



Reforma del mercat del CO₂ en el sector del transport

Aspectes reguladors i generals

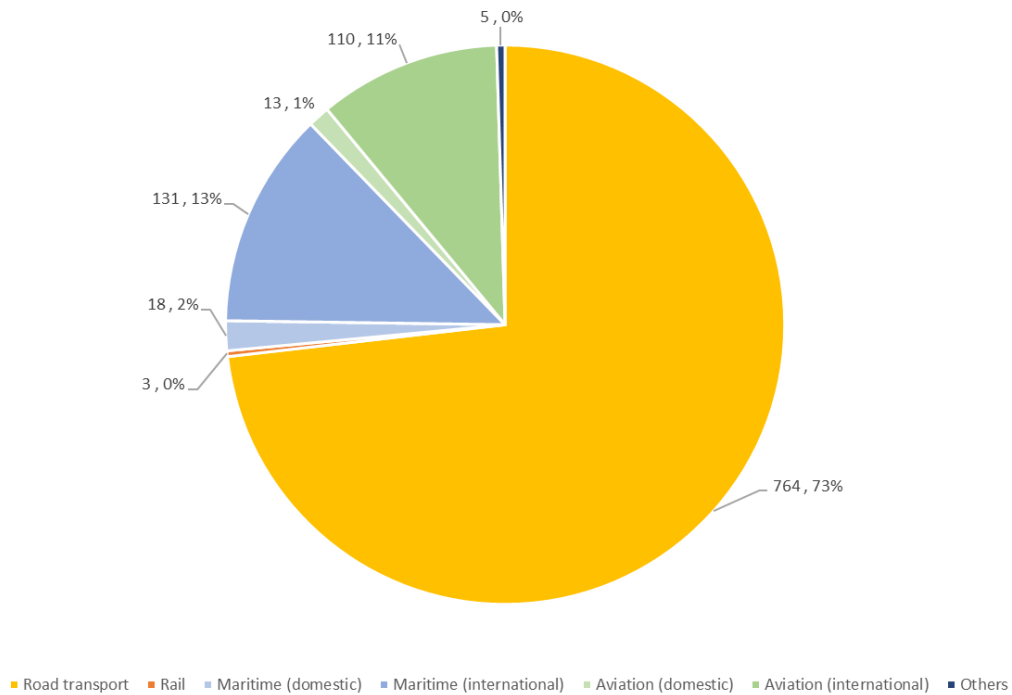
Enginyers Industrials de Catalunya- 26 Septiembre 2024

Marcos GONZÁLEZ ÁLVAREZ

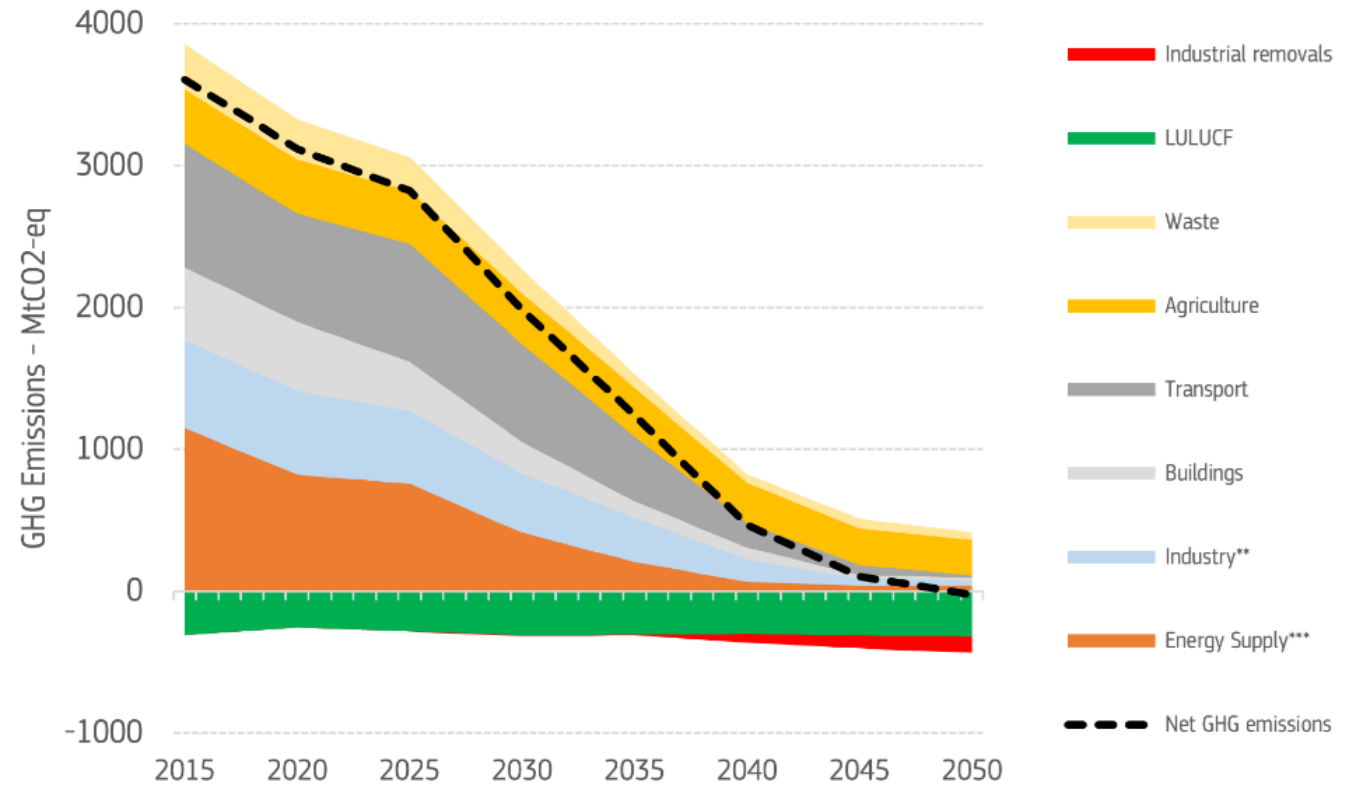
*Deputy Head of Unit, DG CLIMA B4
Mobility (II): Air, rail, water and intermodal policy*

