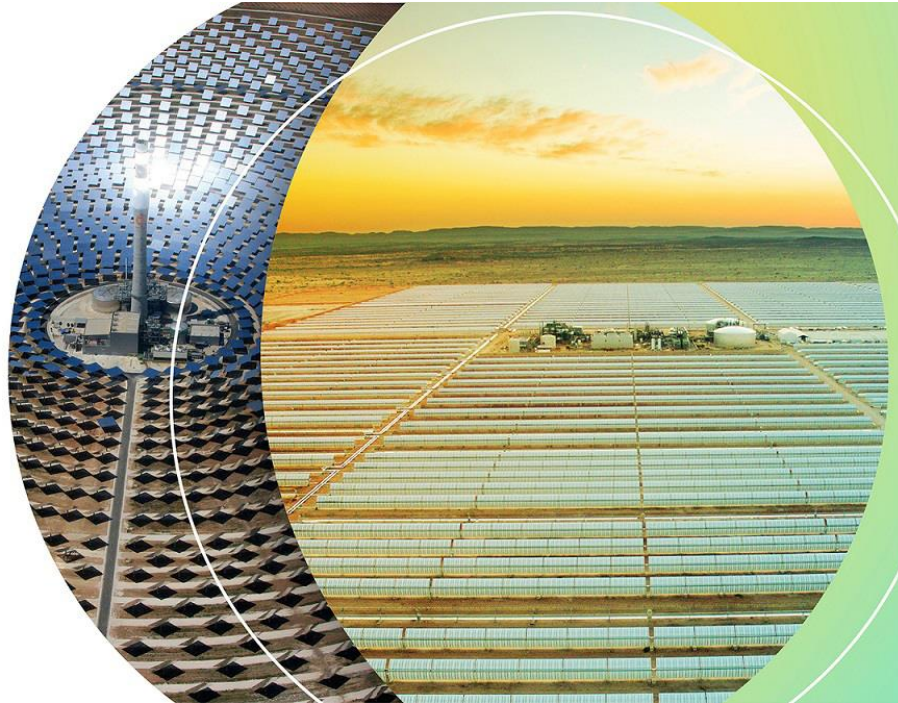




HORIZON
STE

Implementation of the Initiative for Global
Leadership in Solar Thermal Electricity

NEWSLETTER



ISSUE 2

15 June 2020, Brussels

State of Play

One year on, many activities of the HORIZON-STE project have been intensively carried out by all partners. In this issue of newsletter, we would like to share with you our latest progress in the last six months, as well as key findings of our activities that may be of your interests.

The annual General Assembly Meeting was successfully held on the 27th April 2020 online via conference call, due to the outbreak of pandemic. The pandemic may have changed our way of working, however it did not affect much our progress in this project.

Work Package 1: “Implementation Plan (IP) initial and yearly status update”

An intense activity has been performed by the partners in 2020 within the framework of WP1 to elaborate three important documents: the deliverables *D1.3 “Analysis results of the 12 CSP R&I Activities resulting from the Implementation Plan of the SET Plan”*, *D1.4 “Report on options for financing instruments and schemes”* and *D1.5 “Report on yearly update of current framework conditions and market conditions – Year 1”*.

Deliverable D1.3 is confidential, so we only highlighted some key findings. WP1 partners has carried out an analysis of the progress achieved in the R&I activities defined in the STE/CSP Implementation Plan of the SET Plan (hereinafter referred to as “the IP”), with the collaboration of EU-Turbines. A significant technical progress has been found in some R&I activities, while almost none in those related to power block and turbines. Although stakeholders have many innovative ideas for technology improvements and cost reduction of STE, those cannot be developed without the support of public funding. Without substantially increase in national funding and the financial support from the European Commission, the achievement of the objectives defined in the IP will be unfeasible.

The funding sources for R&D activities related to STE/CSP have been analysed in D1.4 at EU level and at national level in: Belgium (Wallonia), Cyprus, France, Germany, Greece, Italy, Portugal, Spain and Turkey. EU funding sources and schemes that could be used for



the First-of-a-Kind (FOAK) plants included in the IP have been analysed too. Most of the funding sources at national level are not STE/CSP specific and therefore project proposals must compete with other technologies. The main funding sources at European level (ERANET, EUREKA, European Joint Programmes, Horizon 2020 and Horizon Europe) are also covered in D1.4.

- Deliverable D1.4 is available for public: [Download](#)

The first yearly update of current framework conditions and market conditions has been carried and several important elements were found to have a potential strong impact on the development of the STE market in the EU. However, this deliverable D1.5 is confidential, therefore we only highlighted key findings below.

