

## **Hydrogen Europe's contribution to the European Commission consultation on the Draft IPCEI Communication, presented on February 23, 2021**

***Hydrogen Europe is the leading European Hydrogen and Fuel Cell association which promotes clean and low carbon hydrogen as the enabler of a zero-emission society. It currently represents 230 industry companies, 90 research organisations as well as 25 national Associations. Its member companies are of all sizes and represent the entire hydrogen value chain, from production to transport, distribution and final end-use of hydrogen. The association partners with the European Commission in the innovation program Clean Hydrogen Partnership for Europe.***

Hydrogen Europe welcomes the review of the Communication on important projects of common European interest (IPCEI) and the opportunity provided by the current consultation to contribute to the update of the definition of IPCEIs and their compatibility criteria with the internal market State Aid rules.

Hydrogen Europe supports the general objectives of this revision which aims to clarify certain notions and rules applicable on public support from different sources, to facilitate the direct involvement in IPCEIs of SMEs, and to further enhance the open character of IPCEIs and their consistency with EU policies. However, to further encourage and facilitate the role of IPCEIs as a key industrial policy tool, we invite the European Commission to:

- consider some adjustments to the changes proposed, and
- to enhance the scope and ambition level of the Communication.

As mentioned in Hydrogen Europe contribution to the IPCEIs roadmap of December 2020 (see in the Annex), the developments of the IPCEIs Communication will have direct impact on the H2 IPCEIs building process, that counts with the support of industry and of 22 Member States engaged in the “*Manifesto for the development of a European ‘Hydrogen technologies and Systems’ value chain*” of 17 December 2020. A fit-for-purpose IPCEI framework is indeed necessary to facilitate the development of large integrated projects in the sector and allow H2 to deploy its full potential within the EU Recovery Plan and the European Green Deal.

### **I. ADJUSTMENTS PROPOSED TO THE CHANGES INTRODUCED TO THE IPCEI COMMUNICATION**

Hydrogen Europe would like to draw the attention of the European Commission to several points in the draft Communication that could translate into a more restrictive approach and have a negative impact on the building of H2 IPCEIs. These mainly relate to the definition of the Projects of Common European Interest (i.e. the number of required Member States to launch an IPCEI, general positive indicators and the definition of FID), the level of co-financing, the compatibility criteria and the retroactive application of the Communication.

- **Point 17: Involvement of at least 4 Member States, unless a smaller number is justified (ex: TEN-T projects)**

This requirement might exclude the adoption of (first) H2 IPCEIs that could provide very important contributions in terms of sustainable economic growth, jobs and competitiveness for industry and the economy, if supported by a fewer number of Member States.

This does not only apply to the general structure of an IPCEI but also to its different subprojects. Raising the number of partners located in other Member States in the subprojects could indeed also have a detrimental effect on the building of the first Hydrogen IPCEIs.

For instance, the development of hydrogen clusters, which might have a limited cross-border impact, represents the first milestone of the Hydrogen Backbone. Its development could therefore be hindered if its primary building blocks cannot be part of an IPCEI.

As the number of involved countries might not always justify the relevance of a certain project, Hydrogen Europe supports:

- a) The deletion of the 4 Member States threshold in line with the current framework, or at least the reduction of the number of Members States required, both in the general IPCEI construction and in its subprojects.
  - b) The completion of Point 17 with the following sentence: ‘Benefits could encompass the project contribution to achieving the environmental, climate, energy (including security of energy supply), transport, health or digital strategies of the EU or to the delivery of the internal market.’
- **Point 22.f: The Commission will take a more favourable approach where the project takes into account the Taxonomy Regulation**

As mentioned in the H2 Act published on 8 April, Hydrogen Europe stands for the cleanest and highest performing technologies to achieve climate neutrality in 2050. The transition towards renewable hydrogen will also need low-carbon hydrogen as highlighted in the EU Hydrogen Strategy and the recent EU Council Conclusions<sup>[5]</sup> on H2. Given the urgent need to begin decarbonising existing hydrogen production, the European Commission is also invited to assess whether these low-carbon hydrogen projects can become feasible and prove commercially viable, and offer an immediate contribution to decarbonisation and a subsequent increase in hydrogen volumes available, thereby enhancing the European H2 Strategic value chain.

