



Climate KIC's response to the Call for Evidence on the European Climate Resilience and Risk Management Initiative

4 September 2025

Executive summary

Climate KIC welcomes the European Commission's timely and ambitious initiative to develop an **integrated European Climate Resilience and Risk Management Framework**.

As Europe's leading climate innovation agency, a key implementing partner of the EU Mission on Adaptation to Climate Change¹, and the lead participant in Horizon Europe Missions adaptation related projects² (securing nearly €100 million across 19 projects), Climate KIC is committed to **delivering systemic climate innovation and transformative climate action** at scale through major projects such as Pathways2Resilience, which empowers 100 regions and communities across Europe to co-design ambitious pathways to a climate-resilient future.

Building on its deep expertise and extensive experience in collaborating with regions to implement EU and national-level climate agendas, Climate KIC's main message in this contribution is that safeguarding communities, protecting nature, and guaranteeing European competitiveness and prosperity in the face of escalating climate risks demands bold, systemic, and integrated approaches – delivered at multiple scales, across sectors, through robust multistakeholder collaboration.

To achieve this, we outline ten evidence and practice-based recommendations (here's a summary):

¹ Europe 2030 missions | Climate KIC

² Climate KIC Secures Largest Share of Horizon Missions Funding | EIT





1. Pursue an integrated, systemic, coherent, multi-level governance approach to resilience

Climate KIC advocates for the EU to move decisively from fragmented adaptation efforts towards an integrated and systemic EU resilience agenda. The new framework must connect climate adaptation with disaster risk reduction, health, biodiversity, nature restoration, civil protection, sectoral strategies for infrastructure, energy, water and agriculture, while aligning with the European Climate Risk Assessment (EUCRA) and ensuring policy coherence across all relevant EU initiatives.

Given that most adaptation actions are implemented locally, functional multi-level governance arrangements with clearly defined roles and responsibilities are essential to empowering local and regional authorities to lead effective, context-specific resilience efforts while ensuring smooth coordination and adequate support from national and EU levels. Embedding resilience as a strategic priority at all governance levels will ensure that lessons learned from regional implementation form the foundation for coherent and impactful EU policy.

2. Embed innovation as a catalyst for 'resilience by design'

Climate KIC advocates for the new framework to embed innovation as a key enabler of 'resilience by design'. Innovation must be present at every stage of the adaptation policy and implementation cycle – from participatory policy co-creation, financing, and regulation to the deployment of innovative solutions on the ground – in order to transform analysis and experience into applied learning and effective solutions. Innovation is the best possible means of building adaptive capability. Such a framework will then in turn position resilience as a powerful source and driver of European prosperity, entrepreneurship and competitiveness, mainstreaming resilience standards and climate resilient approaches into policies, procurement, and project delivery to set clear benchmarks for impact.

3. Ensure just resilience is at the core

From Climate KIC's perspective, ensuring just resilience is fundamental to building a climate-resilient Europe that leaves no one behind. The EU Integrated Framework must embed principles of equity, inclusion, and social justice at its core, recognising that climate risks and impacts vary significantly across regions and vulnerable groups.

By aligning with just transition principles, the Framework can leverage EU Cohesion Funds and other financing tools to drive fair access to resources, capacity-building, and green job creation, especially in regions facing heightened risk or economic transition.

Ultimately, just resilience means designing adaptation solutions that distribute benefits equitably, preventing maladaptation, avoiding the reinforcement of inequalities, and fostering social cohesion, thereby transforming climate risk into opportunities for inclusive prosperity and long-term sustainability.





4. Formulate ambitious, measurable targets and provide the enabling conditions to achieve them

Climate KIC calls for a binding EU climate resilience goal by 2050, underpinned by a clear and harmonised definition of resilience and ambitious, measurable targets and indicators. The targets and indicators must be co-designed with key sectors, regions, citizens, and local actors for a tailored approach that addresses Europe's varied climate vulnerabilities and risk landscapes.

It is crucial that the following six key enabling conditions are addressed:

- effective multi-level governance, engagement and collaboration;
- adequate financing and resources;
- validated and usable knowledge and data;
- behavioural change;
- capabilities and skills;
- experimentation and learning.

Embedding these conditions at local and regional levels ensures tailored, effective resilience actions that drive lasting transformations. Climate KIC's work through the EU Missions and flagship projects demonstrates how these conditions accelerate impact and shape resilient futures in practice.

5. Harmonise monitoring, reporting, and verification obligations

Robust, harmonised monitoring, reporting, and verification (MRV) mechanisms are essential to enhance, scale and track climate resilience. The Framework should simplify and align MRV obligations across governance levels, ensuring that reporting under National Adaptation Plans (NAPs), National Energy and Climate Plans (NECPs), national risk assessments, and local initiatives and plans is harmonised. Streamlined MRV will reduce administrative burdens, improve data consistency, and enable clearer tracking of EU-wide and national resilience progress.

Leveraging digital tools, evidence-based learning, and open data for real-time tracking and adaptive management is key. Innovations from AI-driven foresight to regional scenario planning, pathway formulation and citizen engagement should be integrated to ensure local knowledge, citizen science, observation and action, and local solutions flow seamlessly from the ground to policy, empowering communities with actionable insights.

6. Empower local implementation through capacity building, skills building, and tailored support

The new framework must prioritise the empowering of local implementation through targeted capacity and skills building, as well as tailored support. The Adaptation Mission flagship programme that Climate KIC leads, Pathways2Resilience, is providing multiple learnings to inform a capacity- and capability-building approach by guiding over 100 European regions through adaptive, systemic climate planning with hands-on training, direct funding, and peer learning. By strengthening governance, innovation, finance, and behavioural capabilities at the local level, interventions ensure that adaptation strategies are actionable, context-specific, and equitable. This tailored





empowerment is essential because it is local and regional authorities who deliver the majority of climate adaptation measures and require dedicated support to navigate systemic complexity.

7. Ensure long-term financing and enable resource mobilisation

A climate-resilient Europe requires coordinated, predictable and long-term financing at all governance levels. As such, a climate resilience lens should be embedded across EU budgeting and financing to safeguard Europe's social, economic, and ecological health. The upcoming Multiannual Financial Framework (MFF) must explicitly prioritise climate resilience by embedding a clear EU definition of resilience into its performance framework.

At broader EU level, dedicated funding streams for resilience and adaptation are essential to ensure equitable access for all regions and municipalities; to help unlock these, the framework should support and leverage innovative public-private partnerships and risk-sharing mechanisms. Addressing the insurance protection gap is especially urgent, as only 25% of climate-relate losses in Europe are currently insured, exposing communities and economies to major financial risks and losses. Insurers will need harmonised reporting, monitoring, verification requirements and standardisation of definitions across the EU in order to anticipate, pool and manage intensifying risks effectively.

8. Co-design nature-based solutions to generate co-benefits

The new initiative should explicitly address the need for co-designing and implementing nature-based solutions (NbS). NbS harness and restore natural ecosystems to reduce climate risks while delivering broad co-benefits, including improved biodiversity and enhanced public health. Scaling NbS and embedding nature-positive approaches in governance and finance enables cities and regions to fulfil national and EU climate ambitions, generating long-term environmental, social and economic benefits. By emphasising the role of NbS and investing in nature-positive approaches, Europe will better manage risks and enable the window of 'insurability' to remain open for preserving viable and competitive economy.

9. Build on what already exists

The new initiative should build on existing frameworks and tools, enabling regions and local actors to select and apply the most suitable approaches for their specific contexts. By recognising the diversity of climate risks, governance structures, and capacities across Europe, the initiative can avoid duplication and complexity while fostering synergy and coherence. Leveraging existing approaches, tools and frameworks such as the European Climate Risk Assessment and the Pathways2Resilience Regional Resilience Journey ensures that lessons learned, data, and successful practices are accessible, adaptable, and replicable. This flexible, supportive approach empowers regions to innovate effectively, accelerate implementation, and contribute meaningfully to overarching EU resilience goals.





