

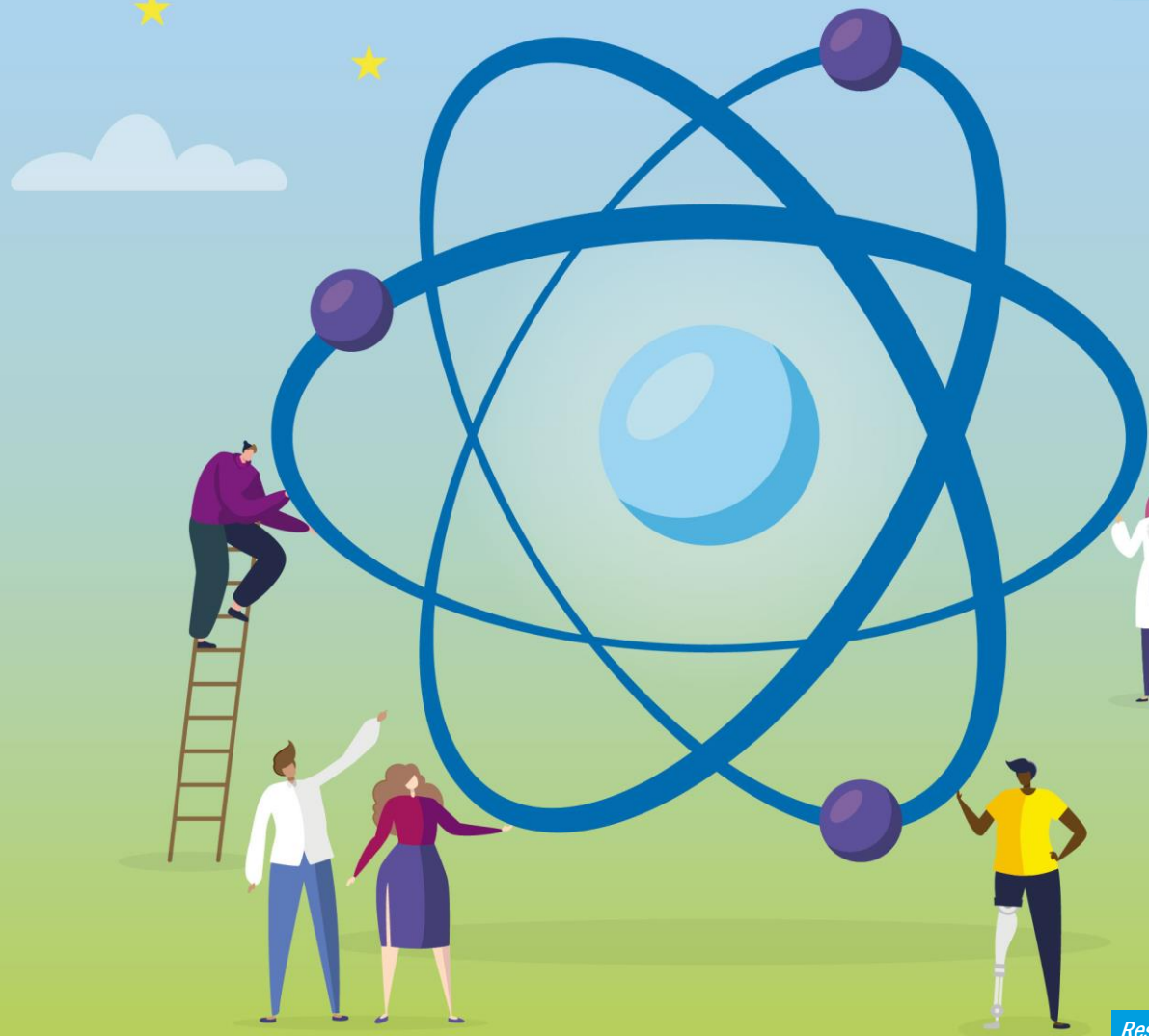


#Euratom

EURATOM Research and Training Programme

2021 – 2025

KAROLINA JANATKOVA
Euratom Info Day
16th of July 2021



*Research and
Innovation*

Europe's Beating Cancer Plan



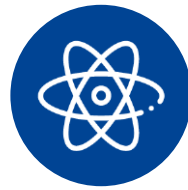
- Europe's Beating Cancer Plan – a main priority in the area of health of the President von der Leyen Commission and a key pillar of a European Health Union.
- The EU's Cancer Plan makes several references to Horizon Europe Health activities and to Euratom.
- In particular, the Euratom Programme will support research on the protection of patients benefiting from diagnostic and cancer therapies involving radiation sources.

