Societal preparedness

Where are we and where are we going?

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Forging a Climate Resilient Europe – 2021 Adaptation Strategy

Smarter adaptation

- Help close **knowledge** gaps on climate impacts and resilience, improve **data** recording, collection and access…

Faster adaptation

- Horizon **Missions**, climate proofing **guidance** and other decision support tools, **standardization**, sustainable **finance**, resilient **water** management…

More systemic adaptation

- Guidelines for National Adaptation Strategies, reskilling, public finances, nature-based solutions…

International

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2021 European Climate Law

Union and Member States to ensure continuous **progress** in enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change

- Union institutions and MS to ensure that adaptation policies are **coherent, mutually supportive and work towards better integration of adaptation in a consistent manner** (*mainstreaming*) in all policy areas

- By 30 September 2023, and every five years thereafter, the Commission shall **review the consistency of Union measures** with ensuring progress on adaptation

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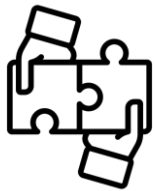
2023 Progress Assessment: Union level

Commission committed to 49 actions in Adaptation Strategy

- Exceptionally **broad sectoral/topic coverage**, variety of timeframes
- Rapid **mainstreaming** in some areas like health policy, slower progress/sequencing in others

Some examples: European Climate and Health Observatory; Technical Guidance on Climate Proofing Infrastructure; Water Re-use Regulation; Horizon Mission on Adaptation…

Awareness and skills increasing across Commission departments due to ongoing coordination: improving **adaptive capacity**

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2023 Progress Assessment: National level (1)

Good coverage of acute **hazards** (heatwaves, droughts, pluvial floods…

- key hazards sometimes missing among slow-onset / chronic hazards (sea level rise and coastal flooding…)

Almost all Member States have conducted **climate risk assessments**

- Robust, comprehensive assessments covering more than 5 sectors an exception

Adaptation a **legal obligation** in 8 MS

- PM office rarely involved in coordination; adaptation **voluntaristic** in many MS

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2023 Progress Assessment: National level (2)

Progress made in implementing measures – but tracking and **measuring impact** is difficult/lacking

Financing: most countries lack dedicated budgets; gaps in assessing needs; project pipelines need improvement

Nature-based solutions (NBS) not sufficiently included at the strategic level and through policy documents: may hamper systemic deployment

International and transnational **cooperation** progressed in 2/3 of MS

Good examples exist on measuring progress, on NBS, cooperation etc

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Communication on managing climate risks

ADAPTATION STRATEGY

EUCRA

COMMUNICATION ON
MANAGING CLIMATE RISKS

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Communication "Managing climate risks – protecting people and prosperity"

Main parameters of the Communication:

- Demonstrates EU readiness to respond to the evolving reality

- Geographic focus within the EU

- Risk ownership a central concept - identifying responsibility for managing risks, notably between EU and MS level

- Calibrated to the end of mandate, mostly about good decision-making processes and tools.

1. **Introduction**: explains why urgent action is needed and how it builds on existing processes

2. **Analysis/climate science**: Provides a condensed selection of the evidence and the uncertainties.

3. **Solutions space (provides key horizontal actions)**
3.1. Improved governance
3.2. Tools for empowering risk owners
3.3. Harnessing structural policies
3.4. Right preconditions for financing climate resilience

4. **Key actions in in main impact clusters**
4.1. Natural ecosystems
4.2. Water
4.3. Health
4.4. Food
4.5. Infrastructure
4.6. Economy

