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D3.5 – PROCEEDINGS OF THE 2ND REGIONAL EU WORKSHOP

WP3 – Continuous stakeholder engagement Version: 1.00





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EC Summary Requirements

1. Changes with respect to the DoA

No changes with respect to the work described in the DoA.

2. Dissemination and uptake

This deliverable serves as documentation of the proceedings of the second PARIS REINFORCE regional EU workshop. The deliverable reports particularly on scope, agenda, and minutes. The report is targeted primarily to policymakers (as well as all relevant stakeholders) in order to provide a better understanding of how modelling results and processes should be translated to inform policy and practical action.

3. Short summary of results (<250 words)

On 26th May 2021, the PARIS REINFORCE project held its 2nd Regional EU Workshop. Owing to the ongoing COVID-19 disruptions, the event was held online. The event was broadcast live and lasted for 90 minutes. The topic of the event was 'From numbers to insights: how to think about economy-climate models'. Modelling experts from the PARIS REINFORCE consortium and DG ENER together discussed live some of the key questions that non-modellers should ask when confronted with a new modelling study. Following a presentation on possible considerations and checklists to decide how to use and interpret models in the policy world, the event predominantly took the format of a moderated panel discussion, also taking up questions from the audience.

4. Evidence of accomplishment

Online records of events (link) and the documentation in this report.



Preface

PARIS REINFORCE will develop a novel, demand-driven, IAM-oriented assessment framework for effectively supporting the design and assessment of climate policies in the European Union as well as in other major emitters and selected less emitting countries, in respect to the Paris Agreement. By engaging policymakers and scientists/modellers, PARIS REINFORCE will create the open-access and transparent data exchange platform I²AM PARIS, in order to support the effective implementation of Nationally Determined Contributions, the preparation of future action pledges, the development of 2050 decarbonisation strategies, and the reinforcement of the 2023 Global Stocktake. Finally, PARIS REINFORCE will introduce innovative integrative processes, in which IAMs are further coupled with well-established methodological frameworks, in order to improve the robustness of modelling outcomes against different types of uncertainties.

NTUA - National Technical University of Athens	GR	EPU N · T · U · A
BC3 - Basque Centre for Climate Change	ES	BASQUE CENTRE FOR CLIMATE CHANGE Rilma Affairs lenga
Bruegel - Bruegel AISBL	BE	bruegel
Cambridge - University of Cambridge	UK	UNIVERSITY OF CAMBRIDGE
CICERO - Cicero Senter Klimaforskning Stiftelse	NO	°CICERO
CMCC - Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici	IT	CINCC Cycle Dr. Walphraso au Cartouren Corrato
E4SMA - Energy Engineering Economic Environment Systems Modeling and Analysis	IT	E4SMAI
EPFL - École polytechnique fédérale de Lausanne	СН	EPFL
Fraunhofer ISI - Fraunhofer Institute for Systems and Innovation Research	DE	Fraunhofer
Grantham - Imperial College of Science Technology and Medicine - Grantham Institute	UK	Grantham Institute Climate Change and the Environment
HOLISTIC - Holistic P.C.	GR	%HOLISTIC
IEECP - Institute for European Energy and Climate Policy Stichting	NL	EECP
SEURECO - Société Européenne d'Economie SARL	FR	SEURECO ERAΣME
CDS/UnB - Centre for Sustainable Development of the University of Brasilia	BR	Centro de Desenvolvimento Sustentável UnB
CUP - China University of Petroleum-Beijing	CN	P
IEF-RAS - Institute of Economic Forecasting - Russian Academy of Sciences	RU	RAS
IGES - Institute for Global Environmental Strategies	JP	IGES But hate for Global Horizontaridal Stationages
TERI - The Energy and Resources Institute	IN	teri



1 Overview

On 26th May, 2021, the PARIS REINFORCE project held its 2nd Regional EU Workshop. The first one was held physically in Brussels, Belgium, in November 2019. Owing to the ongoing COVID-19 disruptions, the event was held online. The event was broadcast publicly on consortium member Bruegel's website and social media channels. Attendance was therefore available to anyone.

