

## II

*(Non-legislative acts)*

## REGULATIONS

## COUNCIL REGULATION (Euratom) 2021/765

of 10 May 2021

**establishing the Research and Training Programme of the European Atomic Energy Community for the period 2021-2025 complementing Horizon Europe – the Framework Programme for Research and Innovation and repealing Regulation (Euratom) 2018/1563**

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular the first paragraph of Article 7 thereof,

Having regard to the proposal from the European Commission,

After consulting the Scientific and Technical Committee,

Whereas:

- (1) One of the aims of the European Atomic Energy Community (the 'Community') is to contribute to the raising of the standard of living in the Member States, including by promoting and facilitating nuclear research in the Member States and complementing it by carrying out a Community research and training programme.
- (2) Nuclear research can contribute to social well-being, economic prosperity and environmental sustainability by improving nuclear safety, security and radiation protection. Research on radiation protection has led to improvements in medical technologies from which many citizens benefit, and that research can lead to improvements in other sectors such as industry, agriculture, environment and security.
- (3) In full respect of the Member States' right to decide on their energy mix, research results of the programme established by this Regulation could potentially contribute towards a climate neutral energy system in a safe, efficient and secure way.
- (4) In order to ensure the continuity of nuclear research at Community level, it is necessary to establish the Research and Training Programme of the Community for the period from 1 January 2021 to 31 December 2025 (the 'Euratom Programme'). The Euratom Programme should continue carrying out the key research activities of previous programmes, while introducing new specific objectives and using the same mode of implementation.
- (5) The Commission's Report on the interim evaluation of the 2014-18 Euratom Research and Training Programme contains a set of guiding principles for the Euratom Programme. These include: continuing to support nuclear research focused on nuclear safety, safeguards, security, waste management, radiation protection and development of fusion; together with beneficiaries, further improving the organisation and management of the European Joint Programmes in the nuclear field; continuing and reinforcing the Euratom education and training actions for developing relevant competencies which underpin all aspects of nuclear safety, security and radiation protection; further exploiting synergies between Euratom programmes and the other thematic areas of the Union Framework Programme; and further exploiting synergies between direct and indirect actions of the Euratom Programme.

- (6) The conception and design of the Euratom Programme is set against the need to establish a critical mass of supported activities. This is to be achieved by establishing a limited number of specific objectives focussed on safe use of nuclear fission for power and non-power applications, maintaining and developing necessary expertise, fostering fusion energy and supporting the policies of the Union and its Member States on nuclear safety, safeguards and security.
- (7) The Euratom Programme is a crucial part of the Union's efforts to further develop technological leadership and promote excellence in nuclear research and innovation, in particular to ensure the highest standards of safety, security, safeguards, radiation protection, safe spent fuel, radioactive waste management and decommissioning in the nuclear field, in accordance with the programme objectives set out in this Regulation.
- (8) As all Member States make use of radioactive materials, for example for medical purposes, or have nuclear installations, it is important to ensure the responsible and safe management of spent fuel and radioactive waste, as required by the Council Directive 2011/70/Euratom <sup>(1)</sup>, in order to avoid imposing undue burdens on future generations. The Euratom Programme should continue to improve and support research and development relating to technologies and competencies in the area of spent fuel and radioactive waste management.
- (9) In the context of this Regulation, fusion energy research is being implemented in accordance with the European Fusion Roadmap, which outlines the research and developments required to provide the basis for an electricity-generating fusion power plant, and with Council Decision 2007/198/Euratom <sup>(2)</sup>. In the short-to-medium term the key step is the completion of the construction and initial operation of ITER and a vigorous fusion research programme should complement the European activities on ITER in order to support the future ITER operations and the preparation for the demonstration reactor DEMO.
- (10) By supporting nuclear research, the Euratom Programme should contribute to achieving the objectives of the Horizon Europe – the Framework Programme for Research and Innovation ('Horizon Europe') established by Regulation (EU) 2021/695 of the European Parliament and of the Council <sup>(3)</sup> and should facilitate the implementation of the Europe 2030 strategy and the strengthening of the European research area.
- (11) The Euratom Programme should seek synergies with Horizon Europe and other Union programmes, from their design and strategic planning, through project selection, management, communication, dissemination and exploitation of results, to monitoring, auditing and governance.
- (12) The Euratom Programme's actions should be proportionate, without duplicating or crowding out private financing, and should have a clear European added value. This will ensure consistency between the actions of the Euratom Programme and Union State aid rules, avoiding undue distortions of competition in the internal market.
- (13) While it is for each Member State to choose whether or not to make use of nuclear power, it is also acknowledged that nuclear energy plays different roles in different Member States. The Euratom Programme will also contribute through its research activities to fostering a broad discussion among all relevant stakeholders regarding the opportunities and risks of nuclear energy.
- (14) To address the needs for education and training, the Euratom Programme should offer support through financial contributions so that researchers in the nuclear field become eligible to benefit from Marie Skłodowska-Curie Actions (MSCA) on an equal footing with researchers in other fields.

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<sup>(1)</sup> Council Directive 2011/70/Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste (OJ L 199, 2.8.2011, p. 48).

<sup>(2)</sup> Council Decision 2007/198/Euratom of 27 March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy and conferring advantages upon it (OJ L 90, 30.3.2007, p. 58).

<sup>(3)</sup> Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013 (OJ L 170, 12.5.2021, p. 1).

