



UNFCCC COP24 SIDE EVENT

Increasing Ambition in the Low Carbon Transition: Challenges and Implications of the 1.5 and 2 Degree Targets

6th December 2018, 14:30 – 16:30

EU Pavilion, Room Brussels

This side events aims to provide answers to a number of key questions on how to reach the goal of the Paris Agreement, and will cover a review of current NDCs, investigate innovation dynamics in low-transition pathways, seek awareness raising and support opportunities for public authorities (with focus on Poland).

The side event is held in conjunction with the European Commissions' EASME, the Stockholm Environment Institute (SEI), the University of Leeds, Potsdam PIK, and WWF Poland. Questions will be answered using evidence from Horizon2020 and LIFE funded projects: **CRESCENDO**, **COP21 RIPPLES**, **TRANSRISK**, **WZROST** and **PUBLENEF**.

AGENDA

Welcome

14:30 - 14:40 Introduction – setting the scene
(*Julien Guerrier, EASME*)

Presentations and Q&A

14:40 - 14:55 What impacts will arise from a global warming of 1.5C and 2C and which impacts will be avoided if warming is kept below 1.5C?

(*Jacob Schewe, Potsdam PIK – CRESCENDO Project*)

14:55 - 15:10 What it really takes to Increase pre-2030 Ambition from Global, EU and National Level Perspectives?

(*Marta Torres Gunfaus, IDDRI – COP21 RIPPLES Project*)

15:10 - 15:25 Investigating Innovation Dynamics in low-emission transition pathways: what are the implications across different sectors and applications?

(*Francis X. Johnson, SEI – TRANSRISK Project*)



These projects have received funding from the European Union's Horizon2020 and LIFE programmes.

15:25 - 15:40 Raising acceptance on climate policy in Poland: what are the opportunities?
(*Tobiasz Adamczewski, WWF Poland – WZROST Project*)

15:40 - 15:55 Supporting public authorities in reaching their climate and energy targets: what are the main challenges in implementing sustainable energy plans at regional and local level?
(*Vlasis Oikonomou, JIN Climate and Sustainability – PUBLENEF Project*)

Panel Discussion

15:55 – 16:30 Moderated by Asher Minns (Tyndall Centre for Climate Change Research)

Closing Remarks



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PROJECT PRESENTATIONS

CRESCENDO

Key messages:

- The historical 1°C of global warming has already led to a tripling of the share of global population that is exposed to one or more adverse climate events every year.
- At 4°C of global warming, this global measure of exposure would rise to more than tenfold compared to pre-industrial conditions, all else being equal.
- Low-latitude countries are disproportionately affected.



The presentation will first provide a brief overview of impacts expected at different levels of global warming, and then present in-depth results from a very recent multi-model study of impact exposure.

We use synchronised climate impact simulation ensembles to quantify historical and future changes in the extent of crop failures, river floods, tropical cyclones, heatwaves, wildfires, and droughts. Results show that historical climate change (the 1°C of global warming above pre-industrial conditions that we have experienced so far) has almost tripled the fraction of the global population that is exposed to at least one such event per year. In contrast, historical socioeconomic change alone would have slightly reduced this fraction.

Future warming is projected to further increase global exposure approximately linearly up until 4°C. Particularly large increases are projected for low-latitude countries.

Our analysis is the first to systematically separate the effect of historical warming from other drivers of change, for a wide range of important climate impacts. It shows that historical warming has already had a significant effect on exposure to extreme events, and that any additional warming would further increase global exposure; and it provides policy makers with a quantitative and comprehensive picture of climate change effects on the global population.



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COP21 RIPPLES

Key messages:

- Through this multidisciplinary analysis, results to date prove that delaying action implies a triple burden: doing more later, being less prepared for it and paying more, besides being a fundamental matter of feasibility to meet the Paris Agreement mitigation goals.
- Increasing pre-2030 ambition leads to a smoother, more realistic transition; it avoids relying on more intense rates of decarbonisation later, or asking comparatively more of a specific sector, which may increase acceptability problems. Higher pre-2030 ambition offers an opportunity to reduce the overall cost of the transition through 'learning by doing' and avoids locked-in investments.
- Individual sectors possess unique dynamics and face specific transformation challenges. A sectoral country-driven approach to decarbonisation is more likely to deliver ambition that is compatible with the goals of the Paris Agreement and can make transformation happen on the ground. This approach can be supported by advancing international governance mechanisms in sectoral terms, and periodic review mechanisms structured by sectoral themes.



The COP21 RIPPLES project aims to analyse the transformations in the energy systems, and in the wider economy, that are required in order to implement the Paris Agreement (NDCs), and investigate what steps are needed to attain deeper, more ambitious decarbonisation targets, as well as the socio-economic consequences that this transition will trigger.

