

**Brussels, 11 December 2024
(OR. en)**

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NOTE

From:	General Secretariat of the Council
To:	Delegations
Subject:	AOB for the meeting of the Transport, Telecommunications and Energy Council on 16 December 2024 Strategic Energy Technology Plan (SET Plan) Conference (Budapest, 14-15 November 2024) - Information from the Presidency

The Strategic Energy Technology (SET) Plan is a European initiative launched by the European Commission in 2007. Its main goal is to accelerate the development and deployment of clean, efficient and cost-competitive energy technologies to help achieve the EU's energy and climate goals. The SET Plan has contributed to reduce the cost of these technologies and facilitated their large-scale deployment by structuring national and EU programmes around shared objectives which has triggered substantial investment.

The 18th SET Plan conference took place on 14-15th November 2024, in Budapest, organised under the patronage of the Hungarian Presidency of the EU Council in cooperation with the Commission. The event provided a platform for policymakers, researchers and industry stakeholders in the energy sector to network and develop collaborations aimed at developing and demonstrating innovative energy solutions, while accelerating their deployment. There were around 300 participants from 23 EU Member States and 12 non-EU countries.

This year's theme, *Scaling up research, innovation and competitiveness in clean energy technologies*, highlighted the need to reinforce the research and innovation (R&I) landscape, in order to enhance the competitiveness and prominence of clean energy technology value chains within the EU. The agenda also included a number of thematic parallel sessions and high-level panels in the following areas: commercialisation of innovative technologies, industrial decarbonisation, energy storage, skills, solar, wind, hydrogen, geothermal and nuclear energy and skills.

The main goals of the conference were to:

- (1) enhance cooperation and synergies between national and European policies;
- (2) facilitate collaboration within energy R&I; and
- (3) gather the most promising results from energy R&I.

The participants had the opportunity to follow 14 different sessions – a combination of plenary panels and technology-specific parallel sessions, with a total of 71 speakers. The main conclusions from the conference are the following:

- *Commercialisation (from research to market)*: Facilitating the market entry of existing developments is the most pressing issue in the field of industrial research. Many innovations have already been developed but have not yet been widely adopted. According to the International Energy Agency, 35% of the greenhouse gas emission reductions expected by 2050 will be achieved using technologies that are not yet on the market. To speed up the long journey from research to market, there is a need for creating easier access to funding and providing regulatory stability; consumers and investors should also be involved in identifying innovation needs.
- *Human factor*: One of the most significant general challenges for the next decade is the lack of highly skilled labour force. In fact, many energy technology fields are already experiencing a shortage of highly skilled professionals. Balancing basic education and training specialised skills with cross-sectoral knowledge remains a challenge. In addition to highly qualified specialists with specific expertise there is a need for professionals with broad, cross-disciplinary thinking with social science and humanities type of education. The objective is to bring together students and professionals from academia and industry to consolidate the existing knowledge and stimulate knowledge-sharing.

- *New financing mechanisms, alignment and defragmentation are needed:* Research and innovation in clean energy technologies are facing financing challenges, either because their development does not bring short-term or market-based returns, or because it is highly capital-intensive. Another issue is the unequal competitive conditions in R&I. SMEs, and especially start-ups, find it significantly harder to participate in the development race, making it essential to simplify access to EU funding. Finally, EU, national, and private investments are often not aligned and fragmented. National and private capital involvement should be leveraged through various EU-level incentives. The EU should strive to create a level playing field, defragment the R&I community, focus and align its investments and deepen the single market.
- *Technological diversification:* There is a need to acknowledge all the various technologies for their potential contribution to achieving our goals in climate and energy policy. Overregulation could hinder optimal solutions and could in the long run affect the competitiveness of Europe. The EU must strive to keep its goals and regulations as simple and effective as possible.
- *The future of the SET Plan:* The future of the SET Plan relies on the acceleration of the market uptake of clean, efficient and cost-competitive energy technologies and on the even stronger cooperation among policy makers, industry, and research to align R&I agendas across Europe. The SET Plan must ensure a coherent common front for international competitiveness on strategic technologies to achieve its goals, for instance by maintaining background knowledge in technologies that are increasingly gaining traction. It was highlighted that true circularity lies in the ability to include manufacturing waste in the product value chain from which it originated.

Prior to the conference, on November 13, two events took place: a Clean Energy Transition Partnership event and a workshop starting the work on the new five crosscutting Task Forces within the SET Plan, which are focused on digitalisation, circularity & materials, skills, societal needs, and access to the market. The latter workshop provided an interactive platform for 50 representatives from European Technology and Innovation Platforms (ETIPs) and Implementation Working Groups (IWGs) to generate ideas on how to incorporate the Task Force topics into the existing SET Plan implementation plans and strategic agendas.