maia

Policy Brief

MAIA Policy Implications and Recommendations: an European Level Approach

Executive Summary

Purpose

This brief condenses key findings from MAIA's Policy Roundtables, Policy-Science Dialogues, Assemblies and Workshops, which brought together policymakers, scientists, practitioners and a wide variety of stakeholders to identify the priority levers for accelerating climate action and resilience in Europe.

The presented findings focus on four priority themes, widely discussed during those events: Knowledge sharing and accessibility, collaboration and multi-level governance, financing and resource mobilization, and integrated planning and evaluation. These themes were identified as central levers to strengthen resilience, support inclusive climate action, and foster evidence-based decision-making.

Four Priority Themes

1 Knowledge Sharing and Accessibility

Challenge: *Climate data is often fragmented, inconsistent, and difficult to access. This hinders accurate risk assessments, delays the implementation of climate measures, and creates space for misinformation to spread.*

Recommendations:

- Expand **EU open data infrastructures** (MAIA Climate Connectivity Hub, Climate-ADAPT) to ensure harmonised, interoperable access to climate knowledge;
- Develop **AI-assisted knowledge extraction and synthesis** tools to boost knowledge curator's productivity;
- Scale **cross-border observatories** (e.g., Pyrenean Climate Change Observatory – OPCC) for shared data management and harmonised adaptation planning;
- Integrate **citizen science** into EU monitoring systems, with clear validation protocols;
- Fund **capacity-building** so policymakers can turn complex datasets into actionable insights.

2 Collaboration and Multi-Level Governance

Challenge: *Siloed governance, bureaucratic delays, and uneven capacity hinder coordinated action across levels.*

Recommendations:

- Institutionalise **EU platforms for vertical and horizontal cooperation** between cities, regions, Member States, and EU institutions;
- Invest in **capacity building** for cross-border and cross-sectoral collaboration.

3 Financing and Resource Mobilisation

Challenge: *Public funds alone cannot close the climate finance gap; complex eligibility criteria and limited technical capacity delay project implementation.*

Recommendations:

- Simplify **EU funding access** and harmonise eligibility rules;
- Expand **blended finance, climate bonds, and resilience funds** to attract private investment;
- Establish **technical assistance tools and services** to help local actors prepare bankable climate projects;
- Incentivise **public-private partnerships** for co-financing nature-based and community-led solutions.

4 Integrated Planning and Evaluation

Challenge: *Climate action remains fragmented across sectors; monitoring methodology is weak and inconsistent.*

Recommendations:

- Promote **common EU planning tools** aligning local, regional, and national climate frameworks with the European Green Deal;
- Strengthen the **monitoring and evaluation framework and operational structures** linked to SDGs and the EU Climate Law;
- Integrate **monitoring mechanisms** into all EU-funded climate projects;
- Facilitate **continuous policy-science dialogues** to align emerging evidence of limits and efficiency of adaptations with policy planning.

Building a climate-resilient Europe requires:

- **Accessible and interoperable climate data**
- **Institutionalised multi-level governance**
- **Innovative, blended financing mechanisms**
- **Integrated, evidence-based planning**

By embedding these principles into EU climate governance, the European Union can empower regions and cities to deliver effective, equitable, and scalable climate actions—ensuring Europe is prepared for the escalating challenges of climate change.

Introduction

*This Policy Brief synthesises the knowledge, challenges, and good practices identified through **MAIA Policy Roundtables, Policy-Science Dialogues, Assemblies and Workshops**, with a focus on European-level climate action. These multi-stakeholder events engaged policymakers, scientists, practitioners, and civil society to address the structural enablers of climate action and resilience.*

*Four **priority themes** consistently emerged as the key levers to strengthen climate action and resilience, ensure inclusive climate action, and foster evidence-based decision-making across the EU:*

- **Knowledge sharing and accessibility**
- **Collaboration and multi-level governance**
- **Financing and resource mobilisation**
- **Integrated planning and evaluation**

1 Knowledge Sharing and Accessibility

Key Insight: *Fragmented climate knowledge, uneven data quality, and limited access to actionable information undermine risk assessment and climate planning.*

Good Practices:

- **Development of innovative digital tools such as the MAIA Connectivity Hub** to improve access to dispersed EU climate knowledge and help practitioners quickly find relevant solutions;
- Boosting the productivity of knowledge curators and operators of knowledge platforms with **innovative AI-enabled knowledge aggregation and extraction tools such as MAIA SummQA**;
- **Cross-border knowledge exchange platforms, such as the Pyrenean Climate Change Observatory (OPCC),** which enable shared data management and harmonised adaptation planning across seven territories;
- Development of **initiatives promoting climate literacy and community engagement**.

Challenges Identified:

- Dispersed and inconsistent datasets across Member States and regions;
- Limited accessibility to local-scale climate, land-use, and socio-economic data;
- Gaps in mechanisms for integrating citizen science into official EU climate planning;
- Slow and inefficient translation of technical data and scientific findings into policy-relevant insights.

