



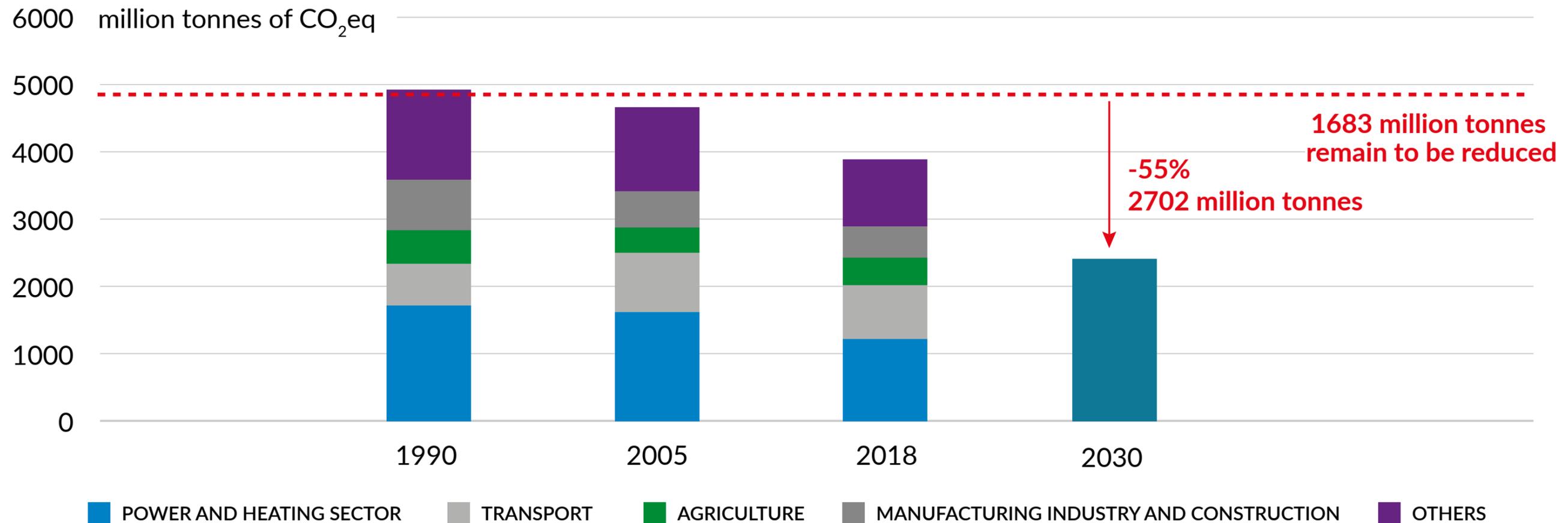
# **HOW CAN POLAND ACHIEVE INCREASED GHG EMISSION REDUCTION TARGETS BY 2030?**

# Objectives of the analysis

- We determine the GHG emission reductions resulting from the so-called flagship projects, i.e. actions that are inevitable and around which social and political consensus can be built.
- We estimate Poland's share in the EU's 55% target.
- We count the reduction gap to be supplemented by other, not yet defined projects in industry, agriculture and forestry.

