



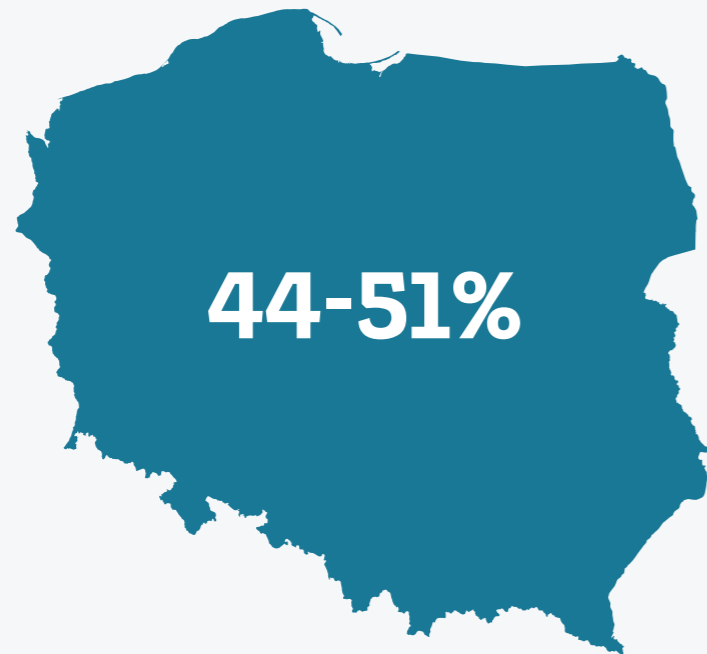
# The cost of carbon-free buildings and transport

A proposal for a socially just energy transition mechanism in the EU

Warsaw, June 2021 – update: February 2022

# EU target vs. Polish contribution

Polish contribution to the EU target



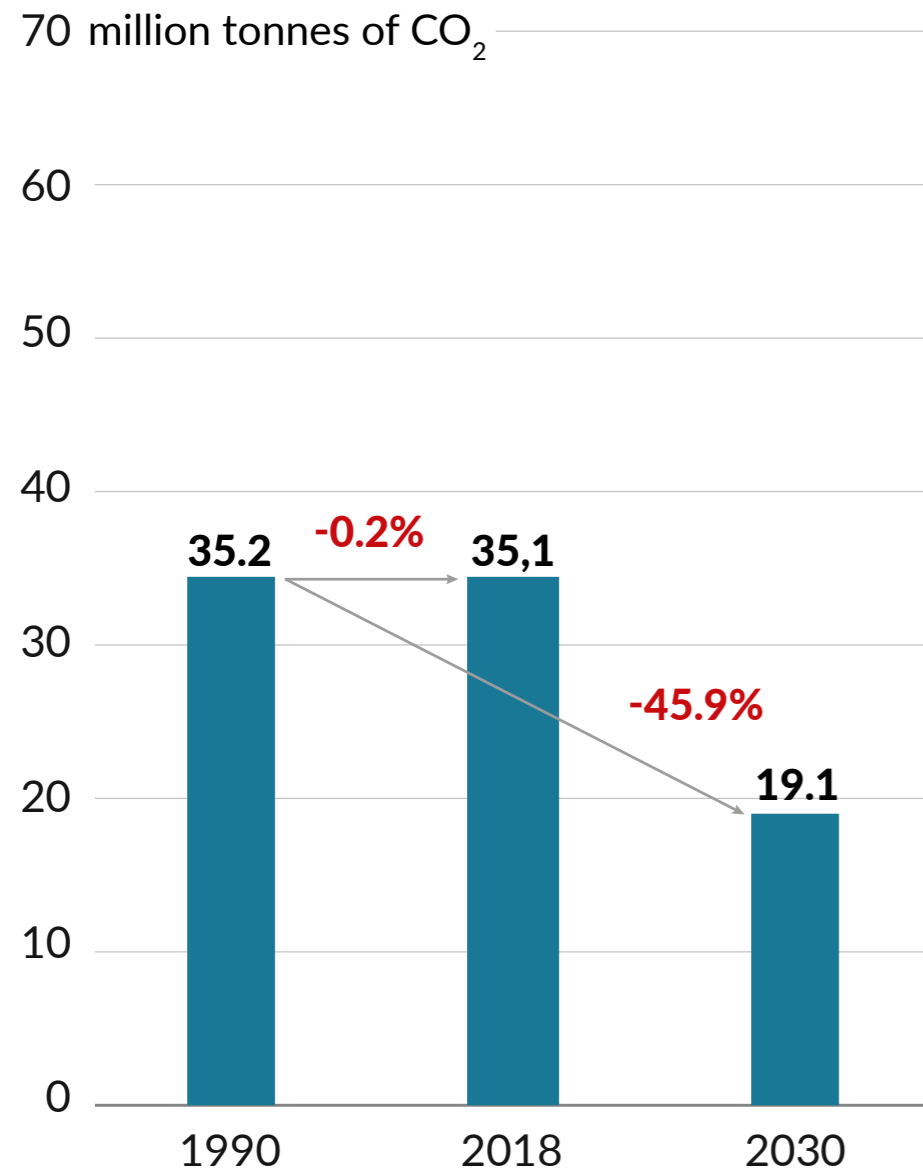
GHG reductions by 2030  
(compared to 1990)



