



Expanding Integrated Assessment Modelling:
Comprehensive and Comprehensible Science
for Sustainable, Co-Created Climate Action



Responsive science in support of climate policymaking
IAM COMPACT Final Conference, Athens, 29 August 2025

A policy response mechanism for policy-relevant modelling science

Ugne Keliauskaite, Research Analyst (Bruegel)

Policy Response Mechanism (PRM)

How PRM works?

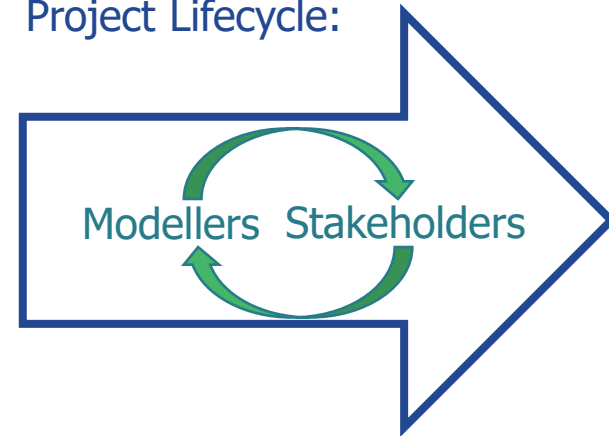
PRM was IAM COMPACT's strategy to **ensure policy-relevant climate modelling**:

- systematically involving stakeholders
- aiming to **co-create modelling scenarios**
- **providing a feedback loop**:
 - stakeholders shaped modelling studies,
 - findings informed policy decisions.

Objectives

- Ensure **relevance and legitimacy** through stakeholder engagement
- Improve **transparency** of IAM Compact research
- Improve **research quality** and tool usefulness by engaging closely with the user community

Project Lifecycle:



Structure

Time: two cycles

Stakeholder:

- Policy Steering Groups: flag priorities and guide research questions
- Core Working Groups: validate and refine studies

Theme: EU engagement within 4 themes

Region: Non-EU research in 7 regions

Stakeholder engagement

In Numbers

Engagement with **~200 stakeholders:**

- **40 senior policymakers**
- **15 workshops** with technical policy staff
- **10 policy briefs, 14 studies**
- **5 deliverables** describing the PRM process



Workshops

First cycle:

1. Optimal Transition
2. Industry and Innovation
3. Global Effects
4. Behavioural Change

Second cycle:

1. Decarbonisation in the Global Economy
2. Modelling the Clean Industrial Deal
3. Citizens in the Transition
4. Land Use and Renewable Energy

Stakeholder Profiles

EU Institutions & Agencies

- European Commission: DG TRADE, DG ENER, DG CLIMA etc., ACER, ECB, JRC, EEA.

International Organisations

- IEA, ICC.

Think Tanks & Academia

- CEPS, E3G, IDDRI, I4CE, IEEP, SEI, Ecologic Institute, Oeko-Institut, Agora, ECCO...

Climate NGOs

- WWF, CAN Europe, Ember, T&E, EEB, Carbon Market Watch...

