

# ProdUse: Closing the gap between model-based energy scenarios and its potential users to support evidence-based decision-making

## Project idea



Model-based energy scenarios can guide decision-making under uncertainty by conceptualizing multiple pathways and assessing associated trade-offs. Although energy transitions require various actors to make long-term and resource-intensive decisions, empirical evidence of how energy scenarios support decision-making in practice is rare. While scenario producers are incentivised to advance the scientific quality of their work, decision-makers might not be aware of the variety of energy scenarios and the benefits they provide or miss guidance to apply their insights.

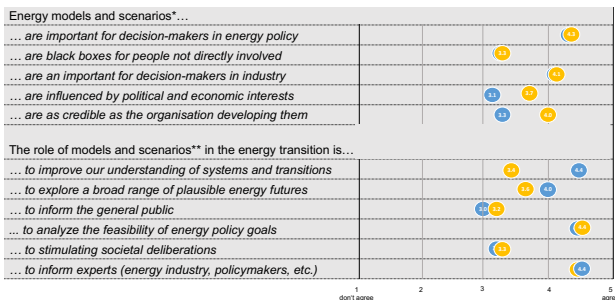
## Approach



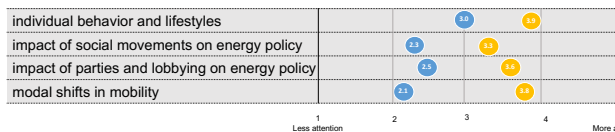
ProdUse offers the most comprehensive analysis of energy scenario usability in the Swiss context to date. It provides valuable insights by capturing the perspectives of more than 100 energy system modellers and comparing them to those of 250 potential scenario users. This mixed-method social science approach, in a field traditionally dominated by technocratic perspectives, presents an empirically grounded investigation of the modeller-user interface, crucial for enhancing energy scenarios as decision-support tools.

## Key insights

- Modellers and users agree: Energy scenarios are a widely recognized and accepted tool for projecting energy futures in academia and society
- Users want energy scenarios to go beyond contemporary contents and conventions (inclusion of social aspects and new formats)
- While energy scenarios and modelling have become more detailed and complex, our understanding of their usability is still in its early stages

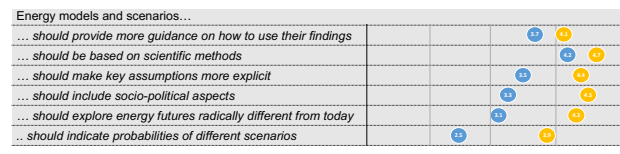


Assessments of users (n=246) and modellers (n=105) concerning a set of beliefs related to ("Do you agree with the following statements about energy models and scenarios?", 5-point scale) and societal functions of ("What should be the role of energy models and scenarios in the energy transition?", 5-point scale) energy model and scenarios.

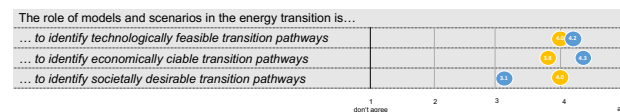


Preferences of users (n=246) and modellers (n=105) concerning inclusion of socio-political factors in energy models and scenarios ("The inclusion of socio-political factors in energy models is often considered a promising focus. Which factors do you consider most important?", 5-point scale).

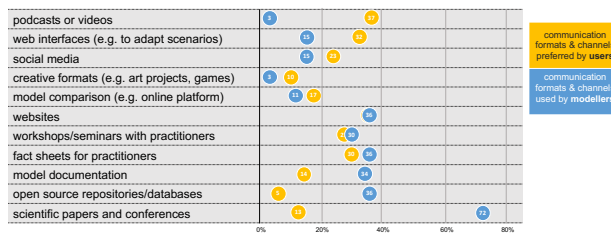
<b>Users</b>	Sample of potential users includes n=246 individuals, representing energy startups (n=55) cantons (n=62), municipalities (n=43), research and consultancy companies (n=22), energy industry (n=7), investors (n=6), NGOs (n=3) and others (e.g. journalists, architects, etc., n=48).
<b>Modellers</b>	Sample of modellers includes n=105 individuals, which were recruited via PATHFINDER newsletter as well as mailing lists provided by DeCarbCH and EDGE.



Assessments of users (n=246) and modellers (n=105) concerning a set of beliefs ("Do you agree with the following statements about energy models and scenarios?", 5-point scale) related to energy models and scenarios.



Assessments of users (n=246) and modellers (n=105) concerning societal functions of energy models and scenarios ("What should be the role of energy models and scenarios in the energy transition?", 5-point scale).



Comparison of formats and channels for communicating scenario insights preferred by (i) users ("What formats and communication channels would you like to have as an option to interact with energy models and scenarios?", n= 246) and (ii) provided by modellers ("What formats and communication channels do you use to communicate your findings?", n=105).

## Project Team

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