



The Innovation Fund: How can it support low-carbon industry in Europe?

Design recommendations for the successor instrument to the NER 300 in Phase 4 of the EU ETS

Publication

[Report](#)

Citation

Duwe, Matthias; Ostwald, Robert (2017): The Innovation Fund: how can it support low-carbon industry in Europe: Design recommendations for the successor instrument to the NER 300 in Phase 4 of the EU ETS. Ecologic Institute, Berlin.

The long-term transformation to a low-carbon economy requires innovation in technology and existing practices in all sectors of the economy. The Innovation Fund under the EU Emissions Trading System is meant to support such innovation projects in industry and energy. According to analysis by the Ecologic Institute, the IF should focus on breakthrough projects with a high additional emission reduction effect and provide adequate financing conditions that allow also for high risk projects to be supported.

Upon request by the German Emissions Trading Authority (DEHSt) of the German Environment Agency (UBA), Ecologic Institute has analysed a range of options for designing the EU Innovation Fund (IF), a financing instrument created under the EU Emissions Trading System (EU ETS) to support technological breakthroughs in low-carbon innovations in the power sector and industry. The report combines a look at lessons learned from the IF's predecessor mechanism "NER 300" with insights from the respective emission reduction technology options in three key industry sectors (steel, cement, pulp & paper.) Based on a literature review as well as interviews, Ecologic Institute's authors conclude with recommendations for the IF's design.

A funding instrument for low-carbon industrial technologies and processes

In July 2015, the European Commission presented its proposal for the fourth trading period (2021 - 2030) of the EU ETS. The IF is an instrument additional to the carbon pricing element of the EU ETS that aims to support the shift of the EU's power and industry sectors towards a low-carbon economy. The IF shall support demonstration projects of innovative technologies in the fields of carbon capture and storage (CCS), renewables and – in contrast to its predecessor, the so-called NER 300 – for the first time also low-carbon technologies and processes in industrial sectors.

Although the ETS Directive has been adopted, the final form of the IF will be settled via a decision of the European Commission, which is still under development. The decision will establish the main design features, which will determine whether the IF can successfully attract private companies to invest in and implement innovative demonstration projects in

the EU. This question is highly relevant for the energy-intensive industry in Europe.

Recommendations for the design of the Innovation Fund

- Guarantee a minimum amount of funding for the IF as a whole.
- Provide higher co-financing rates for high-risk projects and for small ones.
- Avoid reliance on strict performance-based criteria as payment conditions; use milestones
- Establish maximum funding per project as absolute amounts.
- Focus on breakthrough technologies for the eligibility of projects and provide funding for more mature technologies via loans (and with a limited share of the IF's volume)
- Earmark minimum shares of funding per main category (CCS, industry, renewables) but be flexible about them if unused.
- Set ambitious criteria for selection of projects (specific to each main category), addressing inter alia emission reduction potential, but combine with criteria measuring co-benefits that hint at business opportunities where possible
- Build in incentives to support product substitution innovations.

Language

English

Authorship

[Matthias Duwe](#)

Robert Ostwald

Funding

[German Emissions Trading Authority](#) (DEHSt), Germany

Published in

Climate Change 06 | 2018

Published by

[German Environment Agency](#) (UBA), Germany

Year

2018

Dimension

55 pp.

ISSN

1862- 4359

Project

[Allocation for Industrial Plants within the EU ETS after 2020, Analysis and Further Development of Direct and Indirect Carbon Leakage Regulation](#)

Project ID

[2571](#)

Table of contents

1 Funding innovation with ETS revenues

2 The policy landscape for climate friendly innovation in Europe's industrial sectors

3 Designing an effective Innovation Fund

3.1 Key elements for Fund design

3.2 The design chosen for the NER 300

3.3 Results and lessons of the NER 300

3.3.1 Outcomes in terms of projects funded

3.3.2 Insights from the implementation so far

4 Design options for industrial demonstration projects

4.1 Beyond the NER 300 - considerations for industry

4.2 Innovation characteristics of industrial sectors

4.3 Characteristics of the three industrial sectors – insights for the design of the Innovation Fund

4.3.1 The iron and steel sector

4.3.2 The cement sector

4.3.3 The pulp and paper sector

4.3.4 Insights across the sectors – inputs from sector experts

5 Policy recommendations

5.1 Summary of main insights

5.2 Specific design options for an effective IF

5.2.1 Financing conditions – enabling high risk breakthrough technologies

5.2.2 Project eligibility – focusing on high potential innovation with a business opportunity

5.2.3 Additional observations for IF design

5.3 Conclusion and outlook

Keywords

[Climate](#)
[Economics](#)
[Energy](#)
[Finance](#)

EU, emission trading, industry, climate change, innovation, public funding
Europe

Source URL: <https://www.ecologic.eu/15361>