- **Point 25: First industrial deployment means the upscaling of pilot facilities, demonstration plants or of the first-in-kind equipment and facilities covering the steps subsequent to the pilot line including the testing phase, but neither mass production nor commercial activities**

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<sup>[5]</sup> December 2020 Council Conclusions / Energy Council Conclusions

This definition does not take into consideration the specificities of some sectors in the H2 value chain where the costs of a first innovative large-scale prototype cannot be absorbed by a large serial production or subsequent mass production.

a) There are cases where disruptive innovations can only be tested at small scale in laboratories first, and applied on the first industrial prototype, which is inevitably sold to the client later, thus implying commercial activity.

This is for example the case of the large shipbuilding sector where high-complexity vessels require long time and high costs of construction, and where there is a strong level of customization depending on the customer, on the operational profile or on market segment.

When it is not possible to decouple the FID from implementation, Hydrogen Europe supports the alignment of the FID definition with that of “experimental development” included in the Commission Communication 2014/C 198/01 ‘Framework for State aid for research and development and innovation’: “*the development of a commercially usable prototype or pilot which is necessarily the final commercial product and which is too expensive to produce for it to be used only for demonstration and validation purposes.*”

b) Similarly, for FIDs with a certain installation, the use of that certain installation should not be excluded for subsequent mass production if significant process improvements or process modifications were taken out during FID phase.

- **Point 20 – The project must involve significant co-financing by the beneficiary**

The proposed addition of “significant” to the co-financing provided by the beneficiary brings additional uncertainty on the funding intensity during the preparation of the Project Portfolio thus discouraging, for instance, ambitious capital intensive projects. Hydrogen Europe calls upon the European Commission to clarify in the text that the State Aid may cover up to 100% of the funding gap, in presence of a co-financing from the beneficiary.

- **Point 27 – Importance of the project**

In line with the comments made on Point 17, we propose to remove from the text the requirement of ‘importance in size’ to allow the support of hydrogen clusters (i.e.: with electrolyzers of limited scale), which are key for the development of the hydrogen economy, or at least to complete the paragraph with the following sentence: ‘and/or be functional to achieving the environmental, climate, energy (including security of energy supply), transport, health or digital strategies of the EU or to the delivery of the internal market.’

- **Point 37: The Commission may request the notifying Member State to implement a claw-back mechanism**

While recognising that the excessive funding might be an issue, Hydrogen Europe would like to draw the attention to the fact that clawback mechanisms introduce uncertainty concerning the amount of state aid perceived. Therefore, we suggest to further consider the principle of balanced sharing of gains and of proportionality, by providing more tailored solutions (eg: thresholds, options left to Member States...).

- ***Point 56: The Commission will apply this Communication to all notified aid projects, even where the projects were notified prior to its application date***

Hydrogen Europe understands the need to provide as much predictability and legal certainty as possible during the revision process, but considers that the retroactive application should not apply to the provisions of the Communication that introduce a more restrictive approach and could negatively impact the IPCEIs under preparation and that could be notified before the end of the year.

