

# Norwegian Call for Expression of Interest for IPCEI Hydrogen: FAQ

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## Introduction

This document contains answers to questions that have been submitted to Enova regarding the active Norwegian Call for Expression of Interest for IPCEI Hydrogen. All questions have been anonymised. Questions submitted in Norwegian have been translated to English. Questions can be submitted to [arve.solheim@enova.no](mailto:arve.solheim@enova.no).

In case of discrepancies, the Norwegian Call text takes precedent.

## General

*Q: Where can I find the presentations from the webinars?*

A: All presentations, as well as recordings of webinars and any other guidance material can be found on [www.enova.no/ipcei](http://www.enova.no/ipcei)

*Q: What is the difference between an IPCEI project and a project that is supported under Enova's regular schemes?*

A: The projects that can be supported under the Norwegian IPCEI Hydrogen Call shall be in the late stage of technology development and in the early stage of market introduction – similar to other projects supported by Enova. Most projects meeting the qualification criteria under the Norwegian IPCEI Hydrogen call can therefore also in principle be supported under existing Enova schemes.

IPCEI however provides opportunities for projects in the stage of First Industrial Deployment of fundamentally new production technologies and for investments in environmental technology where there is a need to collaborate with partners in the EEA, and where the funding rates of the R&D and/or Energy and Environmental State Aid Guidelines are insufficient to incentivise the project.

To be explicit, the Call of Expression of Interest is not to be regarded as an application for funding, i.e. not all submitted proposals will be fully evaluated for aid. The highest ranked project proposals will however be evaluated and may receive funding for implementing their project. Becoming an IPCEI project thus means both becoming part of the strategically important European hydrogen value chain, and receiving funding from Enova for implementing your project.

## Delimitations and scope of the call

*Q: Are green hydrogen carriers such as green methanol or e-fuels qualified?*

A: The Norwegian call aims to promote innovative zero emission hydrogen solutions for transport and industry, as well as for production of hydrogen. It is a requirement that the hydrogen is “clean”, meaning hydrogen produced with zero or very low emissions. Hydrogen produced from hydrocarbons (fossil, bio-based or synthetic) without CO<sub>2</sub> capture and storage does not qualify as clean in this call.

*Q: Are projects involving production of NH<sub>3</sub> from natural gas with storage of CO<sub>2</sub> qualified?*

A: The Norwegian Call is limited to hydrogen produced with no or very low emissions. In practice, this means hydrogen produced by electrolysis or with CO<sub>2</sub> capture and permanent storage. However, for projects where hydrogen production or the use of hydrogen as an input factor in the production of hydrogen carriers is the main focus, the call demands that the production process must in itself be innovative. Innovative and zero- or low emission ammonia production may qualify under the call. Investments in conventional production technology (e.g. reforming) for hydrogen production from natural gas or projects where the innovation lies in CO<sub>2</sub> transport and storage will not be qualified under the call.

Other financing opportunities may however be available for such projects, such as Enova’s Technology programmes (<https://www.enova.no/bedrift/innovasjon-og-klimateknologi/>) or the ETS Innovation Fund (see [www.enova.no/ets](http://www.enova.no/ets)). Please contact one of Enova’s advisors for more information.

*Q: Are investments in innovative manufacturing processes for components and equipment (fuel cells, electrolysers, storage tanks, transport vehicles, etc) eligible under the Norwegian Call?*

A: The overall IPCEI Hydrogen may contain activities in all parts of the hydrogen value chain, including investments in innovative manufacturing processes for components and equipment. The current Norwegian Call does however not cover manufacturing processes for components and equipment as such, but is delimited to the parts of the hydrogen value chain that entail:

- Use of hydrogen as an emission-free fuel in the transport sector
- Use of hydrogen to reduce CO<sub>2</sub> emissions in the industry sector
- Production of hydrogen

Suppliers of components and equipment will however be eligible as sub-contractors to projects in the above thematic areas.

*Q: Do we need to have the consortium ready by Feb 1st, or can this be established later?*

A: Any partners in the consortium – i.e. parties seeking funding from Enova - need to be included in the Expression of Interest that is to be submitted by Feb 1<sup>st</sup>. Associated partners – i.e. parties that will not receive funding from Enova, such as international collaborators and any sub-contractors to the project partners (i.e. providers of R&D services, equipment, engineering services, etc), do not need to be identified at the time of submission. The project description should describe the type of collaborators/sub-contractors that are needed, and how these shall be identified.

