

Action 11.1: An ERA for green transformation - Development of a green hydrogen R&I ERA pilot action	
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1. Description	<p>The Council conclusions of 1 December 2020 invites the Commission and interested Member States to carry out an agenda process for a green Hydrogen R&I ERA pilot action.</p> <p>In this context, Germany together with other Member States has initiated a bottom-up agenda process towards joint R&I activities, to prepare a Strategic Research and Innovation Agenda. The Commission is actively participating in this process, including by providing input to the SRIA.</p> <p>DG R&I will support this green Hydrogen ERA pilot with a portfolio of actions at EU level, in synergy with and complementing MS actions in the SRIA, as well as in alignment with the Hydrogen strategy for a climate-neutral Europe (COM(2020) 301, Brussels 8,7.2020).</p> <p>Future actions include:</p> <ul style="list-style-type: none"> - Develop a common data sharing area for Hydrogen technologies, market statistics, socio-economic indicators, policy, regulations and financial support, together with a common knowledge area, built on the existing TRUST database and the Hydrogen Observatory of the Fuel Cells and Hydrogen partnership (FCH 2 JU). The Observatory will be further developed along the model of the EUON, which is progressively serving, in addition to researchers and technicians, media and citizens – this activity will be done in synergy with the Clean Hydrogen Joint Undertaking; - Streamline a mapping of industry's needs for skills or re-skilling/upskilling linked to new Hydrogen technologies, with a potential dedicated workshop in 2022, building on preliminary work performed by the industrial stakeholders of the European Partnerships to access the skills agenda and the Employment Pact; - Design potential Open Innovation Test Beds, providing services of testing and piloting within industrial environment including assessment of sustainability and regulatory compliance. It aims at filling the gaps for offering a European common area for testing and piloting towards market especially targeting services for SMEs, which cannot offer investing in such infrastructures. - Continue the cooperation with GROW, JRC, REGIO and ENER on links between the R&I and industrial and regional policy on Hydrogen. - Support a coherent hydrogen international approach in alignment with the Single Basic Act, the Commission hydrogen strategy for Europe and national strategies of Members States to further support a fledged ERA dimension <p>Ongoing action:</p> <p>The 'Agenda Process on the ERA pilot on Green Hydrogen' was built</p>

TEMPLATE FOR EXPLANATORY DOCUMENTS ON ERA ACTIONS FROM THE ERA POLICY AGENDA

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	<p>around three thematic workshops throughout 2021 to identify urgent research and innovation questions for Green Hydrogen competitiveness.</p> <p>A strategic Research Agenda (SRIA) is under development, with the support and contribution of the Commission, foreseen for publication around mid of February. A detailed roadmap of actionable activities will follow, based on a foreseen task force meeting at the end of February to identify a number of concrete actions and activities for 2022-2023-2024.</p>
2. Actors	<p>Member States and the European Commission</p> <p>There is a well-coordinated collaboration with a consortium of member states (see below). Industrial stakeholders and RTOs are involved.</p> <p>Member States that are currently involved in this Agenda Process are AT, BG, CH, CZ, DE, EE, EL, ES, FIN, ISL, ISR, IT, LV, PT, RO, SI and SK.</p> <p>Actions will be designed and implemented by MS and the Commission.</p>
3. Timing and milestones	<p>The action is in an early phase but a number of workshops and events took place in 2021 to support the process and contribute to the preparation of the SRIA. Commissioner's guidance and agreement has been requested on an overall strategic approach to EU R&I activities on Hydrogen, including on building an R&I ERA on Hydrogen.</p> <p>DG R&I will continue to develop the actions on the ERA for Hydrogen within the existing inter-service coordination group on Hydrogen including ENER, MOVE, GROW, CLIMA, ENV, EMPL, EAC and JRC, as well as with the FCH 2 JU and the new Clean Hydrogen Partnership.</p> <p>The following deliverables have been identified (revision by the end of February 2022):</p> <ul style="list-style-type: none"> - Delivery of a Hydrogen SWD – Q1 2022 - Publication of the SRIA of the ERA Pilot by end of February 2022 - Hydrogen thematic groups workshops for implementation and synergies EU/MS/Clean Hydrogen Partnership 2022-2023 - Hydrogen SRIA Conference in 2022 in Germany (and liaison with French Presidency and presentation of the SWD) - Hydrogen thematic updates at the R&I days 2022-2023-2024 - EU MS Hydrogen workshops to set priorities and contribute to the work of the Clean Hydrogen JU State Representatives Groups - Contribution to the Hydrogen Research and Innovation Day, during Hydrogen Week in 2022-2023-2024 - Work towards EU MS Hydrogen national strategies updates and feeding into the EU Hydrogen strategy – KPIs
4. Funding	<p>HE, Possible regional funding (including using the facility of transfer to HE), private funding through the Clean Hydrogen Partnerships, possible national funding through EU MS hydrogen national strategies and R&I funding programmes</p>

5. Expected impact	<ul style="list-style-type: none"> • Accelerating the development of the hydrogen economy in the EU • Reinforcing cooperation between MS especially for mobilising regions and MS which have a lowly developed hydrogen economy • Increasing the EU capacity for storing and distributing the renewable energy necessary for reaching 2030 and 2050 objectives of the Green Deal • Developing EU and MS knowledge (R&I) and skills on hydrogen • Supporting maintaining and further developing the EU industry leadership on hydrogen • Increasing connections with the developing world hydrogen economy
6. Monitoring	<p>The draft SRIA proposes that MS holding the Presidency should take responsibility for the implementation of the SRIA and organise at least one high-level meeting.</p> <p>For the Commission, the draft SRIA should include KPI and monitoring tools, under the condition that these should be consistent and even harmonised with the existing reporting on hydrogen under the Energy Union and could feed the proposed Clean Hydrogen Observatory proposed in the SWD. Consistency with the SET Plan reporting (SETIS) and with the MI monitoring should also be looked at and ensured.</p>
7. Communication	<ul style="list-style-type: none"> - Publication of SWD and related fact sheet Social Media and Video communication at central and decentralised level EU DG RTD and EU Representations at MS level (Q1 2022) - Agenda process conference in Germany (Q2 2022) - Hydrogen week – Q3 2022 - EU R&I Days Q3 2022 - Social Media and video communication at EU MS level
8. Additional information	