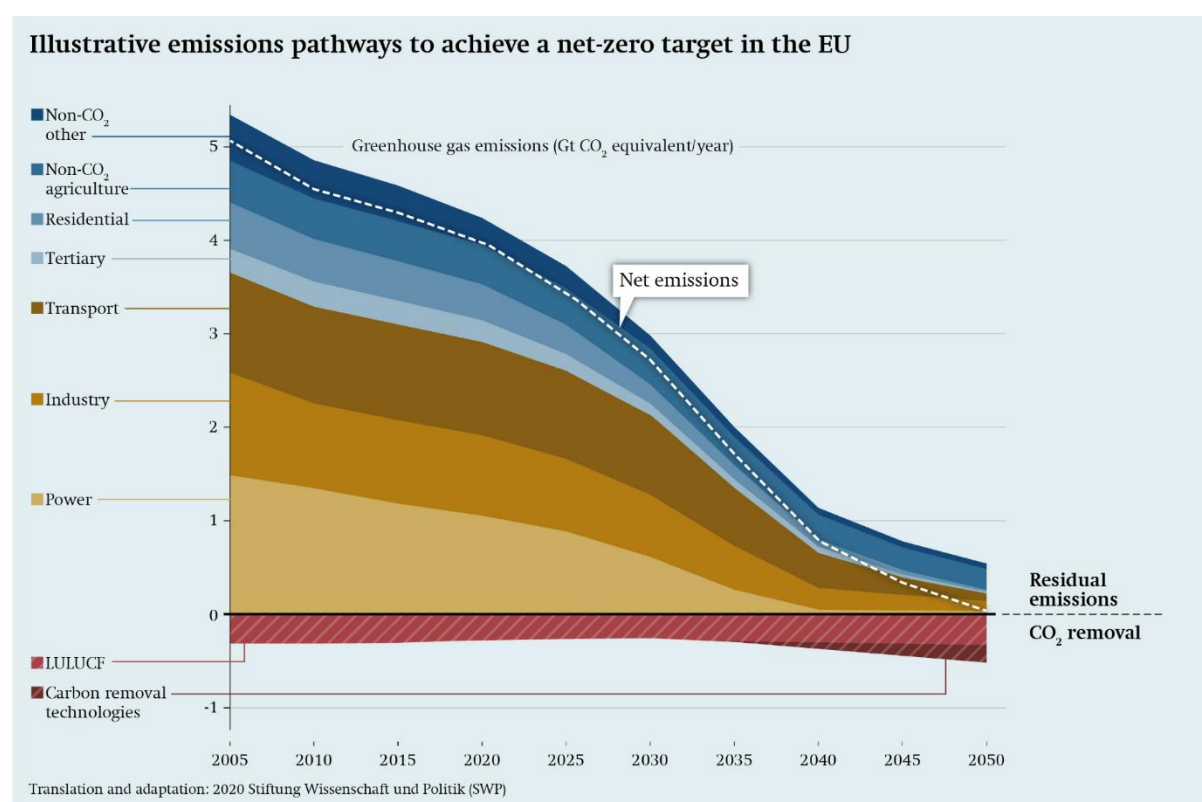


TRANSFORMING THE EU'S ECONOMY FOR A SUSTAINABLE FUTURE:

(1) Increasing the EU's climate ambition for 2030 and 2050

The Commission has already set out a clear vision of how to **achieve climate neutrality by 2050**. To set out clearly the conditions for an effective and fair transition, to provide predictability for investors, and to ensure that the transition is irreversible, the Commission has proposed the **first European 'Climate Law' in 2020**. This enshrined the 2050 climate neutrality objective in legislation. The Climate Law also ensures that all EU policies contribute to the climate neutrality objective and that all sectors play their part.

The EU has already started to modernise and transform the economy with the aim of climate neutrality. Between 1990 and 2018, it reduced greenhouse gas emissions by 23%, while the economy grew by 61%. **However, current policies will only reduce greenhouse gas emissions by 60% by 2050**. Much remains to be done, starting with more ambitious climate action in the coming decade.



The Commission presented an impact assessed plan to increase the EU's greenhouse gas emission reductions target for 2030 to at least 50% and towards 55% compared with 1990 levels in a responsible way. To deliver these additional greenhouse gas emissions reductions, the Commission reviewed and proposed to revise where necessary, all relevant climate-related policy instruments. This comprised the **Emissions Trading System**, including a possible extension of European emissions trading to new sectors, Member State targets to reduce emissions in sectors outside the Emissions Trading System, and the regulation on land use, land use change and forestry.

