





Knowledge for resilience, prosperity and sustainability

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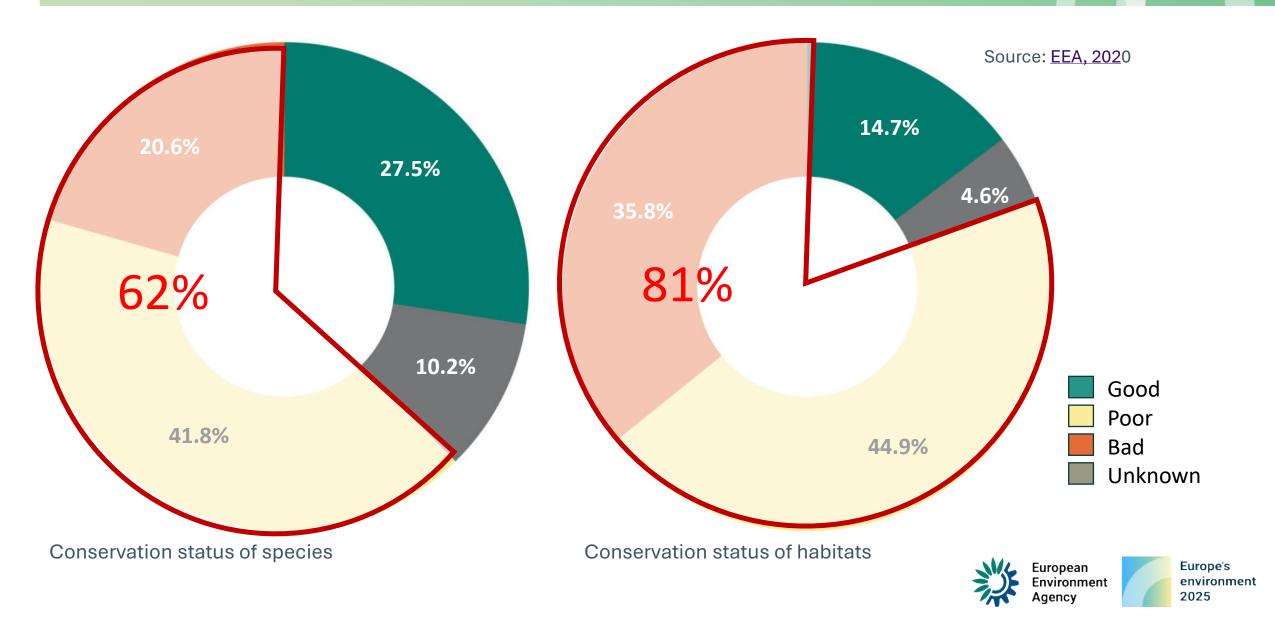
Biodiversity and ecosystems

Europe's environment: biodiversity and ecosystems

	Past trends (10-15 years)	Outlook (10- 15 years)
State of biodiversity		
Pollution of ecosystems		
Protected areas		
Water and climate impacts		
Ecosystems and climate impacts		
Land use and land take		
Soil resources		