- (15) This Regulation lays down a financial envelope for the entire duration of the Euratom Programme which is to constitute the prime reference amount, within the meaning of point 18 of the Interinstitutional Agreement of 16 December 2020 between the European Parliament, the Council of the European Union and the European Commission on budgetary discipline, on cooperation in budgetary matters and on sound financial management, as well as on new own resources, including a roadmap towards the introduction of new own resources <sup>(4)</sup>, for the European Parliament and the Council during the annual budgetary procedure.
- (16) Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council <sup>(5)</sup> (the 'Financial Regulation') applies to the Euratom Programme. The Financial Regulation lays down rules on the implementation of the Union budget, including the rules on grants, prizes, procurement, indirect management, financial instruments, budgetary guarantees, financial assistance and the reimbursement of external experts. Rules adopted on the basis of Article 322 of the Treaty on the Functioning of the European Union (TFEU) also include a general regime of conditionality for the protection of the Union budget.
- (17) The types of financing and the methods of implementation under this Regulation should be chosen on the basis of their suitability to achieving the specific objectives of the actions and to deliver results, taking into account, in particular, the costs of controls, the administrative burden, and the expected risk of non-compliance. For grants, this should include consideration of the use of lump sums, flat rates and unit costs.
- (18) Particular attention should be paid to ensuring adequate participation of small and medium-sized enterprises (SMEs) and the private sector in general. Quantitative and qualitative assessments of SME participation should be undertaken as part of the evaluation and monitoring arrangements.
- (19) The activities developed under the Euratom Programme should aim at eliminating gender inequalities and promoting equality between women and men in research and innovation, in accordance with Articles 2 and 3 of the Treaty on European Union and Article 8 TFEU. The gender dimension should be integrated in research and innovation and followed through at all stages of the research cycle.
- (20) With the aim of deepening the relationship between science and society and reinforcing public confidence in science, the Euratom Programme should favour the informed engagement of citizens and civil society in research and innovation matters by promoting science education, making scientific knowledge more accessible, developing responsible research and innovation agendas that meet the concerns and expectations of citizens and civil society, and facilitating the participation of citizens and civil society in activities under the Euratom Programme.
- (21) Actions which fall within the scope of the Euratom Programme should respect fundamental rights and observe the principles acknowledged in particular by the Charter of Fundamental Rights of the European Union.
- (22) It is important to continue to facilitate the exploitation of intellectual property developed by participants, while protecting the legitimate interests of other participants and the Community in accordance with Title II, Chapter 2 of the Treaty establishing the European Atomic Energy Community ('the Euratom Treaty').
- (23) In order to ensure the greatest possible impact of Euratom funding, the Community may, where appropriate, consider European Partnerships with public or private sector partners provided that the desired impact can be obtained more effectively in partnership than by the Community alone, when compared to other forms of support of the Euratom Programme. This Regulation should ensure that such partnerships have a clear life-cycle approach of European Partnerships and follow a transparent selection and decision-making process in accordance with Annex III of Regulation (EU) 2021/695.

<sup>(4)</sup> OJ L 433I, 22.12.2020, p. 28.

<sup>(5)</sup> Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012 (OJ L 193, 30.7.2018, p. 1).

- (24) It should also be possible to address the objectives of the Euratom Programme through financial instruments and budgetary guarantees under programmes based on the TFEU, provided that actions comply with the objectives and rules of such programmes.
- (25) In order to ensure the most efficient implementation possible and to achieve a coherent, comprehensive and transparent framework for beneficiaries, participation in the Euratom Programme and dissemination of research results should be subject to the relevant rules of Regulation (EU) 2021/695, with certain adaptations or exceptions. The relevant definitions and main types of action set out in that Regulation should apply to the Euratom Programme.
- (26) The participant guarantee fund set up under Horizon 2020 established by Regulation (EU) No 1291/2013 of the European Parliament and the Council <sup>(6)</sup> and managed by the Commission has proved to be an important safeguard mechanism which mitigates the risks associated with the amounts due and not reimbursed by defaulting participants. Therefore, this safeguard mechanism should be continued. The mutual insurance mechanism established pursuant to Regulation (EU) 2021/695 should cover actions under this Regulation.
- (27) The Joint Research Centre (the 'JRC') should continue to provide Union and Member States, as appropriate, with independent customer-driven scientific evidence and technical support throughout the whole policy cycle. The direct actions of the JRC should be implemented in a flexible, efficient and transparent manner, taking into account the relevant needs of the users of the JRC and the needs of Union policies, in particular in the field of nuclear safety, safeguards and security, and ensuring the protection of the financial interests of the Union. According to the Council conclusions of 26 April 1994 on the role of the JRC, the JRC should continue to generate additional resources through competitive support activities for Union policies or on behalf of third parties. The JRC should be able to participate in indirect actions, where the relevant work programme so provides.
- (28) In accordance with the Financial Regulation, Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council <sup>(7)</sup> and Council Regulations (EC, Euratom) No 2988/95 <sup>(8)</sup>, (Euratom, EC) No 2185/96 <sup>(9)</sup> and (EU) 2017/1939 <sup>(10)</sup>, the financial interests of the Union are to be protected by means of proportionate measures, including measures related to the prevention, detection, correction and investigation of irregularities, including fraud, to the recovery of funds lost, wrongly paid or incorrectly used, and, where appropriate, to the imposition of administrative penalties. In particular, in accordance with Regulations (Euratom, EC) No 2185/96 and (EU, Euratom) No 883/2013, the European Anti-Fraud Office (OLAF) has the power to carry out administrative investigations, including on-the-spot checks and inspections, with a view to establishing whether there has been fraud, corruption or any other illegal activity affecting the financial interests of the Union.

The European Public Prosecutor's Office (the 'EPPO') is empowered, in accordance with Regulation (EU) 2017/1939, to investigate and prosecute criminal offences affecting the financial interests of the Union as provided for in Directive (EU) 2017/1371 of the European Parliament and of the Council <sup>(11)</sup>. In accordance with the Financial Regulation, any person or entity receiving Union funds is to fully cooperate in the protection of the financial interests of the Union, grant the necessary rights and access to the Commission, OLAF, the Court of Auditors and, in respect of those Member States participating in enhanced cooperation pursuant to Regulation (EU) 2017/1939, the EPPO, and ensure that any third parties involved in the implementation of Union funds grant equivalent rights.

<sup>(6)</sup> Regulation (EU) No 1291/2013 of the European Parliament and of the Council of 11 December 2013 establishing Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020) and repealing Decision No 1982/2006/EC (OJ L 347, 20.12.2013, p. 104).

<sup>(7)</sup> Regulation (EU, Euratom) No 883/2013 of the European Parliament and of the Council of 11 September 2013 concerning investigations conducted by the European Anti-Fraud Office (OLAF) and repealing Regulation (EC) No 1073/1999 of the European Parliament and of the Council and Council Regulation (Euratom) No 1074/1999 (OJ L 248, 18.9.2013, p. 1).

<sup>(8)</sup> Council Regulation (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests (OJ L 312, 23.12.95, p. 1).

<sup>(9)</sup> Council Regulation (Euratom, EC) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities (OJ L 292, 15.11.1996, p. 2).

<sup>(10)</sup> Council Regulation (EU) 2017/1939 of 12 October 2017 implementing enhanced cooperation on the establishment of the European Public Prosecutor's Office (the EPPO) (OJ L 283, 31.10.2017, p. 1).