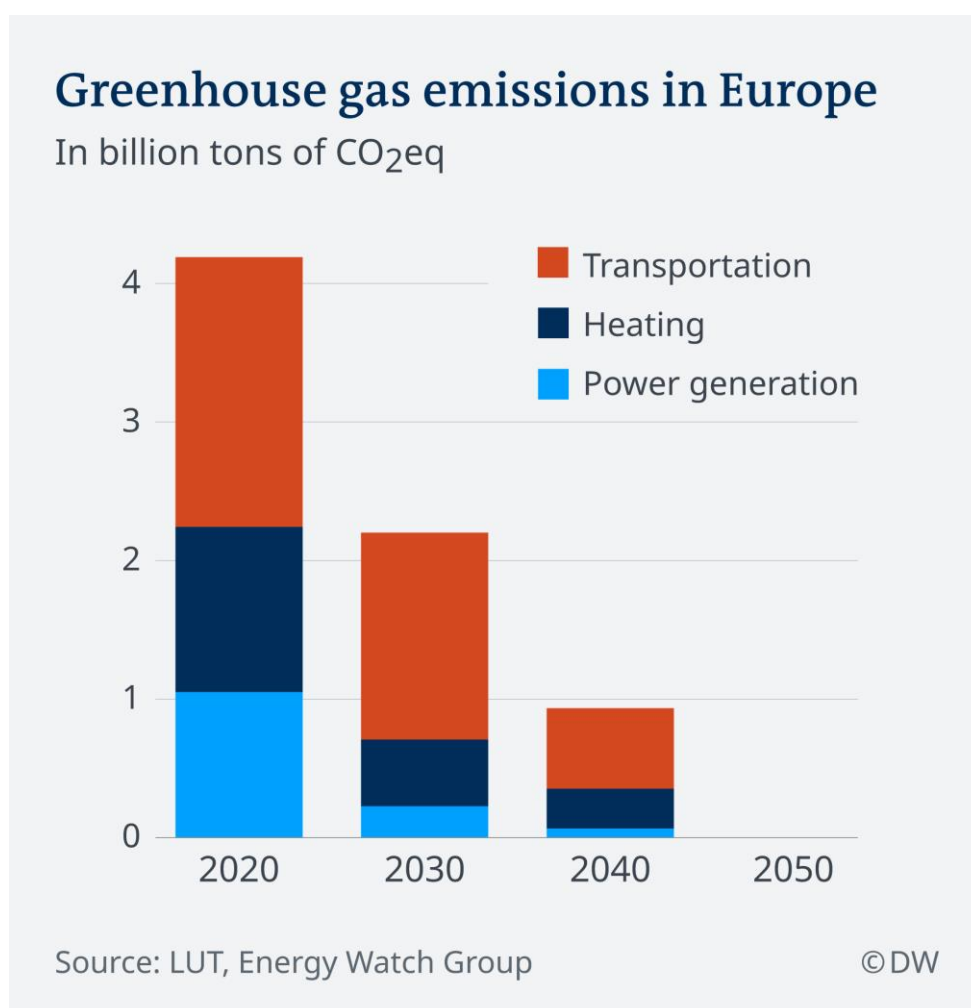
These policy reforms help ensure **effective carbon pricing throughout the economy**. It encourages changes in consumer and business behaviour and facilitates an increase in

sustainable public and private investment. Ensuring that taxation is aligned with climate objectives is also essential.

As long as many **international partners do not share the same ambition as the EU**, there is a risk of **carbon leakage**, either because production is transferred from the EU to other countries with lower ambition for emission reduction, or because EU products are replaced by more carbon-intensive imports. If this risk materialises, there will be no reduction in global emissions, and this will frustrate the efforts of the EU and its industries to meet the global climate objectives of the Paris Agreement.

Should differences in levels of ambition worldwide persist, as the EU increases its climate ambition, the Commission will propose a **carbon border adjustment mechanism**, for selected sectors, to reduce the risk of carbon leakage. This would ensure that the price of imports reflect more accurately their carbon content.

The Commission will adopt a **new, more ambitious EU strategy on adaptation to climate change**. This is essential, as climate change will continue to create significant stress in Europe despite the mitigation efforts. Strengthening the efforts on climate-proofing, resilience building, prevention and preparedness is crucial. Work on climate adaptation should continue to influence public and private investments, including on nature-based solutions. It will be important to ensure that across the EU, investors, insurers, businesses, cities and citizens are able to access data and to develop instruments to integrate climate change into their risk management practices.



TRANSFORMING THE EU'S ECONOMY FOR A SUSTAINABLE FUTURE:

(2) Clean, affordable, and secure energy

Further decarbonising the energy system is critical to reach climate objectives in 2030 and 2050. The production and use of energy across economic sectors account for more than **75% of the EU's greenhouse gas emissions**. Energy efficiency must be prioritised. A power sector must be developed that is based largely on **renewable sources, complemented by the rapid phasing out of coal and decarbonising gas**. At the same time, the EU's energy supply needs to be **secure and affordable** for consumers and businesses. For this to happen, it is essential to ensure that the European energy market is fully integrated, interconnected, and digitalised, while respecting technological neutrality.

In line with the Regulation on the Governance of the Energy Union and Climate Action, the revised **energy and climate plans of Member States** should set out ambitious national contributions to EU-wide targets. The Commission assessed the ambition of the plans, and the need for additional measures if the level of ambition was not sufficient. When Member States begin updating their national energy and climate plans in 2023, they should reflect the new climate ambition. The Commission will continue to ensure that all relevant legislation is rigorously enforced.

