

Consultation on the **Renewable and Low-Carbon Fuels Value Chain Industrial Alliance**

Stakeholder Questionnaire

Fields marked with * are mandatory.

Context

The accelerated uptake of renewable and low-carbon transport fuels is a priority for the European Green Deal and under the Fit for 55 Package. The assessment that underpins the Climate Target Plan and the Sustainable and Smart Mobility Strategy (SSMS) indicates that these fuels will represent an important part of the future transport fuel mix (particularly by 2050).

As part of Fit for 55, The Commission presented the ambitious policy initiatives for aviation and waterborne transport. The EU Sustainable and Smart Mobility Strategy identifies as milestones zero-emission sea-going vessels to be market ready by 2030 and large-scale zero-emission aircraft arriving by 2035. The Zero Emission Waterborne Transport partnership and the Alliance for zero emission aircraft will also support this goal.

Until then however - and, given the long fleet cycles, for a considerable time thereafter - these sectors will need to use renewable and low-carbon fuels that can be blended at increasing levels with existing, conventional fuels for use in current engines. This will include advanced biofuels or synthetic e-fuels (liquid and gaseous) derived from clean hydrogen.

The ReFuelEU Aviation and FuelEU Maritime initiatives presented as part of the Fit for 55 package will incentivise the take-up of such fuels in these sectors. By 2050, we expect these regulatory proposals to create a demand for some ~28.5 Mtoe of drop-in, sustainable aviation fuel production capacity and ~42.6 Mtoe of renewable liquid and gaseous maritime fuel production capacity.

Today, however, production capacity for such aviation and waterborne fuels barely exist. To meet this enormous challenge, our industrial base must develop new sourcing capabilities, production capacity, storage and distribution networks - all in a very short time period.

For this reason, the Commission is considering options for setting up a new dedicated industrial alliance to help meet this complex value chain challenge.

The alliance would :

- Be a voluntary collaboration of stakeholders from across the value chain;
- Reach companies covering all value chain - from sourcing to end-users and technology providers as well as finance providers;
- Represent both the supply and the demand sides of both the aviation and waterborne sectors .
- Welcome the participation of regional and national authorities and organisations as well as businesses active in other transport modes.

The ultimate objective of the alliance is to ensure that all modes of transport have easier access to renewable and low-carbon fuels. Currently, supply of these fuels is concentrated on road transport leaving other transport modes far behind. To rebalance the supply and enable that all transport modes have access, particular focus is needed to develop fuel production, storage and distribution capacity for aviation and waterborne transport.

The Alliance is not excluding any modes: in the medium term, different renewable and low-carbon fuels will continue to play an important role in the decarbonisation of road transport, and businesses active in road-transport fuel production, storage and distribution that are interested in diversifying their customer base and expanding into the aviation and waterborne sectors would be an added-value in the alliance. This would mean new business opportunities and would provide greater resilience over the entire value chain.

The Commission seeks input from stakeholders in co-creation of this new alliance.

About this consultation

The present survey will guide and structure the work of the Renewable and Low Carbon Fuels Alliance and focus it on where the Alliance can add the greatest value. On the basis of the results of this survey, the Commission will further advance in the preparation of the launch of the alliance.

This consultation is open to any interested organisation or company that is committed to contributing to the deployment of Renewable and Low Carbon Fuels.

The Alliance is not a spending programme and has no budget of its own. Instead, it intends to mobilise private and public funding to promote its goals by establishing a credible and robust plan for action. The commitment of its members and their willingness to address the challenges will be key to the Alliance's success.

Submissions will be possible until and including 30 November 2021.

The questionnaire invites your views on the challenges of boosting the supply of renewable and low-carbon fuels, asks you to propose operational targets for the Alliance and gives you the opportunity to indicate the contribution that your organisation or company may want to make to the work of the Alliance. In the final section of the questionnaire you can suggest other issues of concern to the aeronautical industry that you believe should also be addressed. Only those fields marked with an asterisk are mandatory. When participating to this consultation, your data will be processed as described in the attached [Privacy Statement](#). Please be aware that the questionnaire times out after one hour. If you need more than one hour to complete the questionnaire, you should chose the option 'save a backup on your local computer' or click on "save as draft" to save your data for later access.