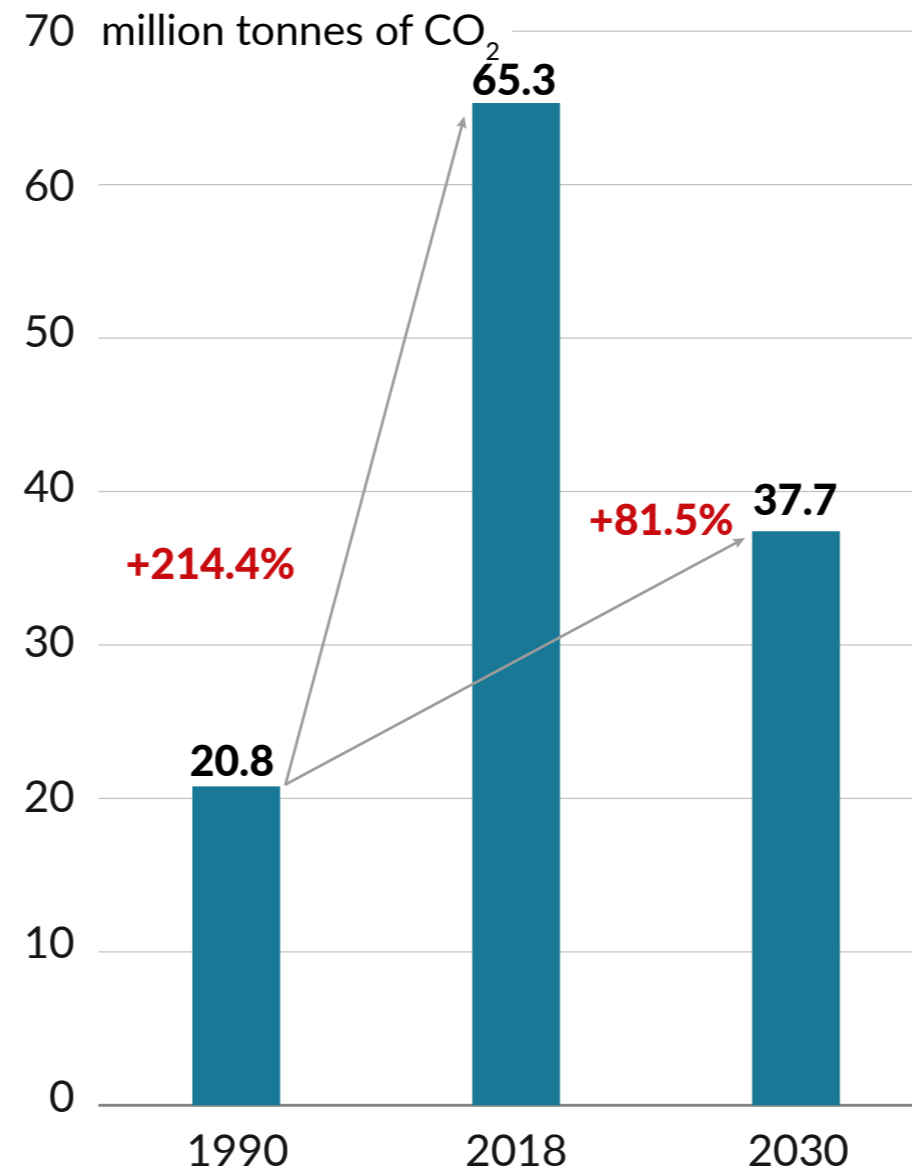
How Poland can reach higher  
GHG emission reduction targets  
by 2030

