




Snapshot of the Implementation Working Group (IWG)


CONCENTRATED SOLAR POWER – SOLAR THERMAL ELECTRICITY (CSP – STE)

Enabling additional cost-reduction to unlock new business opportunities




SET Plan Progress Report 2020

 2 Targets

 12 Activities

 47 Projects reported

 160 M€ reported

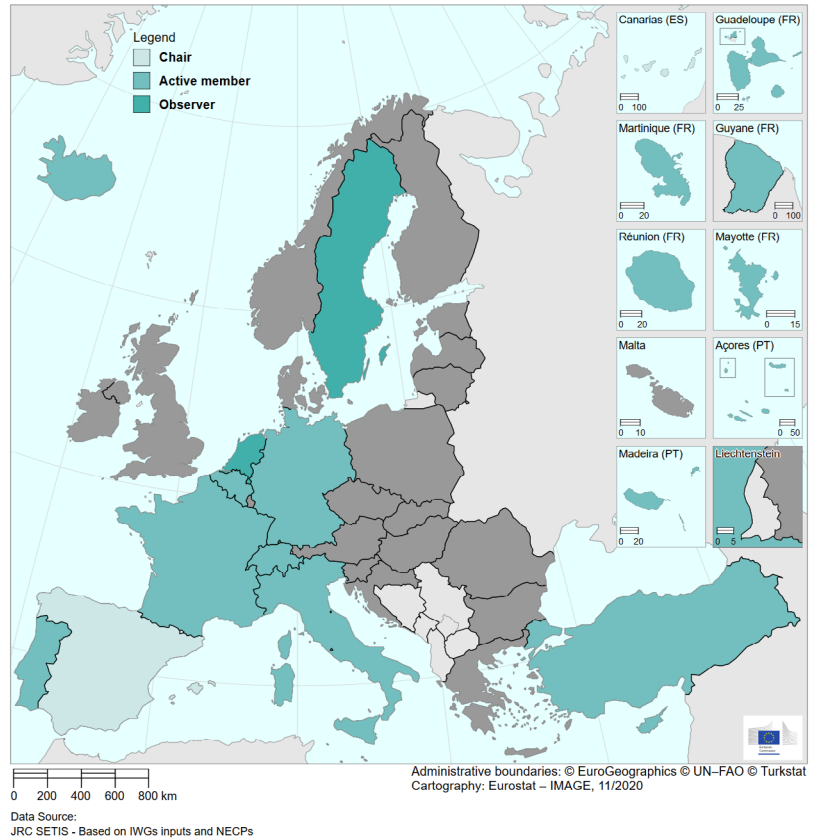


Figure 1 Composition of the IWG

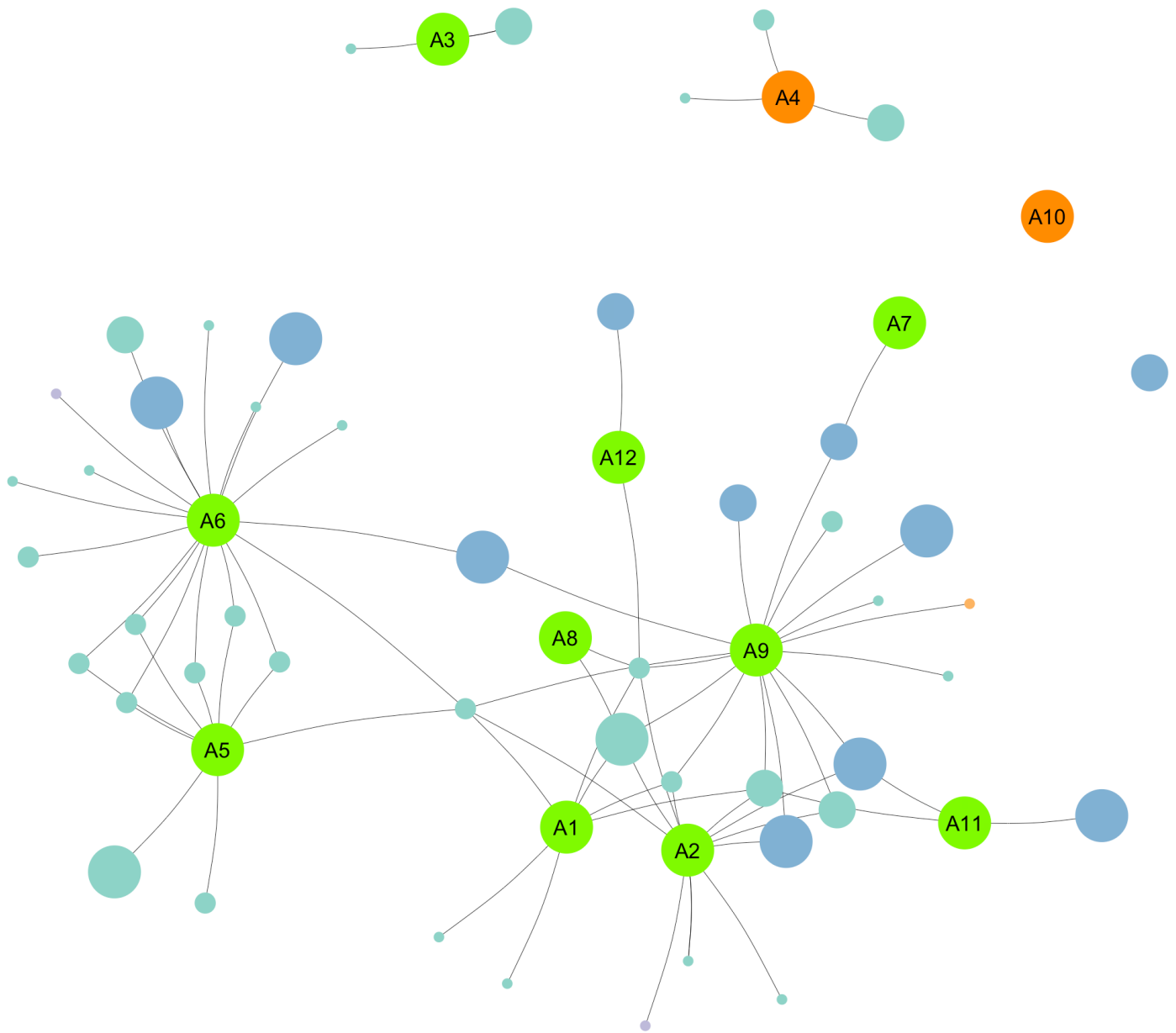
Supporting the EU Green Deal

Targets established in the CSP – STE implementation plan will be revised to better align to the EU Green Deal political priorities. The Implementation Working Group brings additional input to the Energy System Integration Strategy as the integration of Concentrated solar thermal technologies (CST) in energy policies will result in innovative multi-technologies solutions benefitting the electricity, heating and cooling as well as the transport sectors¹.

The IWG is working on developing cost-effective and competitive solar thermal technologies, including thermal energy storage, and has already unlocked significant cost-reductions through the research & innovation activities currently under implementation. Activities are proceeding well. Activity A4 - *Solar tower power plant to commercially scale-up and optimize the core components of the open volumetric air receiver technology* and activity A10 - *Development of supercritical steam turbines optimised for the specifics of concentrated solar power applications* will be addressed by projects ready to take-off (Figure 2).

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



- Funding (M€) ● <1(*) ● 1-2.5 ● 2.5-5 ● >5
 * budget not specified
- EU funded ● National
- Activities addressed by ongoing projects
 ● Activities addressed by projects expected to take-off in the near future

Figure 2 Status of activities

Areas for collaboration with the IWGs and beyond the SET Plan

- Exploration of heat pumps with thermal storage;
- Utilization of CSP technologies and thermal storage to power mid to high heat industrial processes;
- Usage of CSP's longer-term storage in a complementary way to other renewable energy sources like photovoltaic;
- Production of clean hydrogen and kerosene (jet fuel) through CSP technologies.

CSP-STE Implementation Working Group is involved in the IEA's Solar PACES technology collaboration programme (TCP), the clean energy transition (CET) partnership, and collaborating with the EU solaris project.



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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