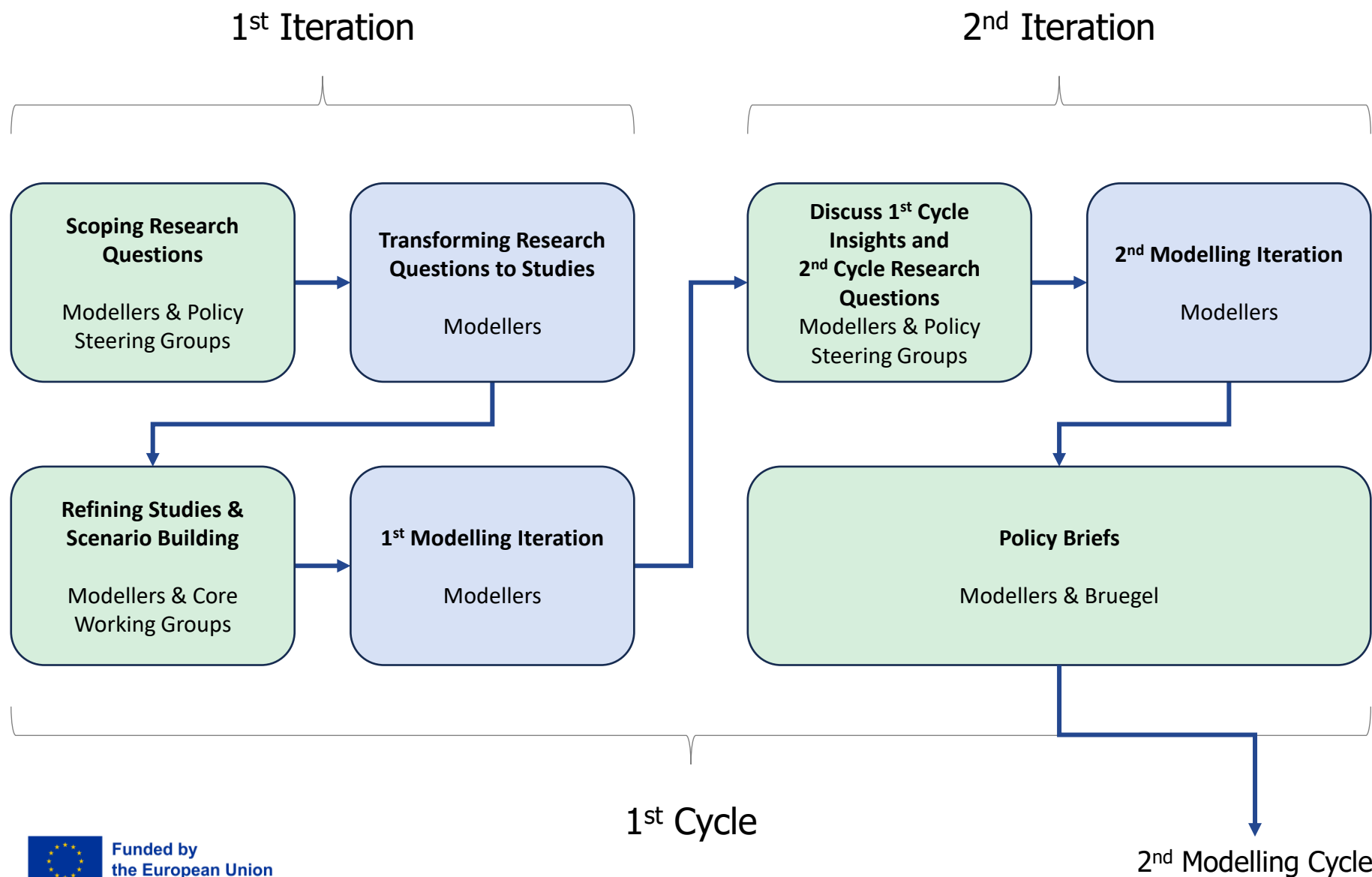
Industry Associations

- SolarPower Europe, EHPA, EBA, ELO, Eurelectric, Copa-Cogeca, Bikeconomy...

Business and Finance

- Breakthrough Energy, Climate Bond Initiative...

