



CLIMATE ACTION

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EU-Central Asia Enhanced Regional Cooperation on Environment, Climate Change and Water

Tailor-made support for environmental project identification and preparation for consideration by
IFIs: regional workshop

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EU Targets for 2020, 2030 and 2050

Key EU targets for 2020

- **20%** cut in greenhouse gas emissions compared with 1990
- **20%** of total energy consumption from renewable energy
- **20%** increase in energy efficiency

Key EU targets for 2030

- At least **40%** cut in greenhouse gas emissions compared with 1990
- At least **27%** of total energy consumption from renewable energy
- At least **27%** increase in energy efficiency

Long-term goal

- By 2050, the EU aims to **cut its emissions substantially – by 80-95% compared to 1990 levels** as part of the efforts required by developed countries as a group.
- Turning Europe into a highly energy efficient and low-carbon economy will also **boost the economy**, create jobs and strengthen Europe's competitiveness.

Financial support

At least **20%** of the EU's budget for **2014 to 2020** - as much as **€180 billion** - should be spent on protecting the climate. This is **on top of funding from individual EU countries**.

The EU finances **low-carbon energy demonstration projects** from the **sale of emission certificates**. This includes technologies to trap carbon dioxide from power stations and other industrial installations and store it in the ground, so-called carbon capture and storage (CCS).

Regulation

The **EU's emissions trading system** is the key tool for reducing greenhouse gas emissions from industry at the lowest cost.

EU countries are required to **support renewable energy sources** such as **wind, solar and biomass** to reach the green energy targets.

EU countries have to **reduce the energy use of their buildings and industries** are required to improve the **energy efficiency** of a wide array of equipment and household appliances.

Car manufacturers have to reduce CO₂ emissions from new cars and vans.



EU Directives related to Climate Action

EU Emissions Trading System

- Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC
- Directive 2004/101/EC of the European Parliament and of the Council of 27 October 2004 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms.

Carbon Capture and Storage

- Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009 on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006

EU Directives related to Climate Action

Transport/Fuels

- Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC
- Directive 1999/94/EC of the European Parliament and of the Council of 13 December 1999 relating to the availability of consumer information on fuel economy and CO₂ emissions in respect of the marketing of new passenger cars
- Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC

EU Directives related to Climate Action

Energy Efficiency

- Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC
- Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (NZEB)
- **NEW** Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency

Some EU Regulations and decisions related to Climate Action

Greenhouse Gas Monitoring and Reporting

- Regulation (EU) No 525/2013 of the European Parliament and of the Council on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change

Forests and Agriculture

- Decision No 529/2013/EU of the European Parliament and of the Council on accounting rules on greenhouse gas emissions and removals resulting from activities relating to land use, land-use change and forestry and on information concerning actions relating to those activities

Effort Sharing Decision

- Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020

Relevant SDGs for climate action

- Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3: Ensure healthy lives and promote well-being for all at all ages
- Goal 6: Ensure availability and sustainable management of water and sanitation for all
- Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 13: Take urgent action to combat climate change and its impacts



Adapting to climate change

The European Commission has adopted an **EU Adaptation Strategy** and wants all its Member States to adopt national plans to cope with the inevitable impacts of climate change by 2017. A number of Member States have already developed adaptation strategies.

It includes measures such as:

- using less **water**
- adapting **building regulations**
- building **flood defences**
- developing **crops that cope better in drought conditions**



Low-carbon economy roadmap

The European Commission is looking at **cost-efficient ways to make the European economy more climate-friendly and less energy-consuming.**

Its low-carbon economy roadmap suggests that:

- **By 2050, the EU should cut greenhouse gas emissions to 80% below 1990 levels**
- Milestones to achieve this are **40% emissions cuts by 2030 and 60% by 2040**
- All sectors need to contribute
- The low-carbon transition is **feasible & affordable.**



80% by 2050

- The EU should **cut its emissions to 80% below 1990 levels through domestic reductions alone** (i.e. rather than relying on international credits).
- This is in line with **EU leaders' commitment to reducing emissions by 80-95% by 2050** in the context of similar reductions to be taken by developed countries as a group.
- To reach this goal, the EU must **make continued progress** towards a low-carbon society.
- **Clean technologies play an important role.**



