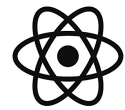


FP7 Cooperation

Euratom



Update: 12.08.2008

What funds will be available?

- Budget 2007 – 2013 of approximately 2,700 million Euro
- Main calls are expected on an annual basis as shown in this table

2007	2008	2009	2010	2011	2012	2013
■	■	■	■	■	■	■

■ Planned calls

Detailed information on calls: www.euresearch.ch/calls

What are the objectives and background of Euratom?

Objectives

The 7th EURATOM Research Framework Programme is organised into two parts corresponding to the “indirect” actions on fusion energy research, nuclear fission and radiation protection, and the “direct” research activities of the Joint Research Centre (JRC). The main objective of the fusion energy research is the development and realisation of ITER (a major experimental facility which will demonstrate the scientific and technical feasibility of fusion power).

Objectives of the nuclear fission and radiation protection programme are the establishment of the scientific and technical basis in order to accelerate practical developments for the safer management of long-lived radioactive waste, ensuring a robust and socially acceptable system of protection of man and the environment against the effects of ionising radiation.

The nuclear activities of the JRCs should provide customer driven scientific and technical support of the EU policy.

Background

There are serious shortcomings in Europe’s energy supply with respect to near, medium, and long-term considerations. In particular, measures are needed to address the issues of security of supply, climate change, and sustainable development, while ensuring that future economic growth is not threatened.

Nuclear power currently generates one-third of all electricity consumed in the EU and is the most significant source of carbon-free base-load electricity presently available. There are, however, important concerns that affect the continued use of this energy source in the EU. Thus the key issues of the Euratom programme are operational reactor safety and management of long-lived waste. All thematic domains to be addressed here are characterised by an overriding concern to ensure high levels of safety. The Joint Research Centre (JRC) supports these objectives of the European strategy for energy supply, particularly in helping to match the Kyoto objectives. The objective of the JRC research programmes is to develop and assemble knowledge in order to provide input to the debate on all important nuclear energy issues.

www.euresearch.ch/euratom-O&B



What areas will be funded during FP7 under Euratom?

The Euratom programme is divided into three sub-programmes: “Fusion”, “Nuclear Fission and Radiation Protection” and “Nuclear Activities of the Joint Research Centre (JRC)”. Each of these sub-programmes opens a variety of R&D topics which are described below.

Find more details on the following websites:

Fusion: http://cordis.europa.eu/fp7/euratom/fusion_en.html

Fission:

http://cordis.europa.eu/fp7/euratom/fission_en.html

JRC: <http://www.jrc.cec.eu.int/>

Fusion

- The realisation of ITER

includes activities for the joint realisation of ITER (as an international research infrastructure), in particular for site preparation, establishing the ITER Organisation and the European Joint Undertaking for ITER.

- R&D in preparation of ITER operation

will exploit the facilities and resources in the fusion programme including JET. It will assess specific key ITER technologies, consolidate ITER project choices and prepare for ITER operation through experimental and theoretical activities.

- Technology activities in preparation of DEMO

entails the vigorous development of fusion materials and key technologies for fusion and the establishment of a dedicated project team to prepare for the construction of the International Fusion Materials Irradiation Facility (IFMIF) to qualify materials for DEMO.

- R&D activities for the longer term

will include further development of improved concepts for magnetic confinement schemes with potential advantages for Fusion power stations, theory and modelling aimed at a comprehensive understanding of the behaviour of fusion plasmas and coordination, in the context of a keep-in-touch activity, of Member States’ civil research activities on inertial confinement.

- Human resources, education and training

will be in line with the immediate and medium term needs of ITER and for the further development of fusion.

- Infrastructures

will include construction activities of the international fusion energy research project ITER.

Nuclear fission and radiation protection

- Management of radioactive waste

includes the implementation oriented research and development activities on deep geological disposal of spent fuel and long-lived radioactive waste. Research on partitioning and transmutation and/or other concepts aimed at reducing the amount and/or hazard of the waste for disposal will be supported in this programme.

- Reactor systems

include research to support the continued safe operation of existing reactor systems (including fuel cycle facilities), taking into account new challenges such as life-time extension and development of new advanced safety assessment methodologies (both the technical and human element), and to assess the potential and safety aspects of future reactor systems in the short and medium term, thereby maintaining the high safety standards already achieved within the EU.

