

Choosing Efficient Combinations of Policy Instruments for Low-carbon development and Innovation to Achieve Europe's 2050 climate targets

EU Climate Policy Beyond 2020 – Taking stock and looking forward

Report on the CECILIA2050 Midterm Conference

Brussels, 6 March 2014

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1 Introduction

On 6 March 2014, the CECILIA2050 consortium held a high-level expert conference in Brussels on the EU's climate policy beyond 2020. Around 80 participants from industry, NGOs, academia and governments engaged in discussions on the present and future climate policy mix for the European Union.

Achieving the EU's long term climate targets and setting the EU on a path to a low-carbon economy will require a substantial transformation of many parts of the EU economy – not only the power sector and industry, but also transport, buildings and agriculture. Which policy instruments are necessary to bring about this wide-ranging transformation in a cost-effective way, within the governance structures of the EU, is both a political challenge and a fascinating research task. In this spirit, the CECILIA2050 project assesses how the current mix of climate policy instruments in the EU has performed, and how the mix could be developed towards 2030 and beyond.



Participants of the CECILIA2050 Conference in Brussels

The conference featured the main results of the first part of the CECILIA2050 project, which provided a stock-taking and ex-post evaluation of climate policies in Europe – at the EU level and in the Member States, and across a number of sectors. The analysis was complemented

by commentaries from experts from policy and academia. The discussions centered on the assessment of the existing policy instrument mix, its impacts and limitations. Next to the broader policy picture, the conference highlighted project results on low-carbon innovation and public support for climate policies, with an exemplary focus on the cement and the agri-food sector. In the second part of the conference, scenarios for energy were presented and discussed, and an expert panel drew lessons from the debates for the EU’s 2030 climate and energy framework.



Entrance to Ateliers des Tanneurs

climate policy, and accentuated how important it is to not just provide theoretical answers to the problems at hand, but to also acknowledge real-life constraints and to incorporate these into the scientific analysis.

The conference also created an excellent and timely forum for debating the proposal on the 2030 climate and energy framework that the European Commission had put forward only a few weeks earlier, and for connecting the research performed in CECILIA2050 with the current policy debate – providing a productive exchange in both directions. Controversial but fruitful discussions disclosed the plethora of diverging views on targets for 2030, their operationalisation and the optimal instrument mix for achieving them. This concerned especially the need for a renewable energy target at EU or national level, the proposed governance framework, the role of the European Emissions Trading Scheme and the need for other policy instruments.

The conference demonstrated the relevance of the CECILIA2050 project for the current discussions on post-2020 EU

2 The conference sessions in detail

2.1 Keynote speeches



R. Andreas Kraemer, Ecologic Institute

gave a short introduction to the topic of the day and the aims of the conference. He also introduced the CECILIA2050 research project as a research project that combines scientific excellence and policy relevance in an exemplary way. In this vein, he particularly highlighted the timeliness and relevance of the conference for the broader policy discussion on the 2030 climate and energy framework of the European Union (EU). Kraemer also invited participants to share their views on the conference and the presented policy analysis via social media networks such as twitter using the hashtag #C2050BXL.

Peter Vis, head of Cabinet DG Climate Action, European Commission, delivered a keynote speech entitled "Towards decarbonisation: EU climate policy beyond 2020" in which he shed light on the background of, rationale for and main elements of the proposal for an EU 2030 climate and energy framework. He pointed out that the 2030 discussion is taking place in a very different setting than the past debate on the 2020 framework. In the face of the financial crisis, rising energy prices, the policy impacts of Fukushima, shale gas exploration and dropping renewable energy technology costs, a new framework was needed to ensure emission reductions of 80 to 95% by 2050, security of supply, and the successful transition to a green economy. In order to tackle the main challenges for EU climate and energy policy, such as energy prices, differences between EU Member States, and need for



Peter Vis, European Commission

additional investment, Perter Vis called for a discussion on “investment sharing”, instead of debating effort or burden sharing. The crucial question was not where investment was to take place, as all Member States would welcome investments, but how the costs would be covered.

The subsequent discussion focused on the appropriateness of the new governance system as envisaged in the Commission’s proposal and the division of the target between ETS and non-ETS sectors. One participant also raised the question in the context of a larger EU ETS reform, whether the Commission can be considered an independent carbon EU authority or whether some other institution would be better suited for that role.