Milestones

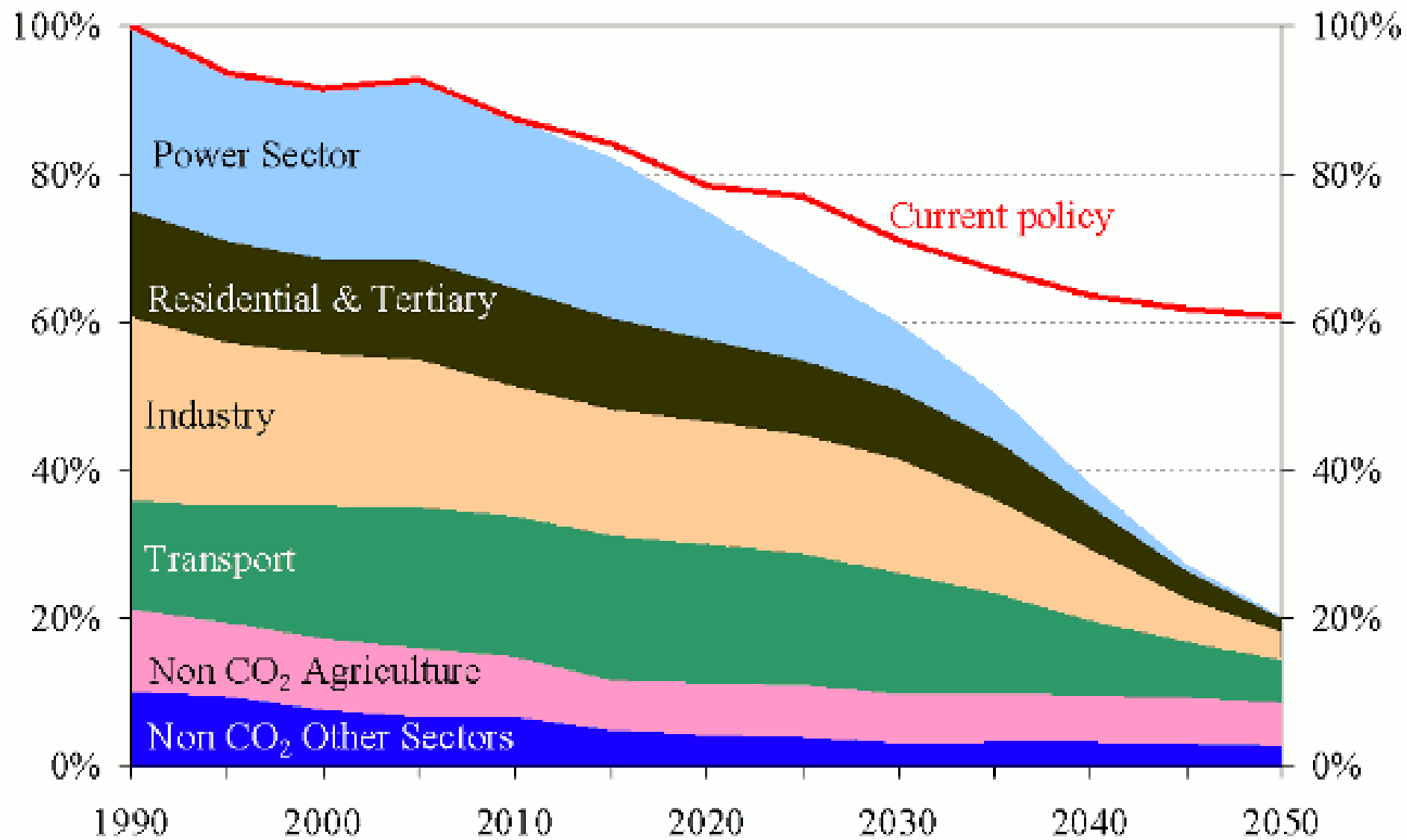
- **Early action saves costs later.** If we postpone action, we will have to reduce emissions much more drastically at a later stage.
- The roadmap sets out a **cost-efficient pathway** to reach the 80% target by 2050.
- To get there, Europe's emissions should be
 - **40% below 1990 levels by 2030** (this target was already endorsed as part of the 2030 framework)
 - **60% below by 2040.**



