



EU Climate mitigation and adaptation strategies

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International Framework: the Paris Agreement

The Paris Agreement has been adopted in the COP21 on 12 December 2015. As of today, all the 197 *UNFCCC* members have signed it, and 187 Parties have ratified it. The only significant emitters which are not parties yet are Iran and Turkey.





International Framework: the Paris Agreement

The Paris Agreement central aim is to strengthen the global response to the threat of climate change by keeping a **global temperature rise this century well below 2 degrees Celsius above pre-industrial levels**, and to pursue efforts to limit the temperature increase even further to **1.5 degrees Celsius**.

The Paris Agreement requires all Parties to put forward their best efforts through **nationally determined contributions (NDCs)**

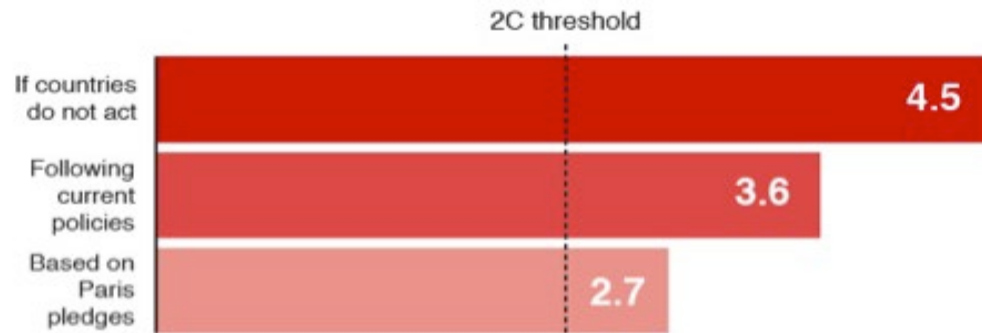
The EU has been the **first major economy** to send its intended nationally determined contribution (INDC) on 6 March 2015, well in advance of the Paris Agreement.





International Framework: the Paris Agreement

Average warming (C) projected by 2100



Source: Climate Action Tracker, data compiled by Climate Analytics, ECOFYS, New Climate Institute and Potsdam Institute for Climate Impact Research.

The Signatories have agreed to the following targets:

- 40% CO₂eq emissions by 2030;
- -80-95% by 2050, compared to the levels of 1990.

The Paris pledges, however, are not enough to reach even the 2°C target.

2018 IPCC Report strongly pointed out that 1.5°C is the limit to avoid the no-coming back turning point.

In the mean time, the campaigns calling for more action on climate change have been joined massively all around the world: the young people of the *Global Strikes for Climate*, the activists of the *Divesting movements*.



