THE EUROPEAN UNION EXPLAINED

European Commission

Climate action

Building a world we like, with a climate we like

A low-carbon economy boosts economic growth and creates jobs

THE EUROPEAN UNION EXPLAINED

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This publication is a part of a series that explains what the EU does in different policy areas, why the EU is involved and what the results are.

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The European Union explained: Climate action

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Why we need a European climate action policy

The Earth's climate is changing. The average global temperature is rising because of an increase in greenhouse gases from human activities. These gases allow the sun's energy in, but prevent heat from escaping.

The higher temperatures are having unprecedented consequences around the world. They cause glaciers to melt and sea levels to rise. They have brought flooding or droughts to regions which were previously immune to such extremes. These abnormal weather conditions are having an increasing impact on our economies, environment, health and daily lives.

Greenhouse gases

Greenhouse gases are so called because they trap the sun's heat in the atmosphere in the same way as a greenhouse traps heat with glass. The atmospheric concentration of carbon dioxide (CO_2), the most important greenhouse gas, is now at its highest level for at least 800 000 years.

The worldwide treaty known as the Kyoto Protocol currently limits developed countries' emissions of the following seven greenhouse gases:

- *carbon dioxide (CO_2): emitted by the burning of fossil fuels, wood or anything else made of carbon, but also absorbed by plants and trees;*
- *methane (CH_4): releases come from a wide range of natural sources and human activities, including fossil fuel production, livestock husbandry, rice cultivation and waste management;*
- *nitrous oxide (N_2O): emission sources are fertilisers, fossil-fuel combustion and industrial chemical production using nitrogen;*
- *four types of fluorinated gases developed specifically for industrial use: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) and nitrogen trifluoride.*

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Global warming is blamed for melting polar caps, raising sea levels and reducing the size of ice floes.

International negotiations are ongoing for a new global agreement. This agreement is due to be adopted in 2015. The European Union wants a new protocol that is ambitious, comprehensive and legally binding involving all.

Some consequences of climate change

— *Rising sea levels threaten low-lying island states and coastal communities.*

— *Extreme weather events jeopardise food production, especially in the poorest developing countries.*

— *Heatwaves over the past decade have caused tens of thousands of premature deaths in Europe.*

— *Water and food shortages could trigger regional conflicts, famine and refugee movements.*

— *Some plant and animal species are at increased risk of extinction.*

— *The cost of not adapting to climate change is estimated to reach at least €100 billion a year by 2020 for the European Union as a whole.*

Television frequently brings into our homes graphic footage of events caused by climate change, no matter where they occur. What is less immediately evident are the extra demands placed on health services and basic infrastructure by climate change and increasing political and security tensions over limited natural resources such as water. Global warming is not confined to melting ice caps and polar bears. It affects this and future generations.

Importance of science

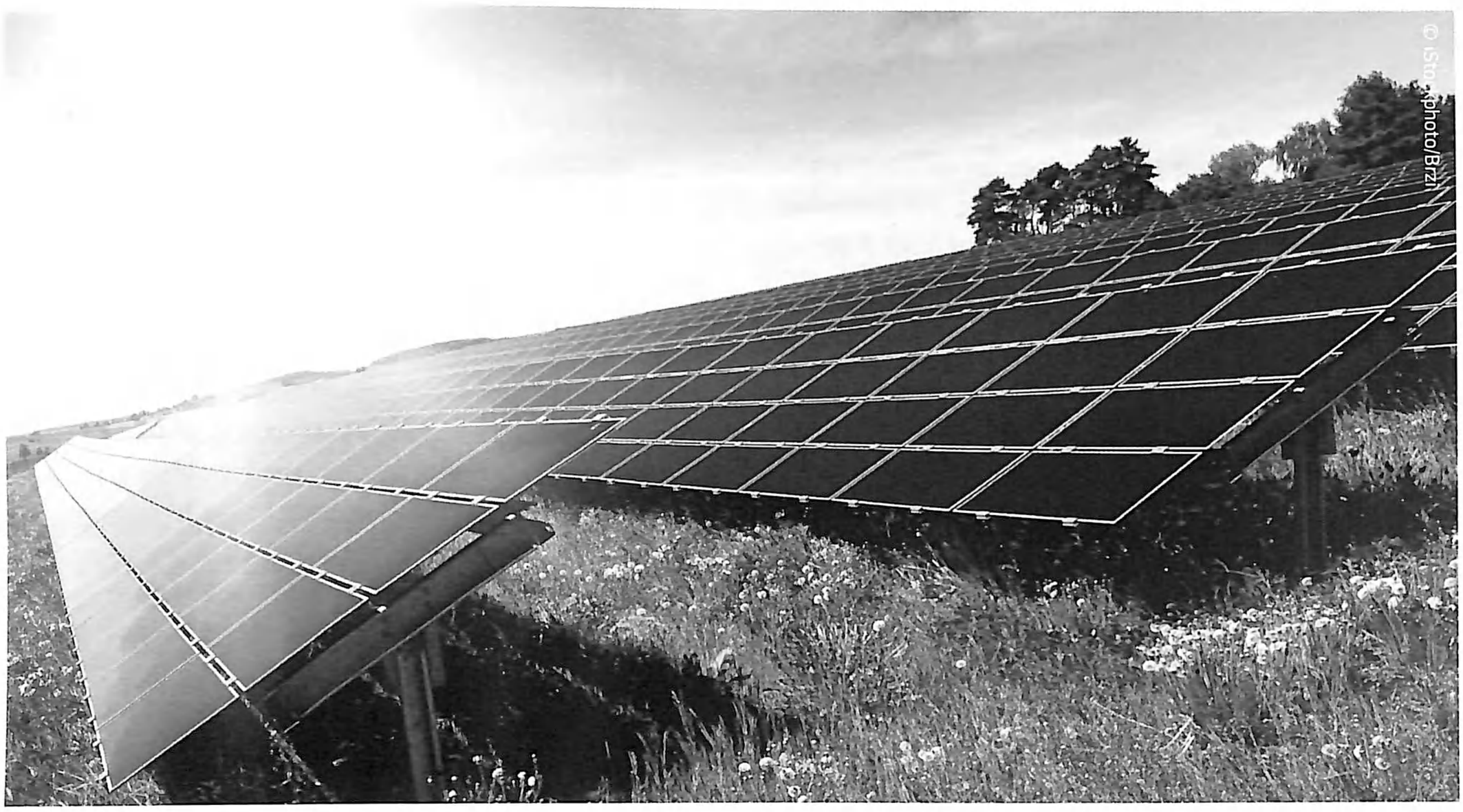
Climate change can be an emotive issue. Some deny it is happening and insist there is no need for changes in policies and behaviour to reduce greenhouse gas emissions. This line of argument ignores the conclusion of the vast majority of the world's climate scientists: 97 % agree that climate change is happening and that humans are causing it through activities which emit greenhouse gases, such as the burning of fossil fuels — coal, oil and gas — and deforestation. This conclusion is reflected in the internationally recognised scientific assessments of the Intergovernmental Panel on Climate Change (IPCC), which brings together the world's leading experts in atmospheric science.