Serena Pontoglio, desk officer at DG Research and Innovation responsible for CECILIA2050, gave a welcome note to the participants, including an outlook on the role of research and innovation for climate action in the EU. She highlighted that European



research on climate **Serena Pontoglio, European Commission** change provides a knowledge base to policy makers for the development and implementation of the EU Climate Policy and support at international level. Especially the new Horizon 2020 programme reflected the strong EU commitment and recognition of the relevance of research and innovation to enable a transition to a low carbon economy. She highlighted that at least 35% of the overall Horizon 2020 budget will be dedicated to climate-related expenditure.

2.2 Session 1: Lessons from current climate policy mix at EU and MS level

The first content session of the conference, moderated by **R. Andreas Kraemer**, Ecologic Institute, drew lessons from the current policy mix at EU and Member State level. **Benjamin Görlach**, Ecologic Institute, gave an overview of the CECILIA2050 project and presented main findings from the first phase of this project, during which the research teams analysed the performance and coherence of existing climate policy instruments in the EU and its Member



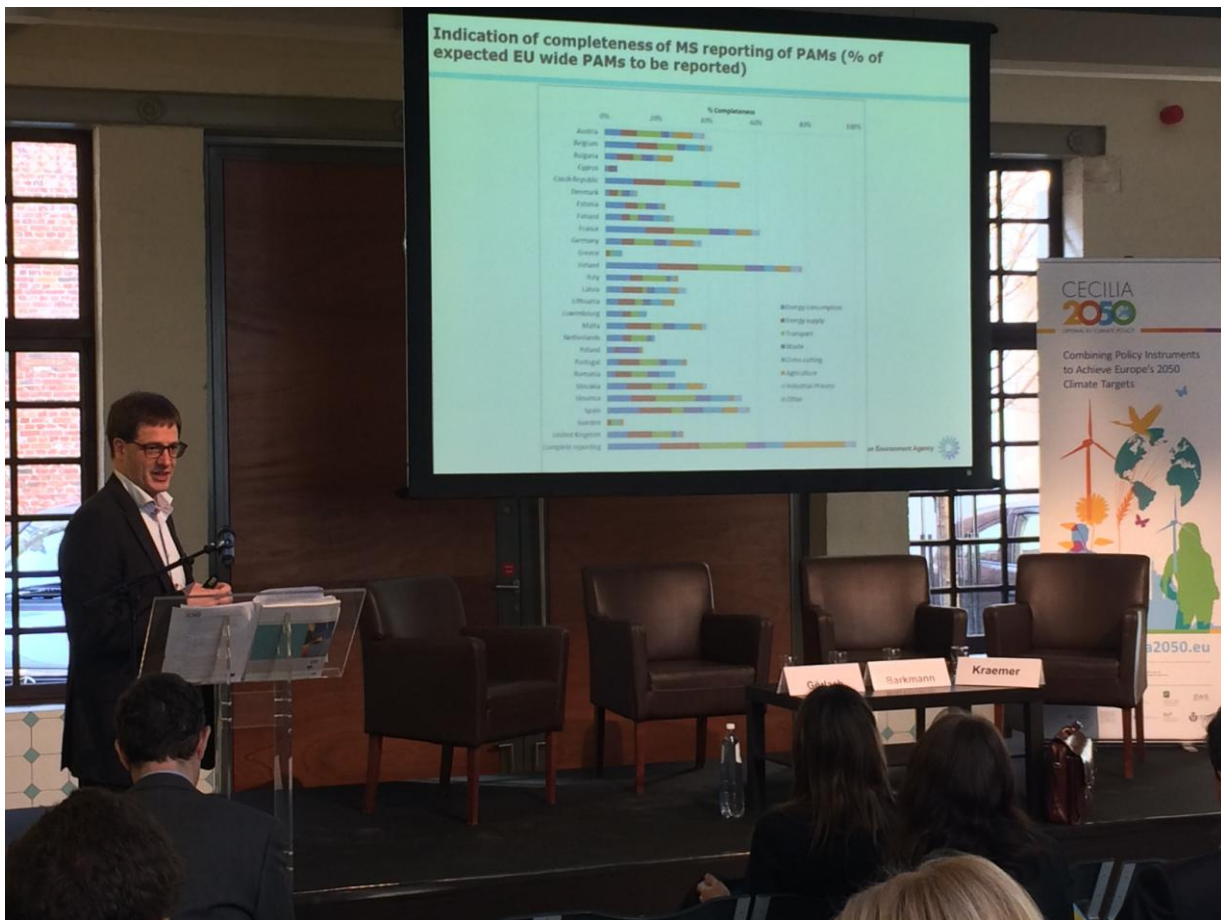
States. This included both a stock-taking of the policies that are employed at EU and Member State level, a closer look at a number of key sectors (such as energy, industry, transport, buildings, food and agriculture), but also an in-depth analysis of cross-cutting aspects, such as impacts on competitiveness or innovation. One work stream estimated the economywide effects of climate policies in Europe by applying counterfactual simulations, which modeled how the European economy would have evolved in the absence of key climate policies. This analysis showed that the ETS, RES support and environmental tax reforms achieved their main objective – they significantly contributed to emission reductions. By contrast, their impacts on GDP and employment were probably positive, but modest in scale.

