

EU Calculator: trade-offs and pathways towards sustainable and low-carbon European Societies

EUCalc

Development of a smart, novel, and innovative open source modelling tool based on empirical information about human behaviour, resource constraints, and performance of novel technologies.

Evaluation of trade-offs between decisions taken in different sectors and potential global warming and climate protection targets on a suitable scale for decision makers.

Provision of substantial improvements in state-of-the-art understanding of trans-boundary effects.

Development of a ready for use Transition Pathways Explorer, developed in co-design process with stakeholders, which can be used for supporting informed decision-making.

Objectives

- Comprehensive framework for research, business, and public sector **identifying synergies and trade-offs** of feasible European decarbonisation pathways.
- Politicians, innovators and investors will be able to **co-create their own pathways online** and in real-time and **directly visualise** how compliant these are with the European mitigation targets under certain decision taken in other sectors.
- **Exploring the impact** of the choices that can be made **in different sectors**, including power and heat generation, transport, industry, buildings, agriculture and food and the underlying lifestyle choices of Europe's citizens.

Concept and Methodology

- The idea of the European Calculator is to develop a model which fills the gap between the **integrated climate-energy-economy models and decision-makers**.
- The Calculator will bring a **holistic perspective** and ease the understanding of the impacts in the energy and climate arenas.
- **Reducing complexity** by setting levers. Levers represent **technological and lifestyle changes/innovations** to mitigate against climate change and enhance energy security from now until 2050.
- Co-design of pathways with **economic and societal actors**.

