EURATOM

Euratom aims to pursue nuclear research and training activities with an **emphasis on continually improving nuclear safety, security and radiation protection**, notably to contribute **to the long-term decarbonisation of the energy system in a safe, efficient and secure way**. By contributing to these objectives, the Euratom Programme will reinforce outcomes under the three priorities of Horizon 2020: Excellent science, Industrial leadership and Societal challenges.

The indirect actions of the Euratom Programme focus on two areas:

- **nuclear fission** and **radiation protection**;
- **fusion research** aiming at developing magnetic confinement fusion as an energy source.

The Euratom Research and Training Programme has the following specific objectives:

- Support safety of nuclear systems;
- Contribute to the development of safe longer term solutions for the management of ultimate radioactive waste;
- Support the development and sustainability of nuclear expertise and excellence in the European Union;
- Support radiation protection and development of medical applications of radiation, including, inter alia, the secure and safe supply and use of radioisotopes;
- Move toward demonstration of feasibility of fusion as a power source by exploiting existing and future fusion facilities;
- Lay the foundations for future fusion power plants by developing materials, technologies and conceptual design;
- Promote innovation and industrial competitiveness;
- Ensure availability and use of research infrastructures of pan-European relevance.

To achieve these objectives, the nuclear research activities will be supported by simpler legislation, thereby facilitating access to funding for companies, universities, research institutes in all EU Member States and beyond. In line with the Euratom Treaty, the Programme will run for two years, from 2019 to 2020.
The 2019 call, titled “Nuclear Fission, Fusion and Radiation Protection Research”, will be launched on May 15th, 2019 with a **deadline for applications set on September 25th, 2019**.

Call 2019 - "Nuclear Fission, Fusion and Radiation Protection Research"

The use of nuclear technology in the EU has an outstanding nuclear safety record but research is still needed to maintain a high level of safety in operating nuclear facilities, including the treatment and long-term management of associated radioactive waste; and to better understand the risks and hazards associated with the use of radiation in medicine and industry.

The activities funded by the current Work Programme are organised in six sections:

- ***Nuclear safety**;*
- ***Decommissioning and environmental remediation**;*
- ***Radioactive waste management**;*
- ***Education and training**;*
- ***Radiation protection and medical applications**;*
- ***Research infrastructure**.*

In carrying out the activities proposed in the WP, due attention should be paid to education and training and to dissemination of research results through scientific publications, as well as to the exploitation of research results by the stakeholders concerned.

Nuclear safety	
Action	**Topic**
RIA	Ageing phenomena of components and structures and operational issues
RIA	Safety assessments for Long Term Operation (LTO) upgrades of Generation II and III reactors
RIA	Safety margins determination for design basis-exceeding external hazards
IA	Innovation for Generation II and III reactors
RIA	Support for safety research of Small Modular Reactors
RIA	Safety Research and Innovation for advanced nuclear systems
RIA	Safety Research and Innovation for Partitioning and/or Transmutation
CSA	Towards joint European effort in area of nuclear materials
Decommissioning and environmental remediation	
Action	**Topic**
IA	Fostering innovation in decommissioning of nuclear facilities
Radioactive waste management	
Action	**Topic**
RIA	Developing pre-disposal activities identified in the scope of the European Joint Programme in Radioactive Waste Management
Education and training	
Action	**Topic**
CSA	Advancing nuclear education
Radiation protection and medical applications	
Action	**Topic**
RIA	Further integrating Radiation Protection research in the EU
CSA	Research roadmap for medical applications of ionising radiation
RIA	Improving low-dose radiation risk appraisal in medicine
Research infrastructure	
Action	**Topic**
RIA	Optimised fuels for production of medical radioisotopes
CSA	Roadmap for use of Euratom access rights to Jules Horowitz Reactor experimental capacity
CSA	Optimised use of European research reactors

The deadline for applications is September 25th 2019.

RIA: Research and Innovation Action
IA: Innovation Action
CSA: Coordination and Support Action