The importance of transport emissions

2020 GHG emissions from different transport modes (Mt CO2 eq)
source: European Environmental Agency



Greenhouse gas emissions in the period 2015-2050*

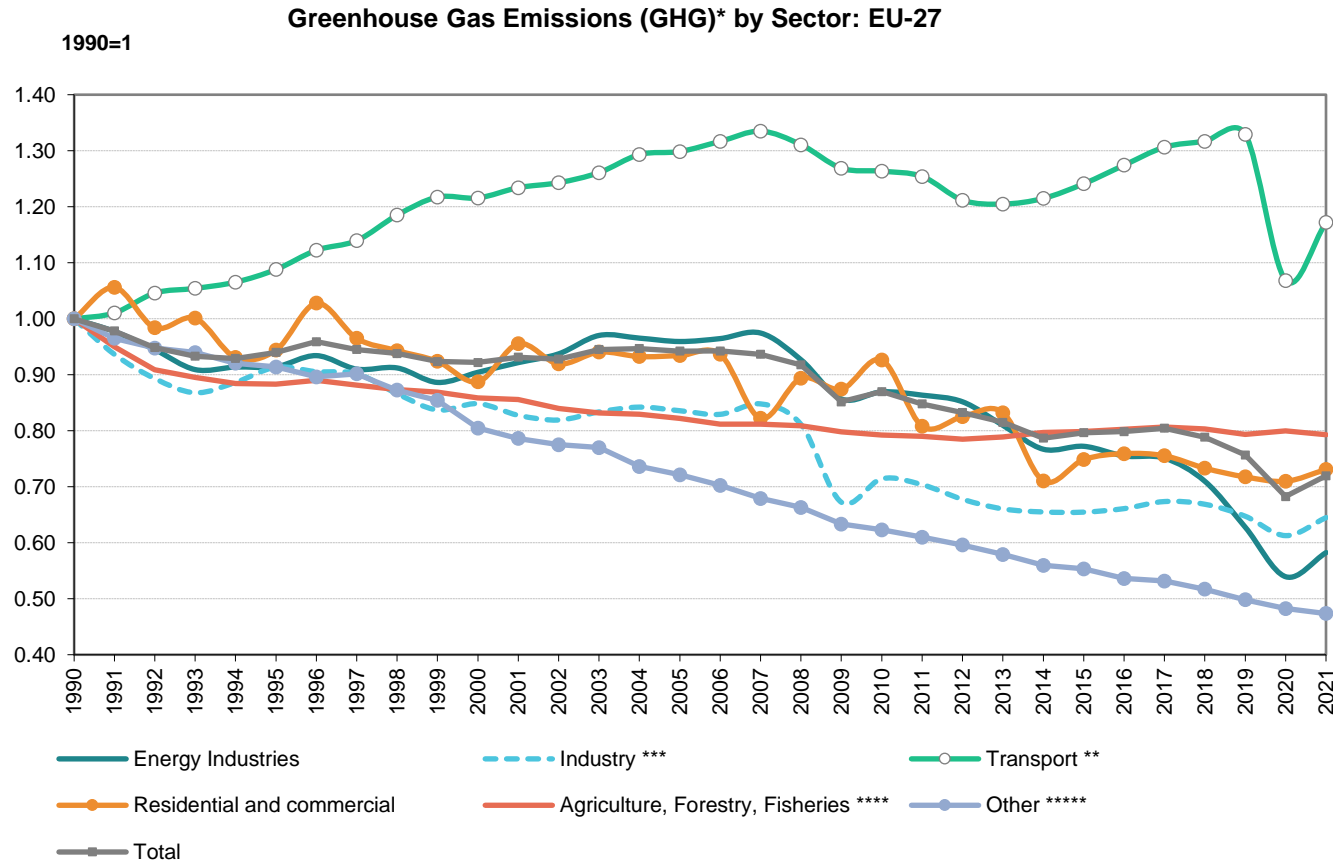


*Source: PRIMES, GAINS, GLOBIOM

**Excluding non-BECCS industrial removals

***Including Bioenergy with carbon capture and storage (BECCS)

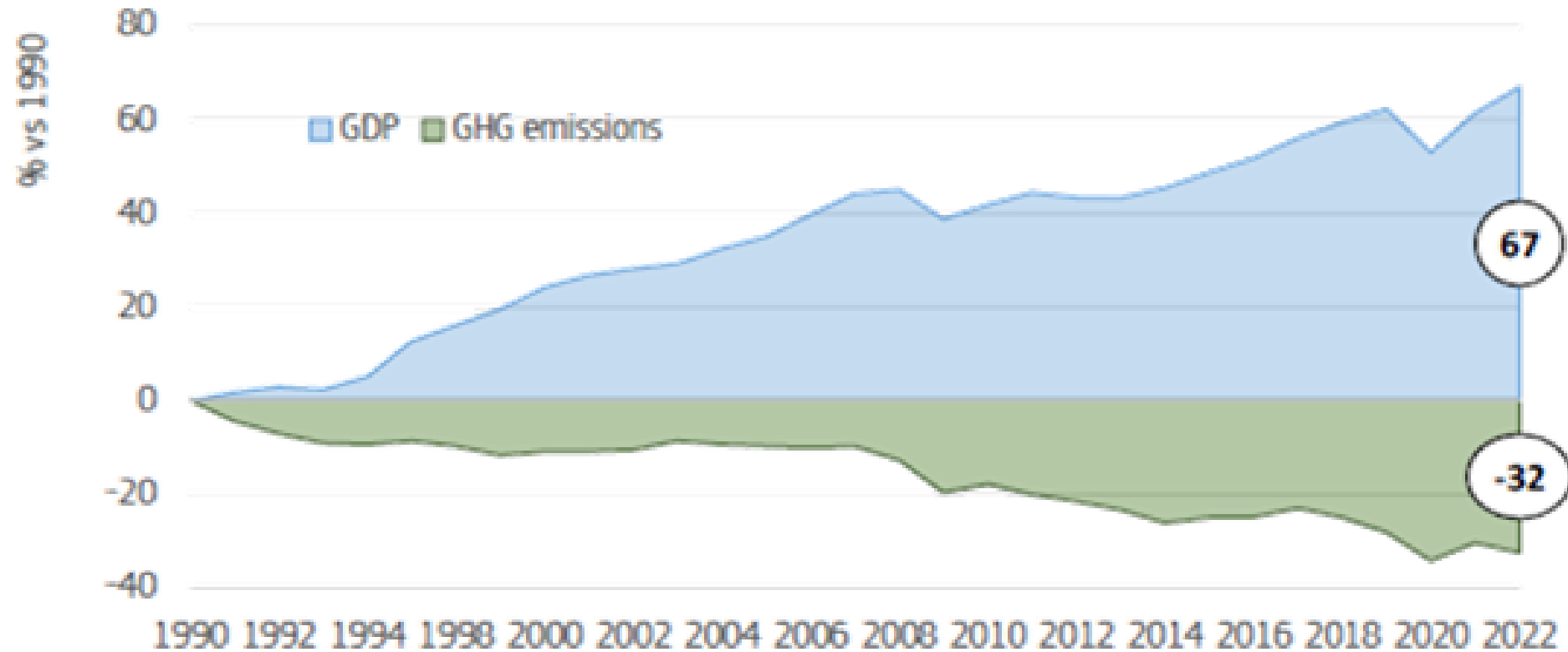
Transport: need for a change



- Only sector with increasing GHG emissions since 1990
- Oil and oil products totalling 34% of EU energy import (2021)
- Renewable energy share is 9%
- much lower than Electricity & Heat