<sup>(11)</sup> Directive (EU) 2017/1371 of the European Parliament and of the Council of 5 July 2017 on the fight against fraud to the Union's financial interests by means of criminal law (OJ L 198, 28.7.2017, p. 29).

- (29) Third countries may participate on the basis of their respective legal instruments. A specific provision should be introduced in this Regulation requiring third countries to grant the necessary rights and access required for the authorising officer responsible, OLAF and the Court of Auditors to comprehensively exert their respective competences.
- (30) In order to ensure uniform conditions for the implementation of the actions under the Euratom Programme and their monitoring and evaluation, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council <sup>(12)</sup>.
- (31) Pursuant to paragraph 22 and 23 of the Interinstitutional agreement of 13 April 2016 on Better Law-Making <sup>(13)</sup>, the Euratom Programme should be evaluated on the basis of information collected in accordance with specific monitoring requirements, while avoiding an administrative burden, in particular on Member States, and overregulation. Those requirements, where appropriate, should include measurable indicators as a basis for evaluating the effects of the Euratom Programme on the ground.
- (32) The Board of Governors of the JRC, set up by Commission Decision 96/282/Euratom <sup>(14)</sup>, has been consulted on the scientific and technological content of the direct actions of the JRC.
- (33) The European Parliament has been consulted on a voluntary basis and has delivered an opinion <sup>(15)</sup>. The European Economic and Social Committee has also been consulted on a voluntary basis and has delivered an opinion <sup>(16)</sup>.
- (34) For reasons of legal certainty, Council Regulation (Euratom) 2018/1563 <sup>(17)</sup> should be repealed.
- (35) In order to ensure continuity in providing support in the relevant policy area and to allow implementation to start from the beginning of the multi-annual financial framework 2021-2027, this Regulation should enter into force as a matter of urgency and should apply, with retroactive effect, from 1 January 2021,

HAS ADOPTED THIS REGULATION:

#### CHAPTER I

#### **General provisions**

##### *Article 1*

#### **Subject matter**

This Regulation establishes the Research and Training Programme of the European Atomic Energy Community for the period from 1 January 2021 to 31 December 2025 (the 'Euratom Programme') and the rules for participation and dissemination in indirect actions under the Euratom Programme, complementing Horizon Europe.

It lays down the objectives of the Euratom Programme, the budget for the period 2021-2025, the forms of funding and the rules for providing such funding.

<sup>(12)</sup> Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by the Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

<sup>(13)</sup> OJ L 123, 12.5.2016, p. 1.

<sup>(14)</sup> Commission Decision 96/282/Euratom of 10 April 1996 on the reorganization of the Joint Research Centre (OJ L 107, 30.4.1996, p. 12).

<sup>(15)</sup> Opinion of 16.1.2019 (not yet published in the Official Journal).

<sup>(16)</sup> Opinion of 12.12.2018 (OJ C 110, 22.3.2019, p. 132).

<sup>(17)</sup> Council Regulation (Euratom) 2018/1563 of 15 October 2018 on the Research and Training Programme of the European Atomic Energy Community (2019–2020) complementing the Horizon 2020 Framework Programme for Research and Innovation, and repealing Regulation (Euratom) No 1314/2013 (OJ L 262, 19.10.2018, p. 1).

## Article 2

### Definitions

For the purposes of this Regulation, the relevant definitions set out in Regulation (EU) 2021/695 apply. References in those definitions to the Union and Horizon Europe shall be construed as references to the European Atomic Energy Community (the 'Community') and the Euratom Programme, respectively. However, for the purposes of this Regulation, 'work programme' means the document adopted by the Commission for the implementation of the Euratom Programme in accordance with Article 16 of this Regulation.

All references in this Regulation to Regulation (EU) 2021/695 are to the version in force on 12 May 2021.

## Article 3

### Programme objectives

1. The general objective of the Euratom Programme is to pursue nuclear research and training activities, with an emphasis on the continuous improvement of nuclear safety, security and radiation protection, as well as to complement the achievement of Horizon Europe's objectives *inter alia* in the context of the energy transition.
2. The Euratom Programme has the following specific objectives:
  - (a) improve and support nuclear safety, security, safeguards, radiation protection, safe spent fuel and radioactive waste management and decommissioning, including the safe and secure use of nuclear power and of non-power applications of ionizing radiation;
  - (b) maintain and further develop expertise and competence in the nuclear field within the Community;
  - (c) foster the development of fusion energy as a potential future energy source for electricity production and contribute to the implementation of the European fusion roadmap;
  - (d) support the policy of the Union and its Member States on continuous improvement of nuclear safety, safeguards and security.
3. The objectives listed in paragraphs 1 and 2 shall be implemented in accordance with Annex I. The implementation of those objectives may, if duly justified, include responses to emerging opportunities, crises and threats.

## Article 4

### Budget

1. The financial envelope for the implementation of the Euratom Programme for the period from 1 January 2021 to 31 December 2025 shall be EUR 1 382 000 000 in current prices.
2. The indicative distribution of the amount referred to in paragraph 1 shall be:
  - (a) EUR 583 273 000 for indirect actions in fusion research and development;
  - (b) EUR 266 399 000 for indirect actions in nuclear fission, safety and radiation protection;
  - (c) EUR 532 328 000 for direct actions undertaken by the Joint Research Centre.

The Commission may not deviate from the amount referred to in point (c) of this paragraph.

3. The amount referred to in paragraph 1 may also be used to cover expenses for preparation, monitoring, control, audit, evaluation and other activities and expenditures necessary for managing and implementing the Euratom Programme, including all administrative expenditure, as well as evaluating the achievement of its objectives. The administrative expenses related to indirect actions shall not exceed 6 % of the amount distributed to indirect actions of the Euratom Programme referred to in points (a) and (b) of paragraph 2. In addition, the amount referred to in paragraph 1 may also cover:

- (a) in so far as they are related to the objectives of the Euratom Programme, expenses relating to studies, meetings of experts, information and communication actions;

- (b) expenses linked to information technology networks focusing on information processing and exchange, including corporate information technology tools and other technical and administrative assistance needed in connection with the management of the Euratom Programme.
- 4. If necessary to enable the management of actions not completed by 31 December 2025, appropriations may be entered in the budget beyond 2025 to cover the expenses provided for in paragraph 3.
- 5. Budgetary commitments for actions extending over more than one financial year may be broken down into annual instalments over several years.
- 6. Without prejudice to the Financial Regulation, expenditure for actions resulting from projects included in the first work programme may be eligible as from 1 January 2021.
- 7. Resources allocated to Member States under shared management may, at the request of the Member State concerned, be transferred to the Euratom Programme subject to the conditions set out in the relevant provisions of a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, the Just Transition Fund and the European Maritime, Fisheries and Aquaculture Fund and financial rules for those and for the Asylum, Migration and Integration Fund, the Internal Security Fund and the Instrument for Financial Support for Border Management and Visa Policy (the 'Common Provisions Regulation for 2021-2027'). The Commission shall implement those resources directly in accordance with point (a) of the first subparagraph of Article 62(1) of the Financial Regulation or indirectly in accordance with point (c) of that subparagraph. Those resources shall be used for the benefit of the Member State concerned.