10. Leverage the power of the EU Missions to deliver resilience at scale

To accelerate impact on the ground, the new initiative should leverage the readily available findings, knowledge, know-how and proven impact of the HE Mission on Climate Adaptation, which supports over 150 regions and communities in advancing climate resilience through strong multi-level governance, tailored local support, and collaboration.

Building upon the Mission Adaptation's learnings and successes means, among others, prioritising real-world results in Horizon Europe Mission projects; considering the commercialisation and scaling of innovative solutions from the outset; strengthening and expanding peer learning networks and innovation hubs established under the Mission, while enhancing coordination between EU, national, and local actors. Leveraging the Mission's collaborative model and support platforms will accelerate the implementation of truly transformative and scalable resilience solutions.

By embedding the ten above mentioned pillars in the upcoming integrated European Climate Resilience and Risk Management Framework, the EU can unleash a new wave of transformative climate innovation – one that mobilises regional and local actors as co-creators, accelerates systemic and equitable resilience, nurtures prosperity, and ensures that climate action is deeply rooted in the realities and potential of European places and people.

Only such an approach will position the EU as a global leader in delivering climate-resilient, inclusive, and regenerative futures at scale. This is the pathway towards strengthening Europe's competitiveness, safeguarding social and territorial cohesion, and securing Europe's long-term strategic autonomy and prosperity.



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Introduction

The European Union stands at a critical juncture. The urgent imperatives of climate resilience and risk management are converging with the ambitions for economic competitiveness and security amidst geopolitically turbulent times, demanding transformative, joined-up action, bold leadership, and a long-term vision.

True prosperity depends on aligning economic activity with social needs and actual planetary boundaries. Without the capacity to adapt, bounce back from shocks, and regenerate in the face of uncertainty, Europe's economic prosperity and social cohesion will remain fragile and at risk. A cohesive and integrated European approach to resilience, preparedness and adaptation to climate change is therefore urgently needed.

In this context, Climate KIC welcomes the European Commission's timely and ambitious initiative to develop an **integrated European Climate Resilience and Risk Management Framework,** and the intention to include both legislative and non-legislative elements.





Climate KIC is Europe's leading climate innovation agency, a key implementing partner of the EU Mission on Adaptation to Climate Change³, and the lead participant in Horizon Europe Missions adaptation-related projects⁴ (securing nearly €100 million across 19 projects).

Having supported 124 European regions in their climate resilience journeys⁵, we bring to the table extensive expertise in systemic, multi-level climate adaptation and resilience that is directly relevant to shaping the European Climate Resilience and Risk Management Initiative.

Climate KIC has demonstrated its leadership in delivering systemic climate innovation and transformative climate resilience at scale and pioneered practical approaches for embedding resilience into local governance and finance through its coordination of flagship projects like Pathways2Resilience and NetZeroCities and co-implementation of many Horizon Europe projects under the Mission Adaptation.

Evidence from the field

Our experience in coordinating Pathways2Resilience⁶, which supports 100 regions and communities across Europe in co-designing ambitious pathways to a climate-resilient future, has **highlighted the importance of innovation ecosystems that blend policy, finance, and participatory governance to accelerate inclusive and equitable place-based resilience outcomes**.

This approach is further evidenced by the outcomes of projects such as ARCADIA, DESIRMED, and NBRACER. These are Innovation Actions funded under the Mission Adaptation as part of the NBS4EU cluster, which focuses on testing and demonstrating transformative climate resilience solutions through nature-based solutions in around 70 regions and municipalities across Europe. As the partner leading on learning and insights, we have seen first-hand the effectiveness of integrating nature-based solutions that are tailored to the diverse bio-geographies and risk profiles, and that take an approach that is adaptive, scalable, and context-sensitive.

Furthermore, Climate KIC's unique advantage point is **access to a diverse stakeholder community** including municipalities, researchers, entrepreneurs, non-profits and the private sector, which enables us to provide practical insights on how to translate high-level policies into actionable solutions at multiple scales.

Our work with regions reveals the critical enabling conditions for transformation, such as capacity-building programmes, peer learning, and innovative financing mechanisms that collectively drive resilience implementation beyond pilot projects. By coordinating a broad network of partners and stakeholders across the EU, Climate KIC fosters knowledge-sharing and systemic change through place-based transformations.

Climate KIC's ten recommendations

This extensive, hands-on experience has supported Climate KIC in developing ten evidence-based recommendations to contribute effectively to the Initiative's goals, aligning policy ambition with on-the-ground realities to build an



³ Europe 2030 missions | Climate KIC

⁴ Climate KIC Secures Largest Share of Horizon Missions Funding | EIT

⁵ 100+ European regions on a transformative climate resilience journey | Climate KIC

⁶ Pathway2Resilience





equitable, innovative, climate-resilient and competitive Europe. These recommendations emphasise integrated governance, innovation as a catalyst, just resilience, measurable targets, harmonised monitoring, local empowerment, long-term finance, and leveraging EU Missions for impact at scale.

- 1. Pursue an integrated, systemic, and multi-level governance approach to resilience;
- 2. Embed innovation as a catalyst for 'resilience by design';
- 3. Ensure just resilience is at the core;
- 4. Formulate ambitious, measurable targets and provide the enabling conditions to achieve them;
- 5. Harmonize monitoring, reporting, and verification obligations;
- 6. Empower local implementation through capacity building, skill building, and tailored support;
- 7. Ensure long-term financing and enable resource mobilisation;
- 8. Co-design Nature-based Solutions to generate co-benefits;
- 9. Build on what already exists;
- 10. Leverage the power of the Missions to deliver resilience at scale.

Pursue an integrated, systemic, and multi-level governance approach to resilience

Climate KIC advocates for the EU to decisively **move from fragmented adaptation efforts towards an integrated, systemic, and coherent resilience agenda** that helps to reduce maladaptation and consolidates visions and learning from other EU Missions, including the Soil Mission⁷ and Climate Neutral and Smart Cities Mission^{8,9}.

Climate resilience is a complex, cross-sectoral challenge requiring collaboration across policy areas and governance levels. The EU's new integrated framework must **connect and build on existing and upcoming legislation and strategies**, including:

Climate, resilience and environmental strategies and policies:

- EU Adaptation Strategy (2021)¹⁰
- Water Resilience Strategy (2025)¹¹
- Preparedness Union Strategy (2025)¹²
- Upcoming EU Agenda for Cities (2025)¹³
- EU Ocean Pact (2027)¹⁴

⁷ Climate KIC joins EU Mission Soil as implementation partner | Climate KIC

⁸ Europe 2030 missions | Climate KIC

⁹ 112 Mission Cities striving for climate neutrality by 2030

¹⁰ EU Adaptation Strategy - European Commission

¹¹ Water resilience strategy - European Commission

¹² Preparedness - European Commission

¹³ <u>Urban Agenda for the EU - European Commission</u>

¹⁴ Commission adopts Ocean Pact with €1 billion to protect marine life and strengthen blue economy - European Commission





Vision for Agriculture and Food (2025)¹⁵

Legislation and regulation:

- Climate Law¹⁶
- Governance of the Energy Union and Climate Action Regulation¹⁷
- Nature Restoration Law¹⁸
- Water Framework Directive¹⁹
- Critical Entities Resilience Directive²⁰
- Common Agricultural Policy²¹

Financial and competitiveness frameworks:

- Next Multiannual Financial Framework (post-2027)²²
- Cohesion Policy²³
- Competitiveness Compass²⁴
- Smart Specialisation Strategy²⁵
- Clean Industrial Deal²⁶

Security, disaster preparedness and digitalisation:

- Civil Protection Mechanism²⁷
- AI Continent Action Plan²⁸

In addition, the EU's new integrated framework should draw on insights from the European Environment Agency's Climate Risk Assessment (EUCRA)²⁹, aligning future risk assessment processes and timelines with future EUCRA cycles, and learning from the practical experiences of cities and regions. Connecting these elements into one coherent framework would move beyond a narrow focus on adaptation to integrate disaster risk reduction, health, biodiversity, nature restoration, sectoral strategies for infrastructure, energy, water and agriculture, and civil protection.

