



Planning for Resilience: Insights into climate risks and adaptation policy instruments in Europe

ClimAct2Adapt conference 'Acting together for climate resilience'

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Angelika Tamásová, Climate Risk and Resilience Unit



European Environment Agency - Eionet

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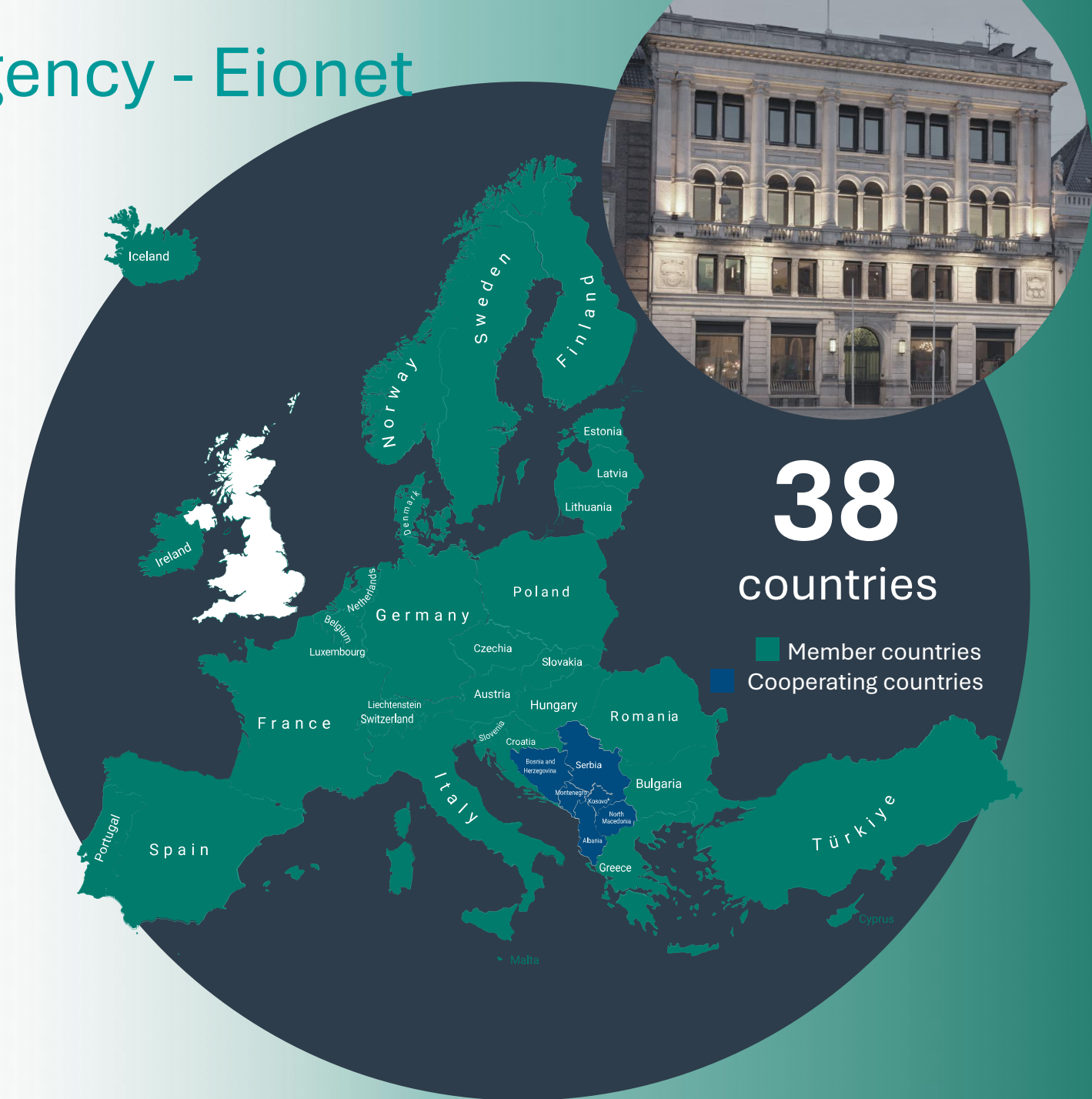