# The 2030 challenge: Reducing emissions from buildings and transport

**BUILDINGS  
(INDIVIDUAL HEATING)**



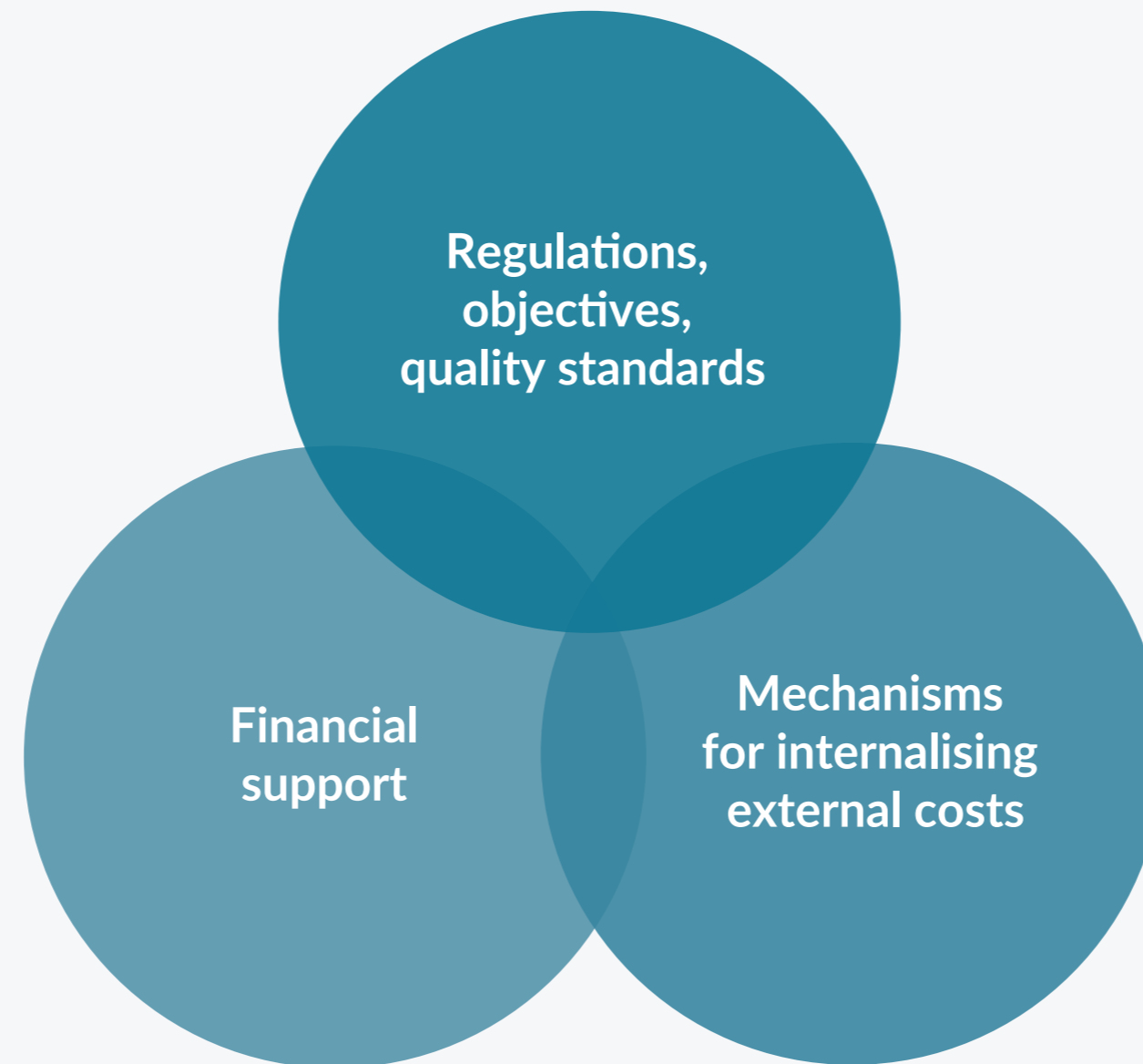
**TRANSPORT  
(EXCLUDING AVIATION AND SHIPPING)**



- High per capita external cost of emission - EUR 1843 p.a.
- No effective strategy to reach climate neutrality
- High socioeconomic costs of underdevelopment