¹⁵ <u>Vision for Agriculture and Food - European Commission</u>

¹⁶ European Climate Law - European Commission

¹⁷ Regulation - 2018/1999 - EN - EUR-Lex

¹⁸ The EU #NatureRestoration Law

¹⁹ Water Framework Directive - European Commission

²⁰ <u>Directive - 2022/2557 - EN - CER - EUR-Lex</u>

²¹ Common agricultural policy - European Commission

²² EU budget 2028-2034

²³ Inforegio - New Cohesion Policy

²⁴ Competitiveness compass - European Commission

²⁵ Inforegio - About S3 Smart Specialisation

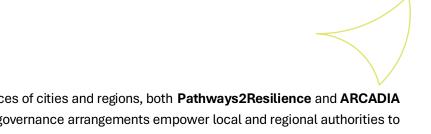
²⁶ Clean Industrial Deal - European Commission

²⁷ <u>EU Civil Protection Mechanism - European Commission</u>

²⁸ The Al Continent Action Plan | Shaping Europe's digital future

²⁹ European Climate Risk Assessment | European Environment Agency's home page





In terms of learning from the practical experiences of cities and regions, both **Pathways2Resilience** and **ARCADIA** offer insights as to how integrated, multi-level governance arrangements empower local and regional authorities to lead effective, context-specific resilience efforts. A truly integrated European framework should enable these governments to streamline their planning, break down silos between sectors, and align objectives vertically and horizontally across governance layers.

In **Pathways2Resilience**, the often-reactive nature of adaptation efforts and lack of cohesion to tackle the systemic nature of the climate crisis are addressed³⁰. Through the **Regional Resilience Journey** (RRJ) methodology³¹, regions are supported in moving from short-term fixes to **long-term**, **systemic transformation** that supports communities to co-design adaptation strategies that are context and place-based, inclusive, and aligned across governance levels.

The RRJ encourages regions and communities to adopt a holistic, systemic perspective that considers all relevant components and relationships. This approach helps **identify key leverage points and integrates diverse stakeholder perspectives, balancing the urgency of short-term disaster risk reduction with the need for long-term prevention and adaptation while avoiding maladaptation.** By fostering a whole-of-government and multilevel governance strategy, the RRJ breaks down departmental silos and actively engages stakeholders throughout every stage, ensuring that **decisions are informed by transdisciplinary knowledge and comprehensive data**. The pathway supports regions in embedding resilience beyond isolated actions, promoting coordinated efforts that span local, regional, and national levels ³².

ARCADIA³³ is a flagship Horizon Europe project that brings together eight European regions: 5 model regions (Emilia-Romagna in Italy, Zagre, Krapina-Zagorje in Croatia, Lower Austria in Austria, Funen in Denmark, Skåne in Sweden) and 3 fellow regions (Plovdiv in Bulgaria, Centru in Romania, and Podravje in Slovenia), to embed nature-based solutions into the heart of climate adaptation planning.

Within ARCADIA, a systemic lens is helping to position NbS within wider systems of governance, land use, finance and public behaviour³⁴; and the Regional Resilience Journey is being turned from a framework into practical outcomes³⁵. To showcase a few examples:

• In **Emilia-Romagna** in Italy³⁶, recent floods have refocused attention on the critical role that mountainous areas play in regional safety. In response, ARCADIA supports municipal authorities in exploring how sustainable management of upland ecosystems can mitigate downstream risks and serve as a foundation for broader resilience planning efforts³⁷. This approach recognizes **the interconnectedness of natural**

^{30 &}lt;u>Leading Europe's shift towards systemic climate adaptation | PreventionWeb</u>

³¹ Pathway2Resilience

³² Pathway2Resilience

³³ Arcadia adaptaton

³⁴ Leading Europe's shift towards systemic climate adaptation | PreventionWeb

³⁵ Leading Europe's shift towards systemic climate adaptation | PreventionWeb

³⁶ Emilia-Romagna Region – Arcadia adaptation

³⁷ Resilience in practice: Leading Europe's shift towards systemic climate adaptation | Climate KIC





systems with governance, land use, finance, and public behaviour, emphasizing NbS as central to systemic climate adaptation³⁸

- In **Funen, Denmark**³⁹, partners are working across sustainable drainage labs, cross-sector collaboration and catchment restoration efforts to develop a Water Cycle Master Plan that can align nature-based water management across different five different municipalities and a shared fjord ecosystem⁴⁰.
- In **Lower Austria**, **Austria**, NbS are being integrated into flood risk strategies and regional policies and aligned with existing climate action and climate adaptation programmes⁴².

To conclude, the new framework should explicitly support such alignment and promote the development and harmonised methodologies through research, innovation partnerships, and public-private cooperation.

By embedding references to harmonised reporting and risk assessment approaches tied to the EUCRA, the EU can unify national approaches and simplify cooperation among cities and regions.

Furthermore, building on existing frameworks and lessons from the Soil and Cities Missions, the European Climate Resilience and Risk Management framework can offer a systemic response that connects governance, policy, finance and innovation across sectors and scales. This coherence will reduce maladaptation risks, enhance preparedness, and foster the resilience of European communities, ecosystems, and economies in the face of escalating climate challenges.

2. Embed innovation as a catalyst for 'resilience by design'

The call for evidence⁴³ states the importance of 'resilience by design', defining it in terms of the need "to ensure that all investments vulnerable to the impacts of climate change are designed to face climate risks that could materialise in their lifetime" (Section B. Objectives and policy options).

While mainstreaming the financial concerns for climate resilience into all investment decisions is certainly crucial, Climate KIC advocates for the upcoming initiative to adopt a more multifaceted understanding of 'resilience by design' and its enablers. We argue that for the new European Climate Resilience and Risk Management Initiative to succeed, innovation must be embedded as a core enabler of 'resilience by design' throughout all stages of the adaptation and resilience policy and implementation cycle, in order to transform analysis and experience into applied learning and effective solutions. Innovation is the best possible means of building adaptive capability. It constitutes a critical 'sense and respond' function needed to build adaptability and resilience as a capability, and hence be able to convert risk into opportunity and strength.

³⁸ Resilience in practice: Leading Europe's shift towards systemic climate adaptation | Climate KIC

³⁹ Funen Region – Arcadia adaptaton

⁴⁰ Resilience in practice: Leading Europe's shift towards systemic climate adaptation | Climate KIC

⁴¹ Emilia-Romagna Region – Arcadia adaptation

⁴² Resilience in practice: Leading Europe's shift towards systemic climate adaptation | Climate KIC

⁴³ European climate resilience and risk management – integrated framework





As evidenced by Climate KIC's Open Accelerator global innovation programme and Adaptation Innovation Cluster in Tanzania⁴⁴, innovation is a vital catalyst for building climate resilience that anticipates and responds to evolving risks. Climate KIC's Open Accelerator demonstrates how targeted support for cleantech startups and SMEs can accelerate the translation of breakthrough climate technologies into scalable, real-world adaptation solutions. These activities also align with the EU Adaptation Strategy's core objective to step up international action by increasing global support, financing, and cooperation for climate resilience.

Climate KIC has developed, tested, and implemented an "Adaptation and Resilience Innovation Assessment and Validation" for startups joining the accelerator in the Adaptation & Resilience (A&R) space. This work has generated key insights about how startups perceive, articulate, and communicate their climate strategies – especially when navigating the tension between market narratives and operational reality. These key insights should be considered when promoting innovation in the upcoming initiative.