Policy Response Mechanism – 1st Cycle



Zooming in: Scoping policy relevant questions | IAM COMPACT

Mapping research questions

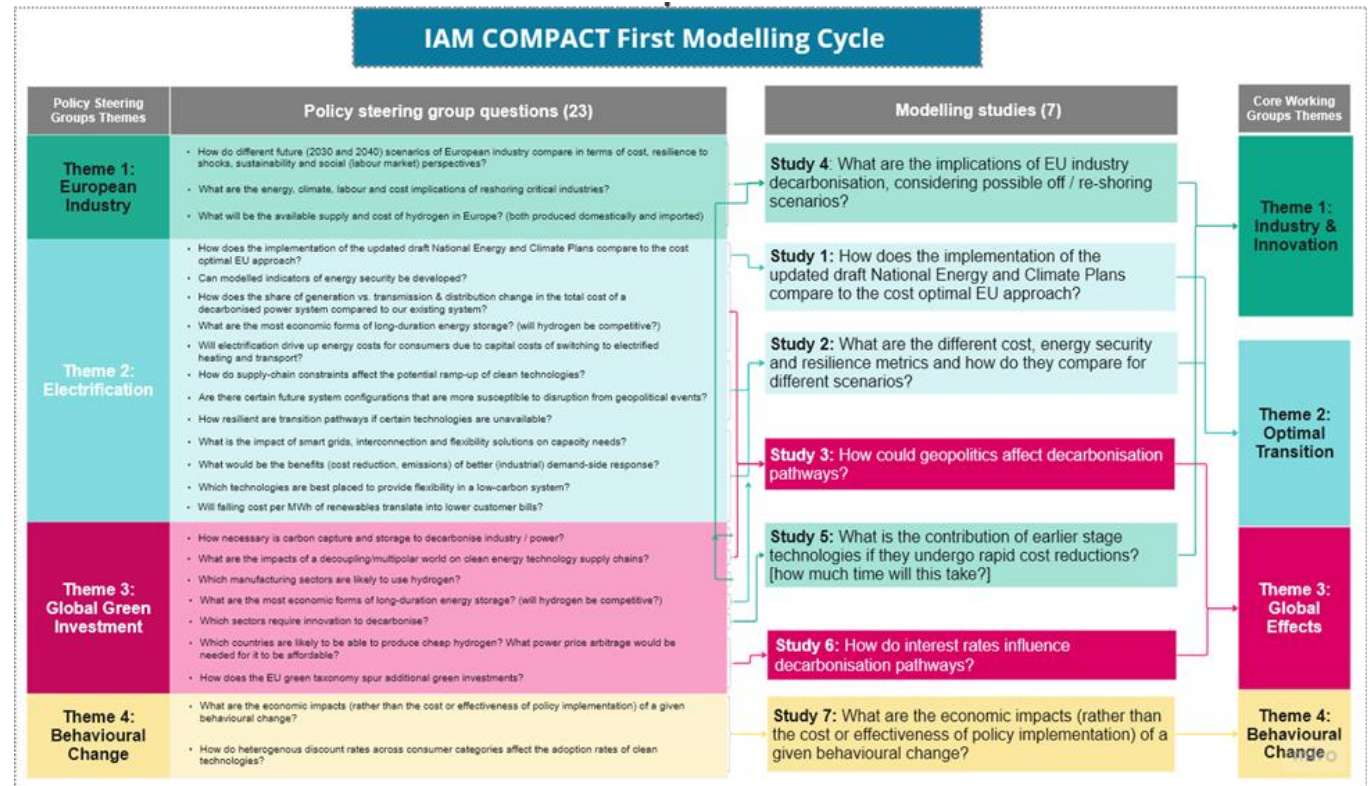
- Semi-structured interviews with Policy Steering Groups
- The guiding questions:

1) Key policy priorities in your field for the coming years?

2) How can IAMs assist in policymaking?

Outcomes:

