



Economics for Disaster Prevention and Preparedness

DATA & ANALYTICS CAN GUIDE DECISIONS & ACTIONS



Invest smartly in priority sectors and areas that **maximize societal benefits**



Use costing of climate change adaptation needs and **develop adaptation pathways**



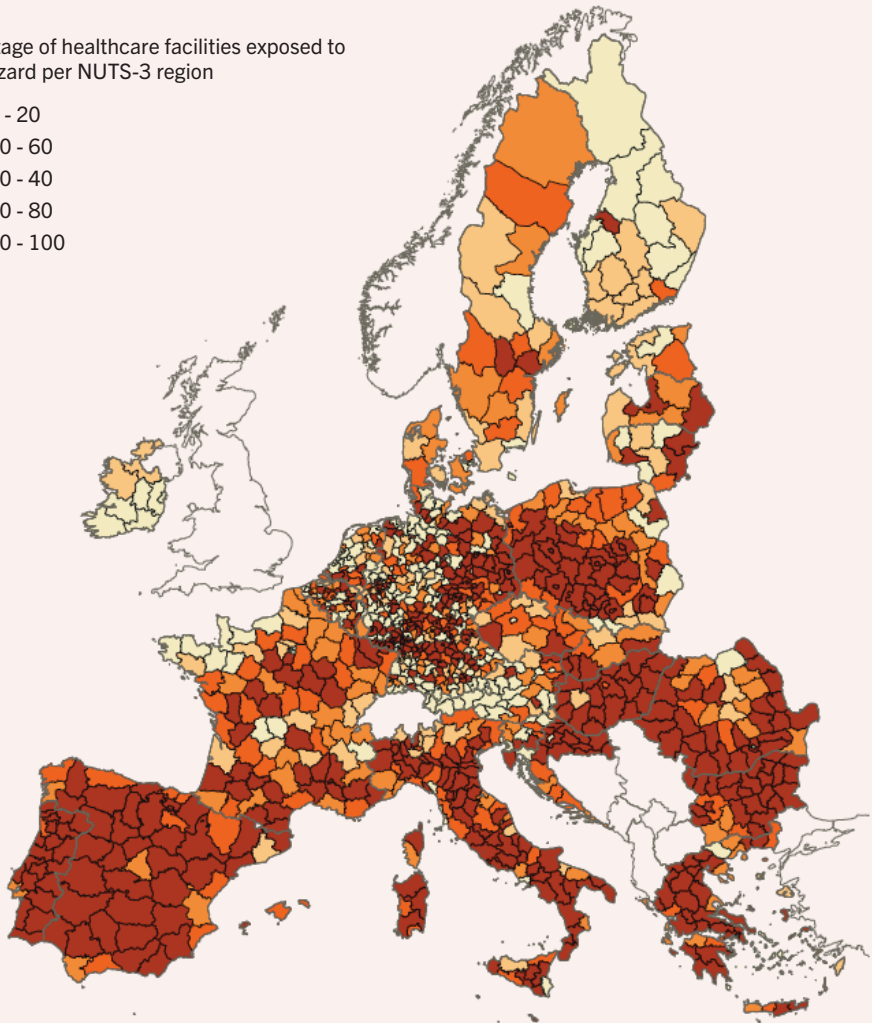
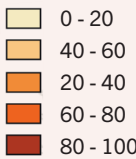
Use financial instruments for efficient management of fiscal risks from disaster and climate change