Insight 1: Mitigation bias in climate narratives

A recurring theme is that both institutions and startups tailor their messaging to fit perceived market expectations, which tend to prioritise climate mitigation. As a result, even when their core value lies in adaptation, their narratives often emphasise emission reductions, overlooking their broader societal and ecological impact.

An example is Satellites on Fire 45 , a company that developed an early warning system for wildfires, protecting over 2 million hectares of land in Argentina. However, their primary narrative focuses on avoided CO_2 emissions from preserved trees. What is often left unsaid is that their work also contributes significantly to biodiversity conservation, soil and water resource protection, agricultural resilience, settlement safeguarding, and mitigating temperature extremes – all vital adaptation co-benefits that are rarely highlighted.

Insight 2: Misaligned self-perception and maladaptation risk

Some companies with "green" or "sustainable" profiles exhibit high maladaptation risks. While they may see themselves as climate champions, their business models can unintentionally reinforce harmful practices, particularly in sensitive regions.

Plastic recycling startups are one such example, as these companies often present themselves as solving the plastic problem. Yet many fail to assess or communicate air quality risks from gases released during recycling (impacting worker health), energy-intensive processes powered by fossil-based grids, or a model that incentivises continuous plastic production, rather than system change. In these cases, their contribution to sustainability is questionable, and they may be unintentionally sustaining business-as-usual (BAU) dynamics.

Launched in 2022, our **Adaptation Innovation Cluster** is a strategic initiative designed to enhance the climate resilience of rural communities and landscapes in **Tanzania**. It is a collaborative ecosystem where a diverse range of participants work together on a common purpose to drive innovation and create lasting, impactful solutions. These



⁴⁴ Adaptation Innovation Cluster in Tanzania | Climate KIC

⁴⁵ Satellites on Fire company information, funding & investors | Dealroom.co





clusters unite people from different backgrounds, sectors, and locations, promoting knowledge sharing, learning, networking, and connection. By forming a collaborative network that includes businesses, universities, entrepreneurs, investors, government agencies, and NGOs, innovation clusters can generate more ideas and solutions than any one entity could alone.

Since its inception, the Adaptation Innovation Cluster has fostered climate resilience across Tanzania by:

Building the Adaptation Innovation Cluster ecosystem:

- The cluster has supported the ideation of over 200 climate innovations, ranging from agricultural techniques to community-based resilience projects;
- Successfully accelerated 24 startups: two cohorts of Adaptation and Resilience ClimAccelerator;
- Over 15 Climate Fresk workshops have been facilitated across the country, including in remote areas, fostering collaboration and the exchange of knowledge and ideas among diverse stakeholders.
- o Four innovation Cluster Networking Events have been hosted, further solidifying the climate innovation ecosystem in Tanzania.

Empowering locally-led climate innovations:

- Nine promising startups from the Adaptation and Resilience ClimAccelerator have received targeted grants to further develop their solutions, with a focus on practical, community-driven adaptations that address specific local challenges;
- More than 50 individuals have been trained in the integration of artificial intelligence (AI) and data science into climate solutions, ensuring that innovative technological approaches are leveraged for enhanced decision-making and resilience building.

Investing in the next generation:

- Over 10,000 young people have been reached via climate education workshops;
- Financial and technical resources have been provided to eight NGOs to implement climate education and youth leadership programmes across the country.

Innovation also includes participatory governance and policy co-creation, innovative financing mechanisms, forward-looking regulation, anticipatory futures, and the diffusion of novel technologies and practices on the ground, which are all covered as part of the Regional Resilience Journey approach in the P2R project⁴⁶.

To sum up, **linking innovation ecosystems with governance, finance, and community engagement** is crucial. The framework should actively harness resilience as a driver of European innovation and entrepreneurship, to position the resilience agenda not only as a social imperative but also as a powerful engine for economic competitiveness and sustainable growth. Embedding a culture of dynamic innovation is essential for future-proofing Europe.



⁴⁶ Co-developing pathways towards Climate resilient regions in Europe (Pathways2Resilience) | Discover the key services, thematic features and tools of Climate-ADAPT





3. Ensure 'just' resilience is at the core

To build a resilient Europe that leaves no-one behind, the upcoming EU Integrated Climate Resilience and Risk Management Framework should embed equity, inclusion, and social justice at its core, recognising the varying risks and degrees of risk faced by different social groups and in different regions. The framework will need to be localisable to the wide range of contexts and realities across the EU, while taking a harmonised and coordinated approach.

From Climate KIC's experience, just resilience requires systemic, place-based approaches that actively involve vulnerable communities in co-creating adaptation strategies. These approaches ensure that benefits are equitably distributed, maladaptation is avoided, and social cohesion is strengthened. MEL frameworks and approaches should also embed equity and address recognitional, procedural, and distributive justice considerations.

The Regional Resilience Journey has intentionally been designed to support regions in transitioning to climate resilience in a just and equitable manner. It integrates principles, processes, and practices to ensure distributive justice (fair allocation of burden and benefits), procedural justice (participatory decision-making processes), and recognition (respect and robust engagement with diverse cultures and perspectives), as defined by the Intergovernmental Panel on Climate Change (IPCC)^{47,48}. By fostering co-created adaptation strategies, the RRJ supports the meaningful involvement of vulnerable populations and helps establish governance structures that promote stakeholder engagement via innovation, mapping, and co-creation⁴⁹.

The complementary projects ARCADIA, NBRACER⁵⁰ and DESIRMED⁵¹ highlight how multi-level governance, participatory planning, and NbS contribute to regenerative and just climate outcomes in diverse urban, coastal and rural contexts. They put at the core and help harness the will, experience and collective power of regional and local communities to steer just transitions. By embedding just resilience principles through integrated governance, policy, and finance, the EU can transform climate risk into opportunities for inclusive prosperity and sustainability.

In terms of finance, it is recommended that the upcoming framework adopts just transition principles to strategically leverage EU Cohesion Funds and other financial instruments to promote fair access to resources, capacity-building, and green job creation; particularly in regions with heightened climate risks and/or undergoing economic transition.

To this end, through the **Climate KIC Academy**⁵², Climate KIC contributes to closing the skills gap to accelerate climate progress, given that right now, only one in eight workers have the green skills needed to support the transition to a safe and just future where we live within planetary boundaries.

⁴⁷ IPCC AR6 WGII SummaryForPolicymakers.pdf

⁴⁸ Pathway2Resilience

⁴⁹ Pathway2Resilience

⁵⁰ NBRACER Nature Based Solutions for Atlantic Regional Climate Resilience

⁵¹ The Project - DesirMED

⁵² Climate KIC Academy | Climate KIC





Furthermore, through the ongoing ESPON53 project 'Re-Naturing Territorial Development for Climate Risk Adaptation (ReAdapt), Climate KIC and partners are assessing the governance structures and funding mechanisms that support NbS projects in eight case studies across the EU to evaluate their sustainability and effectiveness, including cohesion funding ⁵⁴.

Climate KIC is also involved in governance innovation work on the project "FAIR FUTURES"⁵⁵ which focuses on ensuring that climate adaptation strengthens equity, inclusivity, and local capacity. It is informed by our work across Europe and globally, such as the Tanzania Innovation Cluster, where community-led innovation addresses systemic vulnerabilities. Through the project we are ensuring that no one is left behind by focusing on small municipalities and marginalised groups through place-based approaches, co-creation, and peer learning. Vulnerable communities are defined broadly, considering social, economic, geographic, and demographic factors (e.g., youth, elderly, migrants, climate-dependent sectors). Our work embeds resilience across health, housing, urban planning, finance, and climate policy by promoting integrated, multi-level governance.

Finally, we support expanding the Just Transition Mechanism to include Just Resilience, advocating for adaptation funding, participatory planning, and institutional capacity-building in vulnerable regions.