- 23 research questions
→ 7 new modelling studies.
- 4 Grouped Themes



From the 1st onto the 2nd PRM cycle

Mapping research questions

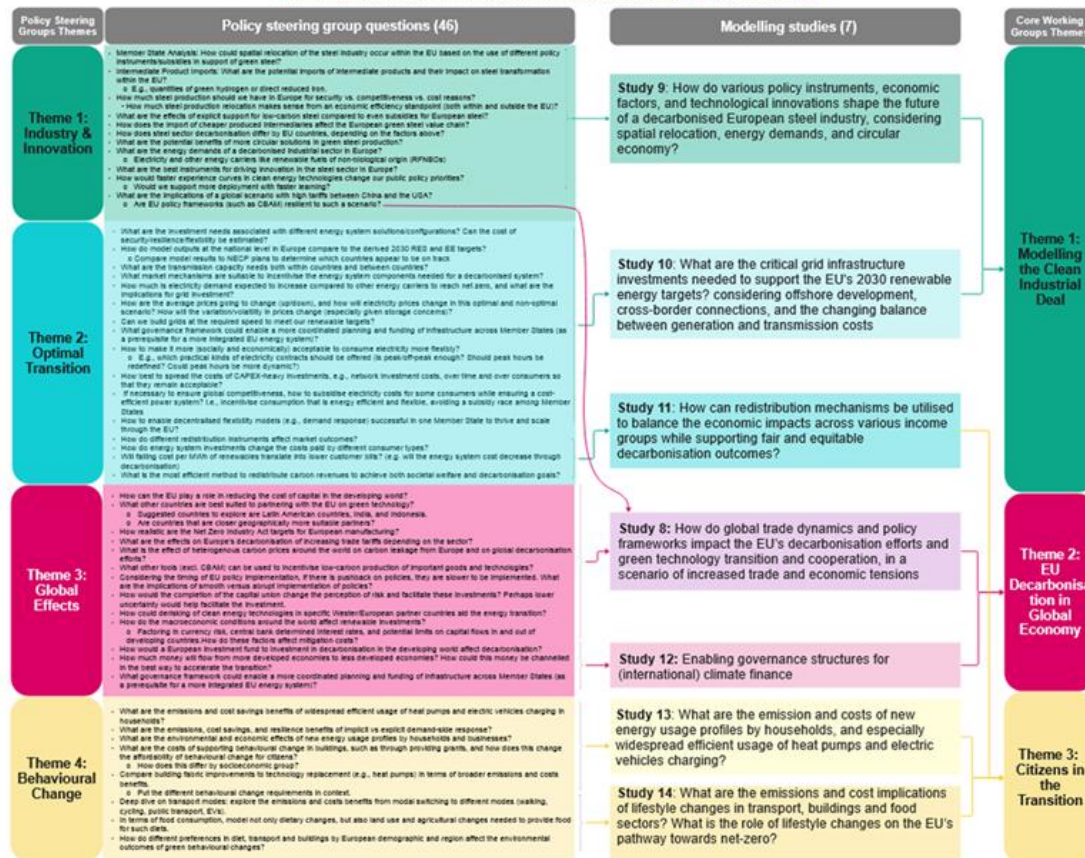
Feedback Process

- Policy Steering Groups reviewed Cycle 1 results & their relevance.
- Suggested refinements and new research questions aligned with the new European Commission's priorities.