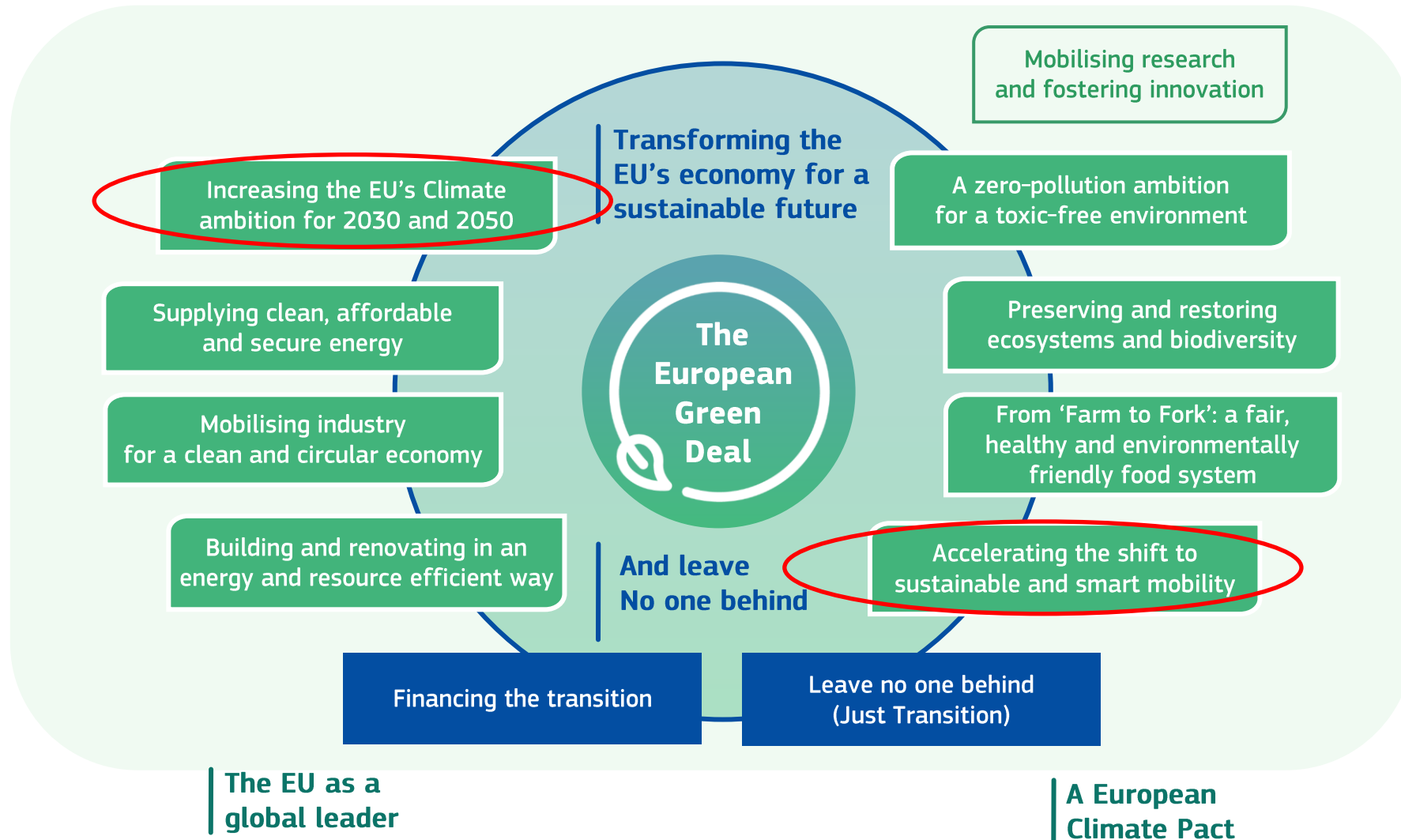
Emissions evolution

Figure 1: GHG emissions and GDP development in the EU since 1990



Source: GHG from EEA GHG data viewer (extracted 20/6/2023), GDP in real terms from AMECO and WB

Mobility was a key element of the European Green Deal (December 2019)

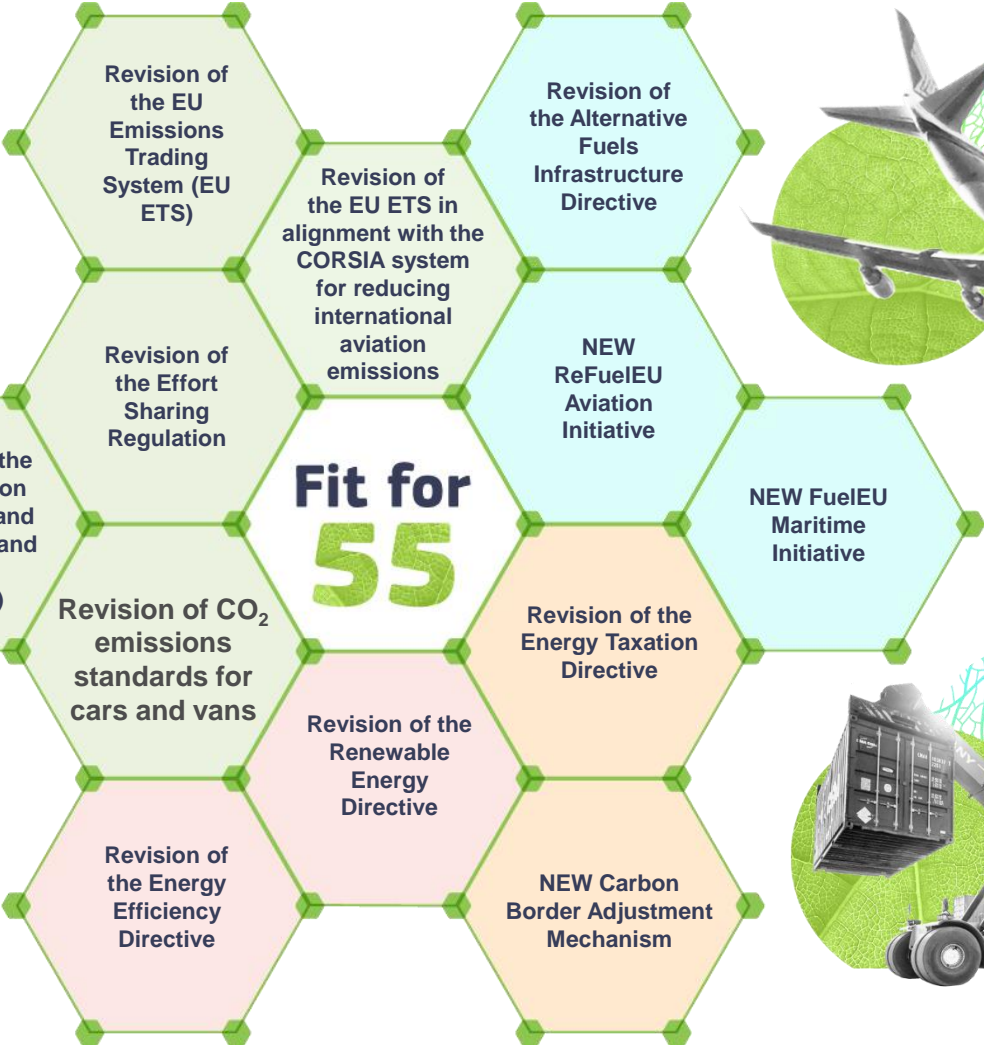
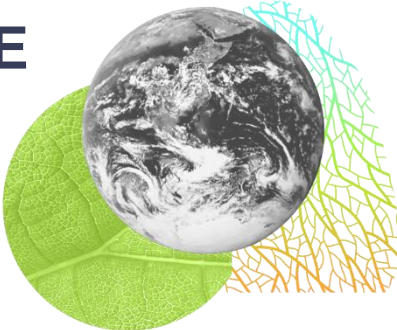


European Climate Law (June 2021)

- EU-wide **climate-neutrality objective 2050**
- **2030 target** of at least **55%** net greenhouse gas emissions reduction (vs. 1990)
- **2040 target** – yet to be set (Commission has recommended **90%**)
- *To meet climate neutrality objective: emissions from **transport sector** need to be reduced **by 90%** by 2050*
- *In the transport sector, the implementation of the “Fit for 55” measures, combining technological solutions and carbon pricing, as well as an efficient and interconnected multimodal transport system, for both passengers and freight, will allow emissions to decrease by **close to 80% in 2040 relative to 2015**.*

'Fit for 55' package (July 2021)