For the upcoming framework, we thus advocate for a broad and co-created definition of vulnerable communities to be included; for participatory and experimental approaches such as co-creation and peer learning to be included alongside place-based approaches; and for a holistic approach to just resilience that links the just transition efforts of the EU, cohesion funding, and territorial objectives.

4. Formulate ambitious, measurable targets and provide the enabling conditions to achieve them

To make monitoring, evaluation, and learning (MEL) for adaptation effective across the EU, Climate KIC calls for a binding EU climate resilience goal by 2050 to be developed and enshrined in the legally binding component of the European Climate Resilience and Risk Management Integrated Framework.

This means establishing a unified EU definition of resilience rooted in the European Environment Agency's EUCRA and the Paris Agreement's Goal on Adaptation. Such a definition should be embedded within the EU Climate Law and systematically mainstreamed across all sectoral frameworks and legislation for the 2040 climate targets, including the review of the EU Governance Regulation and updates to the next generation of National Energy and Climate Plans (NECPs) and National Adaptation Plans (NAPs).

This goal must be underpinned by ambitious and measurable targets with indicators to enable regions and Member States alike to speed up implementation, track progress, increase accountability, and encourage

⁵³ ESPON - The European Observation Network for Territorial Development and Cohesion | ESPON

⁵⁴ Climate adaptation using Cohesion Policy. Fostering adaptation, regional resilience and economic sustainability

⁵⁵ Fostering Adaptation and Inclusion for Resilient FUTURE (Fair Understanding, Transformation, Urban Resilience and Equity) | FairFuture | Project | Fact Sheet | HORIZON | CORDIS | European Commission





investments. The targets and indicators should be co-designed in the Member States by means of participatory process that include key sectors, regions, citizens, and local actors to ensure applicability to Europe's varied adaptation realities, climate vulnerabilities, exposure levels, and risk landscapes.

It is crucial that work to define targets and indicators be linked to the Global Goal on Adaptation and the ongoing work under the UAE-Belém work programme on indicators⁵⁶ which develops indicators to measure progress towards climate resilience and adaptation goals under the UAE Framework for Global Climate Resilience^{57,58}.

Within the Horizon Europe-funded "UNDERPIN" project⁵⁹, Climate KIC and partners are **addressing the critical gap** in MEL for climate adaptation across Europe. UNDERPIN will develop and validate outcome-oriented indicators that measure both short-term adaptation results and long-term resilience impacts. It reviews and harmonises existing climate adaptation and disaster risk reduction (DRR) indicators, while integrating novel data sources such as Earth observation, citizen science, and AI. By aligning with EU and global standards (EU Adaptation Strategy, UNFCCC), UNDERPIN fosters a coordinated approach to monitoring resilience and enables comparability across regions.

Lastly, it is crucial that the legislative framework enshrines the following six key enabling conditions: effective multi-level governance, engagement and collaboration; adequate financing and resources; validated and usable knowledge and data; behavioural change; capabilities and skills; and experimentation and learning. These enabling conditions are pre-requisites for effective and successful implementation.

5. Harmonise monitoring, reporting, and verification obligations

Robust, harmonised monitoring, reporting, and verification (MRV) mechanisms are essential to enhance, scale and track climate resilience. The framework should simplify and align MRV obligations across governance levels to ensure that reporting under National Adaptation Plans (NAPs), National Energy and Climate Plans (NECPs), national risk assessments, and local plans is harmonised and streamlined to reduce administrative burdens, improve data consistency, and enable clearer tracking of EU-wide and national resilience progress. Digital tools, evidence-based learning, scenario-based planning and citizen engagement can help in the process of ensuring that local knowledge and solutions, citizen science, observation and action, feed policy from the ground - resulting in truly actionable insights.

Evidence from participating regions within the Pathways2Resilience programme indicates that **conventional monitoring, evaluation, and learning (MEL) frameworks are currently insufficient to address the inherent complexities and uncertainties associated with climate adaptation planning processes.** The programme thus establishes strategic guidance for regions to develop adaptive MEL systems that systematically capture emergent

⁵⁶ Synthesis of Submissions UAE-Belem Work programme Final.pdf

⁵⁷ What's next for the UAE-Belém work programme on indicators for the UAE framework for global climate resilience? - weADAPT

⁵⁸ Global goal on adaptation | UNFCCC

⁵⁹ <u>oUtcome iNDicators to mEasuRe Progress on climate resllieNce | UNDERPIN | Project | Fact Sheet | HORIZON | CORDIS | European Commission</u>





outcomes, enabling continuous organisational learning, improvement, and reflective practice that transcends traditional reporting mechanisms. This approach operationalises evidence-based results collection and analysis in an ongoing manner, facilitating timely strategic programme adjustments and informed decision-making processes, elements which should be considered in the upcoming framework.

In the EU-funded 'Accelerating Systemic Climate Adaptation Across Europe through Integrated Ecosystems of Resilience Solutions' (SystR) project⁶⁰, Climate KIC and partners are supporting six regions in **strengthening their adaptation plans with a specific eye to improving governance, creating financial roadmaps, and integrating resilience solutions.** Climate KIC is helping these regions with trainings and self-assessment tools, which we encourage the upcoming EU framework to make use of.

6. Empower local implementation through capacity building, skill building, and tailored support

To unlock transformative climate resilience, the new EU framework must place local empowerment front and centre. Everyday adaptation ambassadors in Valencia exemplify how local leadership drives visible change when backed by targeted support⁶¹. Climate KIC's Pathways2Resilience programme shows what's possible, guiding over 100 European regions through systemic adaptation with direct funding, hands-on training, and dynamic peer exchanges. Regions and communities aren't just recipients – they become architects of tailored, actionable strategies that reflect local context and ambition, supported by innovation labs and finance toolkits that translate learning into lasting change. This approach recognizes that communities and local authorities drive and enable most adaptation measures, yet they often face resource gaps and complex systems challenges, making focused, ongoing support indispensable for effective implementation.

The framework should embed capacity and skills building as a pillar for action. Climate KIC's work highlights the power of learning-by-doing: building technical expertise in Earth Observation and climate services, as seen in the PROTECT⁶², PCP WISE⁶³, and VALORADA⁶⁴ projects, and convening real end user workshops that feed practical needs directly into solution design. The PCP WISE project, for example, is launching a tender for the co-development of water-related Climate Services based on Earth Observation, with the focus on end-user needs and requirements. Climate KIC also ran a series of workshops with the end users of 5 public buyer organisations to harvest those end user needs and integrate them into the tender documentation.

The upcoming initiative should champion co-creation and creative experimentation as core drivers of transformative resilience – a philosophy proven by Climate KIC's work across Europe. Time and again, evidence from flagship initiatives like Pathways2Resilience, ARCADIA, DesirMED or NBRACER reveals that the most effective

⁶⁰ EU Funding & Tenders Portal

⁶¹ TEveryday adaptation: how local 'climate ambassadors' are driving change in Valencia | Climate KIC

^{62 &}lt;u>Training Curriculum – PROTECT</u>

⁶³ PCP WISE - Water Management Innovations For Climate Resilience

⁶⁴ Capacity Building Programme – VALORADA





adaptation strategies emerge when communities, regions, and stakeholders join forces to imagine, test, and refine solutions together⁶⁵. The Regional Resilience Journey⁶⁶, for example, isn't just a technical roadmap; it's a participatory process where local actors co-design and experiment with nature-based interventions, innovative finance, and adaptive governance structures to unlock context-specific climate resilience.

Through Innovation Practice Groups, Co-Innovation Labs, and collaborative advisory boards, Climate KIC catalyses environments where creative thinking, risk-taking, and rapid learning are encouraged. Notably, community-driven pilots such as constructed wetlands for rural wastewater management in Greece ⁶⁷ or permaculture gardens cultivated by Croatian students ⁶⁸ demonstrate how embedding experimentation in adaptation fosters practical impact and shifts mindsets as well as systems.

