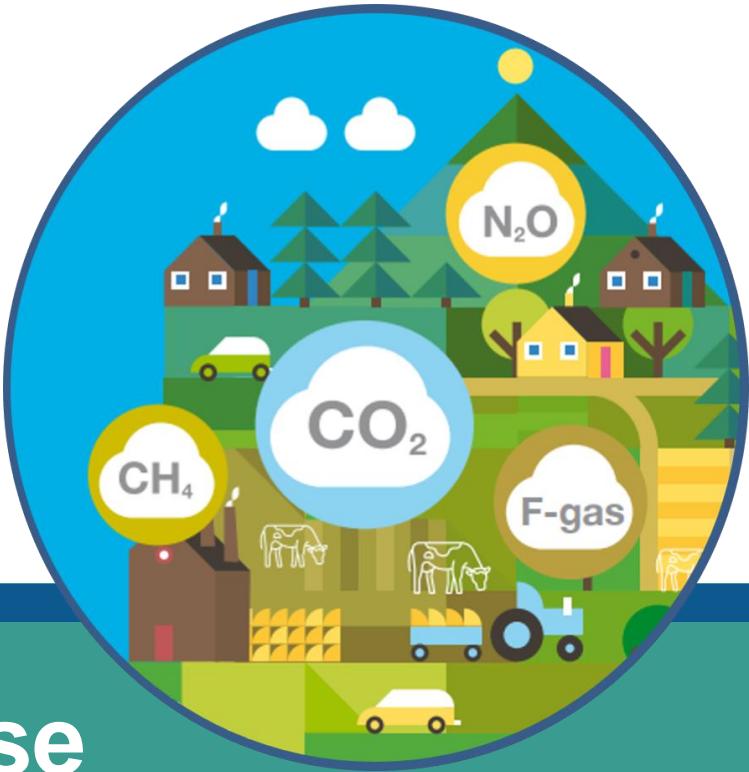




Environmental Protection Agency  
*An Gníomhaireacht um Chaomhnú Comhshaoil*



# Provisional greenhouse gas emissions 1990-2021

EPA Emissions Statistics team, July 2022

# Emissions Statistics Team



[EmissionsStatistics@epa.ie](mailto:EmissionsStatistics@epa.ie)



Learn more on  
[www.epa.ie/ghg](http://www.epa.ie/ghg).



[www.epa.ie](http://www.epa.ie)

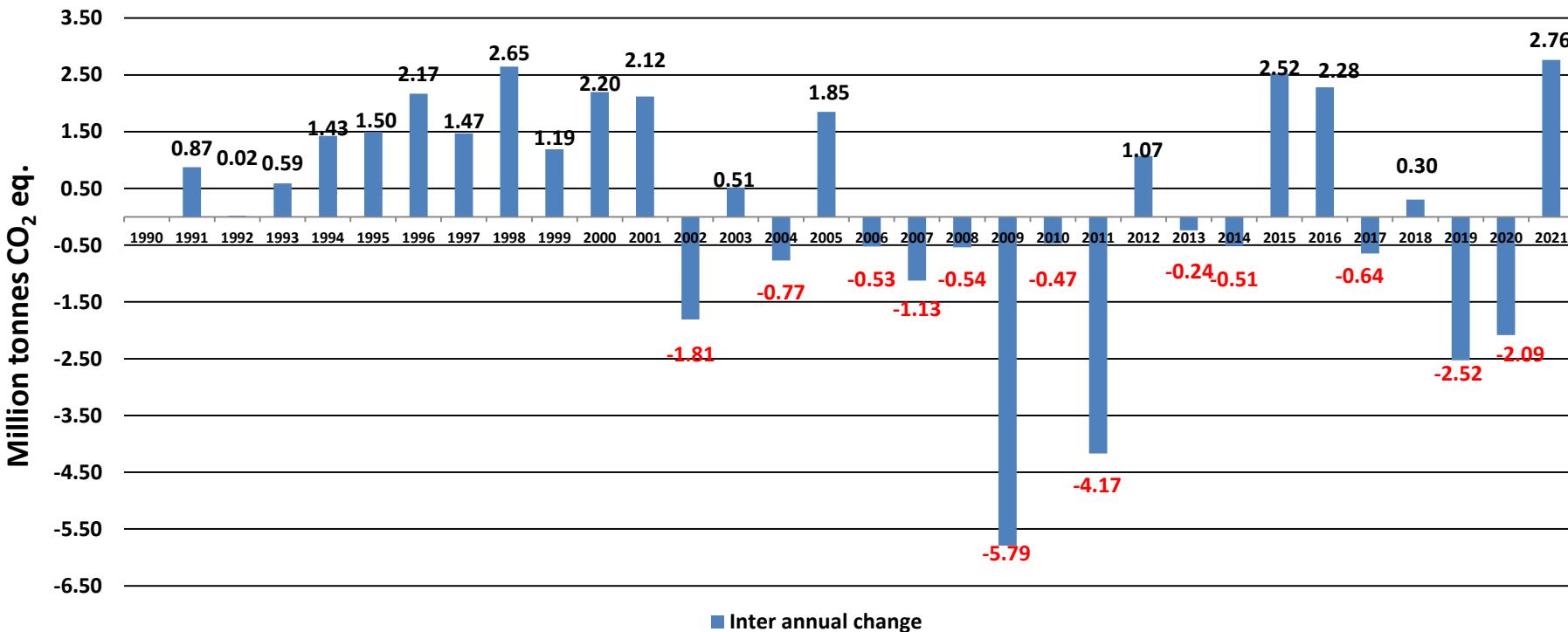
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# Overview

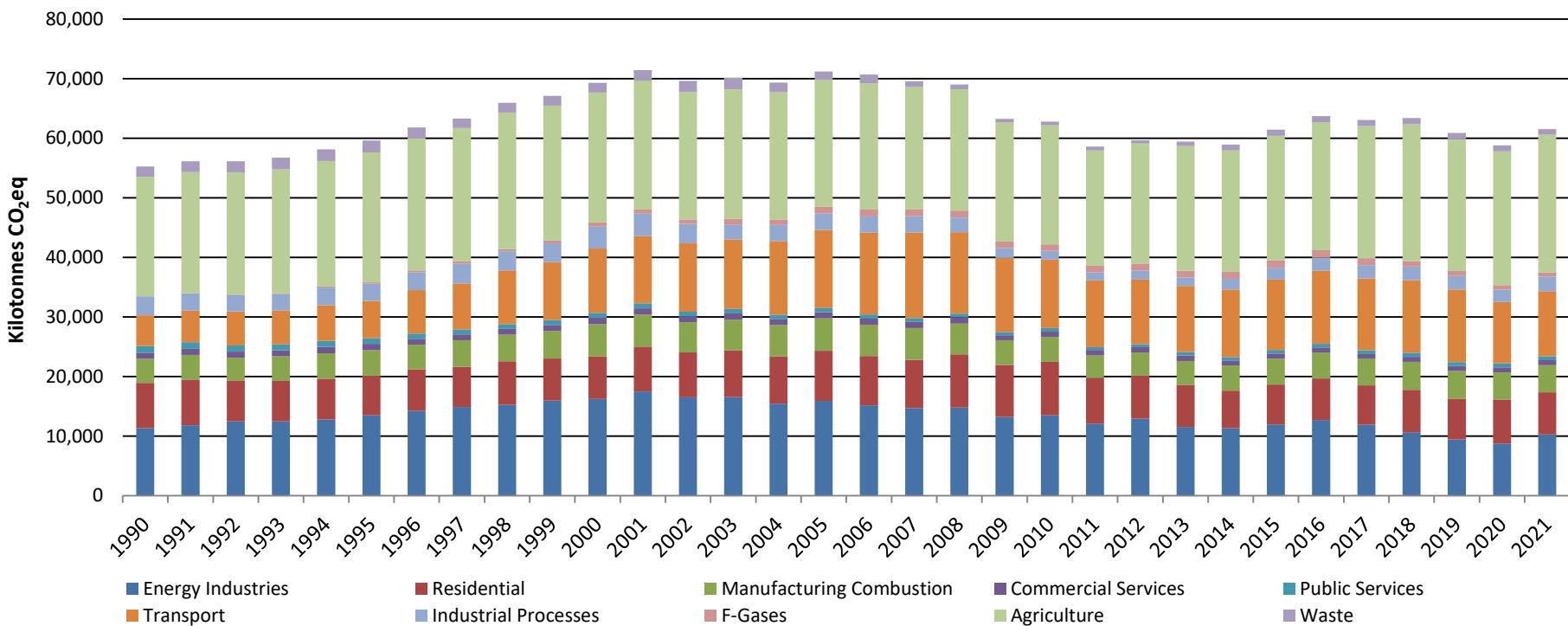


- Long term trends
- Agriculture
- Transport
- Energy Industries
- Residential
- Industry, IP and ETS
- Waste

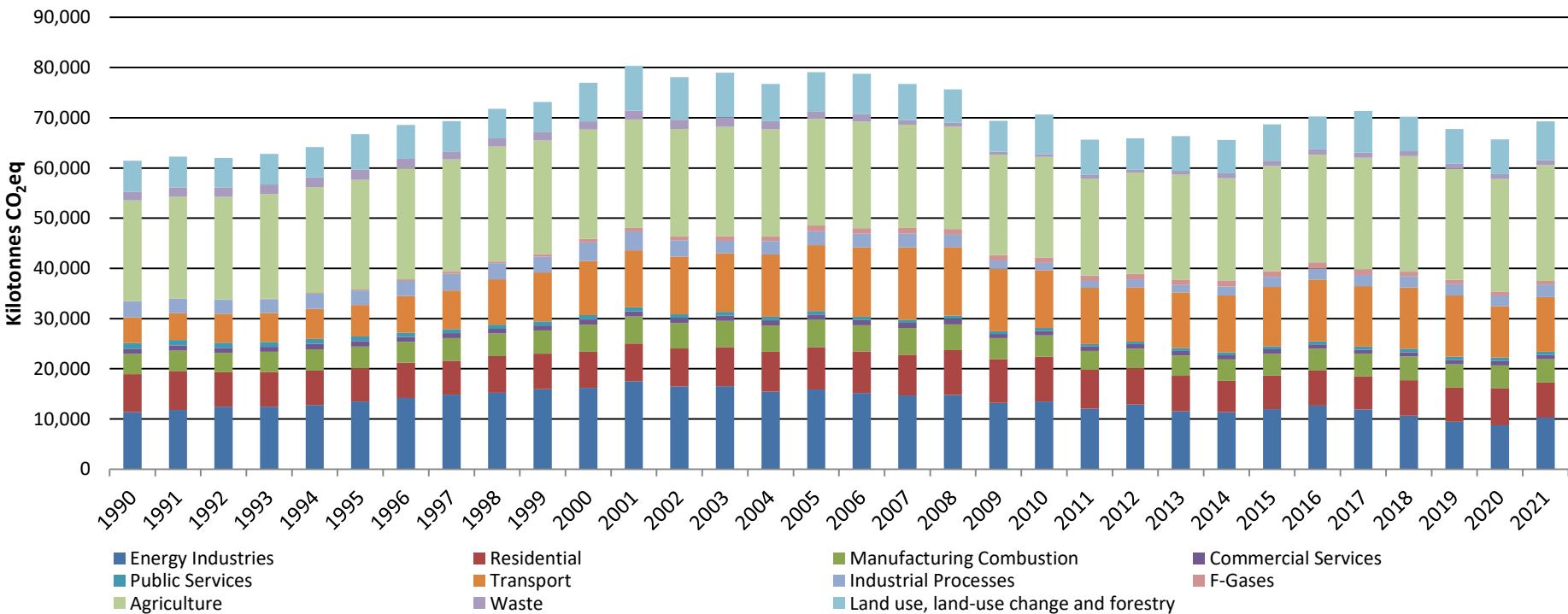
# Annual Emissions trends



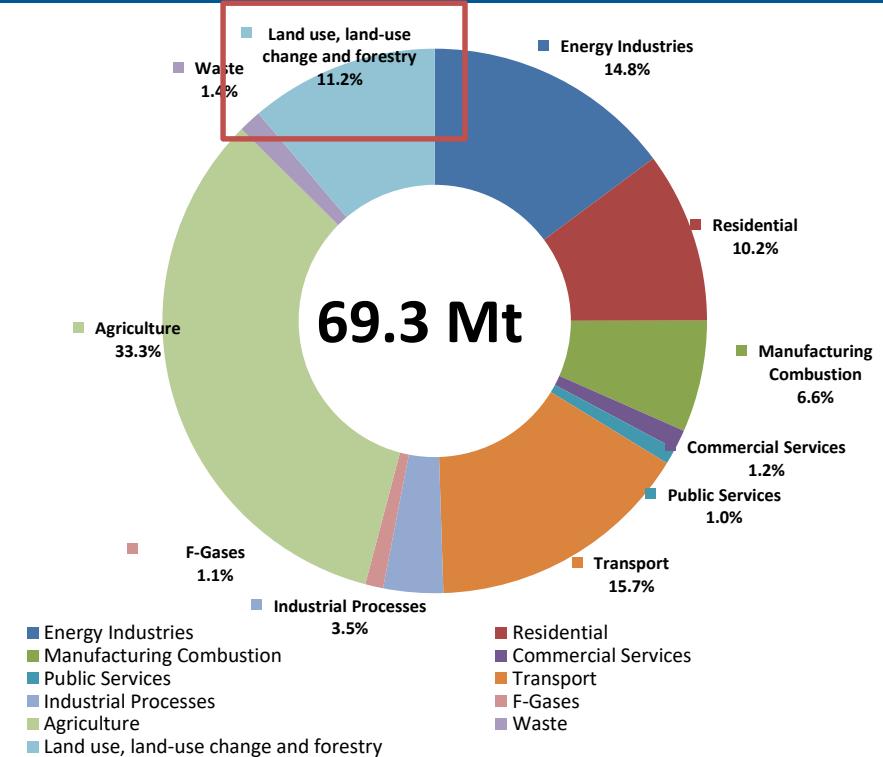
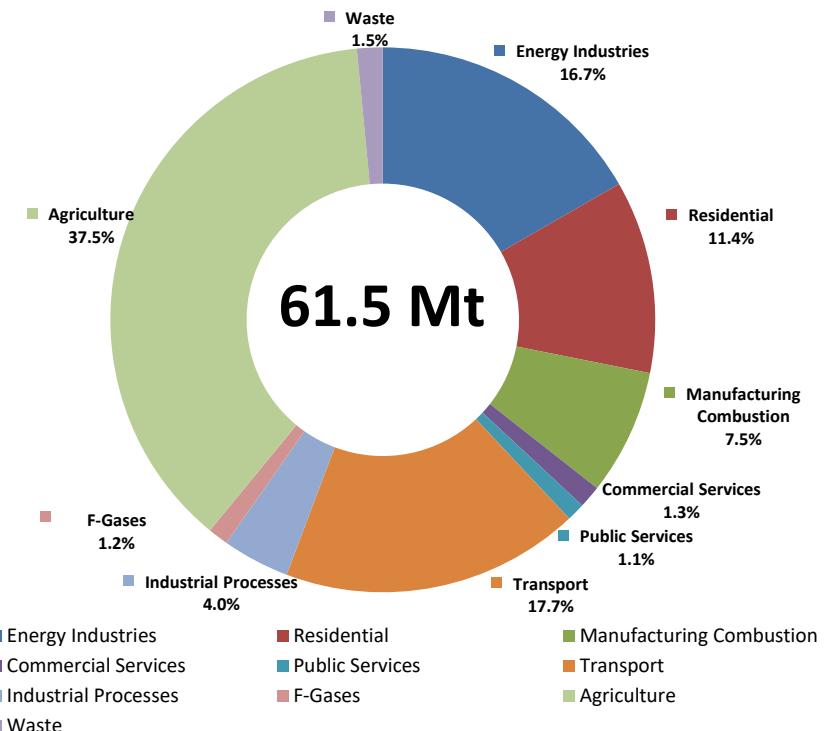
# Annual Emissions 1990-2021 excluding LULUCF