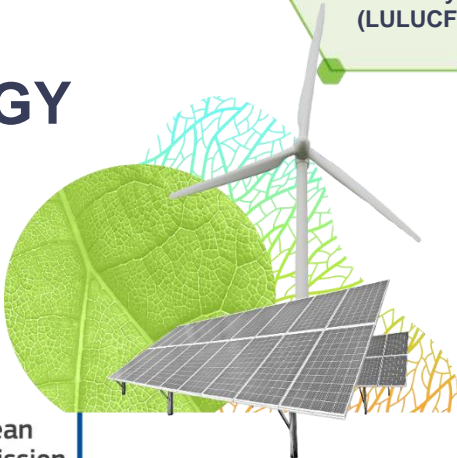
CLIMATE



TRANSPORT



ENERGY



TAXATION AND TRADE



World's first major carbon market

- Started in **2005**, the oldest ETS in the world and largest in terms of traded volume. In 2022, the value of the volume exchanged by market participants exceeded **€ 1.7trn**. Only China ETS is larger in terms of emissions: 4,500 MtCO₂ vs. **1,400 MtCO₂**
- Operates in **30*** countries (all 27 EU countries plus Iceland, Liechtenstein and Norway)
- Applies to emissions from the **electricity and heat generation, industrial manufacturing, aviation and maritime transport**.
- Covers **~36%** of the EU's GHG emissions - from **~8 500** stationary installations and **~400** aircraft operators
- Revision of the ETS Directive was completed in **2023**:
 - **Stronger**: increased environmental ambition via a more stringent cap
 - **Larger**: new sectors coming in – maritime from 2024 and 'ETS2'





EU ETS helps bring down emissions and raises revenues for the green transition

- Emission reductions achieved by 2022: **-37.3% below 2005 levels** from stationary installations (compared to GDP growth of ~23.8%).
- Current carbon price: stable between **80 - 90 EUR/tCO₂**
- A rising carbon price, means rising revenues. In 2022 alone, EUR 38.7bn was raised in auctions. Total revenues raised from auctioning of allowances from 2013 until today: **EUR 152 bn**
- **NEW! - Maritime** sector is included in the ETS from 2024
- **NEW! - From 2027** a new, separate ETS2 will start reducing emissions in the **buildings, road transport** and additional sectors (mainly small industry not covered by the existing ETS).
- With these new sectors, the ETS and ETS2 combined cover 75% of total EU emissions

Political guidelines new Commission 2024-29

- **Stay the course** on the goals set out in the European Green Deal.
- This [supporting and creating the right conditions for companies] will prepare the way towards the **90% emission-reduction target for 2040** which we will propose to enshrine in our European Climate Law.
- A new plan for Europe's **sustainable prosperity and competitiveness**, with a Clean Industrial Deal and an Industrial Decarbonisation Accelerator Act to support industries and companies through the transition.
- Reaching climate neutrality by 2050 will require a wide range of innovative technologies, in areas from mobility to energy. For instance, the **2035 climate neutrality target for cars** creates predictability for investors and manufacturers. Getting there will require a **technology-neutral approach**, in which e-fuels have a role to play through a targeted amendment of the regulation as part of the foreseen review.
- **Dragui report** “the only way to ensure our long-term competitiveness is to shift away from fossil fuels and towards a clean, competitive and circular economy”.



Thank you!

[Delivering the European Green Deal | European Commission \(europa.eu\)](https://europeancommission.europa.eu)

ETS aviation



- Aviation is successfully part of the ETS since 2012 (all nationalities of airlines on the same routes).
- ETS reinforced in the ETS review, but scope not extended (only intra-EEA flights covered, application to outermost regions).
- **Full phase out of free allocation** as from January 2026
- Monitoring and reporting of **non-CO₂ effects** as from January 2025
- Implementation of ICAO's CORSIA through the EU ETS Directive. **EU ETS for intra-European flights (including to UK and CH), only CORSIA for extra-European**
- Review in 2026 to evaluate contribution of long haul flights e.g. possibly to extend the EU ETS to departing flights in case if CORSIA is not strengthened (Paris alignment) or international participation limited (e.g. US or CN do not participate).
- In addition to carbon price incentive, 20 million allowances (1.7 billion EUR) to **incentivise the use of sustainable aviation fuels**

Extending the ETS to maritime transport



- **Covering** all emissions from voyages within the EU & 50% of international voyages
- Starting in January 2024! From 2026 also covering CH₄ and N₂O emissions in addition to CO₂.
- Covering **all large ships** operating commercial voyages and, as from 2027, large offshore ships, regardless of the flag they fly
- Regulating around 12.000 ships
- Full price signal as from 2026 emissions, **phase-in period** for 2024 and 2025 emissions (40% and 70%, respectively)
- **Amendment of the EU MRV Regulation** (EU) 2015/757 to make it fit for ETS implementation and to increase the scope to certain types of smaller vessels.
- Commission assurance that 20 million allowances (1.7 billion EUR) will be used to decarbonise maritime from the ETS' Innovation Fund.

ETS2

From 2027, a **new EU Emission Trading System (ETS2)** will cover CO₂ emissions from **fuels used in buildings, road transport, and small emitting industry** (monitoring and reporting from 2025).

ETS2 aims to ensure a strong reduction of emissions by 2030.

Allocation of emissions allowances capped and auctioned annually.
Cap is decreasing every year => forcing eventual decarbonization.

Revenues will be used to set up **Social Climate Fund** and by EU MS for climate and social purposes.



Social Climate Fund: Addressing inequalities through the green transition

The SCF will mobilise **EUR 86.7 billion** over **2026-2032** period
EUR 65 billion from the Fund + 25% national contributions from Member States.