It is equally essential to realise that impactful and sustainable adaptation needs to fully embrace and leverage the rich knowledge held by regional and local actors and communities, their deep and nuanced understanding of the challenges they face as well as the experience they have built from multiple efforts to create and apply place-relevant solutions and approaches. We and all topic experts must learn from them as much as we support them with new capacity, and help to bring together the often scattered or disconnected power of this knowledge. As abundantly encountered in projects such as ARCADIA, DesirMED and NBRACER, integrating 'bottom-up' (from place-based wisdom and experiments) and 'top-down' dynamics towards resilience, with the multiple layers of decision, responsibility and agency involved, is complex, but indispensable.

Effective local adaptation also hinges on mapping relevant stakeholders, forming advisory groups and steering committees, and co-creating solutions that balance ownership, influence, and justice. This means moving beyond tick-box engagement and instead setting clear objectives, communicating expectations, and fostering genuine collaboration to avoid stakeholder fatigue and cultivate trust. The upcoming framework should also be formulated with the consideration in mind that stakeholder fatigue is a regular issue in many regions. Engagement should not occur only because co-design and stakeholder engagement is understood to be important or required by a project. Rather objectives and longer-term strategy must be pre-determined. Stakeholders must understand the overarching goal, the specific outcomes and what is expected from them. This avoids disappointment, manages expectations and ensures better contributions.

Lastly, true local empowerment means investing in cross-sector skills and systems innovation. The Climate KIC Academy^{69 70} and Innovation Cluster in Tanzania^{71 72} deliver climate professions and policymakers the skills, confidence, and multi-disciplinary knowledge needed to lead transitions across governance, finance, and education. The Deep Demonstration approach and methodologies⁷³ provide learning environments for multi-level change,

⁶⁵ Resilience in practice: Leading Europe's shift towards systemic climate adaptation | Climate KIC

⁶⁶ Pathway2Resilience

⁶⁷ Initiating Constructed Wetlands for Wastewater Treatment in Paggaio, Greece - Announcements - DesirMED

⁶⁸Croatian students learn about DesirMED and nature based solutions - Announcements - DesirMED

⁶⁹ Bridging the green skills gap with the Climate KIC Academy | Climate KIC

⁷⁰ New Climate KIC Academy Launched to Bridge Green Skills Gap | EIT

⁷¹ Smarter skies: How Tanzanian innovators are using AI for climate action | Climate KIC

⁷² Adaptation Innovation Cluster in Tanzania | Climate KIC

⁷³ Place-based transformations | Climate KIC





equipping regions to experiment, learn, and scale practical solutions aligned with key Commission priorities: integrated governance, innovation as a catalyst, and just resilience.

7. Ensure long-term financing and enable resource mobilisation

Europe faces a significant gap in adaptation finance; public funds alone cannot deliver the pace or scale required for true resilience. Climate KIC welcomes that the call for evidence⁷⁴ document outlines that the initiative will seek to ensure that all investments vulnerable to the impacts of climate change are designed to face climate risks that could materialise in their lifetime ('resilience by design'), as ensuring long-term financing and resource mobilisation are fundamental pillars for building a climate-resilient Europe.

As observed in Climate KIC's work, especially through flagship regional programmes and cascade funding models like Pathways2Resilience^{75,76}, **effective adaptation depends in part on predictable, dedicated funding streams that financially enable regions and communities** to implement resilience strategies.

The upcoming EU Multiannual Financial Framework for the EU's 2028-2034 budget cycle must explicitly prioritize climate resilience ⁷⁷ by embedding a clear EU definition of resilience and prioritizing it across budgeting, performance targets, and investment streams. A clear, operational EU definition of resilience should be integrated into the MFF's performance framework, preventing maladaptive investments and promoting strategic capital deployment across sectors. Dedicated funding for innovation, capacity-building, and adaptation, accessible to all regions and municipalities regardless of size or resource level, is needed to help close implementation gaps and foster lasting transformational change.

There is also an urgent need for supporting public-private collaboration and risk-sharing mechanisms to unlock additional resources and close the adaptation investment gap. Private sector involvement is essential, not only because the cost of inaction is high, but also because there may be a new market for green solutions emerging 78. As such, the upcoming framework must catalyse private investment by leveraging instruments like the Competitiveness Fund and expanding the EU Taxonomy for sustainable finance. By standardizing climate risk disclosure and developing robust adaptation investment criteria, the EU can incentivize private sector players to direct capital into resilient infrastructure, innovative insurance products, and nature-based solutions. Strategic alignment of resilience spending with other priorities like public health, national security, and emergency preparedness will not only unlock additional resources but also maximize co-benefits for communities across the continent. Climate resilience isn't a one-time expense; it's an enduring investment in Europe's social, economic, and ecological future.



⁷⁴ <u>European climate resilience and risk management – integrated framework</u>

⁷⁵ Pathways2Resilience: second open call for European regions to build climate resilience | Climate KIC

⁷⁶ 40 European regions selected to develop climate adaptation plans under EU scheme | Climate KIC

⁷⁷ EU's next long-term budget: Commission's proposal leaves gaps in climate and nature

⁷⁸ From boardrooms to communities: rethinking climate adaptation for real impact | Climate KIC





Inspiration for adaptation funding can also be drawn from the **Climate City Capital Hub** which has been launched by NetZeroCities with the European Commission to help cities unlock new funding sources on their path to climate neutrality⁷⁹. The Capital Hub is an innovative initiative that aims to facilitate public and private finance for sustainable urban development to drive Europe's transition to climate neutrality. It empowers cities to achieve their climate targets and drive impactful projects through both technical assistance and capital facilitation⁸⁰.

The new framework should also bridge the climate insurance protection gap 81. Currently, only about 25% of climate-related losses in Europe are insured 22, leaving communities highly exposed to financial shocks from extreme weather events. Climate KIC supports innovative solutions like the Oasis HUB platform 33, which enhances transparency and accessibility of climate risk data to insurers, governments, and investors alike, thus strengthening risk assessment and improving insurance coverage. Closing this protection gap through public-private collaboration and risk-sharing mechanisms is vital to safeguard economies and communities, making insurance a cornerstone of Europe's resilience finance architecture. It is a strategic enabler of investment 44, since what is not insurable often becomes un-investable. Insurers will need harmonised reporting, monitoring, verification requirements and standardisation of definitions across the EU in order to anticipate, pool and manage the intensifying risks effectively. Embedding insurability in this way would not only safeguard economic stability but also unlock new flows of private capital to complement public funding. Possible tools 55 encompass:

- Supporting innovative public–private partnerships, risk-pooling, and reinsurance mechanisms to spread shocks across sectors and borders;
- Explore EU-level catastrophe bonds and guarantee schemes to backstop systemic risks beyond the capacity of national markets:
- Harmonising data, modelling standards, and definitions across Member States to improve transparency and reduce costs for insurers and investors alike;
- Incentivising private investment in resilience through insurance-linked products and by rewarding proactive risk reduction.
- Learning from agricultural risk management⁸⁶ develop an EU Agriculture Insurance Technical Assistance Platform (AITAP) to harmonise standards, support Member States, and improve uptake;

The project BLOSSOM⁸⁷ connects cities and regions with private financial institutions including banks, insurers, and venture capitalists to transform promising adaptation and mitigation projects into financially viable, bankable initiatives ready for scaling across Europe. By bridging the gap between climate ambitions and investment realities,



^{79 &}lt;u>Unlocking funding for climate-neutral cities | Climate KIC</u>

⁸⁰ Unlocking funding for climate-neutral cities | Climate KIC

⁸¹ The climate insurance protection gap

⁸² Europe Faces Rising Climate Risks: Only 25% of Losses Insured Amid Escalating Extreme Weather - ESG News

⁸³ Climate-KIC project OASIS one of four new financial instruments endorsed by The Global Innovation Lab for Climate Finance | Climate KIC

⁸⁴ https://www.fi-compass.eu/sites/default/files/publications/EAFRD_AGRI_Insurance_Risk_MA.pdf

⁸⁵ https://www.howdengroup.com/uk-en/insurability-climate-report-2025

⁸⁶ https://www.fi-compass.eu/sites/default/files/publications/EAFRD_AGRI_Insurance_Risk_MA.pdf

⁸⁷ About BLOSSOM - Project Blossom





BLOSSOM exemplifies how the framework should encourage partnerships and innovative financing instruments that unlock new capital flows. Together, these approaches ensure that **climate resilience funding is strategic, inclusive, and capable of sustaining the deep transformations Europe needs to thrive** amid accelerating climate risks.