On a more general note, Benjamin Görlach discussed some of the conceptual challenges that researchers face when trying to assess the performance of the existing policy mix. One of these problems is that there are multiple objectives, to which climate and energy policies are expected to contribute – reduce greenhouse gas emissions while ensuring affordability for households and competitiveness for industries, ensure security of supply, reduce import dependence, promote innovation and industrial leadership in low-carbon technologies, generate employment, contribute to rural development etc. However, neither the objectives nor their hierarchy are usually specified, and different stakeholders have different interpretations of terms like “competitiveness” or “affordability”. And finally, the relative importance of the different targets is not static, and change drastically in response to external developments.

According to Benjamin Görlach, five lessons could be drawn from the CECILIA2050 stock-taking so far:

- The mix matters: policy analysis has to look beyond carbon pricing, and also investigate the interactions between different overlapping policies;
- The EU is not exploiting the full potential of pricing tools: instruments such as the EU ETS need to be reformed, but also the broader legal and institutional framework (e.g. energy market liberalization) needs to change to exploit their potential more fully;
- European climate policies are highly diverse: EU-wide climate policies are the exception, and in most areas there is strong divergence between the approaches that Member States pursue. There is much scope for harmonisation, but there also has to be room for climate leadership by individual Member States;
- Focus on power and industry is too narrow: much policy analysis, and much of the political debate, tends to focus on the power sector and certain energy-intensive industries. Other important sectors, such as transport, buildings or food and agriculture, receive much less attention. This imbalance means that policy and academic debates are skewed towards sectors that account for between 30 and 40% of greenhouse gas emissions.
- Need to design policy instruments that are both rigid and flexible: the long-term nature of the transition to a low-carbon economy suggests a need for rigid policies that send out a clear long-term signal to investors and consumers. At the same time,

the experience with the EU ETS also shows that climate policies need to remain flexible in order to respond to unforeseen developments.



Andreas Barkman, European Environment Agency

Recent findings from the European Environment Agency support this assessment. As **Andreas Barkman**, EEA, pointed out, the EU has already in 2012 almost achieved its 2020 emission reduction target of 20% by domestic action alone. However, no single Member State is on track towards meeting all three targets on GHG emissions, renewable energies and energy efficiency. Especially with respect to the two latter targets, progress across Member States is mixed and in many cases requires further action. Barkman advised Member States to set ambitious GHG targets, ensure proper policy implementation and enforcement mechanisms for energy efficiency, and to provide good policy instruments for renewable energies. Currently, the policies and measures reported by Member States mainly target the energy sector, but the reporting often does not give the complete picture, Barkman said. He highlighted that more transparent reporting on policies and measures is key to answering how the 2020 targets can be met, and that RES and energy efficiency measures will need to form an essential element. Answering these challenges will pave the way for 2030 objectives and a 2050 low carbon, resource-efficient EU.

2.3 Session 2a: Triggering low-carbon innovation in key industries

The first group of session 2, moderated by **Massimiliano Mazzanti** from University of Ferrara, focused on the issue of low-carbon innovation in key industries in Europe.