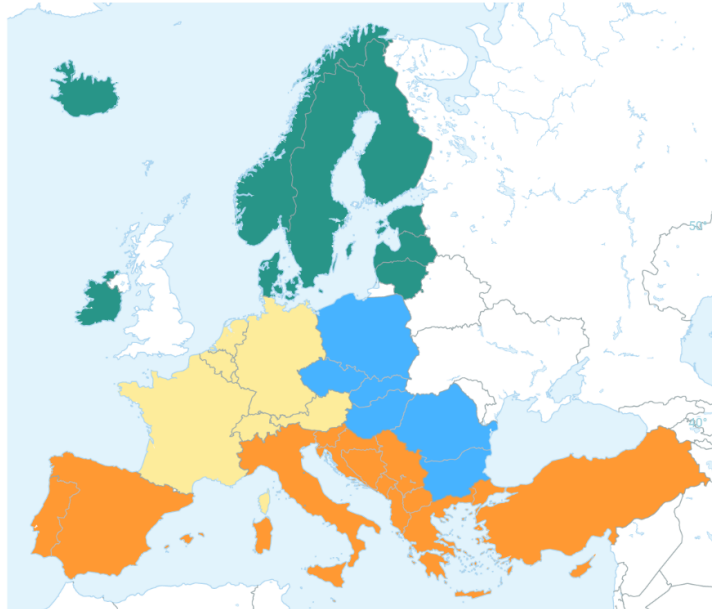5. **Next steps**

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Chapter 1: Introduction

- Climate impacts will increase; mitigation & adaptation as part of the response package to the same problem.
- There is public demand for more action of resilience
- Not starting from scratch, but current action not sufficient
- Policy-makers have agency – risks can be managed
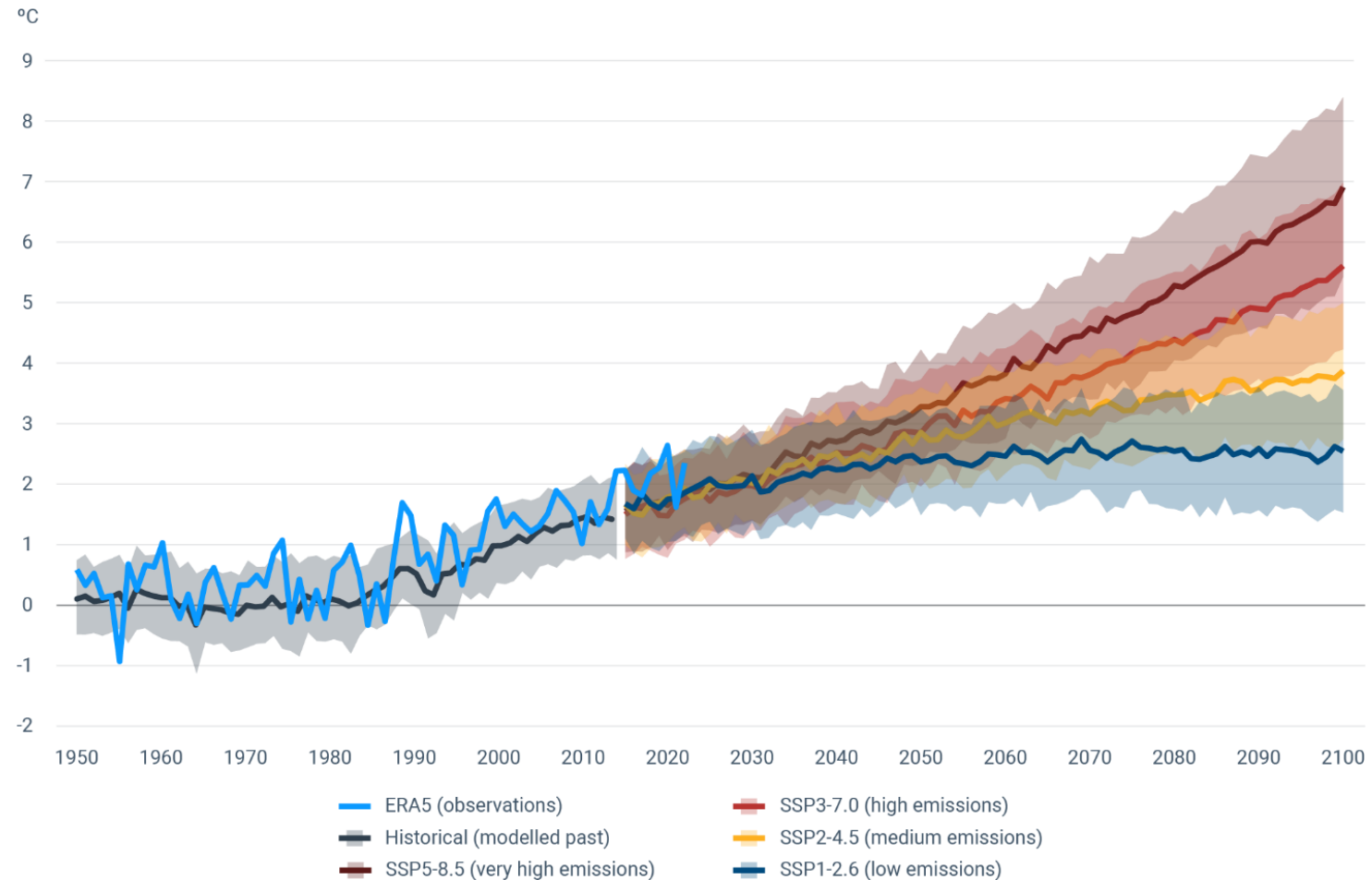
Chapter 2: Diagnostics