Biodiversity and habitats in decline



Key pressures on biodiversity

Agriculture

Urbanisation

Invasive alien species

Forestry



Changes to water bodies

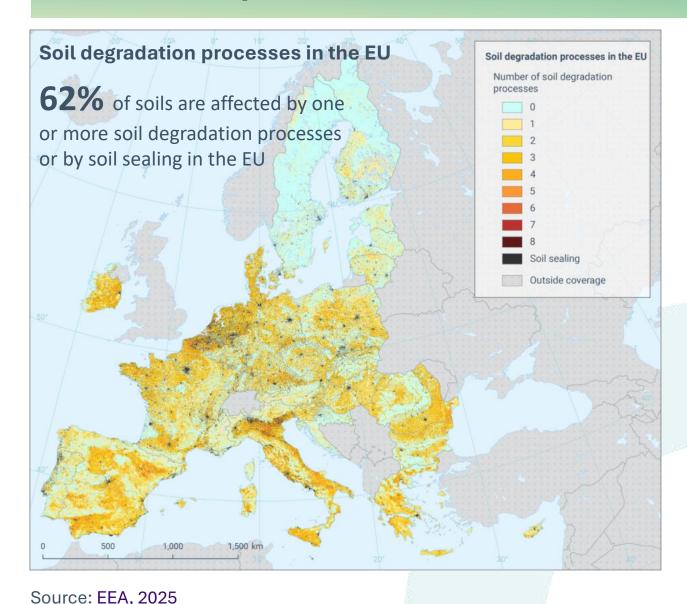
Illegal killing and hunting

Climate change

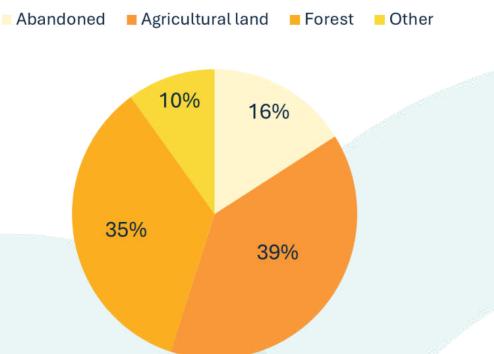
Pollution

Source: EEA, 2023

Land under pressure



Land use in EU, 2022



Healthy soils and a vast range of other ecosystem services and resources are crucial for food security, biodiversity and climate change mitigation







Europe's environment: climate change

Greenhouse gas emissions

Mobility system trends

Energy system trends

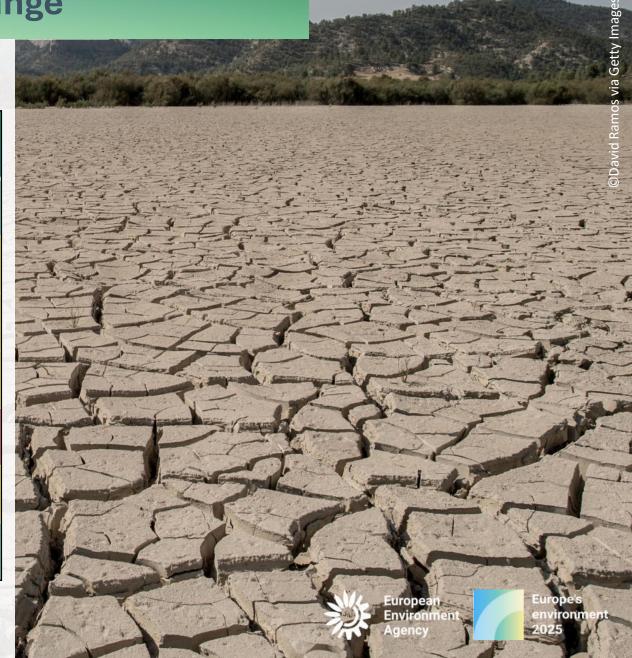
CO₂ storage in forests/land

Climate risks to economy

Climate risks to society

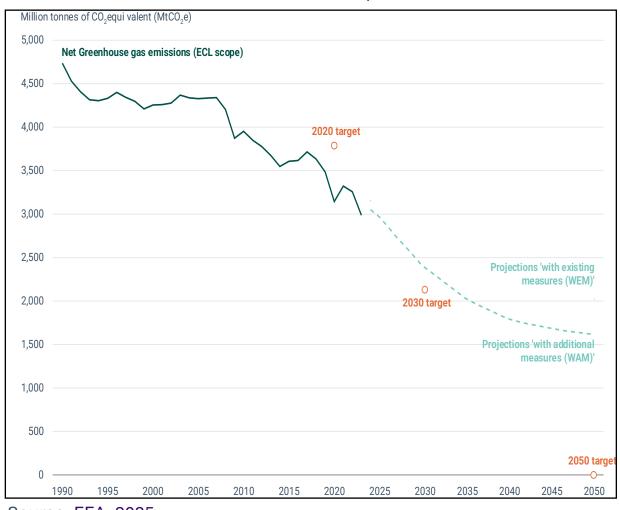
Climate change governance

Outlook (10- 15 years)

