



**Press Release**  
**16<sup>th</sup> of July 2015**

## **European Commission has missed the opportunity for innovation in CO<sub>2</sub> intensive materials**

London, 16<sup>th</sup> of July, 2014

Researchers in the Climate Strategies network found that the European Commission's proposal for carbon leakage protection post-2020 will fail to realize a large share of innovation opportunities in materials industries like steel and cement. "This is a major missed opportunity since steel and cement alone account for 38% of industrial CO<sub>2</sub> emissions in Europe", said Karsten Neuhoff.

The research, led by the German Institute for Economic Research (DIW Berlin), analyzed the effectiveness of climate and other policies in the steel and cement sectors over the last 15 years. It explored what policy options are available to implement innovation and modernization opportunities in the CO<sub>2</sub> intensive materials industry.

### **CO<sub>2</sub> intensive materials – Opportunities from Climate Policy**

CO<sub>2</sub> intensive materials like steel and cement face the economic challenge that demand dropped by more than 20% as a result of the economic crisis and is not expected to fully recover. Therefore, incentives for investments are limited. Energy and climate policies are not responsible for this decline in demand. However, they may encourage investment in innovation and modernization in the materials industry regarding advanced production processes, higher value, lighter and more CO<sub>2</sub> efficient materials as well as tailored and more efficient use of materials. In order to realize these opportunities, economic incentives from the carbon price in the European Union Emission Trading System (EU ETS) are important, but should be complemented with support for innovation and regulatory adjustments to facilitate adoption of new processes and materials.

### **CO<sub>2</sub> prices for intermediate and final consumers necessary**

A CO<sub>2</sub> price needs to be visible for intermediate and final consumers to create comprehensive incentives. Last week the European Parliament decided on the implementation of a market stability reserve for the EU ETS that will now be implemented earlier and more effectively than in the proposal of the European commission, strengthening the CO<sub>2</sub> price. However, yesterday's European Commission proposal for carbon leakage protection post- 2020 will mute the carbon price signal for intermediate and final consumers of CO<sub>2</sub> intensive materials and therefore will miss a large share of mitigation opportunities.



The proposal envisages free allocation of CO<sub>2</sub> allowances for sectors where CO<sub>2</sub> costs could result in a relocation of production to regions without similar carbon prices, otherwise known as carbon leakage. However, if allowances are allocated for free as a protective measure against carbon leakage then only a very small part of the CO<sub>2</sub> price will be passed to intermediate and final consumers of carbon intensive materials. This means that little to no incentives would be in place for a large share of innovation and modernization opportunities. Thus the proposal fails to achieve the objective formulated by the EU Council in October 2014 to fully preserve incentives for industry to innovate. Without such innovation, the long-term emission reduction potential in the materials sector remains limited to only 10-20 percent of current emissions.

### **Support for innovation and coordination important**

In addition, the research shows the need for public support for innovation, especially in primary production processes of carbon intensive materials and their substitutes. Initial efforts had been pursued in a European initiative for Ultra Low Carbon Steel Making (ULCOS), but ran out of funding. The European Commission's proposal for an innovation fund could provide dedicated support for demonstration plants of increasing scale. This will also start to reveal which adoption of norms and standards is necessary to facilitate market access for new materials and processes.

In recent years, European industry associations of producers of CO<sub>2</sub>-intensive materials have developed road maps for a reduction of emissions in each of their sectors by 80% by 2050. "The road maps need to be further developed and could then coordinate necessary regulatory measures and targeted innovation support. Together with a carbon price signal from the EU ETS this could create a longer term perspective for investment in innovation and modernization for climate friendly materials", concludes Oliver Sartor from French Research Institute IDDRI.

### **Notes for editors**

The report summarizes insights from the research project "Carbon Control Post 2020 in Energy Intensive Industries" (<http://climatestrategies.org/projects/energyintensiveindustries/>). It builds on a literature review, data analyses, a legal review, in-depth interviews with selected senior managers of steel companies, extensive discussions with several CEOs, and workshops with representatives of governments, the European Commission, non-governmental organizations and industry.

The research led by the German Institute for Economic Research (DIW Berlin) and convened by Climate Strategies ([www.climatestrategies.org](http://www.climatestrategies.org)). Project partners of DIW Berlin were CNRS-Ecole Polytechnique, Centre International de Recherche sur l'Environnement et le Développement (CIRED), The Institute for Sustainable Development and International Relations (IDDRI) (all France), Hertie School of Governance, University Erlangen-Nürnberg (both Germany), Radboud University Nijmegen (the Netherlands), The Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Sciences, and University College London (both United Kingdom). The project is funded with support from the governments of France, Germany, the Netherlands and the United Kingdom as well as from Heidelberg Cement and Tata Steel Europe. The views expressed and



information contained in the report are independent perspectives of researchers and not necessarily those of or endorsed by the funders.

Climate Strategies is a not-for-profit organization that works with an international network of experts to bridge the gap between academic research and policy and to provide unrivalled analyses for international decision-makers in the fields of climate change and energy policy.

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