


Cluster 5 WP2026-2027

Destination 3

SET Plan Flagships Renewable Fuels

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HORIZON-CL5-2026-11-D3-04: De-risking renewable fuel technologies through transnational pre-commercial procurement of renewable fuel industrial value chains

PCP

40M€

40M€

Per topic

Per project

Expected Outcome

- **De-risk essential** renewable fuel technologies that can contribute to domestic commercial fuel production beyond 2030 in a cost-effective way (overcome valley-of-death);
- **Lower** the de-risking cost by engaging several **competing** solution suppliers/technology providers in parallel
- **Boost transnational** public and private **investments** in de-risking renewable fuel technologies
- **Attract new players** to tackle supplier lock-in issues;
- **Open** market opportunities for **researchers** and **industry** active in **Europe**
- Create **benefits** for **public** authorities, **industry**, **technology** providers, **energy** producers, and **consumers** and **policy** makers
- **Support** implementation of the **SET Plan** Action of **Renewable Fuels and Bioenergy**
- **Accelerate permitting** procedures and increase the **public acceptance** of innovative and sustainable renewable fuel projects

Main challenges remain

- High **capital** and **operational** costs, **supply chain** uncertainties and **regulatory** complexities

Scope

- **Pre-commercial procurement (PCP)** of R&D, validation and possibly, first deployment of **industrial value chains** of **essential** renewable fuel technologies

- **Competitive development in phases** of entire industrial value chains built upon **existing knowledge** on technology and value chain readiness based on existing **EU projects** and **studies** thus **speeding up** de-risking, and possibly **other**
 - i. Production of advanced bioEthanol and further processing into ATJ-SPK
 - ii. Biomass Gasification and FT-Synthesis to produce FT-SPK
 - iii. Production of BioMethanol for further processing into MTJ
 - iv. Hydrotreatment of Lipids from marginal/contaminated lands to produce HEFA
 - v. Biomass Pyrolysis and Upgrading or co-processing to produce biokerosene and bio-heavy fuel oil
 - vi. Biomethane from AD and Gasification and Methanation to produce biomethane for shipping or further processing into methanol (methanolysis) for shipping
 - vii. E-Methanol production from CO₂ and renewable H₂ for shipping

- PCP of services to **design** and bring by the action end at **TRL 8** industrial value chains of essential renewable fuel technologies which are
 - a) based on **domestic** sustainable feedstocks
 - b) create synergies across **all end use** energy and transport sectors for **markets** and **production facilities**

- Make **aware** R&D providers on how to increase their **investment capacity** through **possible** combinations of the PCP contract with additional **Union** support for companies from e.g., EIC, InvestEU, regional funds or other

- Develop **plan** for **deployment** of successful solutions, through deploying some during the project and/or preparing **follow-up** procurement to purchase such solutions (larger volumes) after PCP
- Hydrogen production as end-product **is not** in scope

Implementation

- **One project** developing and implementing the pre-commercial procurement of R&D services from **several providers** established in **any EU MS/AC** and **across national borders** encouraged
- Procurers are contracting entities which are primarily **concerned** in transport decarbonization to boost real take off for solutions in this area of public interest
- ‘Transnational buyers’ could be at least **two public procurers** from different MS/AC plus possibly **one or more private** procurers that provide similar services of public interest, e.g.,
 - EU **airport** and **port** authorities and their respective managing bodies,
 - **aircraft operators** and **shipping companies**,
 - other state, regional or local **contracting authorities** and bodies governed by public law or their associations
- **One joint call** for tender, one joint evaluation of offers, and a **lead procurer** awarding contracts
- Participation of public contracting authorities and entities managing or funding e.g., regional funds encouraged

HORIZON-CL5-2027-02-D3-08: Co-funding Strategic Energy Technology (SET) Plan renewable fuel value chains at EU, national, regional, and local level	COFUND	30M€	30M€
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Per topic