The goal for the event was to hold a discussion on the sensible usage and interpretation of climate-economy models. The desired outcome from the workshop was a conversation, which would be informative for policy-interested stakeholders that are confronted with modelling studies. The core of the PARIS REINFORCE project is effectively incorporating stakeholders into modelling worlds. Such an event was therefore useful for the project's internal thinking and hopefully for a wider audience.

This deliverable reports on the proceedings of event. The event duration was 90 minutes. The recorded event is available online (<u>link</u>), and will remain so for free access.

1.1 Event Agenda

Below is the event summary and agenda, as advertised on Bruegel's website:

Economic-climate models are a powerful tool for providing insight into sensible climate policy choices and how they would impact our economy. As the EU announces stricter climate targets, there are an increasing number of modelling studies published attempting to do just so. However, these models are highly complex and largely inaccessible to wider audiences.

Therefore, at this event we discussed some of the key issues that policymakers should consider when confronted with new modelling studies. For example, why do different models provide very different perspectives when trying to answer the same question? Why is it that certain models are better suited to certain policy questions? How can we sensibly form our own opinions about how strongly to trust new modelling results?

This event was jointly held by Bruegel and PARIS REINFORCE: a three-year, Horizon 2020 project funded by the European Commission. The PARIS REINFORCE project seeks to actively involve stakeholders in multiple aspects of its own modelling processes, from the formulation of relevant policy questions to the definition of modelling assumptions.

14:00 - 14:30: Presentation: 'From Numbers to Insights: How to think about economic-climate modelling.'

1. Georg Zachmann, Senior Fellow, Bruegel

14:30 - 15:20: Panel discussion and audience Q&A

- 2. Ewelina Daniel, European Commission, DG Energy, Unit A4 Economic analysis and financial instruments
- 3. Ajay Gambhir, Advanced Research Fellow, Imperial College London
- 4. Glen Peters, Research director, CICERO Centre for International Climate Research, Oslo, Norway
- 5. <u>Georg Zachmann</u>, Senior Fellow, Bruegel (moderator)

15:20 – 15:30: Closing remarks and next steps for Paris Reinforce project

6. <u>Haris Doukas</u>, Associate Professor, National Technical University of Athens





1.2 Event participation

The event was broadcast live on the Bruegel website, and remains hosted online. This means that interested policymakers and other stakeholders are able to watch the event recording at any point in the future. During the event itself, the following statistics provide an insight into the event reach:

- Livestream viewership: 230 (i.e., those watching through the official stream)
- Livestream social media outreach: 2402 (i.e., those who at some point clicked the video on social media channels)
- Average watch time: 44'13"

The digital audience was able to pose questions/comments to the panel using the online tool, sli.do. A total of 33 questions/comments were posed through the platform.





2 Event Content

2.1 Opening Presentation

The event began with a 30-minute presentation by Georg Zachmann (Bruegel). The title of the presentation was: 'From Numbers to Insights: Interpreting climate-economy modelling results for policymakers'. The purpose of the presentation was to provide an overview on what economy-climate models are used for, and how non-modellers should approach modelling studies.

The presentation put forward the argument that models "are a useful tool to organise knowledge and build consensus". Economics seeks to translate impacts and constraints into numbers to establish the impacts of different decarbonisation pathways; however, achieving this perfectly is impossible. Models are able to provide arguments for action: they can highlight the requirements, obstacles, and trade-offs for meeting a certain goal.

However, it was noted that understanding a model requires a huge time investment. Models are associated with lots of jargon and complex concepts. To derive useful information from a modelling study, it is important to consider results in the context in which they are produced, and this is difficult. Even experts commonly disagree on modelling choices and core assumptions.

The second half of the presentation then put forward some ideas around the following two themes:

- 1. How should policymakers look at modelling studies?
- 2. What questions should they ask modellers?

