Public consultation on the Establishment of the Innovation Fund

Fields marked with * are mandatory.

Public Consultation on the Establishment of the Innovation Fund

The EU emissions trading system (ETS) after 2020 foresees the establishment of the Innovation Fund to accelerate the commercialisation of low-carbon technologies. 400 million allowances will be reserved from 2021 onwards for this purpose. In addition, a further 50 million of unallocated allowances from 2013-2020 will be added, together with, as early as 2019; any possible un-used or remaining funds from the NER 300 Programme. Further 50 million allowances could be added to the fund post 2025, if these are not used for free allocation to industry.

The Fund will support innovation in low-carbon technologies, processes and products in industrial sectors listed in Annex I of the EU ETS Directive. The Fund should stimulate the construction and operation of projects that aim at the environmentally safe capture, use of CO2 (CCU) and its geological storage (CCS), as well as innovative renewable energy and energy storage technologies in the territory of the European Union. Technologies receiving support should not be commercially available yet, but shall be sufficiently mature to be ready for demonstration at pre-commercial scale.

Furthermore, the ETS Directive sets a number of key features of the Innovation Fund:

1. Up to 60% of the relevant costs of projects may be supported,
2. Project selection will be done based on objective and transparent criteria, including, among others, the potential for emission reductions, potential for wide application or significant lowering of transitioning costs towards a low-carbon economy in the concerned sectors,
3. Technologies to be supported are not yet commercially available, but represent breakthrough solutions or are sufficiently mature to be ready for demonstration at pre-commercial scale,
4. Up to 40% of the Innovation Fund's support for eligible projects (that is up to 24% of projects' relevant costs) may be pre-financed (may not depend on achieved reduction of greenhouse gas (GHG) emissions) provided that pre-determined project milestones are met,
5. Projects in all Member States, including small-scale projects, are eligible to apply.

During the first half of 2017, the European Commission hosted a series of stakeholder consultations with representatives from energy-intensive industries, the energy and finance sectors. The resulting summary report points to over 80 potential technologies, including cross-cutting innovations, such as CCUS, green hydrogen or energy storage.

This public consultation will gather the views of the wider public on additional, more detailed, design elements of the Innovation Fund, as an input to the Impact Assessment accompanying the

Commission's proposal for a delegated act.

The questionnaire is divided into 6 sections. Section 1 relates to the identification of the respondent and is obligatory for all respondents. The following multiple choice questions in Sections 2-5 relate to key elements identified in the Inception Impact Assessment for the Establishment of the Innovation Fund. An open question at the end of each Section allows complementing any of the previous answers. Section 6 allows providing additional comments and uploading supporting documents.

A short summary of the key design elements and the related problems identified is provided at the beginning of each section.

General information about respondent

***1. In what capacity are you completing this questionnaire?**

In your professional capacity or on behalf of an organisation

***2. Please indicate your First name :**

Text of 3 to 200 characters will be accepted

Femke

***3. Please indicate your Last name :**

Text of 3 to 200 characters will be accepted

de Jong

***4. Please indicate the name of your company, organisation, or institution (if your organisation is registered in the Transparency Register, please give your Register ID number) :**

Text of 3 to 200 characters will be accepted

Carbon Market Watch
EU Transparency Register ID number: 75365248559-90

If your organisation is not registered, you can register now. Please note that contributions from respondents who choose not to register will be processed as a separate category 'non-registered organisations/business'.

5. Contact email address:

The information you provide here is for administrative purposes only and will not be published

femke.dejong@carbonmarketwatch.org

***6. For individuals, please indicate your country of residence, for professionals, please indicate your main country of operations/headquarters :**

Belgium

***7. Please indicate the type of organisation (please select the option that fits the best) :**

- ○ Private enterprise
- ○ Professional consultancy, law firm, self-employed consultant
- ○ Trade, business or professional association
- ◉ Non-governmental organisation, platform or network
- ○ Research and academia
- ○ Social partners
- ○ National, regional or local authority (mixed)
- ○ Other

***8. Please indicate the size of your company, organisation or institution :**

- ◉ a) Micro or small enterprise (10-49 persons employed)
- ○ b) Medium-sized enterprise (50-249 persons employed)
- ○ c) Large enterprise (250 or more persons employed)

***9. To which category of stakeholders does your organisation belong?**

- ○ a) Potentially directly benefiting from the initiative (energy intensive industries, in particular steel, iron, aluminium, copper, oil refining, chemicals & bio-based industries and pulp & paper, cement, lime, glass & ceramics, renewable energy generation and storage, and industries/power plants utilising CCS/CCU
- ◉ b)Indirectly benefiting from the Initiative (EU/National Industry associations, Environmental NGOs, National/Regional authorities and EU institutions; European Investment Bank/international or national financial institutions; Member States)
- ○ c) Other

***10. Please indicate your preference for the publication of your response on the Commission's website:** (Please note that regardless of the option chosen, your contribution may be subject to a request for access to documents under Regulation 1049/2001 on public access to European Parliament, Council and Commission documents. In this case the request will be assessed against the conditions set out in the Regulation and in accordance with applicable data protection rules.)