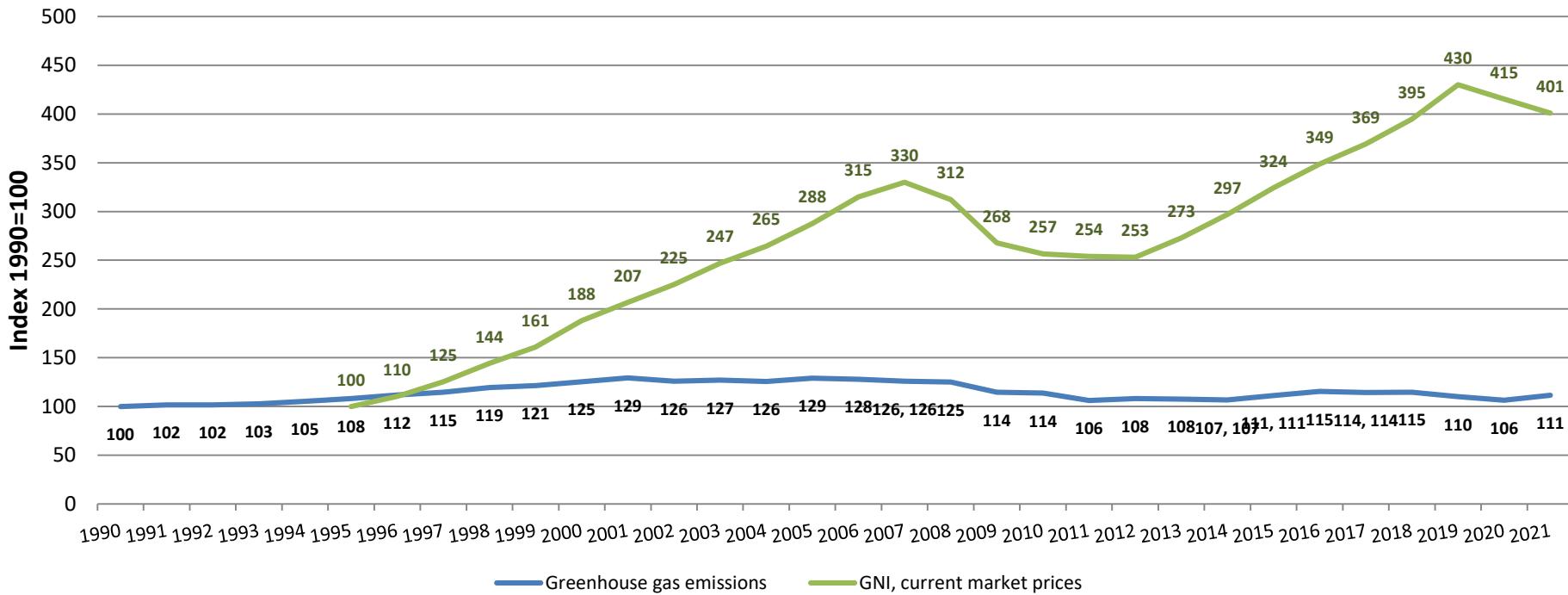
# Annual Emissions 1990-2021 including LULUCF



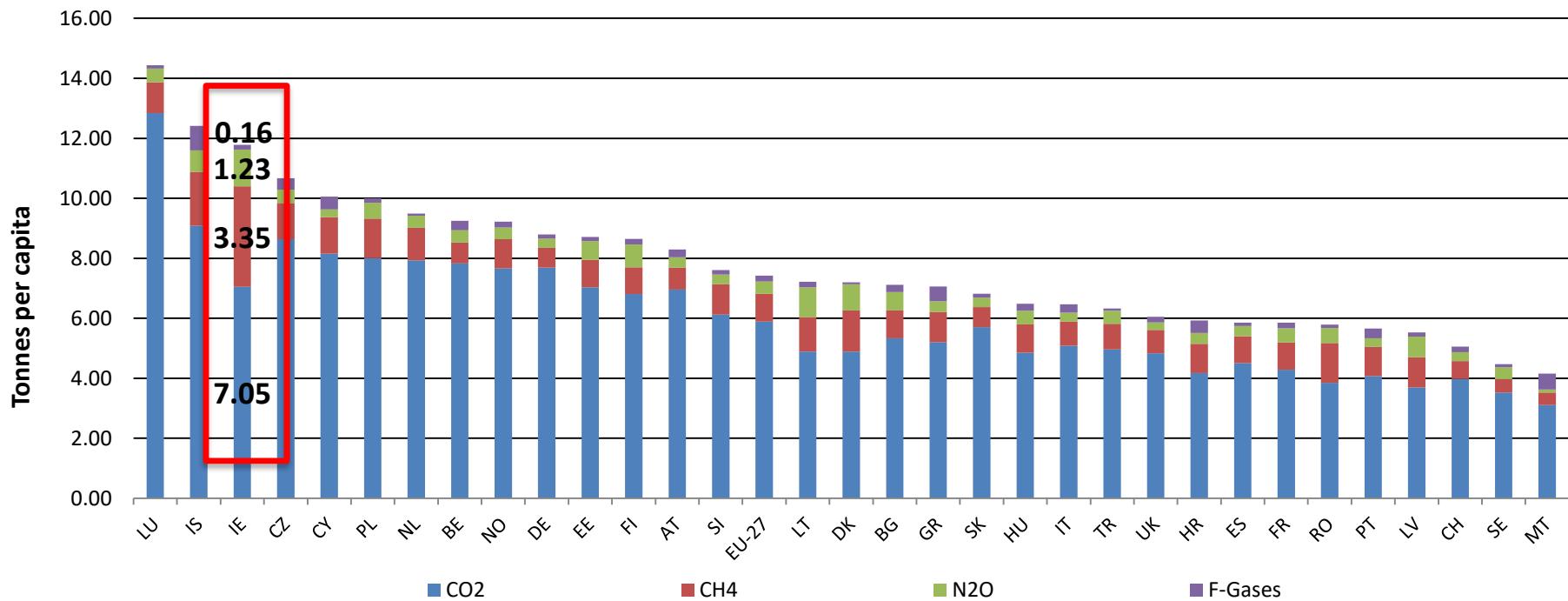
# Annual Emissions shares 2021



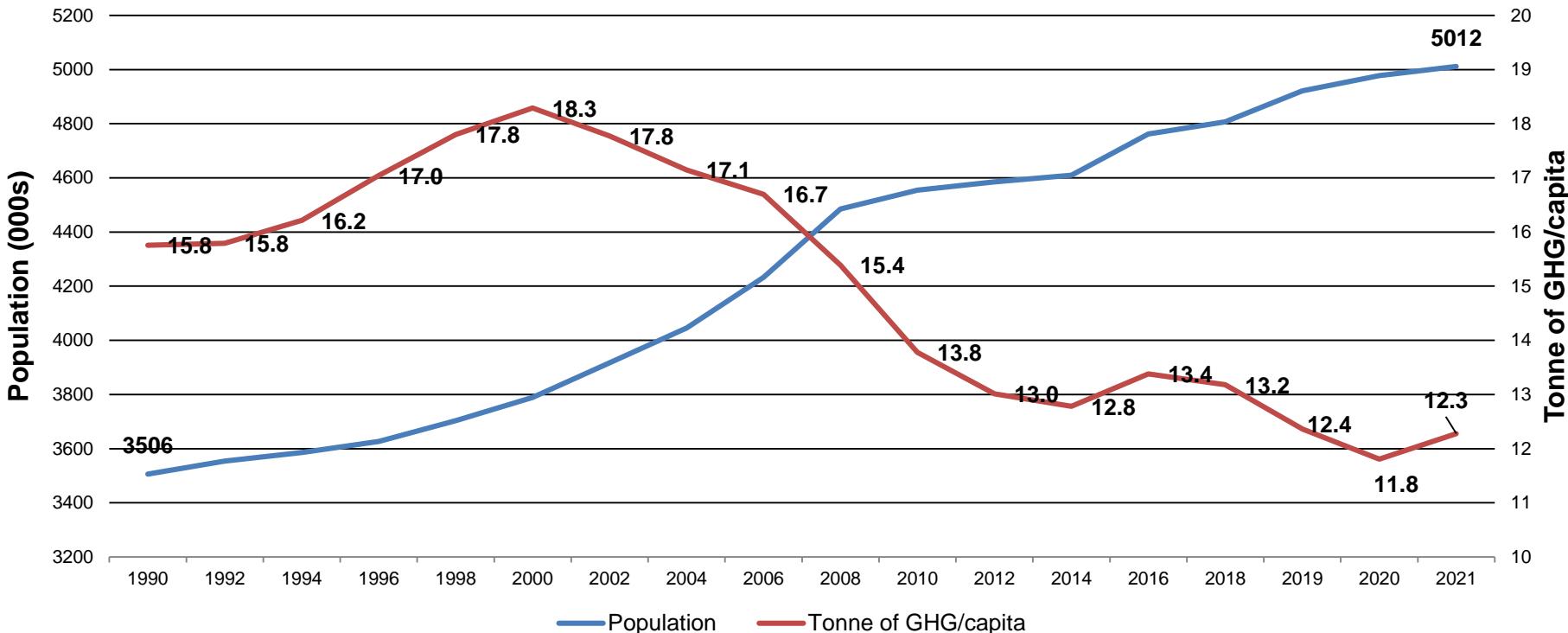
# GHG emissions and GNI (relative trend)



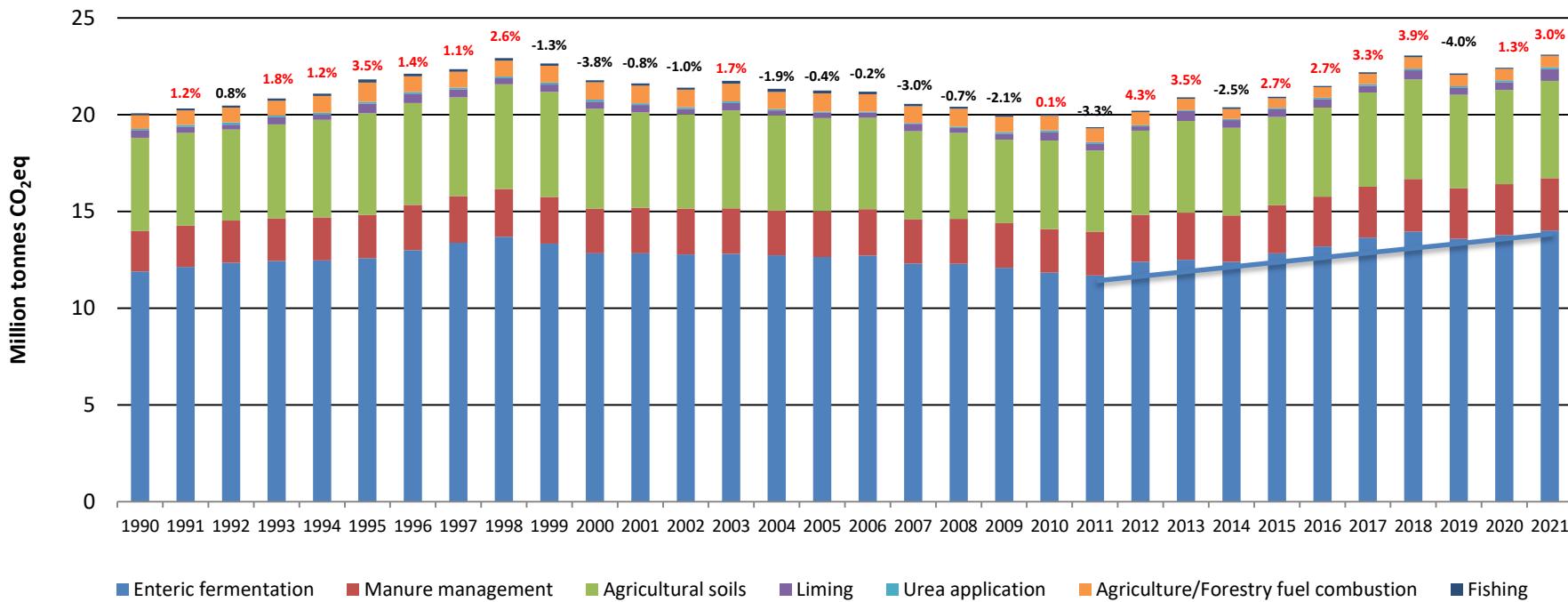
# Emissions per capita (2020)



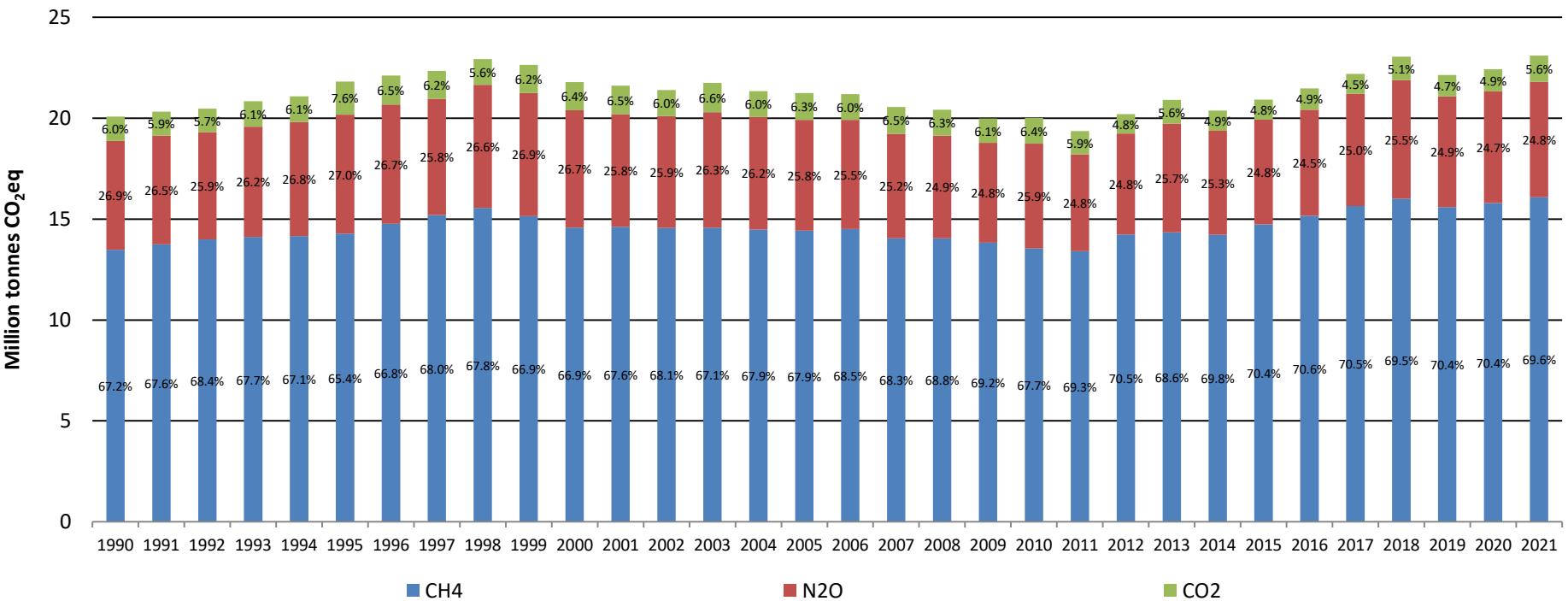
# Population and per capita emissions



# Agriculture emissions 1990-2021



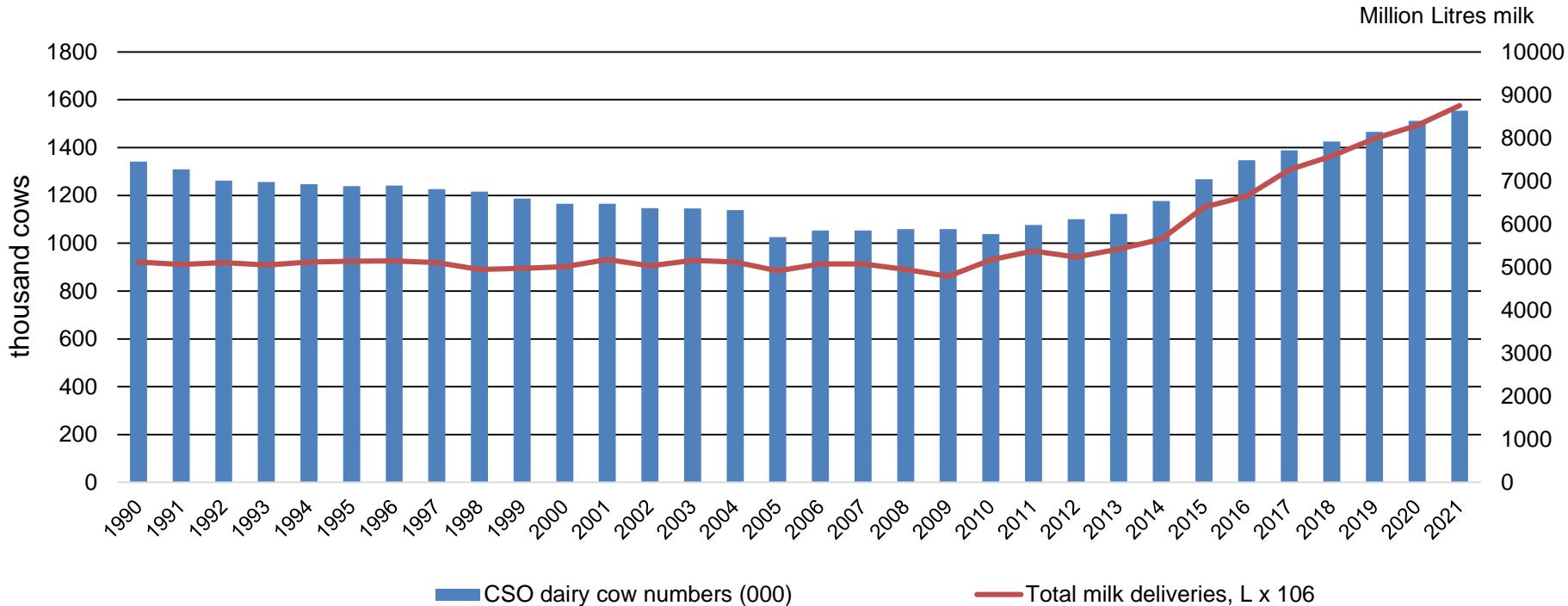
# Agriculture emissions by gas 1990-2021