Philippe Quirion, Centre International de Recherche sur l'Environnement et le Développement

analysis further revealed that emission reductions from reduced economic activity in the cement sector were partly offset by an increase in clinker trade. Clinker substitution and fuel mix only contributed marginally to the emissions reduction and energy efficiency measures did not contribute at all. Moreover, an econometric estimation of operational leakage due to the EU ETS did not find evidence for operational leakage in cement or steel.

Philippe Quirion, Centre International de Recherche sur l'Environnement et le Développement (CIRED), gave an insight into his work on the EU ETS impacts on the industry. He compared results of a decomposition analysis of CO₂ emissions in the cement sector under the EU ETS with data from before the introduction of the ETS. The overall emissions of the sector were split into seven factors: economic activity of the sector, clinker trade, clinker share, fuel mix, thermal and electric energy efficiency and electricity carbon emissions. The comparison showed a clear decrease in CO₂ emissions from the sector in the ETS period. However, large parts of this decrease in emissions were due to lower construction activity as a result of the

European economic crisis rather than a result of the ETS. The decomposition



Thomas Wyns, Institute for European Studies, and Massimiliano Mazzanti, University of Ferrara

Tomas Wyns, researcher from the Institute for European Studies, emphasized the need for breakthrough technologies within the next 10 to 15 years, as the majority of emission reductions still lie ahead with 40% reduction of emissions in only 20 years from 2030 onwards. As key elements of an industrial low-carbon transition he named innovation in processes and products, value chain and business model transformation, de-risking capital and debt and social innovation. Also, Wyns stated that the transition process needs to be supported with policies that remove barriers and incentivize innovation. Public funds should be made available for R&D and for demonstration projects to reduce risks of private agents. As sources of funds he proposed parts of the auctioning revenues of the EU ETS and the Market Stability Reserve or the EU Coal and Steel Research Fund.



Karsten Neuhoff, German Institute for Economic Research

Karsten Neuhoff from the German Institute for Economic Research (DIW) talked about carbon control and competitiveness post-2020 using the example of the cement industry. He presented insights from a research project organized through the Climate Strategies network. This came to the conclusion that the EU ETS, although creating visibility for emission targets and capturing management attention, needs a more robust

carbon price to restore its credibility. An effective carbon price is essential for the economics of the mitigation options; free allowance allocation reduces the effectiveness of the trading system on the cement sector. Moreover, clarity on the future development of the EU ETS is needed as uncertainty slows down decision-making in the industry and discourages investment into low-carbon technologies. In addition, he stated that even an EU ETS with a clear price signal would not be sufficient to unlock the mitigation options available. Regulatory and institutional barriers of low-carbon technologies need to be addressed with a mix of policies. Innovation in processes, products and building practice will need investment support especially in the development and demonstration phase where large-scale investments are needed.

2.4 Session 2b: Stakeholders and Public support for Climate Policy

The second parallel group, moderated by **Katharina Umpfenbach**, Ecologic Institute, focused on the perspectives of stakeholders and the general public on climate policy.

Milan Ščasný, Charles University Prague Environment Center, asked whether consumers in the EU supported climate policies. He based his assessment of public acceptability on a secondary data analysis of Eurobarometer and a literature review. The Eurobarometer data showed that reduction in GHG emissions and resource use scored third among EU citizens as a priority for exiting the present financial and economic crisis and preparing for the next decade. 50-60% of citizens perceived the EU 2020 targets on GHG emissions, renewable energy and energy efficiency as “about right”, but with large variations across countries and within countries. According to Ščasný, the literature review revealed that public acceptance was influenced both by internal factors, such as values, attitudes and intentions, habits and emotions, and external factors, e.g. fiscal and regulatory incentives, institutional constraints. Perceived effectiveness, design and labeling of measures are key, said Ščasný. For example,

people favoured pull measures over push measures, and showed a general aversion to the term “taxes”.

Commenting on the findings, Dr. **Alberto Longo**, University of Belfast, questioned whether the Eurobarometer data posed the right questions for the study at hand and suggested to look more



at what people consider right than at what they consider wrong. He also raised the question what impact the nationality and the 2008 recession may have had on the perception of climate policies.

