



**Öko-Institut e.V.**  
Institut für angewandte Ökologie  
Institute for Applied Ecology

# FSR 8th Annual Conference on the Economic Assessment of European Climate Policies: **An ETS-2 for buildings and road transport: Impacts, vulnerabilities and the role of the Social Climate Fund**

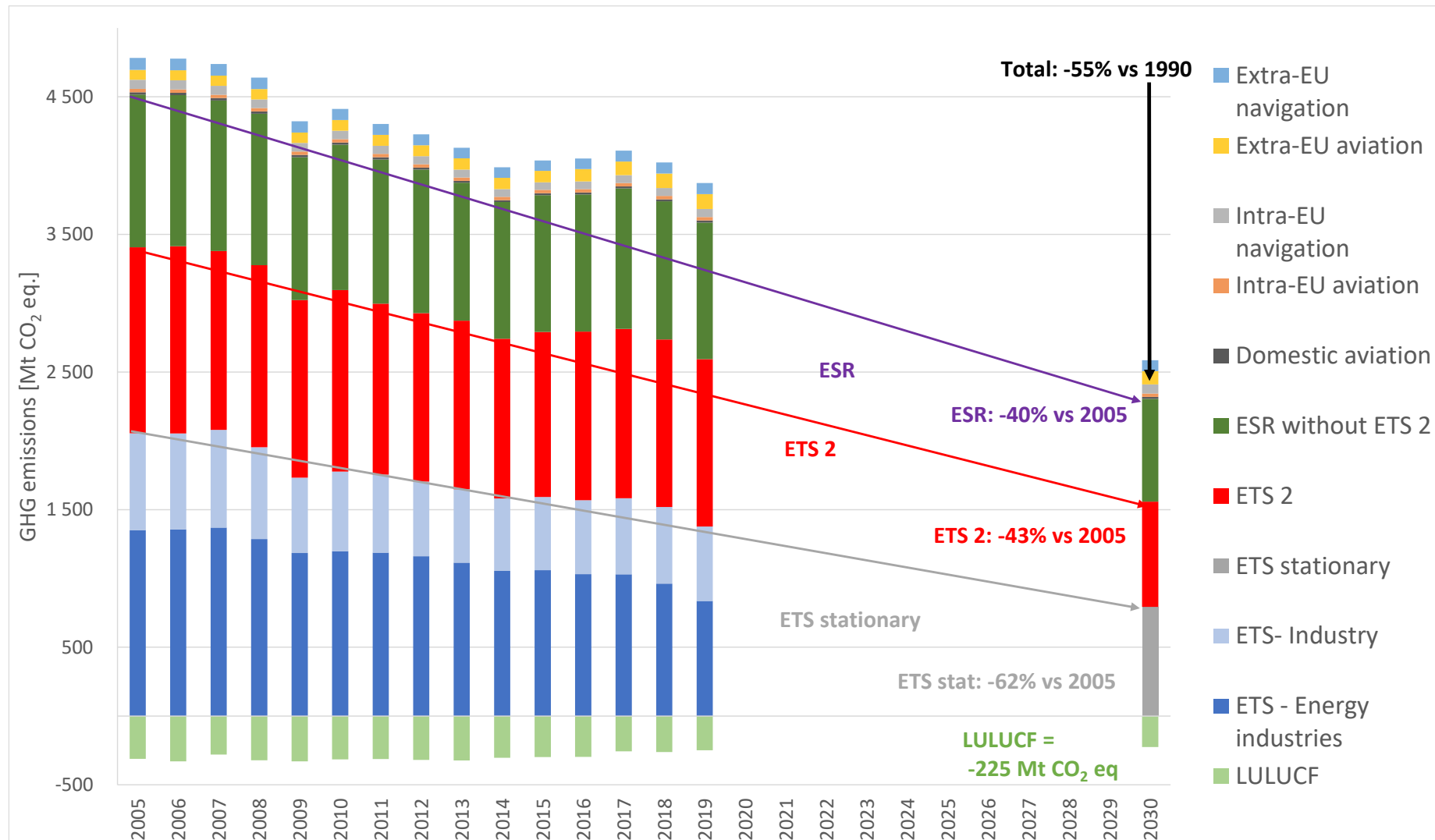
Johanna Cludius, 02.12.2022

# Introduction to the ETS-2 and Social Climate Fund

# Proposed ETS-2 covering buildings and road transport and proposed Social Climate Fund

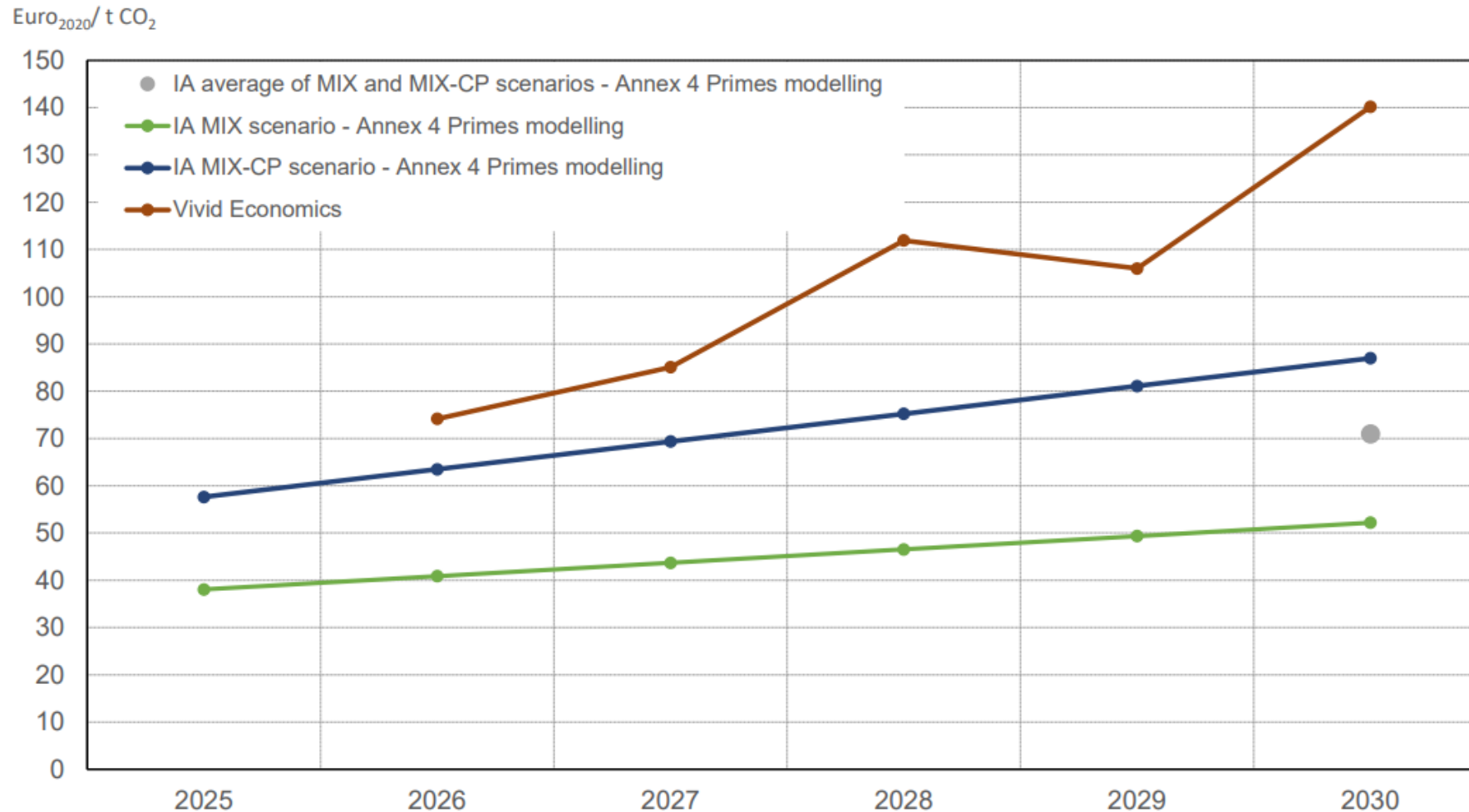
- In their Fit for 55 package, the COM proposes to set up an **ETS-2 covering CO2 emissions from buildings and road transport** not covered by the EU ETS
- The ETS-2 is set to be an upstream system, starting in 2026 and its market set to be separate from the EU ETS
- Emissions covered by the ETS-2 still fall under the ESR
- In order to protect the vulnerable from excessive costs, the COM proposes to set up a **Social Climate Fund (SCF)** worth 72 billion Euros for 2025/26-2032 (about 25% of ETS-2 revenues at projected prices)
- Funds made available to all Member States, but with some redistribution towards lower-income MS. Funds are made available following the submission of Social Climate Plans by the Member States

# Overall EU emissions, reduction goals and coverage of ETS



- ETS-2 set to cover > 50% of ESR emissions (remainder mainly agriculture)
- Reduction of -43% vs 2005 levels by 2030 envisaged