## II. RAISING THE SCOPE AND AMBITION LEVEL OF THE IPCEI COMMUNICATION

In line with Hydrogen Europe's contribution to the IPCEIs roadmap of December 2020, we consider that the current revision **should also urgently address** two issues extremely relevant for the development of the hydrogen sector:

- **The interpretation of Point 26 concerning the projects of great importance**, in order to provide guidance on how they can relate to large scale demonstration and ramp up projects.
- **The eligibility of additional Opex in the FID as well as in the projects of great importance (Annex)**, to compensate for the higher cost of renewable and low-carbon hydrogen production, as well as end-users' higher costs due to the change to renewable hydrogen and to transforming industrial technologies and processes to hydrogen.
  - a) We propose therefore to add a new **point i)** in the Annex that specifies that both capital and operation expenditures are eligible for projects of great importance responding to the requirements of Point 26.
  - b) Also in the Annex, we support the introduction of the following specifications:
    - a) Include 'FEED' and 'basic and detailed design'
    - b) Include 'materials'
    - c) Include 'test facilities'
    - f) Include 'operation of the infrastructure'
  - c) In addition to this, and for consistency reasons, Hydrogen Europe would welcome for **Point 36**, which refers to the cumulation of aid, to clearly state that public funding of OPEX costs that are non-eligible under IPCEI do not count with respect to the "most favourable funding rate".

## Hydrogen Europe's contribution to the Roadmap on the Revision of the Communication on important projects of common European interest (IPCEIs)

### Summary

#### **Introduction:**

- ✓ *The European Green Deal, the European Recovery Plan and the European Hydrogen Strategy, all give a very strong political signal to kick-starting a clean hydrogen economy in Europe by 2030.*
- ✓ *To achieve the Hydrogen Strategy vision of 6 GW by 2024 and 2x40 GW by 2030, the total investments needed are of 430Bn Euro, with an estimated necessary support of €145Bn.*
- ✓ *Hydrogen needs strong economic incentives along with carbon price/carbon tax/regulatory framework.*
- ✓ *Economic incentives for hydrogen should aim at compensating the higher cost of renewable and low carbon hydrogen production, as well as end-users' higher costs due to the change to renewable hydrogen and to transforming industrial technologies and processes to hydrogen.*
- ✓ *The current State aid regime is not fit to support the ramping up of the production, the transmission and distribution and the deployment of clean and low carbon hydrogen in hard to abate sectors. These needs should be addressed in a dedicated State aid framework for hydrogen technologies (outside or within the EEAG) and the revision of the IPCEI Communication.*

#### **IPCEIs Communication:**

- ✓ *IPCEIs is a very relevant tool to support the integrated development of the hydrogen ecosystem across Member States and the H2 value chain.*
- ✓ *An ambitious approach to hydrogen IPCEIs is needed already in 2021 to use all the flexibilities that the 2014 Communication offers in terms of support to transport and energy projects, coverage of 100% of the funding gap and also in terms of Opex eligibility.*
- ✓ *The 2014 Communication needs to be further clarified and enhanced on :*
  - *the interpretation of Point 23 (environmental, energy and transport projects of great importance) and the possibility to cover large scale demonstration and ramp up projects*
  - *the eligibility of additional Opex in the above-mentioned and FID projects*
- ✓ *Provisional measures could be analysed to provide extra incentive to first hydrogen IPCEIs during the transition period.*
- ✓ *Guidelines on a structured IPCEI building process would be very valuable to ensure the swift organisation of the involved stakeholders and approval by the European Commission.*
- ✓ *Clearer and more favorable rules on cumulation with EU funds, and coherency with the other specific and relevant State aid regimes are an important complement.*
- ✓ *The European Clean Hydrogen Alliance is an opportunity to finetune the needed State aid framework for hydrogen, including IPCEIs as flagships of the Hydrogen Strategy and the Alliance pipeline of investment projects.*

**Hydrogen Europe** is the leading European Hydrogen and Fuel Cell association which promotes clean and low carbon hydrogen as the enabler of a zero-emission society. It currently represents 200 industry companies, 90 research organisations as well as 25 national Associations. Its member companies are of all sizes and represent the entire hydrogen value chain, from production to transport, distribution and final end-use of hydrogen. The association partners with the European Commission in the innovation program Fuel Cells and Hydrogen Joint Undertaking (FCH JU).