Intergovernmental Panel on Climate Change

Established by the United Nations Environment Programme and the World Meteorological Organisation in 1988, the IPCC is the leading international body for the scientific assessment of climate change and its potential environmental and socioeconomic impact. The IPCC bases its assessments on tens of thousands of peer-reviewed studies made by scientists around the world.

The average surface temperature has risen by about 0.8 °C since 1880 globally but Europe's land area has warmed more, by some 1.4 °C. Scientific evidence indicates that irreversible and potentially catastrophic changes in the global environment are increasingly likely to occur if global average warming exceeds 2°C above the temperature in pre-industrial times (or around 1.2 °C above today's level).

Thirteen of the 14 warmest years on record have all happened this century. Recent analyses show that current action by governments around the world is not sufficient to prevent warming of more than 3 °C by the end of this century, with rises of 4 °C or even 6 °C not excluded.



Renewable energy sources provide environmental and economic benefits.

The EU has long argued for the need to limit global warming to no more than 2 °C. That imperative is now recognised by the international community. The EU bases its policies on sound science. It believes in leading global action to tackle climate change by example through binding targets for Member States and initiatives such as the Emissions Trading System (ETS).

Between 1990 and 2012, the EU reduced its own greenhouse gas emissions by 19 % while the economy grew by 45 %. As a result, the greenhouse gas emission intensity (ratio of emissions per unit of GDP) in the EU was reduced by almost half in that period. Decoupling — breaking the link between economic growth and increased emissions — occurred in all Member States.

Early action boosts economy

Preventing global warming from exceeding the 2 °C threshold is both technologically feasible and economically affordable. The earlier measures are put in place, the more effective and less expensive they will be. That is why despite the economic crisis and the strain it is placing on government finances, the EU continues its climate action policies. The structural policies implemented in the field of climate and energy have contributed significantly to the EU emission reduction observed since 2005. The economic crisis contributed to less than half of the reduction observed during the 2008–12 period.

Early action to develop a low-carbon economy is also helping to boost jobs and growth by stimulating innovation in clean technologies such as renewable energy and energy efficiency. This 'green economy' is not only one of the most promising areas for job creation — it also strengthens Europe's energy security and cuts our import bill by reducing dependency on imported oil and gas.

A boost for jobs

There has been considerable job creation in the environmental goods and services sector — often labelled as 'green jobs' — even during the economic crisis. Employment in the EU increased from 3 to 4.2 million between 2002 and 2011, including by 20 % during the recession years. In July 2014, the European Commission outlined a plan on how to further maximise job opportunities in 'green' sectors.

Climate change requires an international response

International action is essential since climate change knows no national boundaries. The EU was instrumental in the development of the UN Framework Convention on Climate Change, signed in 1992, and the 1997 Kyoto Protocol, which limits greenhouse gas emissions from developed countries.

However, today more than half of the world's emissions come from developing countries. The international community is therefore drawing up a new UN climate agreement that will require action by all nations. This is scheduled to be adopted in 2015 and to enter into force in 2020.