# Projected price paths under the ETS 2



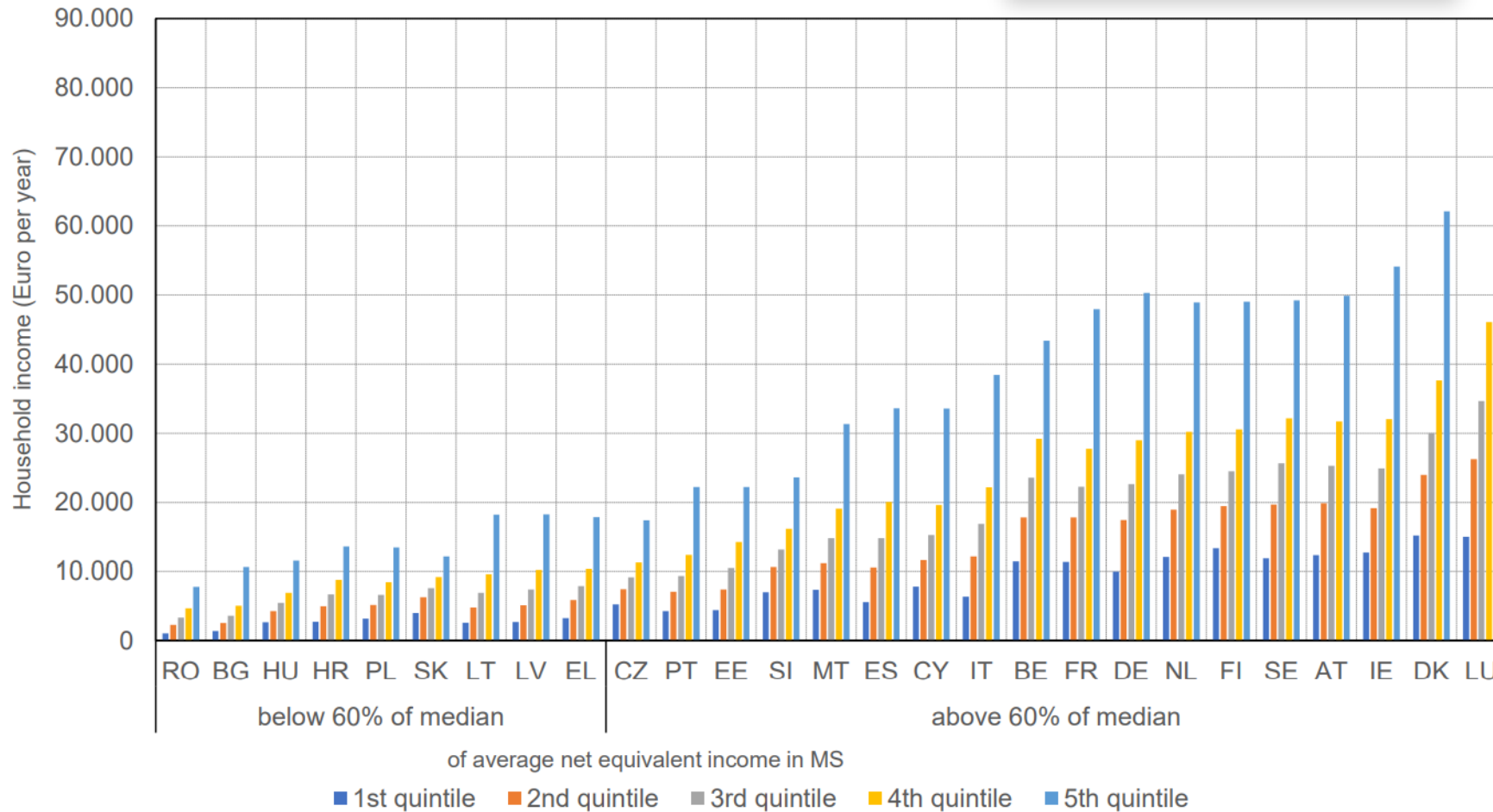
- Price projections vary
- 50 – 140 EUR/t CO<sub>2</sub> (and more) possible in 2030
- Market is set to be separate from the ETS-1

## ETS-2 and SCF in the ongoing triologue discussions

	COM	EP	Council
Scope	All fossil fuels not covered by EU ETS in transport and buildings	All fossil fuels not covered by the EU ETS <b>Private households only phased in after a review in 2029</b> (conditional on level of fuel prices and SCF operation)	Like COM  Possible opt-out for MS until 2030 with national carbon price > EU price
Start	2026 (MRV from 2025)	2025 (MRV from 2024) only commercial	2027 (MRV from 2024)
Size of SCF	72 billion EUR	72 billion EUR (+150 mln allowances) and adjustment for rising prices	59 billion EUR (+150 mln allowances)
Ceiling price		<b>50 EUR/tCO<sub>2</sub></b> (reviewed in 2029) + limiting cost pass-through to 50% max	
Excessive price control	If doubling of price within 6 months		If price increases 1.5 times within six months

Impacts across Member States and households

# Mean net equivalent income per year across Member States and income quintiles



- Large difference in income levels
  - across MS and
  - across income groups
- Income for lowest income group in D/FR/BE/DE... is higher than for highest income group in RO/BG/HU

