrid approaches tailored to specific target audiences, local capabilities, and adaptation challenges.

➤ **Expected benefits:**

- More inclusive participation by responding to diverse needs and preferences;
- Increased effectiveness of engagement by matching methods to objectives;
- Greater innovation in engagement design;
- Improved relevance of engagement to local contexts;
- Better ability to address specific adaptation challenges through tailored approaches.



- **Rationale/Challenges:** There is no “one size fits all” engagement method; effectiveness depends heavily on the context, objectives, and participants. Over-reliance on digital tools can exclude significant portions of the population, while purely traditional methods may miss opportunities (challenge C.2). Application of different methods requires an evolving repository and the capacity to choose and adapt them appropriately.
- **Examples of implementation actions and mechanisms:**
 - Develop and disseminate guidance (via platforms in Rec 4.A) on selecting, adapting, and combining different engagement methods (workshops, assemblies, digital platforms, mobile units, traditional media, citizen science, etc.) based on context and goals.
 - Showcase examples of successful tailoring of methods for specific groups (e.g. youth, elderly, migrants, rural communities) and different adaptation issues.
 - Encourage experimentation of innovative engagement approaches, including hybrid models.
 - Include training on methodological selection and adaptation in capacity-building programs (Rec 2.C).
 - Ensure funding criteria for engagement projects value methodological appropriateness and inclusivity over adherence to a specific model (Rec 2.A).
 - Support the development and ethical use of digital engagement tools while stressing the continued need for non-digital alternatives.
- **Key actors involved:**
 - National level: Funding bodies.
 - Regional and local level: Local/regional authorities.
 - Others: CSOs representing diverse groups (e.g., ECSA), practitioners/facilitators, research institutions (evaluating methods), technology developers (digital tools).

Recommendation 4.D: Ensure transparency, accountability, and learning through robust feedback and evaluation

- **Main objective:** Ensure that knowledge and practices are applied based on mechanisms in place to maintain transparency, accountability, and learning across different engagement practices. Establish robust and transparent mechanisms for systematic monitoring and evaluation of engagement processes and their outcomes, coupled with formal feedback loops to ensure citizen input informs decisions, fosters accountability, and drives continuous learning.



➤ **Expected benefits:**

- Increased transparency and trust in engagement processes;
- Enhanced accountability of decision-makers;
- Demonstrable impact of citizen participation;
- Continuous improvement of engagement practices based on evidence;
- Stronger motivation for citizens to participate;
- Greater legitimacy of co-produced adaptation actions.

➤ **Rationale/Challenges:** For engagement to be credible and sustainable, participants and institutions need to see that it leads to tangible results and that processes are just (challenge C.4). Formal feedback loops showing how input was considered are crucial for building trust and motivating continued participation. Systematic M&E provides evidence of impact (or lack thereof), allows for learning and improvement, and holds organisers accountable.

➤ **Examples of implementation actions and mechanisms:**

- Build on existing standardized and flexible M&E frameworks and indicators for co-production in adaptation, covering process quality (e.g. inclusivity, deliberation) and outcomes/influence.
- Mandate the inclusion of M&E plans and budgets in engagement projects funded by public sources, including participatory ex-post evaluations (Rec 2.A).
- Require public authorities and practitioners to implement clear, timely, and accessible feedback mechanisms communicating back to participants how their input was included (or why not).
- Establish independent bodies or mechanisms for auditing engagement processes and their impact in significant cases.
- Institutionalize gender and minorities-disaggregated data in all adaptation monitoring systems.
- Ensure M&E findings are publicly reported and actively used to inform the design of future engagement activities and adaptation policies.
- Integrate M&E training into capacity-building programs (Rec 2.C).
- Use M&E to explicitly track and communicate the “return on investment” of engagement for the institution itself.

➤ **Key actors involved:**

- EU level: EU Institutions, funding bodies.
- National level: National authorities, funding bodies.
- Regional and local level: Local/regional authorities.
- Others: CSOs, participants/citizens, independent evaluation experts/bodies, research institutions.



6. Conclusion and way forward

The Adaptation AGORA policy white paper addresses the gap between high-level ambition and on-the-ground implementation of stakeholder engagement processes for climate change adaptation in Europe. The document starts from the assumption that to move from isolated successes to a new standard of climate governance, Europe should adopt a holistic approach to scale engagement. Moreover, Member States should act at multiple levels to promote democratic participation aimed at urgently addressing the climate crisis. This requires moving beyond replicating successful pilots (scaling out) to simultaneously impacting laws and policies (scaling up), shifting cultural values toward participation (scaling deep), and strengthening the internal capacities and means for action of the organizations responsible for implementation (scaling in and down). A multi-dimensional strategy is essential to create enabling conditions for engagement practices that contribute to increasing democratic participation, reducing inequalities, fostering public trust and achieving short, medium and long-term adaptation goals.

The white paper provides recommendations for the adoption of a multi-dimensional strategy and its enabling conditions. It builds on an evidence synthesis, including a systematic review of academic literature, an analysis of European adaptation policy instruments and participatory practices at the EU and national (Spain and Germany) levels, lessons learned from engagement practices conducted within the Adaptation AGORA project, and a comprehensive review of EU-level documents, guidance materials, roadmaps, guidelines, and reports about citizen engagement. This synthesis of existing evidence allowed the identification of strategic pillars and recommendations that were then refined and validated through deliberation with over 60 stakeholders at three major European events/conferences.

As a result, a strategic roadmap has been designed including four strategic pillars and sixteen recommendations, that are summarised here below.

Institutionalizing engagement:

- Strengthen EU leadership and culture of citizen engagement
- Establish formal mandates and frameworks for citizen engagement in the adaptation cycle
- Mainstream engagement across socio-economic sectors, including the private sector
- Embed environmental and climate justice in the policy framework

Strengthening local capacity:

- Secure dedicated and sustainable funding for local climate adaptation engagement
- Establish robust internal structures and processes for coordinated, accountable, and adaptive engagement
- Enhance local capacity through targeted training, accessible knowledge, and strategic partnership



- Foster and sustain political and institutional commitment to citizen engagement in local climate adaptation

Empowering citizens and stakeholders:

- Enhance climate adaptation and citizen action literacy and awareness across society
- Ensure equitable access to engagement by removing barriers and improving outreach
- Support the meaningful inclusion and influence of vulnerable groups
- Promote and support citizen-led adaptation and grassroots initiatives

Sharing and applying knowledge and best practices:

- Strengthen knowledge exchange through accessible platforms and multi-level communities of practice
- Facilitate cross-cultural learning and dialogue on engagement practices
- Promote diverse, inclusive, and context-tailored engagement methodologies
- Ensure transparency, accountability, and learning through robust feedback and evaluation

For each recommendation objectives, expected benefits, challenges, examples of implementation actions/mechanisms and actors involved have been identified. Future deliberations should focus on the implementation of these recommendations in the context of different Member States and political systems, considering anchoring each recommendation to specific timelines, policy windows and pathways. Moreover, performance indicators (KPIs) or baselines to monitor and evaluate these recommendations should also be developed, to make easier the operationalisation of the roadmap by concerned actors and to allow comparison of progress across different political systems.



7. References

1. IPCC. *Summary for Policymakers: Climate Change 2022_ Impacts, Adaptation and Vulnerability_ Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.*; 2022. doi:10.1017/9781009325844.Front
2. Berrang-Ford L, Siders AR, Lesnikowski A, et al. A systematic global stocktake of evidence on human adaptation to climate change. *Nat Clim Chang.* 2021;11(11):989-1000. doi:10.1038/s41558-021-01170-y
3. Araos M, Jagannathan K, Shukla R, et al. Equity in human adaptation-related responses: A systematic global review. *One Earth.* 2021;4(10):1454-1467. doi:10.1016/j.oneear.2021.09.001
4. European Union. *CORPORATE GUIDANCE - Citizen Engagement.*; 2024. doi:10.2775/988208
5. Reed MS. Stakeholder participation for environmental management : A literature review. 2008;1. doi:10.1016/j.biocon.2008.07.014
6. Owen G. What makes climate change adaptation effective? A systematic review of the literature. *Global Environmental Change.* 2020;62(April):102071. doi:10.1016/j.gloenvcha.2020.102071
7. Burton P, Mustelin J. Planning for Climate Change: Is Greater Public Participation the Key to Success? *Urban Policy and Research.Taylor & Francis.* 2013;31(4):399-415. doi:10.1080/08111146.2013.778196
8. Chambers JM, Wyborn C, Ryan ME, et al. Six modes of co-production for sustainability. *Nat Sustain.* 2021;4(11):983-996. doi:10.1038/s41893-021-00755-x
9. Doelle M, Majekolagbe A. Meaningful public engagement and the integration of climate considerations into impact assessment. *Environ Impact Assess Rev.* 2023;101(August 2022):107103. doi:10.1016/j.eiar.2023.107103
10. Newig J, Jager NW, Challies E, Kochskämper E. Does stakeholder participation improve environmental governance? Evidence from a meta-analysis of 305 case studies. *Global Environmental Change.* 2023;82(June). doi:10.1016/j.gloenvcha.2023.102705
11. Wagner PM, Lima V. The interests, ideas, and institutions shaping public participation in local climate change governance in Ireland. *Local Environ.* Published online 2023:1-15. doi:10.1080/13549839.2023.2284946
12. Reed MS, Vella S, Challies E, et al. A theory of participation: what makes stakeholder and public engagement in environmental management work? *Restor Ecol.Blackwell Publishing Inc.* 2018;26:S7-S17. doi:10.1111/rec.12541