## Introduction : Hydrogen a key enabler of the European Green Deal and the European Recovery Plan

**The European Green Deal, the Recovery Plan and the first European Hydrogen Strategy adopted on the 8th of July, all give a very strong political signal to kick-starting a clean and low carbon hydrogen economy in Europe by 2030.** The European climate strategy and the transition to a decarbonised economy will indeed imply a deep transformation of the production, storage and consumption of energy in Europe, with carbon-free power generation, increased energy efficiency, and the deep decarbonization of transport, buildings and industry. **This transition will require hydrogen at large scale, at internationally competitive prices, and in particular clean hydrogen.**

Hydrogen is an essential lever among other technologies, that offers a versatile, clean and flexible energy vector. It makes the large-scale integration of renewables possible with the conversion and storage of energy as a renewable gas. It can be used for energy distribution across sectors and regions, and it also provides a way to decarbonise segments in hard-to-abate sectors of the economy.

At the same time hydrogen opens up business opportunities for EU industry to lead the transition towards a carbon neutral future, based on EU leadership in a number of key hydrogen related technologies. However, full-scale industrial deployment implies the need for systemic change and also requires systemic action along the whole value chain, from hydrogen production and transport to the industrial use as feedstock for energy-intensive industries or as fuel for transport or balancing the renewable electricity output.

Hydrogen Europe has estimated<sup>(i)</sup> that **in order to achieve the Hydrogen Strategy vision of 6 GW by 2024 and 2x40 GW by 2030, the total investments needed are of €430Bn, with a necessary support of €145Bn.**

Economic operators are ready to launch ambitious scale up projects and investments. The high level of engagement of the hydrogen industry representing the whole value chain in the European Clean Hydrogen Alliance attests to this.

But they will not solve the equation alone. The EU political signals need now to be translated into concrete measures that support the creation of a European competitive hydrogen economy, able to face growing international competition.

**In order to create the adequate market conditions for the new decarbonised technologies, and, in particular, for clean hydrogen, the essential rise of the carbon price and the adjustment border tax, will need to be accompanied by a supportive regulatory framework as well as strong economic incentives.**

In the coming years, EU and national sustainable funding will be key in supporting the production of affordable clean hydrogen, securing the needed infrastructure, and covering the higher operating costs of clean hydrogen in the end use sectors. At a moment where Member States are finalising their Resilience and Recovery Plans, and that the EU has confirmed higher CO2 reduction target for 2030, **State aid rules should play an essential role in the acceleration of the European hydrogen industry adaptation efforts until the market develops and costs become competitive.**

## I. Need for a shift in the State aid approach in relation with hydrogen

Hydrogen Europe welcomes the upcoming review of the State aid rules and the opportunity provided for public funds to further contribute to the European Green Deal objectives.

Hydrogen Europe acknowledges the global results of the recent EC evaluation of the State aid rules which concludes that, if the State aid control system and rules are to be fit for purpose, individual rules will need some adaptation, also in the light of the Green Deal and the EU's Industrial and Digital Strategies.

Business as usual will not be enough. State aid rules need indeed to be tailored to support the deployment of the new Recovery and Resilience facility and its objective to dedicate more than one third to green projects.

Hydrogen Europe is convinced that a **real shift will be needed to unlock the potential of the National Resilience and Recovery plans in the light of the European Green Deal. This is particularly important for the development of the clean hydrogen sector while a European supportive regulatory framework is not yet in place.**

An enhanced regime is therefore needed -and is essential in an early stage- to allow State aid into renewable hydrogen projects -individually or through dedicated Member state schemes- relating to the production, transmission and use of clean and low carbon hydrogen.