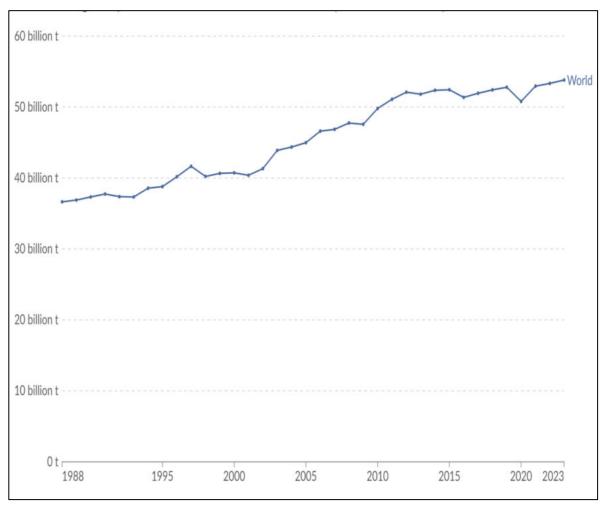


Good progress cutting GHG emissions in Europe, but rising globally

EU domestic GHG emissions -37% in the period 1990-2020



Global GHG emissions continue to rise



Source: EEA, 2025

Source: Jones et al., 2024



Europe is the fastest warming continent

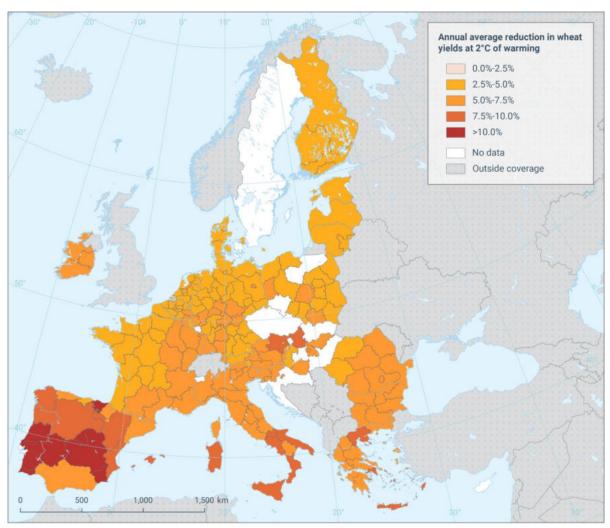
Floods, droughts, extreme heat & wildfires increasing in frequency and cost causing deaths

Over **240,000 fatalities** from extreme climate events from 1980 to 2023 (source: EEA, 2025)

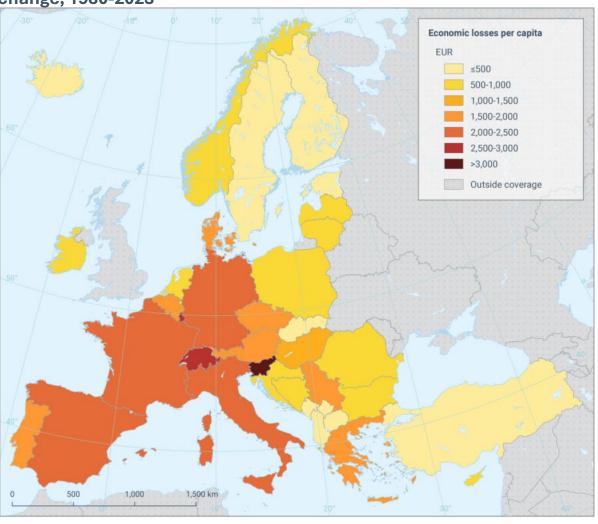
 2025 June-July heatwave caused 2,300 deaths across Europe (source: Imperial Grantham Institute, 2025)

Climate risks impact on society and economy

Average annual reduction in wheat yields at 2°C of warming



Per capita economic losses from climate change, 1980-2023



Source: Copernicus, 2025

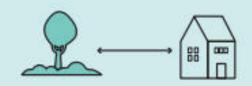
Source: <u>EEA</u>, 2025

Threats to food and water security and our social fabric



Summer energy poverty

19%
of the EU population is unable to keep their house comfortably cool in the summer.



Unequal access to green

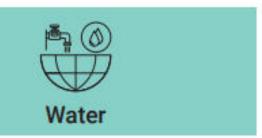


Food insecurity

7% of EU population is currently moderately-to-severely food insecure.