A checklist of proposed useful questions, which non-modellers should ask when confronted with a new modelling study, were discussed:

- 1. Who designed the questions? Questions already imply judgement and set agendas.
- 2. Which model is used to answer the question? If the model is too big for the question, then there is the risk of generating noise.
- 3. What is the baseline?
- 4. How strongly should we believe the results? This decomposed into the following elements.
 - a. Sensitivity analysis
 - b. Differences across models
 - c. Intuitive explanation of sign and size
- 5. Are there accessible methods for interacting with model scenarios?

2.2 Panel Discussion

The event then moved to panel discussion. Each participant was given five minutes to offer initial remarks to the opening presentation. Ajay Gambhir (Imperial College) spoke to the fact that if Integrated Assessment Models (IAMs) did not already exist then the natural questions policymakers would ask themselves when trying to gather some quantifiable information would lead them to reinvent something very similar to IAMs. He pointed out that models should not be considered as digital twins of reality, but as allowing a look into constrained outputs. Models should not be expected to answer moral or philosophical questions.





Ewelina Daniel (European Commission, DG ENER) then offered comments arguing that modelling is a powerful tool, which is being increasingly used. And that we should be fearful of a policy debate that is not at least informed by some quantitative tool. However, models clearly cannot solve every issue. The European Commission has made strong efforts in recent years to better accommodate stakeholder inputs into modelling exercises. Particularly for technology assumptions, industry and academic experts are now regularly consulted. In this way, models become a useful tool for aggregating other forms of knowledge.

Finally, Glen Peters (CICERO) focussed on the recent publication of the International Energy Agency (IEA) net-zero report. Notably, in it, the IEA declared that no new investments into oil or gas are feasible for a net-zero pathway, and importantly this was the framing with which the report was communicated. Glen used this example to highlight how modelling studies and scenario analysis can shape policy discourse, as well as the importance of the communicated message. Before this study, the IEA was used as a justification for continued investments into oil and gas. However, following the release of this study, involved stakeholders are forced to shift their position, if not to disregard the IEA's role and report as 'one among many'.

During the discussion, a number of points were raised and discussed. Certain key points are summarised below:

- There are certain qualitative elements (e.g., political feasibility), which cannot be incorporated in models. How can such factors be considered alongside quantitative modelling output? An insight was offered, that during scenario design, qualitative features can be included. When designing scenarios, discussions with stakeholders can shed light on which technologies or behaviours can be assumed to be feasible within local contexts.
- In response to a discussion about the adaptability of modelling teams, the example was offered of the modelling community, which has been criticised in the past for excessive use of negative emissions technologies (like bioenergy carbon capture and storage, or BECCS) to achieve low emission pathways. This fact is now being addressed and studies are currently being produced, which are less reliant on BECCS.
- Regarding a question on whether policymakers derive more utility from models or modellers themselves, an analogy was put forward that 'models open the door' but then conversation is required. This was in keeping with a main theme of the workshop. Models are not magic machines that provide answers. Instead, they can shed light on particular topics, but should be seen as the catalyst for further discussion and exploration.
- When reflecting on the future, it was noted that model improvements (enabled by faster computers) are likely to enable better predictions/simulations in the future. However, they will inevitably become more complex. It is critical that modelling teams not allow models to become self-defeating as they become too complicated for non-modellers to understand.

2.3 Closing Presentation

Haris Doukas (NTUA) closed the event with remarks on what had been discussed as well as providing an outlook for the future of the PARIS REINFORCE project. He spoke to the fact that models must be considered within a broader framework of competing questions, and that nothing is implemented in isolation. For example, when deploying new renewable electricity generation, what are the effects on land use? Are there possible environmental consequences that in turn are perceived as social implementation barriers?

Drawing from project results and policy/academic publications, he also emphasised the role of 'game changing' technologies in modelling: it is important to develop better representation of emerging and early-stage technologies as well as large scale behavioural change. Closing remarks provided an overview of ongoing





stakeholder dialogue and explained the future workshops that the project will hold, as well as the attempts through a series of workshops within and outside of the European Union to better incorporate sensible stakeholder preferences into models.

Research papers produced in the context of the project were also mentioned to support these points.

