



The Copernicus climate change service: EU Climate Policy User Needs

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To adapt or to mitigate: is that really a valid question?

Mitigation and adaptation are both necessary and complementary.

- **We need to increase mitigation efforts.** If the 2°C target is missed, adaptation increasingly costly.

- **We need to adapt.**
 - ***Adaptation is inevitable (delayed impact of emissions). Adaptation is cheaper***
 - ➔ 1€ invested in flood protection saves 6€ damage costs.
 - ***Postponed adaptation and maladaptation will lead to higher damage costs.***
 - ➔ ≥ 100 bn/year by 2020; 250 bn/year by 2050 for the EU



Adaptation – main client for Copernicus climate change service



Priority 1: Promoting action by Member States

Action 1. Encourage MS to adopt Adaptation Strategies and action plans

Action 2. LIFE funding, including adaptation priority areas

Action 3. Promoting adaptation action by cities along the Covenant of Mayors initiative

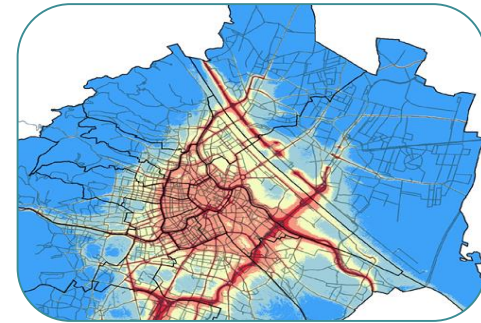


Priority 2: Better informed decision-making

Action 4. Bridge the Knowledge-gap

Action 5. Climate-ADAPT

- The inclusion of Copernicus climate services will be prepared



Priority 3: Key vulnerable sectors

Action 6. Climate proofing the Common Agricultural Policy, Cohesion Policy, and the Common Fisheries Policy

Action 7. Making infrastructure more resilient

Action 8. Promote products & services by insurance and finance markets





About Climate Change Adaptation in Europe

The European Climate Adaptation Platform (Climate-ADAPT) aims to support Europe in adapting to [climate change](#). It is an initiative of the European Commission and helps users to access and share information on:

- Expected climate change in Europe
- Current and future [vulnerability](#) of regions and sectors
- National and transnational adaptation strategies
- [Adaptation](#) case studies and potential adaptation options
- Tools that support adaptation planning

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Search Term(s):

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Adaptation support tool

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Use the Adaptation Support Tool

What are European countries doing?

Choose a country

Find case studies on adaptation in Europe

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- » 20 Jan 2015 ECCA2015 newsletter for latest progress and deadlines
- » 20 Jan 2015 New video on Paris experience of responding to heatwaves
- » 17 Dec 2014 2014 - Europe's warmest year on record

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Events



- » 26 Mar 2015, Which way to the future?, 4th Informed Cities Forum, Rotterdam, the Netherlands
- » 6 May 2015, URBACT City Festival, Riga, Latvia
- » 12 May 2015, European Climate Change Adaptation Conference, Copenhagen, Denmark

EU sector policies



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COPERNICUS and the EU Adaptation Strategy

General considerations

- Adaptation Strategy addresses adaptation in all EU policy sectors (Priority 3), all EU Member States, local level (Priority 1).
- EU level:
 - Dialogue with sectors to inform sectoral policies
 - EU indices to inform integrating adaptation in key EU policies and funds
 - Commission will develop indicators to evaluate adaptation efforts and vulnerabilities
 - **Cross-border** issues and regional assessments (Mediterranean, mountains)
 - **Neighbouring** countries and effects in EU of impacts abroad
- MS, Local:
 - Demand for centralised reference site with available climate change information (observations, projections) for 'my location'.
 - Some MS develop own climate services and websites; others do not. Complementarity is important, but challenging.

COPERNICUS and the EU Adaptation Strategy

General considerations

What observations?

Relevant for adaptation policies:

- Climate change
 - Temperature, precipitation: averages and other values
 - Extremes: Changes in frequency, intensity, distribution
- Impacts
 - Need for datasets
- Vulnerability
 - Exposure
 - Adaptive Capacity

Copernicus

- *Consistent climate data store (ECVs)*
- *Sectoral Information system*
- *Outreach and dissemination*

KNOWLEDGE GAPS RELEVANT TO COPERNICUS

D.1. MONITORING IMPACTS AND VULNERABILITY

D.1.1. Development of systems of Impacts indicators.

