PARIS
REINFORCE

Enhancing climate policy through co-creation

Global threat, global pathways:

Co-designing policy-relevant scenarios

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During this session, there will be **discussion on globally-relevant policy areas.** These areas have been identified for investigation following bilateral meetings with key policymakers.

The discussion will centre around perceived importance of investigating the following eight topics, based on the audience's interests:

1. **Where are we heading?**
2. **Regional mitigation levels**
3. **Potential failures of key technologies**
4. **Lifestyle and behavioural changes**
5. **Climate migration**
6. **Extreme decarbonisation**
7. **Game-changers across the globe**
8. ***Green New Deal / Just Transition***

The PARIS REINFORCE project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 820846.

(1) Where Are We Heading?

- **Policy Area:** Given current policy, social, and technological understanding, what is the most likely emission pathway through to 2050, including raising ambition through the Paris Agreement emission pledges?

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(2) Regional Mitigation Scenarios

- **Policy Area:**
  - How does regional mitigation change with different levels of emissions trading or financial transfers?
  - How do the regional mitigation rates map back to different burden sharing schemes?

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(3) Potential Failures of Key Technologies

- **Policy Area:** How do mitigation costs, energy mix, and feasibility of ambitious mitigation targets change if selected technologies do not reach their full potential?

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(4) Lifestyle and Behavioural Change

- **Policy Area:** What share of mitigation can realistically be achieved via lifestyle and behavioural change?

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(5) Climate Migration

- **Policy Area:** How does climate migration affect future pathways?

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(6) Extreme Decarbon-isation

- **Policy Area:** Is it possible to model a climate emergency requiring net-zero emissions in 2030?

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(7) Game-Changers across the Globe

- **Policy Area:**
  - Globally, where may new low-carbon technological breakthroughs be achieved?
  - And where will demand for such innovations emerge?

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(8) Green New Deal/ Just Transition

- **Policy Area:**

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- Please open the **sli.do** website and enter the code: **PR19**.
- We are interested to hear your opinion:
- ***"Which of the topics just introduced do you find relevant to discuss today****, because you deem important, need further clarifications, or want to comment on?"*
- You may select/prioritise 3 topics for discussion
- Based on these results, a discussion of the most popular topics will follow shortly.

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- Please re-open the **sli.do** website and enter the code: **PR19**.
- We would like to receive your opinion on which of the proposed research questions PARIS REINFORCE should look to further investigate.
- There is a **2-minute survey** to be completed:
- You will first find two placement questions.
- Then a ranking system will allow you to rate (between 1 and 5 stars) each of the eight proposed topics, according to the following question:

"How important and relevant do you consider it for the PARIS REINFORCE project to take on and try to address this topic?"

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Thank you!

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(1) Where Are We Heading?

- **Policy Area:** Given current policy, social, and technological understanding, what is the most likely emission pathway through to 2050, including raising ambition through the Paris Agreement emission pledges?

- **Modelling Proposal:** After finalising harmonised scenarios of “current trends” (EU, major emitters’, other less emitting countries’ NDCs) and of “raising ambition” (beyond NDCs) scenarios across all models, modelling groups will use their own approach, and a model inter-comparison will be carried out.

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(2) Regional Mitigation Scenarios

- **Policy Area:** How does regional mitigation change with different levels of emissions trading or financial transfers, and how do the regional mitigation rates map back to different burden sharing schemes?

- **Modelling Proposal:** A set of model experiments can be carried out, including different emissions trading regimes and financial transfer/cooperation scenarios as well as agent-based approaches (e.g. MUSE) to potentially yield different regional balance of mitigation. This exercise will compare fragmented domestic carbon prices of different levels against cost-effective carbon prices, to indicate potential sizes of climate finance and emissions trading.

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(3) Potential Failures of Key Technologies

- **Policy Area:** How do mitigation costs, energy mix, and feasibility of ambitious mitigation targets change if selected technologies do not reach their full potential?

- **Modelling Proposal:** Modellers will put together harmonised scenarios that place additional constraints or increased costs on selected technologies; and assess how costs, energy mix, and feasibility change compared to default scenario set-ups.

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(4) Lifestyle and Behavioural Change

- **Policy Area:** What share of mitigation can realistically be achieved via lifestyle and behavioural change?

- **Modelling Proposal:** The project can carry out streamlined modelling experiments to assess the potential of different amounts of lifestyle/behavioural change (e.g. residential energy efficiency, modal shifts, diet change, technological uptake, etc.) and compare to base-case scenarios.

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(5) Climate Migration

- **Policy Area:** How does climate migration affect future pathways?

- **Modelling Proposal:** Modellers will use standardised scenarios with varying regional population changes, which incorporate different levels of migration and imply different international coordination/migration policy regimes (migration perceived as adaptation and/or consequence); and calculate climate policy implications for economic indices (growth, incomes), distributional impacts (energy poverty), SDGs.

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(6) Extreme De-carbonisation

- **Policy Area:** Is it possible to model a climate emergency requiring net-zero emissions in 2030?

- **Modelling Proposal:** Assuming that a region (e.g. the EU) or the world agree to pursue a net-zero economy (or world) by 2030 and highlighting actual capacity and likelihood of this happening (in terms of technological readiness, negative emissions technologies, etc.), modelling groups will take their own approach, testing scenarios of different levels of international consensus.

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(7) Game-Changers across the Globe

- **Policy Area:** Globally, where may new low-carbon technological breakthroughs be achieved, and where will demand for such innovations emerge?

- **Modelling Proposal:** Models cannot calculate where competitive advantages for new technologies may lie, but can simulate relevant what-if scenarios by evaluating how mitigation policies contribute to their development; indicate which regions will want/need to deploy different quantities of these technologies; and stress-test results across different international cooperation regimes (technological know-how experts, transfers to minor emitters, etc.).

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(8) Green New Deal/ Just Transition

- **Policy Area:**
- **Modelling Proposal:**

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