The research to date has analysed two global scenarios two global scenarios with the same CO2 carbon budget until 2050, but with distinct emission profiles over time. This allows us to examine implications of increasing ambition before 2030. Our Consortium has also looked at the technology development associated to the transformative pathways and countries' comparative advantage to develop and export certain low-carbon technologies. Technological progress has also been studied through the use of experience curves.

At national level, local teams have developed their own national scenarios and undertook case studies to illustrate the challenges to date to invest in specific low carbon technologies. In parallel, the project has addressed the question of what international governance can and should contribute to resolving the overall transformative challenge. Governance gaps have been identified across sectoral systems, realizing that the relevance of different governance functions varies significantly across sectors.



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TRANSRISK

Key messages:

- Energy transitions to meet global decarbonisation commitments involve wide-ranging socio-economic and institutional changes.
- Innovation in the deployment of new technologies will play a crucial role in these transitions, and careful design of institutions and policies is required to promote uptake while achieving benefits at reasonable cost.



Energy transitions to meet global decarbonisation commitments involve wide-ranging socio-economic and institutional changes, characterised by uncertainties and risks that vary considerably across nations and regions and for different actors and sectors.

Innovation in the deployment of new technologies will play a crucial role in these transitions, and careful design of institutions and policies is required to promote uptake while achieving benefits at reasonable cost. In this research we considered a number of transformative shifts or “game changing” contributions to the transition in different sectors and across different geographies and showed the implications in terms of mitigation potential and co-benefits.

Here we present two national cases (PV in Greece and Livestock in the Netherlands, and two regional cases (Freight electrification in the EU and biomass in eastern Africa). The cases show the potential for innovation policies to promote transitions and highlight areas for decision-makers to focus on as part of policy design and implementation. The cases also show the diversity of approaches needed in terms of using available evidence, accounting for different scenarios and incorporating actors’ expected responses.

WZROST

Key messages:

- Millions reached, increased awareness by 7% on the need for EU climate policy.
- New anti-smog regulation and tools that we all can use.



1. 5 min episode: Do you pollute? Then pay!
(<https://youtu.be/btEAo500IeI>)



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2. Awareness raising is an integral part of the UNFCCC (article 6) and thanks to LIFE and NFOŚiGW funds we are able to contribute in implementing this article.
3. The need for a pro-climate policy campaign in Poland stems from a large number of misconceptions. These misconceptions led to decision-making, which was not in line with climate needs.
4. Some of the more severe outcomes of these misconceptions were a veto by the Polish government to increase ambition in the EU or accept a long-term low emission pathway.
5. LIFE_WZROST built a series of products, which were meant to increase awareness about climate-related issues: from the problem itself, through the need for clean energy to how the EU-ETS could be used for sustainable development. These products are: a long documentary, a 10-piece docu-series and a merit-based report, which were disseminated.
6. The aim was to increase social acceptance for pro-climate policies, so that policymakers have more confidence in delivering necessary, progressive policies.
7. Thanks to opinion polls and focus group studies we were able to measure impact. Within the duration of the project some more progressive policies have also been implemented, although more advocacy work needs to be done.
8. Lessons learned: in campaigning, especially if not controversial, lots of effort needs to be put towards creating space in the media to make messaging work. Social media is on the rise and traditional TV is becoming less important.

PUBLENEF

Key messages:

- The implementation barriers are key to the success of the sustainable energy policies and strategies.
- The resources available as best practices and tools focus mainly on financing, public procurement, heating and cooling options, renovation of public buildings, climate change mitigation options, while there are very few or no resources on role of public buildings, monitoring and verification schemes, penalties, energy transformation, distribution, qualification and accreditation schemes, enforcement and others.
- Such issues warrant further support in order to enable regions and cities implement the energy transition.



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PUBLENEF is dealing with the implementation of sustainable energy policies and strategies from regional and local governments as a result of their Sustainable Energy Action Plans and Regional Action Plans.

The main implementation barriers identified are often the lack of capacity, resources, knowledge and financing means for such policies, where support is required in the form of technical assistance and also provision of financing services.

PUBLENEF will demonstrate the support towards municipalities and regions in the following steps:

1. Assessment of needs towards the authorities on specific implementation issues (related to implementation aspects such as planning, financing, stakeholder engagement, enforcement and others);
2. Matching of these needs with available best practices implemented in other cities and regions and tools developed primarily from EU funded projects; and
3. Rollout and implementation of roadmaps addressing these needs, where each roadmap is carrying out field work in implementing step by step a regional or local sustainable energy plan.



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