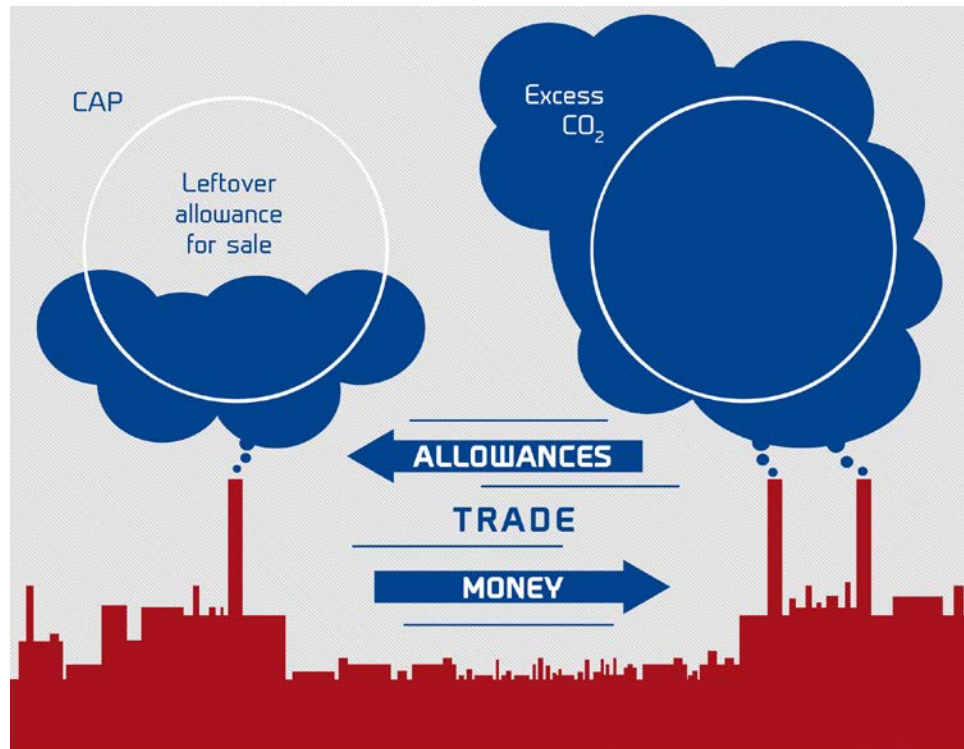
Emissions cuts by sector

All sectors need to contribute to the low-carbon transition according to their technological and economic potential.

Action in all main sectors responsible for Europe's emissions – **power generation, industry, transport, buildings, construction and agriculture** – will be needed, but differences exist between sectors on the amount of reductions that can be expected.



Emissions trading system (ETS)



- The EU emissions trading system is the EU's key tool for cutting greenhouse gas emissions from large-scale facilities in the **power and industry sectors, as well as the aviation sector**.
- The ETS covers around **45%** of the EU's greenhouse gas emissions.
- In 2020, the **target is for the emissions from these sectors to be 21% lower than in 2005**.
- Set up in 2005, the EU ETS is the **world's first** international emissions trading system. It remains the biggest one, accounting for over three-quarters of international carbon trading.
- The EU ETS is also inspiring the development of emissions trading in other countries and regions. The EU aims to link the EU ETS with other compatible systems.

National emission reduction targets

- It covers the sectors **not in the ETS** – accounting for some 55% of total EU emissions – such as:
 - **housing**
 - **agriculture**
 - **waste**
 - **transport (excluding aviation).**
- EU countries have taken on binding annual targets until 2020 for cutting emissions in these sectors (compared to 2005), under the "Effort-sharing decision".
- The targets differ according to national wealth – from a 20% cut for the richest countries to a maximum 20% increase for the least wealthy (although they were still projected to have to make efforts to limit emissions).
- Progress is monitored by the Commission every year, with each country required to report its emissions.



Power generation & distribution



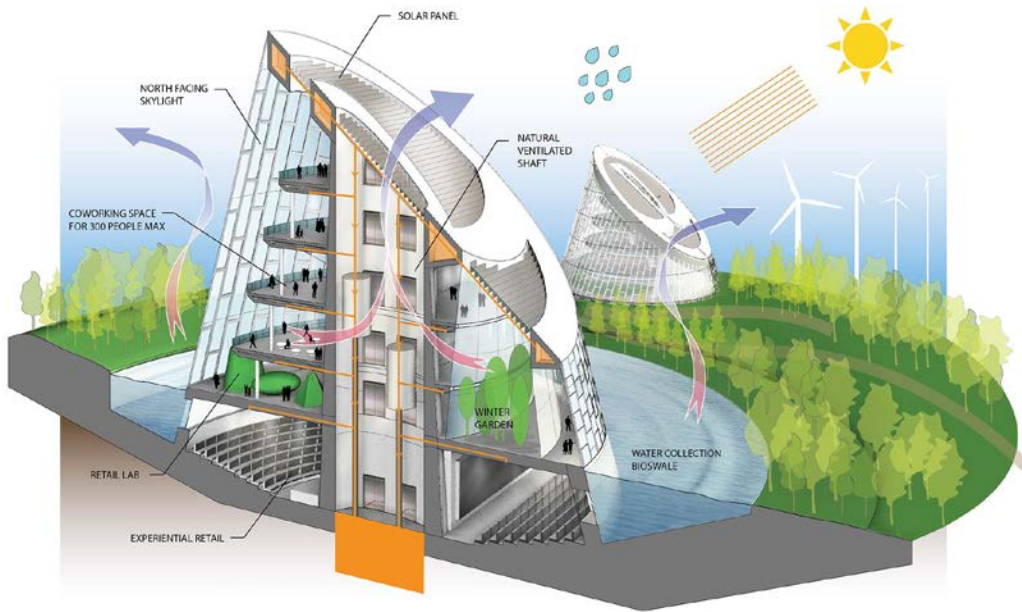
- The **power sector** has the **biggest potential** for cutting emissions. It can almost totally eliminate CO₂ emissions by 2050.
- **Electricity** could partially **replace fossil fuels** in transport and heating.
- Electricity will come from **renewable sources** like **wind, solar, water and biomass** or other **low-emission sources** like nuclear power plants or fossil fuel power stations equipped with carbon capture & storage technology.
- This will also require strong investments in **smart grids**

