




Snapshot of the Implementation Working Group (IWG)


RENEWABLE FUELS AND BIOENERGY


*Sustainable renewable fuels and
bioenergy for a green economy*




SET Plan Progress Report 2020

 14 Targets

 13 Activities

 249 Projects reported

 723 M€ reported

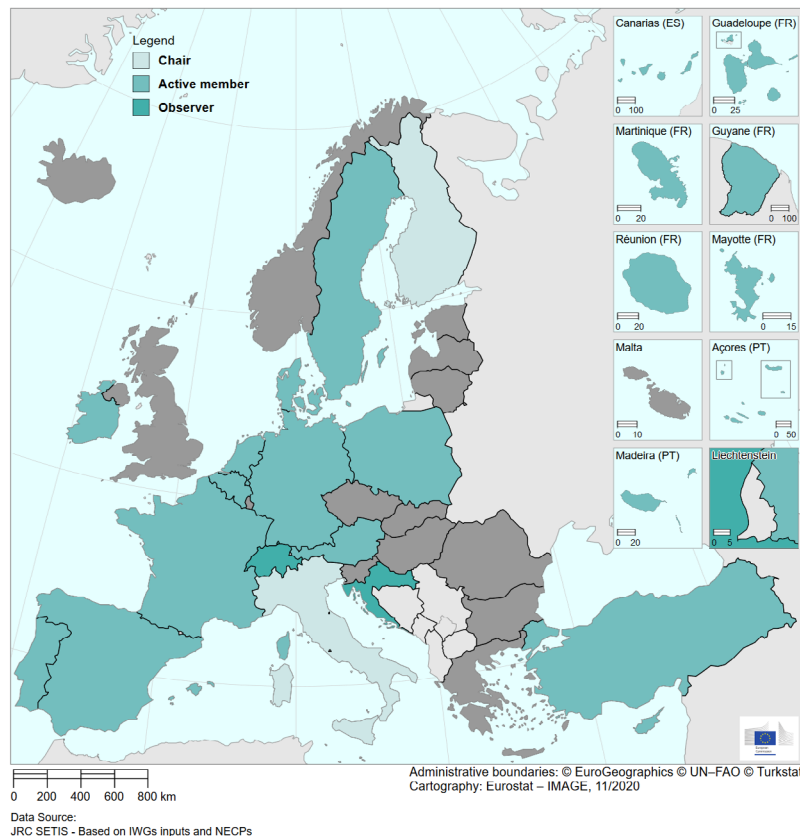


Figure 1 Composition of the IWG

Supporting the EU Green Deal

Sustainable alternative fuels and biofuels are essential to achieve the 90 % reduction in transport emissions needed by 2050 to reach climate neutrality - particularly in aviation, waterborne and heavy-duty road transport, where electrification is currently not possible or difficult.

Sustainable bioenergy contributes to the EU strategy on energy system integration providing flexible energy solutions and enabling higher shares of variable renewable energy in the energy grids, stabilising and balancing it¹.

Revising the implementation plan is necessary to align targets and activities to the EU Green Deal political priorities.

5 out of the 13 activities are at a preparatory stage. The 13 research & innovation activities cover sustainable advanced biofuels, renewable synthetic fuels, renewable hydrogen production and high-efficiency large scale biomass cogeneration of heat and power.

The full list of activities is available [here](#).

¹ SET Plan Input Paper "The SET Plan contribution to the Energy System Integration Strategy" (November 2020). Retrieved from: https://setis.ec.europa.eu/system/files/energy_system_integration_strategy_set_plan_input_paper_2020.pdf

Ongoing projects are addressing activities set as priority such as:

- *Development of high-efficiency large scale biomass cogeneration of heat and power;*

- *Demonstrating advanced liquid and gaseous biofuels, renewable hydrogen and synthetic fuels through biochemical / thermochemical / chemical conversion from sustainable biomass and/or from autotrophic microorganisms and renewable energy.*

Areas for collaboration with the IWGs and beyond the SET Plan

- Bioenergy for balancing grids.
- Carbon capture and utilization, and bioenergy and carbon capture and storage (BECCS).
- Production of renewable hydrogen, renewable synthetic fuels and aviation fuels through photovoltaic, concentrated solar power, and wind technologies.
- Production of solar fuels.

The Implementation Working Group is involved in the International Energy Agency (IEA) bioenergy technology collaboration programme.



Figure 3 Collaboration with the IWGs



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Note: The document is based on and elaborated strictly on the inputs received from the Implementation Working Group.

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