*Q: Can/should Research Institutes be partners in the project?*

A: IPCEI projects should contain considerable R&D activities. The Norwegian Call is not aimed at Research Institutes as such, but Research Institutes may provide R&D services as sub-contractors to the project partners. This will be similar to the IPN project type by the Research Council of Norway, where Research Institutes typically are sub-contractors in projects owned by industry companies.

*Q: Can clusters (klynger) or consulting companies apply?*

A: Companies that are registered in the Norwegian Business Register (or which will be before any assessment of financing is carried out) and that want to participate in innovative projects on a European scale through various partnerships throughout the European economic value chain can express interest in this call. It is a prerequisite that the project for which interest is expressed must be carried out in Norway or on Norwegian territory. For projects that include the use of hydrogen as fuel in the maritime sector, ships must be registered under Norwegian flag. See also the call text for further information.

Note that the call is aimed at ambitious projects involving First Industrial Deployment of or climate friendly investments in innovative hydrogen technologies, and where these activities are backed by relevant R&D activities. Clusters and consulting companies are therefore not in the target group for this call but may be sub-contractors in projects.

*Q: Can commercial roll-out of hydrogen production, distribution and/or fuelling stations qualify under the call?*

A: IPCEIs are aimed at innovative activities and promoting research, development, innovation and innovative investments in strategically important value chains, whose realisation require a coordinated effort and cross-border investments from public authorities and industries in several member states. They are particularly aimed at new industrial areas that are not realised due to various barriers (market failures). IPCEI are however not aimed at supporting commercial activities.

*Q: The Call text requests "sufficiently mature" projects. What does this mean, and how mature do projects need to be in order to express interest?*

A: Typically, a sufficiently mature project will have the following characteristics:

- Documented technological readiness level 6-7 or above, i.e ready for industrial deployment
- Is based on previous, documented R&D activities, either by the applicant or other parties
- Well-described innovation and environmental benefit of the investment, relative to state-of-the-art
- The project has ambitious and well-defined R&D objectives. The use of well-acknowledged R&D methods and a systematic approach are planned to reach the objectives.
- Well-described market and business model for the commercial phase succeeding FID (if relevant)
- Well-documented and realistic plans for organisation, financing, execution and for commercial operation (if relevant) of the project/investment
- Cost estimates that at least meet the criteria for AACE International Class 2 (or similar) at the time of Expression of Interest, and able to reach a cost estimate meeting the definition in AACE International Class 3 (or similar) by the start of pre-notification (tentatively May 2021)
- Has the relevant IP rights to the technology/technologies in the project
- Has the relevant permissions to carry out the project, or shows good knowledge of the needed permissions and a realistic plan to obtain such permissions

*Q: To what degree is it required that one finds partners through the coordinated matchmaking process, i.e. amongst other actors taking part in this process?*

A: It is an absolute requirement that any company that is to receive State aid and be considered a partner in the IPCEI project is part of the coordinated matchmaking process. The IPCEI project (i.e. the overall European project, showing the totality of the individual contributions) will be notified to the EU Commission/ESA jointly. However, it is possible to have subcontractors that have been selected outside the matchmaking process. Such contractors will not formally be a participant in the IPCEI, and the use of international subcontractors will not in itself be sufficient to show the relevance of the project for Europe.

*Q: Does the spillover requirement prohibit companies from protecting IP through patenting?*

A: No. The DG COMP decision on IPCEI Microelectronics

([https://ec.europa.eu/competition/state\\_aid/cases1/201952/277354\\_2120329\\_283\\_2.pdf](https://ec.europa.eu/competition/state_aid/cases1/201952/277354_2120329_283_2.pdf)) e.g. reads: "The Member States confirm that results, which are not subject to registered and unregistered Intellectual Property ("IP"), will be widely and freely disseminated in technical and scientific publications and theses. They however note that some of the publications relating to the work of the IPCEI Microelectronics will follow the filing of patents or other protected intellectual property rights."