13. Cattino M, Reckien D. Does public participation lead to more ambitious and transformative local climate change planning? *Curr Opin Environ Sustain.* 2021;52:100-110. doi:10.1016/j.cosust.2021.08.004
14. Wamsler C, Alkan-Olsson J, Björn H, et al. Beyond participation: when citizen engagement leads to undesirable outcomes for nature-based solutions and climate change adaptation. *Clim Change.* 2020;158(2):235-254. doi:10.1007/s10584-019-02557-9
15. Bruley E, Scolobig A, Ellena M, et al. Beyond good practices of Stakeholder Engagement in Climate Adaptation: A Systematic Review of Barriers and Enablers. *Under review.*
16. Glaas E, Hjerpe M, Wihlborg E, Storbjörk S. Disentangling municipal capacities for citizen participation in transformative climate adaptation. *Environmental Policy and Governance.* 2022;32(3):179-191. doi:10.1002/eet.1982
17. Khatibi FS, Dede korkut-Howes A, Howes M, Torabi E. Can public awareness, knowledge and engagement improve climate change adaptation policies? *Discover Sustainability. Springer Nature.* 2021;2(1). doi:10.1007/s43621-021-00024-z
18. Lemos MC, Arnott JC, Ardoin NM, et al. To co-produce or not to co-produce. *Nat Sustain. Nature Publishing Group.* 2018;1(12):722-724. doi:10.1038/s41893-018-0191-0
19. Revez A, Dunphy N, Harris C, et al. Mapping emergent public engagement in societal transitions: a scoping review. *Energy Sustain Soc. BioMed Central Ltd.* 2022;12(1). doi:10.1186/s13705-021-00330-4
20. Hügel S, Davies AR. Public participation, engagement, and climate change adaptation: A review of the research literature. *Wiley Interdiscip Rev Clim Change.* 2020;11(4):1-20. doi:10.1002/wcc.645
21. European Commission. European Commission. EU Missions & citizen engagement activities. https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/eu-missions-citizen-engagement-activities_en.
22. MI4ADAPT. *Stakeholder and Citizen Engagement in Climate Adaptation: A DIY Manual.*; 2023. https://research-and-innovation.ec.europa.eu/document/download/56804bb8-ddb9-40c8-8370-1648e2262b80_en?filename=ec_diy-manual-adaptation-climate-change-mission.pdf
23. Moore ML, Riddell D, Vocisano D. Scaling Out, Scaling Up, Scaling Deep: Strategies of Non-profits in Advancing Systemic Social Innovation. *Journal of Corporate Citizenship.* 2015;2015(58):67-84. doi:10.9774/gleaf.4700.2015.ju.00009
24. Sánchez Rodríguez AM, MacLachlan M, Brus A. The coordinates of scaling: Facilitating inclusive innovation. *Syst Res Behav Sci.* 2021;38(6):833-850. doi:10.1002/sres.2740



25. Bruley E, Scolobig A, Keith Allen S, et al. *Adaptation AGORA Deliverable D4.1 - Enablers and Barriers to Co-Design, Co-Develop and Co-Implement Solutions for Climate Resilience*. SEI HQ; 2024.
26. Komendantova N, Erokhin D, Scolobig A, Bruley E, Mattera M, Baldelli M. *Adaptation AGORA Deliverable D4.2 - Policy Instruments and Influences on Co-Production.*; 2024.
27. Komendantova N, Erokhin Dmitry, Arjomendi Akram P, et al. *Adaptation AGORA Deliverable D4.3 - Guidelines for Transferability of Successful Instruments from Other Policy Areas to Climate Change Adaptation.*; 2025.
28. Pickard S, Baulenas E. *Adaptation AGORA Deliverable D1.2- Report on the Methodologies and Recommendations Used for Citizen Engagement.*; 2024.
29. Jost F, Verones A, Nachtigall; Nefertari, et al. *Adaptation AGORA Deliverable D2.3 - Innovative Mechanisms and Approaches for Citizen Engagement in Climate Change Adaptation.*; 2025.
30. Englund M, Gerger Swartling A, André K, Karlsson S. *Adaptation AGORA Deliverable D3.2 - Refined and Updated Framework to Co-Evaluate Citizen and Stakeholder Engagement Methodologies.*; 2023.
31. Baulenas E, Pickard S. *Adaptation AGORA Deliverable D1.1- Mapping of Existing Citizen Engagement Initiatives.*; 2024.



8. Appendix: Detailed methodology of roadmap development

This annex details the multi-phase process used to collect, analyse and synthesize the diverse dataset used to develop the roadmap. The methodology was designed to be iterative and evidence-based, integrating insights from academic literature, policy analysis, empirical research, and direct stakeholder validation.

8.1. Objectives

The roadmap followed the objectives established in the Adaptation AGORA project task 4.5:

Task 4.5: Develop a roadmap for transformational change

This task will summarise WP4 key lessons learnt and recommendations in a policy white paper focused on highlighting strategic actions and governance mechanisms/structures that can support the upscaling of co-production/citizen engagement processes for climate resilience in Europe. It will revise, build on and expand existing innovation roadmaps (e.g. Roadmap for the uptake of Citizen Observatories, developed in the WeObserve project) and initiatives suggested in other EC projects (e.g. European Policy Directive on the use of citizen generated data, see also section 1.2.1.2). It will identify priority strategic actions in the context of medium-term policy windows of opportunity (e.g. Climate Adaptation Mission) and pinpoint the key pillars for the establishment of innovative and lasting governance mechanisms at regional, national and European scale that will facilitate wide-scale implementation of co-production processes. A first draft of the policy white paper will be presented and discussed in a workshop involving practitioners and policy makers (the same earlier engaged in Task 4.1 and Task 4.4). Based on their feedback, a final version of the policy white paper will be prepared, co-authored by all involved contributors.

8.2. Lessons learned from the Adaptation AGORA project outputs

The dataset primarily encompassed available deliverables produced in the Adaptation AGORA EU funded project summarizing the lessons learned about citizen and stakeholder engagement practices, methodology, challenges and opportunities across the project. These deliverables included:

- [Deliverable D4.1 - Enablers and barriers to co-design, co-develop and co-implement solutions for climate resilience](#)
- [Deliverable D4.2 - Policy instruments and influences on co-production](#)
- [Deliverable D3.2 - Refined and updated framework to co-evaluate citizen and stakeholder engagement methodologies](#)
- [Deliverable D1.1 - Mapping of existing citizen engagement initiatives](#)
- [Deliverable D1.2 - Report on the methodologies and recommendations used for citizen engagement](#)
- **D2.3 Innovative mechanisms and approaches for citizen engagement in climate change adaptation - Lessons learned from pilots' focus groups**



These deliverables developed different strands of knowledge, including a systematic literature review of academic literature focusing on the identified barriers and enablers for effective stakeholder and citizen engagement in climate adaptation (D4.1); Systematic analysis of participatory elements in European, Spanish and German adaptation policies (D4.2); Empirical data gathered from real-world citizen engagement practices, including findings from surveys, semi-structured interviews and focus groups conducted with diverse stakeholders and citizens across different European contexts (D1.1, D1.2, D2.3, and D4.1); Experts driven knowledge including Delphi consultation, online surveys and in-depth interviews (D1.2, D3.2 and D4.1); and the mapping of existing databases of citizen engagement initiatives (D1.1).

A systematic and qualitative analysis of these documents was realized in order to extract key elements about existing institutional, economic, social and cultural challenges and opportunities hindering or supporting the scaling of citizen and engagement practices. These elements have been collated in the following tables (Tables 1 to 6).

Table 1. Key elements extracted from Deliverable D4.2.

Outputs	Description	Source	Page
Decentralized and tailored engagement	Establishing regional and local councils for climate adaptation would enable more localized participation, especially in rural and high-risk areas. Countries could leverage such mechanisms to bridge the rural-urban divide that limits climate engagement in smaller, more vulnerable communities. Tailoring engagement efforts to local contexts – accounting for linguistic, cultural, and technological differences – ensures that participation frameworks resonate with and are accessible to all citizens.	D4.2	73
Improved digital and non-digital participation platforms	While digital tools have been useful, they exclude individuals with limited access to technology or digital literacy. Policies should incorporate non-digital alternatives, such as mobile units that can travel to remote communities, or traditional communication channels (e.g. local radio, print materials) to reach a broader audience.	D4.2	73
Vulnerable groups representation	The policies should mandate that climate adaptation plans explicitly include input from vulnerable communities. Engaging these groups through targeted outreach and ensuring their representation	D4.2	73



	on participatory bodies would align with EU goals of inclusivity.		
Public awareness campaigns	National and regional governments should invest in public education campaigns that use plain, relatable language to communicate climate adaptation strategies. This will require a concerted effort to simplify technical jargon and focus on the local impacts of climate change, as well as specific actions that citizens can take to engage. Countries could benefit from region-specific campaigns, particularly in areas prone to flooding or drought.	D4.2	73
Climate adaptation education in schools	Integrating climate adaptation concepts into school curricula across all regions is crucial. Such education would help cultivate long-term citizen engagement and ensure that future generations are equipped to participate in adaptation efforts.	D4.2	73
Formal feedback loops	Establish formal, recurring feedback systems that allow citizens to participate in periodic reviews of climate adaptation policies. Countries could create public consultations or citizen review panels to assess ongoing adaptation measures.	D4.2	73
Transparent reporting	To build trust, governments should publicly report how feedback is integrated into policy changes. Reports should be accessible and easily understandable, allowing the public to see direct links between their input and subsequent government action.	D4.2	74
Dedicated funding for participation initiatives	Governments should establish long-term funding for participation initiatives, ensuring that engagement mechanisms are sustained beyond the initial stages. This could be part of broader climate adaptation financing, allowing regions to allocate a portion of their budgets specifically to foster continued citizen engagement.	D4.2	74



Public-private partnerships engagement	Private-sector involvement in adaptation efforts, particularly through funding and co-designing engagement strategies, can help alleviate public sector funding constraints. Governments should encourage private businesses to sponsor climate adaptation projects that incorporate stakeholder participation.	D4.2	74
Regional climate hubs	Establish multi-sectoral regional climate hubs where stakeholders from different sectors (e.g. agriculture, public health, and infrastructure) can collaborate with local governments and citizens. Countries could benefit from extending their municipal climate adaptation strategies to incorporate more diverse sectoral representation.	D4.2	74
Mandated cross-sectoral adaptation strategies	National governments should mandate that all sectors – including transport, agriculture, health, and education – develop integrated climate adaptation strategies. This would ensure that adaptation is not siloed but rather embedded across all areas of governance.	D4.2	74

Table 2. Key elements extracted from Deliverable D3.2.