# 2030–new EU climate target

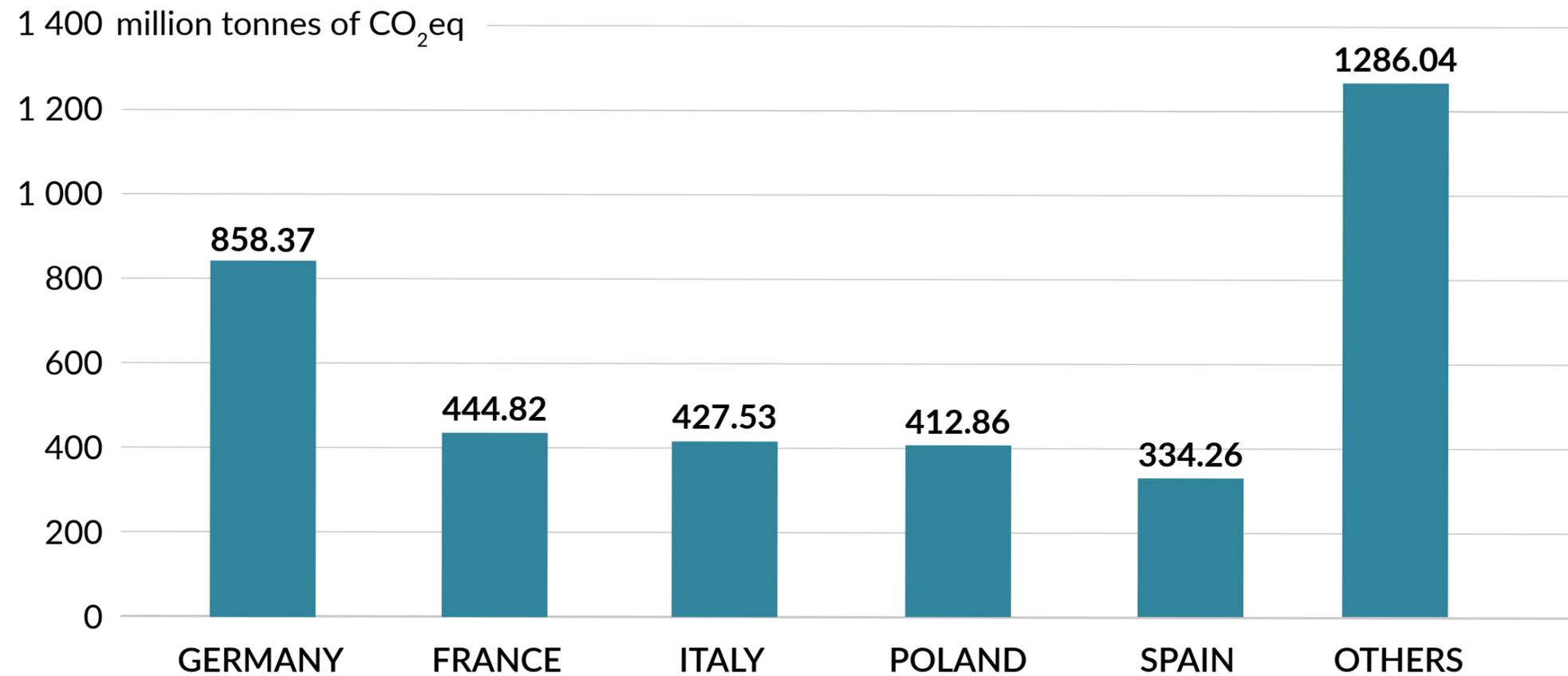
ANNUAL EU-27 GHG EMISSIONS IN RELATION TO THE EU 55% GHG REDUCTION TARGET



Note: the category 'Others' mainly includes combustion of fuels not included in other sectors.  
Source: based on data of the Eurostat, EEA.