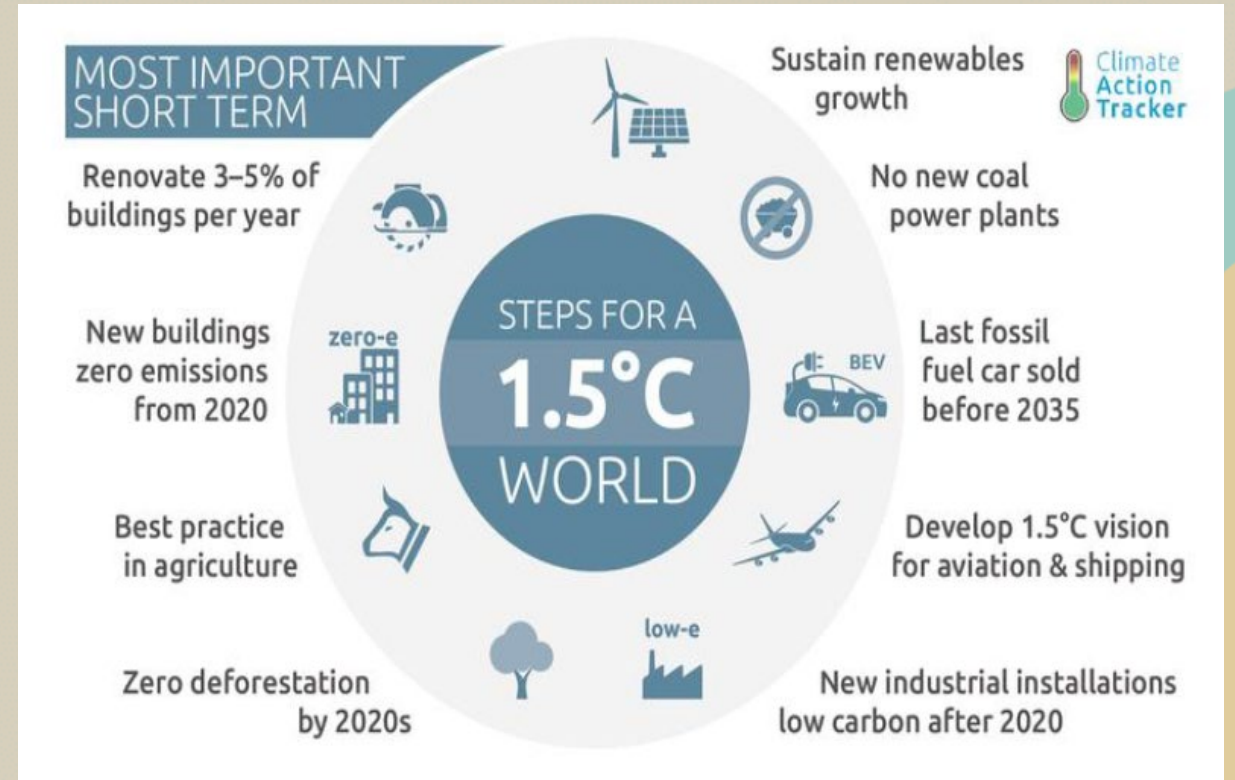


International Framework: the Paris Agreement

To limit global warming to:

+1,5°C= global net CO₂ emissions from human activities must decrease by around 45% by 2030 compared to 2010 levels, and reach zero (net) by 2050.

+2°C= CO₂ emissions must drop by around 20% net by 2030 and reach zero (net) by 2075.





International Framework: bottom-up action

In the mean time, the **campaigns** calling for more action on climate change have been joined massively all around the world: for example, the young people of the *Global Strikes for Climate*, the activists of the fossil fuel *Divesting*.



Photo by Markus Spiske on Unsplash





EU climate strategies and policies: overview

- The 2020 Climate and Energy Package and the 2030 Climate and Energy Framework
- The Green Deal
- Climate finance (EIB)
- The Adaptation Strategy





First European Climate Change Programme

The first ECCP (2000-2004) examined an **extensive range of policy sectors and instruments** with potential for reducing greenhouse gas emissions.

Working groups:

- Transport
- Industry (sub-groups on fluorinated gases, renewable raw materials and voluntary agreements)
- Research
- Agriculture
- Sinks in agricultural soils
- Forest-related sinks
- Flexible mechanisms: emissions trading
- Flexible mechanisms: Joint Implementation and Clean Development Mechanism
- Energy supply
- Energy demand
- Energy efficiency in end-use equipment and industrial processes

Each working group identified options and potential for reducing emissions based on cost-effectiveness, as well as impacts on other policy areas and potential co-benefits, for instance in terms of energy security and air quality. One of the most important and innovative initiatives that resulted from the first ECCP is the **EU Emissions Trading System**.





Second European Climate Change Programme

The second ECCP launched in **2005** explored further cost-effective options for reducing greenhouse gas emissions in synergy with the EU's Lisbon strategy for increasing economic growth and job creation.

Working groups:

- ECCP I review to facilitate and support the implementation of the priorities identified in the first phase (5 subgroups: transport, energy supply, energy demand, non-CO₂ gases, agriculture)
- Aviation
- CO₂ and cars
- Carbon capture and storage
- **Adaptation to the effects of climate change**
- Reducing greenhouse gas emissions from ships

Additional measures were investigated on flexible mechanisms, agriculture, sinks in agricultural soils and forest-related sinks.

A number of specific actions identified during the first phase were also further developed – e.g. the E2MAS energy audit and management scheme, the Motor Challenge Initiative and promotion of renewables in heating applications





2020 Climate and Energy Package

Definitely adopted by the EU Council in December 2018, it is a set of **binding legislation** to ensure the EU meets its climate and energy targets for the year 2020.

It sets the **following goals** for 2020:

- -20% cut in **greenhouse gas** emissions (from 1990 levels)
- 20% of EU energy from **renewables**
- 20% improvement in **energy efficiency**





The 2020 Climate and Energy Package

The tools adopted by the EU to meet these targets are many. A few examples:

The **Emission Trading System (ETS)**:
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.

The **National Emission Reduction Targets**: covers the **sectors not in the ETS** – accounting for some **55% of total EU emissions** – such as:

- housing
- agriculture
- waste
- transport (excluding aviation).