Outdoor agricultural workers



Water shortage

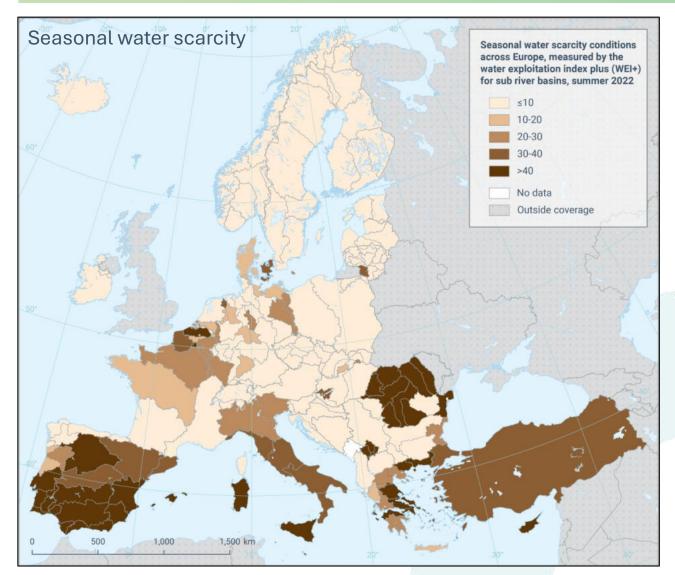
of EU population is affected by water scarcity on average every year.

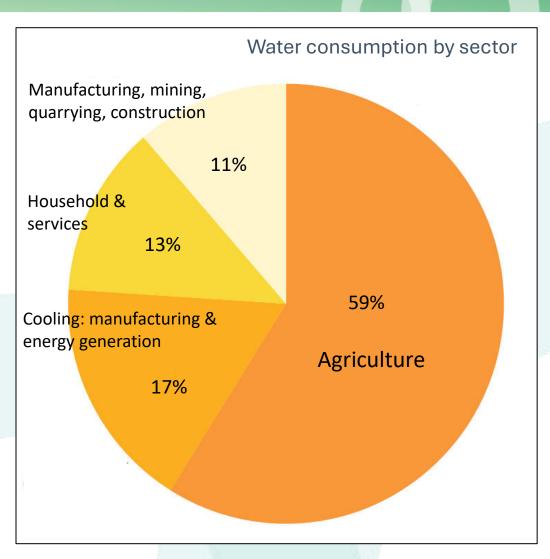


Unequal access to water

Source: EEA, 2025

Water resources under pressure





Source: EEA, 2025









Europe's environment: environment and health

Emissions of pollutants to air

Air pollution & health

Environmental noise & health

Water pollution & health

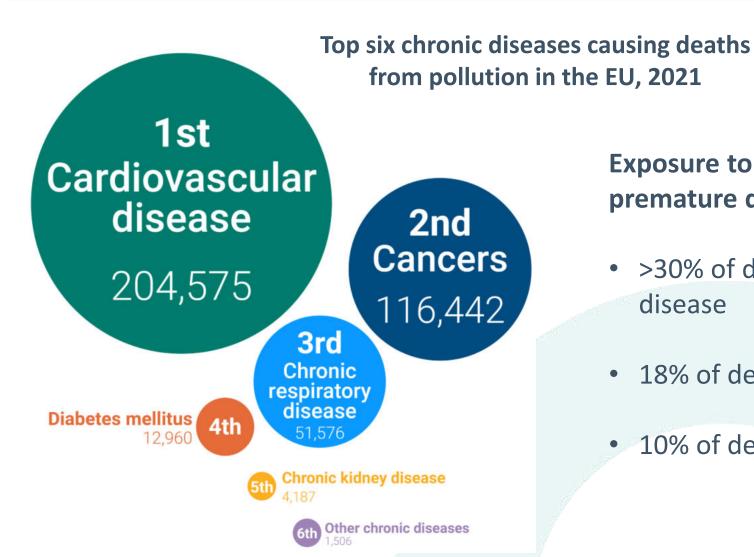
Chemical pollution & health

Air pollution & health inequalities

Outlook (10- 15 years)