In section 3 we have made the case for ensuring that just resilience is at the core of the new framework, in this regard it is also crucial to **embed equitable access to finance** as the allocation of funds for adaptation poses a significant challenge⁸⁸. Adaptation continues to lag far behind mitigation in terms of funding, visibility, and mainstream uptake⁸⁹. The space is underfunded, receiving less than 10% of global climate investments. This is a misalignment with the rising and uneven burden of climate impacts already experienced across the world. In too many cases, smaller and less-resourced regions struggle to access adaptation funds due to capacity gaps or high co-financing requirements⁹⁰. The framework must address this by clearly operationalizing the 'resilience by design' requirement, ensuring all regions can benefit from resilience investment - especially those most vulnerable to climate risks.

8. Co-design nature-based solutions to generate co-benefits

The upcoming framework should embrace co-designing NbS as a cornerstone for delivering broad, systemic climate adaptation that generates wide-ranging co-benefits. NbS, as defined by the European Commission, are solutions inspired and supported by nature that are cost-effective, deliver environmental, social, and economic benefits simultaneously, and build resilience by incorporating diverse natural features and processes tailored to local contexts⁹¹. Climate KIC's work in projects like ARCADIA, DesirMED, and NBRACER demonstrates the transformative power of embedding NbS in regional climate plans through collaborative innovation and inclusive governance. These initiatives stress the importance of understanding local capabilities and priorities, ensuring interventions are well-contextualized and that ecosystems services are fairly distributed, maximizing social acceptance.

Understanding the local context is fundamental to successful NbS adoption and scaling. We have developed tools like self-assessment scorecards and stakeholder mapping approaches used across European regions to systematically gauge existing resources, capacities, and influence networks ⁹². These tools help avoid repetition of ineffective past strategies and foster genuine participation from vulnerable groups and key actors. Such locally grounded, co-created portfolios of NbS ensure that interventions address multiple societal goals, including biodiversity protection, flood risk reduction, and social cohesion. For example, in Emilia-Romagna and Lower Austria, regional partners use these methodologies to integrate sustainable upland ecosystem management and flood risk strategies into broader resilience planning, exemplifying systemic, nature-positive adaptation pathways⁹³.

⁸⁸ Optimizing EU Funding Programmes for Equitable Urban Climate Adaptation: A View From Below | Journal of City Climate Policy and Economy

⁸⁹ From boardrooms to communities: rethinking climate adaptation for real impact | Climate KIC

⁹⁰ From boardrooms to communities: rethinking climate adaptation for real impact | Climate KIC

⁹¹ Nature-based solutions - European Commission

⁹² Nature-based solutions for climate adaptation | Climate KIC

^{93 &}lt;u>Resilience in practice: Leading Europe's shift towards systemic climate adaptation | Climate KIC</u>





To maximise the impact of NbS, effective communication and phased stakeholder engagement are essential.

Climate KIC emphasizes tailored messaging and the empowering role of trusted intermediaries and local champions in shifting perceptions around NbS and resilience. Projects show that building long-term engagement strategies with clear objectives, beyond project-driven consultations, fosters ownership, reduces stakeholder fatigue, and delivers equitable, sustainable outcomes. By mainstreaming NbS within governance, finance, and policy frameworks, the upcoming initiative can ensure NbS support healthy ecosystems, create green jobs, enhance community well-being, and reinforce social justice, making them integral to Europe's resilient future⁹⁴.

Last but not least, by emphasising the role of NbS and investing in nature-positive approaches, Europe will better manage risks and enable the window of 'insurability' (enabling insurers to continue providing coverage at affordable levels) to remain open, thus preserving viable, competitive and just economy. The framework should therefore explicitly recognise NbS as risk management assets that enhance insurability. This means:

- Integrating NbS into insurance and risk-transfer mechanisms, so that their protective value (e.g. flood peak reduction, cooling, erosion control) is recognised in pricing and coverage terms;
- Encouraging insurers, regulators, and public authorities to co-develop methodologies for quantifying NbS benefits in risk models;
- Supporting blended finance models where insurance savings from NbS (e.g. reduced flood claims) are reinvested into scaling nature-positive solutions.
- Promote NbS in agriculture and rural development as part of CAP-linked risk management, ensuring that insurance subsidies and support incentivise ecosystem-based adaptation.

9. Build on what already exists

The EU's landscape of climate adaptation tools, frameworks, and methodologies is vast and complex, often overwhelming regions and local actors striving to take effective action. The new EU resilience framework must prioritize building on what already exists, providing clear guidance and signposting regions to tested tools and support networks tailored to their unique needs and contexts. This approach should offer explicit pathways based on the stage of intervention, whether risk assessment, pathway development, or upscaling, as well as enablers like data availability, financing options, and local climate hazards. Harnessing valuable evaluations from initiatives such as MIP4Adapt⁹⁵ and wider communities of practice can help streamline approaches, reduce duplication, and collate evidence of best practices to empower regions rather than overwhelm them.

Recognizing the diversity of climate risks, governance systems, and capacities across Europe, the upcoming initiative can enhance synergy and coherence by encouraging the flexible use of existing frameworks such as the European Climate Risk Assessment⁹⁶ and the Regional Resilience Journey⁹⁷. These robust, tested frameworks



⁹⁴ Nature-based solutions for climate adaptation | Climate KIC

⁹⁵ About MIP4Adapt | EU Mission on Adaptation to Climate Change Portal

⁹⁶ European Climate Risk Assessment | European Environment Agency's home page

⁹⁷ Pathway2Resilience





are repositories of knowledge, lessons learned, and practical tools that have already proven effective in diverse settings. By enabling regions and local stakeholders to select and adapt the most suitable approaches, the framework can stimulate innovation and accelerate implementation while avoiding the inefficiencies and fragmentation that come with reinventing the wheel. This strategic leveraging of proven tools ensures that climate resilience efforts are grounded in real experience, are cost-effective, and drive meaningful progress toward the EU's ambitious resilience targets. Ultimately, building on existing frameworks is about respecting and amplifying what works at scale, bridging gaps between theory and practice, and encouraging collaboration across levels of governance. A clear focus on coordination and integration will help local actors confidently navigate complexity and align their efforts with national and EU-wide strategies.

10. Leverage the power of the EU Missions to deliver resilience at scale

The EU Mission on Adaptation to Climate Change ⁹⁸ plays a pivotal role in delivering climate resilience at scale, supporting over 150 regions and communities across Europe in co-creating locally led pathways through flagship projects like Pathways2Resilience⁹⁹, NBRACER¹⁰⁰, DESIRMED¹⁰¹, ARCADIA¹⁰², BLOSSOM¹⁰³, SystR¹⁰⁴, FAIR FUTURES¹⁰⁵, UNDERPIN¹⁰⁶ and others. These initiatives have driven transformative adaptation on the ground, revealing critical opportunities and persistent challenges in scaling climate-resilient solutions.