Outputs	Description	Page
Relevant knowledge	<p>Contextual adaptation knowledge and action that align with local needs, expectations, and values.</p> <p>Outcome 1.1 – The engagement process and its outputs are aligned with the local context (co-explore context, co-explore vulnerability, adapt as change unfolds).</p> <p>Outcome 1.2 – Citizens, decision makers, researchers, and other stakeholders have a sense of buy in (engage early, manage expectations, formulate joint objectives).</p>	34-35



Just participation	<p>Citizens, decision makers, researchers, and other stakeholders have an equal opportunity to participate and voice concerns in the adaptation decision-making and action.</p> <p>Outcome 2.1 – The engagement process enjoys a fair representation of affected groups (identify and involve relevant stakeholders).</p> <p>Outcome 2.2 – Citizens and other stakeholders have access to the engagement process and its outputs (decide on time and place, tailor outputs to different groups).</p> <p>Outcome 2.3 - Citizens and other stakeholders participate actively in the engagement process (adopt methods and platforms for engagement, appoint an experienced facilitator).</p>	35-36
Mutual learning	<p>Citizens, decision makers, researchers, and other stakeholders learn, exchange, and co-produce knowledge.</p> <p>Outcome 3.1 – Citizens, decision makers, researchers, and other stakeholders have shared knowledge about key topics. (Identify learning areas, Address knowledge gaps).</p>	37
Improved collaboration	<p>Citizens, decision makers, researchers, and other stakeholders build, develop, or improve their collaboration.</p> <p>Outcome 4.1 – Citizens, decision makers, researchers, and other stakeholders have a mutual interest in maintaining their relationship through future collaboration.</p> <p>Outcome 4.2 – Citizens, decision makers, researchers, and other stakeholders have a sense of mutual trust (allocate roles and responsibilities, establish rules of conduct, deliver accountabilities on time, encourage open communication).</p>	37-38



Table 3. Key elements extracted from Deliverable D1.2.

Outputs	Description	Page
Local cultural norms and values	The cultural attitudes toward participation, deliberation, and collaboration impact how citizens engage. For example, in some regions, deliberation and public discussion are well-accepted, while in others, they are seen as unnecessary or confrontational.	Table 8
Social movements and historical experience	Movements like Spain's Indignados (2011) influenced the public perception of engagement. Contexts with a history of social movements tend to have higher public interest in participation.	Table 8
Familiarity with deliberative democracy	Some regions (like Scandinavia and Benelux) have more established traditions of consensus-building, while in other areas (like Central and Eastern Europe), citizen engagement may seem "bizarre" or unfamiliar.	Table 8
Trust in public institutions	Contexts with low trust in government or public bodies tend to require additional transparency and accountability mechanisms to engage citizens meaningfully.	Table 8
Political climate and government buy-in	Political support for engagement varies widely. Authoritarian-leaning governments may see engagement as a threat, while democratic governments may embrace it for legitimacy.	Table 8
Election cycles and political change	The lifespan of a citizen engagement initiative can be disrupted if there's a change in political leadership or priorities.	Table 8
Institutional openness to engagement/co-production	Public authorities may resist power-sharing or remain reluctant to shift decision-making power to citizens, especially if this challenges existing hierarchies.	Table 8
Legal and regulatory frameworks	In some cases, legal mandates exist that require citizen engagement (e.g. EU directives on public participation). However, without such mandates, engagement becomes voluntary and more fragile.	Table 8



Regional differences	There are stark regional differences in the adoption of citizen engagement. Central and Eastern Europe have lower adoption rates, while Scandinavia and Benelux have long traditions of public deliberation.	Table 8
Availability of funding and resources	Engagement requires money for logistics, facilitation, communication, and compensation for participants. Lack of funding can limit engagement scope, especially in marginalized communities.	Table 8
Marketization of democracy	Experts noted that there is a growing “competitive market” for citizen engagement, with funding sources like the EU promoting competition among organizations to “sell democracy.”	Table 8
Compensation and incentives	Citizens are more likely to participate when there are clear incentives (e.g. financial compensation, meals, childcare, or skills development opportunities).	Table 8
Economic inequality	Economic inequality shapes engagement, as wealthier citizens may have more flexibility (time, money, knowledge) to participate, while marginalized groups may face barriers like unpaid care work or job constraints.	Table 8
Population demographics	Age, gender, and education levels influence how people engage. For example, older citizens may prefer in-person engagement, while younger generations may be comfortable online.	Table 8
Social diversity and inclusion	Engaging underrepresented groups requires additional efforts to overcome language, literacy, and accessibility barriers. Gender balance and representation of marginalized groups are often explicit goals in CEIs.	Table 8
Existing social capital	If communities have strong networks and social ties (e.g. local community groups or neighbourhood associations), it becomes easier to engage them.	Table 8
Urban vs. rural settings	Urban areas often have more engagement due to higher population density, but rural areas may require place-based approaches and attention to rural-urban divides.	Table 8



Climate change relevance	In the context of climate adaptation, citizens in regions more affected by climate hazards (like floods, wildfires, or heatwaves) may feel more urgency to engage.	Table 8
Physical location of events	If engagement is in-person, citizens may be excluded if locations are not easily accessible (remote areas, inadequate public transport, etc.).	Table 8
Access to technology and digital literacy	The shift to digital engagement (due to COVID-19) revealed that not everyone has equal access to reliable internet or knowledge of online tools.	Table 8
Digital platforms for engagement	Citizen engagement platforms have become common, but familiarity with these platforms varies, particularly for elderly or marginalized groups.	Table 8
Cybersecurity and data privacy	Digital participation requires guarantees that citizens' data is protected, which can influence whether people feel safe engaging online.	Table 8

Table 4. Key elements extracted from Deliverable D4.1.

Outputs	Description	Page
Key barrier 1: Institutional and organizational barriers	<p>These organizational and cultural barriers within administrations can partially be addressed by:</p> <ul style="list-style-type: none"> ➔ strengthening coordination mechanisms within and across institutions to break down silos and foster a more integrated approach to adaptation (Key enabler 6); ➔ enhance institutional capacity by providing training, resources, and tools that support co-production processes (Key enabler 6); ➔ improving the regulatory and policy framework that facilitate participatory processes (Key enabler 6); ➔ enhance political will and commitment ensuring that adaptation efforts are sustained despite shifts in political priorities (Key enabler 4 and 6). 	93-94



Key Barrier 2: Co-production process complexities	<p>Many enablers can help to address these barriers:</p> <ul style="list-style-type: none"> ➔ Develop communication strategies and training for both organizers and participants to ensure that all voices are heard and understood (Key enablers 1, 2 and 3); ➔ Prioritize early and inclusive stakeholder engagement, with clear definitions of roles and responsibilities (Key enablers 2 and 3, enabler: Co-definition of roles and responsibilities); ➔ Establish monitoring and evaluation mechanisms to track the progress and outcomes of the co-production process (Key enabler 2). 	94-95
Key Barrier 3: Lack of motivation and capacity to engage	<p>To progress toward these motivational and agency issues a few enablers are identified:</p> <ul style="list-style-type: none"> ➔ Improve communication strategies to ensure that information about engagement tools and processes reaches all segments of the population (Key enablers 1, 4 and 6); ➔ Develop diverse type of incentives to encourage broader participation; ➔ Propose training and educational programs to enhance the skills, knowledge, and self-confidence of potential participants (Key enabler 4); ➔ Consider practical issues that hinder engagement and offer support to address these constraints (Key enabler 2); ➔ Clearly state the impact of participants inputs on decision-making and adaptation outcomes from the beginning (Key enabler 4). 	95-96



Key barrier 4: Lack of resources	<ul style="list-style-type: none"> ➔ Secure stable, long-term funding and resources to support adaptation initiatives, including engagement activities (Enabler: Developing financial support); ➔ Strengthen partnerships between academics, government bodies, and communities to improve knowledge transfer and ensure that the solution is based on the most accurate and context-specific information (Key enablers 1 and 3, enabler: Involving intermediaries); ➔ Develop training and capacity-building tools for public administration, adaptation practitioners and community representatives to enhance their ability to facilitate and participate in co-production processes (Key enablers 6). 	96
Key enabler 1: Developing strong collaboration and communication	<p>To develop these collaboration and communication strategies, it is essential to:</p> <ul style="list-style-type: none"> ➔ Establish clear engagement rules that foster trust and transparency among participants; ➔ Create a safe space for dialogue where all participants feel comfortable sharing their perspectives and ideas without fear of judgment; ➔ Create structured feedback loops to ensure that participants' contributions are considered and acted upon, acting as a form of accountability; ➔ Ensure iterative, non-hierarchical and transparent interactions among all participants; ➔ Utilize various communication channels and tools to reach all audiences and ensure information accessibility and learning; ➔ Work with participants to develop a common language and understanding of adaptation objectives and processes, thereby aligning efforts and expectations; ➔ Develop an external communication strategy adapted to inform different audiences. <p>These actions must be implemented by the organisers and facilitators of the co-production process, ensuring that all stakeholders are fully involved.</p>	97



Key enabler 2: Building a flexible process design	<p>To develop such flexible working framework, adaptation practitioners should:</p> <ul style="list-style-type: none"> ➔ Design a process that can accommodate a wide range of perspectives and knowledge forms; ➔ Co-define appropriate scope and scale of reflection and action; ➔ Promote systems thinking and consider short-, medium and long-term benefits of climate adaptation initiative; ➔ Leave room to deal with uncertainty, mistakes and learning by doing approach; ➔ Promote reflective approach and allocate enough time to each process step; ➔ Build on good examples and best practices; ➔ Encourage iterative feedback and continuous learning to refine the process based on participant inputs; ➔ Co-production process organisers and facilitators are responsible of implementing such actions. 	97-98
Key enabler 3: Building an inclusive and integrative approach	<p>Actions recommendation to build an inclusive and integrative approach are:</p> <ul style="list-style-type: none"> ➔ Involve a representative sample of stakeholders, e.g. communities, citizen, private sectors, vulnerable and marginalized groups, governments, researchers, youth, civil society, NGOs, etc.; ➔ Tailor engagement approach and the process considering the needs and local context of diverse stakeholders including vulnerable and underrepresented groups; ➔ Facilitate knowledge exchange between participants to broaden the scope of solution using diverse participatory tools; ➔ Promote vertical and horizontal integration and cross-sectoral collaboration; ➔ Build on existing skills and knowledge within the participants; ➔ Empower participants by recognizing and incorporating their insights into adaptation process decision-making. <p>Again, this enabler must be implemented by the organisers and facilitators of the co-production process</p>	98-99



