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European Commission

CALL FOR EVIDENCE
FOR AN INITIATIVE (without an impact assessment)

TITLE OF THE INITIATIVE	Small modular reactors – future development and deployment in Europe
LEAD DG – RESPONSIBLE UNIT	ENER – D2 "Nuclear energy, nuclear waste and decommissioning"
LIKELY TYPE OF INITIATIVE	Communication from the Commission to the European Parliament and the Council
INDICATIVE TIMING	Q1/Q2 2026
ADDITIONAL INFORMATION	Small modular reactors European Industrial Alliance on Small Modular Reactors - European Commission

This document is for information purposes only. It does not prejudge the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by this document, including its timing, are subject to change.

A. Political context, problem definition and subsidiarity check

Political context

Reliable, affordable and clean energy solutions are urgently needed to support the EU in meeting its decarbonisation targets and increasing its efforts to achieve growth, affordability and competitiveness. This urgency is reflected in several EU initiatives, including the EU competitiveness compass, the Clean Industrial Deal and the REPowerEU Roadmap as well as in several sectoral plans, such as the European steel and metals action plan and European chemicals industry action plan. The Commission's 2040 Climate Target Communication emphasised that all zero- and low-carbon energy solutions (including nuclear) are needed to decarbonise the EU's energy system, to support EU's competitiveness and to uphold security of supply. In June 2025, the Commission published the nuclear illustrative programme (PINC), offering an up-to-date, comprehensive and fact-based overview of nuclear energy investments across the EU, including small modular reactors (SMRs), as also outlined in the action plan for affordable energy.

In February 2024, the European Commission, in partnership with European industry, launched the European Industrial Alliance on Small Modular Reactors ('the Alliance'), building on the groundwork of the European SMR pre-Partnership. The Alliance's main purpose is to accelerate the development of SMR projects in Europe to see the first deployment by the early 2030s. With over 350 members, the Alliance has already made significant progress by identifying an initial batch of SMR projects to form its core. Those projects benefit from the collective expertise of the Alliance's broad membership, particularly regarding the key enabling factors for SMR projects on which eight Technical Working Groups have been set up. In September 2025, the Alliance endorsed its strategic action plan for 2025-2029, outlining the priority actions needed to enable deployment of SMRs in Europe in the coming decade in ways that contribute to EU's industry growth and competitiveness on a global scenery marked by increasing competition of various industry players developing SMR designs and projects. Recent European initiatives, including the Net-Zero Industry Act and Important Projects of Common European Interest (IPCEI), as well as EU-funded research through the Euratom research and training programme will play a key role in supporting EU industry to maintain its competitive edge in the global competition.

The Commission has recognised the need for policy actions taken in this context specifically for SMRs. In his Mission Letter, the Commissioner for Energy and Housing, Dan Jørgensen, was invited to work towards '*supporting the acceleration of the development and deployment of Small Modular Reactors in Europe during the 2030s, building on the European Industrial Alliance of Small Modular Reactors.'*

In this context, the Commission plans to adopt in Q1 2026 a strategy to frame its policies relevant for the development and deployment of SMRs in Europe. Envisaged in the form of a Commission Communication, the strategy will seek to create a supportive industrial, economic and political environment and identify industry and policy actions needed to accelerate the development and deployment of SMRs in Europe in the early 2030s. The

strategy should contribute to the competitiveness of the EU industry as well as innovation in the nuclear sector in the context of other major economies investing in and developing these new nuclear technologies. European industry's and Member States initiatives in this field risk being insufficient without a common EU approach.

Problem the initiative aims to tackle

All zero- and low-carbon energy solutions are essential to boosting the efforts to decarbonise the EU's energy system, while maintaining the EU's competitiveness and energy affordability, and fostering innovation and skills development. With renewed interest in nuclear energy and cutting-edge technologies, several EU Member States have announced initiatives to support new nuclear projects. Over 10 EU Member States, in their final updated national energy and climate plans have expressed interest in developing and deploying SMRs in the next decade, alongside renewables, to support their decarbonisation efforts. These initiatives recognise SMRs as a potential source of clean, flexible electricity and heat for residential and industrial applications, including hydrogen production.

SMRs and advanced modular reactors (AMRs) offer several potential advantages, including simplified design, better safety features and cost-effectiveness of factory production, as well as reduced construction and operational costs, which may make them attractive to policymakers, industries and investors. These smaller reactors, which can be constructed as modular units, provide flexibility to meet diverse energy needs, including electricity, district heating and industrial heat and to produce low-carbon hydrogen and e-fuels. They can also contribute to grid stability and stimulate innovation beyond the nuclear sector, furthering modular manufacturing, advanced materials and digital integration. Therefore, those technologies can play a clear role in meeting the EU ambition for decarbonisation, competitiveness, affordability and innovation.

Basis for EU action (legal basis and subsidiarity check)

Legal basis

The Treaty establishing the European Atomic Energy Community (Euratom Treaty, 2012/C 327/01), in particular Article 2.