The enhanced investment support should namely aim at:

- **compensating the higher cost of renewable and low carbon hydrogen production and transport in comparison with existing hydrogen and other fuel prices**

Example:

*Currently, the production of green hydrogen is +/-6 €/kg compared to existing hydrogen (1 €/kg). In order to reduce the costs to 1'5€/kg in Southern Europe and 3€/kg in Northern Europe volumes need to be increased to Gigawatt scale.*

*Scaling up and creating large scale electrolyser manufacturing plants, green hydrogen production sites and renewable generation projects to supply electrolysers should therefore be, as an example, adequately supported.*

- **compensating end users for the higher costs due to the change to renewable and low carbon hydrogen -compared to existing hydrogen and other fuels prices- and for transforming industrial technologies and processes to hydrogen, creating thereby an additional demand**

Examples :

*1.The development of clean and low carbon hydrogen in the industry, mobility and building sectors generates additional operational expenditures due to the higher cost of fuel, that are not always eligible to State aid. For instance, only around 20% of levelised costs of renewable hydrogen production is made up by initial Capex. As a result even subsidising 100% of initial investment will not provide sufficient incentive for industry to result in a fuel switch.*

- **Industry:**  
*Decarbonising energy-intensive industries requires massive investments, but the current aid intensities (often only around 20-30 %) are too low to trigger these high-volume investments. Considerable funding gaps remain uncovered, which inhibits the required decarbonisation projects necessary to enable the Green Deal. Decarbonising processes and products often requires more expensive input materials and/or energy mixes. Therefore it is crucial to allow funding for additional operation costs beyond the investment, until a working market for ‘green products’ is in place.*  
*Next to the review of State aid, it will therefore be necessary to adopt supportive legal measures (eg. obligatory quotas for green-products; enhancing green public procurement...) to establish a “lead market for green products”.*
  - **Mobility:**  
*The inclusion of additional operational expenditures is especially important for rolling out alternative fuels fleets, where the sustainable fuel is usually more expensive than its fossil competitor. For example for long haul, only 21% of the TCO is made up by the initial Capex and often haulers have access to competitive diesel prices at their depots thanks to special agreements.*  
*Besides, a combined approach in support of both fleets (eg: vehicles/vessels) and infrastructure could significantly help accelerate the market uptake, including on corridors (eg: road, inland shipping...). An option would be to designate technologies/types of projects that qualify for state aid and base the assessment on strong business cases that include externalities.*
  - **Buildings:**  
*There is also a clear gap between renewable hydrogen and natural gas that is used for heating in buildings, and that State aids need to address.*
2. *The transformation of industrial technologies and processes to clean and low carbon hydrogen though promising in the steel, chemicals, cement and glass sectors, is still in an exploration phase.*
- **Steel:**  
*In relation with the switch from coal based blast furnace route steel production to hydrogen based direct reduction steel making, the production cost of the GHG lean route for a site in middle Europe (Capex and Opex) amounts to roughly 170% of the conventional production (ii). The support to pilot tests, demonstration plants and then ramp up needs to be accelerated so as to allow these energy intensive sectors to rapidly decrease CO2 emissions. When technology is already largely available, State aid should no longer consider the degree of innovation, but rather the far-reaching reduction in greenhouse gases. Compatibility of Carbon Contracts for Difference (CCfD) can also clearly play a role in promoting the uptake of low-carbon production processes.*

Infrastructure is another key element that the state aid framework needs to further consider to ensure the transmission, distribution and storage of H<sub>2</sub>, including the import of H<sub>2</sub>, and connect offer and demand.