*** I have read the Privacy Statement and agree on its conditions:**

- yes
- no

Part 1: Information About You

*** Name and address of the company or organisation**

Hydrogen Europe

*** Name of the contact person**

Viktor Borecky

*** Email of the contact person**

v.borecky@hydrogeneurope.eu

*** Do you agree to being contacted** by the European Commission or organisations acting on its behalf on the issues raised in this survey

- yes
- no

*** Your company or organisation is headquartered in:**

- EU Member State

Other country

* Select EU Member State of your headquarters:

* Your company, organisation is:

* Your organisation / company is acting in /representing the following value chain segment

- Primary bio resource delivery
- Secondary bio resources processing and delivery
- Electricity generation and/or hydrogen production
- CO2 suppliers for synthetic fuel production
- Refining and processing of bio-fuels
- Refining and processing of synthetic fuels
- Fuels Transport, Storage and Distribution
- Airport / port, including ground operations provider
- End User (eg. airline, shipping company)
- Technology supplier for any of the above
- Research and development for any of the above
- Financing of any of the above
- Environmental / Societal concerns of any of the above
- Other

* In which transport mode area your operate (more than one allowed):

- Aviation
- Waterborne Transport
- Road
- Rail
- Not Applicable

Part 2: Scope of the Alliance

It is proposed for the Alliance to cover production pathways, for which swift and significant deployment is essential to decarbonise transport in line with the EU's climate targets and blending mandates as outlined in the upcoming Commission FuelEU Maritime and RefuelEU

Aviation proposals. It will support and encourage a sufficient market penetration of renewable fuels to meet the decarbonisation objectives defined in the Sustainable and Smart Mobility Strategy.

In the context of this Alliance, the term renewable and low-carbon liquid and gaseous fuels refer to fuels produced using various technologies which have a wide range of well-to-tank greenhouse gas emissions and energy performance.




As the Alliance is a flanking measure for the ReFuelEU Aviation and FuelEU Maritime initiatives, ensuring alignment with its objectives and requirements is essential. Its starting point will be the range of available renewable fuel categories, as defined in the ReFuelEU Aviation and FuelEU Maritime initiatives:

- Bio-based liquid and gaseous fuels (bio-fuels) produced from a range of feedstock listed in Annex IX of RED II (both Part A and Part B) and used directly or blended with conventional fossil fuels.
- Renewable liquid and gaseous fuels of non-biological origin (synthetic fuels), generated from renewable energy sources (i.e. renewable electricity, direct sunlight, renewable heat, etc.) and having demonstrated greenhouse gas emissions savings of at least 70% based on life-cycle assessment in line with Art. 25.2 of Renewable Energy Directive (EU 2018/2001).

These will be further refined following based on the outcome of the revision of Renewable Energy Directive.

Low-carbon fuels will not be addressed in the first stage of work, but work on those fuels could also be enabled through potential future FuelEU Maritime delegated acts revisions, following to which the scope of the fuels addressed by the Alliance would be adapted as appropriate.

Please score the importance of the type of Renewable Sourcing (1 star = not important, 5 stars = critical):

Biofuels RED II Annex IX Part A (advanced biofuels)	
Biofuels RED II Annex IX Part B	
Renewable Fuels of Non Biological	

Please score the importance of Biofuels Production Pathways (1 star = not important, 5 stars = critical):

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FAME biodiesel	
Hydrotreated vegetable oil diesel or jet fuel	
Anaerobic fermentation	
Fisher-Tropsch and similar	
Other [please specify below]	

Please specify your selection for 'other', if applicable:

Please score the importance of Renewable Fuels of Non Biological Origin production pathways (in the meaning of RED2, 1 star = not important, 5 stars = critical):

Fisher-Tropsch	
Methanol synthesis	
Methanation (e-methane)	
Ammonia synthesis	
Other [open field]	

Please specify your selection for 'other', if applicable:

Part 3: Objectives of the Alliance

A primary objective shall be tackling the lack of availability and affordability of renewable and low-carbon drop-in fuels for aviation and waterborne transport to achieve emissions reductions in line with the 2030 Climate Target Plan without the need of decommissioning of existing fleets and infrastructure or any adaptations. The general objective is to rapidly boost production, storage and distribution capacity of these fuels available to waterborne and aviation without compromising access of other transport sectors by setting up a platform to mobilise private and public investors and increase cooperation across the value chain. The alliance should increase investor certainty, reduce investments risks, including risks of access

to feedstock supply chain.