Eligibility of expenditure as of **1 January 2026** based on auctioning of 50 million EU ETS allowances in 2026 (frontloading) & ETS2 auctioning as of 2027 (initially as external assigned revenue).



Support vulnerable households, transport users, & micro-enterprises from impact of ETS2



Support investments in energy efficiency & renovation of buildings, clean heating & cooling



Finance zero- & low-emission mobility & transport, including public transport



Provide temporary direct income support

A comprehensive approach to foster the transition towards **zero-emission mobility**

- CO₂ emission standards for light-duty vehicles (LDV)
- CO₂ emission standards for heavy-duty vehicles (HDV)
- Alternative Fuel Infrastructure Regulation (AFIR)
- Environmental Performance of Buildings Directive (EPBD)
- Net Zero Industry Act (NZIA)
- Critical Raw Materials Act (CRM)
- Batteries Regulation

Revised CO₂ emissions standards for cars and vans: Regulation (EU) 2023/851

55%

reduction of emissions
from new cars by 2030

50%

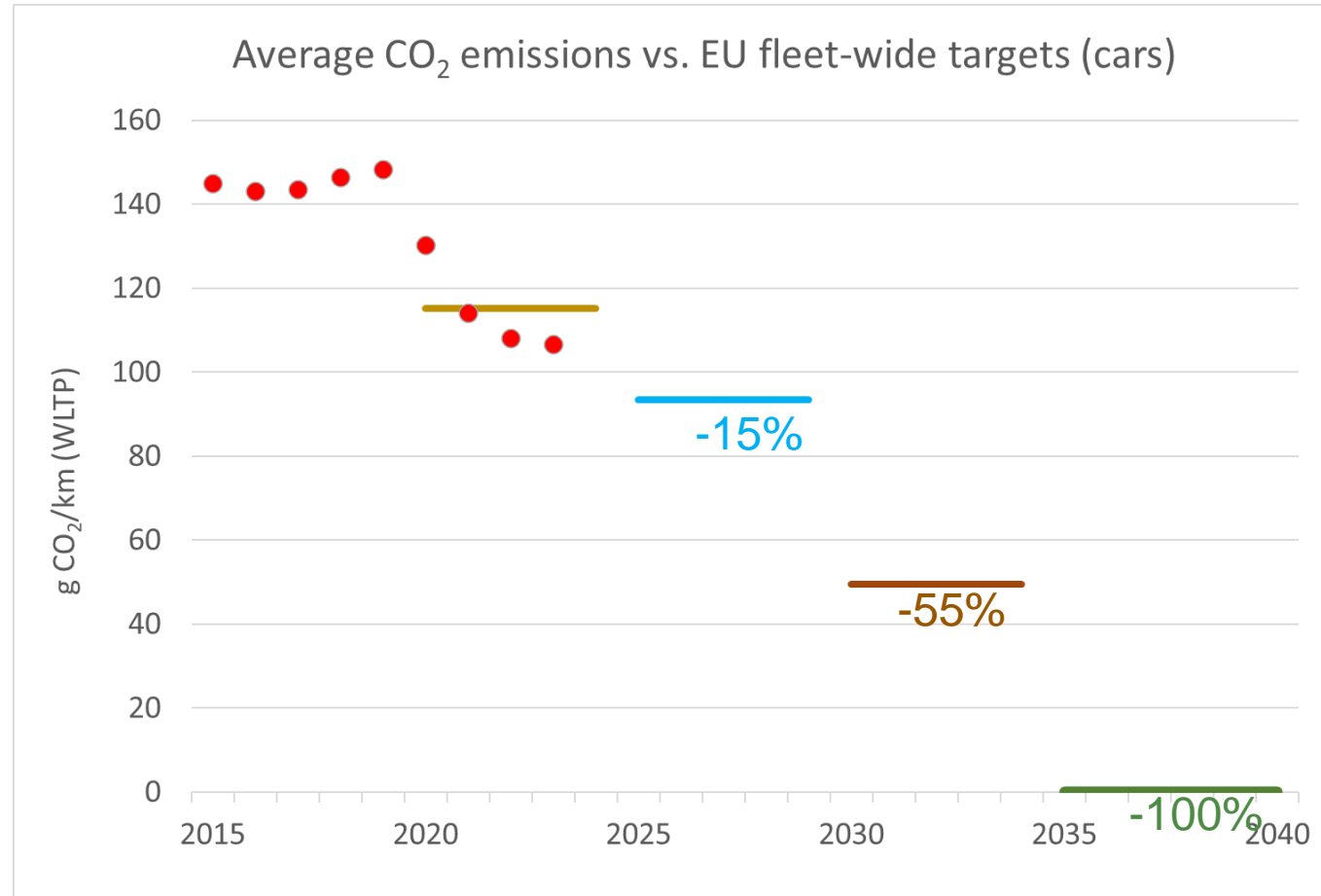
reduction of emissions
from new vans by 2030