Pollution reduces quality of life in Europe



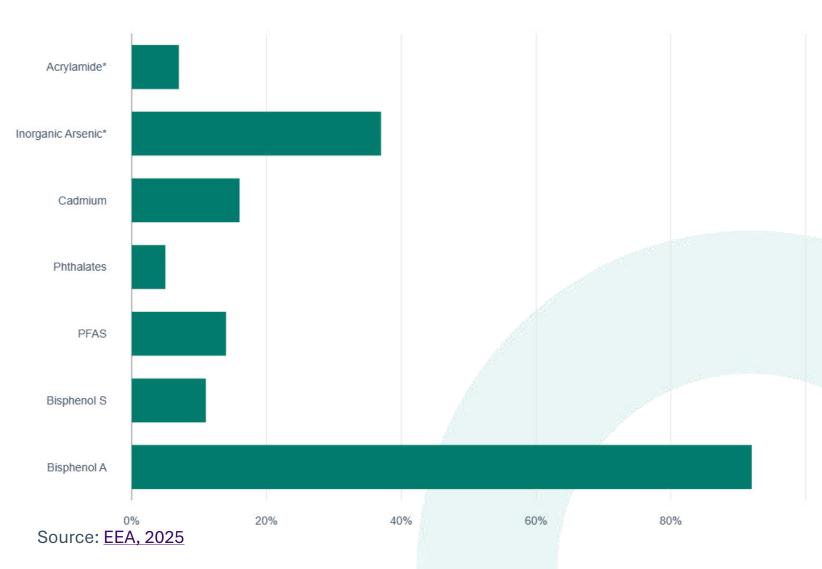
Exposure to pollution is responsible for 10% of premature deaths in the EU-27

- >30% of deaths related to chronic respiratory disease
- 18% of deaths related to cardiovascular disease
- 10% of deaths related to cancer



Chemicals found in the bodies of Europeans at harmful levels

Population with levels of harmful chemicals above health-based guidance values (%)



Progress in tackling legacy chemicals

However, number and volume of chemicals in use continue to grow









Circular design

Waste generation

Waste recycling

Circular use of materials

Impacts from consumption

Past trends (10-15 years)	Outlook (10-15 years)

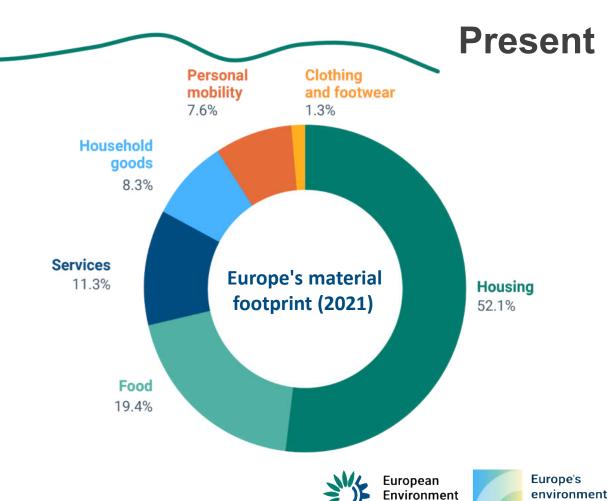


Europe's material footprint

Index per capita (2010=100)







2025



Europe's material footprint

Index per capita (2010=100)