#### *Article 5*

### **Third countries associated to the Euratom Programme**

- 1. The Euratom Programme shall be open to association of the following third countries:
  - (a) acceding countries, candidate countries and potential candidates, in accordance with the general principles and general terms and conditions for the participation of those countries in Community programmes established in the respective framework agreements and Association Council decisions or similar agreements and in accordance with the specific conditions laid down in agreements between the Community and those countries;
  - (b) European Neighbourhood Policy countries, in accordance with the general principles and general terms and conditions for the participation of those countries in Community programmes established in the respective framework agreements and Association Council decisions or in similar agreements and in accordance with the specific conditions laid down in agreements between the Community and those countries;
  - (c) third countries and territories that fulfil all of the following criteria:
    - (i) a good capacity in science, technology and innovation;
    - (ii) commitment to a rules-based open market economy, including fair and equitable dealing with intellectual property rights, backed by democratic institutions;
    - (iii) active promotion of policies to improve the economic and social well-being of citizens.
- 2. Association to the Euratom Programme of each of the third countries under point (c) of paragraph 1 shall be in accordance with the conditions laid down in a specific agreement covering the participation of the third country to any Community or Union programme, provided that the agreement:
  - (a) ensures a fair balance as regards the contributions and benefits of the third country participating in the Community or Union programmes;
  - (b) lays down the conditions of participation in the Community or Union programmes, including the calculation of financial contributions to the individual programmes and their administrative costs;

- (c) does not confer to the third country a decisional power in respect of the Euratom Programme;
- (d) guarantees the rights of the Union to ensure sound financial management and to protect the Union's financial interests.

The contributions referred to in point (b) of the first subparagraph of this paragraph shall constitute assigned revenues in accordance with Article 21(5) of the Financial Regulation.

3. The scope of association of each third country to the Euratom Programme shall take into account the objective of driving economic growth in the Union through innovation. Accordingly, with the exception of acceding countries, candidate countries and potential candidates, parts of the Euratom Programme may be excluded from an association agreement for a specific country.

4. The association agreement shall, where appropriate, provide for the reciprocal participation of legal entities established in the Union in equivalent programmes of associated countries in accordance with the conditions laid down in those programmes.

5. Where appropriate, the conditions determining the level of financial contribution shall ensure an automatic correction of any significant imbalance compared to the amount that entities established in the associated country receive through participation in the Euratom Programme, taking into account the costs in the management, execution and operation of the Euratom Programme.

#### *Article 6*

### **Implementation and forms of funding**

1. The Euratom Programme shall be implemented by means of direct management in accordance with the Financial Regulation or by means of indirect management by funding bodies referred to in point (c) of the first subparagraph of Article 62(1) of the Financial Regulation.

2. Funding under the Euratom Programme may be provided in any of the forms laid down in the Financial Regulation, however, grants shall be the main form of support for indirect actions under the Euratom Programme. Funding under the Euratom Programme may also be provided through prizes, procurement and financial instruments within blending operations.

3. The main types of action to be used under the Euratom Programme are set out and defined in Article 2 of Regulation (EU) 2021/695, such as research and innovation actions, innovation actions, innovation and market deployment actions, training and mobility actions, programme co-fund actions, pre-commercial procurement actions, public procurement of innovative solutions actions, coordination and support actions, inducement prizes and recognition prizes.

The forms of funding, referred to in paragraph 2 of this Article, shall be used in a flexible manner across all objectives of the Euratom Programme with their use being determined on the basis of the needs and the characteristics of the particular objectives.

4. The Euratom Programme shall also support direct actions undertaken by the JRC.

#### *Article 7*

### **European Partnerships**

- 1. Parts of the Euratom Programme may be implemented through European Partnerships.
- 2. The involvement of the Community in European Partnerships may take any of the following forms:

- (a) participation in partnerships set up on the basis of memoranda of understanding or contractual arrangements between the Commission and public or private partners specifying the objectives of the European Partnership, related commitments from all involved sides regarding their financial or in-kind contributions, key performance and impact indicators, the results to be delivered and reporting arrangements; they include the identification of complementary research and innovation activities that are implemented by the partners and by the Euratom Programme (Co-programmed European Partnerships);
  - (b) participation in and financial contribution to a programme of research and innovation activities, specifying the objectives, key performance and impact indicators, and the results to be delivered, based on the commitment of the partners regarding their financial or in-kind contributions and the integration of their relevant activities using a Euratom Programme co-fund action (Co-funded European Partnerships).
3. European Partnerships shall:
- (a) be established in cases where the objectives of the Euratom Programme would be achieved more effectively than by the Community alone when compared to other forms of support under the Euratom Programme; an appropriate share of the budget of the Euratom Programme shall be allocated to those parts;
  - (b) adhere to the principles of Union added value, transparency and openness, and to having impact within and for Europe, strong leverage effect on sufficient scale, long-term commitments of all involved parties, flexibility in implementation, coherence, coordination and complementarity with Union, local, regional, national and, where relevant, international initiatives or other European Partnerships;
  - (c) have a clear life-cycle approach, be limited in time and include conditions for phasing-out the Euratom Programme funding.
4. Provisions and criteria for the selection, implementation, monitoring, evaluation and phasing-out of European Partnerships are set out in Annex III to Regulation (EU) 2021/695.

#### *Article 8*

### **Open Science**

The provisions on open science set out in Regulation (EU) 2021/695 apply to the Euratom Programme.