SPOTLIGHT ON CRITICAL INFRASTRUCTURE

EXPOSURE OF HEALTHCARE FACILITIES TO WILDFIRES IN THE EU

Percentage of healthcare facilities exposed to high hazard per NUTS-3 region



EU-WIDE, CIVIL PROTECTION AND EMERGENCY RESPONSE-RELATED FACILITIES, ROADS AND POWER LINES



40%

of critical emergency assets are in areas of high wildfire hazard



3,500

of critical assets exposed to floods with a return period of 1-in-10 years

IN SOME COUNTRIES, HIGH EXPOSURE HOTSPOTS



88%

of fire and police stations in **4 EU MS** exposed to strong seismic shaking



80%

of roads in **5 EU MS** are in areas of high to very high landslide hazard

PRIORITIZING SMART & FOCUSED INVESTMENTS IN RESILIENCE

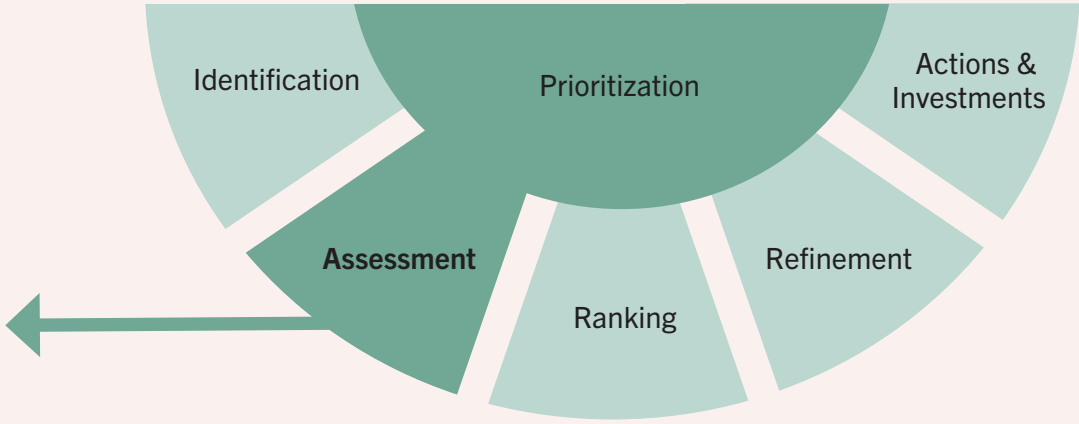
KEY STAGES IN DECISION-MAKING



KEY ANALYTICAL TOOLS

- Multi-criteria Analysis
- Benefit-Cost Analysis
- Triple Dividend of Resilience
- Portfolio-based Approach
- Criticality Analysis
- Performance-based Approach
- Ready 2 Respond (R2R)

KEY STEPS IN DEVELOPING AND USING A PRIORITIZATION FRAMEWORK



Risk data can identify risk hotspots to focus attention on most pressing sectors or areas



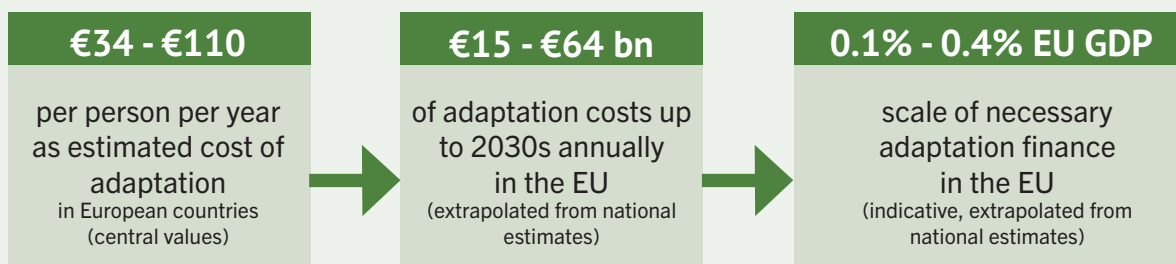
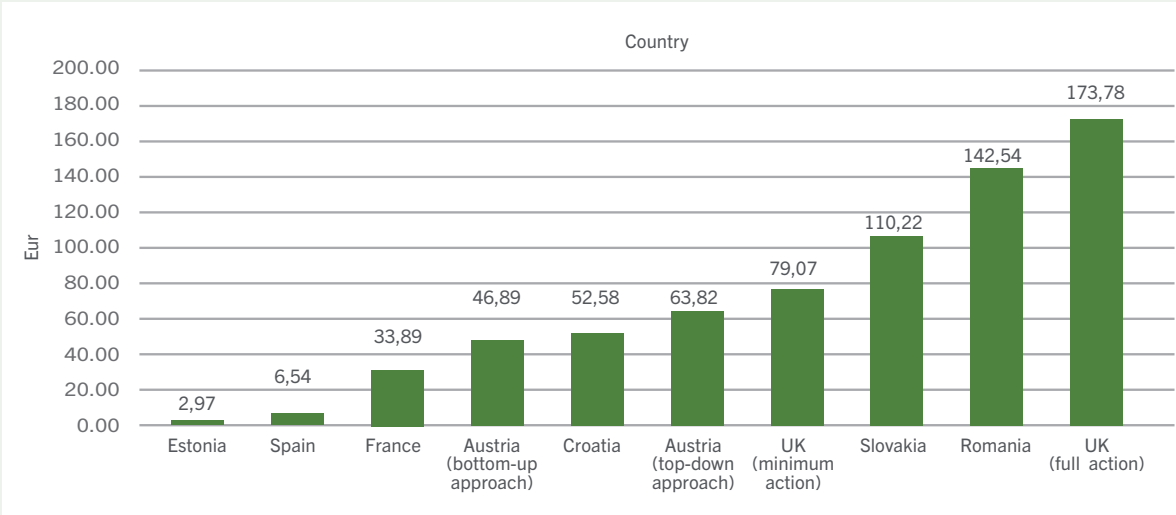
Analytical tools can prioritize smart investments, and reduce risks in a way that maximizes benefits