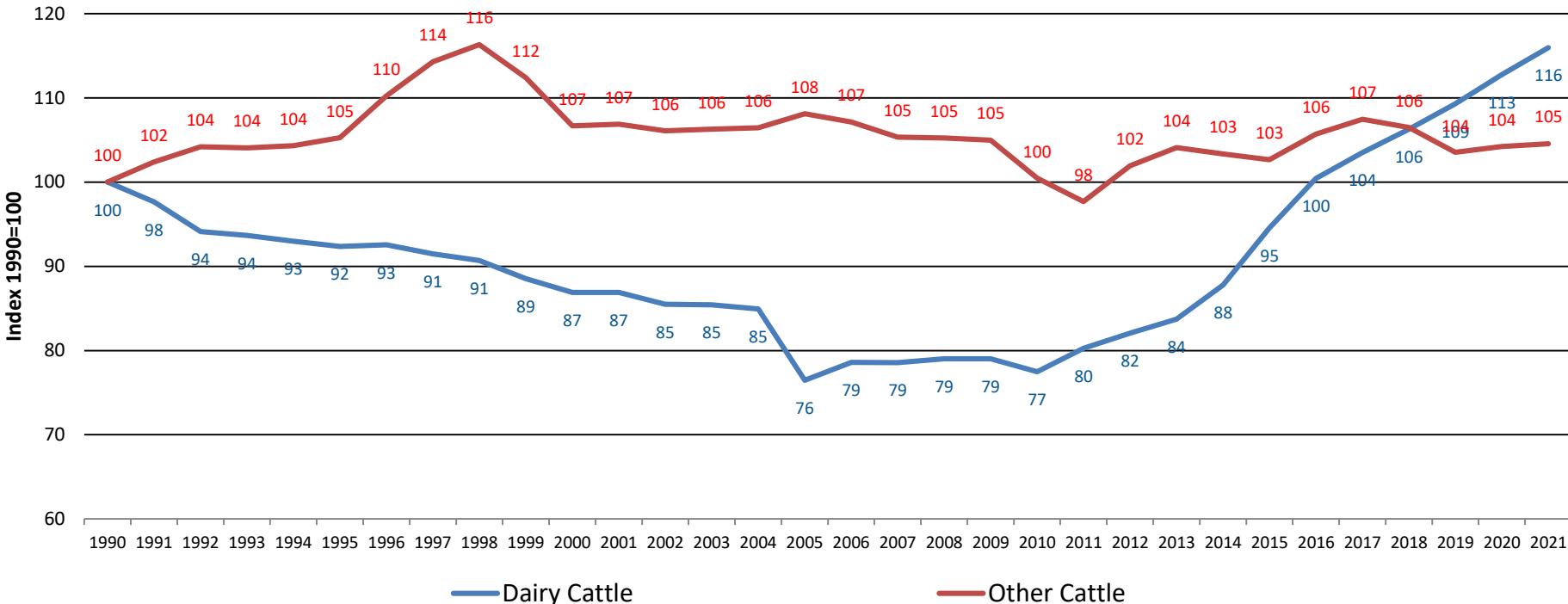
# Agriculture emissions drivers



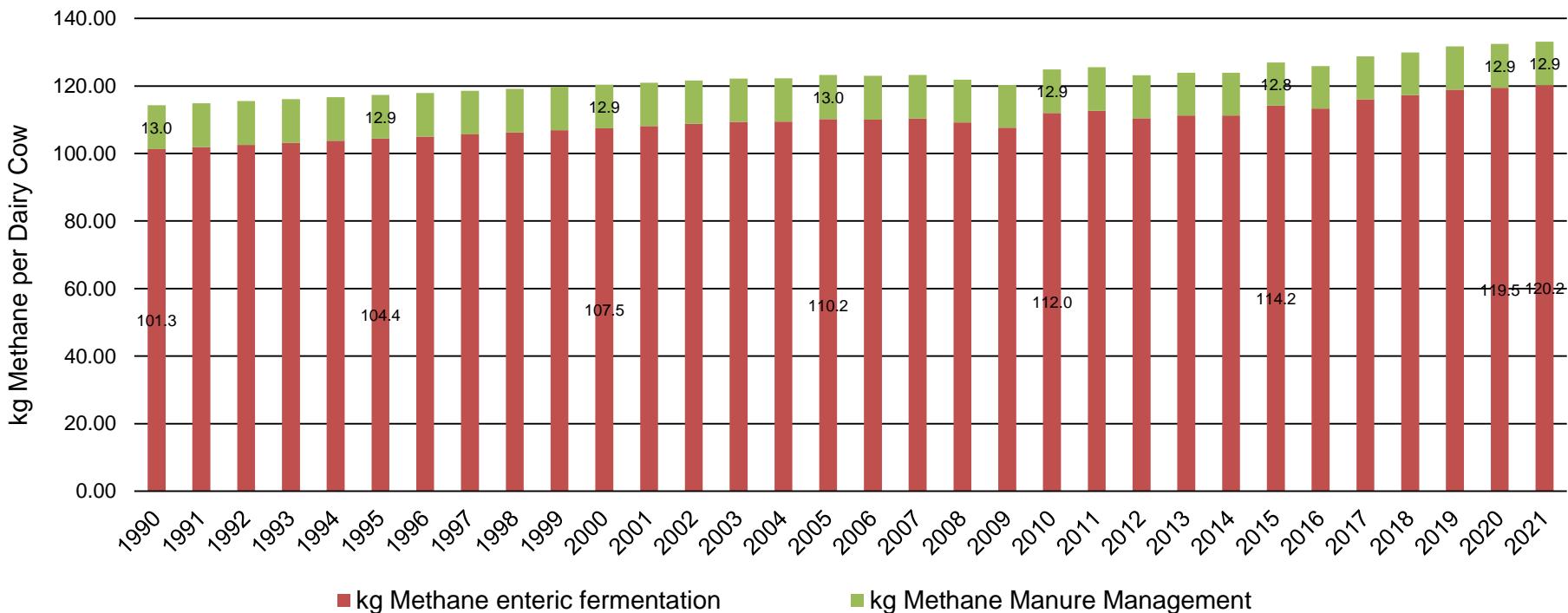
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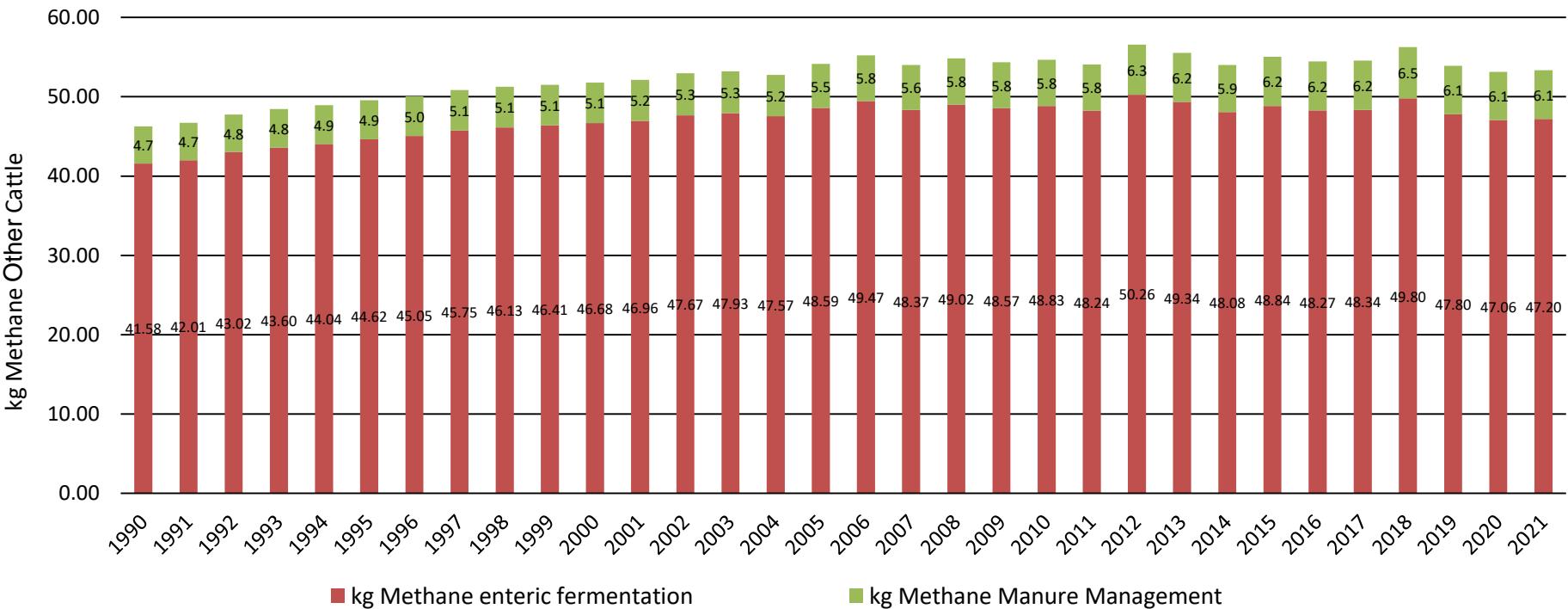
# Agriculture emissions drivers - Cattle



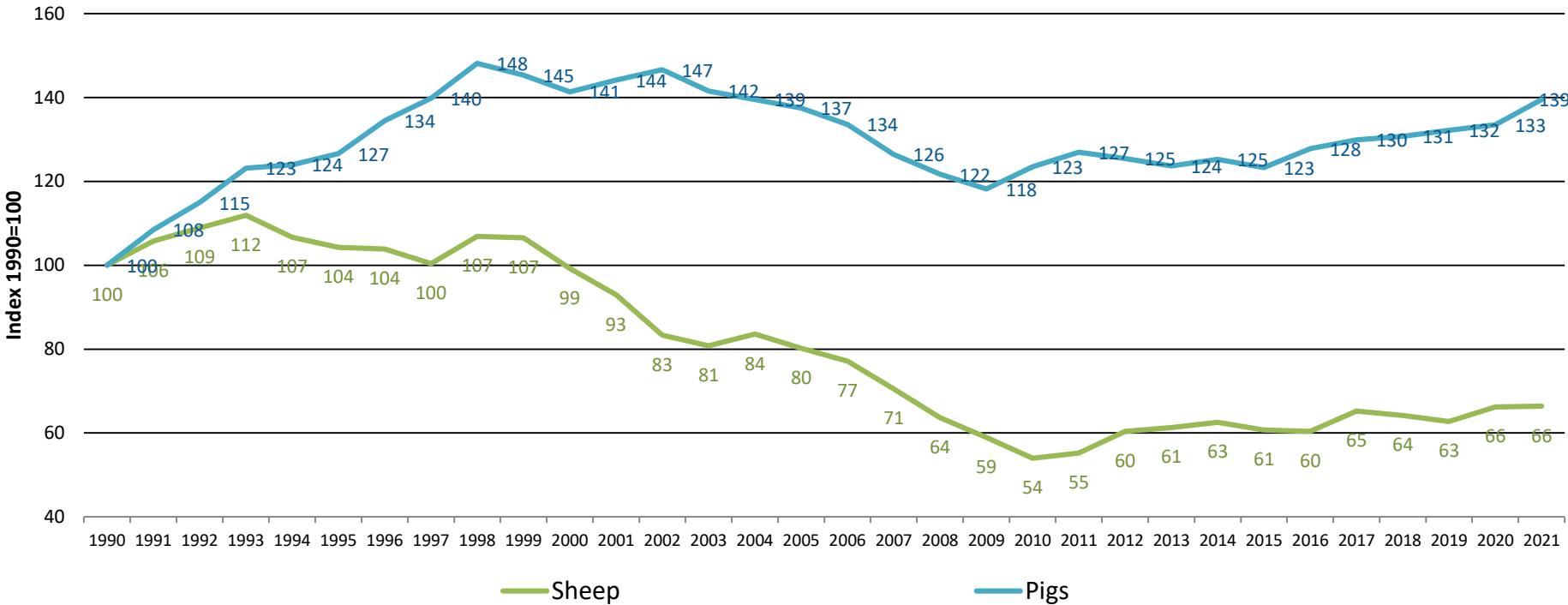
# Agriculture emissions drivers- Dairy Cows



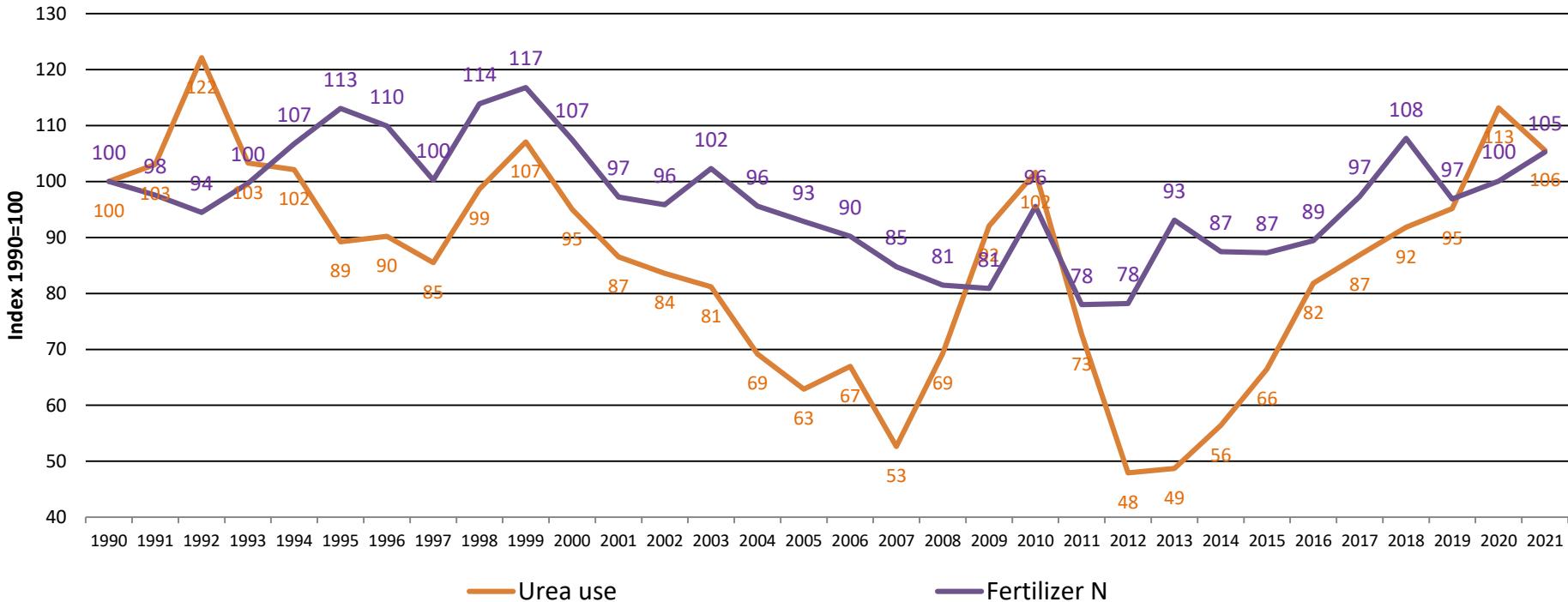
# Agriculture emissions drivers- Other Cattle



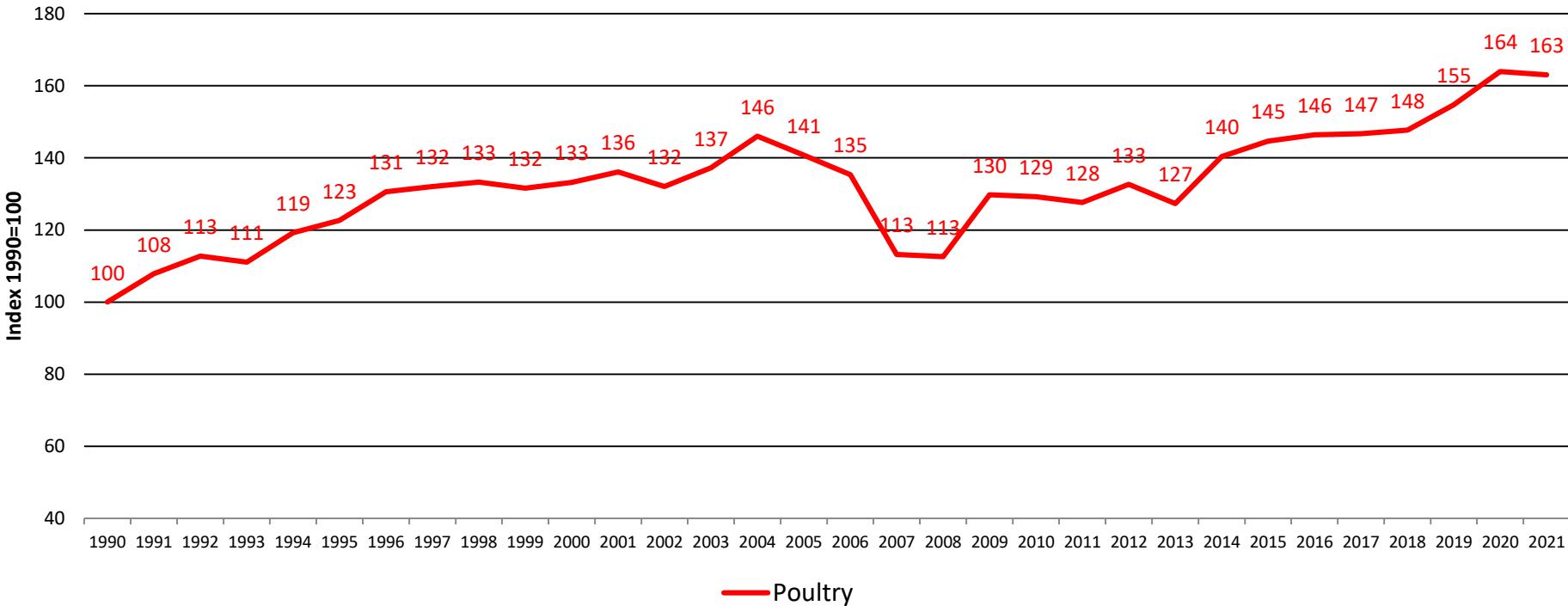
# Agriculture emissions drivers – Sheep and Pigs