# Total annual GHG emissions in Poland and EU-27 in 2018

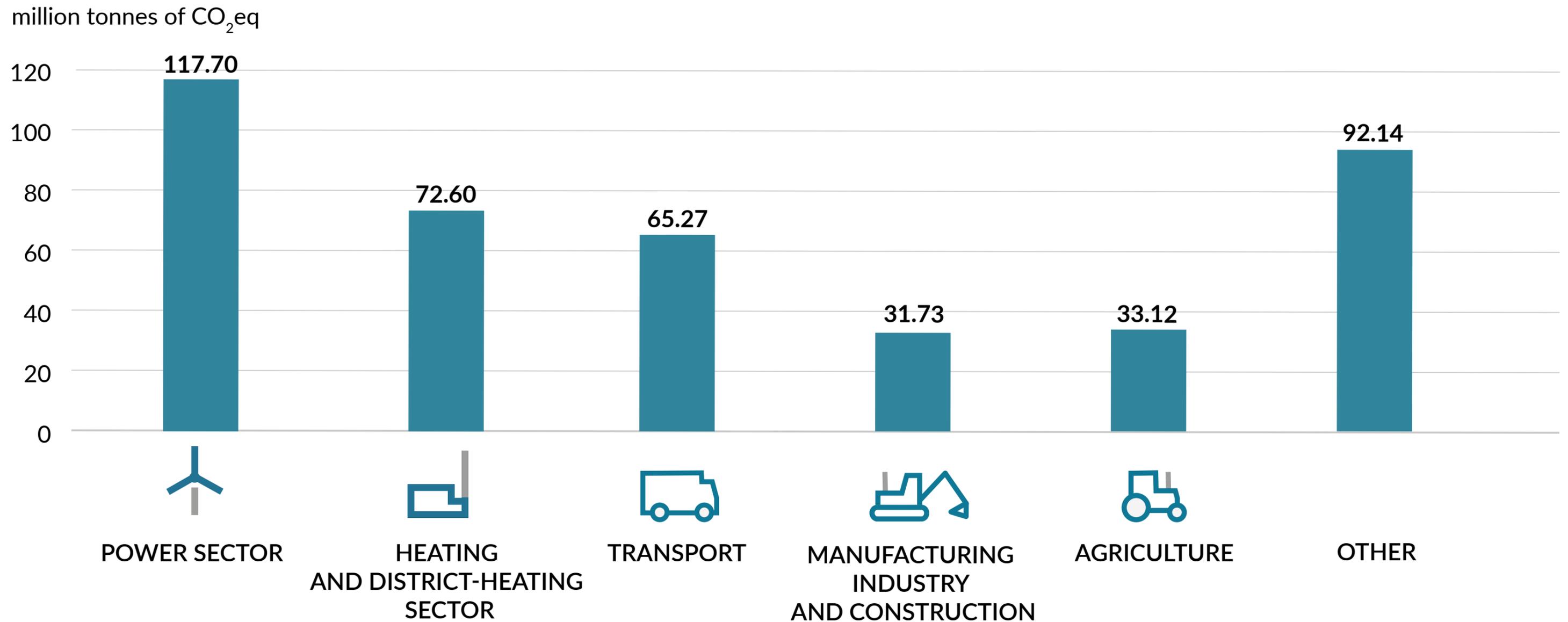
ANNUAL TOTAL GHG EMISSIONS IN THE EU-27



GHG emissions per capita [t]	
Poland	10.87
Germany	10.34
Spain	7.12
Italy	7.08
France	6.64
EU average	8.42

Note: the category 'Others' includes the other EU-27 countries.  
Source: based on the data of Eurostat.

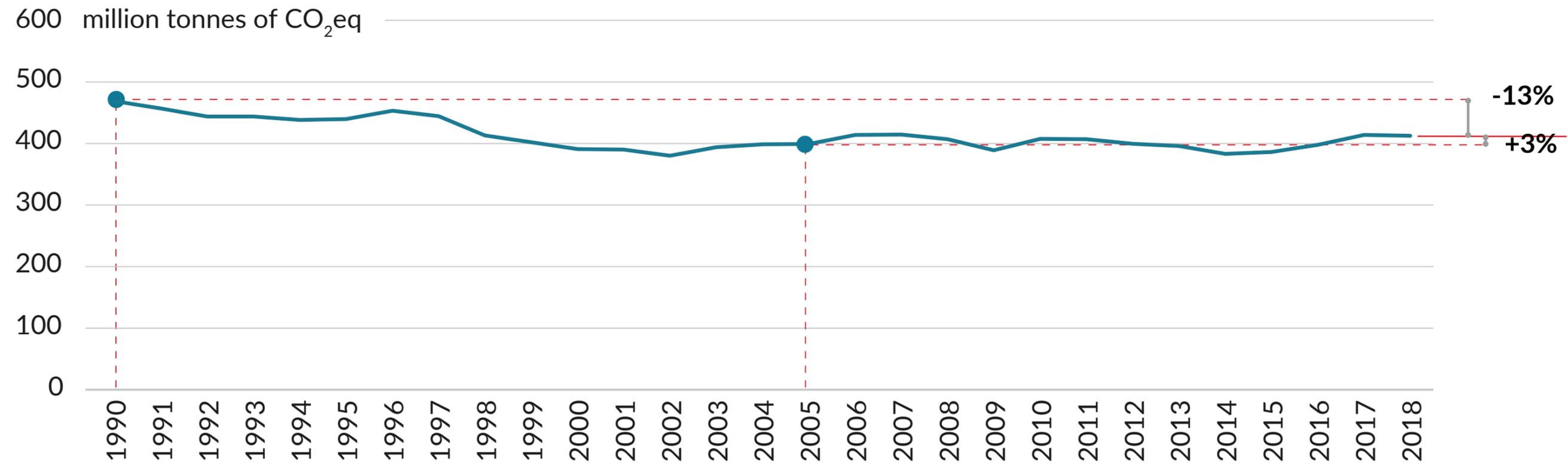
# GHG emissions structure in Poland by sectors in 2018



Note: the category 'Other' mainly includes combustion of fuels not included in other sectors.