	<p>with the help of different groups representatives among public authorities, civil society, experts, private sectors and local communities. Engagement methodologies have been synthetized and evaluated within the WP2 of Adaptation AGORA project in two deliverables.</p>	
<p>Key enabler 4: Fostering citizen and stakeholder motivation</p>	<p>While some actions can be developed by adaptation practitioners, others rely on factors acting prior to engagement:</p> <ul style="list-style-type: none"> ➔ Develop awareness-raising campaigns that highlight the individual and community benefits of climate adaptation efforts; ➔ Communicate on issues that directly impact people daily lives and concerns; ➔ Communicate about the value and impact of their contributions and the benefits obtained (e.g. learning, sense of responsibility); ➔ Develop a rewarding system such as monetary or non-monetary incentives; ➔ Leverage past experiences with co-production processes and encourage participants to share the benefits they've experienced; ➔ Mobilize existing networks and relationships to foster engagement and sense of community; ➔ Provide tailored support to individuals based on their specific needs, concerns, and levels of engagement. <p>Fostering motivation to engage appears to be of a shared responsibility among the different types of actors, however, this type of action specifically targets citizens and local communities.</p>	99-100



Key enabler 5: Increasing knowledge availability and capacity to engage	<p>Increasing knowledge availability and capacity to engage require actions such as:</p> <ul style="list-style-type: none"> ➔ Develop platforms providing easy access to relevant data and information and facilitate the exchange of information and best practices among stakeholders; ➔ Mobilize available skills, abilities and knowledge among participants; ➔ Involve academics and experts as intermediaries and knowledge brokers, facilitating the flow of knowledge between participants; ➔ Promote collaboration and communication among participants to enhance learning, share resources and expertise; ➔ Develop training campaigns that empower citizens with the skills and knowledge necessary to participate effectively in adaptation initiatives; ➔ Advocate for policies providing funding and resources to enhance knowledge availability and capacity building. <p>Experts and academics have a great role to play as well as public authorities in collaboration with adaptation practitioners to implement these actions.</p>	100
Key Enabler 6: Strengthening institutional support	<p>Priority actions that should be undertaken to build this supportive framework are:</p> <ul style="list-style-type: none"> ➔ Establish clear and coherent policies, regulations, funding scheme and guidelines that mandate or incentivize citizen and stakeholder engagement in climate adaptation initiatives; ➔ Build flexibility into the system, using flexible action plans and road maps, that can be adjusted as new data and input comes available; ➔ Promote these policies and instruments, and apply them consistently at different levels of government; ➔ Ensure that these frameworks are supported by transparent administrative processes and accessible to all stakeholders; ➔ Provide dedicated funding and resources for adaptation initiatives, including for the co-production process; 	100-101



	<ul style="list-style-type: none"> ➔ Allocate sufficient human resources and expertise to coordinate efforts across various government departments and levels; ➔ Promote coherence and coordination across different administrative levels and departments; ➔ Cultivate political will and leadership commitment to facilitate long-term uninterrupted engagement of public authorities. <p>The responsibility for implementing these actions primarily belongs to the local public authorities but also national policymakers. In contrast to the key enablers presented above, this type of action will have an influence in the medium to long term and on a local, regional or national scale, but will not affect the process or individuals directly.</p>
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Table 5. Key elements extracted from Deliverable D1.1.

Outputs	Description	Page
Cross scale implementation	Deliberative forms of citizen engagement are taking place across countries at several governance levels.	26
Fewer process linked to CC adaptation	Climate change adaptation seems to be an issue of concern less present relative to other key issues, such as mitigation.	26
Adaptation focus linked to other topics	Initiatives often address climate change adaptation in general, though some issues are also frequently considered, such as those related to urban planning, energy and/or natural resources related to adaptation strategies.	26
Dominance of several forms of engagement	Deliberative processes take many forms, but the most visible efforts relate to citizen assemblies (a specific example of mini-publics).	26
	Initiatives often aim for several goals, including those related to the key values of deliberative democracy.	26
Timespan varies greatly across types of initiatives,	The timespan varies greatly across types of initiatives, but it is consistent within types with citizen assemblies on average the longest lasting type of processes.	26



CEI common methods used	Meetings are the most common method, followed by workshops and webinars.	26
Recommendation as a main output	The most common output was recommendations.	26
Lack of evaluation process	Few CEIs have an evaluation process.	26

Table 6. Key elements extracted from Deliverable D2.3.

Outputs	Description	Page
Preferred engagement mechanisms	<p>➔ Training workshops and mobile skill-building (category: learn about adaptation and build your skills - public awareness and capacity building): This engagement approach was preferred for several reasons (inclusive and well-suited for reaching underrepresented groups; adapted to different community and institutional settings; supports peer learning and collaboration with experts; flexibility for integration into schools, neighbourhoods, or public events).</p> <p>➔ Participatory decision-making processes (category: communication and feedback mechanisms): This engagement approach was preferred for its capacity to support transparent and inclusive governance through structured dialogue. It was also seen as empowering for a diverse range of citizens, allowing them to contribute to shape adaptation responses in realistic, context-sensitive ways. Additionally, it was deemed to enhance the legitimacy of policy decisions by grounding them in their lived experience.</p> <p>➔ Hands-on climate education (category: learn about adaptation and build your skills – public awareness and capacity building): This engagement approach was preferred because it offers practical and memorable learning experiences that are grounded in real-life situations and involve direct participation. Beyond advancing long-term skill development, this mechanism was also seen as a way to strengthen social cohesion (both</p>	93-96



	<p>within a specific citizen group and/or at the community level). It encourages civic engagement and environmental responsibility across age groups and cultural backgrounds.</p> <ul style="list-style-type: none"> ➔ Localised alert systems (category: prepare for emergency - community resilience and early warning systems): This engagement mechanism was valued for its inclusive reach across different literacy levels and social groups. By combining multiple communication channels, it provides a flexible model that can be adapted to diverse contexts while maintaining a focus on clarity, accessibility, and protective action. ➔ Community narratives and cultural events (category: learn about adaptation and build your skills - public awareness and capacity building): This approach was favoured for its capacity to harness creativity, emotion, and collective identity to foster engagement. It proved accessible across language and literacy barriers, particularly in informal or community-based settings. ➔ Notable mention: Community gardens and shared spaces (category: engage as community engagement and participation): Community gardens were described as inclusive and tangible spaces that support peer learning, intercultural exchange, and visible connections to climate adaptation efforts. The hands-on, place-based nature of this approach was seen as particularly effective in fostering informal education, mutual support, and participation across generational and linguistic differences. 	
Least preferred engagement mechanisms	<ul style="list-style-type: none"> ➔ Public hearings and consultation events (category: communication and feedback mechanisms): This engagement mechanism was generally seen as poorly suited to inclusive and empowering participation. Its format fails to accommodate quieter voices or create the conditions for trust-building, leading to a perception that these engagement mechanisms often serve as procedural checkboxes rather than opportunities for genuine dialogue and collaboration. 	97-99



➔ Community liaison officers (category: communication and feedback mechanisms): Identified among working populations and participants with disabilities in Dresden as one of the least favoured engagement mechanisms, this mechanism raised concerns related to its clarity, practicality, and effectiveness. Participants were not confident to rely on a single intermediary to represent the perspectives and needs of diverse community members. There were also concerns about the interpersonal demands associated with the role, including the advanced communication, mediation, and negotiation skills it would require, qualities that may not always be present or easily identifiable in practice.

➔ Household preparedness campaigns (category: prepare for emergency - community resilience and early warning systems): Household preparedness campaigns emerged as one of the least favoured engagement mechanisms across several pilot regions, particularly among working populations in Malmö and Dresden, as well as multicultural communities in both Dresden and Zaragoza. Participants across these groups raised concerns about the format's individualised nature and its reliance on personal motivation, capacity, and individual knowledge, factors that many felt undermined its inclusiveness and effectiveness.

➔ Community disaster committees (category: prepare for emergency - community resilience and early warning systems): Least favoured in the two focus groups for workers in Dresden, this engagement mechanism was met with strong reservations among healthcare professionals. The approach was perceived as overly bureaucratic and difficult to align with the realities of fast-paced, high-pressure work environments. The approach was also viewed as too complex for volunteer-based participation. Participants expressed doubts about its feasibility without formal roles, clear incentives, or designated leadership to ensure ownership and follow-through.