Katharina Umpfenbach, Ecologic Institute, and Milan Ščasný, Charles University Prague Environment Center

Agni Kalfagianni, Institute for Environmental Studies (IVM), shed light on the perspectives of stakeholders on climate policies in an often neglected sector, the agricultural food sector. Stakeholders from United Kingdom, Netherlands, Spain and Italy were asked to provide their views on a desirable climate policy mix, as well as opportunities and constraints. The targeted interviews revealed very different policy mixes in the assessed Member States, and diverse stakeholder preferences. In the UK, for example, cost effectiveness is considered essential, before fairness and environmental effectiveness concerns, and voluntary initiatives are the preferred approach. In the Netherlands, stakeholders expressed the need for clear targets and long term perspectives.

Stakeholders in Italy called for remunerative incentive schemes for farmers instead of stricter regulations, and overarching national targets. Spanish stakeholders, in turn, found it difficult to prioritize between objectives. They



identified lack of policy

Katharina Umpfenbach, Ecologic Institute, and Agni Kalfagianni, Institute for Environmental Studies

coordination, lack of stakeholder consultation processes, weaknesses in implementation and budgetary constraints as the main limitations. Kalfagianni saw a need for leveling the playing field for farmers in the EU. Policies should target the entire supply chain and not just single elements. She also pointed out that stakeholders perceived governments as key for providing a general framework in which voluntary initiatives can develop.



Audience at the session on Stakeholders and Public support for Climate Policy

Longo commented that climate policies in the agri-food sector are very complex when taking into account the entire supply chain, and suggested to put more emphasis on successful climate policies than on criticizing instruments. Comparing different countries and copying policies was, however, only of limited value, said Longo, because Member States were too different.

Another remark from the audience targeted stakeholders' aversion to taxes and their call for remuneration schemes. According to the commentator, this seemed to suggest that stakeholders wanted to be deceived, not thinking through that the resources for remuneration needed to come from somewhere.

2.5 Session 3: Scenarios for the energy sector

Session 3 addressed scenarios for the energy sector and was moderated by **Bernd Meyer**, Institute of Economic Structures Research (GWS). **Paul Ekins**, University College London (UCL), identified key challenges for the energy sector. He noticed that the energy policy of EU Member States pursued multiple objectives, such as transition into a low-carbon economy, security and resilience of the system, as well as competitiveness, cost efficiency and

affordability, and that Member States would make different choices across these dimensions. Ekins found that these decisions were essentially political and that the introduction and coordination of European policies and targets against this backdrop was difficult. Besides technology and sector specific challenges of the energy system, Ekins also identified general challenges, namely long-term planning to ensure that existing and new infrastructure will meet the demands of the future, innovation policy to fund the development and deployment of new and immature technology, as well as system costs.

Oliver Schenker, Centre for European Economic Research (ZEW), considered the implications of overlapping regulation under different levels of electricity demand.



Bernd Meyer, Institute of Economic Structures Research

He presented work done under the “sister project” of CECILIA2050, ENTRACTE, which is tackling similar questions but in different ways. The ENTRACTE work had come to the conclusion that policy interactions might have unintended consequences when the properties of policy targets are related. However, he emphasized that there are good



Christian Kjaer, Faraday Consult, Oliver Schenker, Centre for European Economic Research, and Paul Ekins, University College London

arguments for policy portfolios. Climate policies do not only address greenhouse gas emissions but also further policy goals like a reduction of air pollution, energy security or job creation and competitiveness. Schenker stated that climate policy has to work in a complex real world with transaction and enforcement costs, complicated innovation and diffusion processes and political and legal constraints. Moreover, he mentioned market failures in knowledge generation or distorted incentives in energy efficiency as examples of market imperfections which can only be addresses with additional policy instruments.

Christian Kjaer, founder of Faraday Consult and former CEO of the European Wind Energy Association (EWEA), critically reflected the current EU climate policies and future policy plans. He argued that the internal energy market is a market of make-believe, as Member States undermine the single market with national contradictory policies lasting past 2020. Regarding renewable energies he was convinced that the Commission’s decision on state aid will be decisive for the future design of support systems. Besides for environmental reasons he deemed an increasing share of renewable energies necessary to reduce energy dependence and the associated political risk, as recently seen in the case of Ukraine.

In the following discussion the topic of consumer engagement was touched.



People tend to accept renewable energies in general but refuse to have them installed “in their backyards”. Here, financial participation was discussed as one solution. Regarding the European targets for 2030 all participants agreed on the necessity of clear targets, including a separate target for energy efficiency. Moreover, 40 % overall emissions reductions for 2030 were agreed on as the most cost-effective target on the way to an 80 % reduction in 2050.