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Europe's Environment 2025

Key takeaways

- **Europe's environment 2025** provides the most comprehensive picture of the environment, climate and sustainability available in Europe.
- The report highlights **the European Union is a world leader in climate efforts**, reducing its greenhouse gas emissions and fossil fuel use while doubling the share of renewables since 2005.
- But the overall **state of Europe's environment is not good**, especially its nature which continues to face degradation, overexploitation and biodiversity loss.
- The greatest challenges exist around reducing biodiversity loss and ecosystem degradation, **as well as adapting to accelerating climate change**.
- Looking ahead, Europe's sustainability challenges remain complex and systemic. **Despite successes, the outlook for most environmental trends is concerning** and intertwined with Europe's economic prospects, security and quality of life.



Europe's Environment

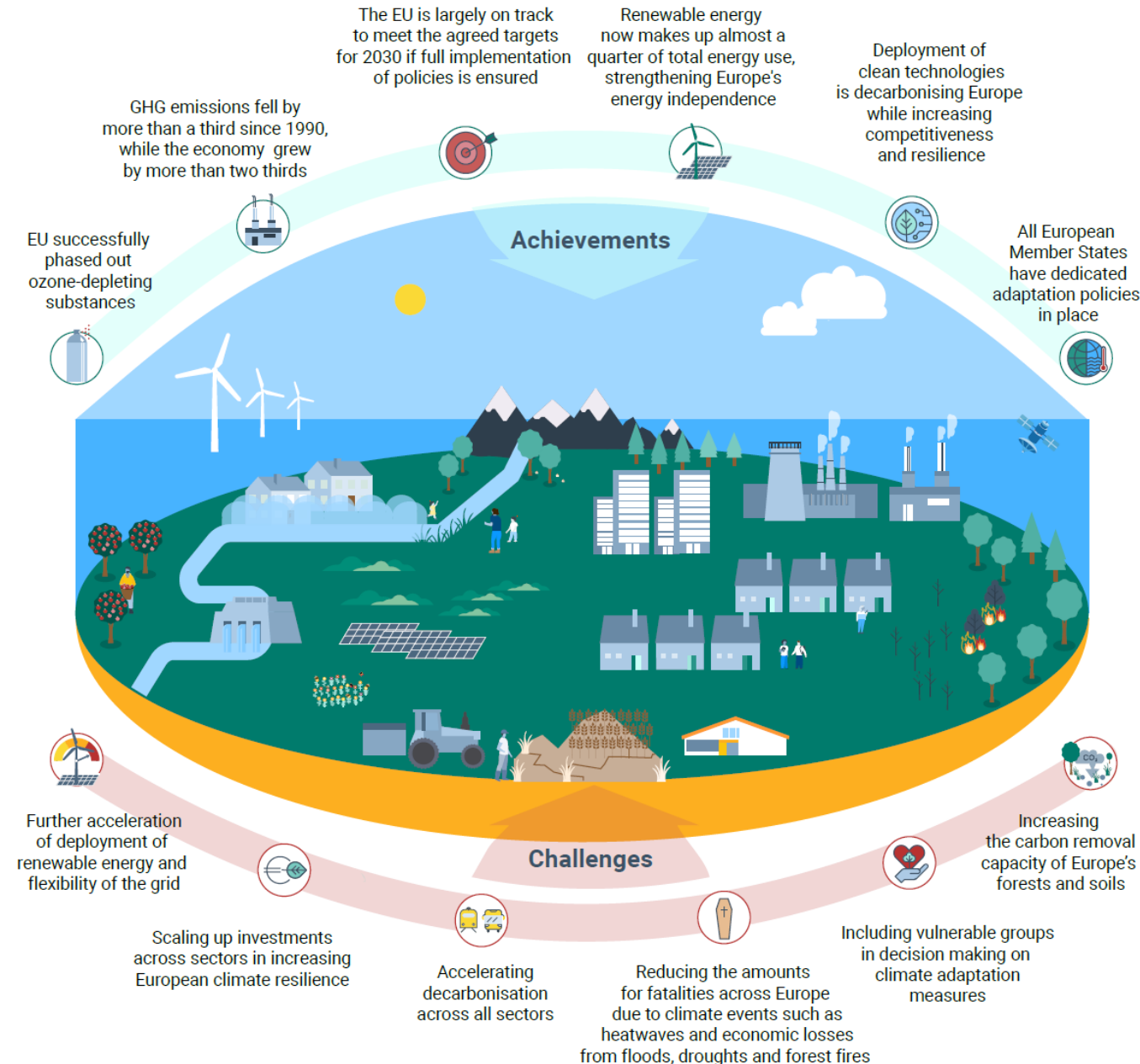
Climate change

- **Europe is the fastest-warming continent on the planet;** our climate is changing at an alarming rate, threatening security, public health, ecosystems, infrastructure and the economy.
- Downpours are increasing in severity, with several regions subject to **catastrophic floods** in recent years.
- Southern Europe is plagued by **water scarcity, drought and wildfires**.
- **Extreme heat**, once rare, is becoming more frequent, with deadly consequences.
- Over 240,000 **fatalities** have been caused by weather- and climate-related extreme events between 1980 and 2023 in the EU-27.

[Europe's environment and climate: knowledge for resilience, prosperity and sustainability | Europe's environment 2025](#)

Figure 3.4

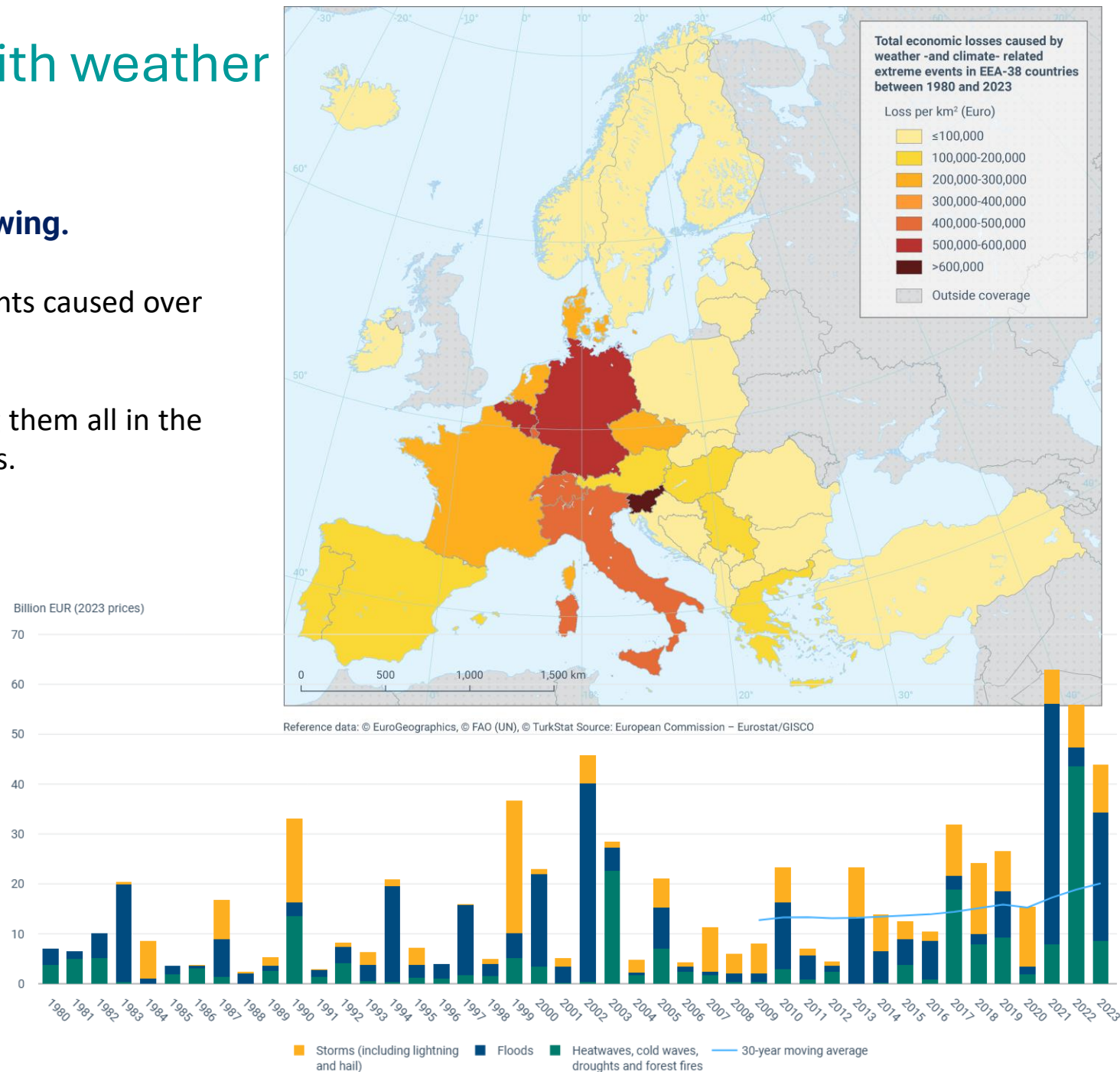
Benefits of a stable climate/risks of climate change