The **clean energy transition** should **involve and benefit consumers**. Renewable energy sources will have an essential role. Increasing **offshore wind production** will be essential, building on regional cooperation between Member States. The smart integration of renewables, energy efficiency and other sustainable solutions across sectors will help to achieve **decarbonisation** at the lowest possible cost. The rapid decrease in the cost of renewables, combined with improved design of support policies, has already reduced the impact on **households' energy bills of renewables deployment**. In parallel, the decarbonisation of the gas sector will be facilitated, including via enhancing support for the development of decarbonised gases, via a forward-looking design for a competitive decarbonised gas market, and by addressing the issue of energy-related methane emissions.

The risk of energy poverty must be addressed for households that cannot afford key energy services to ensure a basic standard of living. Effective programmes, such as financing schemes for households to renovate their houses, can reduce energy bills and help the environment.

The transition to climate neutrality also requires smart infrastructure. Increased cross-border and regional cooperation will help achieve the benefits of the clean energy transition at affordable prices. The regulatory framework for energy infrastructure, including the TEN-E Regulation, will need to be reviewed to ensure consistency with the climate neutrality objective. This framework should foster the deployment of innovative technologies and infrastructure, such as **smart grids, hydrogen networks or carbon capture, storage and utilisation, energy storage, also enabling sector integration**. Some existing infrastructure and assets will require upgrading to remain fit for purpose and climate resilient.

WIND IS READY TO DELIVER EUROPE'S GREEN DEAL

“THE EU WILL HELP COMPANIES BECOME WORLD LEADERS IN CLEAN TECHNOLOGIES”

EU INDUSTRIAL POLICIES MUST SUPPORT WIND

- ✓ Wind is recognised as a top strategic sector
- ✓ Clear investment signals
- ✓ Trade policies that keep down the cost of imported components
- ✓ Export strategy for renewables
- ✓ Continued innovation in 'mature' renewables

“THE EU WILL BECOME CARBON-NEUTRAL BY 2050”

EU MUST SET THE COURSE FOR CLIMATE NEUTRALITY

- ✓ 55% decarbonisation goal for 2030
- ✓ Robust implementation of National Energy & Climate Plans
- ✓ Electricity to provide at least 50% of EU energy

“THE EU WILL HELP ENSURE A JUST AND INCLUSIVE TRANSITION”

EU MUST SUPPORT A TRANSITION THAT WORKS FOR ALL

- ✓ Funding for regions dependent on coal and heavy industry
- ✓ Permitting that allows happy coexistence between wind and other interests
- ✓ Reskilling of workers affected by the transition

WIND ENERGY TODAY

15% of Europe's electricity demand

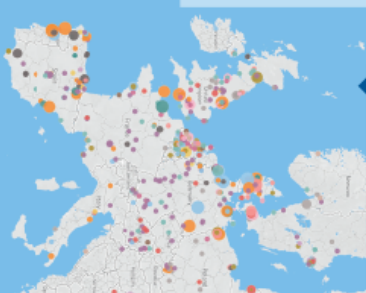
300,000 people work for the wind industry

€36bn contribution to EU GDP

€8bn exports to non-EU countries

50% cost reduction in the last 5 years

The Wind Industry supply chain is present all over Europe. Find out more: windeurope.org/lij/



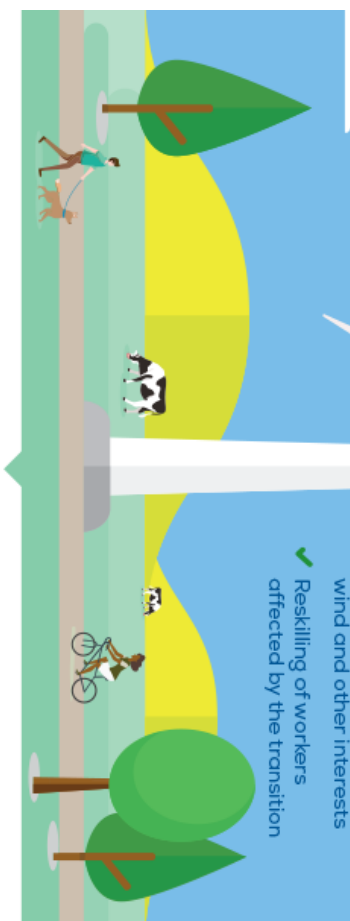
WIND ENERGY TOMORROW

The International Energy Agency: “Wind is set to be the no. 1 source of power in Europe by 2027”

The European Commission: “Wind can meet over 50% of Europe's power demand by 2050”

The European Commission: “Onshore wind would represent close to two thirds of total wind capacity in 2050: up to 760 GW”

The International Energy Agency: “Offshore wind will be the no. 1 source of power generation in a carbon neutral Europe by 2040”



Source: WindEurope

TRANSFORMING THE EU'S ECONOMY FOR A SUSTAINABLE FUTURE:

(3) Industry for a clean and circular economy

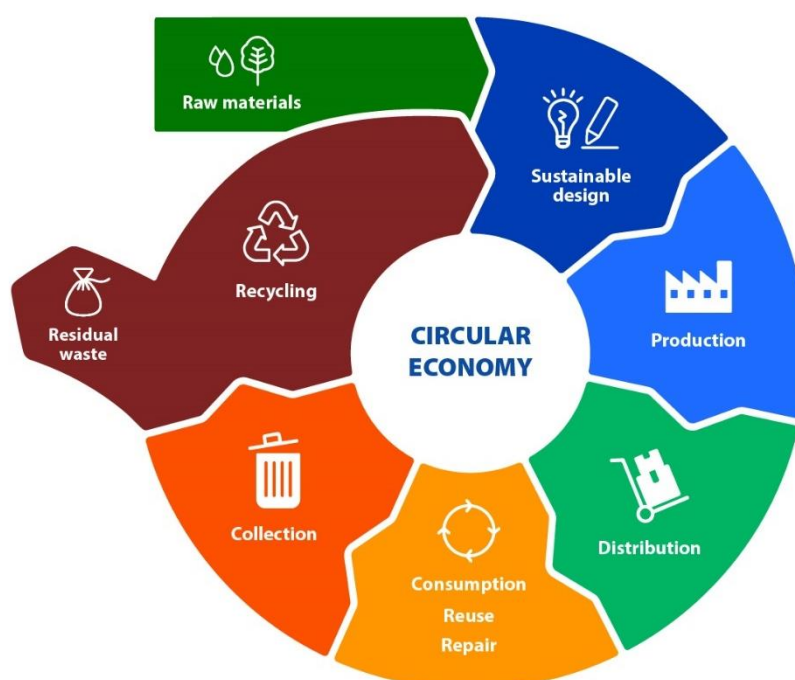
Achieving a climate neutral and circular economy requires the **full mobilisation of industry**. It takes 25 years – a generation – to transform an industrial sector and all the value chains. To be ready in 2050, decisions and actions need to be taken in the next five years.

From 1970 to 2017, the annual global extraction of materials tripled, and it continues to grow, posing a major global risk. About half of total greenhouse gas emissions and **more than 90% of biodiversity loss and water stress come from resource extraction and processing of materials, fuels, and food**. The EU's industry has started the shift but still accounts for 20% of the EU's greenhouse gas emissions. It remains too 'linear', and dependent on a throughput of new materials extracted, traded, and processed into goods, and finally disposed of as waste or emissions. Only **12% of the materials it uses come from recycling**.

The transition is an opportunity to expand sustainable and job-intensive economic activity. There is significant potential in global markets for **low-emission technologies, sustainable products and services**. Likewise, the circular economy offers great potential for new activities and jobs. However, the transformation is taking place at a too slow pace with progress neither widespread nor uniform. The European Green Deal will support and accelerate the EU's industry transition to a sustainable model of inclusive growth.

Energy-intensive industries, such as steel, chemicals and cement, are indispensable to Europe's economy, as they supply several key value chains. The decarbonisation and modernisation of this sector is essential.