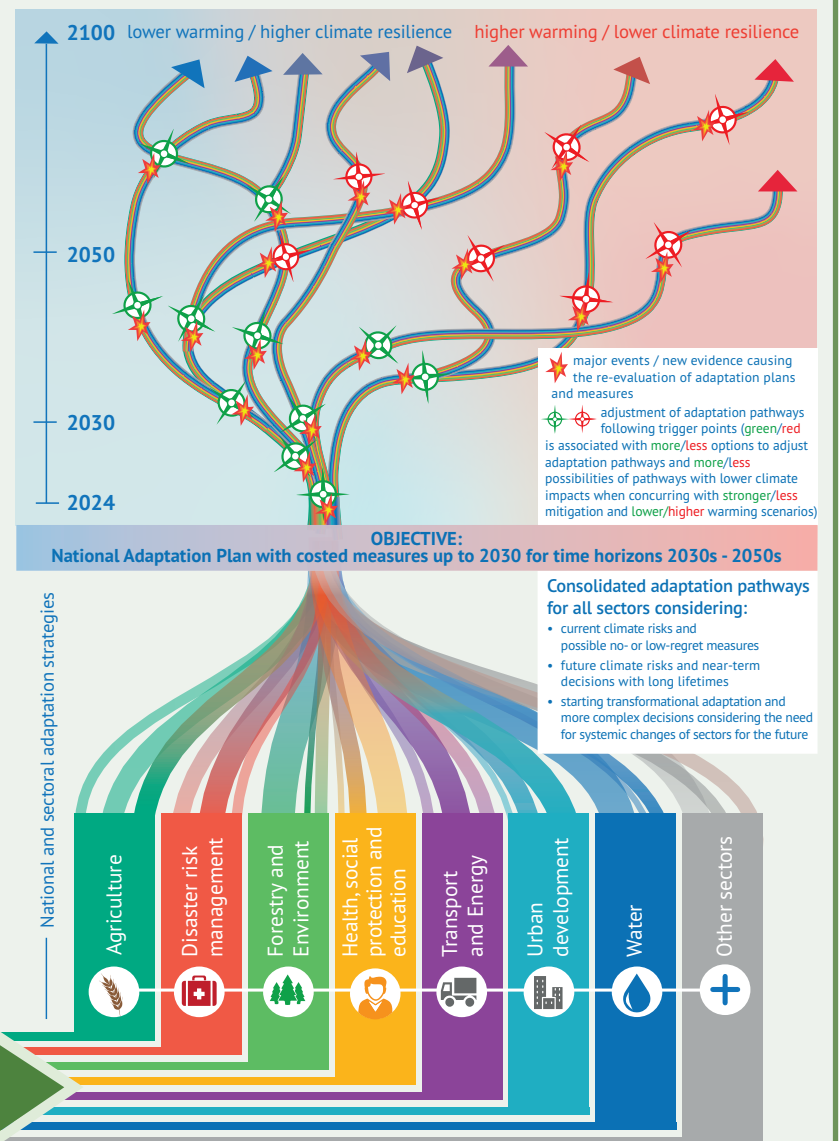
Examples of successful use of data and tools across Europe demonstrate their usability