The European Commission's role in tackling climate change includes

— *developing and implementing EU climate action policies and strategies;*

— *representing the EU in international climate negotiations together with the Presidency of the Council of the EU;*

— *implementing the EU ETS;*

— *monitoring the EU countries' implementation of emission reduction targets in sectors outside the ETS;*

— *promoting the transition to a low-carbon economy based on clean technologies;*

— *implementing the EU strategy for adapting to climate change and supporting Member States' activities in this area;*

— *managing the EU budget, 20 % of which is earmarked to support climate action.*

How the EU goes about it

The EU has consistently set the pace in tackling climate change and encouraging moves towards a low-carbon economy. Its efforts in this area date back to 1990 when the EU committed to stabilising its carbon dioxide (CO_2) emissions at that year's levels by 2000, a target which it met. Since then, the Union has put in place a whole series of policy measures to reduce greenhouse gas emissions, many through the European climate change programme set up in 2000. In addition, Member States have taken specific national action.

EU leaders have set some of the most ambitious climate and energy targets for 2020 and the EU is the first region in the world to have passed binding legislation to ensure these are achieved.

In October 2014, EU leaders strengthened their commitment to make the European Union's economy and energy system more competitive, secure and sustainable by adopting the 2030 climate and energy framework. For the longer term, the EU has fixed ambitious emissions targets for 2050.

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Alternatives to fossil fuels can help the EU achieve its climate goals.

The 2020 strategy

Tackling climate change is one of the five headline themes of the wide-ranging Europe 2020 strategy for smart, sustainable and inclusive growth. Its specific targets aim to ensure that, by 2020, EU greenhouse gas emissions are cut by 20 %, 20 % of energy comes from renewables and energy efficiency is improved by 20 %.

The first two of these targets were implemented by a 'climate and energy package' of binding legislation that became law in June 2009.

This legislation sets compulsory national targets for renewable energy which reflect Member States' different starting points and potential for increasing renewables production as well as for emissions from sectors not covered by the EU ETS.

The national renewables targets for 2020 range from 10 % for Malta, a country with a renewable energy sector in its infancy, to 49 % for Sweden, a country with an advanced sector based on bioenergy and hydropower. Together, these national goals will achieve the 20 % target for the EU as a whole, substantially increasing the average share of energy consumption from renewables from 12.5 % in 2010.

Legislation setting non-binding national targets for improving energy efficiency was adopted in 2012.

Avoid and adapt

Mitigation *means reducing or limiting greenhouse gas emissions.*

Adaptation *means taking action to strengthen society's resilience to climate change and minimise the impact of its adverse effects.*

2030 framework

An integrated climate and energy policy framework for the period from 2020 to 2030 is needed to ensure regulatory certainty for investors and a coordinated approach among Member States.

The framework adopted by EU leaders in October 2014 will drive continued progress towards a low-carbon economy and serve to confirm the EU's ambition in international climate negotiations. It aims to build an energy system that ensures affordable energy for consumers, increases the security of the EU's energy supplies, reduces our dependence on energy imports, reduces our greenhouse gas emissions and creates new opportunities for green growth and jobs.

A centrepiece of the framework is the binding target to reduce EU domestic greenhouse gas emissions by at least 40 % below the 1990 level by 2030. A well-functioning reformed EU ETS is confirmed as the main instrument to achieve this target.

Renewable energy is essential in the transition towards a competitive, secure and sustainable energy system. EU leaders agreed to the objective of increasing the share of renewable energy to at least 27 % of the EU's energy consumption by 2030.

Finally, energy efficiency is a key component of the 2030 framework. An indicative target of 27 % energy savings for 2030 has been endorsed by the EU leaders. It has to be delivered in a cost-effective manner and will fully respect the effectiveness of the EU ETS in contributing to overall climate goals. This target is to be reviewed in 2020 having in mind a 30 % target

2050 targets

As its contribution to keeping global warming below 2 °C, the EU has committed to the long-term goal of cutting its emissions by 80–95 % of 1990 levels by 2050 in the context of developed countries as a group taking similar action. Reducing emissions to this extent will require the EU to become a low-carbon economy.

In 2011, the Commission published a 'roadmap' setting out how a competitive low-carbon economy could be achieved the most cost-effectively by 2050, including milestones to measure progress. The roadmap shows how different sectors ranging from power generation to agriculture can help reach this goal. Power generation would need to become almost 100 % carbon free by the mid-century. The EU would use around 30 % less energy in 2050 by becoming more energy efficient. The use of more locally produced energy would reduce dependence on imports, and the transition to a low-carbon economy would also involve a reduction in air pollution and its associated health costs.