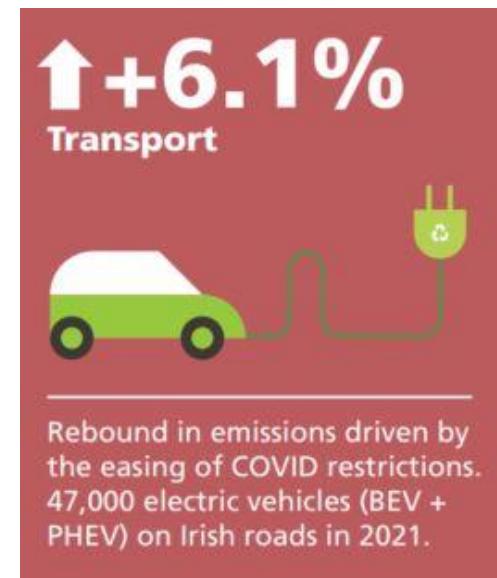
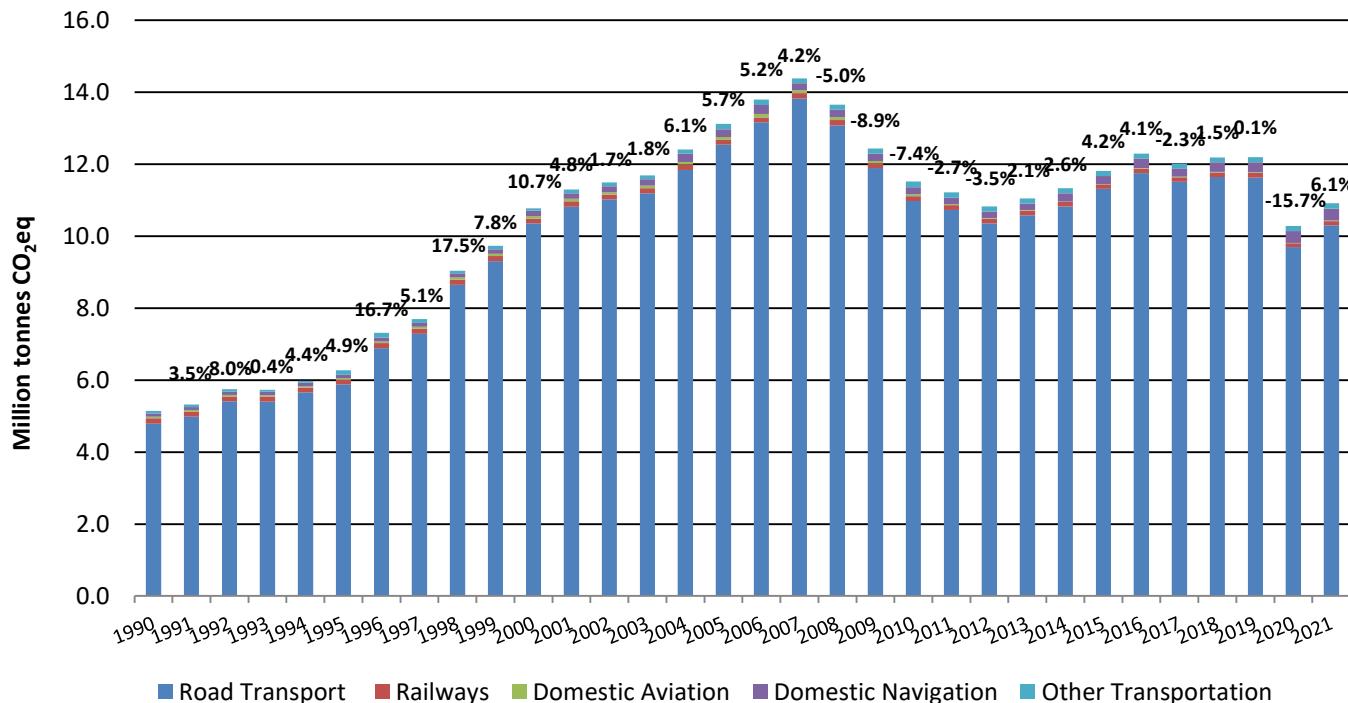
# Agriculture emissions drivers



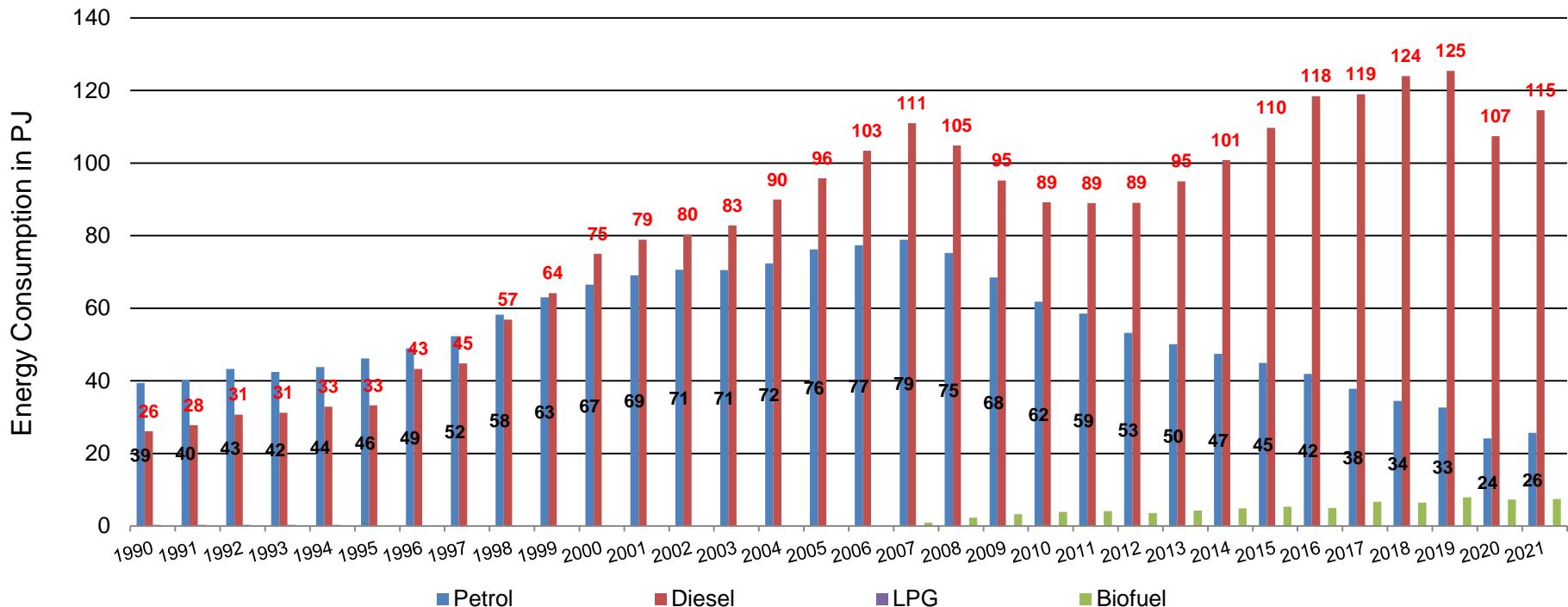
# Agriculture emissions drivers



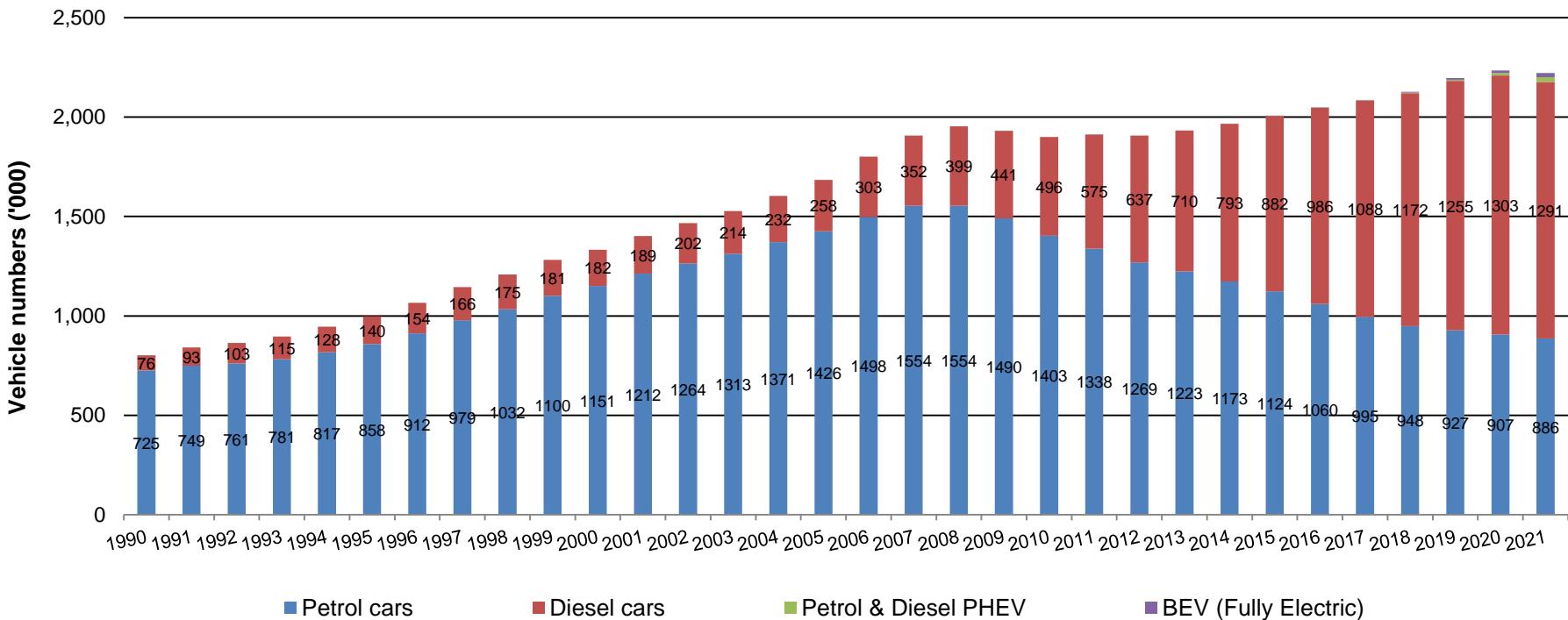
# Transport emissions 1990-2021



# Transport emissions drivers - Fuel



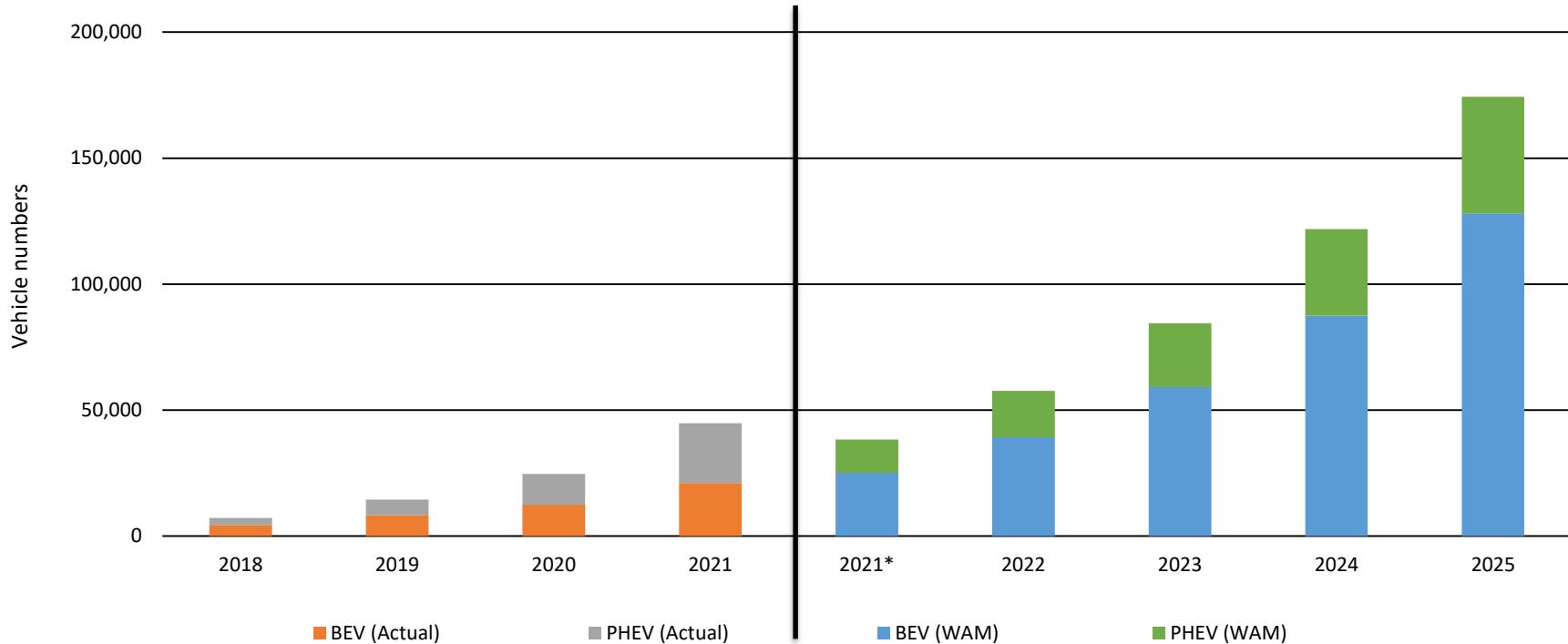
# Transport emissions drivers - Vehicles



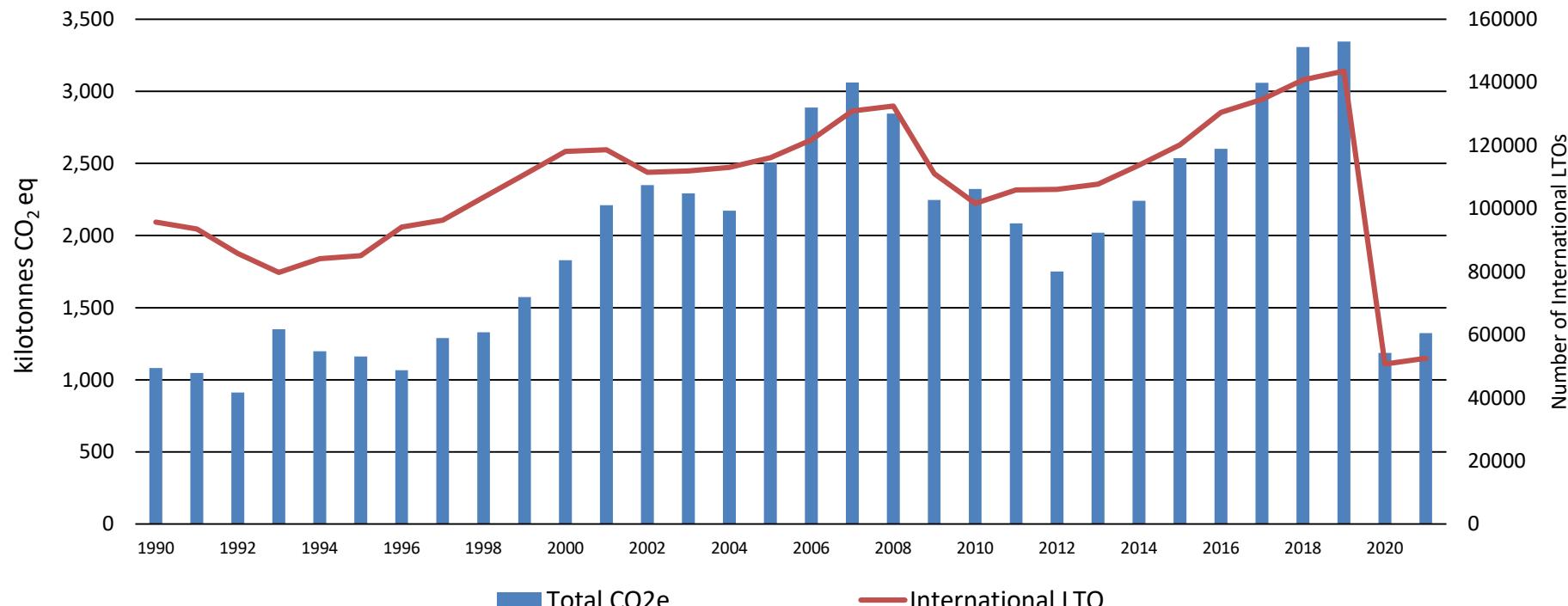
# Transport emissions drivers – BEVs and PHEV