#### *Article 9*

### **Eligible actions and rules for participation and dissemination of research results**

1. Only actions implementing the objectives referred to in Article 3 are eligible for funding.
2. Subject to the paragraphs 3 and 4 of this Article, Title II on rules for participation and dissemination of Regulation (EU) 2021/695 applies to actions supported under the Euratom Programme. References in Regulation (EU) 2021/695 to the Union and Horizon Europe shall be construed as references to the Community and the Euratom Programme, where appropriate. References in Regulation (EU) 2021/695 to 'security rules' shall be construed to include the defence interests of the Member States within the meaning of Article 24 of the Euratom Treaty.
3. By way of derogation from Article 40(4) of Regulation (EU) 2021/695, the right to object to transfers of ownership of results, or to grants of an exclusive licence regarding results, may extend to grants of non-exclusive licenses.
4. By way of derogation from Article 41(9) of Regulation (EU) 2021/695, a beneficiary that has received Community funding shall grant access to its results on a royalty-free basis to the Community institutions, funding bodies or the European Joint Undertaking for ITER and the Development of Fusion Energy (Fusion for Energy) established by Decision 2007/198/Euratom (the 'Joint Undertaking Fusion for Energy'), for the purpose of developing, implementing and monitoring Community policies and programmes or obligations under international cooperation with third countries and international organisations. Such access rights shall include the right to authorise third parties to use the results in public procurement and the right to sub-license. Access rights shall be limited to non-commercial and non-competitive use.

5. The mutual insurance mechanism established pursuant to Regulation (EU) 2021/695 shall cover the risk associated with non-recovery of sums due by beneficiaries to the Commission or funding bodies under this Regulation.

#### *Article 10*

### **Cumulative, alternative and combined funding**

1. The Euratom Programme shall be implemented in synergy with Horizon Europe and with other Union programmes.
2. In order to achieve the objectives of the Euratom Programme and to address challenges common to the Euratom Programme and to Horizon Europe, activities cutting across the objectives set out in the Euratom Programme or those implementing Horizon Europe, or both, may benefit from the Community financial contribution, subject to Article 9. In particular, the Euratom Programme may provide a financial contribution to the Marie Skłodowska-Curie Actions (MSCA) in order to support activities relevant for nuclear research.
3. An action that has received a contribution from another Union programme may also receive a contribution under the Euratom Programme, provided that the contributions do not cover the same costs. The rules of the relevant programme shall apply to the corresponding contribution to the action. The cumulative funding shall not exceed the total eligible costs of the action. The support from the different programmes may be calculated on a pro-rata basis in accordance with the documents setting out the conditions for support.
4. Actions may receive support from the European Regional Development Fund or the European Social Fund Plus in accordance with the relevant provisions of the Common Provisions Regulation for 2021-2027, where they have been awarded a Seal of Excellence label under the Euratom Programme by virtue of complying with the following cumulative conditions:
  - (a) they have been assessed in a call for proposals under the Euratom Programme;
  - (b) they comply with the minimum quality requirements of that call for proposals;
  - (c) they may not be financed under that call for proposals due to budgetary constraints.

#### *CHAPTER II*

### ***Programming, monitoring, evaluation and control***

#### *Article 11*

### **Work programmes**

1. The indirect actions of the Euratom Programme shall be implemented by work programmes as referred to in Article 110 of the Financial Regulation. Work programmes shall set out, where applicable, the overall amount reserved for blending operations. The Commission shall adopt work programmes by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 16(4).
2. In addition to the requirements of Article 110 of the Financial Regulation, the work programmes shall include the following, as appropriate:
  - (a) an indication of the amount allocated to each action and an indicative implementation timetable;
  - (b) for grants, the priorities, the selection and award criteria, the relative weight of the different award criteria and the maximum rate of funding of the total eligible costs;
  - (c) any additional obligations on beneficiaries, in accordance with Articles 39 and 41 of Regulation (EU) 2021/695;
  - (d) a multiannual approach and strategic orientations for the following years of implementation.

3. The Commission shall draw up a multi-annual work programme on direct actions undertaken by the JRC in accordance with Decision 96/282/Euratom.

#### *Article 12*

### **Monitoring and reporting**

1. The Commission shall monitor continuously the management and implementation of the Euratom Programme. In order to enhance transparency, those data shall be made publicly available in an accessible manner on the Commission's webpage in accordance with the latest update of those data.

Indicators to report on an annual basis on the progress of the Euratom Programme towards the achievement of the objectives laid down in Article 3 are set out in Annex II along impact pathways.

2. To ensure the effective assessment of the Euratom Programme's progress towards the achievement of its objectives, the Commission shall adopt implementing acts concerning the implementation of the monitoring and evaluation framework, in particular by setting baselines and targets in accordance with Annex II. Those implementing acts shall be adopted in accordance with the advisory procedure pursuant to Article 16(3).

3. The performance reporting system shall ensure that data for monitoring the implementation and the results of the Euratom Programme are collected efficiently, effectively and in a timely manner without increasing the administrative burden on beneficiaries. To that end, proportionate reporting requirements shall be imposed on recipients of Community funds and, where appropriate, on Member States.

#### *Article 13*

### **Information, communication, publicity and dissemination and exploitation**

1. The recipients of the Euratom Programme funding shall acknowledge the origin of those funds and ensure the visibility of the Community funding, in particular when promoting the actions and their results, by providing coherent, effective and proportionate targeted information to multiple audiences, including the media and the public.

2. The Commission shall implement information and communication actions relating to the Euratom Programme, to actions under the Euratom Programme and to the results obtained. In addition, it shall provide timely and thorough information to Member States and beneficiaries. Evidence-based matchmaking services informed by analytics and network affinities shall be provided to interested entities in order to form consortia for collaborative projects, with particular attention to identifying networking opportunities for legal entities from low research and innovation performing Member States. On the basis of such analysis, targeted matchmaking events may be organised in function of specific calls for proposals.

3. The Commission shall also establish a dissemination and exploitation strategy for increasing the availability and diffusion of the Euratom Programme's research and innovation results and knowledge to accelerate exploitation towards market uptake and boost the impact of the Euratom Programme.

4. Financial resources allocated to the Euratom Programme shall also contribute to the corporate communication of the political priorities of the Community as well as information, communication, publicity, dissemination and exploitation activities as far as they are related to the objectives referred to in Article 3.

#### *Article 14*

### **Evaluation**

1. Euratom Programme evaluations shall be carried out in a timely manner to feed into the decision-making process on the Euratom Programme, its successor and other initiatives relevant to research and innovation.