Hazards are increasing

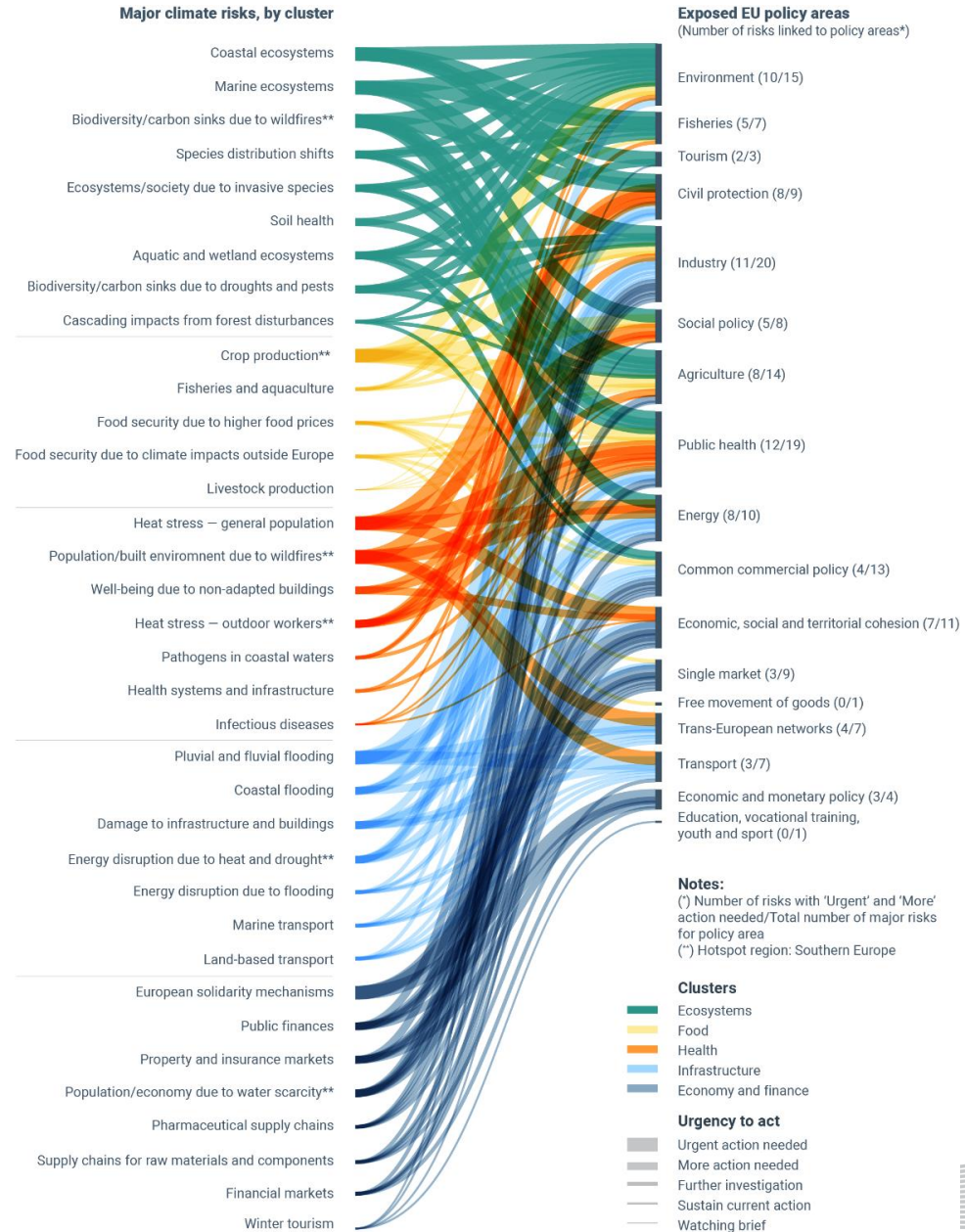| Land regions	Northern Europe			Western Europe			Central-Eastern Europe			Southern Europe			European regional seas		
	Past	Future		Past	Future		Past	Future		Past	Future			Past	Future
		Low	High		Low	High		Low	High		Low	High			
Mean temperature	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	Sea surface temperature	↗	↗
Heat wave days	□(*)	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗			
Total precipitation	↗	↗	↗	↗	↗	↘	↗	↗	↗	↘	↘	↘	Sea level	↗	↗
Heavy precipitation	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗			
Drought	↗	↘	↘	↗	↗	↗	↗	↗	↗	↗	↗	↗			