- ◉ Under the name given:
  I consent to publication of all information in my contribution and I declare that none of it is subject to copyright restrictions that prevent publication
- ○ Anonymously:
  I consent to publication of all information in my contribution and I declare that none of it is subject to copyright restrictions that prevent publication

Eligibility criteria

The Innovation Fund will support deployment of innovative renewable energy technologies and industrial break-through innovation in low-carbon technologies and processes in the European Union. The energy intensive industries to be covered are those in the Annex 1 to the ETS Directive, concretely: ferrous metals, non-ferrous metals, cement and lime, glass and ceramics, chemicals, oil refining, pulp and paper, including potential application of environmentally safe CCU technologies in these industries, that would substantially contribute to climate change mitigation. The renewable energy sectors to be covered comprise innovative production from: wind, ocean, geothermal, biomass and solar sources. In addition,

energy storage and CCS are also eligible.

The Innovation fund will be designed to help innovative projects to cross the "valley of death" and reach commercial viability.
Eligible projects should contribute substantially to climate change mitigation through a significant reduction of GHG emissions.

11. Which are the five most important highly innovative technologies in your view that will be key to decarbonise the industry and power sectors in the EU and therefore need to be demonstrated over the coming decade?

Text of 3 to 1000 characters will be accepted

1. Circular economy business model innovations in the steel sector, e.g. innovations to enable uptake of the scrap-EAF (Electric Arc Furnaces) route such as technologies that allow the separation of low and high quality scrap for recycling/upcycling.

2. Downstream demand reduction innovations in the cement sector, e.g. through (nano-technology) innovations that reduce the amount of concrete needed or the amount of cement needed to bind concrete.

3. Circular economy innovations in the cement sector, i.e. technologies to recover and recycle cement from concrete.

4. Bio-based chemical innovations, i.e. the substitution of fossil fuel based feedstock with sustainable biomass based alternatives.

5. Technologies with potential to deliver low-carbon product substitution, such as downstream demand reduction innovations in the fertilizer industry, e.g. through direct nitrogen fixation that allows plants to obtain nitrogen directly from the atmosphere.

Please specify for your own sector (as indicated in the introduction above). Cross-sector technologies can also be included, if relevant.:

Text of 3 to 200 characters will be accepted

12. To apply to the Innovation Fund funding, should eligible technologies be defined?

- ○ a) Yes: Based on a pre-defined detailed list of eligible technologies per sector (as described in the introduction above), with a possibility of regular update (e.g. every 5 years);
- ○ b) No: Eligible technologies should not be pre-defined allowing for competition between projects and across sectors
- ◉ c) Other

* *If other, please specify:*

Text of 3 to 200 characters will be accepted

A list of ineligible technologies should be pre-defined to exclude existing and proven technologies, as well as non-permanent CO2 reduction technologies.

13. To ensure that the Innovation Fund would support innovative but realistic projects (i.e. those that would effectively materialize and reach market maturity), should its eligibility criteria set deadlines for reaching specified milestones?

- (●) Yes
- ( ) No

* *If yes, should these deadlines related to* :

- ( ) a) Investment process (such as a signature of Financial Close documents)
- (●) b) Construction steps (such as commissioning of the construction)
- ( ) c) other

14.The revised ETS Directive agreement stipulates that small-scale projects can also be supported. To better define the scale of small-scale projects eligible for support of the Innovation Fund, should eligibility criteria set a minimum size for small-scale projects?

- ( ) a)Yes
- (●) b) No

15. If you wish, please provide additional comment(s) in more detail, focusing on elements related to eligibility criteria not mentioned in the answers above.

Text of 3 to 500 characters will be accepted

The Innovation Fund should also exclude technologies leading to a carbon lock-in or a fossil-fuel dependency in the medium and long term.

Type of support

The ETS Directive states that the Innovation Fund can provide support of up to 60% of the relevant costs of selected projects, out of which up to 40% may be pre-financed, provided that pre-determined milestones are attained. The majority of the Innovation Fund support (at least 60%) should be provided on the basis of verified (achieved) reduction of greenhouse gas (GHG) emissions, once projects are operational.