Source: EEA, 2025.

Economic losses associated with weather - and climate-related extremes

- **As climate change accelerates the costs are growing.**
- From 1980 to 2023, weather- and climate-related events caused over EUR 738 billion in losses in the EU.
- Over EUR 162 billion are from the last 3 years, placing them all in the top of 5 years with the highest annual economic losses.
- The insurance protection gap across Europe is substantial, with most countries reporting over 50% of losses as uninsured.
- Member States urgently need to address the economic damage and losses caused by climate-related events, as these actions are vital for guiding public policy and driving investment in adaptation strategies.



European Climate Risk Assessment

A comprehensive assessment of current and future climate risks in Europe

Risks and preparedness

- EUCRA identifies 36 major risks threatening Europe's energy and food security, ecosystems, infrastructure, water resources, financial stability and public health. **Several climate risks have already reached critical levels and could become catastrophic without urgent action.**
- **Almost all major climate risks would reach critical or even catastrophic levels during this century.**
- There is an urgent need to mainstream and upscale climate adaptation across sectors and governance levels to address the growing risks from **extreme heat, drought, wildfires and flooding.**
- Action is needed to ensure that choices taken today are fit for the future climate. We must prevent locking ourselves into **maladaptive pathways.**



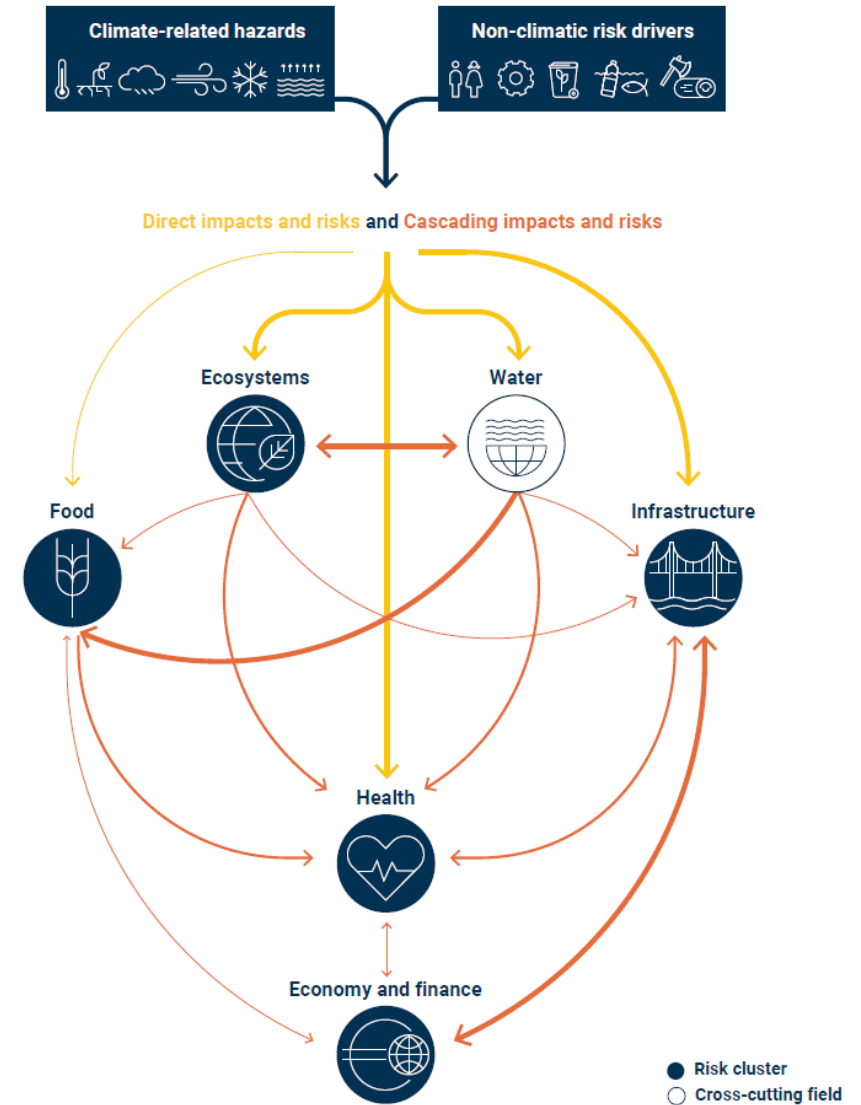
European climate risk assessment
Executive summary