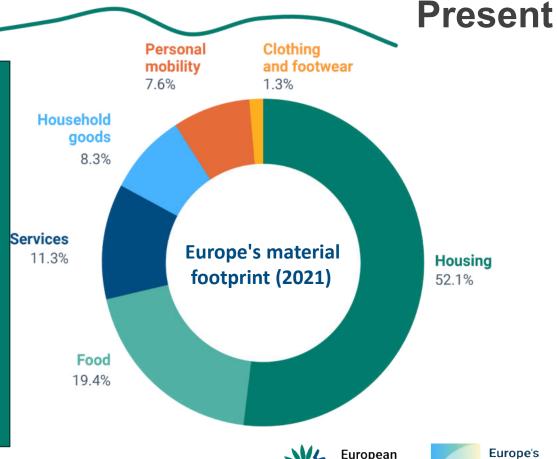


At global level

Resource extraction and processing drives
 >55% of GHG emissions

 Biomass harvesting drives 90% of biodiversity loss and water stress on land

IRP, 2024



environment

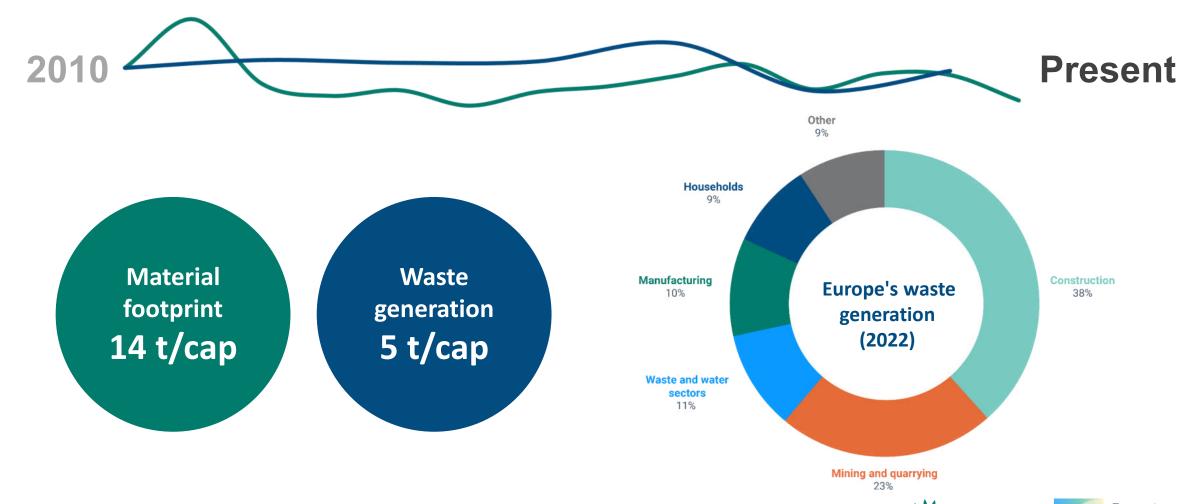
2025

Environment



Europe's waste generation

Index per capita (2010=100)



Source: Eurostat



Europe's circular material use rate

Index per capita (2010=100)



Material footprint 14 t/cap

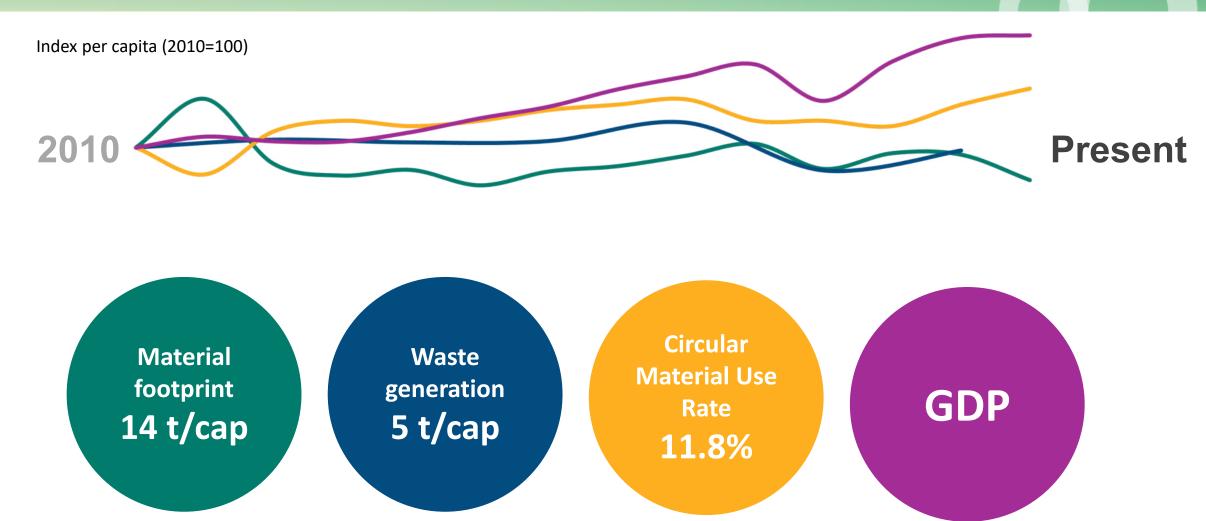
Waste generation 5 t/cap

Circular Material Use Rate 11.8%

European Environment Agency



Modest decoupling with economic growth







Source: Eurostat

Europe's environment: Red flags

Biodiversity and ecosystems

- Ongoing biodiversity loss
- Impacts of climate change on ecosystems
- Soil degradation and water scarcity

Climate

- Severe impacts of climate change
- Falling rates of carbon sequestration
- GHG emissions from agriculture and transport