In view of the presented challenges it is clear that limiting support for hydrogen technologies just to Capex will not create a big enough incentive to result in deployments on a big enough scale needed to reach the EU Hydrogen Strategy targets. **The eligible costs should therefore be defined as the funding gap, calculated based on a counterfactual scenario, presumed to be the situation in which the project would not take place. The funding gap should be calculated as the difference between the positive and negative cash flows over the entire lifetime of the investment (i.e. covering both Capex as well as Opex and revenues), discounted to their current value.**

## II. Main levers for the hydrogen sector in the revision of the current State aid framework

Considering the challenges the hydrogen sector is confronted with in the context of the European Green Deal and the Hydrogen Strategy, and, as a newly recognised European strategic value chain, it is important to underline that **the current State aid framework is not fit for the purpose of hydrogen technologies and the development that the hydrogen market will undergo in the coming years. Promoting the hydrogen economy envisaged in the EU's Hydrogen Strategy implies systemic change and requires certain derogations from legislation and regulatory sandboxes.**

As an example, the current Energy and Environmental State Aid framework and the IPCEIs Communication are too limited in scope and have too restrictive cost rules, to efficiently address the market failures of hydrogen deployment.

In the light of the above, Hydrogen Europe supports:

- a) The adoption of dedicated guidelines on State aid or a dedicated chapter within the EEAG for hydrogen technologies, including transport and storage, that provide more tailored and flexible eligibility conditions, more favourable maximum aid intensities and higher aid amounts.
- b) The revision of the IPCEI Communication to adequately address operating costs in hydrogen scale up projects.

## III. The revision of the 2014 IPCEI Communication

### i. Suitability of IPCEIs for hydrogen deployment and status

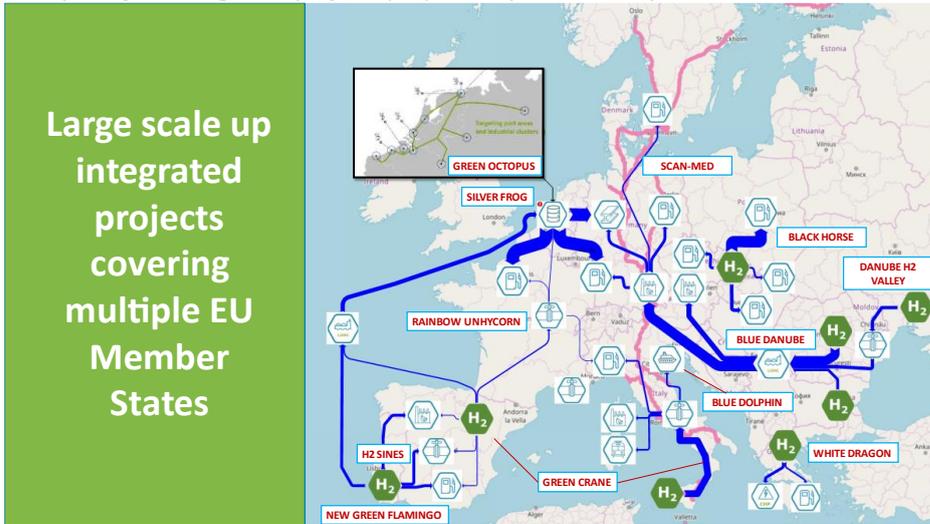
The very nature of IPCEIs as integrated projects along the value chain and across Member States, makes them particularly suitable to accelerate the deployment of the European hydrogen ecosystem at a larger scale.

No hydrogen IPCEI has yet been adopted, but for more than one year many interested companies have been involved in designing major disruptive concept projects, and have submitted substantial proposals to the eleven calls for expression of interest for hydrogen IPCEIs that Member States have launched so far.