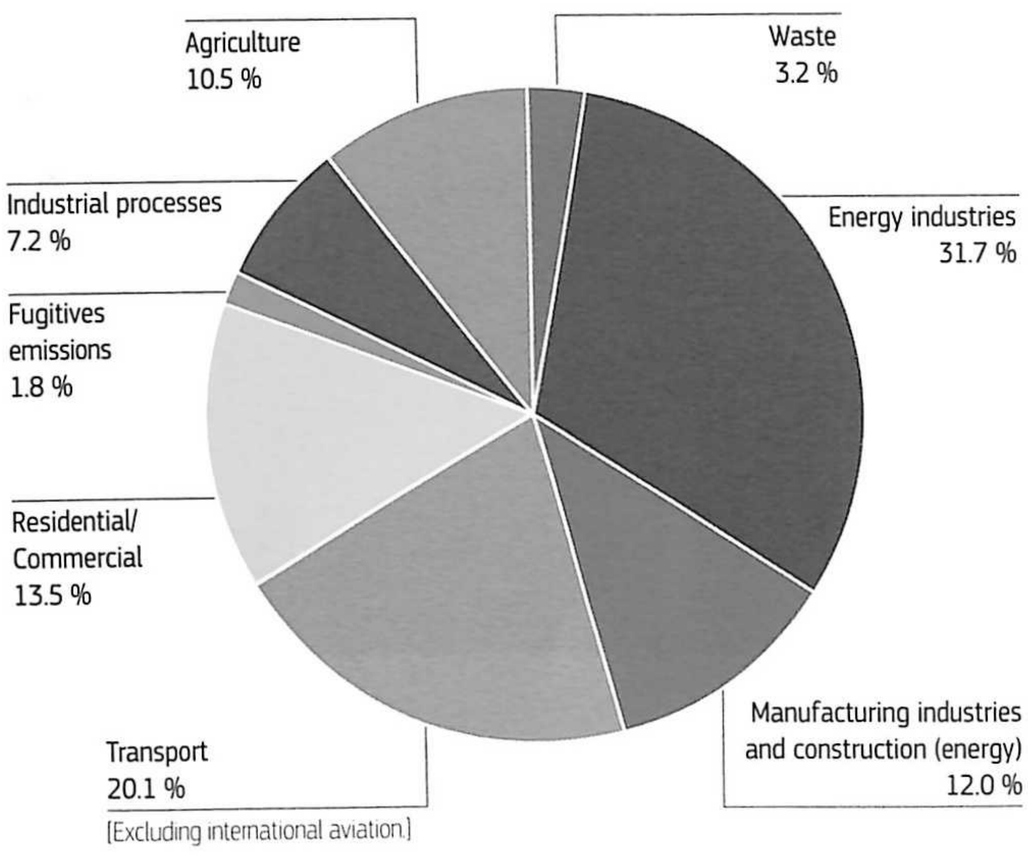
Adaptation

The impact of climate change is already making itself felt. Even if greenhouse gas emissions are sharply reduced, warming of the Earth will continue for decades, and the impact will be experienced for centuries because of the delayed effect of past emissions. That is the reason why adaptation and mitigation are complementary.

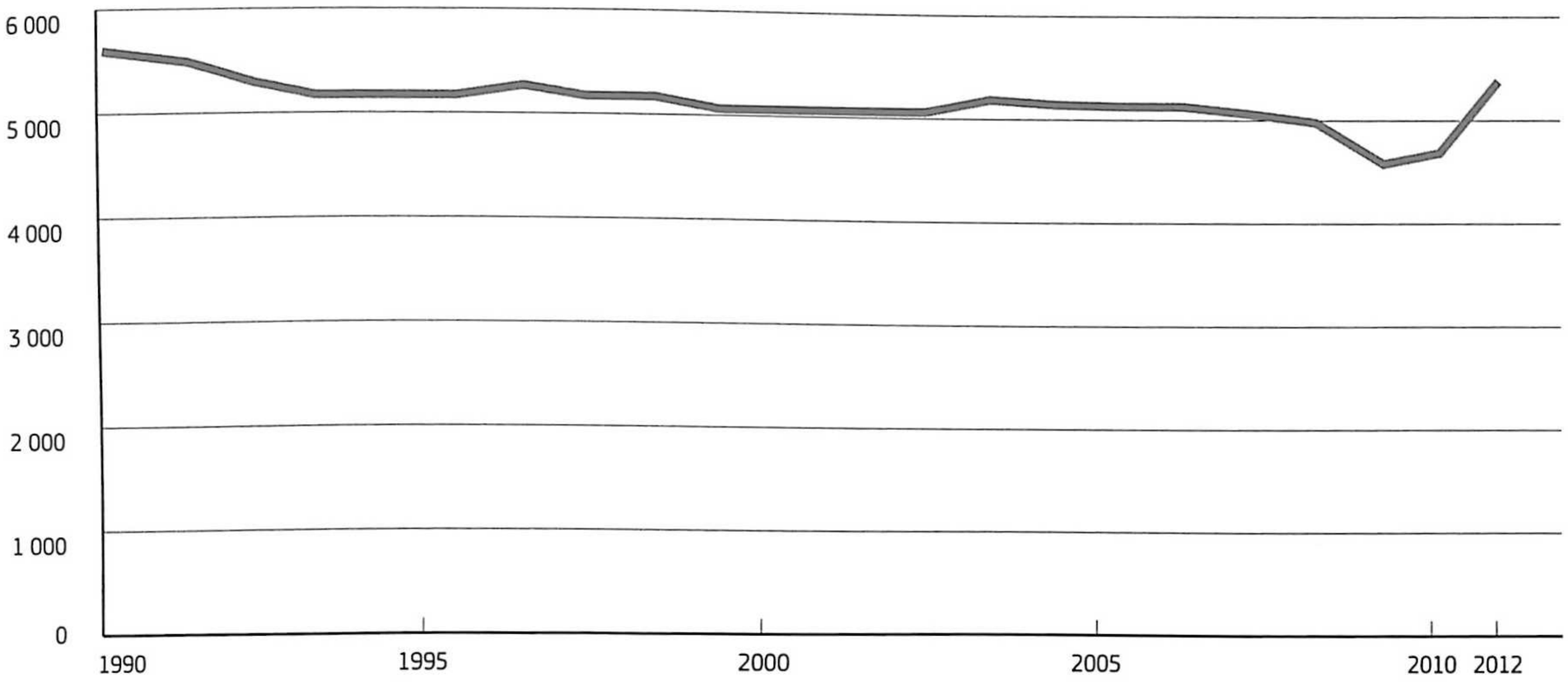
The European Commission has developed an EU adaptation strategy which aims to strengthen Europe's resilience to the impacts of climate change. Adaptation means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimise the damage they can cause, or taking advantage of opportunities that may arise. It has been shown that well-planned, early adaptation action saves money and lives later.