➔ Training Workshops and Mobile Skill-Building (category: learn about adaptation and build your skills - public



	<p>awareness and capacity building): Although this approach was one of the most favoured engagement mechanisms overall (particularly in Rome, Zaragoza (youth), and both healthcare-focused groups in Dresden) it was also among the least favoured in two specific contexts: the worker population in Zaragoza and the multicultural group in Dresden. These contrasting responses highlight that the effectiveness of training workshops and mobile skill-building formats depends significantly on how well they are adapted to the specific needs and realities of the target group.</p>	
Emerging engagement approaches: target group-led innovations for climate engagement	<ul style="list-style-type: none"> ➔ For the engaged youth groups, innovative proposals highlighted the importance of emotional connection and active participation. These ideas reflected an interest in formats that support creativity and practical learning within everyday environments such as schools and community spaces, while also fostering long-term personal development. ➔ The working population, particularly hospital staff in Dresden, generated proposals rooted in their professional realities and institutional structures. Their ideas balanced formal mechanisms with flexible, accessible engagement opportunities. ➔ Participants from multicultural communities emphasized culturally resonant, accessible, and inclusive engagement strategies. ➔ Among participants with disabilities and chronic diseases, proposals placed a clear emphasis on accessibility and empowerment. Their suggestions demonstrated a desire not just for barrier-free participation but for meaningful leadership opportunities that could ensure that adaptation planning reflects the lived experiences of marginalised groups. 	102-103



Engagement challenges suggestions from participants	<p>Participants across different pilot regions and target groups highlighted several significant barriers impacting the effectiveness of citizen engagement mechanisms.</p>	103-105
	<ul style="list-style-type: none"> ➔ Communication barriers stood out prominently across regions, with participants from multicultural backgrounds stressing the difficulties of clearly disseminating climate-related information amid prevalent information overloads. ➔ Managing diverse opinions and perspectives in settings such as public hearings and community dialogues. This often leads to polarization and ineffective moderation, resulting in imbalanced discussions and limited inclusivity. ➔ Representatives or contact persons are not always equipped with the necessary skills, or trust of the community to effectively bridge communication gaps between stakeholders. ➔ Tokenistic approaches in public hearings, with citizens perceiving predetermined decisions that rarely incorporated genuine community input. ➔ Institutional resistance to change was also identified as a challenge, with some participants noting that public administration practices did not always keep pace with evolving cultural attitudes, leading to occasional misalignment between community needs and administrative responses. <ul style="list-style-type: none"> ○ Persistent trust challenges can stem not only from public misunderstanding, but also from ingrained institutional habits that may overlook the cultural assumptions embedded in scientific approaches, often imposing narrow technical framings on public issues. <p>Participants provided detailed and context-specific recommendations aimed at overcoming the identified challenges:</p> <ul style="list-style-type: none"> ➔ Engaged youth groups recommended embedding engagement activities within educational institutions. ➔ Working populations recommended structured yet flexible engagement roles such as “idea collectors” within teams 	



	<p>to facilitate information flow between project coordinators and staff.</p> <ul style="list-style-type: none">➔ Workers also recommended practical training sessions to ensure workplace-based improvements.➔ Multicultural communities proposed using emotionally resonant, culturally tailored formats, such as arts, storytelling, and community gardening, to engage diverse groups effectively.➔ Participants highlighted multilingual communication, structured dialogue events, and smaller, focused discussion groups as effective strategies to ensure genuine participation and overcome language barriers.➔ Participants with disabilities and chronic illnesses stressed the importance of actively integrating public feedback into decision-making, with clear communication on how contributions influence outcomes. They recommended frequent local dialogues and hybrid event formats to maximize accessibility and participation.➔ Senior participants proposed leveraging familiar, non-digital communication channels like radio broadcasts and community gatherings, emphasizing informal peer-to-peer communication rooted in daily life contexts. <p>Overall, participants across groups consistently advocated for practical, inclusive, culturally sensitive, and contextually grounded engagement strategies, integrated into everyday community and institutional structures. They emphasized that successful citizen engagement requires addressing motivational barriers through transparent communication, structured feedback, and consistent institutional support, ensuring citizens feel genuinely heard and influential in shaping climate adaptation measures.</p>
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8.3. Comprehensive review of European recommendations (ICLEI)

8.3.1. Objectives

In preparation for the Task 4.5 to develop a roadmap for transformational change, a comprehensive review on policy reports and roadmaps to scale citizen engagement in climate adaptation was executed by ICLEI Europe in collaboration with task lead UNIGE. To optimize the policy relevance of the roadmap, the task is to build on existing knowledge and recommendations. Through the Tasks 4.1 & 4-2, the roadmap is founded in a comprehensive review of the academic literature, the experiential knowledge of practitioners and adaptation policies. However, a gap was identified in the review of grey literature, including project reports, policy roadmaps and briefs, that may contain important practical knowledge on strategic levers to transformative change.

The present report thus presents a literature review of grey literature, including existing roadmaps, policy briefs, and project reports, to identify governance mechanisms/structures, policy processes and strategic action recommendations that can support the scaling of co-production and citizen engagement processes in climate adaptation in Europe. The goal of the task was to provide data as well as an outcome report that serves as a structured input for the policy white paper, along with the lessons learned from the other WP4 tasks and the wider projects work. To do so, the task is also building on previous work in these WP4 tasks, e.g. the identified barriers and enablers to co-design in T4.1 and the gaps in climate adaptation policies identified in T4.2.

8.3.2. Methods

To achieve this objective, three steps were identified and implemented:

- Identify existing roadmaps, policy briefs and project reports that pertain to the scaling of co-production processes in climate adaptation governance.
- Identify relevant governance mechanisms/structures and public policy processes for this sake.
- Identify strategic action recommendations to enable the scaling in light of the governance mechanisms and policy processes.

Document selection: In the first step, relevant grey literature was collected, selected, and categorized according to the flexible application of pre-established criteria. We chose grey literature as a focus to complement the review of scientific literature and expert knowledge (T4.1) and policy documents (T4.2) in other tasks. We decided to focus on a time period of the last 5 years (2019-2024) to ensure relevance for current policy debates. In terms of topic, we were aiming for documents that speak to climate adaptation (climate resilience/risk), citizen engagement (participation/co-design/stakeholder engagement/citizen science/deliberate democracy) and upscaling (mainstreaming/strengthening/policy change/transformation etc.). As the selection of



documents that speak to all three dimensions is quite limited (see below), we also selected documents that speak to two of these dimensions, e.g. citizen engagement in climate adaptation (without clear policy focus) or upscaling citizen engagement generally, in order to get a fuller picture. Documents were received through complimentary collection methods, namely database/repository search (CORDIS, ClimateAdapt, weADAPT, Competence Center on Participatory & Deliberative Democracy, Zenodo), targeted websearch, targeted webpages (e.g. relevant Horizon projects), consultation with expert networks (ICLEI, Adaptation AGORA consortium, conferences), and snowballing (reference lists of analysed documents). From this collection, we selected 19 documents. An overview can be found in the table below.

Document analysis: In a second step, we analysed these documents in depth to retrieve the governance mechanisms/policy processes as well as strategic actions that are highlighted by the respective authors. The governance mechanisms & policy processes were collected, resulting in a long list of 26 mechanisms. These were then clustered according to policy domain and governance level.

To collect & analyse the strategic actions, we constructed an analysis grid with the following categories: ID Doc, Recommendation summary, Recommendation quote, Source with page number, Target stakeholder/agent, Governance level; Policy problem addressed, Addressed barrier, Addressed enabler, Addressed policy gaps, Phase of the climate adaptation policy cycle, Implementation steps, Expected impacts/benefit, Example & Links to (other) policy/governance instrument. All strategic action recommendations were coded according to these categories where applicable, resulting in a comprehensive database of 99 strategic action recommendations for upscaling citizen engagement for climate resilience. In a final step, these strategic action recommendations were coded and clustered into 5 overarching groups that speak to different transformation pathways, as outlined below.

8.3.3. Results

Identified documents

Based on the process outlined, 19 grey literature documents, including reports, guidebooks, roadmaps and policy briefs, were selected for analysis. The full list can be found in Table 7 below. All the reports are recent, spanning from 2021 to 2024.

Eleven of the reports are authored by actors embedded in the EU institutional context. The top source of insights was the European Environmental Agency (EEA) with five analysed reports on the topic of climate adaptation and just resilience. The Competence Centre for Participatory and Deliberative Democracy (CC-DEMOS) of the Commission's Joint Research Centre (JRC) also features prominently, particularly in discussions on strengthening participatory processes and inclusion of diverse knowledge in policy design and implementation. While there might be a slight bias in selection through deliberately looking into their repositories as well as snowballing, these two



institutions appear as key policy knowledge brokers in the fields of climate adaptation and participatory policy making respectively. A special case is the outcome report of the Conference on the Future of Europe, which contains a lot of relevant strategic action recommendations to strengthen citizen engagement across policy domains and which in itself is the outcome of a deliberative citizen engagement process. Additionally, there are two documents authored by the Adaptation Mission and supporting actors, as well as five documents authored by Project consortia, mostly Horizon projects. Interestingly, these reports are usually guidebooks for local governments and practitioners to implement participatory planning processes at the local level but have limited engagement with governance frameworks and policy processes.

While the documents generally have a European outlook, there is a large variety of governance levels their strategic action recommendations speak to. In fact, most documents refer to multiple governance levels (9 out of 17), highlighting the multi-level aspect of governing climate adaptation. Most reports focus on the local (11) and/or regional level (7) – this includes particularly the guidebooks from projects and the Adaptation Mission. Six documents refer to the national level and twelve to the EU level. These documents tend to have the strongest focus on policy recommendations.

In terms of topics covered, only seven of the documents focus explicitly on both climate adaptation and citizen engagement/co-design. 13 documents have an adaptation focus. An example of a key resource that focuses on climate adaptation but lacks citizen engagement is the European Climate Risk Assessment. 9 documents focus specifically on citizen engagement, with 5 additional sources dealing with it as an additional aspect (e.g. as an aspect of just resilience). Here, a good example is the outcome of the report of the Conference on the Future of Europe that does not connect citizen engagement and climate adaptation specifically. This shows that there is a gap in literature explicitly connecting citizen engagement and climate adaptation that the policy white paper can fill.

This gap becomes more apparent when additionally looking at how far documents focus on policy recommendations. The five documents with clear policy recommendations all speak specifically to the EU level. Additionally, there is a number of documents that are marked as ‘somewhat’ focusing on policy recommendations – these include particularly the guidebooks that focus on capacity building to improve and replicate citizen engagement initiatives at the local level but are limited in providing concrete recommendations for change in policy and multi-level governance mechanisms to up-scale citizen engagement for climate resilience.

Only three documents connect climate adaptation, citizen engagement and policy recommendations and have thus proven particularly fruitful for this exercise and thus also as reference for the white paper, namely the “BiodiverCities Atlas” by the CC-DEMOS, the technical report “Leaving no one behind in climate resilience policy and practice” by the EEA and the “Roadmap for the uptake of the Citizen Observatories knowledge base” by the WeObserve support action.