2.6 Session 4: Lessons for the 2030 framework: targets and instruments

Drawing from the fruitful discussions of the previous sessions, experts from industry, NGOs, national governments, the European Commission, and the audience engaged under the

moderation of **Matthias Duwe**, Ecologic Institute, in a vivid and controversial discussion on possible lessons for the 2030 framework, its targets and instruments.

Participants did not agree whether a simple GHG emission target would be sufficient, or whether RES and energy efficiency targets would be necessary to trigger e.g. RES development.

Hans ten Berge, Eurelectric, was convinced that a clear decarbonisation target was more effective and that it was not targets but lacking infrastructure that was prohibiting RES development. In contrast, **Jason Anderson**, WWF, clearly favoured a specific RES target as this would, in his view, give more clarity to investors and society on the direction of policies. Paul Ekins, UCL, supported this view stating that in the UK, civil servants had taken RES serious only due to the binding target, and that the transformation of energy supply had not been driven by prices. It was also controversial whether binding national targets would bring about better results than an EU-only target for RES. **Krzysztof Bolesta**, Advisor to State Secretary Korolec of Poland, stated quite plainly that an EU target that is not split into national targets would simply not be implemented. **Eric Mamer**, Deputy Head of Cabinet for Commissioner Oettinger, DG Energy, however, explained that according to the Commission's proposal Member States would need to come forward with pledges, and that the Commission would negotiate to make sure that the collective target would be met. He opined that Member States should have flexibility and that RES might not be useful for all of them.



Matthias Duwe, Ecologic Institute, Hans ten Bergen, Eurelectric, Jason Anderson, WWF, Krzysztof Bolesta, Advisor to State Secretary Korolec of Poland, and Eric Mamer, Deputy Head of Cabinet for Commissioner Oettinger, DG Energy

It became evident in the discussion that there is a lack of clarity on what the overall objectives of a new framework should be, i.e. GHG emission reductions only or also green

growth, competitiveness or energy security objectives - a point that had also been made earlier on the day by Benjamin Görlach. Bolesta favoured a focus on GHG emissions, while Mamer highlighted that there were other objectives involved, such as energy security or competitiveness.

Diverging views were also expressed with respect to the appropriate policy instruments. Hans ten Bergen strongly supported the ETS as the primary driver for decarbonisation. Subsidy schemes for RES were, according to him, distorting the market and posing a disproportional high price on CO₂. Anderson, in contrast, cautioned that the real world looked different and that it was unlikely that the ETS could deliver a strong, long-term carbon price. “The real world works different than carbon markets. In theory they are clear, in the real world they are as political as any other decision” he said.



Benjamin Görlach, Ecologic Institute

Benjamin Görlach wrapped up the discussion highlighting that the debates during the conference resonated very much with the discussions inside the CECILIA2050 research team, for example questions regarding the need for an independent regulatory authority.

One of the most fundamental questions for a project such as CECILIA2050 is whether researchers should provide theoretically well-founded recommendations for what a policy mix should look like in principle – or whether, based on the experience of past policies, they should rather anticipate that, in real life, policies will always be implemented in an imperfect way, and will hardly ever function as planned. In theory, for instance, overlapping climate policies are often very problematic, and one guiding principle should be to reduce the number of overlapping policy instruments (unless they each have a specific and sound justification). However, anticipating that policies may fail to function as planned, that they may be revoked on short notice or be rendered ineffective due to political interventions, there is a pragmatic argument for having multiple instruments even where they overlap.

Annex A: Conference Programme

EU Climate Policy Beyond 2020 – taking stock and looking forward

Insights from the CECILIA2050 research project

Agenda – March 6, 2014

09:00 Registration

09:30 Welcome and introduction to the conference and the CECILIA2050 project

R. Andreas Kraemer, Director, Ecologic Institute

High-level keynote speech "Towards decarbonisation: EU climate policy beyond 2020"

Peter Vis, Head of Cabinet, DG for Climate Action, European Commission

Followed by a question and answer session

Welcome note "Research and Innovation policies for climate action"

Serena Pontoglio, Research Programme Officer, DG for Research and Innovation, European Commission