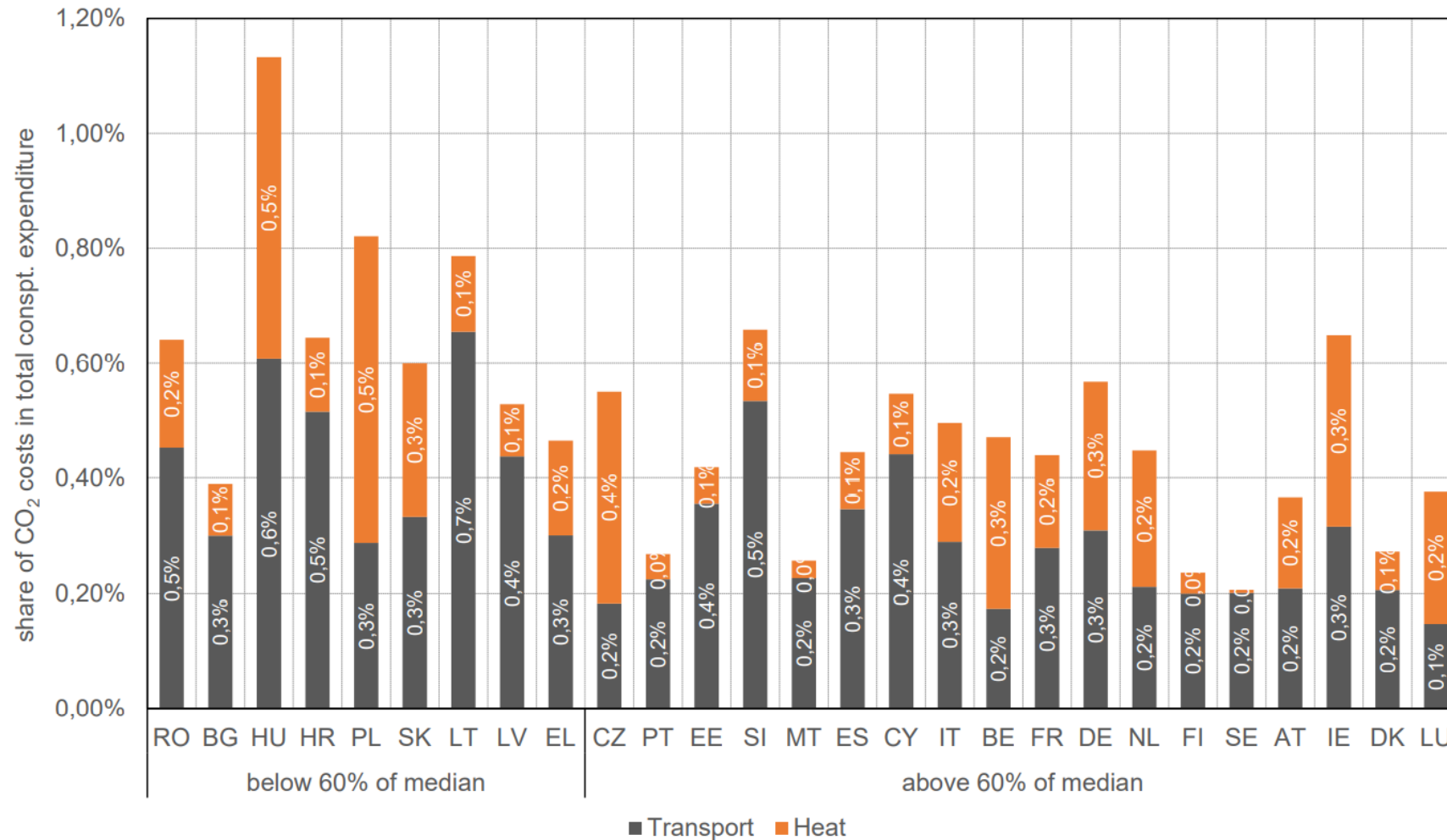


# Impacts determined by incomes and CO2 intensity



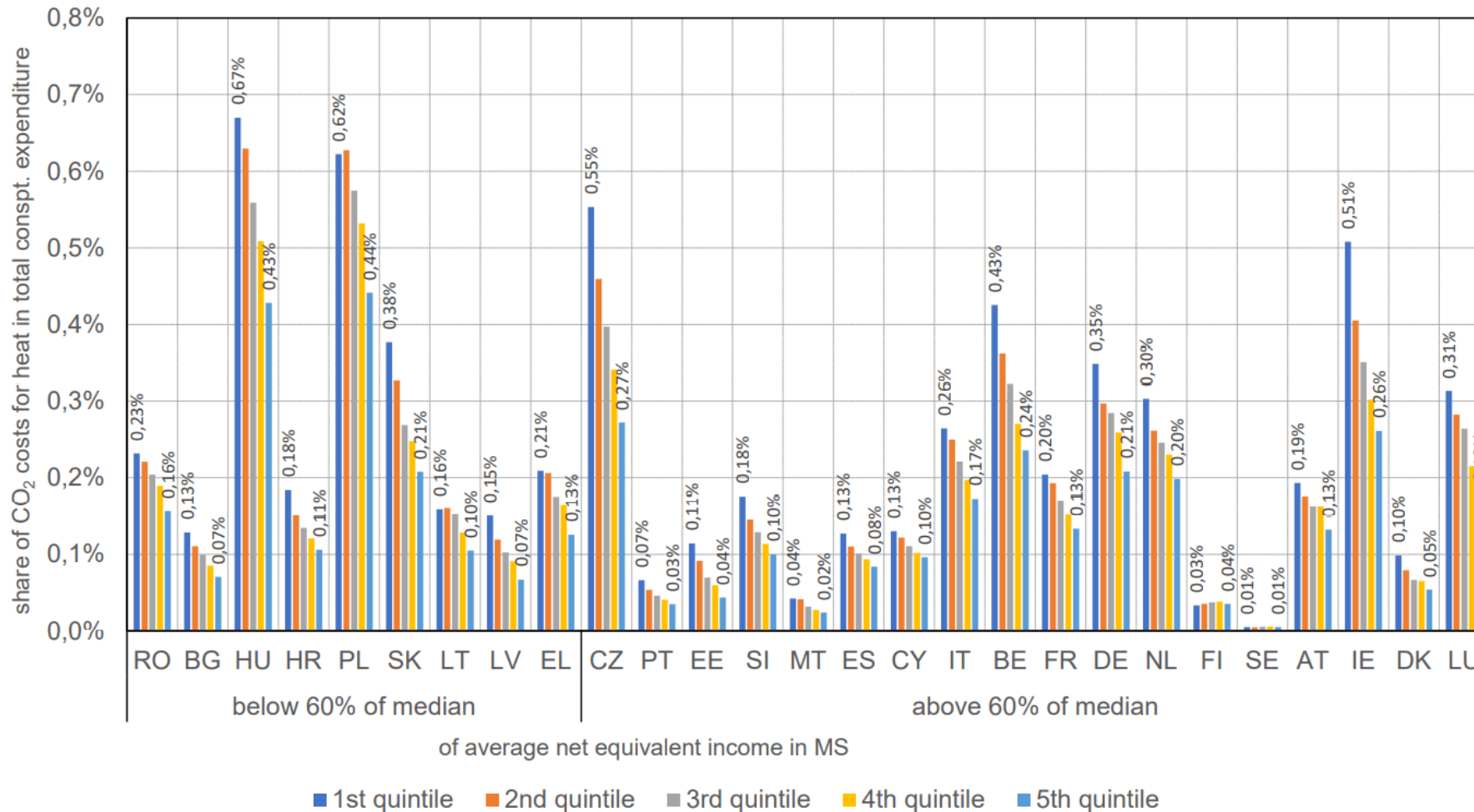
- Impacts will be higher for MS with
  - Lower incomes
  - Higher CO2 intensity in buildings and road transport

