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PROPOSAL

From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	3 September 2025
To:	Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union
Subject:	ANNEX to the Proposal for a COUNCIL REGULATION establishing the research and training programme of the European Atomic Energy Community for the period 2028-2032, complementing Horizon Europe, the Framework Programme for Research and Innovation, and providing for the Community's contribution to the ITER project, and repealing Regulation (Euratom) 2025/1304

Delegations will find attached document COM(2025) 594 annex.

Encl.: COM(2025) 594 annex

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COM(2025) 594 final

ANNEX

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to the

Proposal for a COUNCIL REGULATION

establishing the research and training programme of the European Atomic Energy Community for the period 2028-2032, complementing Horizon Europe, the Framework Programme for Research and Innovation, and providing for the Community's contribution to the ITER project, and repealing Regulation (Euratom) 2025/1304

{SWD(2025) 594 final} - {SWD(2025) 595 final}

ANNEX

The general and specific objectives referred to in paragraphs 1 and 2 of Article 3 shall be pursued across the 2028-2032 Euratom programme, according to the broad lines of activity described in this Annex.

Specific objectives 2(a) and 2(b)

In relation to fusion, the scope of the Programme is the implementation of the EU Fusion Strategy, including ITER construction and operation, the Broader Approach and IFMIF/DONES. The Programme will be implemented through a combination of complementary fusion research activities and relevant EU instruments, effective involvement of industry and other stakeholders and support to the emergence and development of startups.

The following actions will be supported under these specific objectives:

(i) maintain EU leadership in the ITER project by active participation in its governance and supervising Fusion for Energy, in particular for timely delivery of EU components as in-kind contributions;

(ii) continue collaboration with the ITER Organization and partners to ITER related activities;

(iii) support research and innovation to close the key technology gaps standing in the way of the realisation of fusion pilot power plants;

(iv) exploit existing fusion facilities and contribute to the design and development of future facilities in the EU, relying on lessons learned from ITER;

(v) support an effective involvement of industry, aiming to develop fusion technologies, to advance mature technologies towards market readiness, to create business opportunities and to consolidate a European fusion supply chain;

(vi) widen support to include inertial confinement fusion, while keeping focus on magnetic confinement as the most mature approach;

(vii) support European fusion startups to scale up and attract private investments in the EU;

(viii) build competence and skills on fusion energy in the EU and implement a focussed and coordinated education and training programme in addition to activities mentioned under specific objective 2(d);

(ix) support scientific and technological collaboration in the framework of Euratom's international bilateral agreements and other relevant international cooperation schemes.

Specific objective 2(c)

(i) Safety and security of supply

Safety of reactor systems and fuel cycles in use in the Community and for reactor types and their fuel cycles which may be used in the future, while ensuring R&I in a resilient nuclear supply chain and security of nuclear supplies, including the development of alternative fuels and spare parts;

(ii) Nuclear safeguards, non-proliferation and nuclear security (to be implemented by JRC)

Research, innovation, analytical and in-field support to Euratom safeguards implementation, including training of safeguards inspectors. R&D and support on strategic trade control and technical contributions to strengthen the international non-proliferation regime. Capacity building for frontline officers and other security agents to respond to illicit traffic of nuclear material and to other unconventional Chemical, Biological, Radiological and Nuclear (CBRN) threats. Research and analytical methods to enhance detection of nuclear and radioactive material out of regulatory control, nuclear forensics

(iii) Radiation protection

Research and innovation in radiation protection to improve understanding and mitigating the health risks from the ionising radiation, and to enhance emergency preparedness:

- Effects and risks of ionising radiation from industrial, medical or environmental exposure;
- Emergency preparedness and response for radiological emergencies, environmental radioactivity monitoring and research on radioecology;

(iv) Innovative use of ionising radiation, including in the medical sector

Research and innovation in non-power applications, with a focus on enhancing public health, safety, sustainability and European competitiveness:

- Innovative applications of ionising radiation, including medical radionuclides, for diagnostics and treatments of cancer and other diseases;
- Security of supply and safe use of radionuclides
- Other innovative applications of ionising radiation and nuclear materials

(v) Nuclear data

Development and use of modelling techniques, including simulation codes, tools and data to validate the safety, security and safeguards of nuclear systems.

(vi) Safe spent fuel and radioactive waste management

Research into innovative and sustainable solutions for the safe management of radioactive waste and spent fuel and in particular pre-disposal activities and disposal of intermediate- and high-level radioactive waste and spent nuclear fuel, and of other radioactive waste streams and types for which industrially mature processes currently do not exist or could be improved; radioactive waste minimisation and reducing the radiotoxicity of this waste; the management and transfer of knowledge and competences between generations and across Member States' programmes in radioactive waste and spent fuel management;

(vii) Decommissioning

Research for the evaluation, development and deployment of technologies for decommissioning and environmental remediation of nuclear facilities; support

for sharing best practices and knowledge and preserving the competences in the field of decommissioning;

Specific objective 2(d)

(i) education, training and mobility, including schemes implemented in synergy with Horizon Europe Framework Programme;

(ii) promotion of innovation, knowledge management, dissemination and exploitation of nuclear science and technology;

(iii) support for technology transfer from the research to industry, strengthening the European industrial capacity and competitiveness;

(iv) support to Member States in developing their nuclear skills and workforce strategy;

(v) support for the long-term sustainability, availability, access and optimal use of nuclear research infrastructures, including those operated by the European Commission, complementing Member States capacities.

Specific objective 2(e)

(i) support to the Union's policy on nuclear safety, radioactive waste and spent fuel management, radiation protection, nuclear security and safeguards, as well as other relevant legislation with independent scientific and technical evidence and expertise;

(ii) harmonisation of radioactivity measurements with certified reference materials and methods, as well as contribution to international nuclear data libraries;