Source: based on the data of Eurostat, EEA.

# Changes in GHG emissions in Poland over the years



# FLAGSHIP PROJECTS

# Our approach

- We take into account the GHG emission reductions in Poland achieved in the period 1990-2018–13%.
- We define flagship projects in the power sector, transport, heating and industry.
- We calculate the projected decrease in emissions resulting from the implementation of these projects.
- We define the reduction gap to be filled by other projects.

Note: the result is corrected with actual reductions in the ETS sector for which 2019 verified data are already available. In the ETS, emissions decreased by 16.3 million tonnes of CO<sub>2</sub>eq compared to 2018.

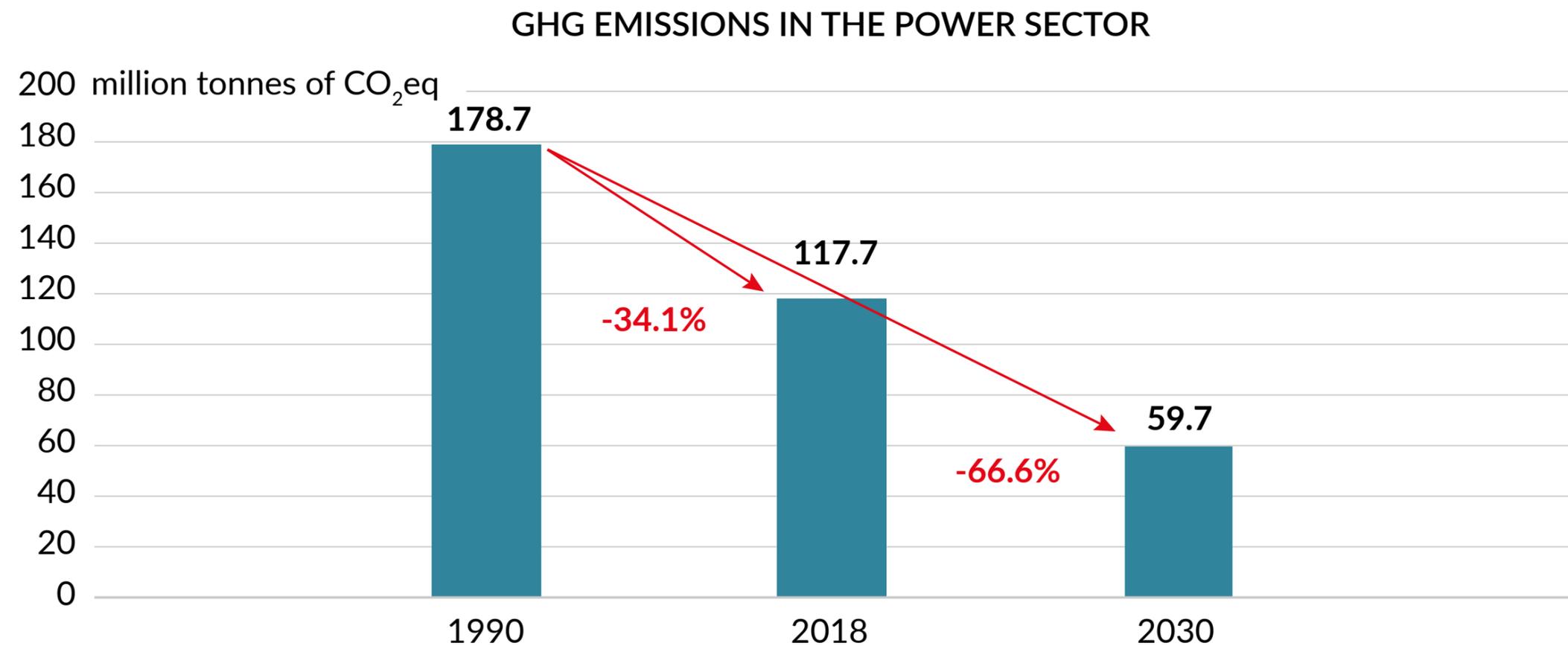
# What are flagship projects?