# Share of CO<sub>2</sub> costs in total household consumption expenditure (CO<sub>2</sub> price at 50 euro/t CO<sub>2</sub>)



- Households in lower income Member States more affected
- Fossil fuel intensity of the heating system and structure of transport system play a large role in determining impact

# Share of CO<sub>2</sub> costs for heating in total household consumption expenditure by income quintile (CO<sub>2</sub> price at 50 euro/t CO<sub>2</sub>)



- Impact regressive in all Member States
- (Not necessarily the case for transport where car ownership plays a large role)

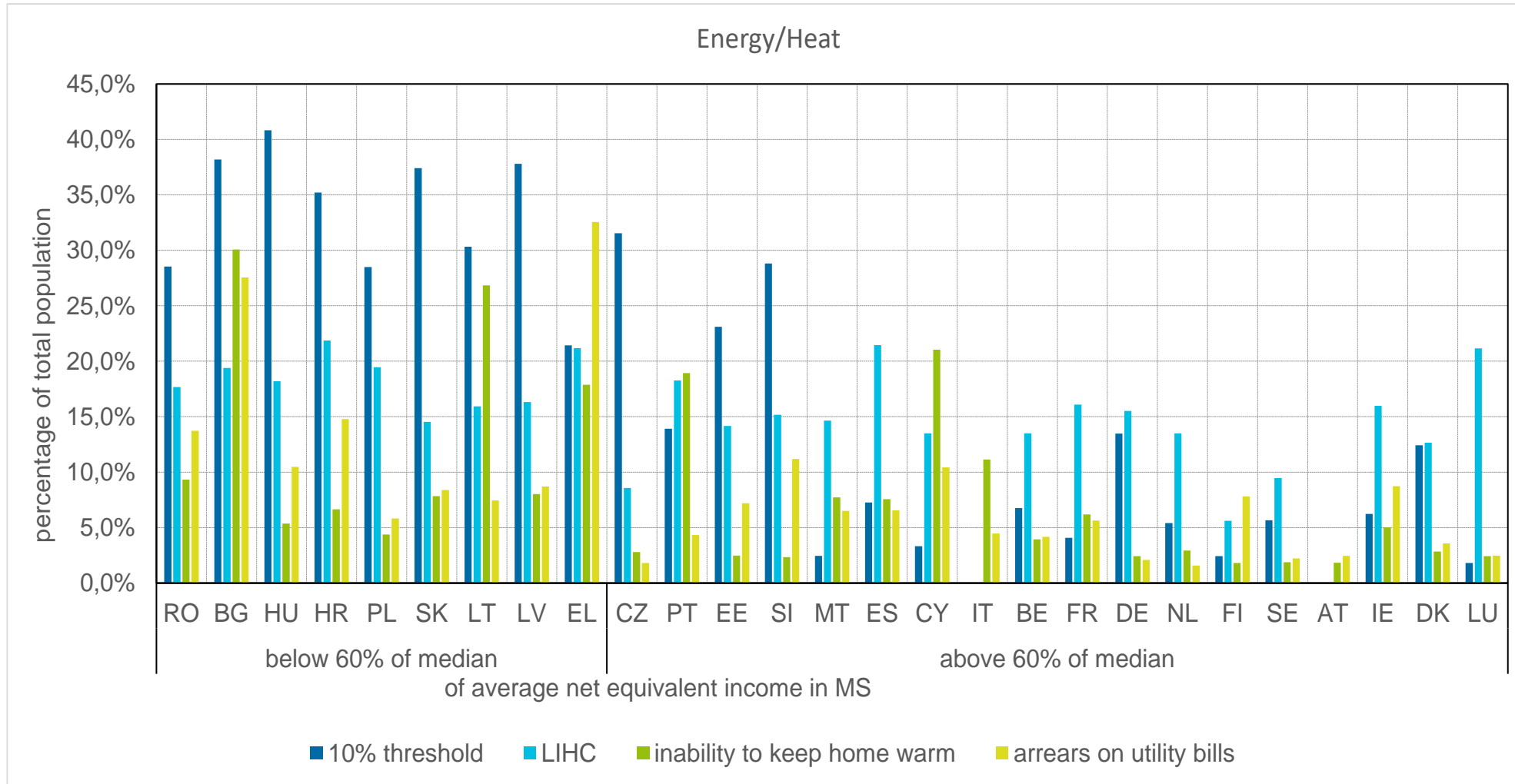
Who should be supported by the SCF?