Cost-effective indicator and monitoring systems to monitor climate change and its associated impacts , and detecting the crossing of thresholds. The indicators systems to be developed should build on:

- Identifying indicators ready to be monitored, i.e. building on existing observation and tracking systems
- **Systems for long-term (sustainable) monitoring of environmental and social indicators linked to climate change and its effects.**
- **Monitoring systems should allow targeting regional and local levels, allowing integration and comparison at higher aggregated levels**
 - compatibility and consistency of data and parameters across the European region, through standardisation and cross-regional cooperation.
 - Allow transboundary monitoring
- **Access to data: IT systems for maintenance, presentation, consultation.**
- **Advancing and optimizing the interactive use of remote sensing and ground-based information.**

KNOWLEDGE GAPS RELEVANT TO COPERNICUS

D.1. MONITORING IMPACTS AND VULNERABILITY

*D.1.2. Analysis of **observed** vs. projected climate change and impacts.*

Monitoring of effective climate change and Impacts should be used to analyze reality vs. projections. This analysis would allow:

- Evaluating and refining projections of climate change and impacts*
- Identifying and evaluating thresholds of impacts in systems and rates at which they are approached.*
- Duly interpreted, these should help determine the need for certain policies and the momentum for action.*

KNOWLEDGE GAPS RELEVANT TO COPERNICUS

C.3. LINKING THE RESEARCH AND DECISION-MAKING COMMUNITIES

C.3.1. Mechanisms and media for effective communication to bridge the science/policy-practice gap to allow the adaptation decision-making process to be fed with new information, allowing its sharing and transmission to different potential users' groups: public or private bodies, sectors and target groups.

C.3.2. Categorisation and communication of information

Highly technical information on uncertainties, *impacts*, risks, needs to be *translated into content that can be handled by different kinds of users*, in most cases not specialised: administrations at several levels (from local to regional), sectorial managers, private sector. This would include:

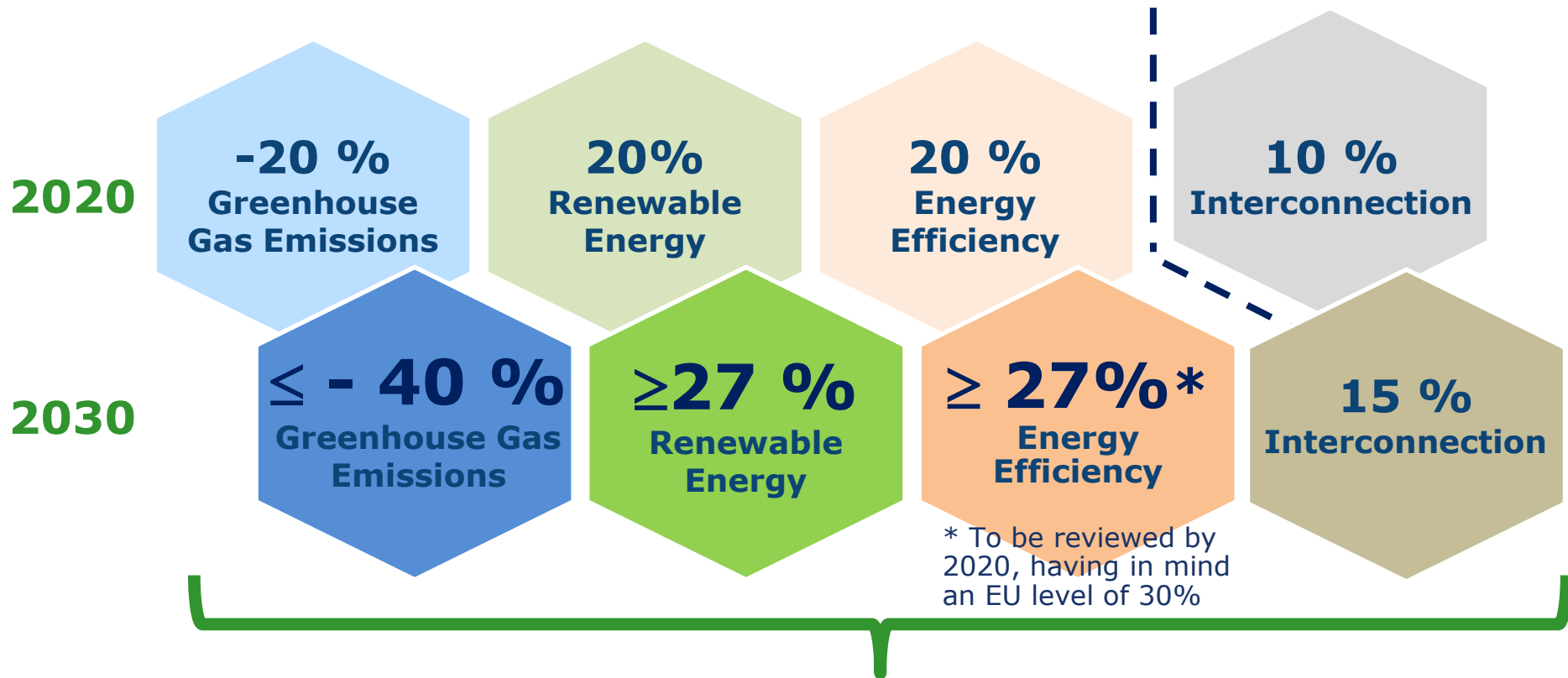
- Developing language that allows displaying scientific-technical information sources to adaptation practitioners
- Understanding different user groups' needs, analysing their specific communication needs (regional, sectorial, etc.).
- Developing tailored information of potential climate change impacts and risks and uncertainties, to users' groups