- Concrete actions that not only meet the emission reduction targets, but are necessary from the perspective of:
  - energy security (e.g. falling domestic coal production);
  - the need for investment in energy efficiency and new generation sources;
  - improving air quality.
- Partly the flagship projects have already been declared important and to be implemented by the government.



# Flagship project—change of mix in the power sector

- By 2030: replacement of coal, especially lignite by RES and partly natural gas;
- Emissions reduction in this sector—66.6%.





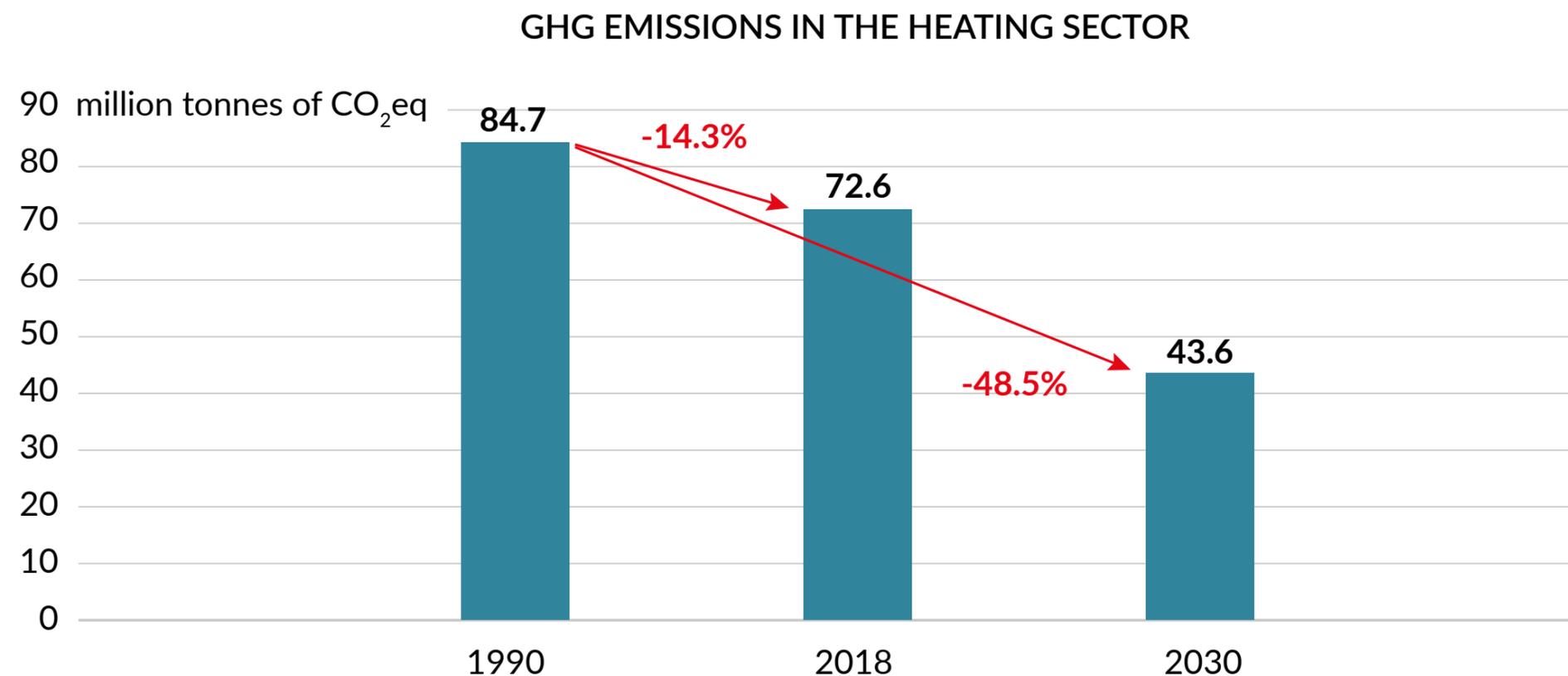
## What does it mean?

- Nearly complete phase-out of lignite capacities, shutdown of the last units by 2032;
- Significant reduction of hard coal power;
- Filling the coal gap in Poland with renewable sources and partially with gas.