COSTING CLIMATE CHANGE ADAPTATION

ANNUAL CLIMATE ADAPTATION COSTS PER CAPITA ESTIMATED FROM NATIONAL ASSESSMENTS ACROSS EUROPE WITH A 2030s TIME HORIZON



'ADAPTATION PATHWAYS' – decision-making approaches allowing countries to prepare and take actions in times of uncertainty.



ADAPTING TO CLIMATE CHANGE



Update and improve National Adaptation Plans considering climate-related risks.



Identify adaptation gaps and measures, track expenditures, and prioritize, cost, and finance them across sectors.



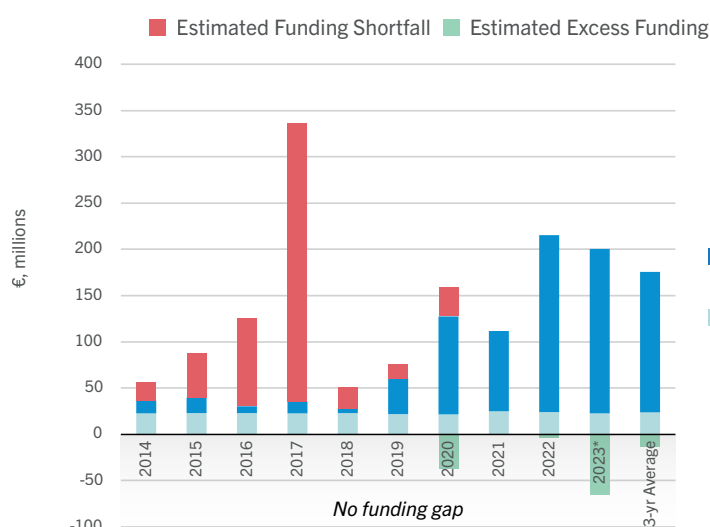
Have continuous dialogues across sectors and national debates as adaptation is "everyone's business".



Find solutions to shift from incremental to transformational adaptation, including reforming institutions, legal frameworks.

UNDERSTANDING FINANCIAL IMPACTS

ESTIMATED FUNDING GAP FOR WILDFIRE EMERGENCY COSTS



€13 - €50 bn

potential funding gap in Europe due to major earthquakes and floods

Total UCPM budget (Response + Firefighting)
Reserves at EU level for wildfire

Note: * Estimates based on area burned by wildfires in Europe as of September 2023

DISASTERS CREATE ADDITIONAL PRESSURE ON ALREADY CONSTRAINED RESPONSE & RECOVERY BUDGETS



In 2023

Wildfires caused **€2 bn** in direct damage in Greece, **€1 bn** in Italy and almost **€1 bn** in Spain



In 2024

Should a **drought** or **wildfire** happen after a major **earthquake** or **flood** has already occurred, there would be no funding immediately available at the EU level to respond

STRENGTHENING FINANCIAL MANAGEMENT



Invest in data and understanding the potential funding gaps across key hazards



Develop disaster risk financing strategies at EU and country-level that use risk-layering approach



Address gaps concerning pre-arranged funds and the use of risk transfer mechanisms



Explore opportunities to implement the above as part of EU, national, sub-national level budget planning



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