Transport

- Emissions from transport could be reduced to more than **60%** below 1990 levels by 2050.
- In the short term, most progress can be found in petrol and diesel engines that could still be made more **fuel-efficient**.
- In the mid- to long-term, plug-in **hybrid and electric cars** will allow for steeper emissions reductions.
- **Biofuels** will be increasingly used in aviation and road haulage, as not all heavy goods vehicles will run on electricity in future.

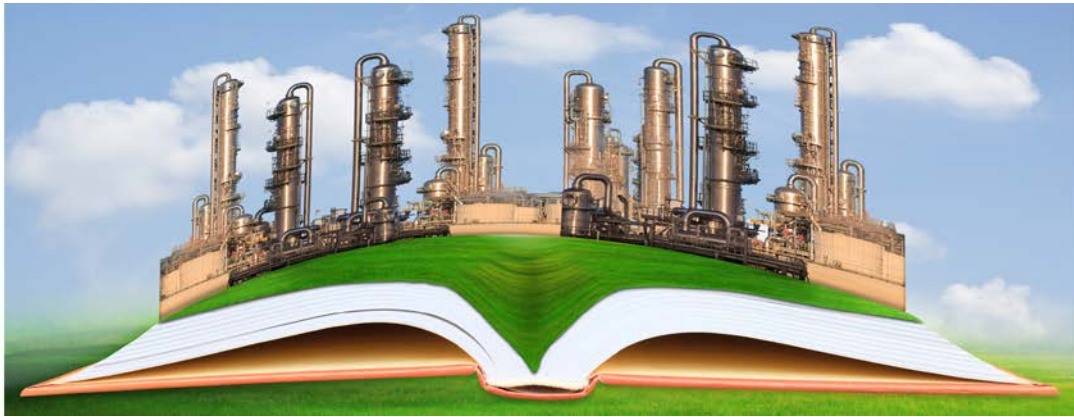


Buildings



- Emissions from houses and office buildings **can be almost completely cut – by around 90% in 2050.**
- Energy performance will improve drastically through:
- **passive housing** technology in new buildings
- **refurbishing** old buildings to improve energy efficiency
- substituting **electricity and renewables** for fossil fuels in heating, cooling & cooking
- **Investments can be recovered over time through reduced energy bills.**

Industry



- Energy intensive industries could cut emissions by **more than 80%** by 2050.
- The **technologies** used will get cleaner and more energy-efficient.
- Up to 2030 and just beyond, CO₂ emissions would fall gradually through further decreases in **energy intensity**.
- After 2035, **carbon capture & storage** technology would be applied to **emissions from industries unable to make cuts in any other way** (e.g. steel, cement). This would allow much deeper cuts by 2050.
- **Non-CO₂ emissions** from industry that are part of the **EU emissions trading system** are already forecast to fall to very low levels.

Agriculture



- As global food demand grows, the **share of agriculture in the EU's total emissions will rise** to about a third by 2050, but reductions are possible.
- Agriculture will need to cut emissions from **fertilisers, manure and livestock** and can contribute to the **storage of CO₂** in soils and forests. Changes towards a more healthy **diet with more vegetables and less meat** can also reduce emissions.

Transition to low-carbon society

- The **transition** to a low-carbon society is **feasible and affordable**, but requires **innovation** and **investments**.
- **boost Europe's economy** thanks to the **development of clean technologies** and **low- or zero-carbon energy**, spurring growth and jobs
- help Europe **reduce its use of key resources like energy, raw materials, land and water**
- make the EU less dependent on expensive **imports of oil and gas**
- bring health benefits – e.g. through **reduced air pollution**.
- To make the transition, the EU would need to **invest an additional €270 billion (or on average 1.5% of its GDP annually) over the next 4 decades**.



THANKYOU

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