The circular economy model: less raw material, less waste, fewer emissions

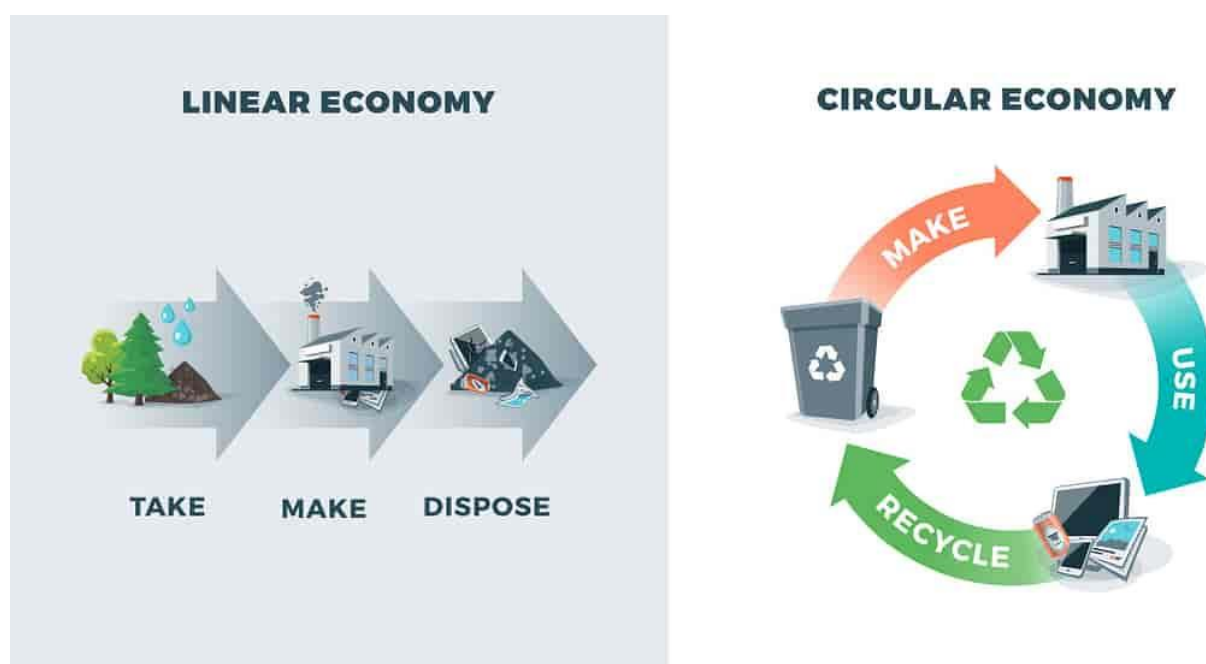


While the circular economy action plan will guide the transition of all sectors, action will focus in particular on resource-intensive sectors such as **textiles, construction, electronics and plastics**. The Commission will follow up on the 2018 plastics strategy focusing, among other things, on measures to tackle intentionally added micro plastics and unintentional releases of plastics, for example from textiles and tyre abrasion. The Commission will develop **requirements to ensure that all packaging in the EU market is reusable or recyclable in an economically viable manner by 2030**, will develop a regulatory framework for biodegradable and bio-based plastics, and will implement measures on single use plastics.

Reliable, comparable and verifiable information also plays an important part in enabling buyers to make more sustainable decisions and reduces the risk of **'green washing'**. Companies making 'green claims' should substantiate these against a standard methodology to assess their impact on the environment. Digitalisation can also help improve the availability of information on the characteristics of products sold in the EU. For instance, an electronic product passport could provide information on a product's origin, composition, repair and dismantling possibilities, and end of life handling.

A sustainable product policy also has the potential **to reduce waste significantly**. Where waste cannot be avoided, its economic value must be recovered and its impact on the environment and on climate change avoided or minimised. This requires new legislation, including targets and measures for tackling over-packaging and waste generation. In parallel, EU companies should benefit from a robust and integrated single market for secondary raw materials and by-products.

The Commission will consider legal requirements to boost the market of secondary raw materials with mandatory recycled content (for instance for packaging, vehicles, construction materials and batteries). To simplify **waste management for citizens** and ensure cleaner secondary materials for businesses, the Commission will also propose an EU model for separate waste collection. The Commission is of the view that the EU should stop exporting its waste outside of the EU and will therefore revisit the rules on **waste shipments and illegal exports**.



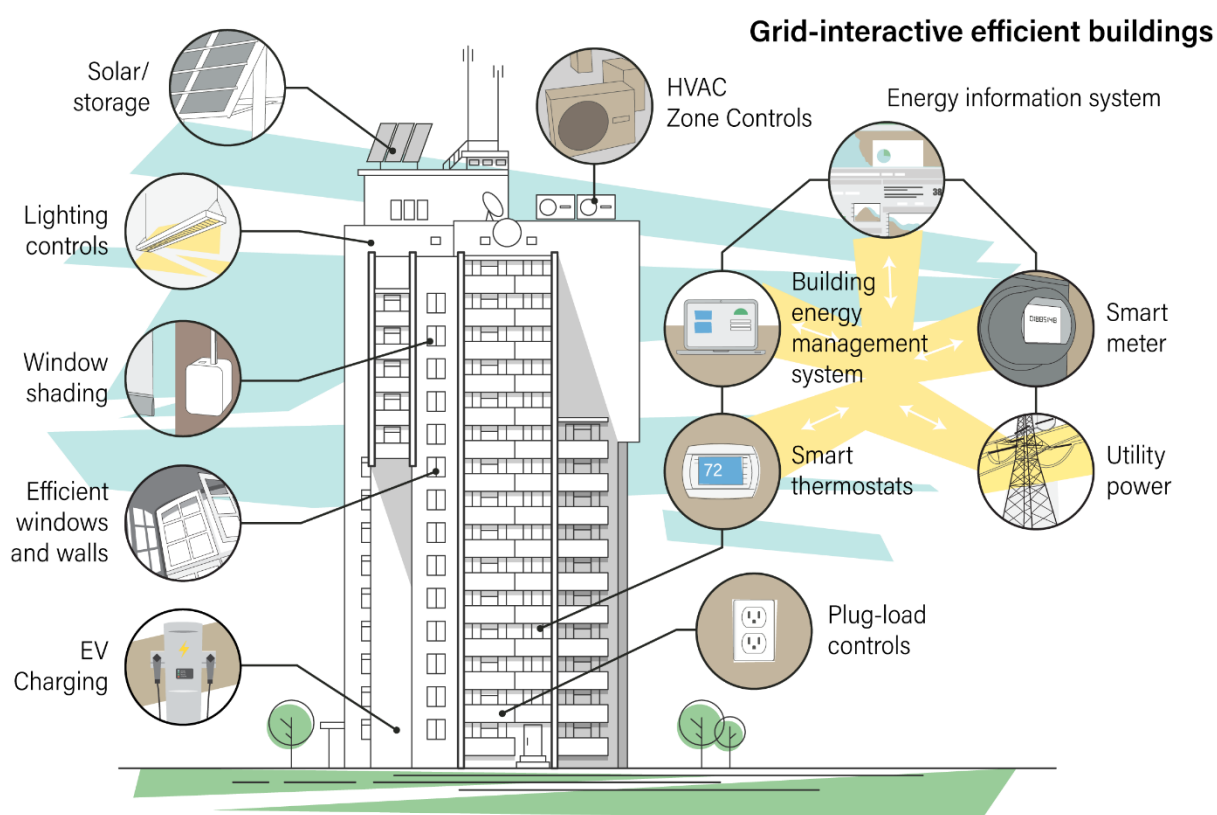
TRANSFORMING THE EU'S ECONOMY FOR A SUSTAINABLE FUTURE:

(4) Energy and resource-efficient buildings

The construction, use and renovation of buildings require significant amounts of energy and mineral resources (e.g., sand, gravel, cement). Buildings also account for **40% of energy consumed**. Today the annual renovation rate of the building stock varies from 0.4 to 1.2% in the Member States. This rate will need at least to double to reach the EU's energy efficiency and climate objectives. In parallel, 50 million consumers struggle to keep their homes adequately warm.

To address the **twin challenge of energy efficiency and affordability**, the EU and the Member States should engage in a '**renovation wave**' of **public and private buildings**. While increasing renovation rates is a challenge, renovation lowers energy bills, and can reduce energy poverty. It can also boost the construction sector and is an opportunity to support SMEs and local jobs.

The Commission will rigorously enforce the legislation related to the energy performance of buildings. The Commission will also launch work on the possibility of including emissions from buildings in European emissions trading, as part of broader efforts to ensure that the **relative prices of different energy sources provide the right signals for energy efficiency**. In addition, the Commission will review the Construction Products Regulation. It should ensure that the design of new and renovated buildings at all stages is in line with the needs of the circular economy, and lead to increased digitalisation and climate-proofing of the building stock.



Source: ACEEE

TRANSFORMING THE EU'S ECONOMY FOR A SUSTAINABLE FUTURE:

(5) Sustainable and smart mobility

Transport accounts for **a quarter of the EU's greenhouse gas emissions**, and still growing. To achieve climate neutrality, a 90% reduction in transport emissions is needed by 2050. Road, rail, aviation, and waterborne transport will all have to contribute to the reduction. Achieving sustainable transport means putting users first and providing them with more affordable, accessible, healthier, and cleaner alternatives to their current mobility habits.

Multimodal transport needs a strong boost. This will increase the efficiency of the transport system. As a matter of priority, a substantial part of the 75% of inland freight carried today by road should shift onto rail and inland waterways. This will require measures to manage better, and to **increase the capacity of railways and inland waterways**. The Commission will also consider withdrawing and presenting a new proposal to revise the Combined Transport Directive to turn it into an effective tool to support multimodal freight operations involving rail and waterborne transport, including **short-sea shipping**. In aviation, work on adopting the Commission's proposal on a truly Single European Sky will need to restart, as this will help achieve significant reductions in aviation emissions.

Automated and connected multimodal mobility will play an increasing role, together with **smart traffic management systems enabled by digitalisation**. The EU transport system and infrastructure will be made fit to support new sustainable mobility services that can reduce congestion and pollution, especially in urban areas.

The price of transport must reflect the impact it has on the environment and on health. Fossil-fuel subsidies should end and, in the context of the revision of the Energy Taxation Directive, the Commission will look closely at the current tax exemptions including for aviation and maritime fuels and at how best to close any loopholes.

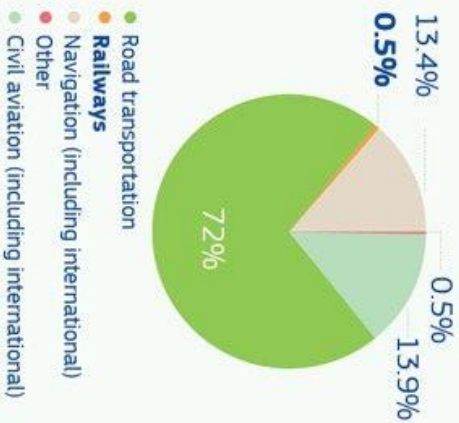
Similarly, the Commission will propose to extend European emissions trading to the maritime sector, and to reduce the EU Emissions Trading System allowances allocated for free to airlines. This will be coordinated with action at global level, notably at the International Civil Aviation Organization and International Maritime Organization. The Commission will also give fresh political consideration as to how to achieve effective road pricing in the EU.

The EU should in parallel ramp-up the production and deployment of **sustainable alternative transport fuels**. By 2025, about 1 million public recharging and refuelling stations will be needed for the 13 million zero- and low-emission vehicles expected on European roads. The Commission will support the deployment of public recharging and refuelling points where persistent gaps exist, notably for long-distance travel and in less densely populated areas and will launch as quickly as possible a new funding call to support this. These steps will complement the measures taken at national level. The Commission will consider legislative options to boost the production and uptake of sustainable alternative fuels for the different transport modes.

Transport should become drastically less polluting, especially in cities. **A combination of measures should address emissions, urban congestion, and improved public transport**. The Commission will propose more stringent air pollutant emissions standards for combustion-engine vehicles.