However, translating mission knowledge into sustainable, scalable impact remains a key hurdle. To unlock the full potential of the adaptation mission, the European Commission and the European Climate, Infrastructure and Environment Executive Agency (CINEA)¹⁰⁷ could assume a more proactive role in project evaluation, emphasizing real-world impact, commercialization, and upscaling throughout the project life cycle. Embedding milestone-linked funding and fostering stronger synergies with startup and scaleup initiatives can accelerate innovation diffusion and establish adaptation as a source of economic prosperity.

Drawing on lessons from Climate KIC-supported Innovation Action projects, mission-inspired governance must remain rooted in local and regional realities while fostering systemic progress at European scale. Tools like the ARCADIA self-assessment scorecard and the NBRACER regional journey boards enable regions to map capacities and ongoing activities precisely, helping avoid duplication and aligning efforts with concrete priorities. This

⁹⁸ EU Mission on Adaptation to Climate Change Portal

⁹⁹ Pathway2Resilience

¹⁰⁰ NBRACER Nature Based Solutions for Atlantic Regional Climate Resilience

¹⁰¹ DesirMED

¹⁰² <u>Arcadia adaptaton</u>

¹⁰³ Home - Project Blossom

¹⁰⁴ EU Funding & Tenders Portal

¹⁰⁵ Fostering Adaptation and Inclusion for Resilient FUTURE (Fair Understanding, Transformation, Urban Resilience and Equity) | FairFuture | Project | Fact Sheet | HORIZON | CORDIS | European Commission

¹⁰⁶ oUtcome iNDicators to mEasuRe Progress on climate resilieNce | UNDERPIN | Project | Fact Sheet | HORIZON | CORDIS | European Commission

¹⁰⁷ European Climate, Infrastructure and Environment Executive Agency - European Commission





approach not only reduces fatigue from repeated planning cycles but enhances stakeholder engagement by clarifying knowledge gaps and inclusivity needs.

Moving forward, strengthening the connection between mission projects and broader EU instruments, such as the Regional Resilience Journey¹⁰⁸ and MIP4Adapt community of practice¹⁰⁹, is critical to ensure knowledge retention and continuity. The framework must facilitate coordinated action among local authorities, regional governments, and DG REGIO to embed adaptation investment plans robustly into the forthcoming Multiannual Financial Framework (MFF) and related funding streams.

Looking beyond 2030, the legacy of the Mission Adaptation should not be lost. While the mission as a formal program may conclude, the knowledge, partnerships, and proven approaches should be seamlessly integrated into wider EU resilience efforts and policy frameworks. Maintaining and evolving communities of practice, fostering multi-level governance, and scaling successful interventions are essential to sustaining momentum. Strategic linkage of mission outputs with other EU funds must be prioritized to avoid fragmentation and ensure efficient resource use. Clear governance arrangements and targeted support will empower local and regional actors to harness the collective achievements of the mission, accelerating Europe's just and systemic transition to climate resilience. The Mission on Adaptation may end in 2030, but Europe's mission to become climate resilient will stretch far beyond 2030 to secure a liveable, desirable and prosperous future on a competitive and resilient continent.

About Climate KIC

Climate KIC, Europe's leading climate innovation agency and community, one of the first EIT Knowledge Innovation Communities, has over 15 years of expertise in driving systemic change across 60 countries globally. Our approach goes beyond traditional solutions, addressing climate challenges holistically with a focus on long-term transformation.

We support climate, environmental, social and economic transitions through **systemic, place-based innovation.** We enable transformation of 100+ cities, 150+ regions and multiple countries in Europe and beyond, leading ground-breaking work in radical collaboration to lift the speed, scale and coordination of climate and environmental action and be able to meet the urgency and pervasiveness of the poly-crises we face. Our solutions intertwine technology, governance, finance, and social change.

Through our 'systems innovation as a service' model, exemplified by our unique **Deep Demonstrations**¹¹⁰ methodology we work with national governments and regions. Our methodology supports decision makers and innovators to plan, map, analyse, engage, design, test and invest in a portfolio of solutions in cities, bioregions and value chains. Deeply rooted in the communities they serve and learn from, we are able to demonstrate how the interrelated actions of systemic change can benefit all.

¹⁰⁸ Pathway2Resilience

¹⁰⁹ About MIP4Adapt | EU Mission on Adaptation to Climate Change Portal

¹¹⁰ Place-based transformations | Climate KIC





We coordinate the NetZeroCities platform¹¹¹, which supports the implementation of the EU Mission for **Climate-Neutral and Smart Cities**¹¹², partnering with 112 cities to demonstrate how systemic transformation can be achieved by 2030. We are actively involved in the **Climate Adaptation**¹¹³ **and Healthy Soils**¹¹⁴ **Missions**, all deeply relevant to the resilience work.

Climate KIC's systemic approach to regional transformation focuses on resilience, adaptation, and sustainable land use. This work area spans multiple scales, from large-scale landscape initiatives, across food-systems¹¹⁵, forestry to localised community engagement efforts, addressing critical climate challenges across different levels. It harnesses nature-based solutions - cost-effective solutions that simultaneously provide environmental, social, and economic benefits and help build resilience to address climate change, urbanisation, and biodiversity loss.

Transforming energy-intensive industries is crucial for achieving climate neutrality and resource efficiency. The shift from a linear to a circular economy necessitates reconfiguring supply and value chains, maintaining product value through extended lifecycles rather than obsolescence, disposal and waste. This transformation demands redesigning manufacturing, supply, and economic structures to foster sustainability. Climate KIC plays a key role in this transition, identifying systemic levers for change and enabling industry-wide collaboration.

Since 2017, Climate KIC has been advancing space-based Earth Observation (EO) and Climate Services in partnership with the European Union Copernicus Program to accelerate climate action and resilience. Addressing systemic challenges across cities, regions, and value chains requires integrating Earth Observation tools that provide actionable insights into climate risks, biodiversity loss, and socio-political changes.

Through its venture support programs, impact-driven investment, and innovation ecosystems ¹¹⁶, Climate KIC has helped scale over 6,000 startups and supported the development of over 10,000 climate solutions. Working alongside partners, Climate KIC currently has active venture and solutions development initiatives running across 81 countries. While supporting startups remains crucial, individual solutions alone do not drive deep structural change. Pursuing our mission to catalyse systemic change, Climate KIC works to integrate entrepreneurial ventures into larger systems, accelerating climate resilience and sustainability. This approach focuses on demand-driven innovation, ensuring climate solutions are effectively adopted across industries and communities.

Over the years, we have placed more and more focus on **mobilising finance**, new business models, institutional change, and behavioural change. We stimulate action and build skills to accelerate learning and identify where innovation can best transform systems and bridge silos.

Climate KIC has been pioneering **new investment models that mobilise capital for systemic change**. We have strategically expanded our investment portfolio beyond traditional grant-based funding to include venture capital, blended finance, and catalytic investments, ensuring that climate-positive solutions can scale effectively.

¹¹¹ Home - NetZeroCities

¹¹² Climate-neutral and smart cities - European Commission

¹¹³ Adaptation to climate change - European Commission

¹¹⁴ EU Mission: A Soil Deal for Europe

¹¹⁵ <u>Deep Demonstration Ireland brochure</u>

¹¹⁶ Climate entrepreneurship | Climate KIC





Our approach to **learning and capacity-building**¹¹⁷ evolved to recognise that true climate transformation requires more than skills: it calls for a shift in mindsets and ways of being. What began as multiple, standalone education programs and trainings has matured into integrated, **multilevel learning ecosystems** where a broader effort towards capacity building and leadership development is integrated across our innovation efforts in governance, business, entrepreneurship and community systems.

Our diverse **community**¹¹⁸ consists of a wide variety of stakeholders: businesses large and small, including startups and farmers, research organisations and academia, civil society, citizens.

¹¹⁷ About the Academy | Climate KIC

¹¹⁸ About our community | Climate KIC