## From COM proposal for a Social Climate Fund (SCF):

- ‘vulnerable households’ means households in energy poverty or households, including lower middle-income ones, that are significantly affected by the price impacts of the inclusion of buildings into the scope of Directive 2003/87/EC and lack the means to renovate the building they occupy;
- ‘vulnerable transport users’ means transport users, including from lower-middle-income households, that are significantly affected by the price impacts of the inclusion of road transport into the scope of Directive 2003/87/EC and lack the means to purchase zero- and low-emission vehicles or to switch to alternative sustainable modes of transport, including public transport, particularly in rural and remote areas.

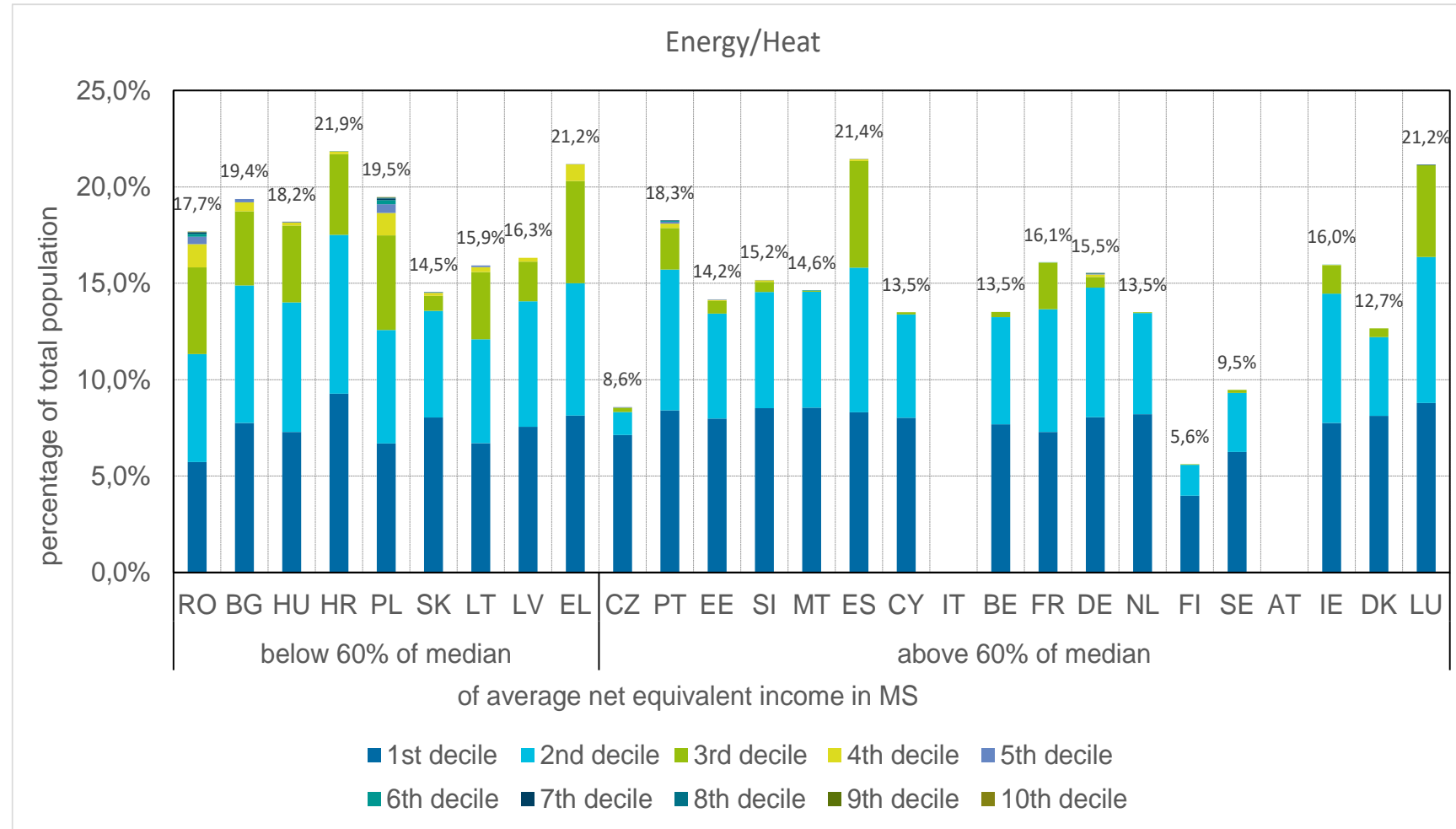
→ Concept of vulnerability and providing **targeted support**