Rail is sustainable

Greenhouse gas emissions from transport (EU-28, 2017)



Rail connects people

Length of railway lines in use, in 1000 km



Source: Statistical Pocketbook 2019

Rail is safe

Fatalities per billion passengers/km 2011 - 2015



#EUGreenDeal

TRANSFORMING THE EU'S ECONOMY FOR A SUSTAINABLE FUTURE:

(6) Farm to fork

European food is famous for being **safe, nutritious and of high quality**. It should now also become the global standard for sustainability. Although the transition to more sustainable systems has started, feeding a fast-growing world population remains a challenge with current production patterns. Food production still results in air, water and soil pollution, contributes to the loss of biodiversity and climate change, and consumes excessive amounts of natural resources, while an important part of food is wasted. At the same time, low quality diets contribute to obesity and diseases such as cancer.

There are new opportunities for all operators in the food value chain. New technologies and scientific discoveries, combined with increasing public awareness and demand for sustainable food, will benefit all stakeholders. The Commission presented the **'Farm to Fork' Strategy** in spring 2020 and launched a broad stakeholder debate covering all the stages of the food chain and paving the way to formulating a more sustainable food policy.

European farmers and fishermen are key to managing the transition. The Farm to Fork Strategy will strengthen their efforts to tackle climate change, protect the environment and preserve biodiversity. The common agricultural and common fisheries policies will remain key tools to support these efforts while ensuring a decent living for farmers, fishermen and their families. The Commission's proposals for the common agricultural policy for 2021 to 2027 stipulate that at least 40% of the common agricultural policy's overall budget and at least 30% of the Maritime Fisheries Fund would contribute to climate action.

The Commission will ensure that these strategic plans are assessed against robust climate and environmental criteria. These plans should lead to the use of sustainable practices, such as **precision agriculture, organic farming, agro-ecology, agro-forestry and stricter animal welfare standards**. By shifting the focus from compliance to performance, measures such as eco-schemes should reward farmers for improved environmental and climate performance, including managing and storing carbon in the soil, and improved nutrient management to improve water quality and reduce emissions. The Commission will work with the Member States to develop the potential of sustainable seafood as a source of low-carbon food.





The strategic plans will need to reflect an increased level of ambition to reduce significantly the use and risk of chemical pesticides, as well as the use of fertilisers and antibiotics. The Commission will identify the measures, including legislative, needed to bring about these reductions based on a stakeholder dialogue. The area under organic farming will also need to increase in Europe. The EU needs to develop innovative ways to protect harvests from pests and diseases and to consider the potential role of new innovative techniques to improve the sustainability of the food system, while ensuring that they are safe.

The Farm to Fork Strategy will also contribute to achieving a **circular economy**. It will aim to reduce the environmental impact of the food processing and retail sectors by taking action on transport, storage, packaging and food waste. This will include actions to combat food fraud, including strengthening enforcement and investigative capacity at EU level, and to launch a process to identify new innovative food and feed products, such as seafood based on algae.


Lastly, the Farm to Fork Strategy will strive to stimulate **sustainable food consumption and promote affordable healthy food for all**. Imported food that does not comply with relevant

EU environmental standards is not allowed on EU markets. The Commission will propose actions to help consumers choose healthy and sustainable diets and reduce food waste. The Commission will explore new ways to give consumers better information, including by digital means, on details such as where the food comes from, its nutritional value, and its environmental footprint. The Farm to Fork strategy will also contain proposals to improve the position of farmers in the value chain.

2030 Targets for sustainable food production

PESTICIDES	NUTRIENT LOSSES	ANTIMICROBIALS	ORGANIC FARMING
			
Reduce the overall use and risk of chemical and hazardous pesticides	Reduce nutrient losses by 50% whilst retaining soil fertility, resulting in 20% less fertilisers	Reduce sales of antimicrobials for farmed animals and aquaculture	Increase the percentage of organically farmed land in the EU

#EUFarm2Fork #EUGreenDeal



TRANSFORMING THE EU'S ECONOMY FOR A SUSTAINABLE FUTURE:

(7) Biodiversity and ecosystems

Ecosystems provide essential services such as food, fresh water and clean air, and shelter. They mitigate natural disasters, pests and diseases and help regulate the climate. The EU and its global partners need to halt biodiversity loss. The Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services' 2019 Global Assessment Report showed **worldwide erosion of biodiversity**, caused primarily by **changes in how land and sea are used, direct exploitation of natural resources, and with climate change as the third most important driver of biodiversity loss.**

The Conference of the Parties to the Convention on Biological Diversity in Kunming, China, in October 2020 is an opportunity for the world to adopt a robust global framework to halt biodiversity loss. To ensure that the EU plays a key role, the Commission will present a Biodiversity Strategy by March 2020, to be followed up by specific action in 2021. The strategy will outline the EU's position for the Conference of the Parties, with global targets to protect biodiversity, as well as commitments to address the main causes of biodiversity loss in the EU, underpinned by measurable objectives that address the main causes of biodiversity loss.