100%

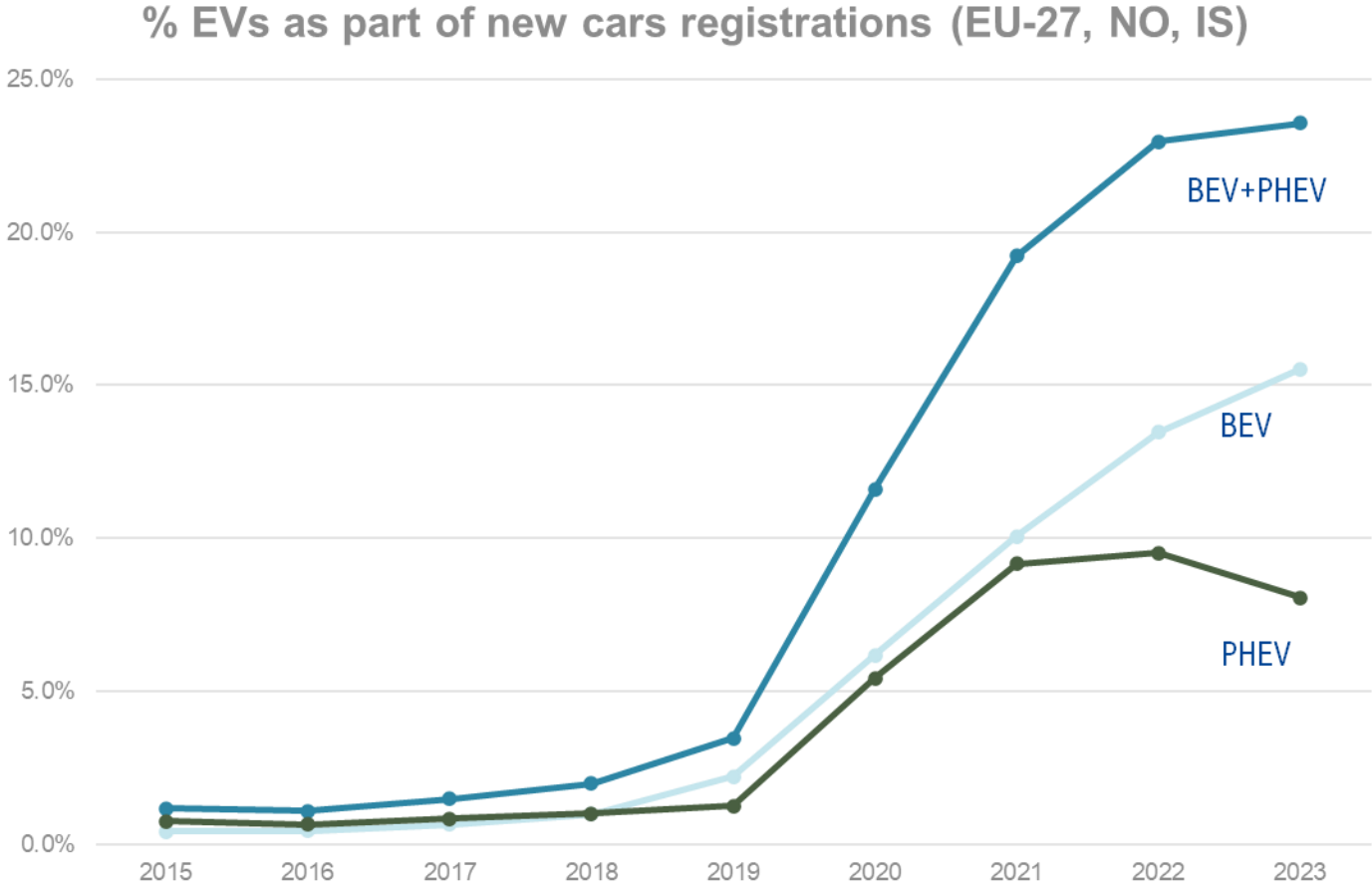
new cars and vans to be
zero-emission by 2035



Cars: emission targets and trends



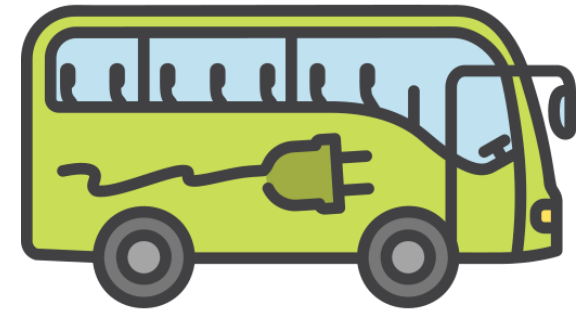
Strong increase in EV uptake (new cars)



Source: EEA

Revised CO₂ standards for Heavy-Duty Vehicles

Targets, relative to 2019 emissions:



**New zero-emission
urban buses :**

- **90% 2030**
- **100% 2035**

Alternative Fuels Infrastructure Regulation (AFIR)



Recharging points for cars & vans:

- **distance-based** target on the TEN-T network (**every 60 km**)
- national **fleet-based** targets

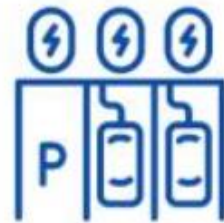
Recharging points for **heavy duty vehicles**: distance-based targets along TEN-T network, overnight recharging + urban nodes.

Hydrogen refuelling points for cars (& HDV): mandatory targets in all urban nodes and **every 200 km** on TEN-T network.

Standardisation of **Vehicle and Grid integration**

Energy Performance of Building Directive (EPBD)

