Societal impact to energy transition, acceptability and social barriers

The 6th Low Emission Advanced Power (LEAP) Workshop
Session 3 - Transition cost and impact

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Simone D’Alessandro
Social barriers to the ecological transition

- Climate/Energy Policies
  - Energy efficiency
  - RES Expansion
  - Electrification

- Distributional Effects
  - Regressive effects
  - Inequality dimensions
  - Justice

- Social Barriers
  - Social unrest
  - Behavioral lock-in
  - Lack of political support
Preliminary expert survey

Carbon tax
Carbon tax + redistribution
Wealth tax
Energy efficiency of buildings incentives
Electric cars incentives
Increase in electricity price + RES dev
Public funds with a layoff freeze
Working time reduction
Dynamic Macrosimulation Model

Model overview
The solid and dashed arrows represent monetary and non-monetary flows, respectively.

The Households, Industries, Resources, Assets, Government, and Rest of the world boxes summarily represent first-period simulation results. The dashed lines in the Government and Rest of the world boxes are drawn for reference and cut the area of the rectangles in half.

Abbreviations in the Households box describe the following groups: E = employed; U = unemployed; O = out of labour force; R = retired; l = low-skilled; m = middle-skilled; h = high-skilled; C = capitalists.
Results: **Emissions, Inequality and Growth**

The Inequality-Emission Tradeoff
the relation between greenhouse gas emissions and inequality at the end of the simulation run (2050). Each point represents a different simulation. The vertical and horizontal dashed thresholds are the median values calculated over all simulations.