*Q: Would you provide examples of spillovers from other IPCEIs?*

A: Per now, the only publicly available information on spillovers is for the IPCEI on Microelectronics. Here, the IPCEI contains a separate Work Package (WP6) on Dissemination and Spillovers. The WP6 description states that:

"This work package will ensure that, along with the other TFs, the results of the IPCEI Microelectronics project are disseminated to the wider audience – to partners outside of IPCEI Microelectronics and to those outside the technologies and countries within the project. It will do so through the normal routes, such as key international conferences. In addition, it will also plan events such as workshops and seminars, designed to "educate" those not yet familiar with the TF." [TF = Technology Field]

Two important arenas for collaboration and dissemination are listed as The annual IPCEI Microelectronics conference and the IPCEI Microelectronics website (<https://www.ipcei-me.eu/>).

Information on the EU Commission's decision, including non-confidential information on spillover activities can e.g. be found here:

[https://ec.europa.eu/competition/state\\_aid/cases1/201952/277354\\_2120329\\_283\\_2.pdf](https://ec.europa.eu/competition/state_aid/cases1/201952/277354_2120329_283_2.pdf)

*Q: IPCEI focuses on very large projects. Is there a required minimum size of the individual sub-projects that would be part of an IPCEI?*

A: There is no formal minimum size for individual sub-projects in an IPCEI. However, all IPCEI projects (regardless of size) are subject to notification to the EU Commission/ESA, whereas ordinarily only projects receiving state aid above 15 MEUR (for R&D and EET) are subject to notification. The notification process requires significant resources both on the part of the national authorities and funding bodies and on the part of the aid recipients. Typically, IPCEI projects are therefore large projects, i.e. from 15 MEUR and above, where a notification process would also otherwise have been necessary.

*Q: Could a startup company apply for a small R&D project to develop a component within the strategic value chain? Or is the aim is to support larger projects.*

A: Pure R&D projects are outside the scope of the Norwegian IPCEI Call. Such projects may however be eligible to apply for aid from the Research Council of Norway ([www.forskningsradet.no](http://www.forskningsradet.no)) or from

Innovation Norway ([www.innovasjon Norge.no](http://www.innovasjon Norge.no)). Note also the answer to the above question on the typical size of an individual sub-project.

*Q: Norway has to make the notification to ESA whereas the EU countries notify to DG Competition, do you have any thoughts on how this will be coordinated, will it be a complicating factor in your opinion?*

A: This will be the first IPCEI where both ESA and DG COMP will be involved, hence there is no prior experience on the exact nature of this coordination. However, we have every confidence that the process will be well-coordinated.

*Q: What European funding possibilities can be relevant?*

Enova is the national contact point for the ETS Innovation Fund, which may be a relevant funding source for investments in innovative hydrogen technologies. The fund aims at promoting demonstration and market introduction of technologies that have great potential for reducing climate gas emissions in the ETS sector. We'd be happy to inform you about the Innovation Fund, you can also find more information here <https://www.enova.no/ets/>

Regarding other European funding options in an earlier stage of development, the Research Council of Norway and Innovation Norway are national contact points. More information can be found here:

<https://www.forskningsradet.no/sok-om-finansiering/internasjonale-midler/>

<https://www.innovasjon Norge.no/no/tjenester/innovasjon-og-utvikling/finansiering-for-innovasjon-og-utvikling/eu-finansiering/>

*Q: How much contact will there be between the different projects (puzzle pieces) throughout the project? How is the dialogue coordinated?*

A: This has not yet been established for IPCEI Hydrogen. However, the governance structure for IPCEI Microelectronics is expected to give guidance. See paragraph 2.3 of the DG COMP decision:

[https://ec.europa.eu/competition/state\\_aid/cases1/201952/277354\\_2120329\\_283\\_2.pdf](https://ec.europa.eu/competition/state_aid/cases1/201952/277354_2120329_283_2.pdf)

*Q: Is a FID phase necessary or can a project only refer to EET for eligible costs calculation, and that over the entire project duration of 15-20 years?*

A: A project can consist of R&D and an EET investment. The EET eligible costs will then be the extra investment costs associated with increased environmental protection, relative to a reference scenario. OPEX are not eligible costs for EET.

*Q: If a project is approved by the Norwegian government, it might still be disapproved by the EU?*

IPCEI projects need to have approval from the EU Commission/ESA to ensure that all conditions for aid are met, both the cumulative criteria for IPCEI and with regards to proportionality of the aid, impact on market distortion, etc. If the conditions for aid are not met, the aid will not be approved by the relevant Authority and no aid can be granted.