Due to the varying severity and nature of climate impacts between regions in Europe, most adaptation

WHERE DO GREENHOUSE GASES COME FROM?



Total greenhouse gas emissions by sector in 28 EU countries, 2012.



Total greenhouse gas emissions in the 28 EU countries, excluding land use, land-use change and forestry (LULUCF) (million tonnes).

initiatives will be taken at the regional or local levels. Complementing these activities, the EU strategy includes several elements to support Member States in adaptation: providing guidance and funding, promoting knowledge generation and information sharing, and ensuring that adaptation considerations are addressed in all relevant EU policies.

The European Climate Adaptation Platform (http://climate-adapt.eea.europa.eu), launched in 2012, provides support for adaptation action in Europe. In 2014, Mayors Adapt, an initiative from the European Commission under the framework of the Covenant of Mayors, was set up to engage cities in taking action on climate change adaptation. The initiative provides for support on adaptation, networking and public awareness at the local level where the impact of climate change will be felt the most..

Europe's contribution to global emissions

The EU is responsible for around 10 % of world greenhouse gas emissions. Nearly 80 % of European emissions come from the production and use of energy, including transport.

International action

Worldwide, greenhouse gas emissions continue to rise every year. This global challenge requires a global response. In international negotiations on climate change, the European Union speaks with one voice. The Commission and the country holding the rotating 6-month presidency of the Council of the EU negotiate for the EU.

The United Nations Framework Convention on Climate Change (UNFCCC), agreed in 1992, was the first major international agreement to address climate change. Ratified by 196 countries including all EU Member States at the time, plus the EU as a separate entity, it has established a framework for countries to work together with the goal of preventing dangerous man-made interference with the global climate system.

In 1997, the convention was supplemented by the Kyoto Protocol, the international treaty that sets binding obligations on industrialised countries to reduce emissions of greenhouse gases. The protocol entered into force in 2005 and represents the first step towards reversing the global trend of rising emissions.

New international push

Despite much anticipation, the negotiations round launched in 2007 did not succeed in reaching a comprehensive new UN climate agreement in Copenhagen in 2009. However, it led to some 100 countries, including the EU Member States, making pledges to reduce or limit their emissions by 2020. On the initiative of the EU and the most vulnerable developing countries, the UN climate conference in 2011 decided to launch a fresh round of negotiations, this time with the objective of agreeing to a global climate treaty requiring action by all countries, developed and developing alike. The new agreement is due to be adopted in Paris in 2015 and enter into force in 2020.

In the run-up to Paris, areas of convergence are emerging with several developed and developing countries concurring on the need to revisit the application of the principle of common but differentiated responsibilities and respective capabilities (CBDR-RC). The division of countries into those who are obliged to act on reducing greenhouse gases, and those who have no obligations in this respect, can no longer be based on income levels as they were at the time of the Rio Earth Conference in 1992.

In the first quarter of 2015 all countries in the position to do so should communicate their intended greenhouse gas reduction contribution to which they are ready to commit in the context of the new climate agreement. This will allow for a transparent assessment of the adequacy of individual and collective action against the objective of keeping global warming below 2 °C.

As for the EU contribution, the 40 % domestic emissions reduction target agreed by the European Council confirms the EU's leadership in the global fight against climate change. It is also an invitation for all other major economies to show their responsibility by coming forward with their respective targets well before Paris.

In parallel with drawing up the new global agreement, the international community is discussing ways to raise the ambition level of global climate action up to 2020. This reflects the recognition that the commitments made so far fall well short of what is needed to get global emissions onto a path that maintains global warming below 2 °C. To keep that ceiling within reach, scientific studies show that global emissions need to peak by 2020 at the latest, be at least halved from 1990 levels by 2050, and then continue to decline.

