

Workshop on Policy Design for a Climate-Friendly Materials Sector

Brussels, September 16th, 2016

Location: EU Liaison Office of the German Research Organisations (KoWi), 8th Floor,
Rue du Trône 98, B-1050 Brussels

Dinner: Restaurant LE MARMITON, Rue des Bouchers 43 A, 1000 Brussels
September 15th, 8.00 pm

Background

Materials are central to our economies – but their production also dominates industrial greenhouse gas emissions. It is therefore not possible for Europe to reach an 80-95% emission reduction target without significant emission reductions from the materials sector. While some production efficiency improvements and fuel shifting to lower carbon inputs have been achieved in sectors such as steel and cement, they amount to only modest reductions and their full potential is limited. The large, and necessary, mitigation potential linked to break-through process technologies, new materials, and more efficient material use remains largely untapped. The discrepancy between the policy objective of near complete decarbonization of the economy and only incremental developments in the sector creates uncertainty, thus inhibiting investments and innovation.

Objective

With this project we aim to explore what elements need to be put in place at the European and Member State level to allow for large scale emission reductions from material production through developing a portfolio of innovative processes and materials and providing incentives for their efficient use.

To develop such a broader roadmap that includes a policy framework and private sector reactions, several perspectives need to be taken into account and further developed. The workshop will address the broad question of: **what policies are necessary for the materials sector to successfully innovate and subsequently adopt new low-carbon technologies?**

Within this guiding question, our current plan is to address the following three themes:

- (a) feasible technology pathways;**
- (b) incentives for technology adoption;**
- (c) public innovation support.**

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Agenda

Time	Program
8:45 – 9:00	Registration and welcome coffee
9:00 – 9:30	<p>Introduction to workshop Opening comments: Karsten Neuhoff (DIW Berlin)</p> <p>The workshop will start with a presentation about the background and motivation for addressing the question: what policies are necessary for the materials sector to successfully innovate and subsequently adopt new low-carbon technologies?</p>
9:30 – 11:00	<p>Session 1: Technological options for emissions reductions and their economics Opening comments: Tobias Fleiter (ISI Fraunhofer), Tatiana Vakhitova (Granta Design) Chair : Heleen de Coninck (Radboud University)</p> <p>In this session, we will explore options of product innovations, process innovations, and more efficient use of materials for the major materials (cement, steel, aluminium and chemicals). A particular focus of the discussion will be on the following questions/points</p> <ul style="list-style-type: none"> - How much learning investments (in pilots/ demonstration) are needed to advance innovative technologies? - How do expected capital and operational expenditures compare to current technologies? - How does the competitive landscape for less carbon intensive materials look like?
11:00 – 11:30	Coffee break
11:30 – 12:30	<p>Session 2: Frameworks for adoption of new technologies in practice Opening comments: Richard Baron (OECD), Roland Ismer (University Erlangen), Maciej Bukowski (WiseEuropa), Jörn Richstein (DIW Berlin) Chair: Henry Derwent (Climate Strategies)</p> <p>In this session, we will discuss policy frameworks that can support the adoption of new technologies in a world of (regulatory) uncertainty once they have reached maturity. In the discussion policy options, such as public procurement, project based carbon price guarantees, and mechanisms to ensure effective carbon pricing like inclusion of consumption, but also new business models for financing shall be explored as well as evaluated, for example by comparing them to current issues and questions:</p> <ul style="list-style-type: none"> - How can policy frameworks mitigate current technological challenges such as increased incremental costs? - Is the lumpy investment structure a hurdle to adoption of new technologies, and how can policy frameworks help overcome it? - Is the current difficult market environment an obstacle to adoption of new technologies?
12:30 – 13:30	Lunch

13:30 – 15:00	<p>Session 3: Innovation support in practice Opening comments: Craig Hart (Renmin University of China), Femke de Jong (Carbon Market Watch), Olga Chiappinelli (DIW Berlin) Chair: Lars Zetterberg (IVL)</p> <p>In this session, the speakers will present policy options supporting climate friendly materials innovation, as well as challenges for their success (e.g. ensuring technology competition, time inconsistency of carbon regulation, avoiding regulatory capture). The discussion/session will in particular focus on options to structure the funding requirements for increasing the scale of demonstration projects for new processes and materials. This may involve national, regional and European programs based on for example national budgets, EU ETS allowance auctions or inclusion of consumption charge and different mechanisms for their disbursement.</p>
15:00 – 15:30	<p>Coffee break</p>
15:30 – 16:15	<p>What is needed for a consistent picture across technology pathways, technology innovation and adaptation policies?</p> <p>This final session will aim to combine the main points emerging in the 3 previous sessions into a consistent picture, summarizing the emerging key questions, as well as discussing what are next possible steps</p>

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List of confirmed participants

September 14, 2016

First name	Last name	Institution
Richard	Baron	OECD
Maciej	Bukowski	WiseEuropa, Poland
Karl	Buttiens	ArcelorMittal
Olga	Chiappinelli	DIW Berlin
Heleen	de Coninck	Radboud University
Femke	de Jong	Carbon Market Watch
Carl	de Mare	ArcelorMittal
Henry	Derwent	Climate Strategies
Frans	Duijnhouwer	Ministerie van Infrastructuur en Milieu
Tobias	Fleiter	Fraunhofer ISI
Yao	Fu.	Radboud University
Dirk	Funhoff	BASF / DGNB
Craig	Hart	Renmin University of China
Manuel	Haussner	Uni Erlangen Nürnberg
Maurits Blanson	Henkemans	Climate Strategies
Romain	loulalen	European Climate Foundation
Roland	Ismer	Uni Erlangen Nürnberg
Zahra	Janipour	Radboud University
Robert	Kok	Radboud University
Tom	Lorber	CIFF
Guido	Magneschi	Global CCS Institute
Karsten	Neuhoff	DIW Berlin
Karen	Perrey	Covestro AG
Julia	Reinaud	Industrial Innovation for Competitiveness
Jörn	Richstein	DIW Berlin
Christoph	Sievering	Covestro AG
Tatiana	Vakhitova	Granta Design
Sam	van den Plas	wwf
Rob	van der Meer	HeidelbergCement
Niek	van Wiechen	Huntsman Polyurethanes
Lars	Zetterberg	IVL
Pedro	Linares	IIT Madrid