European Climate Risk Assessment

Policy and actions

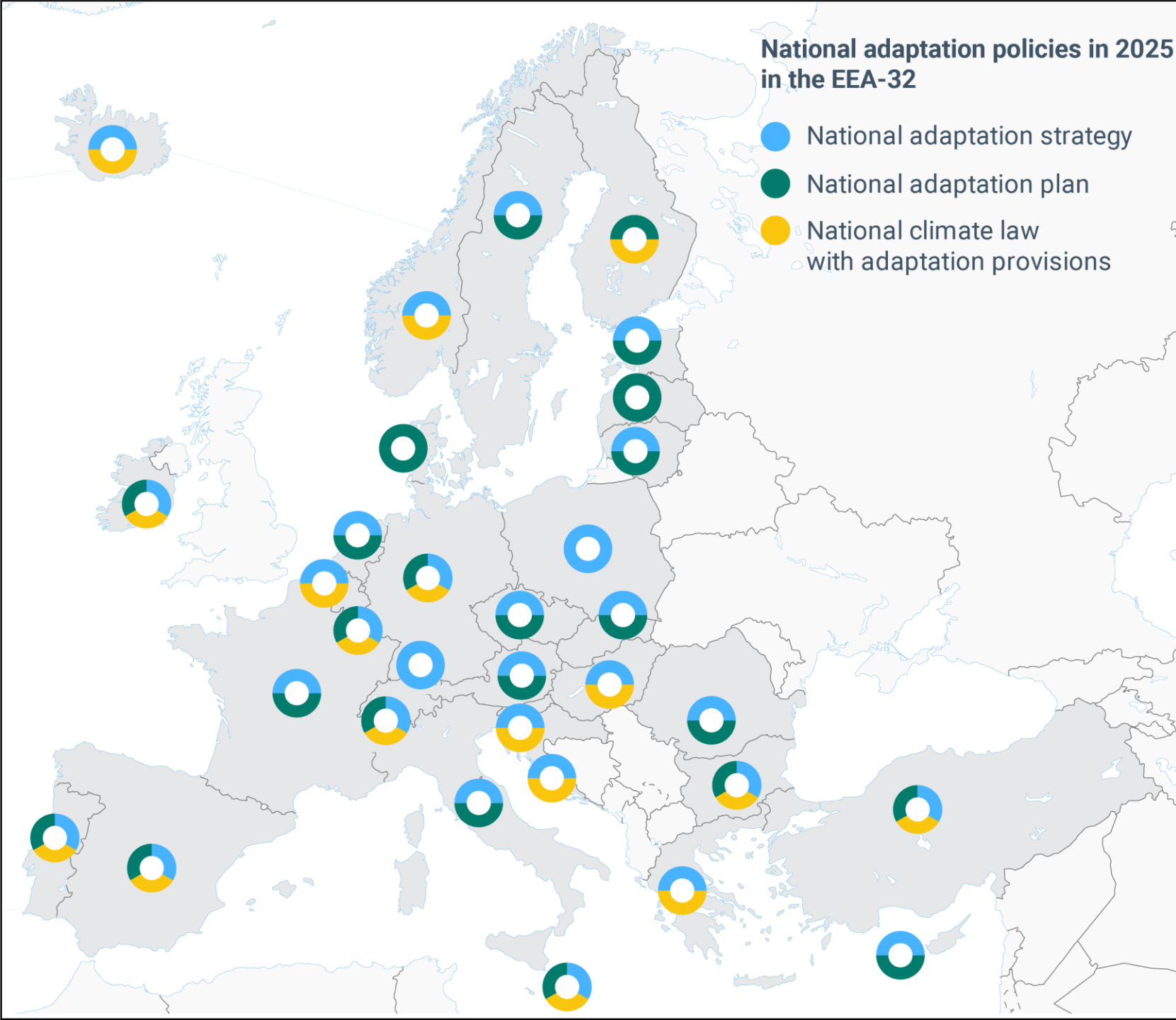
- **Efforts to manage climate risks through policy, governance and financing are still lagging** yet accelerating in relation to the increasing severity of risks. The policy readiness varies depending on the sector/system and type of risk.
- The EU and its Member States have made considerable progress in understanding the climate risks they are facing. **National climate risk assessments are increasingly used to inform adaptation policy development.**
- **Most of the major climate risks are co-owned by the EU and its Member States.** Therefore, coordinated and urgent action is required at all governance levels.
- **Stronger EU policy action is urgently needed to manage several major climate risks.** The EU can also play an important role in improving the analysis of major climate risks through legislation, monitoring, co-funding and technical support.