2. The interim evaluation of the Euratom Programme shall be carried out with the assistance of independent experts selected on the basis of a transparent process once there is sufficient information available about the implementation of the Euratom Programme, but no later than three years after the start of the Euratom Programme implementation. It shall include an assessment of the long-term impact of previous Euratom Research and Training Programmes and shall form the basis to adjust the Euratom Programme implementation or review the Euratom Programme, as appropriate. It shall assess the Euratom Programme's effectiveness, efficiency, relevance, coherence, and Community added value.
3. At the end of the implementation of the Euratom Programme, but no later than four years after the end of the period specified in Article 1, a final evaluation of the Euratom Programme shall be carried out by the Commission. It shall include an assessment of the long-term impact of previous Euratom Research and Training Programmes.
4. The Commission shall publish and communicate the conclusions of the evaluations accompanied by its observations to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions.

#### Article 15

##### Audits

1. The control system for the Euratom Programme shall ensure an appropriate balance between trust and control, taking into account administrative and other costs of controls at all levels, especially for beneficiaries. Audit rules shall be clear, consistent and coherent throughout the Euratom Programme.
2. Actions that receive joint funding from different Union programmes shall be audited only once, covering all involved programmes and their respective applicable rules.
3. In addition, the Commission or the relevant funding body may rely on combined systems reviews at beneficiary level. Those combined reviews shall be optional for certain types of beneficiaries and shall consist in a systems and process audit, complemented by an audit of transactions. Such audits of transactions shall be carried out by a competent independent auditor qualified to carry out statutory audits of accounting documents in accordance with Directive 2006/43/EC of the European Parliament and of the Council <sup>(18)</sup>. The system and processes audits may be used by the Commission or the relevant funding body to determine overall assurance on the sound financial management of expenditure and for reconsideration of the level of ex-post audits and certificates on financial statements.
4. In accordance with Article 127 of the Financial Regulation, the Commission or the funding body may rely on audits on the use of Community contributions carried out by other independent and competent persons or entities, including by other than those mandated by the Union institutions or bodies.
5. Audits may be carried out up to two years after the payment of the balance.
6. The Commission shall publish audit guidelines, aiming to ensure a reliable and uniform application and interpretation of the audit procedures and rules throughout the duration of the Euratom Programme.

#### Article 16

##### Committee procedure

1. The Commission shall be assisted by a Committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
2. The Committee shall meet in two different configurations, dealing respectively with the fission related aspects and fusion related aspects of the Euratom Programme.

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<sup>(18)</sup> Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EEC and 83/349/EEC and repealing Council Directive 84/253/EEC (OJ L 157, 9.6.2006, p. 87).

With a view to facilitating the implementation of the Euratom Programme, for each meeting of the Committee as defined in the agenda, the Commission will reimburse the expenses of one representative per Member State, as well as one expert or adviser per Member State for those agenda items where a Member State requires specific expertise, in accordance with Commission's established guidelines.

3. Where reference is made to this paragraph, Article 4 of Regulation (EU) No 182/2011 shall apply.
4. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.
5. Where the opinion of the Committee is to be obtained by written procedure, that procedure shall be terminated without result where the chair of the Committee so decides or a simple majority of Committee members so requests within the time-limit for delivery of the opinion.
6. The Commission shall regularly inform the Committee of the overall progress of the implementation of the Euratom Programme and shall provide the Committee with timely information on all actions proposed or funded under the Euratom Programme.

#### *Article 17*

### **Protection of financial interests of the Union**

Where a third country participates in the Euratom Programme by means of a decision adopted pursuant to an international agreement or on the basis of any other legal instrument, the third country shall grant the necessary rights and access required for the authorising officer responsible, OLAF and the Court of Auditors to comprehensively exercise their respective competences. In the case of OLAF, such rights shall include the right to carry out investigations, including on-the-spot checks and inspections, as provided for in Regulation (EU, Euratom) No 883/2013.

#### *CHAPTER III*

### ***Transitional and final provisions***

#### *Article 18*

### **Repeal**

Regulation (Euratom) 2018/1563 is repealed.

#### *Article 19*

### **Transitional provisions**

1. This Regulation shall not affect the continuation of or modification of actions initiated pursuant to Regulation (Euratom) 2018/1563, which shall continue to apply to those actions until their closure.
2. Where necessary, any remaining tasks of the Committee established by Regulation (Euratom) 2018/1563 shall be undertaken by the Committee referred to in Article 16 of this Regulation.
3. The financial envelope for the Euratom Programme may also cover technical and administrative assistance expenses necessary to ensure the transition between the Euratom Programme and the measures adopted pursuant to Regulation (Euratom) 2018/1563.

*Article 20***Entry into force**

This Regulation shall enter into force on the day of its publication in the *Official Journal of the European Union*.

It shall apply from 1 January 2021.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 10 May 2021.

*For the Council*

*The President*

J. BORRELL FONTELLES

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## ANNEX I

## ACTIVITIES

The specific objectives referred to in Article 3(2) shall be pursued across the Euratom Programme, according to the broad lines of activity described in this Annex. By implementing those specific objectives, the Euratom Programme supports Member States in the implementation of the Euratom legislation <sup>(1)</sup> and reinforces their research efforts and those of the private sector. Those specific objectives should contribute to maintain and further develop the technological leadership in the nuclear domain.

In order to achieve the specific objectives referred to in Article 3(2), the Euratom Programme will support cross-cutting activities that ensure synergy of research efforts in solving common challenges. Appropriate links and interfaces, such as joint calls with Horizon Europe, will be ensured. Related research and innovation activities may also benefit from financial support provided by the funds under the Common Provisions Regulation for 2021-2027 as far as in line with those funds' objectives and regulations.

Activities listed in this Annex include international cooperation in nuclear research and innovation for peaceful uses, based on shared goals and mutual trust with the aim of providing clear and significant benefits for the Union, its citizens and environment. This includes international cooperation through multilateral frameworks. The JRC as the formally recognised Euratom Implementing Agent for Generation IV International Forum (GIF) <sup>(2)</sup> will continue facilitating and coordinating the contribution and participation of the Euratom Community in GIF's research and training activities. The contribution to GIF's activities under the scope of the Euratom Programme is focused on safety, radiation protection, safeguards and non-proliferation research and training activities specific to Generation IV systems.

Any new activity assigned to the JRC shall be analysed by the Board of Governors of the JRC to check its consistency with existing activities in the Member States and to avoid duplication of nuclear research and development in the Union.