The Directive leaves room for modulation of maximum support rate (up to 60% of relevant costs) according to the project's technology risks, providing various forms of financial support such as grants, loans or equity, but also for covering specific type of costs (such as project development assistance along with the capital expenditure). This section therefore aims at collecting your views on the type of support the Innovation Fund should offer.

16. Should the maximum funding rate (i.e. up to 60% of relevant costs covered by the Innovation Fund as stipulated above) be:

- (●) a) Variable depending on the stage of technology development (and related technology risks)
- ( ) b) Variable, based on a different approach, please specify
- ( ) c) The same for all eligible projects

17. Which form(s) of support should the Innovation Fund provide?

17.1 Which form of support do you consider most appropriate in relation to the stage of development?
Please rank from 1-5 (5 being most appropriate).

	Pilot production and demonstration (TRL* 6-7)	***Initial market introduction (TRL 8)***	***Market expansion (TRL9)***
Investment subsidies (grants)	5	1	1
Risk guarantees	4	5	4
Loans	3	2	5
Equity	2	3	2
Other (specify)	1	4	3

**TRL means Technology Readiness Level*
http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016_2017/annexes/h2020-wp1617-annex-g-trl_en.pdf

17.2 Should eligible projects have a possibility to combine the above forms of support during the projects' lifecycle? Please specify and provide more detailed explanation for your answer above.

Text of 3 to 500 characters will be accepted

'Other' refers to Contracts for Difference in the above question.
A combination of different financial instruments (e.g. partial grants with loan guarantees) may be advisable to overcome hurdles for high-risk projects and to facilitate bank loans.

17.3 Should the Innovation Fund also provide specific project development assistance? If so, please rank the relevance, according to your assessment, of pre-feasibility studies, cost-benefit analyses and related work-streams, human capacity building and others (4 being most important):

- [x] *Technical pre-feasibility studies*
- [x] *Financial analysis and plans*
- [x] *Capacity building*
- [x] *Others*

* *If others, please specify:*

Text of 3 to 200 characters will be accepted

Technical pre-feasibility studies - 4
Financial analysis and plans - 3
Capacity building - 2

18. Up to 40% of the Innovation Fund support may be pre-financed, provided that pre-determined milestones are attained. In your view, how should such milestones be defined?

- ( ) a) According to the investment process (i.e. project launch, financial close, commissioning, operation);
- (•) b) Linked to specific construction phases (i.e. first procurement for plant parts signed, physical construction finalised, operation);
- ( ) c) Other

19. What are in your view the most important lessons learned from the monetisation of NER300 allowances / key aspects to be considered when deciding about the modalities, in particular the timing, of monetising the allowances available for the Innovation Fund?

Text of 3 to 1000 characters will be accepted

The NER300 did not reduce project risk because the final release of funding was linked and partially timed to the full implementation of the projects. The proposed milestone based funding approach is therefore a smart improvement over the current NER300 design.

The NER300 setup where a fixed amount of EU allowances was monetized has moreover created uncertainty over the total amount of funding available, which was especially a problem as the carbon price was lower than expected. This can be improved in the future by establishing a minimum guaranteed level (i. e. a guaranteed carbon price level) which would secure a certain number of projects. The minimum amount could be ensured by drawing on other EU funds as a means for making up for any shortcomings from EUA auctioning. The EIB could moreover have greater flexibility in deciding when to monetise the EUAs, i.e. at times when the carbon price is above the minimum amount.

20. If you wish, please provide additional comment(s) in more detail focusing on elements related to the type of support criteria not mentioned in the answers above.

Text of 3 to 1000 characters will be accepted

Lack of adequate and timely co-financing by Member States seemed to have been one of the issues under the NER300 programme. This issue can be mitigated if the European Commission provides clarity on environmental state aid well before the Innovation Fund starts. In particular, a State Aid waiver or fast-track procedure, under certain specific conditions, could be considered.

Member States should also be able to use a broad range of tools to provide co-financing and increase uptake. One interesting example could be the use of public procurement to advance market access for e.g. low-carbon steel or cement in large infrastructure projects.

Application and Selection procedure

According to the ETS Directive on the selection procedure, "Projects shall be selected on the basis of objective and transparent criteria." In addition, projects should deliver material GHG emissions reductions, well below the ETS benchmarks (where applicable), and have potential for wide application and lowering the costs of transitioning towards a low carbon economy for the sectors covered.

21. How should the application process be organized?

- a) on a first-come, first-served basis
- (●) b) through regular calls, at pre-defined dates
- c) other

22. How many stages should the application process have?

- a) a single-stage application process, requiring applicants to submit the full project documentation by a given deadline
- (●) b) two-stage process consisting of expression of interest (based on a less than 10 page concept note) followed by the screening of pre-selected applications (based on complete project proposals)
- c) Other

23. What should be the optimal mix of project selection criteria, taking into account the key requirements set by the ETS directive? Please rank in the order of importance (0 being least important).