10:35 Session 1: Lessons from current climate policy mix at EU and MS level

Chair: R. Andreas Kraemer, Ecologic Institute

- Lessons from the current policy mix - insights from CECILIA2050
Benjamin Görlach, Ecologic Institute (project coordinator)
- Progress towards the 2020 targets - Member State performance
Andreas Barkman, European Environment Agency

11:15 Coffee break

11:45 Session 2 (two parallel groups): A sectoral perspective

Parallel Group 1: Triggering low-carbon innovation in key industries

Chair: Massimiliano Mazzanti, University of Ferrara

- EU ETS impacts in industry: abatement vs leakage - insights from CECILIA2050
Philippe Quirion, Centre International de Recherche sur l'Environnement et le Développement (CIRED)
- Innovation for decarbonisation: a sectoral roadmap towards 2050
Tomas Wyns, Institute for European Studies (IES), Vrije Universiteit Brussel (VUB)
- Instruments for industrial innovation: case study cement sector (from Climate Strategies' Energy Intensive Industries project)

Karsten Neuhoff, German Institute for Economic Research (DIW Berlin)

Discussion with the audience

Parallel Group 2: Stakeholder's And Public Support For Climate Policy

Chair: Katharina Umpfenbach, Ecologic Institute

- Do Europeans Support Climate Change Policies: Consumer Perspective - insights from CECILIA2050
Milan Scasny, Charles University Prague (CUNI)
- Desirable Climate Policy in the Agri-food Sector: Stakeholder Perspective - insights from CECILIA2050
Agni Kalfagianni, Institute for Environmental Studies (IVM)
- Discussant: Scientific Insights into Support For Climate Policy
Dr. Alberto Longo, University of Belfast

Discussion with the audience

13:00 Lunch Break

14:15 Session 3: Scenarios for the energy sector

Chair: Bernd Meyer, Institute of Economic Structures Research (GWS)

- Key challenges for the energy sector: insights from CECILIA2050
Paul Ekins, University College London
- How economic growth affects policy interaction in the Power Sector – (ENTRACTE)
Oliver Schenker, Centre for European Economic Research (ZEW) (coordinators of ENTRACTE project)
- Discussant: Managing the energy transition in Europe sustainably
Christian Kjaer, Founder, Faraday Consult

Discussion with the audience

15:45 Coffee break

16:15 Session 4: Lessons for the 2030 framework: targets & instruments (expert panel)

Chair: Matthias Duwe, Head of Climate, Ecologic Institute

- *Hans ten Berge, Secretary General, Eurelectric*
- *Jason Anderson, Head of EU Climate and Energy Policy, WWF*
- *Krzysztof Bolesła, Advisor to State Secretary Korolec of Poland*
- *Eric Mamer, Deputy Head of Cab. Commissioner Oettinger, DG Energy*

Discussion with the audience and the panel

17:45 Summary of the debate and the day

Benjamin Görlach, Ecologic Institute (project coordinator)

18:00 Reception with drinks and light snacks

3 Annex B: List of Registered Participants

	Last Name	First Name	Organisation
1	Ackva	Johannes	
2	Anderson	Jason	World Wide Fund for Nature (WWF)
3	Barkman	Andreas	European Environment Agency (EEA)
4	Bausch	Camilla	Ecologic Institute
5	Blachowicz	Andrzej	Climate Strategies
6	Bolesta	Krzysztof	Polish Ministry of the Environment
7	Boucher	Stephen	European Climate Foundation
8	Bourgeois	Stephane	European Wind Energy Association (EWEA)
9	Brückmann	Robert	eclareon
10	Dario	Julia	
11	De Matteis	Pietro	European Commission External Action Service (EEAS)
12	De Vries	Obe	
13	Donat	Lena	Ecologic Institute
14	Drummond	Paul	University College London (UCL)
15	Dupont	Claire	Institute for European Studies, Vrije Universiteit Brussel
16	Duwe	Matthias	Ecologic Institute
17	Ekins	Paul	Institute for Sustainable Resources, University College London (UCL)
18	Esposito	Ivanova	Université libre de Bruxelles (ULB)
19	Feldmann	Elsa	Heinrich Böll Foundation
20	Fransolet	Aurore	Université libre de Bruxelles (ULB)
21	Fujiwara	Noriko	Centre for European Policy Studies (CEPS)
22	Geden	Oliver	German Institute for International and Security Affairs (SWP)
23	Gonzalez-Eguino	Mikel	Basque Centre for Climate Change (BC3)
24	Görlach	Benjamin	Ecologic Institute
25	Graf	Andreas	European Commission, DG Energy
26	Grobbe	Christoph	South Pole Carbon
27	Grosjean	Godefroy	Potsdam Institute for Climate Impact Research (PIK)
28	Haffer	Sören	Ecologic Institute
29	Heugues	Melanie	Fondazione Eni Enrico Mattei
30	Huckestein	Brigitta	BASF SE
31	Huppes	Gjalt	Institute of Environmental Sciences (CML), Leiden University
32	Johnston	Mark	European Policy Centre
33	Kalcher	Linda	European Parliament

