

**NEW ERA ACTIONS FOR THE ERA POLICY AGENDA 2025-2027**  
**TEMPLATE FOR NATIONAL CONSULTATION PROCESS**

This template follows up on the debate in the ERA Forum on 25 May, in which Forum representatives agreed on a coordinated approach towards the definition of new actions for the ERA Policy Agenda 2025-2027. It builds on a gap analysis exercise in which the ERA Forum assessed, which parts of the [Pact for Research and Innovation](#) are already covered by the [Policy Agenda 2022-2024](#) and where there should be additions.

<b>Action title:</b> <i>(Please use as a maximum two lines.)</i>	Strengthening R&I investments for industrial transformation and green/digital transition for a competitive and resilient future
<b>Description of the action</b> <i>(Please explain the proposed action in a simple, clear and communicable narrative).</i>	<p>The overall objective of the action is to develop a systematic way for 1) informing and shaping the R&amp;I agenda by industrial needs and 2) for effective transfer of R&amp;I results into industrial ecosystems, supporting technology development for the EU's open strategic autonomy, economic security and the green and digital transitions for a competitive and resilient future.</p> <p>This includes promoting a systemic toolbox for:</p> <ul style="list-style-type: none"> <li>- assessing industrial needs for R&amp;I results and investment,</li> <li>- assessing the available R&amp;I results in strategic industrial technologies,</li> <li>- bringing these to industry, developing investment agendas and supporting technology maturity,</li> <li>- and facilitating the way towards deployment.</li> </ul> <p>The needed tools require strategic and joint engagement by policymakers, industry, research/academia and other R&amp;I stakeholders.</p> <p>Specific objectives of the action:</p> <ul style="list-style-type: none"> <li>- Create a stronger link between R&amp;I and industrial policies.</li> <li>- Contribute to EU's open strategic autonomy, technology sovereignty and economic security agenda.</li> <li>- Encourage systematic transfer of R&amp;I results into EU industrial ecosystems, also through the development of an appropriate Technology Infrastructure landscape.</li> <li>- Mobilise private and public R&amp;I investments for a faster development, uptake and deployment of industrial technologies, to support industrial transformation and the green and digital transitions.</li> <li>- Foster the preparedness of the key actors and industrial ecosystems to advance with the human-centric approaches to technologies for industry.</li> </ul> <p>In selected areas the action will map the existing tools, showcasing good practices and facilitating exchange of experience and bringing new knowledge. It will also identify existing gaps and explore effective ways to address them.</p>