Legend
↗ Increase
↗ Increase (limited agreement between models, datasets or indices)
↘ Decrease
↘ Decrease (limited agreement between models, datasets or indices)
↗ Low confidence in direction of change
□ No change

Note
(*) Other heatwave indices show an increase for the past

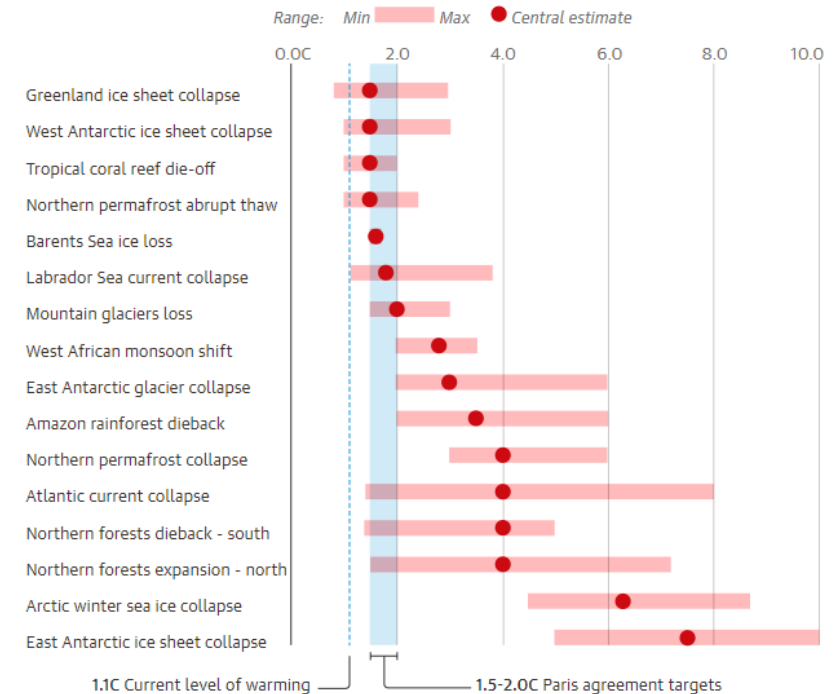## Risks and solutions are interconnected

Major climate risks, by cluster

Coastal ecosystems
Marine ecosystems
Biodiversity/carbon sinks due to wildfires**
Species distribution shifts
Ecosystems/society due to invasive species
Soil health
Aquatic and wetland ecosystems
Biodiversity/carbon sinks due to droughts and pests
Cascading impacts from forest disturbances
Crop production**
Fisheries and aquaculture
Food security due to higher food prices
Food security due to climate impacts outside Europe
Livestock production
Heat stress — general population
Population/built enviromnent due to wildfires**
Well-being due to non-adapted buildings
Heat stress — outdoor workers**
Pathogens in coastal waters
Health systems and infrastructure
Infectious diseases
Pluvial and fluvial flooding
Coastal flooding
Damage to infrastructure and buildings
Energy disruption due to heat and drought**
Energy disruption due to flooding
Marine transport
Land-based transport
European solidarity mechanisms
Public finances
Property and insurance markets
Population/economy due to water scarcity**
Pharmaceutical supply chains
Supply chains for raw materials and components
Financial markets
Winter tourism

Exposed EU policy areas
(Number of risks linked to policy areas*)

Environment (10/15)
Fisheries (5/7)
Tourism (2/3)
Civil protection (8/9)
Industry (11/20)
Social policy (5/8)
Agriculture (8/14)
Public health (12/19)
Energy (8/10)
Common commercial policy (4/13)
Economic, social and territorial cohesion (7/11)
Single market (3/9)
Free movement of goods (0/1)
Trans-European networks (4/7)
Transport (3/7)
Economic and monetary policy (3/4)
Education, vocational training, youth and sport (0/1)

Notes:
(*) Number of risks with 'Urgent' and 'More' action needed/Total number of major risks for policy area
(**) Hotspot region: Southern Europe

Clusters
Ecosystems
Food
Health
Infrastructure
Economy and finance

Urgency to act
Urgent action needed
More action needed
Further investigation
Sustain current action
Watching brief

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Chapter 2: uncertainties

Big "known unknowns"

- The climate scenarios are a useful indication of the likely outcomes (with confidence intervals), depending on GHG emissions. BUT,
- They don't account for "tail risks", the compounding and cascading impacts.
- For policy decision, these are important. The science on climate tipping points underlines the need for preparing.
- Uncertainty is not a valid excuse for inaction.