Poland:  
36% of cars >20 yrs (2019),  
70% of citizens in uninsulated houses (2011)

# Principles for implementing climate policy



# Purpose of the analysis

Developing the mechanism assessing the cost of CO<sub>2</sub> emissions in buildings and transport, which:

- will lead to achieving the climate objectives on time
- will not increase inequalities in the EU and its Member States
- will take into account Polish characteristics, but will remain universal
- will be socially acceptable



Forum  
Energii  
Analizy i dialog



What is the weight of CO<sub>2</sub> emissions in buildings and transport?  
A proposal to introduce a socially just energy transition mechanism in the EU

[www.forum-energii.eu](http://www.forum-energii.eu)

# Internalisation of emission costs

- Internalisation of emission costs is a cornerstone of cost-effective decarbonisation.
- The ETS is the main tool aimed at reducing emissions in the EU. It covers > 40% of the EU emissions.
- Prices of remaining <60% (incl. buildings and transport) disregard externalities.

is necessary, but...



# ...the risks must be taken into account

- 1.** Rapidly increasing costs
- 2.** Distortions of price signals due to differences in abatement costs between buildings and transport
- 3.** Income disparities among citizens:
  - between countries
  - within countries



# Fuel prices including CO<sub>2</sub> prices - simulation



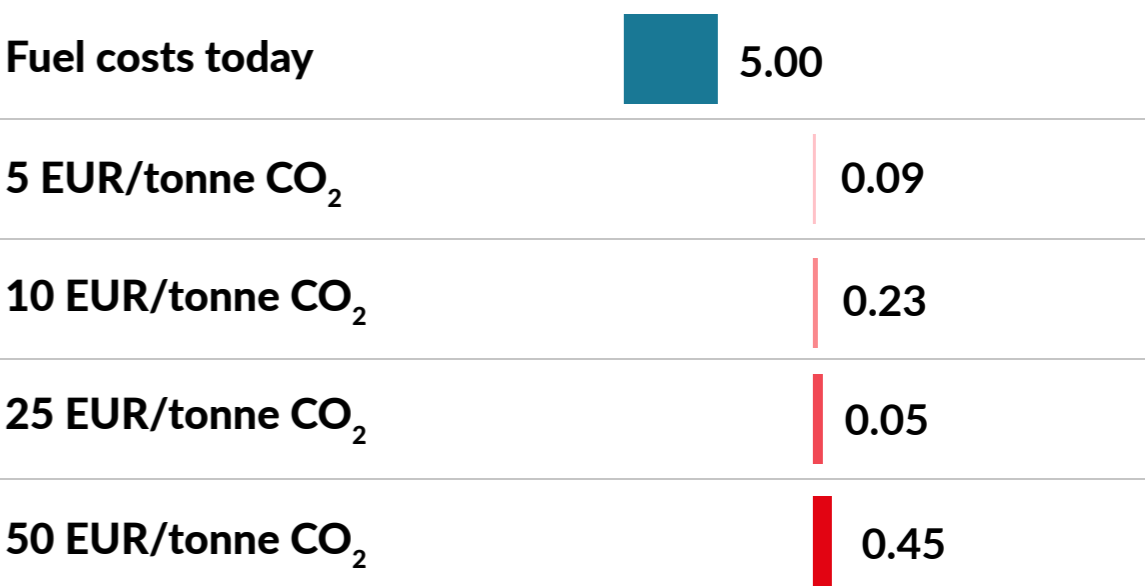
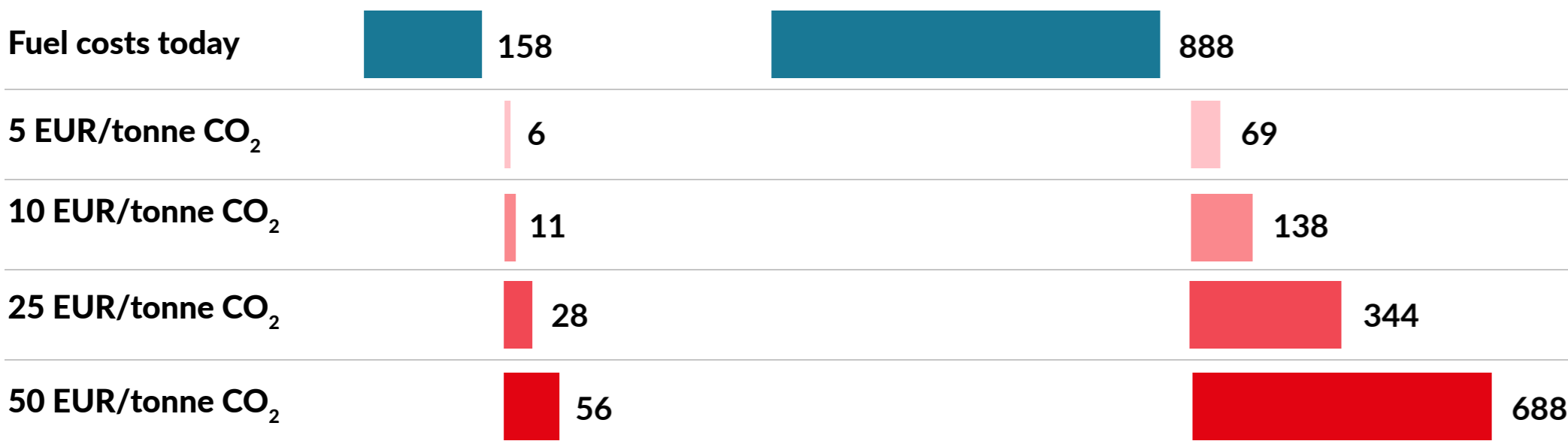
## BUILDINGS