34	Kalfagianni	Agni	VU University Amsterdam
35	Kentarchos	Anastasios	European Commission, DG Research and Innovation
36	Kisielewicz	Jerome	ICF GHK
37	Kjaer	Christian	Faraday Consult
38	Kraemer	R. Andreas	Ecologic Institute
39	Kuik	Onno	Institute for Environmental Studies (IVM), VU University Amsterdam
40	Kysela	Eva	Charles University in Prague
41	Legge	Thomas	European Climate Foundation
42	Longo	Alberto	University of Belfast
43	Mamer	Eric	European Commission, DG Energy
44	Mazzanti	Massimiliano	University of Ferrara
45	Meeus	Koen	Federal Public Service Environment (Belgium)
46	Meinke-Hubeny	Frank	Maastricht University
47	Mensink	Marco	Confederation of European Paper Industries (CEPI)
48	Meyer	Bernd	Gesellschaft für Wirtschaftliche Strukturforschung (GWS)
49	Meyer	Mark	Gesellschaft für Wirtschaftliche Strukturforschung (GWS)
50	Müller	Susanne	Ecologic Institute
51	Munaretto	Stefania	Institute for Environmental Studies (IVM), VU University Amsterdam
52	Neuhoff	Karsten	German Institute for Economic Research (DIW Berlin)
53	Ostwald	Robert	Ecologic Institute
54	Patki	Akshay	European Commission, DG Climate Action
55	Pontoglio	Serena	European Commission, DG Research and Innovation
56	Prahl	Andreas	Ecologic Institute
57	Pujo Tadić	Marija	Croatian Association for Carbon Footprint Reduction (HU-CO2)
58	Quirion	Philippe	International Research Center on Environment and Development
59	Rey	Luis	Basque Centre for Climate Change (BC3)
60	Rizzo	Ugo	University of Ferrara
61	Roekens	Willem	ADS Insight
62	Ros	Jan	PBL Netherlands Environmental Assessment Agency
63	Sánchez	Almudena	GMV
64	Ščasný	Milan	Charles University in Prague
65	Schade	Burkhard	European Commission, Joint Research Centre
66	Schenker	Oliver	Centre for European Economic Research (ZEW)
67	Schilling	Johannes	European Environment Agency (EEA)
68	Staszkiwicz	Zofia	ADS Insight
69	Steyaert	Elise	Climate Alliance

70	Stollmeyer	Alice	@StollmeyerEU
71	Tang	Erik	Danish Energy Agency
72	Ten Berge	Hans	Eurelectric
73	Trennepohl	Natascha	eclareon
74	Tytgat	Jan	Umicore
75	Umpfenbach	Katharina	Ecologic Institute
76	Van den Bergh	Kenneth	KU Leuven
77	Velten	Eike	Ecologic Institute
78	Vieweg	Marion	Current Future
79	Vis	Peter	European Commission, DG Climate Action
80	Wachholz	Carsten	NABU - The Nature and Biodiversity Conservatin Union / BirdLife
81	Wietheger	Lena	IFOAM EU Group
82	Wyns	Tomas	Institute for European Studies, Vrije Universiteit Brussel
83	Zverinova	Iva	Charles University in Prague

4 Annex C: Twitter History

The twitter history of the CECILIA2050 Midterm Conference can be found at <https://twitter.com/search?q=%23c2050bxi>

5 Annex D: PowerPoint Presentations

All PowerPoint presentations from the CECILIA2050 Midterm Conference are available for download on the CECILIA2050 website at <http://cecilia2050.eu/events/144>.