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	<p>The action consists of four activity lines:</p> <p>1) <u>Accelerating decarbonisation of energy-intensive industries</u></p> <ul style="list-style-type: none"> <li>- Development and implementation of national industrial technology roadmaps, strategies, and programmes: identifying best practices of support mechanisms at the EU and national levels; support for implementation linked to e.g. the mix of policy instruments, impact of regulatory and non-regulatory framework conditions, stakeholder consultations, as well as synergies between EU and national funding instruments/programmes building on the experience of European partnerships. This will focus on follow up activities from the Industrial Decarbonisation MLE (ending in March 2024) and the Green Transition component of the Whole-of-Government Approach MLE (ending in March 2024) – e.g., MLE country studies, technical assistance for the implementation of national roadmaps, strategies and programmes, proposal for funding instruments, etc.</li> <li>- Bringing industrial demonstrators to the market: update of demonstrators' mapping, including both EU and nationally funded projects; developing best practices in funding instruments and financial schemes; regular monitoring and evaluation of results of decarbonisation demonstrators across Europe.</li> <li>- Facilitating the transfer of decarbonisation technologies to the market: identification of effective technology transfer channels, in particular to less well performing regions/countries; building bridges to initiatives facilitating the uptake and deployment of low-carbon technologies at regional level (e.g. Regional Innovation Partnerships, Regional Innovation Valleys, Just Transition Mechanism).</li> </ul> <p>2) <u>Advancing circular economy</u></p> <ul style="list-style-type: none"> <li>- Set up of Mutual Learning Exercise (MLE) on circular technologies and business models (scope and activities to be co-created with participating countries): accelerating R&amp;I investments in circular technologies and business models in Europe, facilitating development of new or update of existing circular economy strategies, mapping of circular economy initiatives across Europe and beyond.</li> <li>- Launching pilots supporting circular economy: development and implementation of three pilots in specific areas, e.g. exploring the potential of advanced materials for circularity, or in areas addressed in the ERA industrial roadmap on circular industrial technologies and business models or inspired by it.</li> <li>- Strengthening Hubs4Circularity: better connection of the Hubs and exchange of experience.</li> </ul>
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	<p>3) <u>Implementation of a European approach to Technology Infrastructures</u></p> <ul style="list-style-type: none"> <li>- Setting up a potential governance structure for Technology Infrastructures at the EU level: implementation of the outcomes of the Expert Group on Technology Infrastructures in consultation with Member States, Associated Countries and Stakeholders.</li> <li>- Implementation of Technology Infrastructures pilots based on the results of the Expert Group: specific mapping of Technology Infrastructures and their services in strategic pilot areas selected by the Expert Group, mapping of specific industrial needs and gaps in these pilot areas, developing investment plans, facilitating access to TIs in pilot areas.</li> </ul> <p>4) <u>Scaling up of Industry 5.0</u></p> <ul style="list-style-type: none"> <li>- Follow-up of the ERA Technology Roadmap on Human-centric approaches to technologies for industry, including exploring demand-side policies for companies to adopt human-centric research &amp; innovation practices, and creating learning ecosystems adapting to the twin transition.</li> <li>- Establishing a full-fledged Community of Practice and validation of the Industry 5.0 Assessment Tool: exchange of good practices, better understanding of new models of governance processes (i.e. participatory change process, stakeholder engagement), validation of the assessment tool prototype with stakeholders.</li> </ul>
<p><b>Actors</b></p> <p><i>(Please explain who would take part in the action and who would benefit from it).</i></p>	<p>The action will be implemented by active engagement of the Member States, Associated countries, universities, RTOs, industrial associations, other key stakeholders, and the Commission.</p> <p>The action will benefit the European citizens and the environment, as it will contribute to meeting the EU's climate targets. It will also benefit European industry, contributing to improved competitiveness, technological sovereignty and resilience.</p> <p>Adequate links will be established with representatives of the Industrial Forum, European partnerships, and EU Missions.</p>
<p><b>Expected impact</b></p> <p><i>(Please describe the expected impact of the action (including outside the scientific community), paying attention to the fact that it needs to focus on concrete results and reachable deliverables).</i></p>	<p>The overall expected impact of the action is an improved mobilisation of public and private R&amp;I investments. This includes strengthened synergies in funding of R&amp;I, notably by industry, for technology transfer, demonstrators, scale-up and Technology Infrastructures supporting industrial transformation.</p> <p>Specific expected impacts for the four activity lines include:</p> <p>1) <u>Accelerating decarbonisation of energy-intensive industries</u></p> <ul style="list-style-type: none"> <li>- Increased uptake of low carbon technologies across the EU with a specific focus on widening countries.</li> </ul>

