

Name and number of the action in the ERA Policy Agenda

Revamping the SET plan (Action 11- part 2)

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1. Description

What does the action consist of? Explanation of the problems being addressed, the means used, the objectives to be achieved. Are certain actions already ongoing? Interplay with other actions or policies (EU or national).

The Strategic Energy Technology (SET) Plan was launched in 2007 as a first step to establish an energy technology policy for Europe. It provides a common vision, goals, and coordination for accelerating the development and deployment of efficient and cost-competitive low-carbon energy technologies.

The SET Plan has played a central role in implementing the Research, Innovation & Competitiveness dimension of the Energy Union, and in guiding national research efforts in the National Energy and Climate Plans. It has helped federate national efforts into industrial alliances and Important Projects of Common European Interest (IPCEIs). Recently, it has also enabled its participating countries to pool more than EUR 500 million to jointly support - with an EU topping up of 210 MEUR - a wave of clean energy transition projects².

However, since the last SET Plan update in 2015, the EU energy agenda has changed considerably, requiring a review of the objectives, governance, scope, and activities of the SET Plan. The work in the SET Plan itself has extended to go beyond pure technology development, looking also on cross cutting issues like circularity and sustainability, education and skills for new technologies, citizens' needs and behaviour.

The revision of the SET Plan aims at better supporting the European Green Deal objectives, making the SET Plan compatible with the 'fit for 55' package, the 2050 decarbonisation goal, the REPowerEU initiative, as well as with the new European Research Area Policy Agenda, while ensuring continued support to longer term research on new clean energy sources. Connecting Member States' and Commission's activities in improving the sustainable energy value chain, through research and deployment activities, will be essential for making the EU less dependent from energy imports, while contributing to a new clean economy and ensuring affordable clean energy for all.

The renewed SET Plan therefore aims at tackling the following problems:

- Strong need to increase efficiency, both in energy and cost, of clean energy value chains, including at industrial production level,
- Low speed of development and deployment of clean energy technologies;
- Lack of an overall strategy to exploit synergies between the R&I strategies and

¹ C1 is recruiting one member for ERA SET Plan / name to be confirmed later /

² Clean Energy Transition co-fund Partnership under Horizon Europe (due for launch in 2022)

	<p>landscape at national, European and international level and extend to develop synergies also between the various legal instruments and financial support for R&I at national and EU level;</p> <ul style="list-style-type: none"> • Insufficient attention to cross-cutting issues in the SET Plan, such as environmental ones (sustainability, circularity, best use of planet resources) and citizens' needs approach (health, safety, security, availability and affordability, public engagement). • Better considering domains or technologies which have emerged and reached close to market since the creation of the SET Plan, such as hydrogen, digitalisation and materials; • Need to increase Research, Innovation and Competitiveness chapters in the National Energy and Climate Plans. <p>The objectives of the revision of the SET Plan are the following:</p> <ul style="list-style-type: none"> - To push the initiative and the overall European research and innovation forward in fostering emerging technologies for reaching the EU's 2050 targets, with balanced acceleration of the rollout of technologies expected to bring impact by 2030. - To build momentum and support stronger MS involvement in updating their R&I energy roadmaps to meet the ambitious goal of the EGD. - To strengthen the synergies between EU, national and regional funding sources and push deployment of clean energy technologies. - To refocus, revisit and regroup the multitude of targets in the different working groups, and concentrate on a set of overarching strategic objectives and targets in a more mission-oriented approach. - To rethink the SET Plan governance in order to align it to the new objectives. <p>Ongoing actions: The SET Plan is currently implemented by now 14 Implementation Working Groups (IWG), focused on the 10 SET Plan key actions. Each of the IWG has set an Implementation Plan (IP) with identified R&I activities and clear and measurable targets. The IPs have been revised to align the targets with the ambitious ones of the EGD. However, the structure of the IWG and, more globally, the governance of the SET Plan have not been adjusted to the new situation and new objectives, for instance in the area of prioritisation and for synergies with other relevant actions like investment programmes.</p> <p>As revision of the SET Plan will be done through:</p> <ul style="list-style-type: none"> - Interim evaluation of the initiative - Targeted public consultation - Working groups with the MS and SET Plan stakeholders - Informative discussion at the EP - Preparation of a joint Communication on the SET plan revision - Discussion at the Council and further Commission proposals if needed
<p>2. Actors</p>	<p><i>Who should implement the action? Member States, Commission, Associated Countries, other 3rd countries, stakeholders, etc.</i></p>