Table 7. List of the 19 identified grey literature documents.

ID	Title	Publishing organisation	Year	Document type	Governance level	Adaptation focus?	CE focus?	Policy recommendations?
1	Towards 'just resilience': leaving no one behind when adapting to climate change	European Environmental Agency (EEA)	2022	Background paper	EU; national; local	Yes	No	Yes
2	Futures of Science for Policy in Europe - Scenarios and Policy implications	European Commission DGRI	2023	Foresight report	EU	No	Somewhat (knowledge for policy)	Somewhat
3	Stakeholder and Citizen Engagement in Climate Adaptation: A DIY Manual	Mission on Adaptation	2023	Guidebook	local; regional	Yes	Yes	No
4	A Guide to the Regional Resilience Journey	Pathways2Resilience	2023	Guidebook	Regional	Yes	Somewhat	?
5	Co-creation for policy: Participatory methodologies to structure multi-stakeholder policymaking processes	EC JRC Competence Center for Participatory and Deliberative Democracy (CC-DEMOS)	2022	Guidebook	local; regional; national; EU	No	Yes	No
6	The Adaptation Support Tool	Climate Adapt	continuous	Guidebook	EU; national; local	Yes	No	Somewhat
7	Next level citizen participation in the EU: Institutionalizing European Citizens' Assemblies	Bertelsmann Stiftung	2022	Policy brief	EU	No	Yes	No
8	Science for Policy Briefs: Participatory and Deliberative Democracy	EC JRC Competence Center for Participatory and Deliberative Democracy (CC-DEMOS)	2021	Policy brief	EU	No	Yes	No
9	BiodiverCities Atlas: A participatory guide to building biodiverse urban futures	EC JRC Competence Center for Participatory and Deliberative Democracy (CC-DEMOS)	2023	Project report	EU; local	Yes	Yes	Somewhat
10	Evolving Regions Project Report	Evolving regions	2023	Project report	Regional	Yes	Somewhat	No
11	Building Resilience through adaptation at the local level	Covenant of Mayors	2024	Project report	local	Yes	No	Somewhat
12	Cookbook - The MOSAIC recipe for co-creation	MOSAIC	2023	Project report; Guidebook	local; EU	No	Yes	Somewhat
13	Accelerating and upscaling transformational adaptation in Europe	TransformAr	2023	Project report; Guidebook	local; regional	Yes	Yes	No
14	European Climate Risk Assessment (EUCRA)	European Environmental Agency (EEA)	2024	Report	EU	Yes	No	Yes
15	Is Europe on track with climate resilience	European Environmental Agency (EEA)	2023	Report	national	Yes	No	No



16	Urban adaptation in Europe: What works?	European Environmental Agency (EEA)	2023	Report	local	Yes	No	Somewhat
17	Roadmap for the uptake of the Citizen Observatories' knowledge base	WeObserve	2021	Roadmap	local; regional; national; EU	Mention, but no focus.	Yes	Yes
18	Leaving No One Behind' in Climate Resilience Policy and Practice in Europe	European Environmental Agency (EEA)	2021	Technical report	local; regional; national; EU	Yes	Somewhat	Yes
19	Conference on the Future of Europe: Report on the Final Outcome	Conference on the Future of Europe (CoFoE)	2022	Outcome report	EU	No	Yes (Strengthening Democracy)	Yes

Identified policy processes & governance mechanisms

In the reviewed literature, 28 public policy processes or governance mechanisms have been highlighted pertaining to the topic of scaling citizen engagement in climate adaptation in a variety of ways.

Table 8 below shows that the challenge is both multi-dimensional and multi-level: On the hand, it spans different policy domains, from democracy and social protection via climate policy broadly to adaptation policy and particularly also various sectoral policy domains, in which both climate adaptation and citizen engagement could be increasingly mainstreamed. On the other hand, both climate adaptation and citizen engagement are often place-based processes, but require an integration of governance levels from local, to national, EU and global level. This hints at the multitude of possible policy transformation pathways and governance mechanisms that could serve to mainstream & strengthen citizen engagement in climate adaptation.

Importantly, this mapping is based on the analysed grey literature and does not claim to present a complete picture of the policy landscape. As the analysis of adaptation policy has been the focus of T4.2, we refrained from an in-depth analysis and put the focus instead on the strategic action recommendations as per the next chapter. Still, the listed policy processes and governance mechanisms can serve as a useful reference point to identify transformation pathways.

Table 8. List of the 28 identified policy processes & governance mechanisms

Policy Domain: Governance level:	Structural/ Democracy	Climate	Adaptation	Sectoral
EU	European Democracy Action Plan Conference on the Future of Europe European Pillar of Social Rights Cohesion Fund	European Climate Law EU Green Deal European Climate Pact	EU Strategy on Adaptation to Climate Change EU Mission on Adaptation EU Adaptation Support Tool European Climate Risk Assessment (EUCRA)	Nature Restoration Law Farm-to-Fork Strategy Critical Entities Resilience Directive Common Agricultural Policy Common Fishery Policy



	Horizon Europe EU Policy Lab European Citizen Panels			
National			National Adaptation Plans National Adaptation Strategy	National Heat Health Action Plans
Local	Committee of the Regions (local to EU) Citizen Observatories	Covenant of Mayors (local to EU)	Regional Adaptation Plans Local Adaptation Plans	Urban Greening Plans

Identified strategic action recommendations

Through the analysis of the grey literature, 99 strategic action recommendations were identified to scale citizen engagement in climate adaptation. These strategic action recommendations were mapped against a variety of criteria, leading to a comprehensive database that cannot be presented here but is available as open data for reference and analysis on Zenodo.

Through the descriptive analysis a few observations stand out:

- A majority of recommendations speak to the **local level** (75%), followed by European (31%), regional (29%) and national (24%) level. The former contains particularly operational recommendations for the implementation & replication of good practices of inclusive co-design (see below).
- A majority of recommendations address the barrier **of inadequate institutional and governance systems (41%)**. Other prominent barriers to be addressed are the lack of resources and capacity of the target group to engage (22%) as well as their low engagement and motivation (16%). Power imbalances, scepticism about people and process and difference in interest are barriers that are rarely addressed through strategic action recommendations.
- Equally, most of the recommendations aim to leverage the enabler of **institutional support (29%)**, followed by fostering strong collaboration and communication (17%) and strengthening the availability of knowledge and capacity to engage (12%).
- Most of the recommendations did not speak to one specific phase of the policy cycle but to **structural changes** or issues that concern all phases from planning via implementation to evaluation.



8.3.4. Synthesis: Transformation pathways

Based on the analysis, the recommendations were clustered into 5 groups that speak to different transformation pathways:

1. Employ & replicate good practices for effective & inclusive co-creation processes

There is a multitude of good practices to design, plan and implement co-creation processes in an effective & inclusive manner. This includes for instance an early inclusion of diverse stakeholders with a particular focus on vulnerable and disadvantaged communities, simple, transparent and targeted communication throughout the engagement process, lowering access barriers and power-sensitive participation formats. To mainstream citizen engagement in climate adaptation, these good practices are to be shared and replicated by local practitioners and authorities in systematic ways.

Recommendations under this cluster were to:

- Consider pre-existing inequalities and disproportionate burdens on vulnerable group
- Make involvement timely and throughout all stages of the policy cycle
- Manage expectations, including the (intended) use of results
- Establish a local multi-stakeholder approach / Community of Practice
- Set up coordination structures to include and empower affected people in decision-making
- Communicate the co-creation challenge in a clear and relatable way for all actors involved
- Develop tailored communication and engagement approaches
- Invest in community-building & mutual understanding
- Implement focused campaigns towards populations with low self-organization - Go where people go
- Reduce access barriers to participatory formats to ensure participation of vulnerable groups
- Use power-sensitive participation methodologies
- Share resources to build co-ownership

2. Strengthen the policy relevance of citizen engagement processes

In order to increase the institutional backing and policy impact of citizen engagement processes, the engagement processes themselves need to be tailored to the specific social and political priorities.

Recommendations under this cluster include:

- Anchor co-creation process to local (policy) challenges & priorities
- Keep political cycles in mind
- Involve local government actors that have the competence to build on the process from the beginning
- Leverage political leadership



- Focus efforts on specific, sectoral Key Community Systems
- Focus efforts on tangible concerns of participants

3. Institutionalize processes of citizen/stakeholder engagement in public administration, policymaking, & planning across levels

Citizen engagement needs a clear mandate and institutional support to be effective. It is thus crucial to mainstream and institutionalize citizen engagement processes across levels and policy domains.

Recommendations under this cluster include:

- Embed co-creation processes in the municipality structure
- Make citizens' participation legally binding in urban interventions
- Establish partnerships between local authorities & intermediaries (e.g. social services)
- Establish local citizens assemblies with clear mandate
- Involve organizational representatives of most vulnerable populations in adaptation planning
- Integrate just resilience & participatory planning approaches in National Adaptation Plans/Strategies
- Extend stakeholder participation in governance of policy advice & co-creation for policy processes (EU)
- Improve & develop new participatory mechanisms for EU policy making, including better communication and monitoring of results (e.g. EU Citizen Panels & EU Citizen Engagement Platform)
- Create an EU Charter of the involvement of citizens in EU-affairs

4. Improve capacity & resources for local governments/practitioners to implement citizen engagement & integrate in multi-level governance arrangements

Local authorities and practitioners are key actors in the implementation of inclusive and democratic climate adaptation processes in line with local priorities. They are also key to upscaling local matters of concern in multi-level governance arrangement to make sure that policy reflects citizens realities. Recommendations under this cluster thus speak to the strengthening of the various capacities and resources needed by local stakeholders to implement citizen engagement processes and integrate them in multi-level governance effectively.