The risk of climate tipping points is rising rapidly as the world heats up

Estimated range of global heating needed to pass tipping point temperature

Range: Min ▬ Max ▬ ● Central estimate

| | 0.0C | 2.0 | 4.0 | 6.0 | 8.0 | 10.0 |

- Greenland ice sheet collapse
- West Antarctic ice sheet collapse
- Tropical coral reef die-off
- Northern permafrost abrupt thaw
- Barents Sea ice loss
- Labrador Sea current collapse
- Mountain glaciers loss
- West African monsoon shift
- East Antarctic glacier collapse
- Amazon rainforest dieback
- Northern permafrost collapse
- Atlantic current collapse
- Northern forests dieback - south
- Northern forests expansion - north
- Arctic winter sea ice collapse
- East Antarctic ice sheet collapse

1.1C Current level of warming   1.5-2.0C Paris agreement targets

Guardian graphic. Source: Armstrong McKay et al, Science, 2022. Note: Current global heating temperature rise 1.1C Paris agreement targets 1.5-2.0C

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Chapter 3: Horizontal actions

Governance

Tools

Structural policies

Financial resilience

3.1 Governance

Overall call to implement existing commitments.

- Need clear risk ownership, based on subsidiarity

  - COM calls on sector-processes to check the agreement on how responsibilities are divided between EU-MS levels, notably in implementation choices

- Stronger governance structures

  - Stressing the need to ensure that local-regional-national responsibilities are clear and adequately resourced

  - COM will review its processes, notably the implementation of the climate consistency check in the Better Regulation requirements

- Synergies in EU-level governance processes

  - COM will review whether the implementation of the risk assessment, monitoring and reporting requirements can be facilitated within the current legislative frameworks.

3.2 Tools

Recognising that risk owners may not have appropriate capacities and tools to effectively embed climate risks in their processes.

- **Climate data, modelling tools**, indicators, warning systems, guidance, and better access to these. Notably the upcoming DestinE.

- **Baseline climate scenarios**. The RCP4.5 should be the baseline scenario for considering climate impacts in any models; for stress-testing more adverse should be used.

- **Administrative capacities**. COM will support a consolidate knowledge base and will use the existing programmes to support Member States.

- **Combat disinformation**. COM will use the existing tools to better fight climate disinfo, including in the Digital Services Act compliance.

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3.3. Structural policies

Stressing three policy areas that are horizontally important for managing climate (and other) risks across many sectors:

- **Spatial planning**. A MS/local competence, defines a big part of exposures and vulnerability. Decisions on spatial planning should be explicit on how much residual climate risks they accept. COM will also consider if can support better.
- **Critical infrastructure**. The CER directive is the EU level framework, and covers climate risks. How MS choose to implement this determines a lot about residual climate risks.
- **EU-level solidarity mechanisms**. Both UCPM and EUSF are stretched, and may need more topping up. COM will see if there are ways to incentivise preparedness, to reduce pressure on solidarity measures

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3.4 Finance

Focus is on the updating the decision-frameworks in a way that makes preventing climate-related disruptions the best choice economically.

- **EU spending***. Implementing the DNSH principle in the revised Financial Regulation for the post-2027 MFF will embed climate risks.
- **Public procurement**. MS should take climate risks into account in tender design and make use of the non-price criteria, so decisions are resilient in the longer term.
- **Mobilising finance**. COM sets up a Reflection Group to gather ideas on how to build better incentives for private investments for resilience.

* National budgets/Econ.GovernanceReview is covered in 4.6

Chapter 4: Actions in impact clusters

4.1. Natural ecosystems
- Implementation of legislation and better accounting of the value of natural systems
- Forest disturbances and carbon sinks
- Maritime ecosystems
- Climate-resilient landscapes

4.2. Water
- Safeguarding freshwater supplies
- Comprehensive stocktake of water issues

4.3. Health
- Occupational safety and health (linked to heat)
- European Climate and Health Observatory
- Monitoring on cross-border health threats
- Mobilisation of medical personnel and patient transfer
- Critical medical countermeasures

4.4. Food
- Food safety and affordability
- Future-proofing agriculture
- Fisheries policy

4.5. Infrastructure and built environment
- Infrastructure and building standards
- Transport infrastructure
- Energy infrastructure

4.6. Economy
- Resilience of firms, notably SMEs and supply chains
- Fiscal sustainability
- Financial markets stability

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Chapter 5: Next steps

International dimension
- EU will exchange with international partners for mutual learning in various fora.
- Possible international event in 2025 about managing climate risks.

Political framing
Not an endpoint: building resilience requires concerted action and Commission will continue to work with all to take this forward.

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Thank you

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