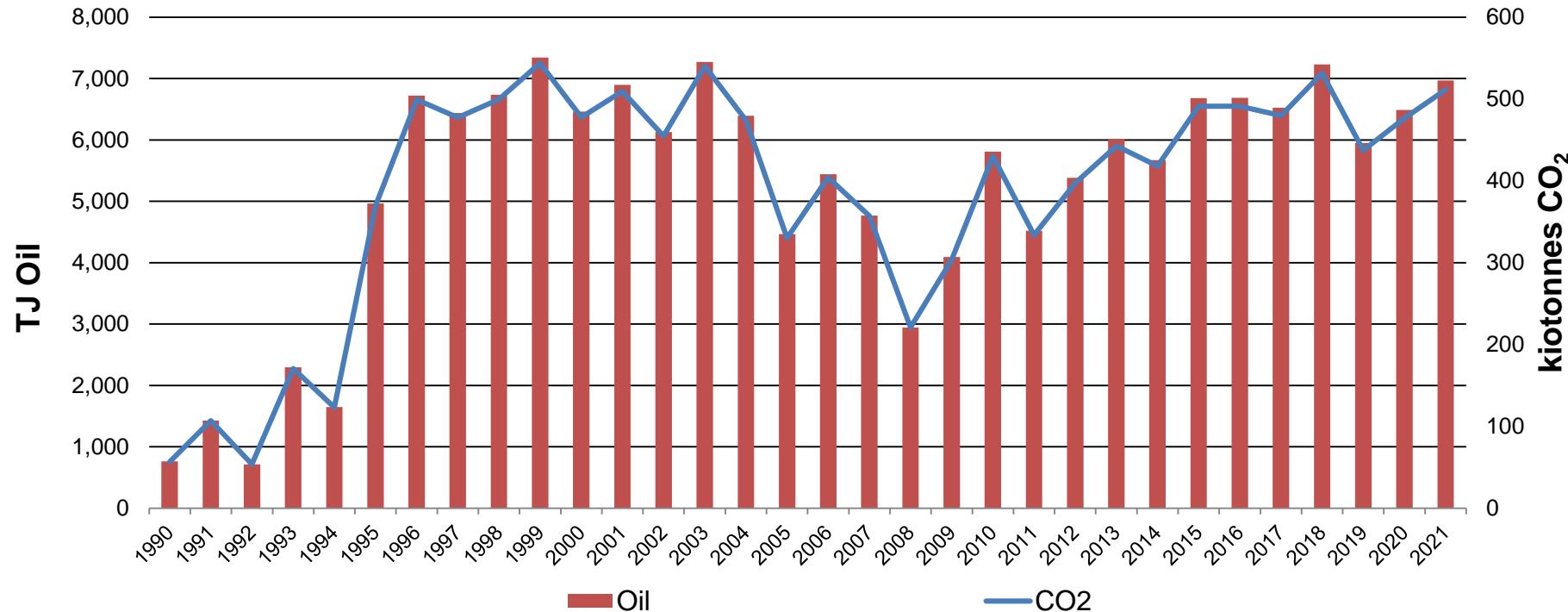
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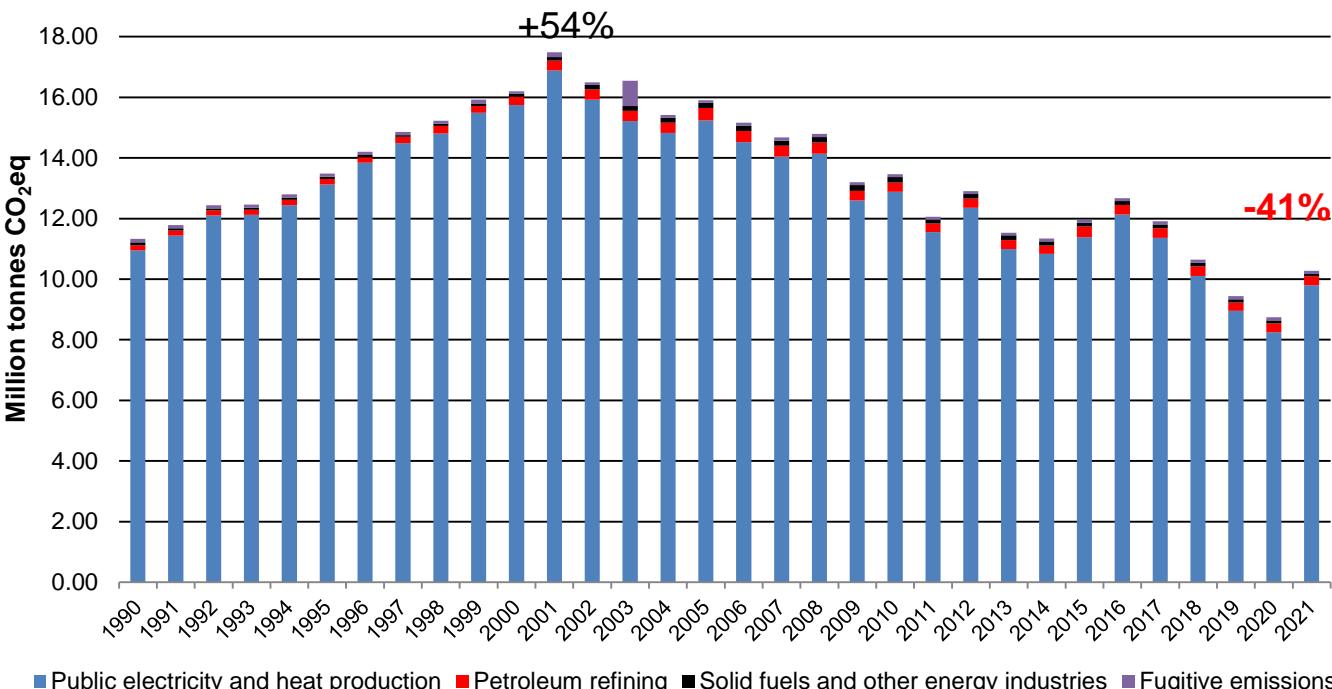
# Transport (International Aviation)



# International Bunkers (Navigation)

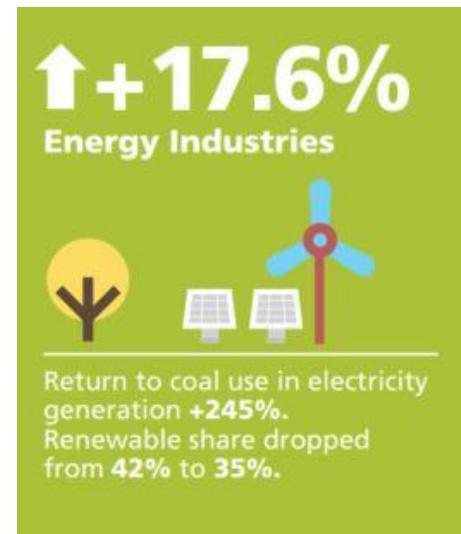


# Energy Industries emissions 1990-2021

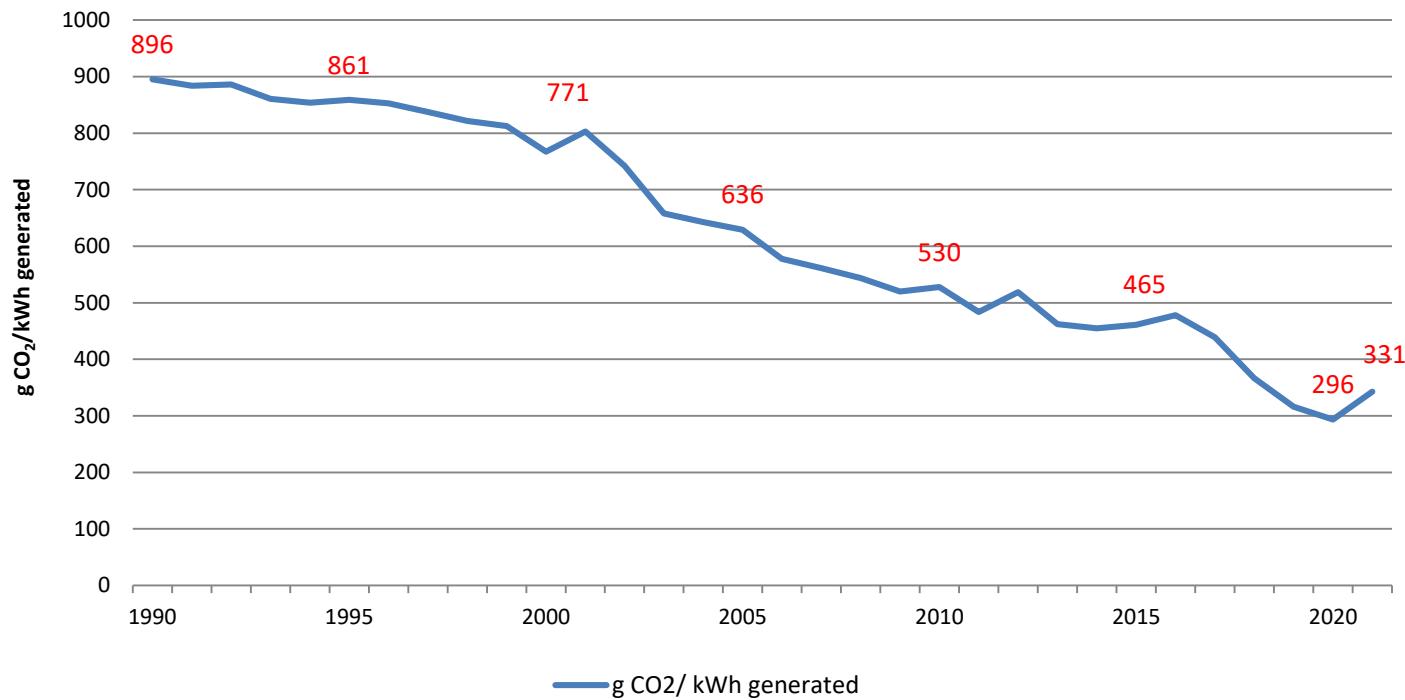


■ Public electricity and heat production ■ Petroleum refining ■ Solid fuels and other energy industries ■ Fugitive emissions

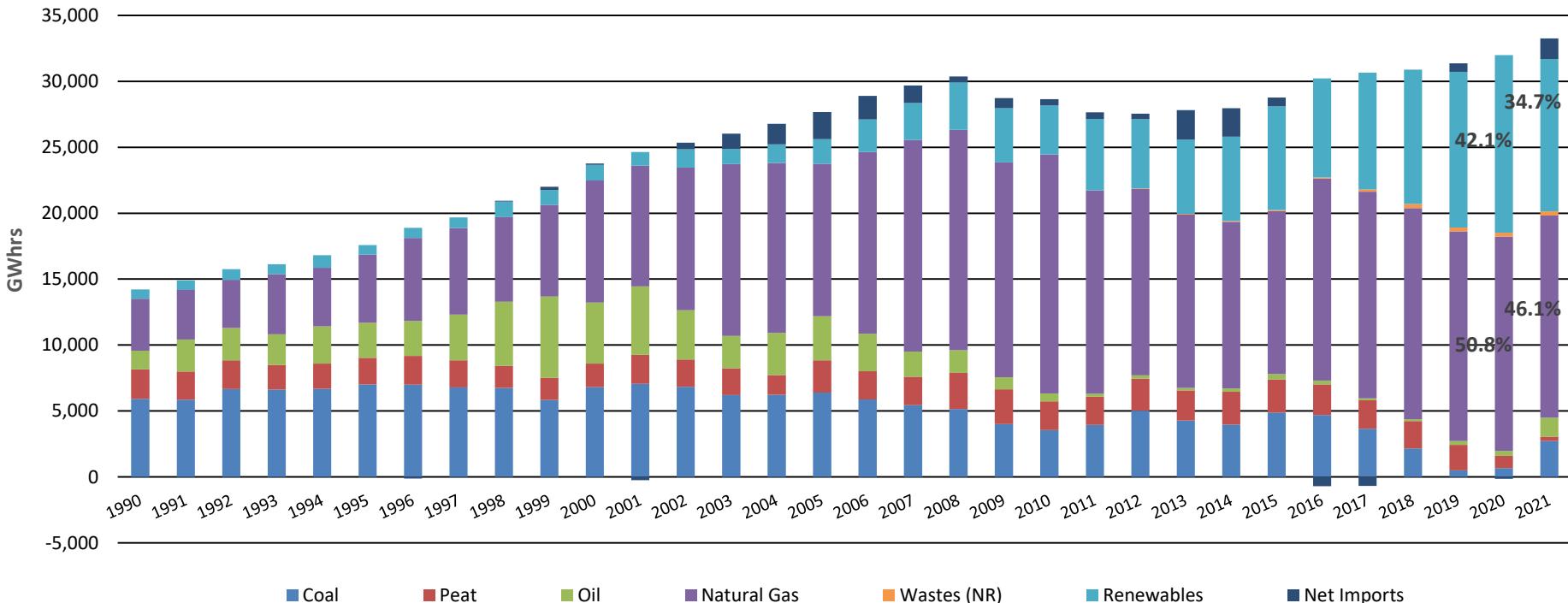
Overall emissions in 2021 are 9.4% below 1990 levels



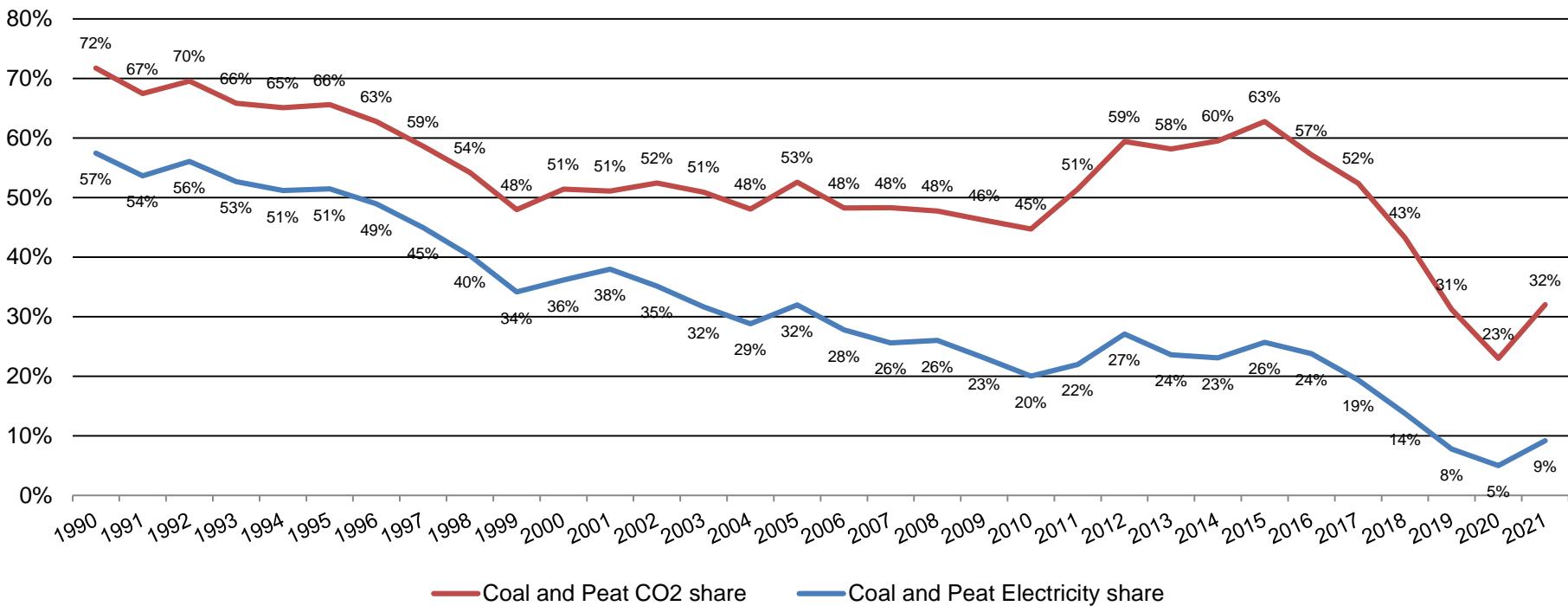
# CO<sub>2</sub> Intensity of electricity generation