These discussions involve political leaders at the highest levels. At the leaders' summit on climate change hosted by UN Secretary-General Ban Ki-moon in September 2014, some 120 world leaders expressed their willingness to commit to the urgently needed global efforts. Businesses and wider civil society participated in great numbers, and the so-called People's Climate March saw some 500 000 people take to the streets of New York.

The EU ETS is a key tool in the cost-effective reduction of greenhouse gases.

What European climate action policy consists of

The EU has a range of policies to reduce emissions, promote clean energy and energy efficiency, and stimulate Europe's transition to a low-carbon economy. The single most important instrument is the ETS, which has created the world's biggest carbon market. The EU pioneered trading in greenhouse gas emission allowances and this is now being replicated elsewhere. The EU ETS has successfully brought the consequences of climate change to the attention of business by placing a price on carbon emissions.

Emissions Trading System (ETS)

Launched in 2005, the EU ETS is the cornerstone of the EU's climate strategy. It covers some 45 % of emissions from over 12 000 installations in the power-generating industry and other energy-intensive sectors in the Union, Iceland, Liechtenstein and Norway.

The basic premise of the scheme is simple. A limit or 'cap' is set on overall emissions from the installations covered, such as power stations. Within this limit, installations receive and buy allowances to emit a certain tonnage of greenhouse gases every year. Those that produce less can sell their surplus allowances. Those that expect to produce higher emissions than their allowances cover can either invest in measures or technologies to reduce their emissions or buy additional allowances on the market to cover some or all of their excess. This ability to trade, within the limits of the overall cap on emissions, creates flexibility. It ensures that emissions are cut where it is cheapest to do so and investments are directed to where the greatest emission savings can be made at the lowest cost.

Initially, many of these allowances were given free to the installations concerned, but since the beginning of 2013 some companies have had to buy all their allowances at auction, while others have had to buy a proportion which increases annually. The cap on the total emissions permitted from the installations is gradually being reduced. By 2020, emissions will be 21 % lower than in 2005.

'Cap-and-trade' systems like the EU ETS are spreading to other parts of the world. They are in operation or planned in Australia, China, Japan, New Zealand, South Korea, Switzerland and parts of Canada and the United States.

The EU wants to see the international carbon market develop through the creation of a network of compatible emission trading systems.

Emissions from flights

Aviation emissions are growing fast. By 2020, global international aviation emissions are projected to be around 70 % higher than in 2005 and by 2050 they could grow by a further 300–700%.

Since 2012, all airlines flying between airports within the EU have been part of the ETS. To give further time for the UN's civil aviation agency to establish a global scheme to address aviation emissions, the EU has not yet put into effect the inclusion into the EU ETS of international flights to and from airports outside the European Union.

Transport gases on the rise

Someone taking a return flight from London to New York generates roughly the same level of emissions as the average European citizen does by heating their home for a full year.

Supporting innovative technologies

The EU has set up one of the world's largest programmes to support the development of innovative low-carbon technologies. The 'NER 300' programme is financed from proceeds of the sale of 300 million EU ETS allowances. It supports innovative renewable energy technologies as well as technologies for capturing and storing carbon emissions from power plants.

Following two calls for proposals awarded in 2012 and 2014, the NER 300 programme will provide funding to 38 innovative renewable energy sources (RES) and carbon capture and storage (CCS) projects, which will be implemented in 20 EU Member States.

The cumulative NER 300 funding will be €2.1 billion, which will leverage approximately €2.8 billion of private investments. Renewable energy projects will increase

the annual EU renewable energy production by some 18 TWh. Together with the emissions captured by the CCS projects, this will be the equivalent of taking over three million cars off EU roads.

Addressing non-ETS emissions

Some 55 % of the EU's emissions are not covered by the EU ETS. The sectors concerned include transport, buildings, agriculture and waste. To ensure these emissions are addressed, Member States have signed up to an 'effort-sharing' agreement which sets binding national targets for non-ETS emissions covering the years up to and including 2020.

These targets range from an emissions reduction of 20 % in 2020 for the richest EU members to an increase in emissions of 20 % for the poorest. The targets mean the EU's overall emissions from the non-ETS sectors will be cut by 10 % by 2020 compared with 2005 levels.

Road transport

The Commission's roadmap for moving to a competitive low carbon economy in 2050 and the transport white paper indicate that the transport sector as a whole should by 2050 reduce its CO_2 emissions by around 60 % of their 1990 level. By 2030, to support the 2030 climate policy framework objectives, the goal will be to reduce greenhouse gas emissions from transport to around 20 % below their 2008 level.

Cars and vans produce some 15 % of the EU's emissions of CO_2, so reducing these can make a significant contribution to combating climate change.

Transport is one of the major sources of greenhouse gas emissions.

EU legislation sets out clear emission limits which manufacturers must respect. New cars emitted an average of 159 grams of CO_2 per kilometre in 2007. From 2015, this must be cut to 130 g/km, an 18 % reduction, and from 2020 to 95 g/km, a further decrease of 40 %. For new vans, average emissions per kilometre must fall to 175 g by 2017, a 14 % reduction from the 2007 level of 203 g, and to 147 g in 2020, an additional 28 % cut.