Recommendations under this cluster include:

- Strengthen scope of action for local authorities
- Build capacity of local staff to enable 'local champions'
- Develop (soft) skills in collaborative planning & facilitation
- Ensure financial and funding flow to local and regional governments



- Use EU projects as platforms to strengthen capacity, technical and financial support for local authorities
- Promote interdepartmental coordination
- Create a system of local EU councillors
- Enhance structural & financial support for civil society, e.g. for youth councils
- Support and strengthen innovative and alternative funding schemes for local governments
- Involve actors across levels in policy-making

5. Improve knowledge & communication infrastructure, particularly around vulnerable communities

Relevant knowledge around local realities and vulnerabilities is a key barrier to inclusive citizen engagement and effective climate adaptation action. The present recommendations thus highlight the need for innovative ways to improve the data, knowledge and communication infrastructures around these issues, e.g. through mandatory reporting, mainstreaming vulnerability mapping or citizen observatories.

Recommendations under this cluster include:

- Mandate reporting of affected vulnerable groups in Climate Risk and Vulnerability Assessments (Covenant of Mayors)
- Mainstream spatial mapping of social vulnerability
- Create an online National Adaptation Hub
- Develop a European Policy Directive on the use of citizen generated data
- Integrate Citizen Observatory data with official data frameworks

8.4. Roadmap construction method

The second phase of the roadmap's development focused on structuring the synthesized insights from the evidence base into a coherent and logical roadmap. The objective was to move from the unstructured list of findings and to create a strategic and navigable tool for policymakers and practitioners. This was achieved through a multi-step analytical process.

8.4.1. Adopting social innovation scaling framework

To provide a robust conceptual foundation, the social innovation scaling framework was adopted as a guiding analytical lens. This framework acknowledges that scaling is a multi-dimensional process that requires more than just quantitative expansion. It ensures that the roadmap addresses the interconnected dimensions necessary for systemic change: impacting policy (Scale Up), reaching more people (Scale Out), shifting cultures and values (Scale Deep), strengthening organizational abilities (Scale In), and providing practical means for local action (Scale Down).



8.4.2. Deriving the strategic pillars

Using this framework, the vast set of challenges, enablers and initial ideas gathered in Phase 1 was rigorously analysed. The content was systematically clustered and mapped against the different scaling dimensions. This analytical process revealed four distinct and interconnected strategic areas where intervention is most needed, each designed to address a specific set of challenges and leverage key scaling dimensions.

8.4.3. Refining and consolidating the recommendations

Once the four strategic pillars were established, the next step was to define the content within each as a set of recommendations to achieve each pillar. An initial list of potential recommendations, actions, and ideas associated with each pillar was subjected to a rigorous process of analysis, consolidation and prioritization.

A first set of recommendations was refined and prioritized through an internal workshop involving project partners and experts during the Adaptation AGORA project General Assembly in Berlin in March 2025. The workshop was designed to critically assess and define each potential recommendation.

The process involved:

- **Recommendation analysis in thematic groups:** Participants were divided into four groups, one for each pillar. These groups were tasked with interrogating the practicalities of implementation for each drafted recommendation by addressing a set of questions:
 - Who? The stakeholders responsible for leading and participating.
 - What? The concrete mechanisms and actions required.
 - Where? The most appropriate scale of implementation (Local to European).
 - When? The urgency of the recommendation.
 - How? Citing existing good practices or successful examples.
- **Prioritization using an impact/effort matrix:** As part of their analysis, each group systematically prioritized the recommendations by assessing the potential impact of each recommendation on scaling engagement against the effort required for its implementation.

This exercise helped to define and select 4 of the most strategic and urgent recommendations for each pillar.

8.4.4. Recommendations' revision and description

Finally, to ensure each of the 16 recommendations is practical and actionable, each one was described using a comprehensive and standardized structure:



1. **Main objective:** Briefly explains how the specific recommendation contributes to the overall strategic goal of the strategic pillar.
2. **Rationale/Challenges:** Explains why the recommendation is necessary. It outlines the problem being addressed or the opportunity being seized, drawing connections from background material.
3. **Examples of implementation actions:** Provide some examples of how the recommendation could be put into practice from background material.
4. **Expected benefits:** Describes the positive outcomes and anticipated benefits if the recommendation is successfully implemented.
5. **Key Actors involved:** Identifies the main stakeholder groups responsible for taking action to implement the recommendation. “Who needs to do this?”

8.5. Roadmap validation

While the initial draft of this roadmap was rigorously built upon a comprehensive evidence base of academic literature, practical experience and policy analysis, we recognized that its true value and usability would depend on its resonance with the experiences of its intended users.

Therefore, we undertook a deliberative and multi-stage validation process with external actors. The primary objective of this process was to move the roadmap from a theoretical and evidence-based framework to a practically relevant, co-shaped tool. We sought to:

1. **Test the relevance** of the identified challenges and the proposed four-pillar structure.
2. **Gather concrete and practitioner-informed insights** on implementation actions, mechanisms, and potential pitfalls that could not be gathered from literature alone.
3. **Understand the practical needs of end-users**, particularly regional and local authorities, to ensure the roadmap's final outputs are not just informative but useful and applicable.

This validation was conducted through a series of interactive sessions at three major European forums: the Grenoble Biennale of Cities in Transition 2025, the European Climate Change Adaptation Conference (ECCA) 2025, and the European Urban Resilience Forum (EURESFO) 2025. Each event provided a unique opportunity to engage with a different set of researchers, policymakers and practitioners, allowing for an iterative refinement of the roadmap.

The rich feedback gathered during these conference sessions provides crucial practitioner-informed knowledge and insights. These insights have been integrated into the roadmap pillars' recommendations and particularly the implementation actions and mechanisms and challenges sections, thus ensuring it is robust, relevant, and grounded in the needs of those on the front lines of climate adaptation.



8.5.1. Grenoble Biennale of Cities in Transition 2025

This event, held on the 16th of May 2025 in Grenoble, France, served as the initial public board and conceptual validation stage for the roadmap. It was the first opportunity to present the foundational ideas and the proposed structure to a diverse audience of 8 European policymakers and practitioners outside the project team.

Key objectives at this event:

- To validate the core challenges:** The main goal was to confirm that the key challenges to scaling engagement (identified through literature reviews and initial research) resonated with the practical, on-the-ground experiences of practitioners, local actors, and engaged citizens.
- To test the relevance of the 4-Pillar structure:** To see if the proposed framework, (1) Institutionalizing engagement, (2) Strengthening local capacity, (3) Empowering citizens, and (4) Sharing and applying knowledge, was perceived as a logical and comprehensive way to organize the problem and potential solutions.

Discussions content around key challenges when engaging citizens in adaptation:

We first identified which challenges are more urgent to address according to the session participants using sticky dots.

Challenge priority	Vote
LIMITED KNOWLEDGE / MISINFORMATION	6
LACK OF CITIZENS CAPACITY	3
LACK OF INSTITUTIONAL CAPACITY	3
ENGAGING VULNERABLE GROUPS	3
LACK OF POLITICAL SUPPORT	2
CONFLICTING INTERESTS	1
POWER IMBALANCE / DISTRUST	1
COMPLEXITIES OF PROCESS	0
LACK OF POLICY SUPPORT	0

3 challenges were then discussed in depth:

1. How to Engage Vulnerable/Disengaged Groups

Main points	Details/Examples
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Work with community groups	<ul style="list-style-type: none"> - Engage with specific groups (e.g. Asian & Māori populations in New Zealand) - Provide training to build local capacity - Challenging in France due to cultural and political clashes
Use visual communication	<ul style="list-style-type: none"> - Effective for multicultural contexts where language may be a barrier
Promote diversity in media and political communication	<ul style="list-style-type: none"> - Representation matters - Ensure diverse voices are visible in public discourse

2. How to engage / communicate with communities that distrust / have a different understanding? Especially in crisis

Main points	Details/Examples
Misunderstanding of citizen-led technical practices	CCA (Climate Change Adaptation) → new technical practices being implemented by citizens are misunderstood. e.g. on biodiversity e.g. "the mayor cut trees!" → this is what is seen by people vs. understanding what is really being done.
Communication strategy examples	Communication strategy of "Nature en Ville" (Grenoble) → Need to explain to citizens what you are doing – and even then, some people are still going to be unhappy.
Engagement increases after crises	After shocks/catastrophes → increase in engagement e.g. mobilisation of volunteers in Alzira flooding (Oct. 2024) → some citizens reacted proactively... and created 3 associations of victims + local committees that don't include politicians. → Is this mental "openness" going to last?
Causal understanding and trust	More understanding of causal relation / attribution of flash floods to climate change? → issue of lack of trust in authorities/politicians → people don't believe in them. → but also issue of (political) instrumentalization of the issue.



Lack of perceived urgency	In Ireland... in some countries, it doesn't seem urgent to people → difficult to convince them of need to act now before catastrophes hit.
Direct citizen action	Direct action from citizens trying to make up for what authorities are not doing (e.g. small towns around Alzira) → adapting + trying to avoid future losses.
Role of community groups	COMMUNITY groups are KEY to reach people → have knowledge + trust → give budget to these groups and support them (incl. with training, capacity building) (example from Drama in New Zealand) → in France, it is hard for municipalities to reach community groups (tricky political topic).

3. How to tackle mis/disinformation

Main points	Details/Examples
Clarify cause-effect relationships	→ Make clear the relationship between the CAUSES and the IMPACTS
Promote proactive planning	→ Make people understand the need of proactive planning and action (Northern Europe)
Challenges in communication	→ Challenge to reach different communities, links with intermediaries.
Diversify communication channels	→ Diversify media through which we communicate to different publics ↑ multiply ways of communicating, then change
Address perception issues	→ WORK on citizens' perception of transition action – often relying on complex social-ecological processes – make it easier to communicate about it.

8.5.2. European Climate Change Adaptation Conference 2025 workshop

On June 17th, 2025, at the European Climate Change Adaptation Conference in Rimini, the Adaptation AGORA project hosted a highly interactive workshop titled “Accelerating



transformational change in Europe: A roadmap for stakeholder and citizen engagement in climate adaptation". The session brought together 33 researchers, policymakers, and practitioners to validate and refine the Adaptation AGORA policy roadmap. The aim was to bridge the gap between a high-level strategic framework and the practical realities of implementation. Through four interactive roundtables aligned with the roadmap's pillars, participants collaboratively shared and discussed concrete actions and measures, supporting the establishment of the enabling conditions to scale engagement practice for adaptation across Europe.