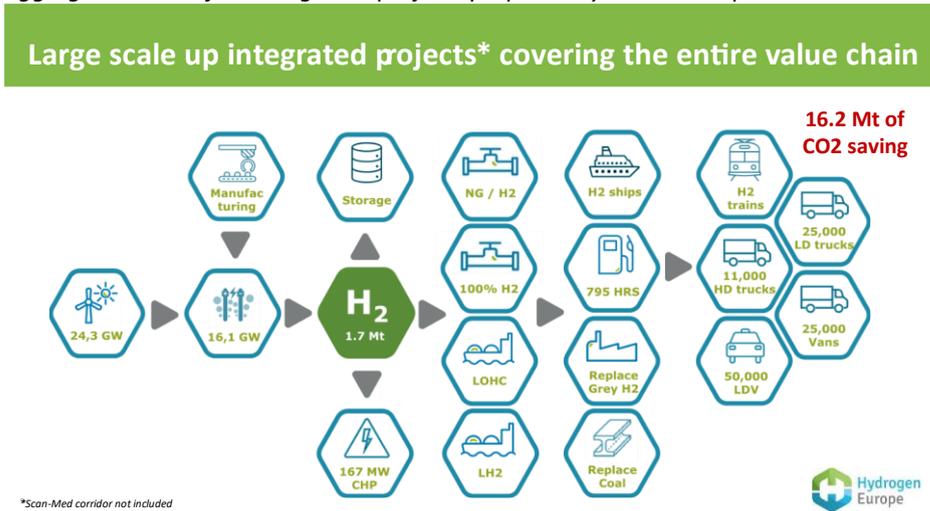
Following the High Level Conference that the German Presidency organised on the 17 of December '*IPCEI now and tomorrow*', and the signature by 23 Member States of the "*Manifesto for the development of a European 'Hydrogen technologies and Systems' value chain*" this process is expected to enter beginning 2021 a more structured and concretisation stage aiming at submitting a first hydrogen IPCEI notification during the year.

Hydrogen Europe fully supports the hydrogen IPCEIS building process and has been instrumental, from an early stage, in setting bridges between all the stakeholders involved. Hydrogen Europe firmly believes that H2 IPCEIs can become the flagship of the European Hydrogen Strategy and showcase the added value of hydrogen on European competitiveness, technology sovereignty and job creation through an integrated value chain.

Examples of H2 integrated projects proposed by economic operators



Aggregated data of H2 integrated projects proposed by economic operators



However, if IPCEIs are to play a decisive industrial policy role in relation with the emergence of the hydrogen economy, specially in the absence of a fit-for-purpose dedicated State aid framework for hydrogen projects in the EEAG, two aspects need to be taken into account :

- a) the potential of the current IPCEI framework, and in particular the provisions related to the projects of great importance, should be fully deployed in relation with hydrogen IPCEIs;
- b) the revision of 2021 should take the opportunity to better address, amongst others, some of the concerns relating to eligibility of projects and costs of the 2014 Communication.

ii. Priorities in relation with the hydrogen IPCEIs under construction

Since the adoption of the 2014 IPCEI Communication a few IPCEIs have been adopted, but the experience relating to the environmental, energy and transport projects of great importance remains very limited.

It is important that the lack of reference in the application of Point 23 of the Communication doesn't limit the opportunities of ramp up integrated hydrogen projects to receive adequate support in a context of a well-known market failure where the mere production and use of clean and low carbon hydrogen is already a disruption in itself.

Until the IPCEIs framework is finetuned, Hydrogen Europe supports an ambitious and forward-looking interpretation of the current rules to deploy IPCEIs full effects in the roll out integrated hydrogen projects across the EU. There is a clear potential for hydrogen IPCEIs to go beyond the practice and **use all the flexibilities that the 2014 Communication offers in terms of:**

- a) support to transport and energy projects of great importance, in addition to RDI and FID,
- b) coverage of 100% of the funding gap,
- c) Opex eligibility,
- d) accelerated assessment after notification of the IPCEI.

The ambitious approach should apply in relation with other aspects identified by existing IPCEIs (eg : possibility of earlier project starts, better efficiency on the reporting and project controlling...) in order to underline the incentivising effect of IPCEIs on hydrogen deployments.