The priorities of the work programmes are to be established by the Commission on the basis of inputs from public authorities, nuclear research stakeholders and any relevant organisation or forum of nuclear stakeholders.

Research and training in the following fields will be eligible for funding from the Euratom Programme:

- (a) improve and support nuclear safety, security, safeguards, radiation protection, safe spent fuel and radioactive waste management and decommissioning, including the safe and secure use of nuclear power and of non-power applications of ionizing radiation <sup>(3)</sup>:
  - (i) nuclear safety: safety of reactor systems and fuel cycles, in use in the Community or, to the extent necessary, in order to maintain broad nuclear safety expertise in the Community, those reactor types and their whole fuel cycles such as partitioning and transmutation, which may be used in the future;
  - (ii) safe spent fuel and radioactive waste management: the management and in particular pre-disposal activities and disposal of intermediate, high-level and long-lived 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

<sup>(1)</sup> In particular Council Directive 2006/117/Euratom of 20 November 2006 on the supervision and control of shipments of radioactive waste and spent fuel (OJ L 337, 5.12.2006, p. 21); Council Directive 2009/71/Euratom of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations (OJ L 172, 2.7.2009, p. 18); Council Directive 2011/70/Euratom; Council Directive 2013/51/Euratom of 22 October 2013 laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption (OJ L 296, 7.11.2013, p. 12); Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom (OJ L 13, 17.1.2014, p. 1) and Council Regulation (Euratom) 2016/52 of 15 January 2016 laying down maximum permitted levels of radioactive contamination of food and feed following a nuclear accident or any other case of radiological emergency, and repealing Regulation (Euratom) No 3954/87 and Commission Regulations (Euratom) No 944/89 and (Euratom) No 770/90 (OJ L 13, 20.1.2016, p. 2).

<sup>(2)</sup> In accordance with Article III.2 of the Framework Agreement for International Collaboration on Research and Development of Generation IV Nuclear Energy Systems.

<sup>(3)</sup> Apart from nuclear security, safeguards and non-proliferation, these activities may be implemented through direct and indirect actions.

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;

(iii) decommissioning: research for the development and evaluation of technologies for decommissioning and environmental remediation of nuclear facilities; support for sharing best practices and knowledge on decommissioning;

(iv) nuclear science and ionizing radiation applications, radiation protection, emergency preparedness:

— applications of nuclear science and ionizing radiation technologies in medical, industrial and other research fields;

— effects and risks from low doses from industrial, medical or environmental exposure;

— emergency preparedness for accidents involving radiation, and research on radioecology;

— secure and safe supply and use of radioisotopes;

— models for radiological dispersion in the environment, and support for data exchange, alert systems and cooperation on measurement techniques <sup>(4)</sup> (to be implemented by direct actions);

(v) nuclear security, safeguards and non-proliferation (to be implemented by direct actions):

— methods and technology to support and strengthen the Community's and international safeguards;

— operational support and training to the Euratom safeguards system;

— technical support to the implementation of the Non-Proliferation Treaty in the field of nuclear safeguards including support to strengthen Union export control regime;

— research and support for enhancing nuclear and radiological safety and security in the context of the global CBRN (Chemical, Biological, Radiological, Nuclear) framework and related Union strategies;

— methods and technology for the detection of nuclear and radioactive materials outside regulatory control and the prevention of and responses to incidents involving such materials, including nuclear forensics;

— support for the capacity building on nuclear security using the European Nuclear Security Training Centre;

(b) maintain and further develop expertise and competence in the nuclear field within the Community:

(i) education, training and mobility, including education and training schemes such as Marie Skłodowska-Curie Actions (MSCA);

(ii) promotion of innovation, knowledge management, dissemination and exploitation of nuclear science and technology, in particular for nuclear safety, security, safeguards and radiation protection;

(iii) support for technology transfer from the research to industry;

(iv) support for the preparation and development of a competitive European fusion industrial capacity;

(v) support for the provision, availability and appropriate access of European and international research infrastructures, including JRC's infrastructures <sup>(5)</sup>;

<sup>(4)</sup> Art. 35, 36, 38 Euratom Treaty; Council Decision 87/600/Euratom of 14 December 1987 on Community arrangements for the early exchange of information in the event of a radiological emergency (OJ L 371, 30.12.1987, p. 76).

<sup>(5)</sup> On the basis of the rolling investment plan for the JRC's infrastructures.

- (vi) for fostering nuclear science as a base to support standardisation, direct actions will provide state-of-the-art reference data, materials and measurements related to nuclear safety, safeguards and security, as well as other applications as nuclear medicine;
  - (c) foster the development of fusion energy and contribute to the implementation of the European fusion roadmap:
    - a Co-funded European Partnership in fusion research will implement the roadmap towards the goal of fusion electricity production by the second half of this century. This may include *inter alia*:
      - (i) exploiting existing and future fusion facilities, including the allocation of operating grants to fusion research infrastructures when appropriate;
      - (ii) preparation for future fusion power plants by developing all relevant aspects including materials, technologies and designs;
      - (iii) implementing a focused education and training programme in addition to activities under (b)(i);
      - (iv) coordination of common activities with the Joint Undertaking Fusion for Energy;
      - (v) collaboration with the ITER Organisation;
      - (vi) scientific collaboration in the framework of the Euratom international agreements;
    - the Co-funded European Partnership in fusion will be implemented through a grant to be awarded to the legal entities established or designated by the Member States and any third country associated to the Euratom Programme. The grant may include resources in kind from the Community, or the secondment of Commission staff;
  - (d) support the policy of the Union and its Member States on nuclear safety, safeguards and security:
    - the direct actions will support the policy on nuclear safety, safeguards and security and implementation of the relevant legislation by providing independent scientific and technical evidence and expertise.
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## ANNEX II

## KEY IMPACT PATHWAY INDICATORS

Impact pathways, and related key impact pathway indicators, shall structure the monitoring of the Euratom Programme's performance towards its specific objectives as referred to in Article 3(2). The impact pathways shall be time-sensitive: they distinguish between the short, medium and long term. Impact pathway indicators serve as proxies to report on the progress made towards achievement of specific objectives. The micro-data behind the key impact pathway indicators, which are shared with the Horizon Europe, are collected in a centrally managed and harmonised way, with minimal reporting burden on the beneficiaries.