Pollution and health

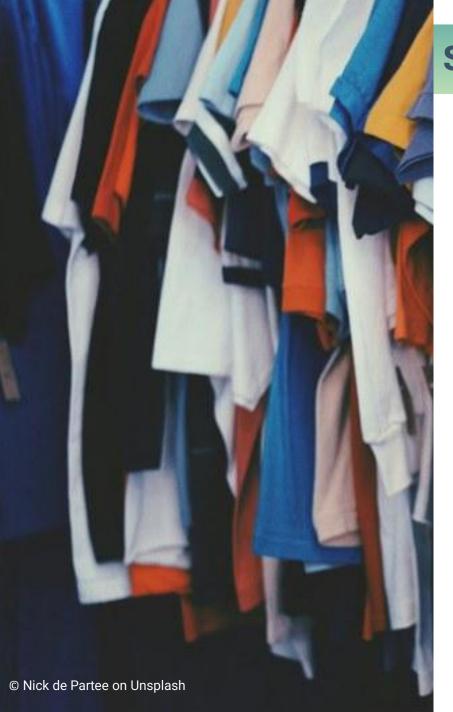
- Chemicals
- Water scarcity and pollution
- Degradation of marine ecosystems

Circular economy

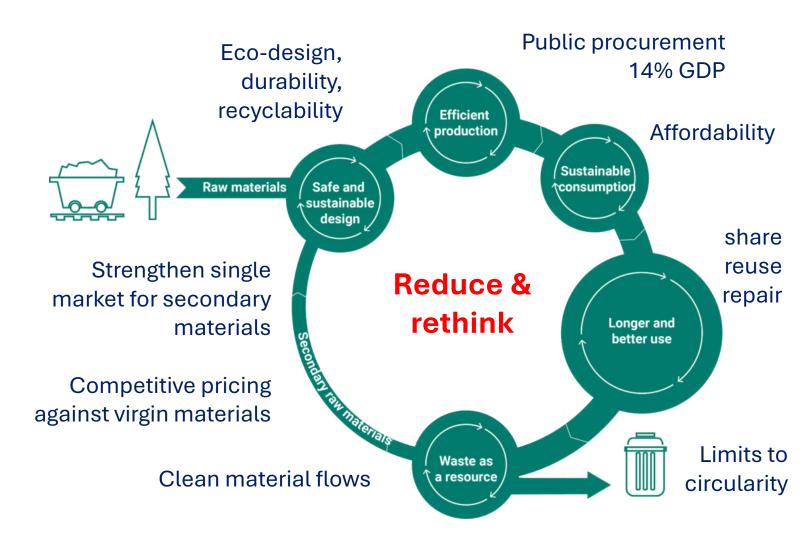
- Slow progress towards circularity
- Unsustainable consumption





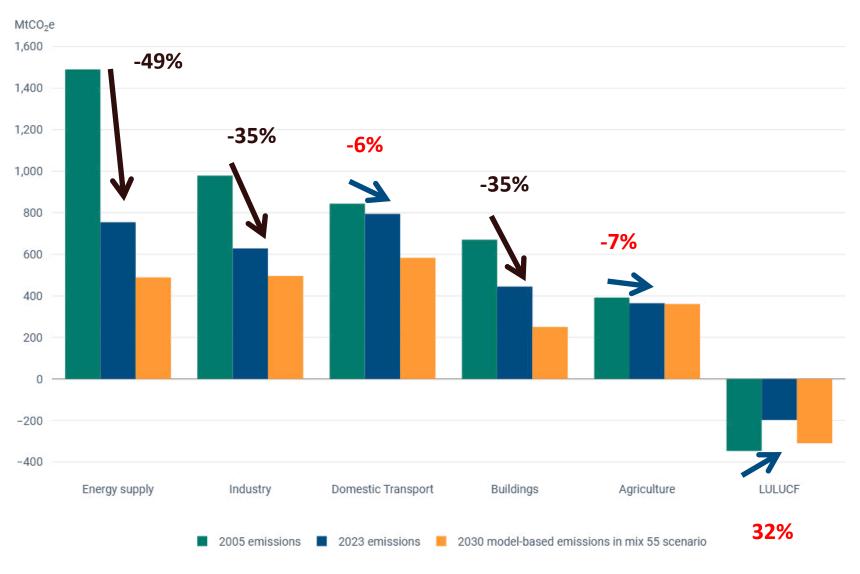


Sustainable business models



Coherent waste framework

Ongoing emission reductions



Trends in greenhouse gas emissions by sector, 2005-2030

ETS drove a
47% cut in
GHG
emissions
from power
and energy
since 2005





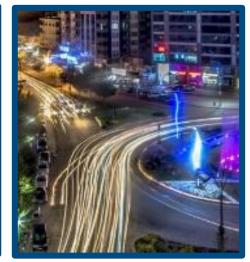
Source: EEA, 2024

Transformation of production and consumption systems

Energy



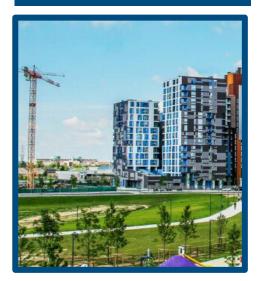
Mobility



Food



Built environment



- Expand renewables to 77%
- Flexibility through grid upgrades and storage
- Affordable energy & energy sovereignty
- Scrap fossil fuel subsidies
- CCS & hydrogen