The 2020 Climate and Energy Package

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Renewable Energy - national targets:

EU member countries have also taken on **binding national targets** for raising the share of renewables in their energy consumption by 2020, under the *Renewable Energy Directive*.

These targets also **vary**, to reflect countries' different starting points for renewables production and ability to further increase it – from 10% in Malta to 49% in Sweden.

Measures for increasing Energy Efficiency:

Energy Efficiency Plan and Energy Efficiency Directive.

Innovation and financing:

The EU supports the development of **low carbon technologies** - for example under *Horizon 2020*.





The 2030 Climate and Energy Framework

Adopted by the EU Council in October 2014, it includes EU-wide **targets and policy objectives** for the period from **2021 to 2030**.

Key targets for 2030:

- At least 40% cuts in **greenhouse gas emissions** (from 1990 levels).
- At least 32% share for **renewable energy** – initially 27%, **revised upwards in 2018**.
- At least 32.5% improvement in **energy efficiency** – initially 27%, **revised upwards in 2018**.



Member States are obliged to adopt integrated **National Climate and Energy Plans** (NECPs) for the period 2021-2030.





The 2030 Climate and Energy Framework



Greenhouse Gas Emissions

2020	2030
-20%	≥-40%



Renewable Energy

2020	2030
20%	≥32%



Energy Efficiency

2020	2030
20%	≥32.5%



Climate in EU-funded programmes 2014-2020

2020	2030
20%	25%



Interconnection

2020	2030
10%	15%



CO2 from :

Cars	Vans	Lorries
2030		
-37.5%	-31%	-30%





The EU Strategy on Adaptation to climate change

Adopted by the EU in 2013, it aims to make Europe more climate-resilient. It focuses on three **key objectives**:

Promoting action by Member States

The Commission asked all Member States to adopt comprehensive adaptation strategies and plans by 2017. It provides funding to help them build up their adaptation capacities and take action. It also supports adaptation in cities through the *Covenant of Mayors for Climate and Energy Initiative*.

Climate-proofing action at EU level

by further promoting adaptation in key vulnerable sectors such as agriculture, fisheries and cohesion policy, ensuring that Europe's infrastructure is made more resilient, and promoting the use of insurance against natural and man-made disasters.

Better informed decision-making

by addressing gaps in knowledge about adaptation and further developing the European climate adaptation platform (*Climate-ADAPT*).





The Green Deal

On the 11 December 2019, the President of the EU Commission Ms Ursula von der Leyen presented the *European Green Deal*.
As long-term objective, the EU intends to be **climate neutral in 2050**.

The Commission will propose a *European Climate Law* turning the political commitment into a legal obligation and a trigger for investment.

The EU Commission foresees to mobilise **at least 1 trillion** of investments over the course of **10 years**, of which **503 billion** as **EU budget** for Climate and Environment.





The Green Deal – Just Transition Mechanism

The *Just Transition Mechanism (JTM)* will provide targeted support to regions and sectors that are most affected by the transition towards the green economy.

Helping address the social and economic effects of the transition, focusing on the regions, industries and workers who will face the greatest challenges, and mobilising at least **€100 billion**, through:

Financial support:

- A new *Just Transition Fund* of €7.5 billion, generating at least **€30-50 billion** of investments
- InvestEU *Just Transition* scheme, mobilising **€45 billion** of investment;
- A new public sector loan facility with the EIB backed by the EU budget, mobilising **€25-30 billion** of investments.

Attractive conditions

and risk sharing for public and private investors.

Transition Plans

for beneficiary regions to steer the investments.

Technical Assistance

via a Just Transition Platform to advise and support.