Practical need for EU action

While national initiatives for SMR projects and technology development have been initiated, their viable and successful deployment can benefit from a coordinated EU-wide approach. By pooling resources, sharing the financial burden, and stepping up collaboration, the European nuclear energy sector can strengthen its competitive supply chain and manufacturing capacity, elevate R&D excellence, and create new growth opportunities for its businesses. This collaborative approach will also help maintain Europe's global leadership and strategic autonomy, while avoiding new dependencies.

Therefore, the SMR Communication comes at a time marked by significant developments both EU-wide and globally:

(i) the strengthened EU agenda prioritising decarbonisation, competitiveness, affordability and innovation;

(ii) a geopolitical landscape raising concerns about energy security, sovereignty and strategic autonomy;

(iii) the increased interest in SMR technologies among several EU Member States, for electricity and heat production;

(iv) strengthened R&D efforts in the EU to establish SMR technologies as viable business cases and as safe, secure and safeguarded technologies; and

(v) improved access to financing for SMR research and development projects.

B. What does the initiative aim to achieve and how

The main objective of the SMR Strategy Communication will be to leverage the achievements of the European Industrial Alliance on SMRs by creating an environment for accelerating safe development and deployment of SMRs in the EU by the early 2030s.

Building on the Alliance strategic action plan, the SMR Strategy Communication will identify ways to:

- enhance collaboration to build a **robust and scalable supply chain** across Europe, benefiting the whole industry in the EU and helping to maintain its competitiveness**;**
- encourage closer cooperation among Member States to **align regulatory and industry requirements**, thereby improving nuclear safety and streamlining licensing processes;
- **strengthen EU R&D leadership**, including partnerships of SMR start-ups and scale-ups focusing on similar reactor technologies, facilitating resource sharing and pooling of expertise, and supporting the safety, security and safeguards assessment of SMR concepts to accelerate technological advancement;
- secure a **robust fuel cycle approach**;
- ensure that the relevant **skills, expertise and know-how** are maintained, thus driving innovation and reinforcing longstanding European excellence and strategic autonomy in the nuclear sector;
- tackle **investment barriers**;
- set up **public engagement and awareness initiatives** to build up trust in SMR projects.

C. Better regulation

Impact assessment

This initiative is non-legislative in nature, so no impact assessment will be conducted. However, any action announced under this Communication that is planned as a future dedicated initiative (whether legislative or non-legislative) will be assessed against the need to conduct an impact assessment.

Consultation strategy

This 'Call for Evidence' is a key component of the Commission's comprehensive and transparent strategy to actively engage all interested stakeholders (Alliance members and externals), and obtain feedback, evidence and data to help prepare the SMR Communication.

This Call comes after the Alliance strategic action plan was endorsed during the second General Assembly meeting of the European Industrial Alliance on SMRs. The action plan is available on the SMR Industrial Alliance webpage and serves as a supporting document for this consultation: European Industrial Alliance on Small Modular Reactors Unveils Strategic Action Plan - European Commission

To enable discussion with all interested parties (not just Alliance members), a dedicated Stakeholders' Forum will be organised. This will facilitate a wider sharing of views on the future of SMRs both in Europe and beyond.

Member States will be involved via relevant working parties of the Council (particularly the Working Party on Atomic Questions and the Working Party on Research).

In line with the Commission's Better Regulation policy to develop initiatives informed by the best available knowledge, contributions are invited from scientific researchers, academic organisations, learned societies and scientific associations. Contributions may include relevant published and pre-print scientific research, analyses and data. We are particularly interested in submissions that synthesise the current state of knowledge in the relevant field(s).

To strengthen the evidence base, we also invite stakeholders to consider:

- citing results from projects funded as part of Euratom Research, including those projects that support skills, safety, innovation, societal engagement, and investment in research infrastructure; and
- potential synergies with the Horizon Europe programme and the Strategic Technologies for Europe Platform (STEP).

Why we are consulting?

To collect insights and get feedback from the public and stakeholders, enabling them to assess and support the Member States' efforts in deploying SMRs in a collaborative, transparent and inclusive manner.

To complement data collected by the European Industrial Alliance on SMRs, the responses received to this 'Call for Evidence' will be analysed and a summary of results will be made publicly available.

Target audience

- Governmental, regional and local authorities in EU countries.
- The European Parliament, the Committee of the Regions, and the European Economic and Social Committee.
- National regulatory and competent authorities.
- Industry players operating and/or interested in the nuclear sector, including start-ups.
- Nuclear sector vendors and manufacturers, including SMR vendors and developers.
- Nuclear and non-nuclear energy utilities.
- Small and medium-sized businesses and large companies, as well as their respective trade associations.
- Professional and sectoral organisations.
- Technical support organisations.
- Academic, research, technology and training organisations.
- Investors and financial institutions.
- Civil society organisations, including consumer organisations and non-governmental organisations, and the general public.
- International organisations, including the International Atomic Energy Agency, the OECD International Energy Agency and the OECD Nuclear Energy Agency.