

Euratom Framework Programme 2012-2013: fusion energy, nuclear fission and radiation protection; specific programme for indirect actions

2011/0043(NLE) - 07/03/2011 - Legislative proposal

PURPOSE: to adopt the specific programme, to be carried out by means of indirect actions, implementing the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012 - 2013).

PROPOSED ACT: Council Decision.

BACKGROUND: joint national and European efforts in the area of research and training are essential to promote and ensure economic growth and the well-being of citizens in Europe. Under Article 7 of the Euratom Treaty, the Euratom Framework Programme is the Community's main instrument for supporting and complementing Member States' activities in nuclear research and development (R&D). The existing provisions are contained in Council Decision 2006/970/Euratom on the Euratom Framework Programme and they will expire at the end of 2011.

The principal aim of this proposal is to **ensure the continuation of EU-funded research in these fields for a further two years** in line with the activities carried out successfully during 2007-2011.

In accordance with the Council Decision concerning the Framework Programme of the European Atomic Energy Community for nuclear research and training activities (2012-2013), the Framework Programme (2012-2013) is to be implemented through **specific programmes** that define detailed rules for their implementation, fix their duration and provide for the means deemed necessary. The Framework Programme (2012 - 2013) comprises two types of activities: **indirect actions** in fusion energy research and research on nuclear fission and radiation protection, and **direct actions** for activities of the Joint Research Centre in the field of nuclear energy. The indirect actions should be implemented by this specific programme.

It should be noted that this proposal is closely linked to the proposal on the [Framework Programme](#) of the European Atomic Energy Community for nuclear research (2012 -2013), the proposal on the [rules for the participation](#) of undertakings, research centres and universities in indirect actions under the Framework Programme (see [NLE/2011/0045](#)) and the specific programme, to be carried out by means of [direct actions](#), implementing the Framework Programme.

IMPACT ASSESSMENT: in accordance with Article 21 of the Implementing Rules for the Financial Regulation (Commission Regulation N° 2342/2002), the Commission has prepared an ex ante evaluation. Since this proposal aims to continue the activities of the Euratom Framework Programme for 2012-13 under the same financial perspectives, the requirement for an Impact Assessment has been waived.

LEGAL BASIS: Article 7 of the Treaty establishing the European Atomic Energy Community (Euratom).

CONTENT: this proposal concerns the adoption of the specific programme, to be **carried out by means of indirect actions**, implementing the Framework Programme (2012 - 2013). The programme is to be adopted for the period from 1 January 2012 to 31 December 2013.

This Specific Programme for indirect actions covers the following **two thematic priorities**: a) fusion energy research (including ITER); and b) research on nuclear fission and radiation protection.

Fusion energy research: the objective of this thematic priority is to develop the knowledge base for, and to realise ITER as the major step towards, the creation of prototype reactors for power stations that are safe, sustainable, environmentally responsible and economically viable. This thematic priority includes the following areas of activity:

- realisation of ITER;
- R&D to prepare for ITER operation;
- activities to prepare for DEMO;
- R&D activities for the longer term;
- human resources, education and training;
- infrastructures;
- technology transfer, industry involvement and innovation.

Nuclear fission and radiation protection: the objectives of this thematic priority are to establish a sound scientific and technical basis in order to accelerate practical developments for the safer management of long-lived radioactive waste, to enhance in particular the safety, resource efficiency and cost-effectiveness of nuclear energy and to ensure a robust and socially acceptable system of protection of man and the environment against the effects of ionising radiation. This thematic priority includes the following areas of activity:

- geological disposal;
- reactor systems and safety;
- radiation protection;
- support for and access to research infrastructures;
- human resources and training.

The main aims of the specific programme are to:

- provide continuing support for activities under the [Strategic Energy Technology Plan](#) (SET-Plan);
- support and complement national research programmes in nuclear fission and radiation protection through collaborative research and networking activities, thereby maximising EU added value in line with overall Union's policy on energy and health protection;
- improve the implementation of the fusion research activities carried under the European Fusion Development Agreement (EFDA);
- foster international cooperation through specific actions on both fusion and fission, complementing the strategic approach of the programme;
- ensure adequate ITER and F4E governance and management, including cost containment and risk management (technical, industrial, financial, legal).

ITER and F4E will require a more flexible organisational structure to enable the resulting innovation and technological progress to be swiftly transferred to industry, thus enabling European industry to become more competitive. This will be addressed by:

- promotion of innovation and exchange of know-how with related universities, research institutes and industry;
- encouragement for the generation of patents;
- promotion of the Fusion Industry Innovation Forum, which will develop a fusion technology roadmap and human resource development initiatives, with an emphasis on innovation and potential for providing new products and services.

BUDGETARY IMPLICATION: the proposal states that the amount deemed necessary for the execution of the specific programme is **EUR 2 327 054 000**, of which up to 15 % shall be for the Commission's administrative expenditure. This amount is allocated as follows: a) fusion energy research EUR 2 208 809 000; b) nuclear fission and radiation protection EUR118 245 000.