Figure 3.6 Links between risk drivers and clusters of climate risks



Note: The figure, originating from the European Climate Risk Assessment, illustrates the interconnections and risk transmission pathways from key climate-related hazards (e.g. heatwaves, prolonged droughts and floods) and selected non-climatic risk drivers (e.g. ecosystem fragmentation, pollution, unsustainable agricultural practices and water management, land use and settlement patterns and social inequalities) via the main climate impacts for five clusters of interrelated risks assessed in EUCRA and the cross-cutting field 'Water'.

Source: EEA⁽²⁴⁾.



From adaptation planning to action

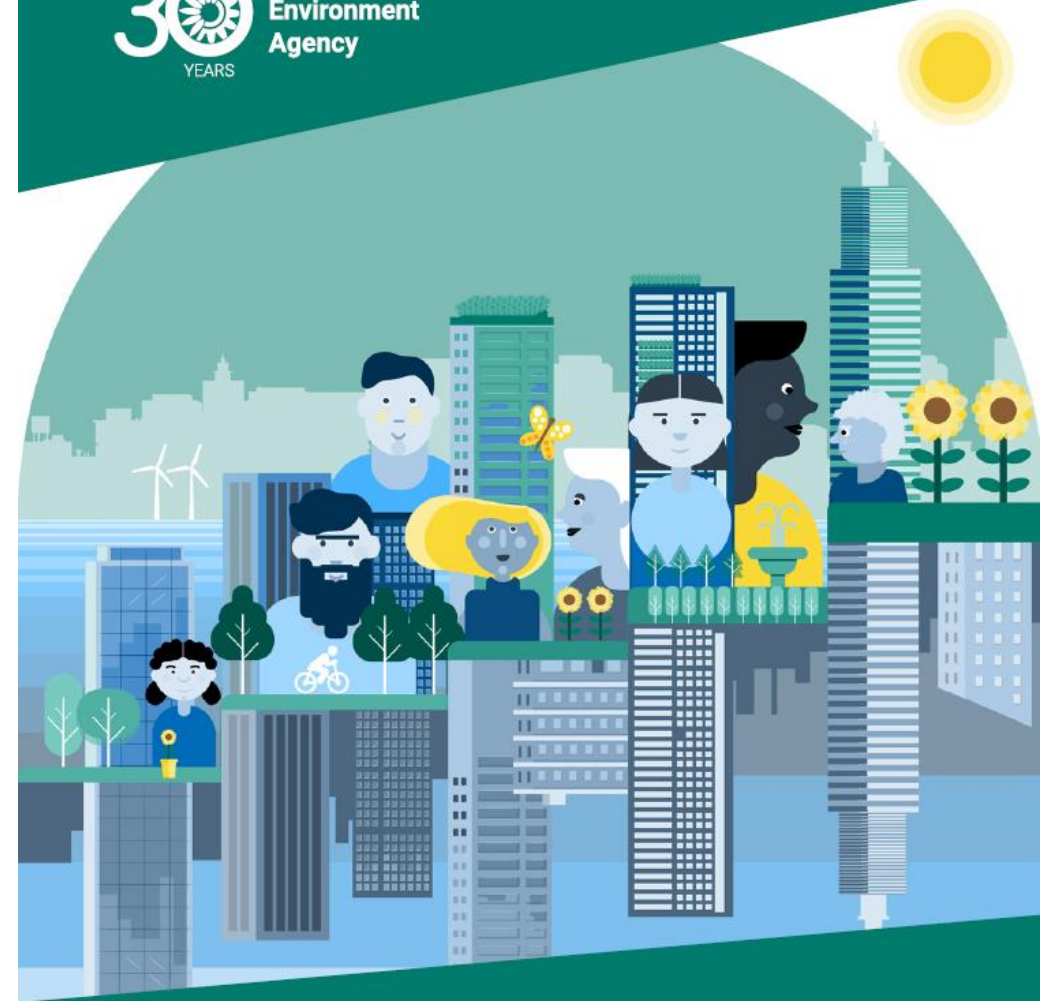
- As of 2025, **all EEA member countries have a national adaptation policy in place.**
- **Climate laws are increasingly emerging** as instruments to give greater legal power to adaptation policies.
- **Despite well-developed governance frameworks, implementation of adaptation measures lags substantially behind the rapidly increasing risk levels.** This is due to challenges related to coordination and limitations in financial, technical and human capacities.