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	<ul style="list-style-type: none"> <li>- Decarbonisation demonstrators monitoring platform - comprehensive understanding of the landscape and financing needs of low-carbon technology demonstrators in energy intensive industries.</li> <li>- Increased number of newly established or updated existing national industrial decarbonisation technology roadmaps, strategies and programmes.</li> <li>- Increased understanding of specific R&amp;D&amp;I investment needs to develop, uptake and deploy key industrial technologies in different EU industrial ecosystems.</li> <li>- Better targeted and synergised national and EU funding to leverage more private R&amp;D&amp;I investment.</li> </ul> <p>2) <u>Advancing circular economy</u></p> <ul style="list-style-type: none"> <li>- Increased number of new or update of existing national circular economy strategies as result of the MLE.</li> <li>- Advancing the uptake of circular industrial technologies through three new pilots.</li> <li>- Increased impact and outreach of Hubs4Circularity.</li> </ul> <p>3) <u>Implementation of a European approach to Technology Infrastructures</u></p> <ul style="list-style-type: none"> <li>- Robust governance for common Technology Infrastructure investments at EU level.</li> <li>- Improved accessibility and provision of Technology Infrastructure services in three new pilot areas, including agreed investment plans in new or upgraded facilities.</li> </ul> <p>4) <u>Scaling up of Industry 5.0</u></p> <ul style="list-style-type: none"> <li>- Community of Practice and Assessment Tool for implementation of Industry 5.0 technologies and processes.</li> </ul>
<p><b>Why do we need this action?</b></p> <p><i>(Please indicate the need for this action in view of implementing the <u>Pact for R&amp;I</u> and <u>achieving the ERA objectives</u> and explain why its <u>objective cannot be reached through existing programmes/ activities</u>. What is the action's <u>added value</u> at national and European level as well as for stakeholders? How does it <u>make a change</u> and how is <u>co-creation</u> ensured?)</i></p>	<p>One of the priority areas of the Pact for Research and Innovation in Europe is linked to strengthening synergies between R&amp;I policy and sectoral and industrial policies. This is a very ambitious objective with far reaching impact on fostering industrial transformation in line with the Green Deal objectives, strengthening EU's competitiveness and technological sovereignty.</p> <p>Building these synergies is a complex and multidimensional process requiring the collaboration of a broad range of actors including public authorities at European, national and regional levels, industry, universities and RTOs, as well as other stakeholders. It requires a better understanding of the industrial R&amp;I needs, existing barriers to the development, uptake and deployment of new industrial technologies, as well as better alignment of funding opportunities.</p> <p>The ERA Policy Agenda offers a unique set-up to bring all relevant actors together and benefit from the broad range of existing</p>

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	<p>expertise in a collaborative model to prepare and implement activities with relevance at EU level.</p> <p>This action is building on the achievements of the ERA Action 12 during 2022-2024, and focuses on the implementation of the proposed four activities, which will bring concrete results for the acceleration of the green and digital transition, where decarbonisation of energy-intensive industries plays an important role as they are currently responsible for 17% of greenhouse gas emissions in Europe and where accelerating the uptake of circular economy can bring additional reduction of Europe's carbon footprint.</p> <p>This action will directly benefit the competitiveness and innovative potential of the European industry, including SMEs and start-ups, due to improved Technology Infrastructure facilities and services as well as their increased visibility and accessibility.</p> <p>The action will also benefit European citizens and it will strengthen the uptake of human-centric solutions in industrial technologies, facilitating social adaptation to the green and digital transition.</p>
<b>Additional information</b> <i>(For example, timing and milestones, which already could be envisaged, can be indicated.)</i>	To be filled in after agreement on the content.

**References:**

[ERA industrial technologies roadmaps \(europa.eu\)](https://europea.europa.eu/era/industrial-technologies-roadmaps)

[Mutual Learning Exercise on Industrial decarbonisation | Research and Innovation \(europa.eu\)](https://europea.europa.eu/era/mutual-learning-exercise-on-industrial-decarbonisation-research-and-innovation)

[Mutual Learning Exercise on The Whole of Government Approach in Research and Innovation | Research and Innovation \(europa.eu\)](https://europea.europa.eu/era/mutual-learning-exercise-on-the-whole-of-government-approach-in-research-and-innovation)

[Scaling up innovative technologies for climate neutrality - Publications Office of the EU \(europa.eu\)](https://europea.europa.eu/era/scaling-up-innovative-technologies-for-climate-neutrality)