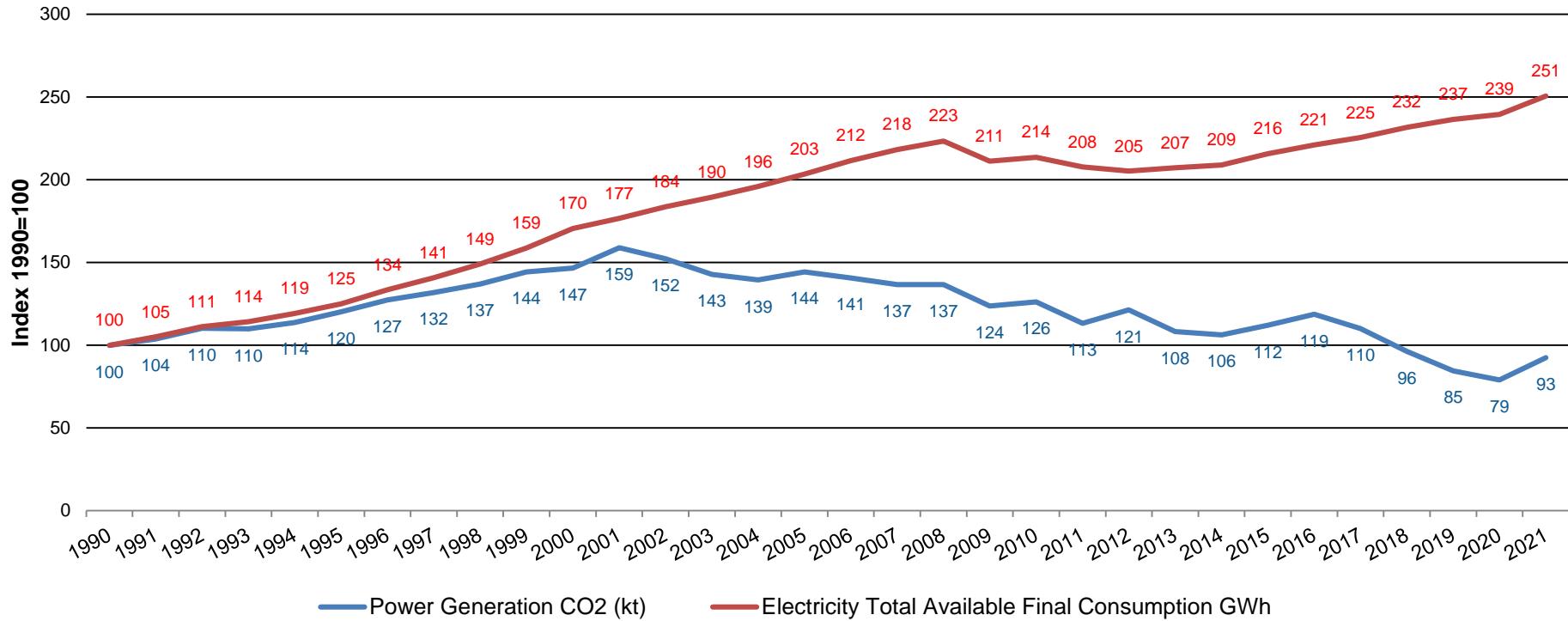
# Electricity generation - fuels



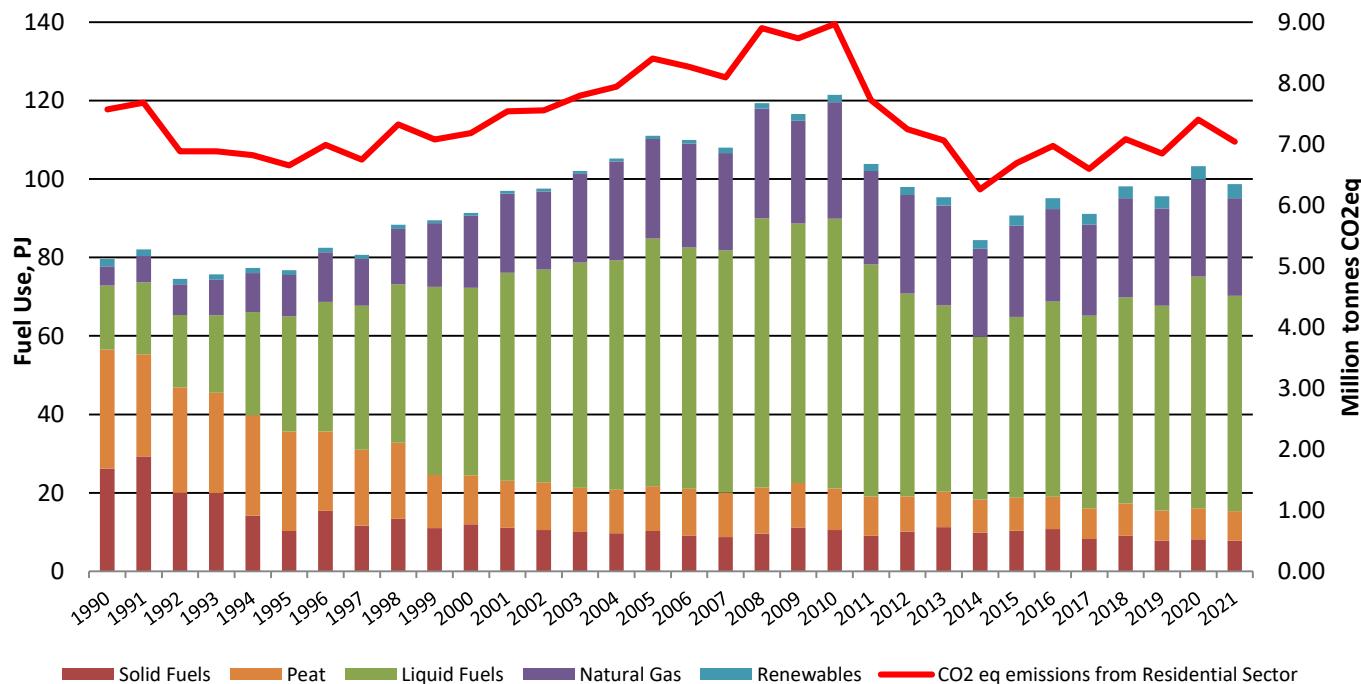
# Electricity generation (Coal and Peat) CO<sub>2</sub>



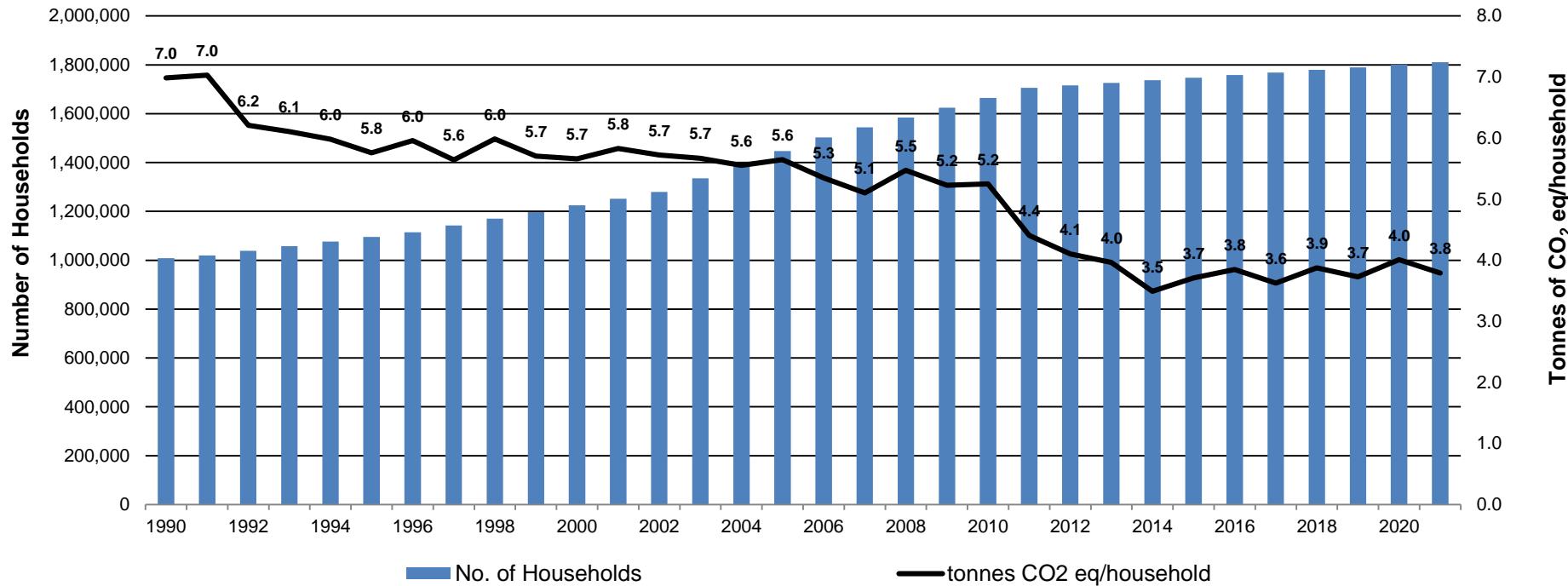
# Electricity generation CO<sub>2</sub> and electricity consumption (relative trend)



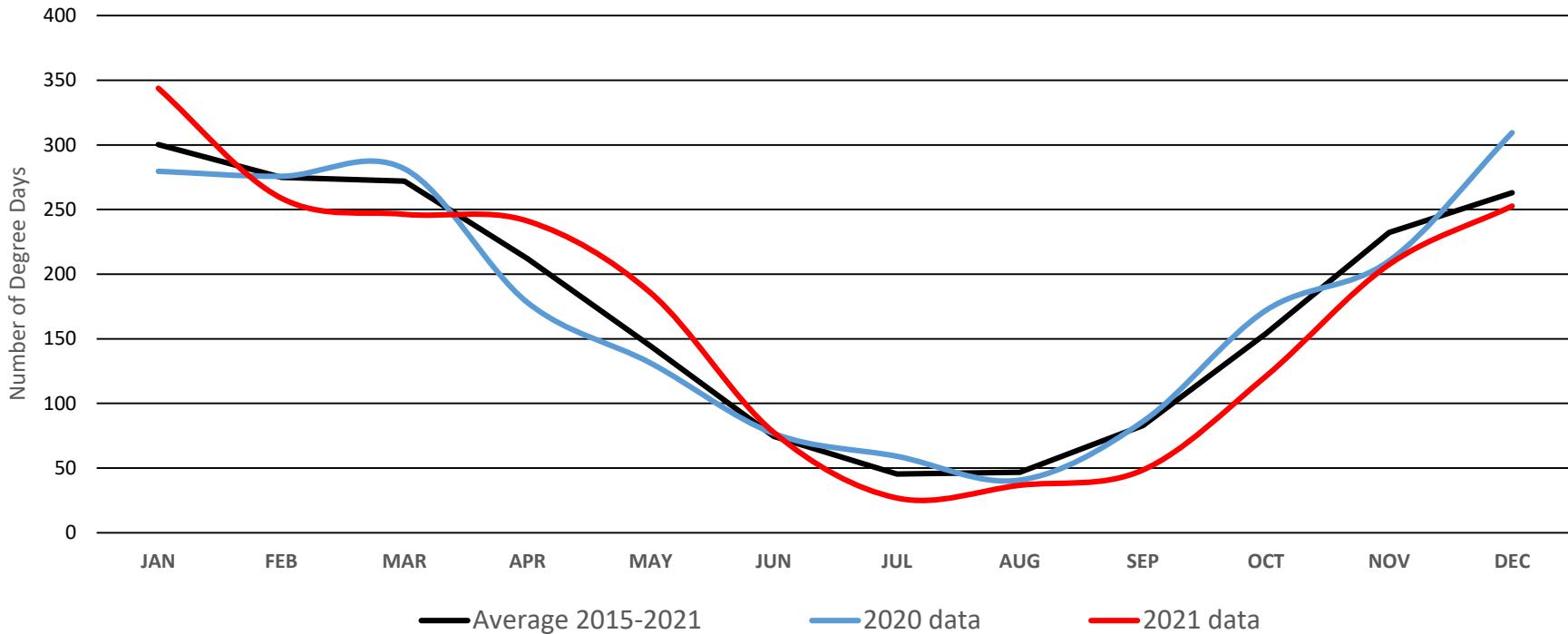
# Residential emissions 1990-2021



# Residential emissions drivers



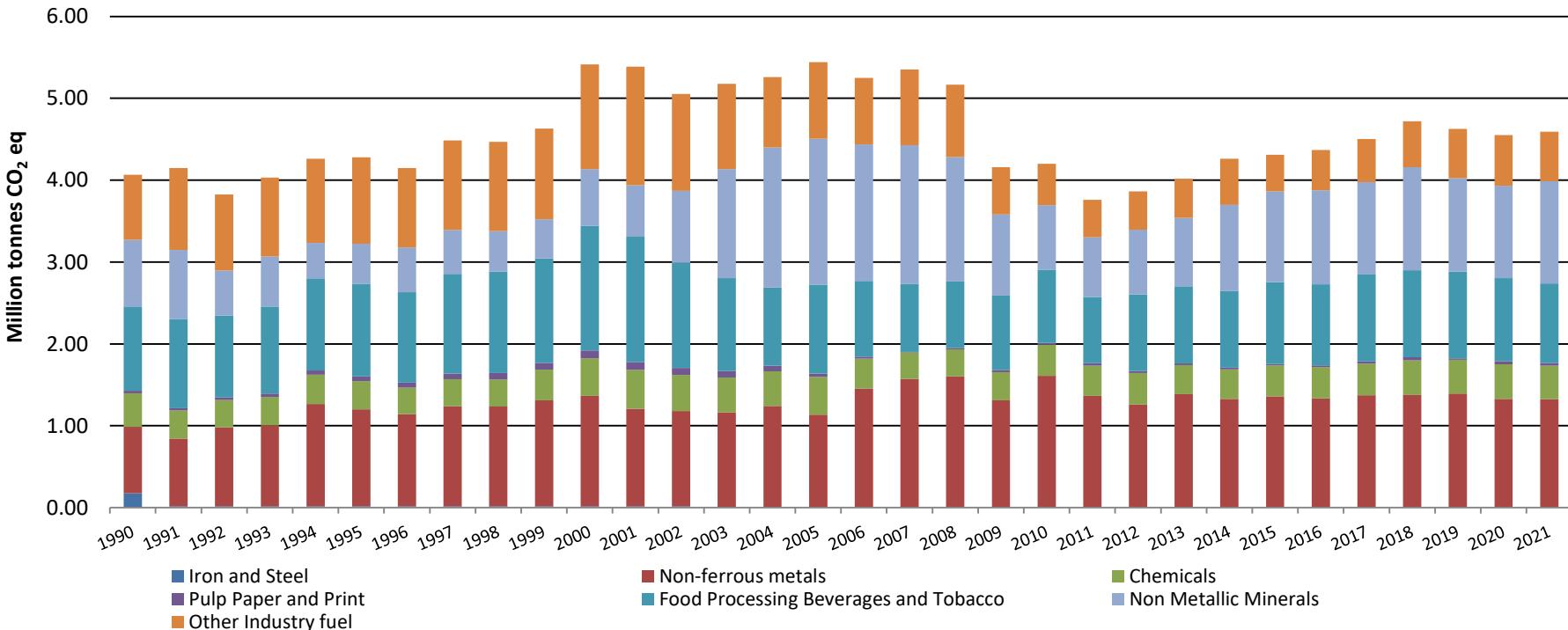
# Weather and heating requirement



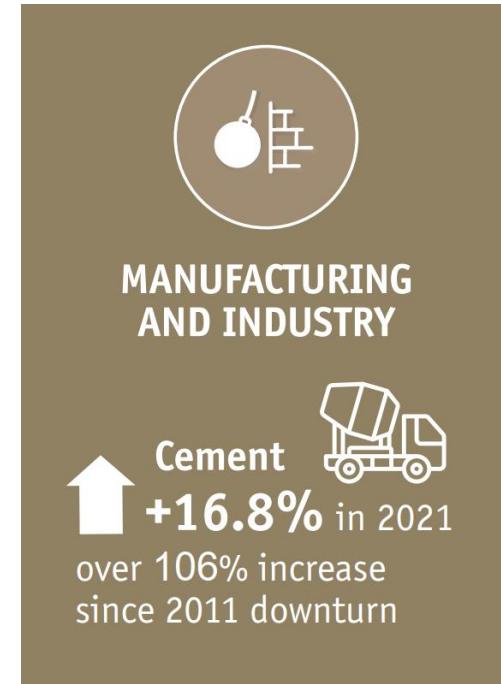
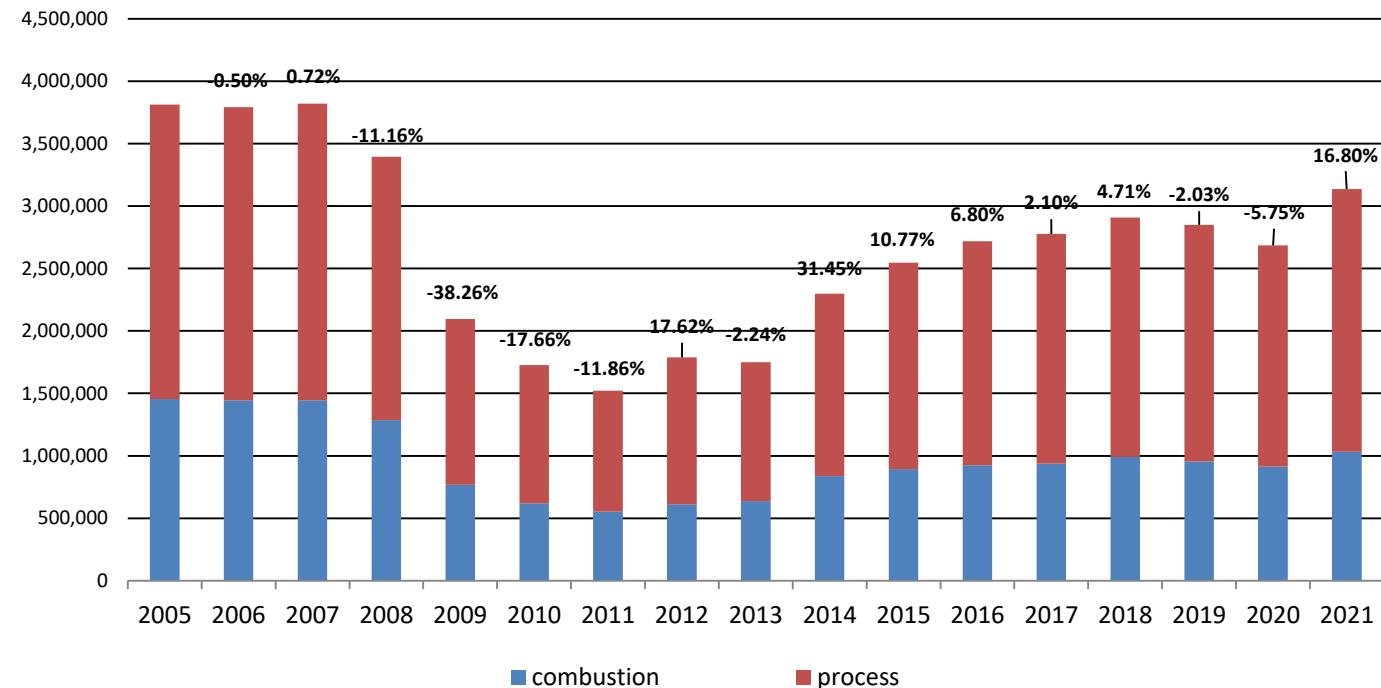
# Manufacturing combustion emissions 1990-2021