## Scientific impact pathways indicators

The Euratom Programme is expected to make progress as regards knowledge for reinforcing nuclear safety and security; safe applications of ionising radiation; spent fuel and radioactive waste management; radiation protection; and the development of fusion energy. Progress in this area will be measured by indicators concerning scientific publications, progress in the implementation of the fusion roadmap, development of expertise and skills, and access to research infrastructures.

| Towards scientific impacts                                                                                                                                                                                                                       | Short-term                                                                                                                                                                 | Medium-term                                                                                | Longer-term                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Improving the safe and secure use of nuclear energy and non-power applications of ionizing radiation, including nuclear safety, security, safeguards, radiation protection, safe spent fuel and radioactive waste management and decommissioning | Publications – number of Euratom peer-reviewed scientific publications                                                                                                     | Citations – Field-Weighted Citation Index of Euratom peer-reviewed scientific publications | World-class science – Number and share of peer reviewed publications from Euratom Programme that are core contribution to scientific fields                           |
|                                                                                                                                                                                                                                                  | Shared knowledge – Share of research outputs (open data/publication/software etc.) shared through open knowledge infrastructure                                            | Knowledge diffusion – Share of open access research outputs actively used/cited            | New collaborations – Share of Euratom beneficiaries having developed new transdisciplinary/trans-sectoral collaborations with users of their open Euratom R&I outputs |
| Fostering the development of fusion energy                                                                                                                                                                                                       | Progress in the implementation of the fusion roadmap – Percentage of the fusion roadmap's milestones established for the period 2021-2025 reached by the Euratom Programme |                                                                                            |                                                                                                                                                                       |
| Maintaining and further developing expertise and excellence in the Union                                                                                                                                                                         | Skills – Number of researchers having benefitted from upskilling activities of the Euratom Programme (through training, mobility and access to infrastructure)             | Careers – Number and share of upskilled researchers with more influence in their R&I field | Working conditions – Number and share of upskilled researchers with improved working conditions                                                                       |
|                                                                                                                                                                                                                                                  | The number of researchers having access to research infrastructure through the Euratom Programme support                                                                   |                                                                                            |                                                                                                                                                                       |
|                                                                                                                                                                                                                                                  | Reference materials delivered and reference measurements incorporated to a library                                                                                         |                                                                                            | Number of international standards modified                                                                                                                            |

## Societal impacts pathways indicators

The Euratom Programme helps to address Community policy priorities concerning nuclear safety and security, radiation protection and ionising radiation applications through research and innovation, as shown by the portfolios of projects generating outputs contributing to tackling challenges in these fields. Societal impact is also measured in terms of specific development in the field of nuclear security and safeguards.

| Towards societal impacts                                                                                                                                                                                                                         | Short-term                                                                                                                            | Medium-term                                                                                                                             | Longer-term                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Improving the safe and secure use of nuclear energy and non-power applications of ionizing radiation, including nuclear safety, security, safeguards, radiation protection, safe spent fuel and radioactive waste management and decommissioning | Outputs –<br>Number and share of outputs aimed at addressing specific policy priorities                                               | Solutions –<br>Number and share of innovations and scientific results addressing specific policy priorities                             | Benefits –<br>Aggregated estimated effects from use of Euratom-funded results, on tackling specific policy priorities, including contribution to the policy and law-making cycle |
|                                                                                                                                                                                                                                                  | Number of services delivered in support of safeguards                                                                                 |                                                                                                                                         | Number of technical systems provided and in use                                                                                                                                  |
|                                                                                                                                                                                                                                                  | Number of training sessions delivered to front-line officers                                                                          |                                                                                                                                         |                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                  | Co-creation –<br>Number and share of Euratom projects where Union citizens and end-users contribute to the co-creation of R&I content | Engagement –<br>Number and share of Euratom beneficiary entities with citizen and end-users engagement mechanisms after Euratom project | Societal R&I uptake<br>Uptake and outreach of Euratom co-created scientific results and innovative solutions                                                                     |

## Innovation impact pathway indicators

The Euratom Programme is expected to deliver innovation impacts supporting progress towards its specific objectives. Progress in this area will be measured by indicators concerning intellectual property rights (IPR), innovative products, methods and processes and their use, along with job creation.

| Towards economic/innovation impact                                                                                                                                                                                                                                                                                                                                         | Short-term                                                                                                                                      | Medium-term                                                                                                       | Longer-term                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Improving the safe and secure use of nuclear energy and non-power applications of ionizing radiation, including nuclear safety, security, safeguards, radiation protection, safe spent fuel and radioactive waste management and decommissioning<br>Fostering the development of fusion energy<br>Maintaining and further developing expertise and excellence in the Union | Innovative outputs –<br>Number of innovative products, processes or methods from Euratom Programme (by type of innovation) and IPR applications | Innovations –<br>Number of innovations from Euratom projects (by type of innovation) including from awarded IPRs  | Economic growth –<br>Creation, growth and market shares of companies having developed Euratom funded innovations                 |
|                                                                                                                                                                                                                                                                                                                                                                            | Supported employment –<br>Number of FTE jobs created and jobs maintained in beneficiary entities for the Euratom project (by type of job)       | Sustained employment –<br>Increase of FTE jobs in beneficiary entities following Euratom project (by type of job) | Total employment – Number of direct and indirect jobs created or maintained due to diffusion of Euratom results (by type of job) |
|                                                                                                                                                                                                                                                                                                                                                                            | Amount of public and private investment mobilised with the initial Euratom investment                                                           | Amount of public and private investment mobilised to exploit or scale up Euratom results                          | Union progress towards 3 % GDP due to Euratom Programme                                                                          |

### Policy impact pathways indicators

The Euratom Programme provides scientific evidence for policy-making. This in particular concerns scientific support for other Commission services, such as the support to Euratom safeguards, or to the implementation by Member States of Directives related to nuclear and ionising radiation <sup>(1)</sup>.

| Towards policy impact                                        | Short-term                                                              | Medium-term                                                  | Longer-term                                                                          |
|--------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Supporting policy on nuclear safety, safeguards and security | Number and share of Euratom projects producing policy-relevant findings | Number of outputs having a demonstrable impact on the policy | Number and share of Euratom projects findings cited in policy/programmatic documents |

Targets will be defined for both indirect and direct actions to reflect the expected results for each part of the Euratom Programme.

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<sup>(1)</sup> Commission Regulation (Euratom) No 302/2005 of 8 February 2005 on the application of Euratom safeguards (OJ L 54, 28.2.2005, p. 1); Council Directive 2011/70/Euratom and Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations (OJ L 219, 25.7.2014, p. 42).