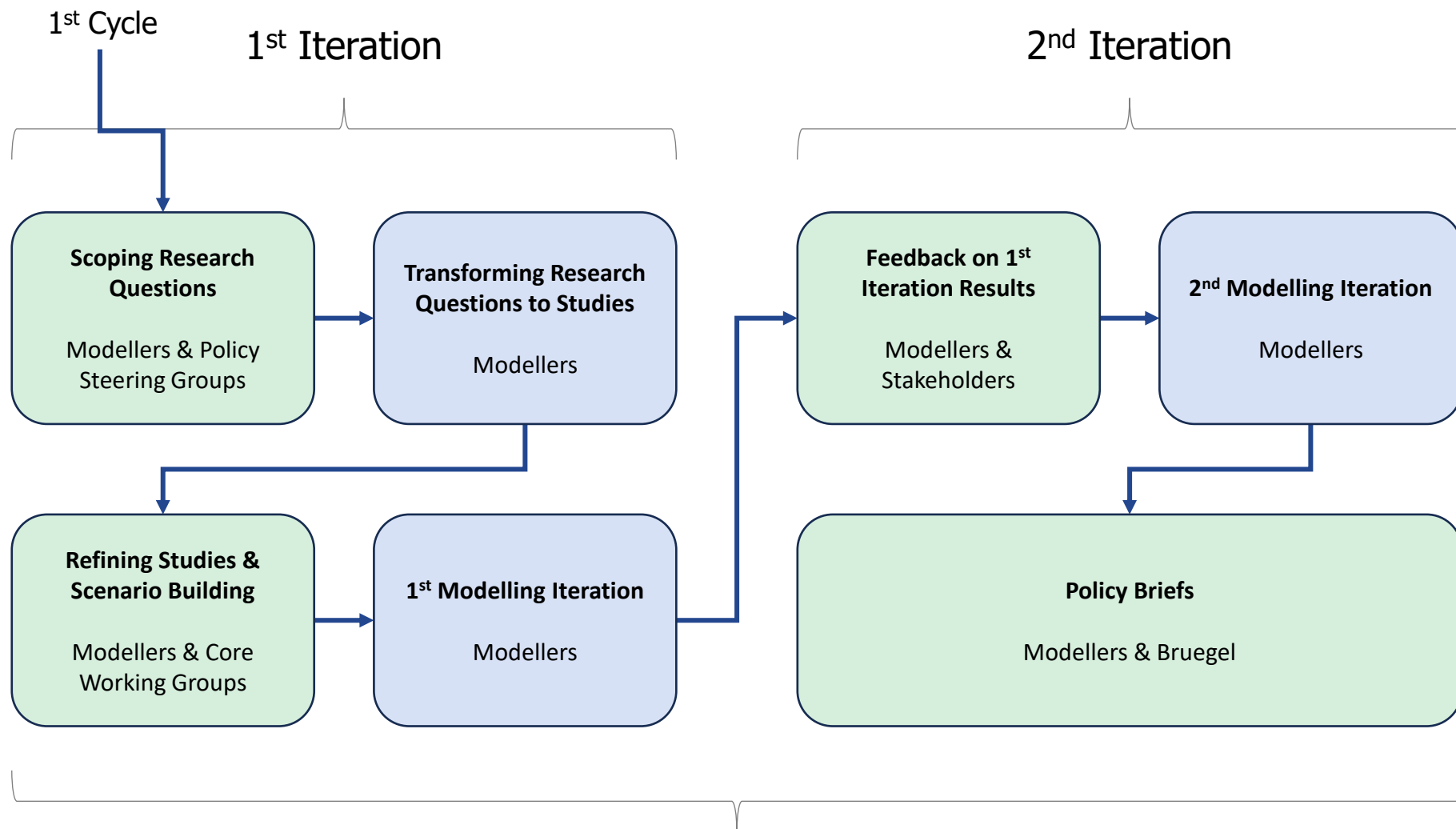
Outcomes

- 46 research questions → 7 new modelling studies.
- Discussed and co-designed with Core Working Groups in three workshops.
- 3 Grouped Themes (+ Land Use)

IAM COMPACT Second Modelling Cycle



Policy Response Mechanism – 2nd Cycle



2nd Cycle



Lessons learnt

Planning

- **Expected inputs** from stakeholders should be **clearly defined** before interactions.
- **A sufficiently large sample of interviews and meetings** can reveal a clear picture of policy priorities.

Facilitation

- **Online tools** such as Miro can facilitate online workshops.
- Stakeholders must be **empowered to speak freely and challenge** modellers within all interactions.

Management

- Maintaining **consistent stakeholder groups** improves responsiveness.
- PRM is effective but needs **flexibility for region-specific contexts**.
- **Tailoring workshops** matters for presenting results and identifying research questions.

Research strategy

- **Strategic question selection** is crucial for setting research agenda.
- **Policy briefs** are critical for sharing and framing findings for policy-makers.
- **Timing of publications** in the context of policy developments matters for relevance of studies.

PRM Results

- 14 co-created modelling studies
- 10 policy briefs
- Meetings with 40 senior policymakers
- 8 EU workshops + more in partner regions

General takeaways

Strategic Role

- PRM was our strategy to ensure climate modelling is policy-relevant and actionable.
- It systematically integrated stakeholder input into modelling, bridging science and policy.

Proven Effectiveness

- PRM was demonstrated as a successful method for engaging EU stakeholders, shaping research and building capacity in non-EU regions.

Impact of Feedback

- PRM sharpened focus on Green Deal delivery and Competitiveness toward Net Zero.
- It guided the creation of policy briefs on high-priority topics.



Thank you!

Ugne Keliauskaite

ugne.keliauskaite@bruegel.org

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