By increasing the scale of production of relevant fuels as well as putting new and more efficient production technologies to the market, all leading to the reduction of costs, the existing price differential between conventional fossil fuels and alternative fuels should be reduced. Effects of scale are expected due to the introduction of targets as part of the ReFuelEU Aviation and FuelEU Maritime initiatives which should increase the demand from aviation and waterborne transport to reach the level of approximately 5.8 Mtoe for liquid and gaseous biofuels and 0.4 Mtoe for synthetic fuels by 2030, and of approximately 46 Mtoe and 25 Mtoe, respectively, by 2050. This should further to kick-start a self-enforcing circle of increased demand generating increased supply at affordable prices.

To enable and support the alliance to reach its general objective, the Alliance should further work on a set of preparatory and flanking measures:

1. Building on the sustainable feedstock and production pathways eligible towards the decarbonisation targets put forward in FuelEU Maritime and ReFuelEU Aviation, the alliance shall (a) identify transport fuels and pathways which are necessary, most economically and environmentally suitable (including consideration for the zero pollution ambition) for scaling up and (b) evaluate weak and strong points of the value chain (including access to feedstock/energy, technological challenges and geographical considerations) and assess investment needs.
2. Accelerate market entry of new innovative fuels by assessing enabling conditions such economics of massive deployment, demand constraints, access to adequately trained workforce, industry knowledge base and identifying gaps in standardisation and of safety assessments (including of non-CO2 effects) and making sure all stakeholders in the value chains are aware of any downstream certification requirements .
3. Identifying and assessing relevant public and private financing opportunities as well reviewing the suitability of additional instruments for de-risking investments for scaling up the production and crowding in private investments (in particular in relation to cross-border projects) and draw conclusions on their suitability.
4. Building up a pipeline of viable investment projects based on prioritization established within objective 1. In the development of the investment pipeline the alliance will pay particular attention to avoiding long-term technological lock-in. Deployment of complementary technologies for zero-emission vessels and aircraft and steering the transition to the advanced sustainable fuels with the highest decarbonisation potential should not be negatively impacted.

- Looking at building synergies with different transport modes and ensuring availability of resources for renewable and low-carbon fuels for aviation and waterborne (notably in cooperating with the Hydrogen Alliance and ensuring consistency between hydrogen production capacity increases and different utilisation pathways in transport, such as for e-fuels).

Please score the objectives in terms of importance (1 star = not important, 5 stars = critical):

Objective 1	
Objective 2	
Objective 3	
Objective 4	
Objective 5	

In your opinion, are there any other objective fo relevance to the alliance?

5000 character(s) maximum

Hydrogen Europe suggests the Alliance to also address the following topics: 1. Development of global standards as a prerequisite of the uptake of sustainable fuels; 2. Coverage of all transport sectors; 3. EU taxonomy, so as to ensure it support efuels in all transport sectors; 4. Import challenges...

Part 4: Governance

Strategic Openness

The EU renewables and low-carbon fuels value chain will need to be well integrated with global value chains, in particular, considering the global character of aviation and waterborne transport operations. For this reason, the alliance will implement a strategically open approach towards participation of companies and other stakeholders from our global partners. No restrictions are planned for membership regarding the ownership or location.

The Alliance will be open to any company or organisation, Member States, local and regional authorities as well as any stakeholder groups (civil society, trade unions registered in the transparency register, Horizon Europe Partnerships) willing to sign the alliance declaration and committed to actively contribute towards the objectives of the alliance.