Mitigation: Copernicus in support of efforts to reduce emissions, aiding the promotion of renewable energy

EU 2030 framework for climate and energy policies

Agreed targets



New governance system + indicators

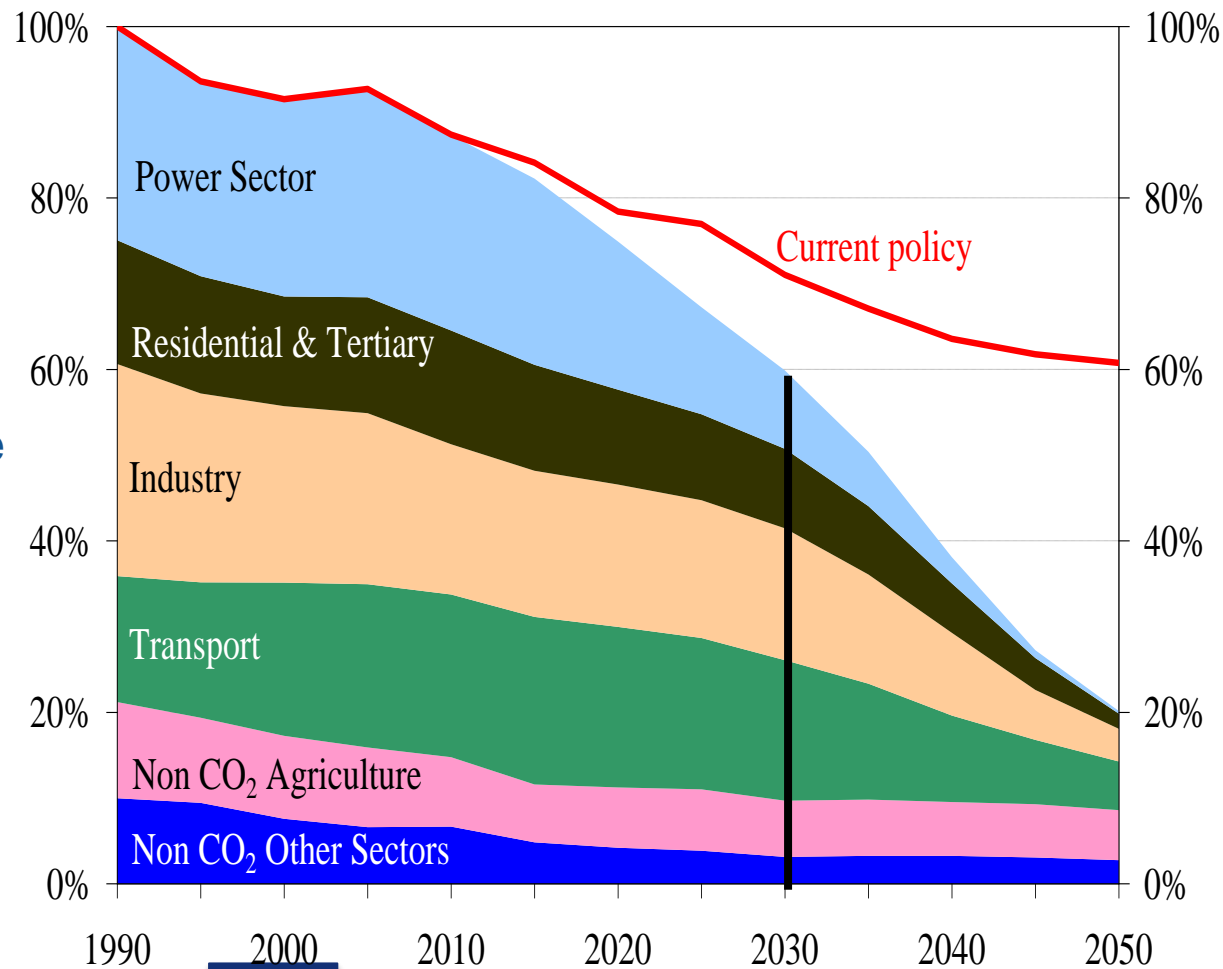
The 2050 Low-Carbon Roadmap

80% domestic reduction in 2050 is feasible:

- with currently available technologies,
- with behavioural change only induced through prices
- if all economic sectors contribute to a varying degree and pace.

Efficient pathway and milestones:

- 25% in 2020
- 40% in 2030
- 60% in 2040



Copernicus and mitigation

Land use, land use change and forestry

- Information on *land use change and forestry*: in Europe and globally, in particular on deforestation and forest degradation
- Remote *monitoring of croplands, grazing lands, wetlands and other carbon pools* in support of official greenhouse gas inventory reporting
- Information on the carbon cycle and the *observed changes in the climate*, to underpin IPCC Assessment Reports that guide climate action in line with the 2°C objective

Renewable energy

- Information on *solar activity and wind patterns* in support of renewable energy investors and policy planning

Thank you!



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"We are all committed to making Europe the most climate-friendly region in the world"