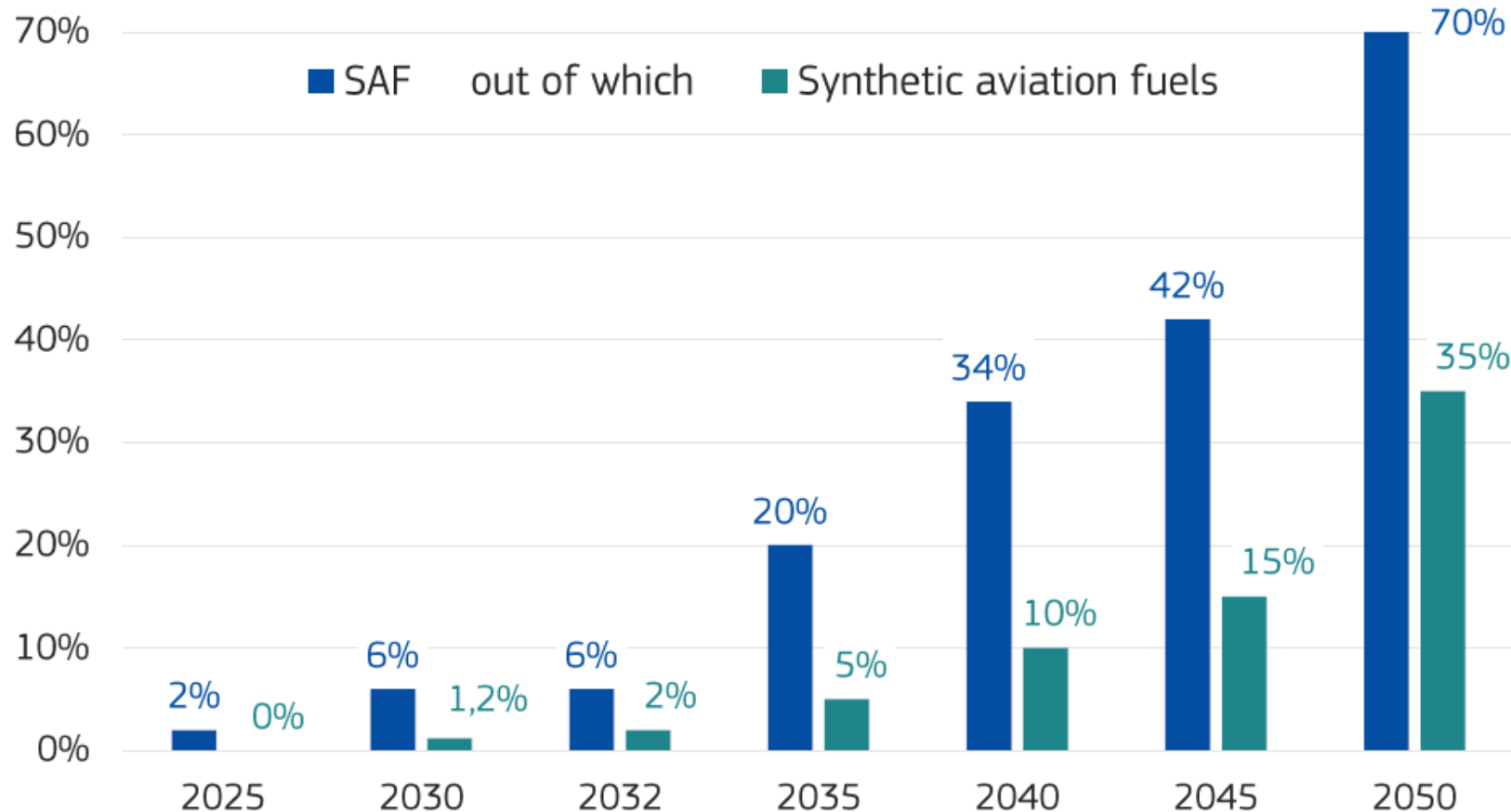
- **Right-to-plug** for everyone (cut permitting plus no consensus by co-tenants/owners)
- **Smart-ready** electricity systems
- **Residential, office and public buildings** equipped/ready for plugging EVs (new/refurbished/public)



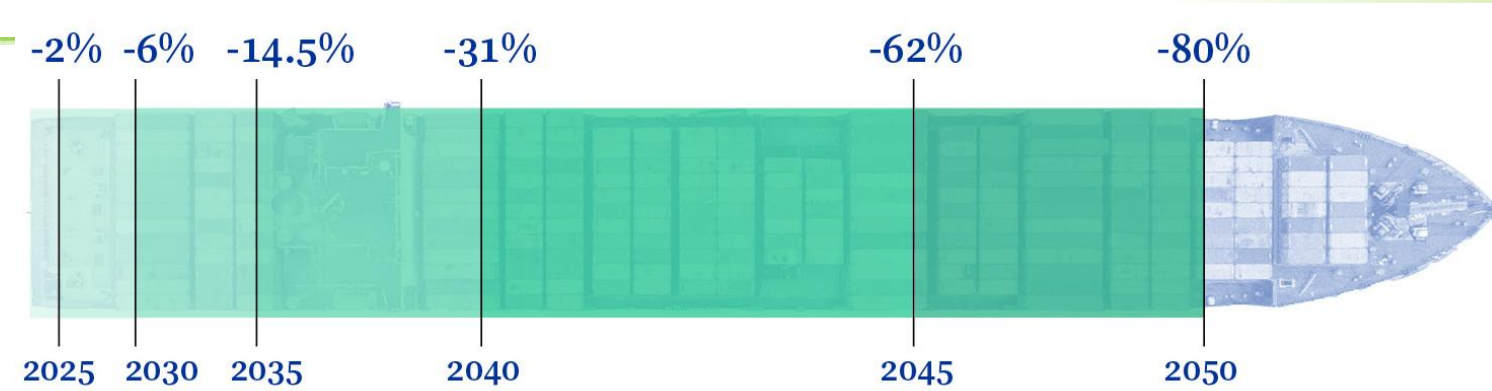
Binding shares of SAF



Ambitious **EU-wide binding shares** and realistic **ramp-up 2025-2050**



FuelEU Maritime GHG Intensity Target



- General targets: Establishes limits on the annual average GHG intensity of the energy used on-board.
- Ref Value:
 - Calculated based on 2020 MRV fleet data
 - Fuel Mix as per MRV reported fuel consumption

GHG Intensity Reduction Targets