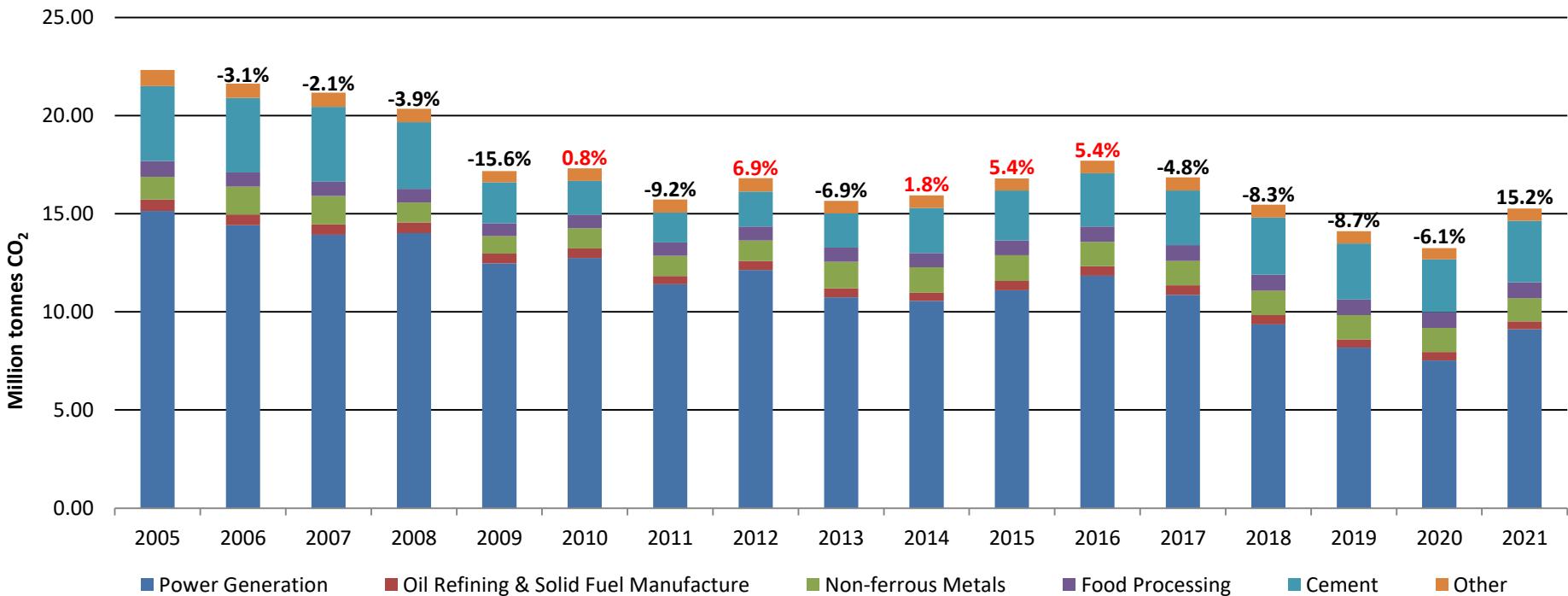
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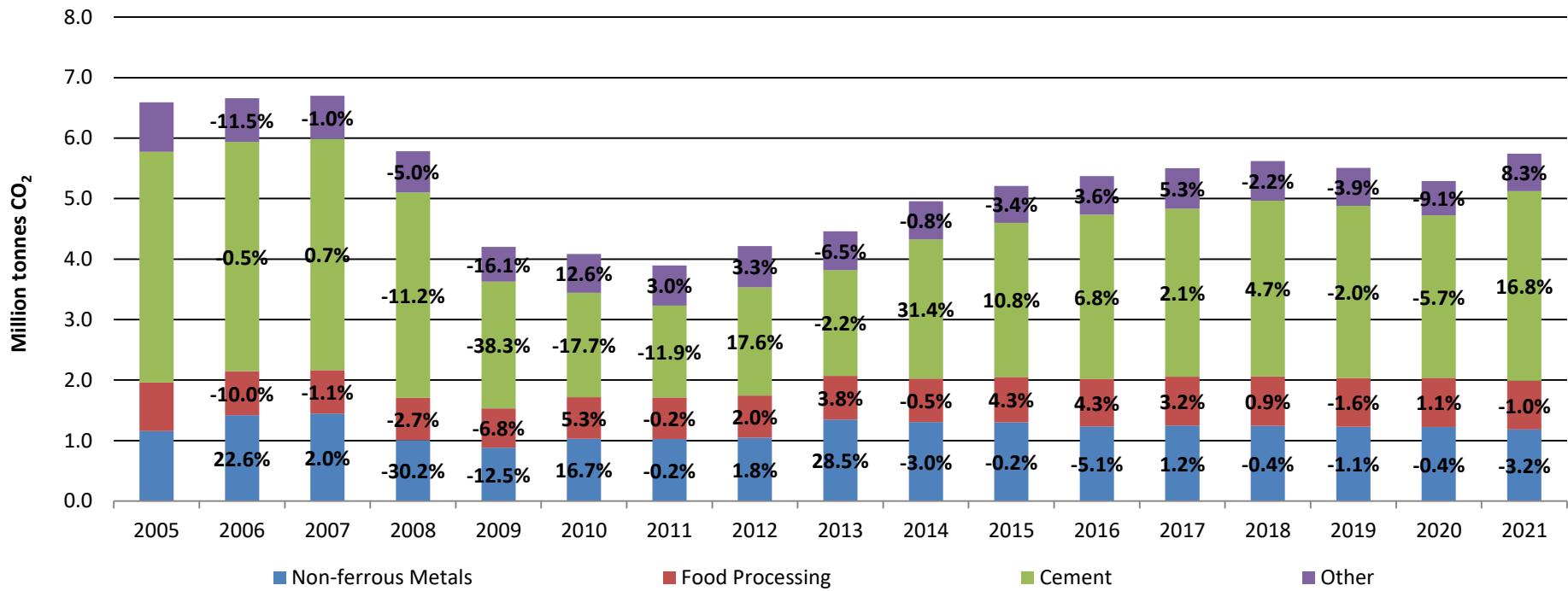
# Cement sector emissions 2005-2021



# ETS CO<sub>2</sub> emissions 2005-2021



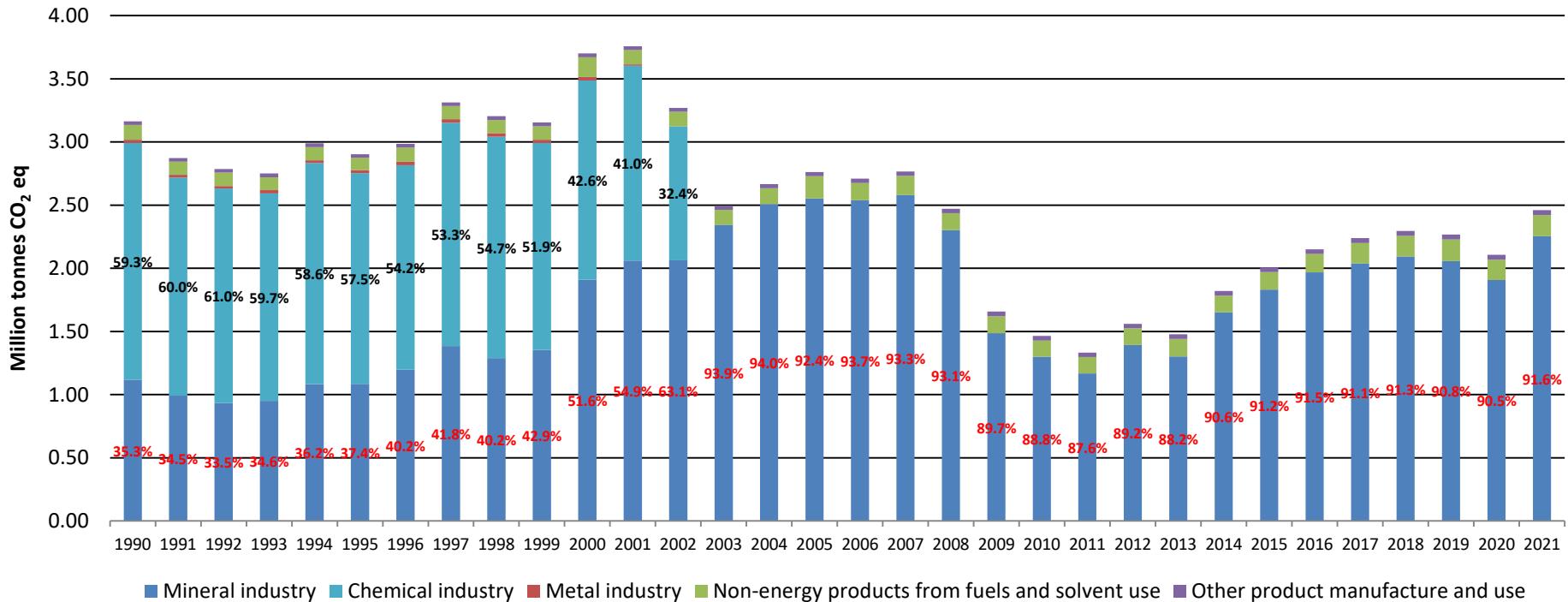
# ETS Industry CO<sub>2</sub> emissions 2005-2021



# Industrial Processes emissions

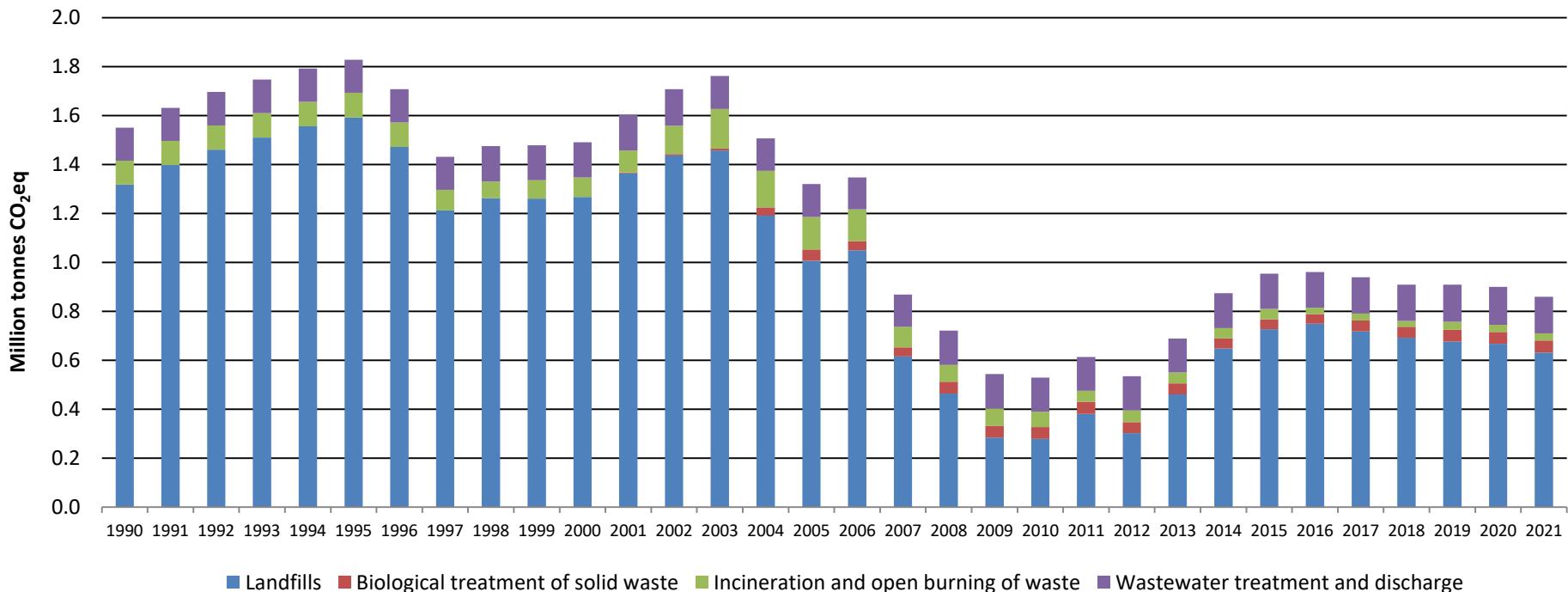


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■ Mineral industry ■ Chemical industry ■ Metal industry ■ Non-energy products from fuels and solvent use ■ Other product manufacture and use