# Flagship project—clean heat

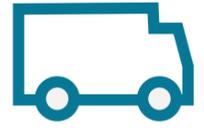
- Moving away from coal in households to 2030 and partially in the heating system; improving the energy efficiency of buildings;
- Emissions reduction in the sector—48.5%.





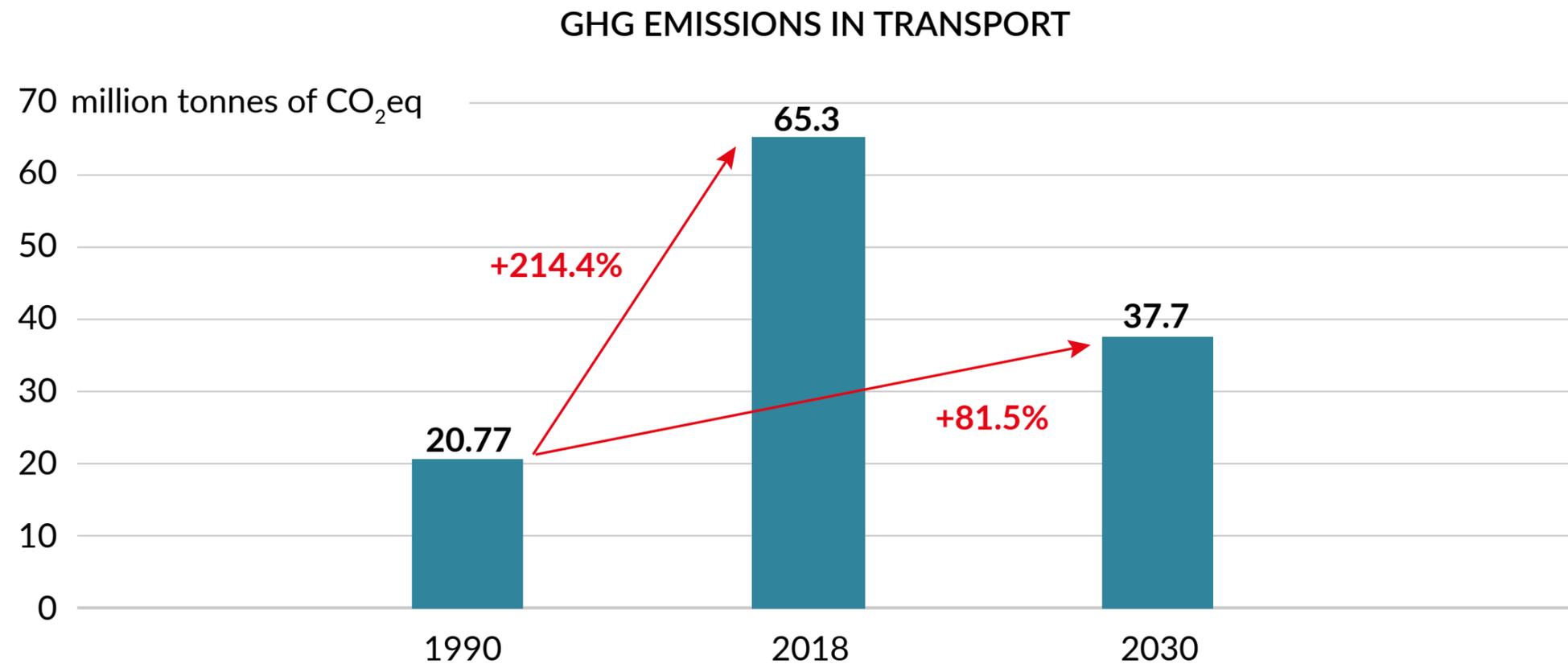
## What does it mean?

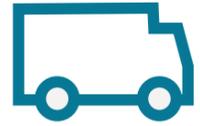
- End of hard coal in households by 2030;
- Limiting the share of coal in system heating; full abandonment of coal by 2035;
- Increase in the share of RES in the entire heat supply area to 39% in 2030;
- 24% reduction in final energy consumption by 2030 compared to 2015 levels.



# Flagship project—electrification of transport

- Electrification of transport;
- Slowing and reducing emissions compared to current levels.