Per project

Expected Outcome

- Support **realization** of the **SET Plan** Action of **Renewable fuels** and Bioenergy;
- Establish **interregional value chains** of renewable fuel technologies **across EU**;
- Create **consciousness** among public (national/regional/local) authorities for facilitating market up-take;
- Better **align** public and private **R&I priorities** and **funding** mechanisms;
- Have highest possible **flexibility** in supporting the challenges, enabling many activity types
- **Engage** and **benefit all** sector stakeholders (EU, SET Plan countries, regions, communities, etc.) from R&I Cofund;
- Create **synergies** and **critical mass** to overcome **fragmentation** of the value chains and **implement** R&I activities;
- Improve **access** to better financing **across funding schemes** and from more effective **market uptake**;
- Improve **security** of a **portfolio** of renewable fuel technologies in more **homogeneous marketplace**;
- **Accelerate permitting** procedures and increase the **public acceptance** of innovative and sustainable renewable fuel projects

Main challenges remain

- High **fragmentation** across Europe (different regions have different capacities in feedstock, technology), **supply chain** uncertainties and **inhomogeneous** marketplace

Scope

➤ Programme Co-fund Action Instrument

- i. 70% funding rate of eligible costs
- ii. beneficiaries may provide financial support to third parties (FSTP)) in the form of grants
- iii. EUR 500 000 is maximum amount of FSTP to be granted to each third party to support concrete R&I interregional projects to be undertaken by research and innovation entities and stakeholders

➤ Create **connected regional** renewable fuel value chain **activities across** Europe, involving regions with lower innovation performances, by sharing and transferring capacities and know-how.

➤ Create **collaboration** at EU, national, regional or local level to collectively develop and implement complete value chains of renewable fuel technologies

- i. Basis Implementation Plan (IP) and its updated version(s) of the Implementation Working Group (IWG) of Renewable fuels and Bioenergy under the revamped SET Plan
- ii. In scope also new identified interregional and transnational challenges across value chains, e.g. feedstock standardization, permitting fragmentation, lack of fit-for-purpose business models in rural regions, using artificial intelligence as appropriate
- iii. Activities should draw from the detailed R&I activities program of the IP of the SET Plan Action Renewable Fuels and Bioenergy (Annex I) regarding development, demonstration (also at pilot scale) and scale-up
- iv. All renewable fuel technologies (advanced liquid and gaseous biofuels, other renewable liquid and gaseous fuels, solid, liquid and gaseous intermediate bioenergy carriers are in scope
- v. R&I at all TRL, pilot actions, market uptake measures, networking and coordination, training and mobility, awareness raising and communication, and dissemination and exploitation are in scope
- vi. Input from the Implementation Working Group on Renewable Fuels and Bioenergy, ETIP Bioenergy, EERA Bioenergy and the SET Plan Direct Solar Fuel forum

➤ Hydrogen production as end-product and heat and power production not in scope

Implementation

- **One project** developing and implementing a **joint** comprehensive **plan of activities**, including an appropriate set of research projects, demonstration projects, technology transfer projects and other activities
- Organize joint transnational calls on an annual basis and will consider ample time for the implementation of the co-funded projects, notably before its end - duration of 5 years
- Participation of public interest legal entities such as state, and notably regional and local authorities, which may have particular interest in regional development of renewable fuel value chains encouraged
- Expect partners from **Eastern Europe** who could enable solutions, thus strengthening their engagement in the SET Plan
- Learn from expertise of **ERA-NET Bioenergy** network, the EU ERA-NET **BESTF3** and **LEAP-SE** EU-AU R&I Partnership on Sustainable Energy
- Financial Support to Third Parties Calls
 - Incorporate the provisions on ‘financial support to third parties’ set out in Annex B of the General Annexes (consult European Commission’s guidance on FSTP activities)
 - Address broad EU geographical balance, open to any public or private entities, including SMEs
 - Eligibility extended to participants established in any EU MS and ACs
- Develop and carry out coordination and clustering activities of the co-funded projects and with other Horizon Europe projects - contribute to the Knowledge Community of the CET Partnership



Thank you!

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