- Radiation protection

concentrates on research, in particular on the risks from low doses, on medical uses and on the management of accidents, to provide the scientific basis for a robust, equitable and socially acceptable system of protection that will not unduly limit the beneficial and widespread uses of radiation in medicine and industry (including the generation of nuclear energy). Research activities to minimise the threat posed by nuclear and radiological terrorism and mitigate its impact will be supported.

- Infrastructures

will support the availability of research infrastructures such as material test reactors, underground research laboratories and radiobiology facilities and tissue banks, necessary to maintain high standards of technical achievement, innovation and safety in the European nuclear sector.

- Human resources and training

will support the retention and further development of scientific competence and human capacity in order to guarantee the availability of suitably qualified researchers and employees in the nuclear sector over the longer term.



Nuclear activities of the JRC

The JRC activities will focus on:

- Nuclear Waste Management and Environmental Impact aiming to understand the nuclear fuel processes from production of energy to waste storage and to develop effective solutions for the management of high level nuclear waste following the two major options (direct storage or partitioning and transmutation);
- Nuclear Safety, in implementing research on existing as well as on new fuel cycles and on reactor safety of both Western and Russian reactor types, as well as, on new reactor design. In addition, the JRC will contribute and coordinate the European contribution to the Generation IV International Forum R&D initiative, in which the best research organisations in the world are involved;
- Nuclear Security, in supporting the fulfilment of Community commitments, in particular the control of the fuel cycle facilities emphasising the back-end of the fuel cycle, the monitoring of the radioactivity in the environment, or the implementation of the additional protocol and the integrated safeguards, and the prevention of the diversion of nuclear and radioactive material associated with illicit trafficking of such material.

www.euresearch.ch/euratom-O&B

What other areas of FP7 might I apply for?

- Nanotechnology, Materials and Processes:
www.euresearch.ch/nmp/
- Bottom-up Research projects for collaboration SMEs-R&D institutions: www.euresearch.ch/SME
- Funding of fellowships: www.euresearch.ch/people
- Funding of infrastructures:
www.euresearch.ch/infrastructures



What key stakeholders should I be aware of?

Technology platforms are industrially-led initiatives. The most important one for Euratom researchers is:

- EuMaT - European Technology Platform for Advanced Engineering Materials and Technologies
www.euresearch.ch/energy/technologyplatforms

The Joint Research Centers:

- <http://www.jrc.cec.eu.int/>

International Organisations:

- International Atomic Energy Agency (IAEA)
- IAEA (Nuclear Energy site)
- IAEA (Waste Management Research Abstracts page)
- IAEA (Waste Management Database page)
- Nuclear Energy Agency of the OECD
- International Commission on Radiological Protection (ICRP)
- International Science & Technology Center
- Association for Regional and International Underground Storage (Arius)
- GMF - Group of Municipalities with nuclear facilities

www.euresearch.ch/euratom-key

How do I find partners, for example to join a consortium?

Find partners by:

- Contacting researchers/private industries you know personally
- Attending conferences and events
- Searching the project databases of former successful EU projects
- Reading about the experiences of others who have obtained EU funding

www.euresearch.ch/partnersearch

What other information could be helpful?

Key documents

- Green Paper : Towards a European strategy for the security of energy supply
- State aids in the energy sector (in particular document SEC(2002)1275 p. 8)
- "The Future of Nuclear Energy in the European Union" (keynote paper)
- [Internal EU electricity market](#)
- The web links to these documents are published on:
<http://www.euratom.org/>

Key websites

- The European Atomic Energy Community:
<http://www.euratom.org/>
- European Commission Energy Research:
http://ec.europa.eu/research/energy/index_en.htm
- The activities of the Joint Research Centre:
<http://www.jrc.cec.eu.int/>
- Seventh Framework Programme and Specific Programmes:
http://europa.eu.int/comm/research/future/index_en.htm
- Information on research programmes and projects:
<http://cordis.europa.eu/en/home.html>

What can Euresearch do for me?

Benefit from Euresearch's free services including:

- general information on participation rules, documents, project management via your regional office: Basel, Bern, Geneva, Fribourg, Lausanne, Lugano, Luzern, Neuchatel, St. Gallen, Zürich www.euresearch.ch/ro
- personalised information by Email via your profile at www.euresearch.ch
- more information about services via our other R&D Guides, Management Guides and Participation Guides

www.euresearch.ch/services

Who is the Swiss National Contact Point for Euratom?

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