## What does it mean?

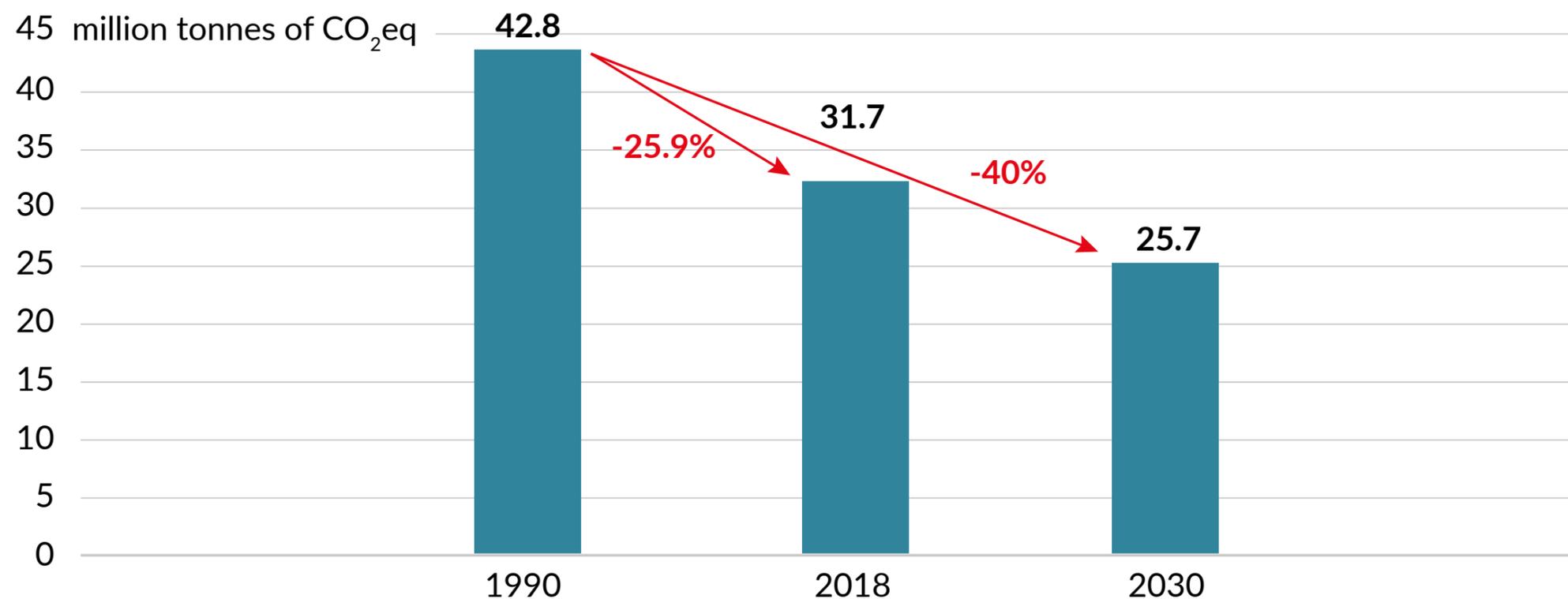
- Electrification of transport, especially in cities;
- Expansion of the charging infrastructure;
- Promotion of rail and public transport; facilities for bicycles and pedestrians;
- Tax policy reform;
- Preparation of a roadmap for the decarbonisation of transport.



## Flagship project—innovative industry

- Increasing the energy efficiency of processes, less energy-intensive materials, products that can be recycled;
- Emissions reduction in the sector—40%.