[EEA \(2025\): From adaptation planning to action: Insights into progress and challenges across Europe \(publication in November 2025\)](#)

Subnational adaptation

Urban adaptation in Europe: what works?

- Subnational adaptation policymaking is **progressing in all countries**: in some this is driven by legal requirements for municipalities and in others it is due to voluntary and bottom-up initiatives.
- The number of sub-regional authorities with adaptation plans in place has also **increased** substantially over the past decade.
- Since April 2025, over 5,956 local authorities have been committed to action on adaptation under **the EU Covenant of Mayors for Climate & Energy** initiative.
- The **EU Mission on Adaptation to Climate Change** focuses on supporting local and regional authorities in their efforts to build resilience to the impacts of climate change. 326 regional and local authorities are Signatories of the Mission Charter.
- However, **governance-related challenges** are a persistent barrier to the implementation of adaptation actions in many countries.





Conclusions I

- Despite progress in policy made by the EU and its Member States, **societal preparedness is still low.**
- Whilst appropriate governance structures and policies exist, **actual implementation of measures is lagging substantially behind** the rapidly increasing risk levels.
- The evidence on the **actual implementation** and their contribution to preparedness and resilience remains limited.
- Monitoring and reporting are improving. However, robust evaluation and learning frameworks remain a challenge, **hindering a full understanding of adaptation progress and effectiveness across Europe.**
- **Europe must accelerate its implementation of adaptation actions to avoid future costs and consequences linked to climate change.** At the same time, it must continue to reduce greenhouse gas emissions and increase carbon removals.



Conclusions II

- **Countries face common barriers:** data gaps, weak tools supporting decision-making, unclear roles, limited funding and insufficient local capacity.
- The current lack of measurable adaptation policy **targets** and associated **indicators** makes it difficult to assess the progress made and the future prospects.
- Climate adaptation measures currently in place do not benefit everyone in society to the same extent. **The focus on vulnerable groups and achieving just resilience is essential for equitable management of climate risks to society.**
- Another key barrier to the development and implementation of adaptation solutions relates **to difficulty comparing adaptation versus inaction scenarios.** Modelling the impacts of future solutions is gaining importance.
- The ongoing development of the EU's new **integrated framework for Climate Resilience and Risk Management** offers hope for a more legislative, target-led and plan-based approach to adaptation in the future.