Electrification

Industry

- Hard to abate
- Carbon capture and storage
- Sustainable products
- Boost market for secondary materials

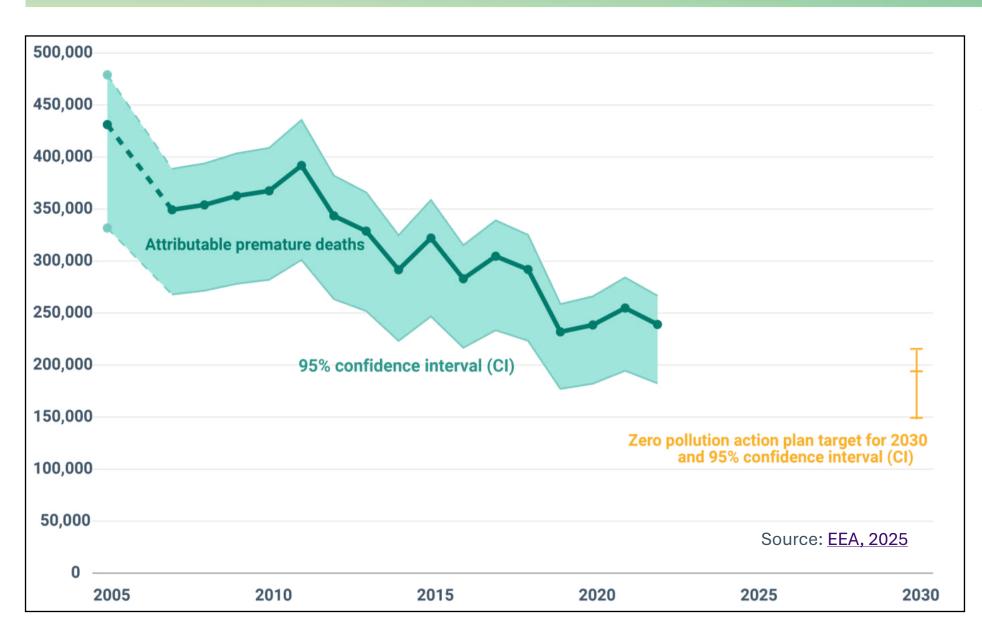
- Electrification and infrastructure for EVs
- Public transport
- Connect rail across
 EU
- Alternative fuels for aviation and maritime transport

- Reduce land use for livestock
- Expand plantbased protein
- Restore land to create carbon sinks
- Cut water losses
- Shift to drought resistant species

- Renovation and energy efficiency
- Clean energy for heating and cooling
- Climate resilient homes and infrastructure
- Cut water losses



EU air quality policies are saving lives



Premature deaths attributable to exposure to fine particulate matter $(PM_{2.5})$, EU-27, 2005-2022

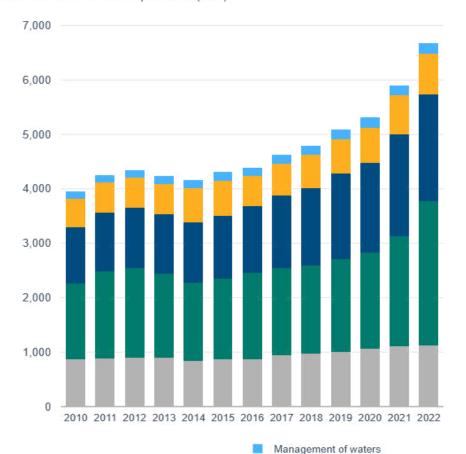
Pollutant levels are a third higher in the poorest regions than in the richest



Growth in green jobs

Employment in the environmental economy, by domain, EU, 2010-2022

Thousands of Full Time Equivalents (FTE)



Other environmental protection

Waste management

Management of energy resources

Wastewater management

6.7 million FTE in 2022

3.1% of employment

Jobs in renewables 1.2 million – doubled from 2021

Green skills development & retraining needed





Italy Country Profile