Restore and protect



The **2030 Biodiversity Strategy** builds upon and goes beyond the existing EU Birds and Habitats Directives and the EU Natura 2000 Network of protected areas.

IT SETS AMBITIOUS EU TARGETS AND COMMITMENTS FOR 2030 TO ACHIEVE HEALTHY AND RESILIENT ECOSYSTEMS, FOR EXAMPLE:



The biodiversity strategy will identify specific measures to meet measurable objectives. These could include quantified objectives, such as increasing the coverage of protected biodiversity-rich land and sea areas building on the Natura 2000 network. Member States should also reinforce cross-border cooperation to protect and restore more effectively the areas covered

by the Natura 2000 network. The Commission will identify which measures, including legislation, would help Member States **improve and restore damaged ecosystems to good ecological status, including carbon-rich ecosystems**. The biodiversity strategy will also include proposals to **green European cities and increase biodiversity in urban spaces**. The Commission will consider drafting a nature restoration plan and will look at how provide funding to help Member States to reach this aim.

All EU policies should contribute to preserving and **restoring Europe's natural capital**. Work will continue under the common fisheries policy to reduce the adverse impacts that fishing can have on ecosystems, especially in sensitive areas. The Commission will also support more connected and well-managed marine protected areas. Forest ecosystems are under increasing pressure, because of climate change. The EU's forested area needs to improve, both in quality and quantity, for the EU to reach climate neutrality and a healthy environment. Sustainable re- and afforestation and the restoration of degraded forests can increase absorption of CO₂ while improving the resilience of forests and promoting the circular bioeconomy. Building on the 2030 biodiversity strategy, the Commission will prepare a new EU forest strategy covering the whole forest cycle and promoting the many services that forests provide.

The new EU forest strategy will have as its key objectives, **effective afforestation, and forest preservation and restoration in Europe**, to help to increase the absorption of CO₂, reduce the incidence and extent of forest fires, and promote **the bioeconomy**, in full respect for ecological principles favourable to biodiversity. The national strategic plans under the common agricultural policy should incentivise forest managers to preserve, grow and manage forests sustainably.

A sustainable 'blue economy' will have to play a central role in alleviating the multiple demands on the EU's land resources and tackling climate change. The role of oceans in mitigating and adapting to climate change is increasingly recognised. The sector can contribute by improving the **use of aquatic and marine resources** and, for example, by **promoting the production and use of new sources of protein that can relieve pressure on agricultural land**. More generally, lasting solutions to climate change require greater attention to nature-based solutions including healthy and resilient seas and oceans. The Commission will analyse the findings of the International Panel on Climate Change special report on oceans and propose measures in the maritime area. This will include ways to **manage maritime space more sustainably**, notably to help tap into the growing potential of **offshore renewable energy**. The Commission will also take a **zero-tolerance approach to illegal, unreported and unregulated fishing**.



European Commission

BLUE GROWTH

71% of the Earth surface is WATER

Why?

Blue Growth is the European Commission's initiative to further harness the potential of Europe's oceans, seas and coasts for:



Focus Area

Five sectors with high potential for sustainable Blue Growth are to be further developed:



other **sectors of the blue economy** crucial for value & jobs



TRANSFORMING THE EU'S ECONOMY FOR A SUSTAINABLE FUTURE:

(8) Zero-pollution, toxic-free environments

Creating a toxic-free environment requires more action to prevent pollution from being generated as well as measures to clean and remedy it. To protect Europe's citizens and ecosystems, **the EU needs to better monitor, report, prevent and remedy pollution from air, water, soil, and consumer products**. To achieve this, the EU and Member States will need to look more systematically at all policies and regulations. To address these interlinked challenges, the Commission adopted a zero-pollution action plan for air, water and soil in 2021.

The natural functions of ground and surface water must be restored. **This is essential to preserve and restore biodiversity in lakes, rivers, wetlands and estuaries, and to prevent and limit damage from floods**. Implementing the 'Farm to Fork' strategy will reduce pollution from excess nutrients. In addition, the Commission proposed measures to address pollution from urban runoff and from new or particularly harmful sources of pollution such as micro plastics and chemicals, including pharmaceuticals. There is also a need to address the combined effects of different pollutants.

To ensure a toxic-free environment, the Commission will present a **chemicals strategy for sustainability**. This will both help to protect citizens and the environment better against hazardous chemicals and encourage innovation for the development of safe and sustainable alternatives. All parties including industry should work together to combine **better health and environmental protection and increased global competitiveness**. This can be achieved by simplifying and strengthening the legal framework. The Commission will review how to use better the EU's agencies and scientific bodies to move towards a process of 'one substance – one assessment' and to provide greater transparency when prioritising action to deal with chemicals. In parallel, the regulatory framework will need to rapidly reflect scientific evidence on the risk posed by endocrine disruptors, hazardous chemicals in products including imports, combination effects of different chemicals and very persistent chemicals.

Union policy on the environment shall be based on the **precautionary principle** and on the principles that **preventive action** should be taken, that environmental damage should as a priority be **rectified at source** and on the **polluter pays principle**.