Key takeaways from our interactive roundtables:

- **On institutionalizing engagement (Pillar 1):** Crucial need to better engage the private sector in adaptation and foster public-private partnerships, learning from mitigation initiatives and from regions where the private sector is more socially oriented.
- **On strengthening local authorities' capacities (Pillar 2):** Need to leverage existing local capacities and building from the ground, rather than waiting for top-down institutional frameworks to guide decision and actions. There is a wealth of knowledge and capability at the local level that, with the right support, can be a powerful driver of change.
- **On empowering citizens (Pillar 3):** Participants repeatedly stressed the need to rely on local intermediaries and trusted community representatives to understand specific needs, interests, and capacities, and to provide the tailored support (time, skills, knowledge, and safe spaces) required for meaningful engagement.
- **On sharing knowledge and best practices (Pillar 4):** Meaningful engagement is not free, and securing dedicated resources is a prerequisite for success and for avoiding the growing risk of creating an 'eco-precariat' in adaptation planning.

Detailed findings per pillar:

Pillar 1: Institutionalizing engagement in public and private actions across scales and sectors

Recommendations	Summary of key actions
1.a Strengthen EU leadership and culture of citizen engagement	<ul style="list-style-type: none"> - Establish mandates for public participation. - Create a code of conduct for engagement. - Ensure post-engagement follow-up to assess quality and outcomes. - Engage citizens early and at appropriate moments. - Invest in capacity building and co-creation processes.



1.b Establish formal mandates and frameworks for systematic engagement	<ul style="list-style-type: none"> - Avoid one-size-fits-all approaches; tailor methods to context. - Empower local citizens as ambassadors. - Clarify incentives and motivations for participation (“What’s in it for them?”). - Highlight and replicate local best practices.
1.c Mainstream engagement across all sectors, including private	<ul style="list-style-type: none"> - Make citizen engagement and climate adaptation attractive to the private sector. - Address short-term thinking through targeted incentives. - Foster public-private partnerships similar to those in climate mitigation. - Use value-based assessments beyond traditional cost-benefit analysis. - Engage leadership in institutions to drive change.
1.d Embed justice principles in policy frameworks	<ul style="list-style-type: none"> - Use appropriate formats to reach and empower vulnerable groups. - Create meeting points that bring everybody together, eventually between groups and within groups. - Increase transparency and reduce government resistance to engagement.

Pillar 2: Strengthening local authorities' capacity and resources to implement engagement

Recommendations	Summary of key actions
2.a Secure dedicated and sustained funding for local engagement	<ul style="list-style-type: none"> - Learn from the Global South: fund citizens directly (e.g. through credit systems). - Improve technical capacity at the local level—especially for small cities—to access available funding.



2.b Establish robust structures and processes for coordinated, accountable, and adaptive practices	<ul style="list-style-type: none"> - Create "leadership communities" not tied to local government to ensure continuity of adaptation projects. - Build local climate offices, possibly linked directly to programs like TCP JOR.
2.c Enhance local capacity, train staff, access knowledge, build partnerships	<ul style="list-style-type: none"> - Provide more training in facilitation and adaptation for local technicians, potentially funded by professional bodies (e.g. architects, engineers). - Offer financial support for participants in training programs.
2.d Foster lasting political commitment locally	<ul style="list-style-type: none"> - Fund existing local networks to ensure readiness and accountability, avoiding the need to create new ones. - Allocate more funds at the local level, rather than at national levels not directly involved in adaptation efforts.

Pillar 3: Empowering citizens to take an active and meaningful role in adaptation actions

Recommendations	Summary of key actions
3.a Enhance climate adaptation and citizen action literacy and awareness for all	<ul style="list-style-type: none"> - Use local intermediaries, such as NGOs, community leaders, or local figures, as entry points for communication. - Engage affected citizens from the very beginning of projects. - Increase literacy by gradually introducing complexity in messages, tailored to different audiences (e.g. like localized heatwave messaging).
3.b Ensure equitable access to engagement by removing barriers and improving outreach	<ul style="list-style-type: none"> - Go beyond expert communication—use shared experiences and narratives to build trust. - Involve long-term knowledge holders and local influencers. - Take inspiration from other sectors (e.g. health, culture). - Train facilitators to handle participants with strong personal agendas.



	<ul style="list-style-type: none"> - Use inclusive and accessible language (e.g. tailor terms like “climate risks,” “climate change”). - Assess community needs before budgeting and defining incentives.
3.c Ensure vulnerable groups truly influence decisions	<ul style="list-style-type: none"> - Address the needs and experiences of vulnerable groups with sensitivity and awareness of context. - Recognize that vulnerability is dynamic and may change after climate events. - Include representatives of often unheard or marginalized groups (“speakless people”).
3.d Support citizen-led and grassroots adaptation initiatives	<ul style="list-style-type: none"> - Acknowledge and support informal and non-institutional forms of engagement. - Respect and prioritize local, community-identified needs. - Provide grants for grassroots initiatives. - Ensure access to necessary tools, data, time, space, and skills. - Minimize administrative burdens to support implementation.

Pillar 4: Sharing and applying knowledge and best practices to facilitate engagement practices

Recommendations	Summary of key actions
4.a Strengthen knowledge exchange through accessible platforms and multi-level communities of practice	<ul style="list-style-type: none"> - Recognize the role of boundary organisations in sustaining engagement efforts beyond the project lifespan. - Develop a portfolio of engagement-related activities. - Implement targeted communication strategies for different audiences and levels (e.g. strategic documents for policymakers, operational documents for managers and practitioners). - Provide training and capacity-building initiatives to support knowledge exchange and uptake.



4.b Facilitate cross-cultural learning and dialogue across regions	<ul style="list-style-type: none"> - Use local brokers and culturally relevant formats for "cultural translation". - Build detailed audience profiles to enable effective learning across cultures—know your audience. - Articulate a clear value proposition for different actors. - Leverage existing networks: engage with committees, working groups, and community events where key people already gather. - Demonstrate the value of cross-cultural learning to increase stakeholder buy-in.
4.c Promote diverse, inclusive, and tailored engagement methods	<ul style="list-style-type: none"> - Understand your audience: consider gender, social status, age, etc., and choose appropriate messengers. - Demonstrate the importance and value of every voice in the process. - Consider offering compensation for participation—don't assume people can afford to volunteer their time.
4.d Ensure transparency, accountability, and learning through robust feedback and evaluation	<ul style="list-style-type: none"> - Build local, context-specific Monitoring, Evaluation, and Learning (MEL) approaches. - Use proxy indicators to capture intangible benefits. - Gather data from surveys and feedback loops to inform the Theory of Change. - Focus on measuring what truly matters.

8.5.3. European Urban Resilience Forum 2025 workshop

On June 26th, the Adaptation AGORA project contributed to the European Urban Resilience Forum (EURESFO) 2025 in Rotterdam by participating in the session, "Bridging Knowledge and Practice: A Deep Dive into Regional Climate Resilience," organized and hosted by the Pathways2Resilience project and ICLEI Europe.

Within this session aimed to explore how expert knowledge can be effectively translated for regional and local governments, the Adaptation AGORA "Roadmap to Scale Citizen Engagement"



was presented as a case study and a catalyst for discussion on how such expert knowledge should be communicated, delivered and supported to be effective on the ground.

The interactive discussion with 15 regional practitioners yielded clear and invaluable insights for the future development and dissemination of Adaptation AGORA policy white paper.

Key messages convened by participants:

- Adapt, don't add new tools or frameworks, but need support in tailoring existing frameworks to local contexts.
- To effectively apply this knowledge, practitioners stressed the need of practical support such as training, strong partnerships, and real resources.
- Foster citizen engagement in the political agenda by finding the right "entry point" to navigate the complex landscape of adaptation governance.

Detailed discussion topics:

Question 1: Based on the framework presented (e.g. the roadmap), how should this information be shared so that you can actually use it in your work?

Category	Key Insights
Formats and usability	<ul style="list-style-type: none"> - Translate language, tools, and guidelines into accessible, plain language. - Avoid developing new tools—adapt and reuse what's already available. - Leverage the MIP4ADAPT toolkit, which maps tools to RAST steps. - Use standard tools, e.g. the Scottish tool for engagement. - Ensure support in national languages. - Address the overload of frameworks—streamline and simplify. - Adapt existing tools to local contexts, which requires effort and resources.
Access	<ul style="list-style-type: none"> - Focus on the needs of local authorities and regions—what are they actually asking for? - Example: Valorada region reviews the availability of EU-level tools and resources (note: may need clarification).
Relevance	<ul style="list-style-type: none"> - Local authorities face economic constraints that hinder climate adaptation. - Use the "cuckoo bird strategy" to insert climate adaptation into existing projects. - Frameworks must be localized and simplified—since action happens at the local level, make tools easy to use and directly applicable.



Question 2: What kind of support, capacity, or institutional conditions would you need to apply this knowledge effectively?

Category	Key Insights
Support needed	<ul style="list-style-type: none"> - Intermediaries are essential to translate frameworks into practical guidance for local action (like doctors diagnosing and treating). - Meaningful engagement must be adapted to different phases of the adaptation process. - Scale engagement creatively: e.g. start with a hackathon to raise awareness, then co-create governance models with citizens. - Regional actors need support to complete tools and feel confident in applying them.
Governance enablers	<ul style="list-style-type: none"> - Local universities and experts can act as key players, enriching engagement and supporting local economies. - Use creative and engaging formats (e.g. games, art, storytelling) to involve universities and social scientists. - Invest in climate change education and disaster preparedness for citizens. - Provide a positive vision or narrative to motivate and inspire citizen engagement. - Citizen engagement is often low on the regional agenda—need a strong entry point or clear demonstration of benefits. - Use compelling messaging to highlight the value of stakeholder and citizen engagement. - Give citizens a vision of a desirable future to encourage participation. - Local universities can serve as a bridge between citizens, science, and policy.