The policy to curb vehicles' emissions is already paying off. New cars sold in 2013 emitted on average 127 grams of CO_2 per kilometre. This means the legal target of 130g/km set for 2015 was met two years in advance.

Trucks, buses and coaches produce about 5 % of the EU's CO_2 emissions. In May 2014, the European Commission adopted a strategy to address CO_2 emissions from these heavy-duty vehicles (HDVs) and proposed, as a first step, to introduce legislation on the certification of CO_2 emissions from HDVs.

Technological innovation can help the transition to a more efficient and sustainable European transport system by improving fuel efficiency through new engines, materials and design.

To help drivers choose new cars with the greatest fuel economy, European legislation requires Member States to ensure that customers are provided with all the relevant information, including a label showing a car's fuel efficiency and the CO_2 emissions it produces.

Fuel quality is also an important element in reducing greenhouse gas emissions from transport. For fuels used in vehicles, the EU requires that their 'greenhouse gas intensity' — the amount of gas emitted over the fuels' life cycle, from extraction to distribution — be reduced by up to 10 % by 2020. Measures have also been proposed to minimise the climate impact of producing biofuels by limiting the amount of land which can be converted from agriculture and forestry for this use.

Road emissions continue to climb

Greenhouse gas emissions from road transport increased by 29 % during the period 1990 to 2007 but fell by 9 % between 2007 and 2012 on the back of the economic crisis, high oil prices, increased efficiency of passenger cars and slower growth in mobility. Road transport contributes about one fifth of the EU's total emissions of carbon dioxide (CO_2).

Efforts to make homes more energy efficient can save money and help the environment.

Energy efficiency

To help meet its 2020 target, the EU adopted legislation in 2012 to promote efficiency in all stages of the energy chain, from transformation to distribution and final consumption. This requires each Member State to establish energy efficiency obligation schemes and policy measures to improve energy use in households, industry and transport. It also gives consumers the right to know how much energy they consume.

There is considerable scope for saving energy and reducing emissions from buildings. The Commission estimates that these emissions could be cut by around 90 % by 2050. Under legislation on the energy performance of buildings, new constructions will have to use zero energy in net terms from 2021 onwards, meaning that they will have to produce as much energy as they use. The process has already started and many Member States already apply stricter energy rules. Since 2012, all national public purchasing tenders have had to include energy efficiency standards for relevant buildings and services.

Agriculture, forests and land use

Forests and agricultural land use play an important role in climate change. Trees and plants absorb and store carbon dioxide, removing it from the atmosphere. Overall, it is estimated that these land activities in the EU remove carbon from the atmosphere equivalent to some 9 % of the EU's total greenhouse gas emissions from other sectors.

On the other hand, agricultural activities such as harvesting trees and crops, draining wetlands and ploughing grassland reduce the take-up of carbon or even reverse it, potentially turning forests and agriculture into emission sources.

To keep track of this, legislation agreed in 2013 commits Member States to draw up annual accounts of the amount of carbon absorbed by their forests and agricultural soils, as well as how much is emitted. This is a first step towards incorporating such land use into the EU's emission-reduction efforts. The European Council went further in October 2014 and asked the European Commission to adopt legislative proposals on the integration of the land-use sector into the EU's mitigation framework.

In addition to measures within its own borders, the EU provides assistance to reduce deforestation in developing countries. This financial support complements a negotiating process under the UN climate change convention, known as reducing emissions from deforestation and forest degradation (REDD-plus), which has drawn up a set of international rules to address this problem.

Capturing industrial emissions

Carbon capture and storage technology allows CO_2 to be captured from power plants and industrial processes, turned into liquid, transported and injected into underground geological formations from which it cannot escape. The EU has put in place a regulatory framework to minimise the safety and environmental risks of such storage.

Deforestation contributes to climate change.

'Mainstreaming'

Increasingly, all relevant European policies, such as regional development, agriculture, fisheries and energy, need to take climate mitigation and adaptation into account. EU leaders have agreed to spend at least 20 % of the 2014–20 EU budget on climate-related measures.

Raising awareness

The Commission launched a pan-European communication campaign in 2012 with the slogan 'A world you like. With a climate you like'. The campaign puts practical solutions at the heart of the climate change debate and shows how the transition to a low-carbon economy can improve citizens' welfare and bring economic benefits.

Helping developing countries

Developing countries, particularly the poorest and most vulnerable, require significant financial help to reduce their greenhouse gas emissions and adapt to the consequences of climate change.

Even changing to energy-efficient light bulbs can make a difference.

The EU is the biggest provider of overseas development aid and of climate finance. At the Doha Climate Change Conference in 2012, the EU and a number of Member States announced voluntary climate finance contributions to developing countries adding up to €5.5 billions from their respective financial provision in 2013.

The EU and its Member States are committed to continuing this financial assistance and intend to contribute their fair share of the USD 100 billion in funding which developed countries have pledged to mobilise annually by 2020. Some of the USD 100 billion is being channelled through the new Green Climate Fund.