Policy Directions:

- **EU-level open data infrastructure:** Expand and integrate initiatives such as the MAIA Climate Connectivity Hub, Climate-ADAPT, and the European Climate Data Explorer to ensure interoperable, user-friendly access to harmonised climate information.
- **European knowledge processing tools:** prioritise the development and uptake of European and open-source GenAI models for knowledge production. This will boost expert productivity while safeguarding digital sovereignty and reducing reliance on non-European systems that may embed external political or corporate biases;
- **Cross-border observatories:** Scale models like the Pyrenean Climate Change Observatory (OPCC), which coordinates adaptation across seven territories through shared datasets and participatory processes involving a wide variety of stakeholders;
- **Citizen science integration:** Develop EU protocols for validating and incorporating community-generated data into climate monitoring systems, ensuring both credibility and inclusivity;

- **Capacity-building for data use:** Fund EU-wide training programs for policymakers and practitioners to interpret complex datasets and apply them in decision-making;
- **Digital literacy and raise awareness:** Promote education and lifelong learning that enable citizens of all ages to critically assess information, recognise disinformation, and understand key sustainability principles such as renewable energy, efficiency, and the circular economy. Strengthening these competences will build resilience against manipulation, foster responsible digital behaviour, and support Europe's transition to a climate-neutral society.

2 Collaboration and Multi-Level Governance

Key Insight: *Effective climate action requires coordination between the European Commission, Member States, regions, municipalities, civil society, and the private sector.*

Good Practices:

- **OPCC's transboundary governance:** Ten years of joint strategy building across borders, creating harmonised adaptation priorities while respecting local contexts;
- **Climate City Contracts** under the EU Mission on Climate-Neutral and Smart Cities, fostering co-responsibility between cities, ministries, and EU institutions;
- **EU Regions Week & peer-to-peer learning platforms** to facilitate structured exchanges on on climate action and resilience challenges like energy transition, sustainable food systems, etc.

Challenges Identified:

- Administrative silos and bureaucratic delays in joint actions;
- Lack of permanent, institutionalised cross-sector coordination mechanisms;
- Uneven capacity across regions to engage in multi-level processes.

Policy Directions:

- **Institutionalised EU platforms:** Establish these platforms for vertical and horizontal cooperation, linking cities, regions, and Member States with the EU's climate governance structures;
- **Fund local and regional participation in EU networks:** Fund this participation to amplify local and regional experiences in shaping EU policy;
- **Strengthen subnational capacity:** Equip regional and local authorities with the skills and tools needed for effective climate action, for instance, through technical assistance and joint training initiatives targeting cross-border and cross-sector collaboration.

3 Financing and Resource Mobilisation

Key Insight: *The climate finance gap persists, with current EU and national funding insufficient to meet needs.*

Good Practices:

- **Regional carbon markets and climate funds** to provide early-stage financing for adaptation projects;
- **Community-owned renewable energy models** to reduce energy poverty and reinvest profits locally;
- **Blended finance** approaches integrating public funds with private capital to scale resilience investments.

Challenges Identified:

- Complex eligibility criteria for EU funding streams;
- Limited technical capacity to design bankable projects;
- Slow approval processes delaying implementation.

Policy Directions:

- **Simplify EU funding access procedures:** Promote the streamlining of application processes and harmonise eligibility requirements across funding instruments;
- **Expand blended finance mechanisms, climate bonds, and resilience funds:** This expansion can result in the attraction of private investment while maintaining public oversight;
- **Create EU-supported technical assistance hubs:** Support local authorities in preparing investment-ready climate projects and accessing funding opportunities;
- **Incentivise private sector partnerships:** Promote co-financing of projects aligned with EU climate priorities, including nature-based solutions (NBS) and locally led initiatives.

4 Integrated Planning and Evaluation

Key Insight: *Climate strategies must transcend sectoral silos to align environmental, social, and economic goals.*

Good Practices:

- **Multi-disciplinary planning teams** combining climate science, agriculture, energy, public health, and community perspectives;
- **Data-driven tools** (e.g., GIS mapping, scenario analysis) supporting integrated decision-making;
- **Adaptive management frameworks** allowing regular plan updates based on new data and changing conditions.

Challenges Identified:

- Inconsistent integration of climate change into sectoral policies;
- Weak monitoring systems and fragmented indicators;
- Limited coordination between NDCs, National Adaptation Plans, and regional/local plans.

Policy Directions:

- **Promote common EU planning tools:** Align national, regional, and local frameworks with EU climate targets and the European Green Deal;
- **Strengthen monitoring and evaluation systems:** Link progress tracking to the Sustainable Development Goals (SDGs) and the EU Climate Law;
- **Fund the integration of monitoring systems:** Embed evaluation mechanisms into EU-funded climate actions to track outcomes and ensure accountability;
- **Support policy-science dialogues:** Maintain alignment between emerging evidence and strategic climate planning.

Conclusion

Accelerating climate resilience in Europe demands a coordinated, multi-level, and cross-sectoral approach. The MAIA project's work demonstrates that **open and interoperable data systems, institutionalised governance platforms, innovative finance mechanisms,** and **integrated planning frameworks** are essential to delivering climate actions that are effective, equitable, and scalable.

By embedding these principles in EU climate governance, the European Union can empower national, regional and local actors to implement impactful climate measures, ensuring that Europe is equipped to face escalating climate risks while promoting social cohesion, environmental integrity, and economic sustainability.

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