In terms of policy, the publication of the European Green Deal and its related measures and funds, sets a favourable context for STE and renewables at large. The need to decarbonise multiple sectors, including electricity and industry, opens the door for Concentrated Solar Thermal technologies (CST) to unfold. The European Parliament has also put forward an own initiative on a “[Draft report on a comprehensive European approach to energy storage](#)”, in which ESTELA has called for strengthening the role of Thermal Energy Storage (TES). If the study is taken up by the Commission, this would be a strong political sign for the sector and investors.

At a national level, the final National Energy and Climate Plans were published and four of the IP countries, namely Spain, Italy, Cyprus and Portugal, have proposed specific targets of STE for energy production. Also, Greece, a non-IP country, set goal to strengthen its R&I in STE to reach commercialisation levels. Regarding the other non-IP countries, in particular Belgium and Switzerland, progress in industry heat and synthetic aviation fuels sent positive signs for further CST developments.

Despite these potential positive unfolds for CST, their realisations will depend on the impact of the Covid-19 pandemic and the choices made by Member States to tackle the crisis.

Work Pack 2: “Re-launching STE Industry in Europe”

Despite the Covid-19 pandemic, HORIZON-STE has made further progress in WP2. In January, ESTELA and METU met with prominent stakeholders in Ankara: TEAIŞ (TSO), EPDK (Regulator), the Ministry of Energy and Natural Resources and the Special Advisor to the Minister of Energy. These visits allowed partners to collect information on the Turkish energy strategy and needs, to design an adapted answer. The country showed a real interest for CST, in particular for industry heat. This was reinforced during a workshop organised by METU, and in which ESTELA took part, gathering research and industry sectors to explore the potential of CST in Turkey. Four main findings emerged: 1) capitalising on existing technological and research capacities; 2) localisation (national companies); 3) meeting the system requirements; 4) starting with small projects to attract investors.





In parallel, contacts were established with Portugal (LNEG, APREN, REN). The upcoming tender for solar with storage, also open to STE, shows how Portugal can be a real support in the relaunch of STE in Europe. HORIZON-STE also tried to establish further contact with Denmark. However, despite ESTELA's effort to get in contact with Aalborg, a prominent Danish CST company, and the Danish representative to the IWG, none of them answered to our proposal for collaboration, reducing the potential for a fruitful approach to the country. The collection of information for this country is therefore presently limited, despite its real potential for heat applications.

In addition to other public impacts, the Covid-19 pandemic is slowing down the meeting process foreseen within WP2, as travels are forbidden, and physical meetings are very limited. Although, virtual meetings are considered as potential replacement, this already has had an impact on some results of this WP.

HORIZON-STE will publish the first country reports at the end of June, including Turkey and a draft for Portugal.



Work Package 3: “R&I Impact Maximization”

WP3 has continued with its commitment to support the realization of R&I projects aligned with the SET-Plan. The main progress in this WP is reflected by the submission of two important Deliverables: D3.1 “Proposal for prioritization of IP projects and actions for the funding agencies” and D3.2 “Develop indicators and methodology for monitoring success of the execution of the IP”.





Deliverable D3.1 is confidential, therefore a general set of outcomes are presented here. D3.1 summarized the results of the Survey which was conducted by HORIZON-STE in Oct/Nov 2019 gathering information about the interest and capacities of STE/CSP stakeholders to take part in R&I and FOAK projects. This survey confirmed that there are many companies and research institutions willing to participate in R&I projects and to bring the STE/CSP technology forward. Recommendations were given by the HORIZON-STE consortium to enable the realization of these projects, especially now, that a speed-up in implementation and with large participation of European stakeholders is targeted. These recommendations include concrete actions to improve the funding framework in Europe.

The public deliverable *D3.2 "Develop indicators and methodology for monitoring success of the execution of the IP"* was completed and submitted to the EC in February 2020. In this report, indicators and a methodology for monitoring the success of the execution of the STE IP are presented. The key methodology is centred on three aspects:

1. To develop appropriate indicators to assess STE/CSP's added-value. The added-value of STE/CSP compared to other renewable energies is related to the dispatchability and the flexibility of the output power
2. To analyse the results of different Calls for Proposals related to the SET IP
3. To track the activity of R&I actions that are executed under the framework of the SET IP

Furthermore, D3.2 presented indicators and targets for evaluation the success of the IP. The indicators split into quantitative (such as measurable physical properties) and qualitative (such as the technical level and scalability). This deliverable also discussed the need to revise the long-term STE/CSP targets in order to address any new plant concepts that can reduce costs.

- Deliverable D3.2 is available for public: [Download](#)

Work Package 4: Communication and Events

HORIZON-STE has recently published an infographic for raising the awareness of the potentials of STE/CSP and thermal energy storage (TES) systems' future uses. This infographic is a set of 5 factsheets that includes the basic introduction on how STE works, facts and figures, and potential of TES and its benefits.

- Download [infographic](#)

Newsletters

For previous newsletter, please visit our website: <http://www.horizon-ste.eu/media-outreach/>