The EU plans to commit up to €14 billion in grants from the EU budget and the European Development Fund (EDF) over the years 2014–20 to support climate action in partner countries outside the EU, in line with the goal of investing at least 20 % of the EU's budget in climate-relevant actions during 2014–20.

LIFE — Investing in climate action, investing in LIFE

Since 1992, the EU's 'LIFE' financial instrument has successfully co-financed more than 4 000 projects, contributing €3.4 billion to the protection of the environment and climate within Europe.

The new LIFE sub-programme dedicated to climate action will provide €864 million of co-financing between 2014 and 2020 to develop and implement innovative ways to respond to climate change challenges.

The LIFE climate action sub-programme aims to contribute to the shift towards a low-carbon and climate-resilient economy, to improve the development, implementation and enforcement of EU climate change policy and legislation, and to support better environmental and climate change governance at all levels.

Several types of funding are available. Public authorities, non-profit organisations and private actors, especially small and medium-sized enterprises, will be supported in implementing small-scale low-emission and adaptation technologies and new methods and approaches through annual calls for projects.

Funding is also channelled through two pilot financial instruments, the Natural Capital Financing Facility (NCFF) and Private Finance for Energy Efficiency (PF4EE). They provide the opportunity to finance projects through loans and are able to leverage private funds through guarantee schemes via the European Investment Bank and local banks.

Outlook

One of the European Commission's political priorities is the establishment of a resilient energy union with a forward-looking climate change policy. The European Commission will help the EU achieve its goal of becoming the world number one in renewable energy and will significantly enhance energy efficiency to unleash green growth.

The EU and the international community have made considerable progress over the past decade in tackling climate change. However, to keep global warming below 2°C, worldwide emissions must peak well before 2020 and then be reduced deeply every year after that. This is one reason why the EU wants an ambitious and legally binding international treaty agreed in 2015 under which all countries take on commitments reflecting their responsibility and capacity to act.

The UN summit of world leaders of September 2014 gave added political momentum to the work on the new treaty and on ways to achieve more ambitious global emission reductions before 2020.

The urgency has been underlined by the International Energy Agency, which has repeatedly warned that the goal of keeping warming below 2°C is becoming more difficult and more costly to achieve with each year that passes. Every euro of investment not made in cleaner technology by 2020 will cost over four times more after that date.

On course for 2020...

The EU is currently on course to over-achieve its target of reducing emissions by 20 % by the end of the decade. This is thanks to its 2020 strategy, legislation already agreed and new measures in the pipeline.
The CO_2 targets for cars and vans will further increase the transport sector's contribution to tackling climate change.
Measures in the pipeline include a further reduction in emissions of climate-warming fluorinated gases used in refrigeration and air conditioning. These so-called F-gases have a warming effect up to 23 000 times greater than CO_2. A new EU regulation, which applies from January 2015, strengthens the existing measures. By 2030, the EU's F-gas emissions will be cut by two thirds compared to today's level.

....and preparing for 2030

The year 2030 is the next milestone on the road to building a competitive low-carbon European economy by the mid-century. To achieve the overall 40 % target, the sectors covered by the EU ETS will have to reduce their emissions by 43 % compared to 2005. Emissions from sectors outside the EU ETS will need to be cut by 30 % below the 2005 level. This will need to be translated into Member State targets. The European Council of October 2014 has outlined the main principles to achieve this.

Reforming the EU Emission Trading System

In January 2014, the European Commission proposed creating a market stability reserve from 2021 onwards. This is to address the surplus of emission allowances in the EU ETS that has built up in recent years and to improve the system's resilience to major shocks. This will ensure that in the future the EU ETS is more robust and effective in promoting low-carbon investment at the least cost to society.

At its meeting in October 2014, the European Council underlined that a reformed, well-functioning ETS with an instrument to stabilise the market in line with the Commission's proposal will be the main instrument to achieve greenhouse gas emission reductions.

Low-carbon exit from the crisis

The year 2030 may seem a long way off from today's perspective as Europe addresses the immediate challenges of weak economic growth and unemployment. But stepping up the transition to a climate-friendly, low-carbon economy can help pull Europe out of the economic crisis. It is therefore imperative to act now.

The public also expects action. A public opinion survey carried out for the European Commission in 2013 showed strong support for climate action: four out of five Europeans recognise that fighting climate change and using energy more efficiently can boost the economy and jobs and nine out of ten see climate change as a serious problem.

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Find out more

- **European Commission Climate Action website**: http://ec.europa.eu/clima
  http://ec.europa.eu/clima/citizens/causes/index_en.htm: available in all EU languages
- **European Commission Climate Action social media**: https://www.facebook.com/EUClimateAction
  https://twitter.com/EUClimateAction
  https://www.youtube.com/user/EUClimateAction
- **Intergovernmental Panel on Climate Change site**: http://www.ipcc.ch
- **Questions about the European Union? Europe Direct can help**: 00 800 6 7 8 9 10 11
  http://europedirect.europa.eu

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