The alliance remains open to new members at all stages of its operation. The alliance should group value chains vertically, including relevant representatives of the different actions (research and development, manufacturing, financing, environmental protection) and EU national authorities, regions and local authorities.

However, specific discussion fora that will be called for in the context of the alliance will be limited in size, and therefore selection will be performed by the Commission to ensure geographic and size balance as well as to secure that companies with desired value chain position (as well as other key stakeholders) are well represented.

*** Do you agree with the above approach towards strategic openness?**

- yes
- no

Do you have any other suggestion with regard to the strategic openness?

5000 character(s) maximum

Hydrogen Europe supports the strategic openness approach proposed by the European Commission, but also thinks that project pipeline should be limited to companies operating in Europe, to ensure that the Alliance developments and support mainly benefits the European value chain.

Design and management

The structure of the Alliance should reflect the specificities and challenges of each priority mode and fuel production pathways. The alliance governance will include:

- a secretariat managed jointly by selected three key partners, one representative for the early stages of the value chain (sourcing and production) and two for each pillar representing aviation and waterborne mode, on the basis of code of conduct agreed with the Commission.
- a general assembly comprising of all signatories of the declaration grouped in two chambers for waterborne and aviation mode respectively.
- a number of roundtables grouping selected stakeholders from value chains along:
 - key fuel production pathways and transport modes (aviation and waterborne), and
 - key challenges common to all modes, e.g. access to feedstock, access to finance, etc.
 - selected based on open call for participants. The selection will be conducted by the steering group paying particular attention to ensure (at all times):
 - Optimal geographic balance, favouring underrepresented regions of the EU
 - Representation of large, medium and small enterprises
 - Contribution from broader stakeholders, including NGOs.

- A steering group to ensure policy steering and monitoring of progress from the Commission comprising of the Chair of General Assembly, Executive Directors of secretariat organisations and DG Move Director General. DG MOVE will ensure alignment across relevant Commission Services.

*** Do you agree with the following approach towards governance of the Alliance?**

- yes
- no

Please elaborate on your preferred alternative approach:

5000 character(s) maximum

-Hydrogen Europe doesn't oppose to the creation of chambers within the general assembly, but considers that the role of the maritime and aviation chambers should be clarified in relation with the Roundtables dedicated to these activities.

-We also support enlarging the works of the operational structures to road transport so as to establish as much synergies as possible amongst the different transport sectors.

-Concerning the Roundtables, we suggest to organise them around certain preidentified challenges, and to associate the stakeholders from the entire value chain where relevant, rather than having a vertical value chain approach working in silos.

-We recommend that all participants involved in the operational works share the objectives of the Alliance and also engage to actively contribute to the achievement of its ambitions.

-The leadership and engagement of the European Commission in the Alliance works is of paramount importance for the stakeholders' involvement.

-On the selection criteria, there is a need to clarify how the optimal geophysical balance criteria will be implemented, so as to avoid a negative impact on the strategic openness approach of the Alliance.

Is your company / organisation willing to join the secretariat partnership

- Yes
- No

Expression of Interest to join the secretariat partnership

Please elaborate on your organisation vision for the work of the secretariat

5000 character(s) maximum

-Hydrogen Europe is interested in providing support to the implementation of the RFNBOs and low carbon synthetic fuels pathways by coordinating the contributions of the relevant stakeholders in the value chain. To this end, we are ready to organise and steer the needed working structures and ensure the due interaction with the governance bodies of the Alliance.

-Hydrogen Europe offers to build upon its experience as facilitating organisation of the European Clean Hydrogen Alliance, and contributor to the European Raw Materials Alliance, while ensuring the needed synergies with these and other initiatives related to renewable and low carbon fuels.

Please elaborate on the resources your organisation is willing to dedicate to the work of the secretariat (in FTE).

1 FTE

Are there any other ways your organisation can support the work of the secretariat?

5000 character(s) maximum

Provision of expertise, mobilisation of members, communications and events support...

Part 5. Other issues to be addressed

Are there any other issues concerning the Renewable and Low-Carbon Fuels Alliance you would want to raise?

5000 character(s) maximum

You may upload documents in support for any of the point raised above:

Contact

[Contact Form](#)