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SHAPING MSR STANDARDIZATION FOR EUROPE'S ENERGY FUTURE THROUGH SCIENCE

The Joint Research Centre (JRC), as the European Commission's science and knowledge service, plays a pivotal role in integrating scientific research with practical regulation through the Putting Science Into Standards (PSIS) initiative. In partnership with CEN-CENELEC, the JRC leverages its pre-normative research capabilities to forecast and address the standardization needs of emerging technologies. The 2024 PSIS workshop, focused on Molten Salt Reactor (MSR) technologies, exemplifies this foresight approach, uniting stakeholders across research, industry, policy-making, and standardization to align on the path forward for MSR standardization. The paper, arising from the PSIS workshop, details the collaborative effort to identify and prioritize standardization areas crucial for the safe, secure, and efficient deployment of MSRs, a technology increasingly recognized for its potential in contributing to the EU's energy transition and climate goals. It underscores the urgency for harmonized safety assessments, validated data on thermo-physical properties, fuel qualification processes, and material and component standards, all of which are instrumental in enabling MSR innovation. The workshop's outcomes signal a collective commitment to developing a comprehensive standardization roadmap, aiming to catalyze MSR deployment in alignment with the Net Zero Industry Act and to reinforce Europe's leadership in clean and sustainable energy technologies.

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Confirm that the work is original and has not been published anywhere else

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