	Ranking (0 - 6)	*Comments (if non put N/A)*
Innovativeness	5	
Decarbonisation potential / contribution to emission reductions	6	
Expected performance (i.e. Cost per unit of performance)	1	
Project viability/ bankability/ robustness of the business model	2	
Cross-sector spill-overs / cooperation	4	
Scalability/ potential for widespread application	3	
Other, please specify		

24. Should there be a mechanism to ensure a balanced portfolio of projects?

- a) yes, with regard to sectors
- b) yes, with regard to technologies
- c) yes, with regard to sectors and technologies
- d) No

* *If yes, please provide suggestions on how this should be done.*

Text of 3 to 200 characters will be accepted

There should be earmarking of certain minimum amounts per category with limited funding for CCS/U (especially in the power sector) with the option of transferring funds from one category to the other.

25. If you wish, please provide additional comment(s) in more detail focusing on elements related to the selection procedure not mentioned in the answers above.

Text of 3 to 500 characters will be accepted

Broad spectrum and performance based criteria for access should be defined, such as at least 25% GHG mitigation compared to current global Best Available Technologies for industrial installations or a significant reduction in the Levelized Cost of Electricity for energy technologies. This can also include 'co-benefit' criteria such as low-carbon product and business model innovation linked to the breakthrough technologies, in order to increase the likelihood of future deployment.

Relation to the Other Funding Instruments

26. In your view, how should the Innovation Fund complement other funding mechanisms at the EU and national level? Such mechanisms are the for example EU Framework programme for research and innovation (Horizon 2020), European Structural and Investment Funds (e.g. ERDF) or Research fund for coal and steel). **Please specify.**

1000 character(s) maximum

The Innovation Fund should target breakthrough innovations that enable deep decarbonisation, as there is currently no other funding instrument that fulfills this role. In such a case, there will not be overlap with other EU funding mechanisms.

At the national level, Member States should be able to use a broad range of tools to provide co-financing and increase market uptake. One interesting example could be the use of public procurement to advance market access for e.g. low-carbon steel or cement in large infrastructure projects.

It should moreover be clarified if the Innovation Fund is EU- or Member State- funding, to ensure it is properly accounted for.

27. In your view, could the Innovation Fund avoid overlaps with other funding instruments and if so, how this should be done?

1000 character(s) maximum

The Innovation Fund should focus on helping to deliver breakthrough innovations that enable deep decarbonization, as there is currently no other funding instrument that fulfils this role.

The Innovation Fund should not finance marginal improvements to existing facilities to avoid overlaps with other instruments.

If there is a need to also provide funding for more mature technologies that can enable substantial CO2 savings, because other financing instruments do not fulfill this role sufficiently, then this should be done via the use of alternative financing instruments (not grants) and be subject to qualitative and quantitative restrictions.

A dedicated incentive for low-carbon substitutes should moreover be considered.

28. In your view, how unnecessary administrative burden for applicants could be avoided? Please specify.

1000 character(s) maximum

29. If you wish, please provide additional comment(s) in more detail focusing on elements related to financing synergies not mentioned in the answers above.

1000 character(s) maximum

Final comments

30. If you wish to add further information, comments or suggestions - within the scope of this questionnaire - please feel free to do so here:

1000 character(s) maximum

Sources consulted for this submission:

Wyns, T., Axelson, M. (2016), The Final Frontier - Decarbonising Europe's energy intensive industries. https://www.ies.be/files/The_Final_Frontier_Wyns_Axelson_0.pdf

Umweltbundesamt (2018), 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 https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2018-02-13_climate-change_06-2018_innovation-fund.pdf

Additional information attached to this submission:

Carbon Market Watch (2016), Industry windfall profits from Europe's carbon market 2008-2015. How energy-intensive companies cash in on their pollution at taxpayers' expense https://carbonmarketwatch.org/wp/wp-content/uploads/2016/11/CMW-Industry-windfall-profits-from-EUs-carbon-market-2008_2015.pdf

In addition, you could also upload a document proving further information, comments or suggestions.

Please note that the uploaded document will be published alongside your response to the questionnaire which is the essential input to this open public consultation. The document is an optional complement and serves as additional background reading to better understand your position.

The maximum file size is 1 MB

4f9370c5-5f98-4faa-af6e-d10e7e3a6a09/CMW-Industry-windfall-profits-from-EUs-carbon-market-2008_2015.pdf

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