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	<p><i>Please note whether half of Member States are already expected to be involved (para. 10 of Council conclusions)</i></p> <p>The implementation of this action will be done by all Member States jointly with the EC and the Associated Countries. Meanwhile, EERA represents the research pillar of the SET Plan.</p>
<p>3. Timing and milestones</p>	<p><i>As far as a calendar can be established already at this stage.</i></p> <ul style="list-style-type: none"> - Setting a roadmap for action Q1 2022 - Consultations with MS and SET Plan stakeholders, Q1-Q2 2022 - Launch Call for Evidence, Q2 2022 - Results from the Interim evaluation of the SET Plan initiative, Q3 2022 - Results from the Call for Evidence Q3 2022 - Presentation of the revision at the SET Plan Presidency Conference November 2022 - Communication from the Commission, Q4 2022 - Organisation of R&I energy thematic working groups with MS 2022-2023 - Update of R&I energy roadmaps across EU MS 2023-2024 - ERA R&I energy updates at the R&I days 2022
<p>4. Funding</p>	<p><i>Identification of different sources of funding (EU, national, private, etc.) and if possible projected amounts.</i></p> <p>Horizon Europe, including from the Clean Energy Transition Partnership and the Driving urban transition partnership</p> <p>National funding</p>
<p>5. Expected impact</p>	<p><i>It is important to attempt to identify the expected impacts of the action, even if at an early stage there may be many unknowns.</i></p> <p>Impact on policies:</p> <ul style="list-style-type: none"> • Revamping the SET Plan to adjust to the Green Deal and RePowerEU will support reaching their objectives and accelerating them, also through the enhanced synergy between the various institutional levels and programmes; • Placing this revamping within the ERA frame allows benefitting from the existing EU wide structure and dialogue, enriching such synergies, as well as providing useful tools for flanking policies like developing education and skills on clean energy for the needs of the industry, providing scientific evidence for adjusting regulatory frame and policy makers. • A global approach like the proposed one may better integrate the overall challenge on circularity and best use of planet resources; similarly, it will support caring about fairness of energy transition through a cross EU work, including all levels of decision and investment; <p>Impact on people:</p> <ul style="list-style-type: none"> • The SET Plan is demand driven, a country should ask to participate; Developing its visibility and its impact will attract more interest from some parts of the EU which are still behind for clean energy transition; • By pooling resources and knowledge, the SET Plan coordination will help all EU MS and all categories of population to have access to develop clean energy

	<p>technologies;</p> <ul style="list-style-type: none"> • The revamped SET Plan aims at embedding the constraints of affordable clean energy for all, not letting anyone behind. This will be integrated in any of the joint actions, supporting the overall value of fairness and affordability of the transition; <p>Impact on R&I and academia</p> <ul style="list-style-type: none"> • The ERA approach will boost the development of joint work between researchers, innovators and industries. It will also increase the link with academia; • The recent COVID crisis demonstrated that joint alliances between researchers across the EU could bring much more benefits than isolated national work. ERA will offer a platform for further increasing this synergy effect; <p>Impact on EU industry</p> <ul style="list-style-type: none"> • The SET Plan involves currently the EU industry through the ETIPs. Revamping this cooperation will accelerate the transfer of clean technologies within the industrial frame, and will provide the EU industry with a competitive advantage; • As it is often dealing with high Technology Readiness Levels, the revamped SET Plan will offer more opportunities to integrate the industrial steps of the clean energy value chain, for instance by addressing manufacturing capabilities for clean energy technologies, thus also supporting EU industry competitiveness; • This could be enhanced through piling up and systematically linking the work of the SET Plan to a skills needed for the industry to benefit from such technology transition, connecting for instance with the Pact for Skills domain on renewable energy; <p>For institutional actors:</p> <ul style="list-style-type: none"> • Exchange of information through a revamped SET Plan, including best practices and lessons learned, will help quicker and better adjusting the regulatory and standardisation frame and policy makers to better adjust their proposal, especially grounding on scientific evidences. • Cooperation and synergies with the EU level, including through the CETP, allows to better match the subsidiarity principle, targeting for the EU funding what will better be supported by the EU than by the other levels, and developing a real ERA of clean energy transition. <p>-</p>
<p>6. Monitoring</p>	<p><i>Qualitative and quantitative elements that allow progress in the implementation to be monitored. Once the policy platform is operational, Member States and Commission will be able to use it for this purpose.</i></p> <p>The SET Plan is currently monitored at two levels:</p> <ul style="list-style-type: none"> • Per priority and working group • Through a yearly monitoring report, based on a reporting tool (SETIS) <p>The SETIS website is the open-access information, knowledge management and dissemination system for the SET Plan, managed by the Joint Research Centre (JRC), European Commission. SETIS helps implement the SET Plan and accounts for its progress and achievements through the monitoring progress report, released yearly during the SET</p>

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	<p>Plan Conference.</p> <p>The revamping aims at reinforcing but simplifying this monitoring, with two pillars:</p> <ul style="list-style-type: none"> • Increasing its consistency with the reporting on the Energy Union, to reduce the workload on SET Plan members; • Increase the visibility of the results of the SET Plan through presenting them regularly to the EU institutions and MS, for instance in the Energy and R&I parts of the Council and to the Parliament.
<p>7. Communication</p>	<p><i>What communication actions could be useful to promote the action, and who should do so (Commission, national public authorities, stakeholders, etc.)?</i></p> <ul style="list-style-type: none"> - Communication from the Commission – Q4 2022 - Annual SET Plan Presidency Conference, Prague, CZ – November 2022 - ERA R&I energy updates at Energy week – September 2022
<p>8. Additional information</p>	<p>The revision of the SET Plan aims at better supporting the European Green Deal objectives, making the SET Plan compatible with the ‘fit for 55’ proposals, the 2050 decarbonisation goal and the REPowerEU initiative, while further developing an efficient and world leading European Research Area on clean energy.</p> <p>Such an ERA will help accelerating dissemination of technologies as well as understanding of cross cutting challenges, therefore supporting delivering better technology solutions adjusted to the objective of a fair and sustainable transition towards clean energy, and supporting the leadership of the European industry and of the research and innovation system in the EU.</p>