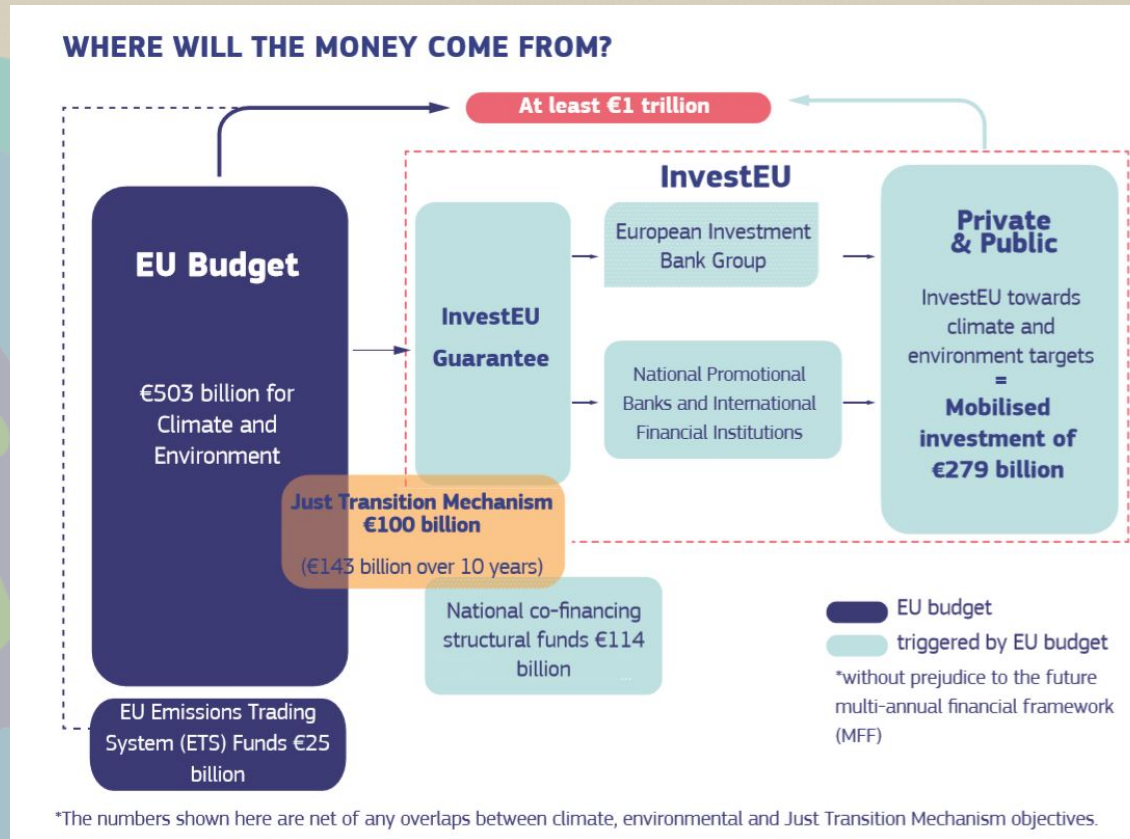


The Green Deal – Investment Plan

€1 trillion of investments mobilized over the course of 10 years, thanks to the combined:

Technical assistance to help investors in selecting sustainable projects.

Capital from EU and national budgets - 25% of all European Union funding for climate measures.



Attractive investment conditions - Stimulating green investments with support from the EIB Group.

Public and private investments - 30% of *InvestEU* to projects that fight climate change. Additional measures to facilitate and boost green public and private investment.





Climate Finance

As already mentioned, massive campaigning calling for divesting from fossil fuels raised all over the world.

Most of the campaigns are coordinated by *Go Fossil Free* – latest updates in real time:

<https://gofossilfree.org/divestment/commitments/>.

The EU is the world's largest contributor to international climate finance: in 2017, **20.4 billion euros** of public money.

(EUR million, commitment appropriations)

Programme	2014-2017				2018-2020 estimates			Total 2014-2020
	2014	2015	2016	2017	2018	2019	2020	
Total EU Budget	118.054,4	158.606,8	151.498,4	154.507,1	156.623,4	160.553,9	164.880,1	1.064.724,0
Climate Change finance	16.098,3	27.451,8	31.738,1	29.792,9	30.481,2	31.956,0	32.606,7	200.124,8
Share of climate	13,6%	17,3%	20,9%	19,3%	19,5%	19,9%	19,8%	18,8%





Climate Finance – EIB policy

Last 14 November 2019, the *European Investment Bank (EIB)* agreed a **new energy lending policy**, with the following priorities:

- The EIB will end financing for fossil fuel energy projects from the **end of 2021**.
- Future financing will accelerate clean energy innovation, energy efficiency and renewables.
- EIB Group financing will unlock **EUR 1 trillion** of climate action and environmentally sustainable investment in the decade to 2030.
- EIB Group will align all financing activities with the goals of the Paris Agreement from the end of 2020.





Notable news!

On 20 December 2019, the Netherlands' supreme court has upheld a **ruling ordering the country's government to do much more to cut carbon emissions**, after a six-year fight for climate justice started in 2013 by the non-profit *Urgenda* Foundation.

<https://www.theguardian.com/world/2019/dec/20/dutch-supreme-court-upholds-landmark-ruling-demanding-climate-action>





Thank you

<https://www.kyotoclub.org/progetti/sustainable-civil-society-dialogue-for-sustainable-development>

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