

# Public consultation on the Establishment of the Innovation Fund

Fields marked with \* are mandatory.

## Public Consultation on the Establishment of the Innovation Fund

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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 CO<sub>2</sub> (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

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**\* 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*

Ermenegilda

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

*Text of 3 to 200 characters will be accepted*

Boccabella

**\* 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*

European Power Plant Suppliers Association (EPPSA)  
Transparency Register ID: 18146381379-29

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

e.boccabella@eppsa.eu

**\* 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

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*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*

Biomass and waste energy generation  
Biorefineries and other technologies transforming biomass into transport fuels and raw chemicals  
Carbon Capture and Storage and Utilisation Technologies  
Flexible energy conversion solutions that can be integrated in existing or new plants, including waste heat recovery and reuse technologies  
Retrofitting existing power plants and industrial sites with energy efficient technologies

*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*

Combined Heating/Cooling & Power  
Industrial waste heat recovery for use in heating grids or electricity production  
Renewable fuels, synthetic fuels & bio-based fuels  
Storage of heat, cold & power

**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

**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

\* If yes, what would be the appropriate minimum size (in terms of total capital expenditure in EUR) in your area of expertise, which would allow funding of small-scale projects at EU-level? :

*Text of 3 to 200 characters will be accepted*

€10 million

**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 criteria for eligibility should be clear and well defined in order to minimise the administrative burden. Similarly, the level of information required should be clearly defined as well. CO2 reduction numbers provided by applicants should not be taken for granted and thus be verified. Support should only be given to projects with realistic emission reductions.

## Type of support

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*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).*

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

*\*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](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*

Yes, direct support in the form of grants is most productive. Other forms of support are often seen as less attractive. However, grants could be combined with other forms of support. When designing the forms of support, special attention should be given to their implications for accounting and bookkeeping.

**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):**

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

**\* If others, please specify:**

*Text of 3 to 200 characters will be accepted*

4 Technical pre-feasibility studies (but also feasibility studies and FEED studies (front end engineering and design))  
3 Financial analysis and plans  
2 Capacity building  
1 Others

**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*

One of the problems experienced under the NER 300 was that the technologies were defined too strictly. This resulted in a focus on specific technologies instead of final products. This again resulted in the underfunding of viable alternatives to certain technologies that would lead to the final products. Therefore, the Innovation Fund should allocate funding based on the final product (e.g. low carbon heat, electricity, fuel or products having less CO2 emissions during production) rather than to a specific technology.

**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*

Different forms of project have different effects on bookkeeping and accountancy requirements differ per country. Therefore, any form of support should also aim to minimise the administrative burden. For example, Research and Development expenses are often reported in the Profit & Loss statement and not booked as an asset on the Balance sheet. Meanwhile a loan is accounted for on the Balance sheet and not on the Profit & Loss statement. Therefore, a loan cannot be used to increase actual R&D spending. Furthermore, for large companies loans are often already available against reasonable interest rates. Meanwhile, small loans are often left unconsidered due to their relative administrative burden. Moreover, when a project fails, the payback is often too far away, so for a big company it is not possible to take into account in the R&D budgets. Therefore, it is of critical that bookkeeping rules and their burden will be taken into account when designing the possible forms of support offered

## Application and Selection procedure

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*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

*\* If other, please specify :*

*Text of 3 to 200 characters will be accepted*

By rolling calls, because it allows for more flexibility and less barriers. However, the rolling calls should be staged ensuring that not all funds will be used in the beginning.

**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).

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

**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*

A balanced portfolio of different topics in different sectors and cross-sectors is of vital importance for the development of low carbon technologies. The maturity of technologies evolves over time.

**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*

A balanced portfolio is crucial for the development of low carbon technologies. There are many promising technologies such as CCS/CCU, energy efficiency technologies, energy conversion and bioenergy. Focusing on one technology leads to a suboptimal outcome as it undermines fair competition between different technologies. Europe's energy future will be shaped by a combination of (cross-sectoral) technologies and the integration of different sectors. Therefore, a range of technologies need funding

## Relation to the Other Funding Instruments

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**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*

Applications for funding using different public and private mechanisms should be possible, however, double funding above 100% should be avoided.

**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 avoid funding above 100% of the project costs. In the past (NER300), it was seen that without complete funding, a technically promising but economically questionable technology would not be funded. Therefore the overlaps should be limited to the funding amount and could be dealt with by having a different application deadline than the complementary calls (e.g. H2020).

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

*1000 character(s) maximum*

The first stage of the application procedure should not be burdensome. It should be clear whether there is a true potential for the acceptance of the application before more costly and time consuming application procedures are required.

**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*

A project assistance mechanism, similar to the European Investment Advisory Hub (EIB/EFSI) could also be established as part of the Innovation Fund. Such a project assistance office could help companies to find financing synergies as well as facilitate a smooth and efficient application process. These project assistance mechanisms could make use of local (national) agencies to which companies could refer, as already done in other funding schemes.

## Final comments

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**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*

Applications should be accepted on a rolling basis in order not to impede projects that are bound to different external deadlines. However, the rolling calls should be staged ensuring that not all funds will be used in the beginning. The first step of the application process should not be excessively burdensome. Grants are the most effective form of support, other support mechanisms can be supplementary.

It should be made clear that background IP is protected and that only foreground IP – created during the roll-out of the funded project – is subject to EU knowledge sharing and dissemination rules.

A wide range of technologies should be embraced since the winning future technologies cannot be selected today and the energy future of Europe will be shaped by a variety technologies.

**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

## Contact

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