GHG EMISSIONS FROM MANUFACTURING INDUSTRY



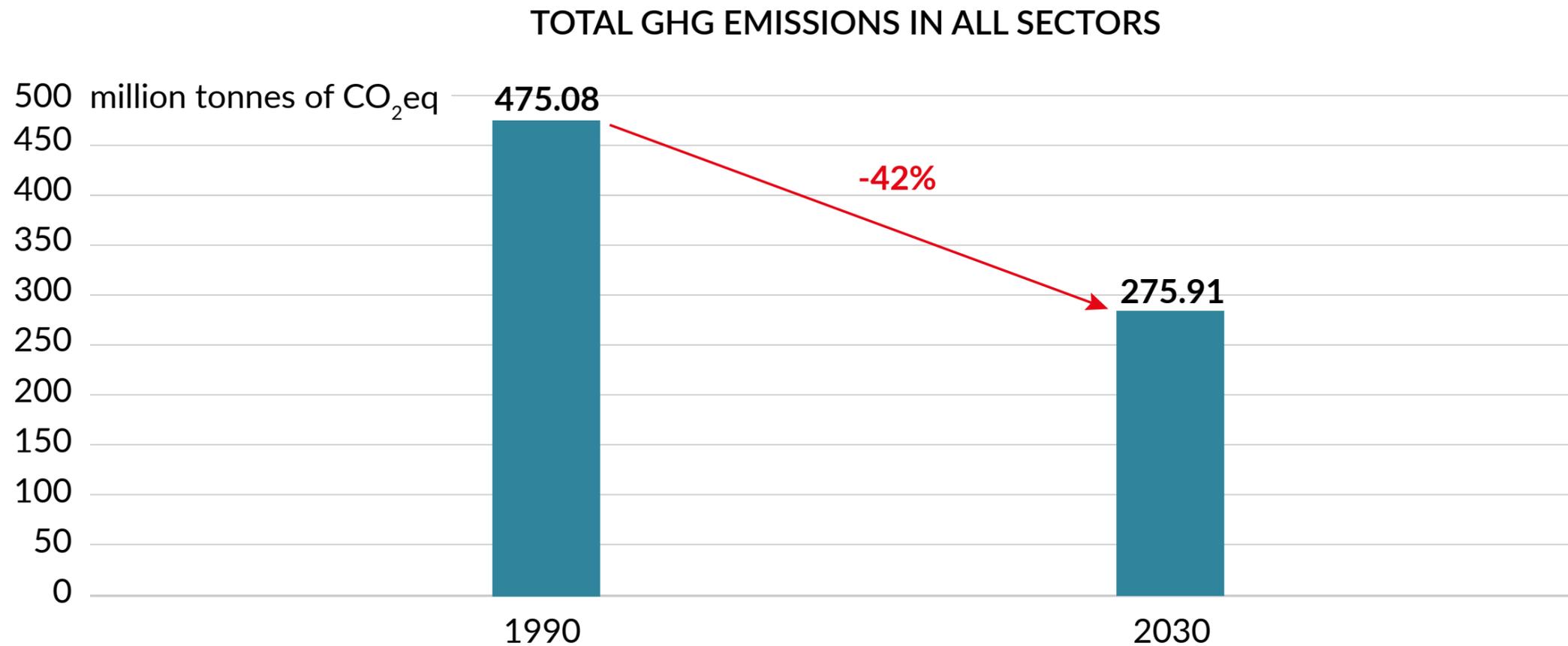


## What does it mean?

- **Process energy efficiency improvements;**
- **Less energy-intensive materials;**
- **Recyclable products;**
- **Industry decarbonisation strategy, taking into account the specificity of individual branches.**

# GHG emission reductions through flagship projects

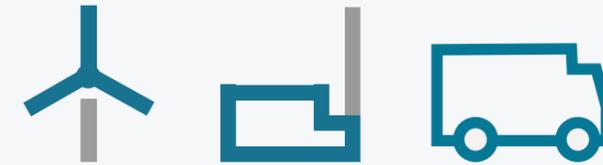
**The implementation of the flagship projects will allow to reduce GHG emissions by 42%.**



# EU target of 55% and Poland's contribution

**44-51%**

We estimate that Poland should reduce GHG emissions compared to 1990, taking into account the principle of a common goal, but differentiated efforts.



**42%**

GHG emission reductions resulting from the implementation of flagship projects in the power sector, heating, transport and industry.



**2-9%**

The emission gap that we must fill with activities in industry, agriculture and forestry.

# Conclusions: 55%—only without panic

- The target of reducing greenhouse gas emissions by 55% until 2030 is ambitious but achievable.
- By adopting flagship projects, we can implement strategic goals for Poland and become part of the EU climate policy.
- Actions already taken (and those planned) in the power industry, heating and transport sectors support the policy of the state. These trends need to be reinforced.
- However, there are areas where no emission reduction strategies are in place—these are industry and agriculture. Urgent action is needed here.

**ALL SECTORS MUST PLAY A ROLE IN REDUCING EMISSIONS**



**ADOPTION OF FLAGSHIP PROJECTS**



**SETTING SECTOR GOALS**



**REVISION OF THE NATIONAL CLIMATE AND ENERGY PLAN**



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