## Timeline

*Q: The timeline for matchmaking shows matchmaking tentatively in the end of February and/or the beginning of March 2021. Will Enova consider to postponing the submission deadline if matchmaking starts at a later date?*

A: The submission deadline has been set to allow sufficient time for Enova to evaluate the submitted proposals and to allow the highest ranked proposals to prepare the required material for matchmaking, taking into account the current timeline. This is expected to require at least three weeks from the submission deadline. Enova will not postpone the submission deadline for expressing interest. However – postponed matchmaking will enable more time for the highest-ranked project proposals to prepare for the matchmaking process.

*Q: It was mentioned in the webinar that there might be a «second wave» of projects in IPCEI Hydrogen. Has this been confirmed, and - if so – when is this scheduled?*

A: There are no confirmed plans per now for a “second wave” of IPCEI Hydrogen. However, the large participation in IPCEI Hydrogen and the ambitious hydrogen strategies of both the EU and several of the participating countries indicate that more public funding will be directed towards hydrogen technologies in the coming years. Whether this will be through the IPCEI instrument or through national funding under e.g. the R&D&I or the Environmental and Energy State Aid Guidelines is however too early to say.

*Q: During the webinar with Marc Isabelle, it was stated that projects cannot start until the final approval of the project from ESA has been given, i.e. after the notification process is finished. If the project starts earlier, it will be disqualified. Is this correct?*

A: This is not correct. After final application for funding has been submitted to Enova (i.e. before the notification process to ESA starts), projects might start, however at their own risk on a positive decision from first Enova, then ESA.

In the [IPCEI guidelines](#) it is made very clear in footnote (24) that “the (final) aid application must precede the start of the works. Start of works is either the start of construction works on the investment or the first firm commitment to order equipment or other commitment that makes the investment irreversible, whichever is the first in time.”

## Financing/budget

*Q: Can the Norwegian part of an IPCEI project receive EU funding in addition to funding from Enova?*

A: The maximum public funding (national and/or international) for an IPCEI project is 100% of the funding gap for the project. The funding gap refers to the *difference between the positive and negative cash flows over the lifetime of the investment, discounted to their current value* on the basis of an appropriate discount factor reflecting the rate of return necessary for the beneficiary to carry out the project, notably in view of the risks involved. Where the aid beneficiary faces a clear choice between carrying out either an aided project or an alternative one without aid, the expected net present values of the investment in the aided project and the counterfactual project shall be compared.

It is possible to combine national and EU funding for an IPCEI, e.g. through co-financing with the ETS Innovation Fund (see e.g. [www.enova.no/ets](http://www.enova.no/ets)) or other relevant funding schemes. It is not however possible to exceed the limit for maximum public funding for the same eligible costs.

EU funding may reduce the funding gap and thus the need for national state aid for a project. This will increase the competitiveness of the project on the "Cost Efficiency" selection criterion in the Norwegian Call.

## Eligible costs and economic calculations

*Q: It seems at least challenging to submit all the information you are requesting in just a few weeks. Also given that you have not provided all the templates yet. How do you evaluate this fact and how detailed will the NPV analysis expected to be?*

A: Due to the timeline of the IPCEI Hydrogen as a whole, it is unfortunately necessary to set the submission deadline at Feb 1<sup>st</sup>. The call text, describing the relevant projects and activities, and the project description template have however been available on [www.enova.no/ipcei](http://www.enova.no/ipcei) from Dec 18<sup>th</sup> 2020, as well as information on eligible costs for IPCEIs (see Annex of the [IPCEI Consolidated Guidelines](#)).

We are aware that the timeframe is shorter than ideal. This Call is however aimed at mature projects, i.e. projects that already are expected to have much of the relevant cost estimates and profitability analyses/estimates available already. As an expression of interest is not a formal application for aid, it will be possible to amend and revise the costs and NPV analysis also after the submission deadline, close to the start of the pre-notification phase. However, the submitted information will be used to rank the submitted proposals. It is therefore most important to *provide a good estimate of the requested amount of state aid* in order to score the project on the Cost Efficiency criterion. Should the revised NPV analysis show a lower funding gap than initially indicated, the maximum amount of state aid will be lowered accordingly.

## Selection of projects

*Q: Are the selection criteria weighted equally?*

A: Yes. However, in case of equal rank between projects, projects with the higher score in criteria 1 and 2 (Relevance to Europe and Degree of Innovation) will be prioritised.