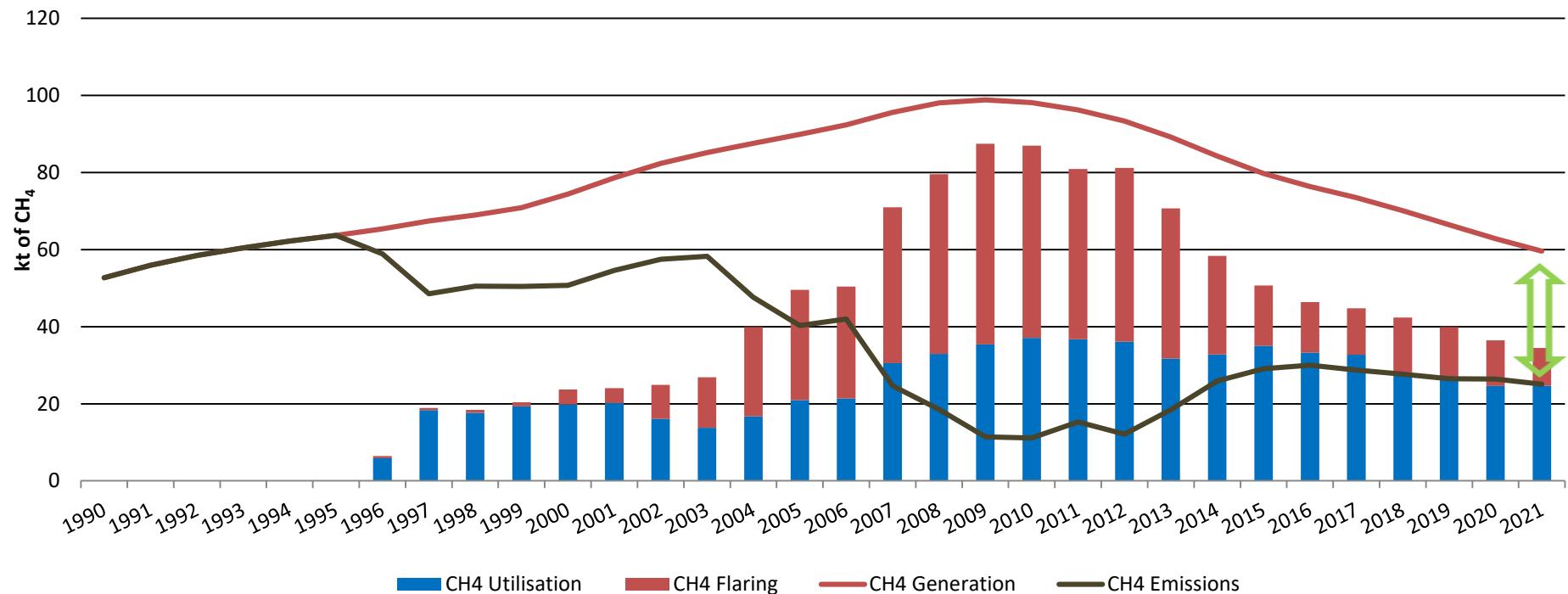
# Waste emissions 1990-2021



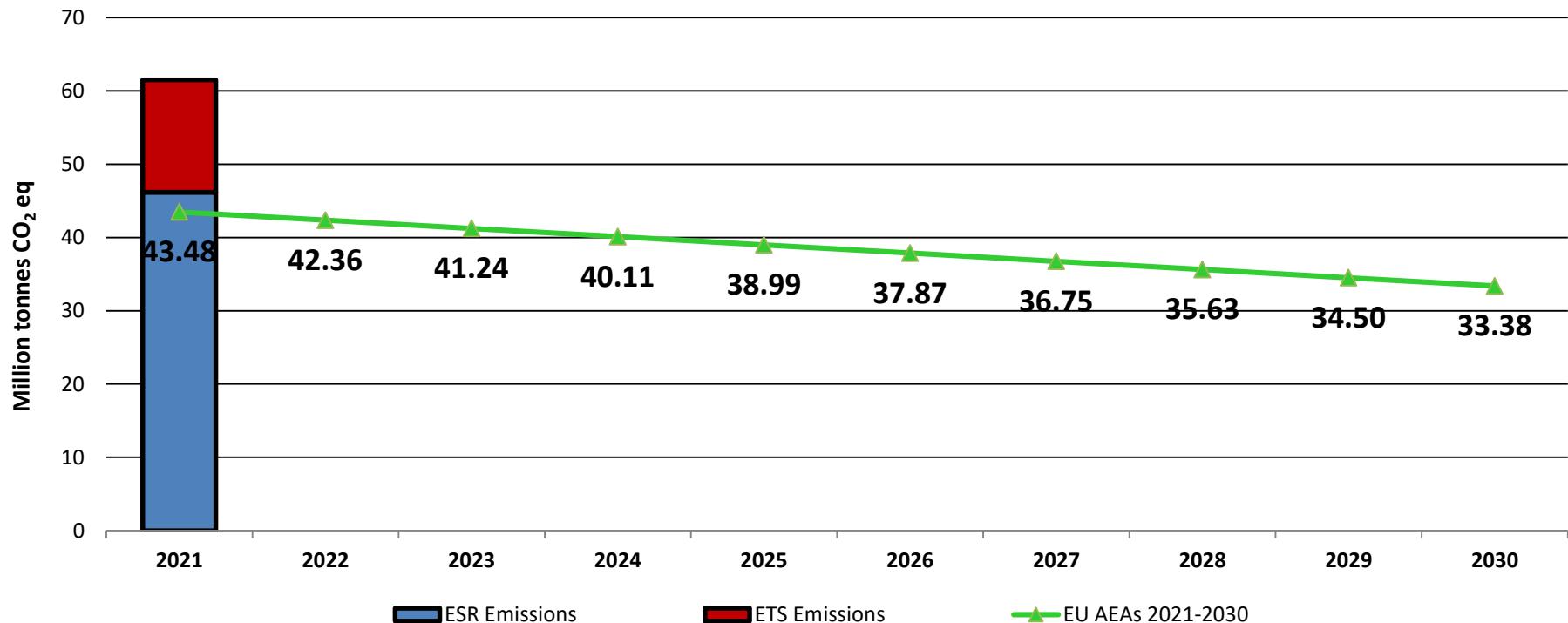
# Waste drivers- landfills



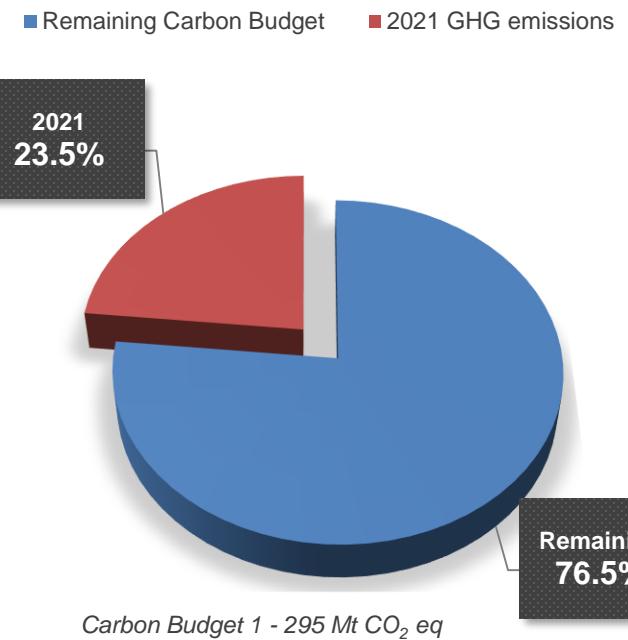
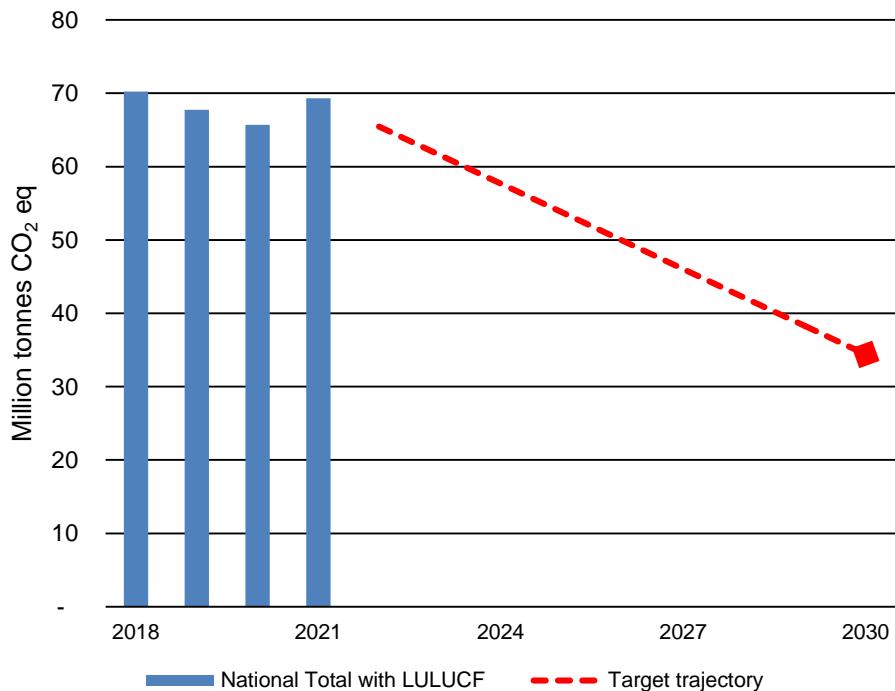
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# European Targets - ESR 2021-2030



# Climate Act Target & Carbon Budgets



# Compliance ESR Table 2021-2030





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Home > Our Services > Monitoring & Assessment > Climate Change > Greenhouse gas emissions (GhG)

## Greenhouse gas emissions and projections

Ireland must play its part in contributing to efforts to limit climate change. Ireland's national policy position establishes a low carbon vision for Ireland by 2050. Ireland is not on track in terms of its EU Effort Sharing 2020 target. Climate Action Plan measures will need to be swiftly implemented to meet Ireland's targets.

Search



Search for a licence or permit

### The EPA's Role in addressing climate change

The EPA's role in addressing climate-change challenges includes collating national greenhouse-gas emissions and projections; regulating emissions from industrial sectors; supporting climate science research; supporting behavioural change; and facilitating the National dialogue on Climate Action.



**What can you do?**

Reduce your transport carbon footprint, improve the energy efficiency of your home and avoid food waste - a climate action you can do every day

Remember:

"EVERY BIT OF WARMING MATTERS. EVERY YEAR MATTERS."  
"EVERY CHOICE MATTERS"

Intergovernmental Panel on Climate Change



Learn more on  
[www.epa.ie/ghg](http://www.epa.ie/ghg).



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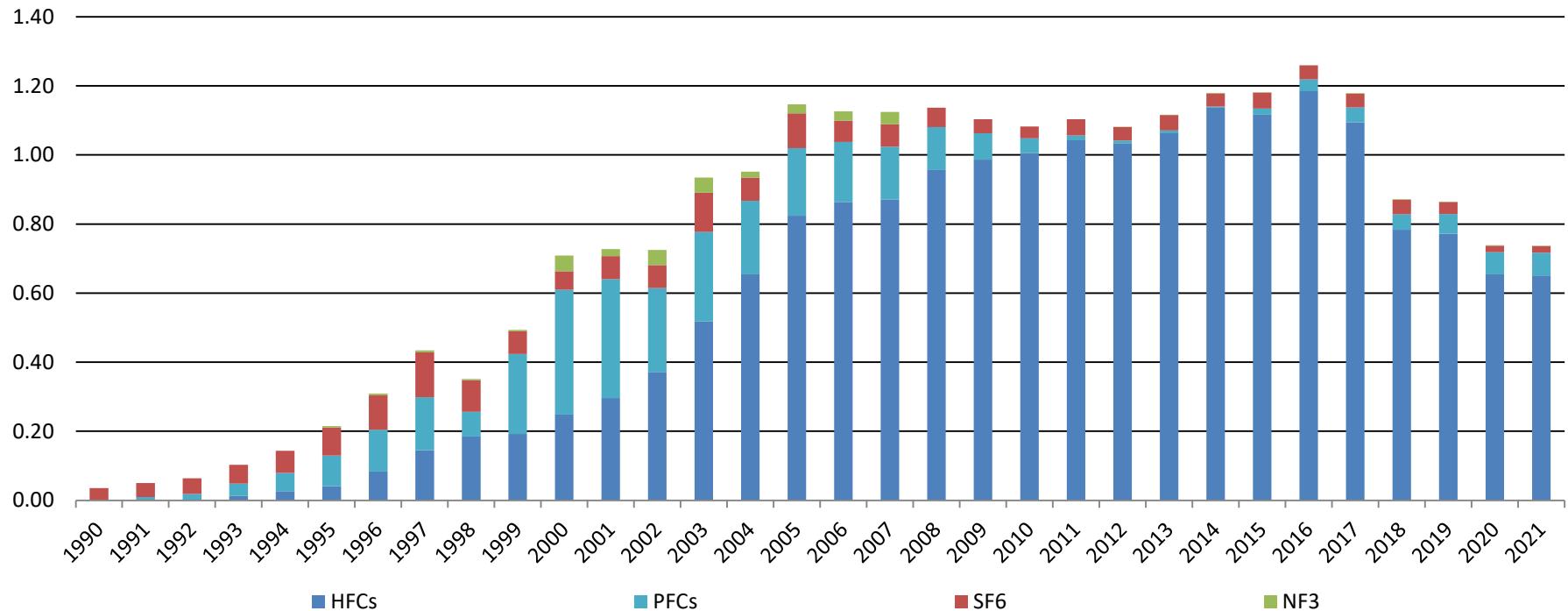
# Remaining Sectors

- Emissions from the **Manufacturing Combustion** sector increased by 0.9% or 0.04 Mt CO<sub>2</sub>eq in 2021
- Emissions from the **Industrial Processes** sector increased by 16.8% (0.35 Mt CO<sub>2</sub>eq) in 2021 due to a increase in cement production
- Emissions from the **Waste sector** decreased by 4.5% in 2021 or 0.04 Mt CO<sub>2</sub>eq.
- **F-Gas** emissions were very similar in 2021 with a slight decrease of 0.2% from 2020
- Emissions from **Commercial Services** sector decreased by 3.0% and **Public Services** sector emissions increased by 3.8% in 2021.
- Land use, land-use change and forestry (LULUCF) Emissions increased by 11.9% in 2021 compared to 2020

# F-Gases emissions 1990-2021



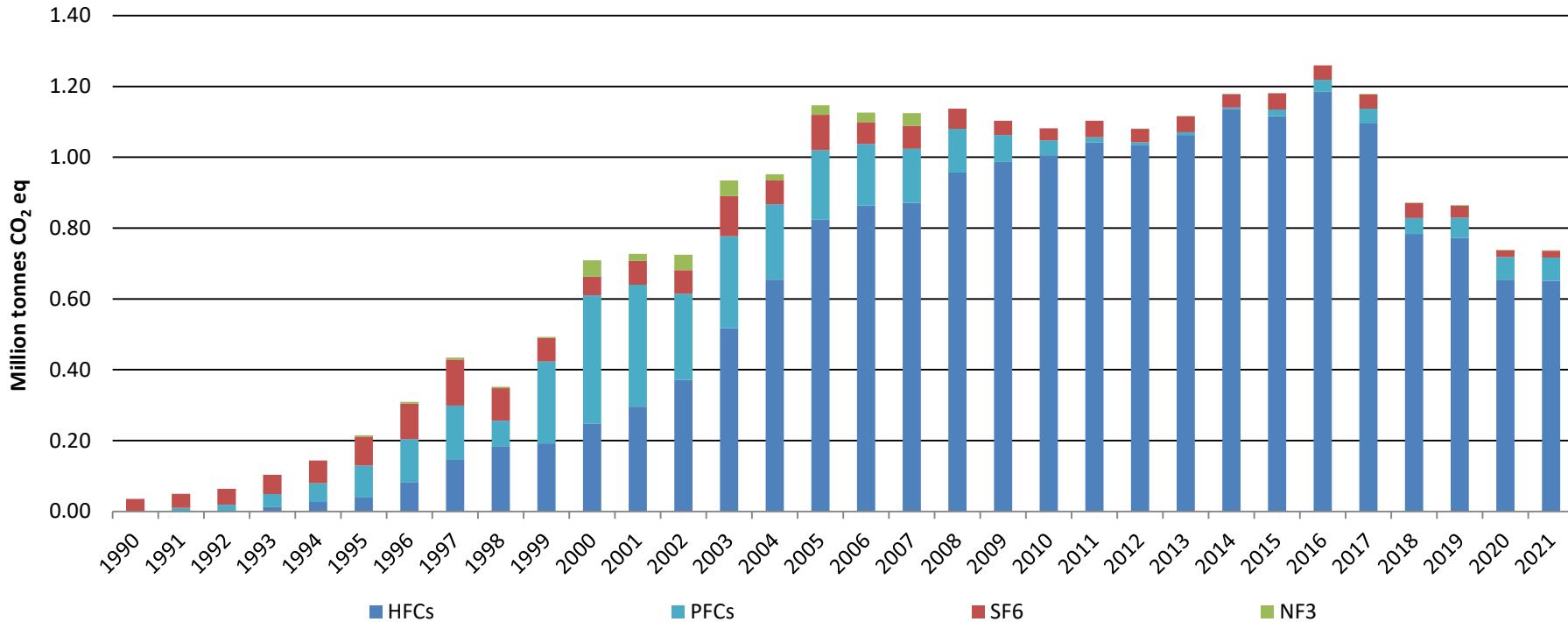
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# F-Gases emissions by gas 1990-2021



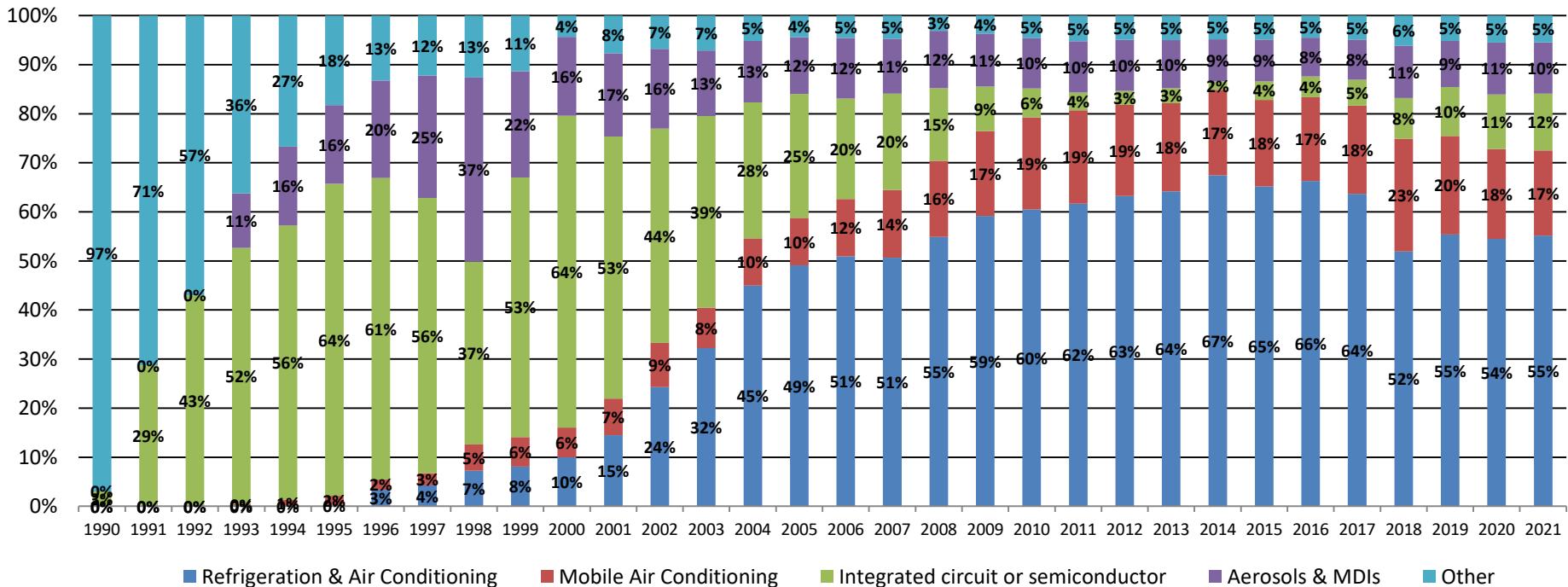
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# F-Gases drivers



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■ Refrigeration & Air Conditioning   ■ Mobile Air Conditioning   ■ Integrated circuit or semiconductor   ■ Aerosols & MDIs   ■ Other