## TRANSPORT

Natural Gas (PLN/MWh)

Coal (PLN/tonne)

CO<sub>2</sub> emission fee





# Our proposals



EU-wide mechanism: CATM - carbon allowance trading mechanism



National mechanism: CO<sub>2</sub> charge



# Carbon allowances trading mechanism - CATM

- Two separate allowance pools for transport and buildings.
- Price corridor: setting a minimum price and a price corridor with price converging to the ETS allowance price.
- The pace of convergence is calibrated in line with ambitions of climate policy.
- Member States may levy additional charges on top of the price of the minimum allowance.
- The entities obliged to purchase allowances are gas trading companies, fuel and coal distributors.
- Allowances are purchased on auctions by obligated entities.
- An established redistribution mechanism between Member States – e.g., similar to the Modernisation Fund.
- 100% revenue recycling in form of the social fund.  
The fund can be also supplemented by EU-level redistribution.



## CO<sub>2</sub> charge

- A charge with unified rules established within the EU and implemented by the Member States.
- A minimum fee set at EU level – Member States can increase it.
- Charge varies between fuels and sectors (lower charge in heating, higher in transport).
- The levy increases over time, reflecting national climate and economic policy targets.
- The entities obliged to pay the fees are gas trading companies, fuel and coal distributors.
- 100% revenue recycling in form of the social fund.
- Redistribution between Member States can be problematic.

# Redistribution - convergence

## How?

- 100% of the revenues from the new mechanism for well-designed social support for the energy transition (in particular: making households immune to price increases).
- Redistribution should have EU- and national dimension.
- It is necessary to define the target groups, the scope of intervention, the expected emissions reductions and the financing policy.

## Why?

- Faster achievement of climate goals. Wide gap → significant reduction in CO<sub>2</sub>
- Social justice

# Regulation for energy poverty

## Challenge:

- Poverty not well-defined, poor regulation and monitoring. Lack of effective tools against poverty.
- The threat of populism.

## Dilemma:

- Poverty: heat, electricity, transportation?

## Action:

- Regulatory incentive from the EC: definitions, monitoring, organisation of the support system.

# Conclusions

- Correct investment signals are fundamental to achieving climate neutrality.
- Internalising external costs is important.
- Two options for introducing emission charges: CATM or CO<sub>2</sub> charge.
- CATM creates opportunities for redistribution of powers between Member States.
- The price of CO<sub>2</sub> should be increased gradually. A price corridor is needed.
- 100% revenue recycling in all sectors (ETS and non-ETS) aimed at low-carbon transition and social support.
- EU regulations on energy poverty are needed.

Thank you for your attention



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