# A selection of vulnerability indicators for expenditures on energy and heat



- Many different vulnerability indicators available
- All measuring different aspects of vulnerability
- More vulnerable HH in lower income MS, especially for expenditure-based indicators

# Income as a driver of vulnerability in the heating sector

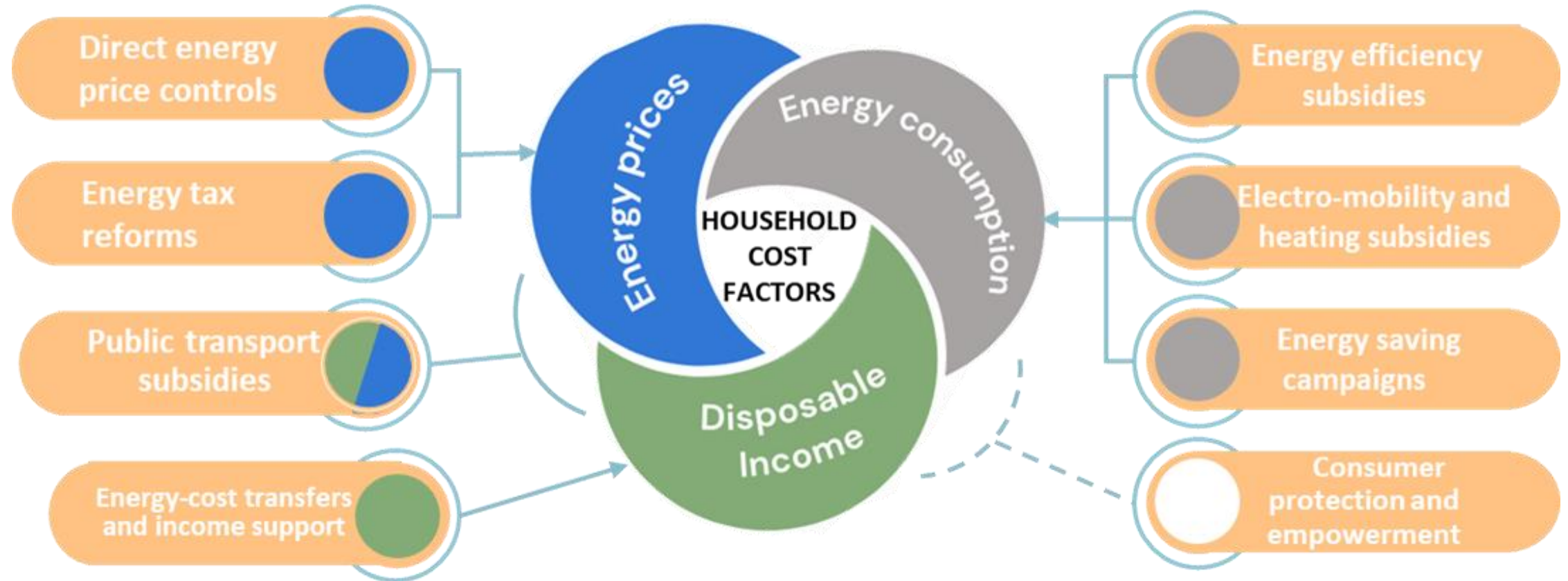


- In all MS, lowest income deciles most prominent amongst those vulnerable in energy/heat
- (Other factors play a role, e.g. location for mobility)

What should support from the SCF look like?