### **iii. Revision of the IPCEIs Communication**

As a facilitator of the IPCEI process, Hydrogen Europe understands that the scope of the IPCEI 2014 Communication urgently needs to be clarified and reinforced in relation with two issues extremely relevant for the development of the hydrogen sector:

- a) **the interpretation of Point 23 on environmental, energy and transport projects of great importance, and the possibility to cover large scale demonstration and ramp up projects,**
- b) **the eligibility of additional Opex** in the above-mentioned and FID projects, so as to compensate the higher cost of renewable and low carbon hydrogen production, as well as end-users' higher costs due to the change to renewable hydrogen and to transforming industrial technologies and processes to hydrogen.

Until the new frameworks applies, additional **provisional measures** could be analysed to provide extra incentive to first hydrogen IPCEIs, especially considering the current absence of a suitable State aid framework for hydrogen projects.

In the future framework, the continuity between IPCEIs rules and the other main State aid instruments must be ensured for hydrogen projects that, even outside IPCEIs, are part of the same ecosystem. Clearer rules on the cumulation of aid, namely with EU funding, and a coherent approach of the available tools with higher funding and larger eligibility costs on Opex (eg: ETS Innovation Fund, Invest EU, CEF, Horizon Europe...) will be equally important.

Finally, to have more visibility on the complex building process of IPCEIs between economic operators, Members States and the European Commission, Hydrogen Europe would also welcome the adoption by the European Commission of a **non-paper proposing a structured working process** for interested stakeholders or at least best practices that could be used as a reference.

### **iv. Cooperation among companies in view of developing a hydrogen IPCEI:**

Alongside enhanced IPCEI rules, Hydrogen Europe would like to stir the attention on the need to clarify the scope of antitrust rules that apply to companies willing to participate in an IPCEI.

This might have an impact on the preparation and future roll-out of the project. In practice, parties are reluctant to cooperate with other companies, and when they do, they mostly settle a ‘competition meeting protocol’ just in case, which involves the presence of lawyers in all meetings and is extremely costly. This may discourage companies from cooperating.

This was the case in some IPCEI pre-application processes, for direct competitors and for vertical collaboration through the value chain.

Hydrogen Europe asks therefore the European Commission **to provide guidelines on the exchange of information in the context of the development of hydrogen IPCEIs** and clarify what is allowed and not in terms of collaborative and confidential data, including the tools that could be used (eg: standardised agreements, intermediary organisations that bring parties together on an ‘open access’ basis and receive the sensitive information, etc...).

## IV. Final remarks

The EU’s objective of achieving 6GW renewable hydrogen production in 2024 and 40GW in 2030 is already at risk. **The period between now and 2024 is crucial in scaling up volumes that can lead to the development of a sustainable and competitive hydrogen market. Before considering the use of market incentive tools (e.g. tariffs, quotas for hydrogen production – both on supply and demand side) for hydrogen uptake, the use of state aid will be crucial in getting these projects of the ground at lowest possible cost and impact for the tax payer and the consumer.**

Hydrogen Europe is very much **concerned by the current legal vacuum and its negative impact on hydrogen investments until the new State aid framework applies.** Despite the current available EU funding tools, hydrogen projects adopted before the reviewed framework will be in a fragile position. If the retroactive application of State aid rules can be a solution, this option remains too uncertain for businesses. Hydrogen Europe proposes therefore the European Commission **to immediately consider an ambitious approach to IPCEIs and provide additional provisional measures for hydrogen projects.**

Finally, as an active member of the European Clean Hydrogen Alliance, Hydrogen Europe expects the Alliance to properly address the funding and financing support to the pipeline projects and other enabling conditions. In this context, Hydrogen Europe supports a thorough discussion on the State aid rules needed to further enhance the investments in scale up projects.

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(i) ‘Hydrogen 2030 : The Blueprint’

[https://hydrogeneurope.eu/sites/default/files/Hydrogen%202030\\_The%20Blueprint.pdf](https://hydrogeneurope.eu/sites/default/files/Hydrogen%202030_The%20Blueprint.pdf)

(ii) “Macroeconomic implications of switching to process-emission-free iron and steel production in Europe”; Mayer et al., Department of Economics at the University of Graz; November 2017