#EUCancerPlan

#CancerMission

#EUSamira

SAMIRA initiative



- **S**trategic **A**genda for **M**edical **I**onising **R**adiation **A**pplications (**SAMIRA**) - first deliverable under Europe's Beating Cancer Plan.
- The Action Plan is aiming at:
 - maximising the societal benefits of nuclear and radiation technologies
 - innovation and technological developments
 - ensuring the highest quality and safety standards of medical ionizing radiation applications
- Inter-service cooperation: ENER, RTD, SANTE, EAC, JRC, ESA

An abstract visualization of particle tracks, likely representing ionizing radiation. It features a central bright point from which numerous thin, glowing lines radiate outwards, some forming loops or spirals. The colors are primarily deep blue and purple, with a bright white and pinkish-purple core. The background is dark, making the glowing lines stand out.

Topic 9 - European Partnership for research in radiation protection and detection of ionising radiation

Relevance for the EU

- Ascertained risk assessment and improved risk management of radiation exposures including medical applications
- Justification of ionising radiation technologies addressing societal challenges concerning health and the fight against cancer.

Expected outcomes



- Improved risk estimates for the optimisation of exposure to radiation
- Advancing beyond state-of-the-art understanding of dose and dose-rate relationship
- Developing a knowledge base for the major features of variability in the radiation response (radio-sensitivity, radio-susceptibility, radio-degeneration....)
- Advancing integrative radiobiology from basic mechanisms to clinic and epidemiology
- Providing a scientific basis and establishment of priorities for medical applications of ionising radiation
- Development of science base for improving radiation protection
- Procedures and tools improving emergency and preparedness response
- Improvement of radiological monitoring of the environment
- Reinforcing training through research in the field radiation protection and facilitating access to research infrastructure
- Improving public engagement in radiation risks and protection measures



Topic 10 - Safe use and reliable supply of medical radionuclides

Relevance for the EU

- Lack of a consistent supply of medical radioisotopes is a barrier for development of nuclear medicine
- Targeted radionuclide therapy could contribute to the Commission's "Europe's Beating Cancer Plan"

Expected outcomes



- Development of innovative production routes of therapeutic and diagnostic radionuclides
- Development of optimised irradiation targets, that are interchangeable to allow use within the whole EU supply network, and prioritising production with raw and source materials, which are available and sustainable for the EU
- Recommendations for implementing clinical trials involving radiopharmaceuticals, including the development of individual/specific organ dosimetry for the therapeutic applications
- Adequate supply of radioisotopes for further research, clinical trials and clinical use with full implementation of radiation protection measures and with reduction of costs along the whole supply chain

Topic 11 - Cross-sectoral synergies and new applications of nuclear technologies

Relevance for the EU

- Innovation beyond technology, bringing together research stakeholders, academia, industry and end-users from cross-sectoral nuclear and non-nuclear technological areas, when using ionizing radiation for European industry and EU citizens
- To bring these benefits and opportunities, stimulating innovation based on EU safety culture and know-how



Expected outcomes



- Demonstration of concepts and applications of nuclear and radiation technologies going beyond their traditional areas of implementation and exploring their market potential
- Demonstration of application of innovative technologies available from non-nuclear sectors for improving nuclear safety and safe applications of ionising radiation
- Demonstration of an added value to cross-sectoral products, standards and/or services in which ionising-radiation technologies are embedded

Next steps





Tentative Calendar

- Call open for submission: 7 July 2021
- Deadline: 7 October 2021
- Evaluation: October/November 2021
- Info to the applicants: February 2022
- Signature of GAs: May - June 2022

Be ready:

- 14 – 18 November 2021 NESTet conference organized by ENS with possible participation of Commissioner Gabriel
- 30 November – 2 December 2021 World Nuclear Exhibition in Paris
- FISA-EURADWASTE'2022 conference – May/June 2022

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Thanks to Euratom, Europe will maintain world leadership in fusion, nuclear safety, radiation protection, waste management and decommissioning, safeguards and security with the highest level of standards.

Mariya Gabriel

Commissioner for Innovation, Research, Culture, Education and Youth

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Thank you!

Euratom

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https://ec.europa.eu/info/horizon-europe/euratom-research-and-training-programme_en



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