## FACTORS OF HOUSEHOLD COST BURDEN AND RELATED POLICY MEASURES



## From COM proposal for a Social Climate Fund (SCF):

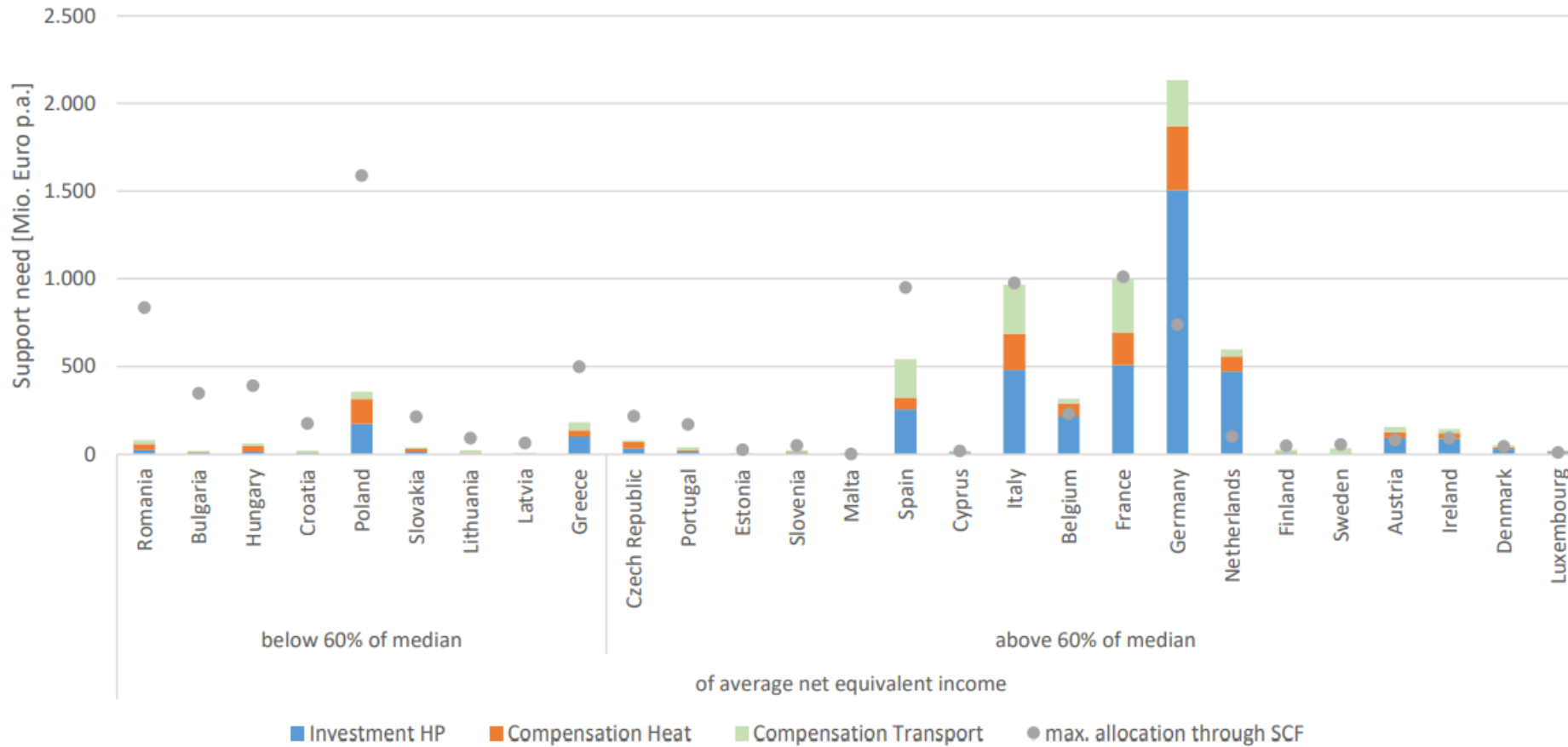
The Plan shall include national projects to:

(a) finance measures and investments to increase energy efficiency of buildings, to implement energy efficiency improvement measures, to carry out building renovation, and to decarbonise heating and cooling of buildings, including the integration of energy production from renewable energy sources;

(b) finance measures and investments to increase the uptake of zero- and low-emission mobility and transport.

→ Focus on **reducing energy consumption and increasing energy efficiency**  
(direct financial support only as a temporary measure)

# Using the SCF to exchange fossil heating systems to heat pumps for the most vulnerable



- SCF sufficient to switch to heat pumps for all vulnerable households in lower income MS
  - Even with very high exchange rate of heating system (7% p.a.)
- Additional funding by MS would increase available funds
- Investment in building insulation and measures in transport sector not considered
  - Would increase support needs

## Conclusions

- Proposed ETS-2 has a considerable level of ambition
- Projected price paths show a broad range and high prices are a concern for many MS
- Low-income / vulnerable households and MS most affected by high CO2 prices
- **BUT:** Lots of possibilities for redistributing revenues and making the system progressive
- Definition of who is vulnerable: Many possibilities! Some indications from the COM, the EP, EPOV and various other sources
- SCF can go a long way in protecting vulnerable households
  - **Targeting** is key
  - Focus on **reduction of consumption** (renewables, efficiency, modal split) is key
- **Future challenges:** Define vulnerable households, design the appropriate support programs, monitor efficient outcomes

### Projects cited in this presentation:

- Oeko-Institut (2022) The Social Climate Fund – Opportunities and Challenges for the buildings sector  
[https://www.oeko.de/fileadmin/oekodoc/ECF\\_Social\\_Climate\\_Fund.pdf](https://www.oeko.de/fileadmin/oekodoc/ECF_Social_Climate_Fund.pdf)
- Adelphi, CSD, Oeko-Institut, WISE (2022) Facilitating Just Carbon Pricing in Central and Eastern Europe (ongoing)  
Policy Brief: <https://www.oeko.de/fileadmin/oekodoc/EUKI-Policy-Brief-Supporting-Households-in-the-Energy-Price-Crisis.pdf>  
Policy Report: *forthcoming*



Thank you for your kind attention