PARIS REINFORCE

Enhancing climate policy through co-creation

Sustainable climate action:

Socioeconomic implications, distributional effects & SDGs

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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. **Air Quality Indicators**
2. **Declining Carbon Intensive Sectors**
3. **Cross-Sectoral Impacts**
4. **Impacts by EU Member State**
5. **NECPs and their societal acceptance**
6. **Socioeconomic consequences of climate investment**
7. **Fair/just transition**
8. **2 degrees with less cooperation (slido)**

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

(1) Air Quality Indicators

- **Policy Area:** what are the air quality/pollution co-benefits of regulating GHGs in transport & housing & other sectors? How significant are these co-benefits and what are the trade-offs?

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(2) Declining Carbon Intensive Sectors

- **Policy Area:**
  - Climate policies and removing public support on emission intensive energy sectors (e.g. coal). What will be the outcome in terms of employment and other socio-economic dimensions?
  - How can adverse social effects of policies be mitigated in particular regions taking advantage of regional assets (energy resources, human resources) ?

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(3) Cross-Sectoral Impacts

- **Policy Area:** In particular mitigation scenarios, and future worlds, how do prices and employment vary across sectors compared with today? How employment will/should evolve in terms of sectoral redeployment and skill requirements to support carbon neutral economies?

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(4) Impacts by EU Member State

- **Policy Area:** Will all countries within the EU benefit from a decarbonisation push? Or will there be some losers? What are the general heterogeneous effects of decarbonisation pushes for decarbonisation at the country-level?

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(5) NECPs and their societal acceptance

- **Policy Area:** How realistic is it that proposed NECPs can be implemented when taking into consideration societal consequences and concerns? What are the behavioral & value-system changes implied by NECPs?

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(6) Socioeconomic consequences of climate investment

- **Policy Area:** What are the range of socioeconomic impacts stemming from a range of investment scenarios aimed at achieving decarbonisation? What are the impacts from the most pessimistic to most optimistic scenarios?

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(7) Fair/just transition

- **Policy Area:** for the current policy and decarbonisation scenarios what are the distributional, health, gender and ethnic impacts?

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(8) 2 degrees with less cooperation

- **Policy Area:** How will mitigation cost be redistributed with USA withdrawing from Paris Agreement?

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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:
- 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) Air Quality Indicators

- **Policy Area:** what are the air quality/pollution co-benefits of regulating GHGs in transport & housing & other sectors? How significant are these co-benefits and what are the trade-offs?

- **Modelling Proposal:** Modellers can measure impacts of EU-wide transition in transport sector on air quality and related mortality, mapped by 100x100km grid level (GCAM). Modellers can also integrate CO_2 reduction and air quality indicators (especially with regards to the solid fuels used in the household sector – indoor quality) can be explored (for the 4 national systems, TIMES-CAC)

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(2) Declining Carbon Intensive Sectors

- **Policy Area:** Climate policies and removing public support on emission intensive energy sectors (e.g. coal). What will be the outcome in terms of employment and other socio-economic dimensions? How can adverse social effects of policies be mitigated in particular regions taking advantage of regional assets (energy resources, human resources) ?

- **Modelling Proposal:** Macroeconomic models can assess the socio-economic impact of phasing-out of public support to carbon intensive sectors and of recycling options for support saved (EU and EU-National level: NEMESIS and ICES; and Global: ICES & GEMINI). Policies and Measures to reform the energy sectors (TIMES-CAC, 4 national energy system)

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(3) Cross-Sectoral Impacts

- **Policy Area:** In particular mitigation scenarios, and future worlds, how do prices and employment vary across sectors compared with today? How employment will/should evolve in terms of sectoral redeployment and skill requirements to support carbon neutral economies?

- **Modelling Proposal:** Sector-detailed macroeconomic models can assess structural effects of mitigation scenarios on employment, competitiveness and prices at macro level as well as at sector level (EU and EU-national: NEMESIS & ICES and Global: ICES & GEMINI). Models have different granularity for economic activities (from 11 to 30 sectors)

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(4) Impacts by EU Member State

- **Policy Area:** Will all countries within the EU benefit from a decarbonisation push? Or will there be some losers? What are the general heterogeneous effects of decarbonisation pushes for decarbonisation at the country-level?

- **Modelling Proposal:** Different mitigation scenarios can be assessed. The models can provide socio-economic impacts in each MS. And different sets of policy design can be tested to assess their distributional effect between EU MS (NEMESIS). Assessment of a decarbonisation scenario implications, not only in terms of GDP losses, but considering a set of SDG indicators pertaining to the economic, social and environmental pillars (ICES)

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(5) NECPs and their societal acceptance

- **Policy Area:** How realistic is it that proposed NECPs can be implemented when taking into consideration societal consequences and concerns? What are the behavioral & value-system changes implied by NECPs?

- **Modelling Proposal:** Modellers can estimate investments and other costs flows, required to achieve the NECPs policies. These can be potentially used – with ex-post analysis – to assess societal consequences and concerns (JRC-EU-TIMES). Macroeconomic models can assess the socio-economic impact of different implementations of NCEPs and providing some information on how the economies are impacted (NEMESIS & ICES).

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(6) Socioeconomic consequences of climate investment

- **Policy Area:** What are the range of socioeconomic impacts stemming from a range of investment scenarios aimed at achieving decarbonisation? What are the impacts from the most pessimistic to most optimistic scenarios?

- **Modelling Proposal:** Modellers can quantify the required investments in each scenario and can provide some socioeconomic impacts (JRC-EU-TIMES). And modellers can assess different investment requirements and combining different specific assumptions, e.g. imports/exports shares (NEMESIS).

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(7) Fair/just transition

- **Policy Area:** for the current policy and decarbonisation scenarios what are the distributional, health, gender and ethnic impacts?

- **Modelling Proposal:** The ICES model can explore the implication of current policy and decarbonization scenarios on across country/macro-region equity of burden distribution. It can also give a sense on within country distribution of impact through a post-processing empirical approach (SDG10). Furthermore, these policies may have implications on poverty (SDG1), nutrition (SDG2), health (SDG3), education (SDG4), and access to electricity (SDG7).

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