How do policymakers use climate mitigation scenario information?

Presentation for 4S 2020 panel ‘Politics of Anticipation’

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Performative pathways: The role of policymakers

• STS research on the politics of anticipation focuses on IAMs, modellers, and the IPCC process (e.g. Beck and Mahony 2018; Low and Schäfer 2020) – less on use, uptake, and the traditional sites of politics.

• Reflexive discussion in modelling community: Turn to ‘user involvement’ and policy relevance (e.g. NAVIGATE, PARIS REINFORCE).

• Similar assumption: Users have not been sufficiently involved, complexities and uncertainties tend to ‘get lost in the chain of translation from model developer to model user’.

• But **how do users actually use and understand modelled scenarios?**
• And **how does this differ across countries and user groups?**
Studying scenario users

• Method: Semi-structured interviews with civil servants in government bodies and energy industry actors across several European countries

• Status as of August 2020:
  – Interviews conducted with government representatives in Norway
  – Interviews with industry actors in Norway planned
  – Interviews planned in UK (delayed due to pandemic)
  – Possible interviews in Germany, Sweden
Preliminary findings: Norway

• Seven interviewees representing five government bodies (ministries and agencies dealing with climate and energy policy)

• The Norwegian context for climate and energy policymaking:
  – Stated ambitions on climate policy and active involvement in multilateral settings (IPCC, UNFCCC) over many years
  – Oil and gas production dominates the economy, increasingly difficult to reconcile with climate ambitions (Bang and Lahn 2019)
  – Economists have a strong role in most government bodies (Christensen and Holst 2017)
How are scenarios used?

• Scenarios are used primarily in analysis informing or justifying policy (examples mentioned: white papers, budget documents, information provided in response to Parliamentary inquiries)

• Primary use is to assess consequences of or pathways towards specific policy targets – in particular the Paris Agreement

• Information used included carbon prices, energy prices (oil in particular) and emission levels / carbon budgets
• Many sources, but some dominate the field
  – IEA most prominently mentioned, followed by IPCC
  – Other multilateral sources (IMF, OECD, IRENA)
  – A range of private providers (BP, Bloomberg NEF, DNVGL, Equinor…)

• Different sources are compared to provide a broad picture
  – Seeking ‘consensus’ estimates, disregarding perceived outliers
  – Comparing change over time, i.e. in annual reports

• …but not all sources are equally ‘citeable’ in official documents
  – Strengths and weaknesses of different institutions recognized
  – Officially recognized institutions preferred over scientific credentials
How are scenarios perceived?

• Informed use: Model outputs are not used uncritically, but assessed in relation to other results as well as in-house expertise on modelling, energy markets etc.

• Uncertainties are acknowledged…
  – ‘All models are wrong’, ‘nobody has the answer’, ‘garbage in, garbage out’

• …but numbers are needed
  – Quantification ‘makes things more concrete’
The politics of scenario choice

- Organisations trust institutions with similar problem-definition and approach – e.g. IEA favoured by energy actors, IPCC and IRENA favoured by climate and environmental actors

- Organisations choose scenarios that back up their own views vis-a-vis other government bodies – Ministry of Finance favours ‘prudent’ oil price scenarios – Ministry of Climate favours ‘more ambitious’ RE scenarios

- Organisations trust institutions with which they have existing relationships – Ministries of oil and finance work closely with IEA and OECD, respectively – Environment Agency as national IPCC focal point
Questions and caveats

• How do these findings compare to other countries?
  – National differences related to different civic epistemologies, policy priorities and dominant forms of expertise are to be expected

• These may be ‘expert users’ – what is the role of further translations (e.g. to politicians, media, publics) ?

• How do these users act compared to private-sector decisionmakers?
Challenges to the modelling community

• It’s not necessarily about *participation*, rather *trust* and institutional ties

• Most users look for pathways to specific targets, ‘likely’ ranges, and ‘what if’ scenarios based on clear storylines – and their own preferences

• Calls to communicate uncertainty and assumptions clearly – but too much variation reduces relevance

• The generic ‘user’ or ‘policymaker’ does not exist!
Challenges to STS research

• The IEA seems to have a very strong position with policymakers, but is less empirically explored than the IPCC
  –Use and uptake neither explored systematically by the IEA

• If prices are central to how scenarios are used, this suggests relevance of valuation studies and literature on economics ‘in-the-wild’

• If scenario choice is explicitly political, understanding performativity requires engagement with power dynamics and institutional structures
Literature

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