

Modified proposal for a Council Decision concerning the sixth multiannual framework programme of the European Atomic Energy Community (Euratom) for research and training activities aimed at contributing towards the creation of the European Research Area (2002-2006) ⁽¹⁾

(2002/C 75 E/11)

(Text with EEA relevance)

COM(2001) 709 final — 2001/0054(CNS)

(Submitted by the Commission pursuant to Article 250(2) of the EC Treaty on 22 November 2001)

⁽¹⁾ OJ C 180 E, 26.6.2001, p. 177.

INITIAL PROPOSAL

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THE COUNCIL OF THE EUROPEAN UNION,

Unchanged

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

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas:

- (1) A multiannual framework programme covering all research activities, including demonstration and training activities in the field of nuclear energy, to be implemented by means of research and training programmes, may be adopted pursuant to Article 7 of the Treaty.
- (2) In 2000 the Commission submitted two communications, respectively on the prospects for and the objectives of creating a European Research Area ⁽¹⁾, and on making a reality of the European Research Area and guidelines for EU research activities in the period 2002-2006 ⁽²⁾. In 2000 the Commission also submitted a communication on 'Innovation in a knowledge-driven economy' ⁽³⁾.
- (3) The European Councils in Lisbon in March 2000 and Santa Maria de Feira in June 2000 adopted conclusions aimed at the rapid establishment of a European Research and Innovation Area with a view to job creation and economic growth.

⁽¹⁾ COM(2000) 6 final, 18.1.2000.

⁽²⁾ COM(2000) 612 final, 4.10.2000.

⁽³⁾ COM(2000) 567 final, 20.9.2000.

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| <p>(4) The European Parliament ⁽¹⁾ ⁽²⁾, the Council ⁽³⁾ ⁽⁴⁾, the Economic and Social Committee ⁽⁵⁾ and the Committee of the Regions ⁽⁶⁾ have also supported the creation of the European Research Area.</p> <p>(5) On 19 October 2000 ⁽⁷⁾ the Commission submitted the conclusions of an external assessment of the implementation and results of the Community activities carried out in the five years preceding that assessment, accompanied by its observations.</p> <p>(6) It is therefore necessary to adopt a new framework programme for the period 2002-2006 aimed at making a contribution to bringing about the European Research Area.</p> <p>(7) The framework programme 2002-2006 sets out the scientific and technological objectives and priorities of the activities envisaged and indicates the broad lines of those activities which will be implemented in compliance with the objective of protecting the Community's financial interests.</p> <p>(8) A financial reference amount within the meaning of point 34 of the Interinstitutional Agreement between the European Parliament, the Council and the Commission on budgetary discipline and improving the budgetary procedure ⁽⁸⁾ is included in this Decision for the entire duration of the framework programme without thereby affecting the powers of the budgetary authority as defined in the Treaty.</p> <p>(9) The Joint Research Centre (JRC) is called on help implement the framework programme, in particular in those areas in which it can offer objective and independent expertise and in which it can play a role in the implementation of other Community policies.</p> <p>(10) Research activities carried out within the framework programme should respect fundamental ethical principles, notably those which appear in the Charter of Fundamental Rights of the European Union.</p> | <p>(7) The sixth framework programme sets out the scientific and technological objectives and priorities of the activities envisaged and indicates the broad lines of those activities which will be implemented in compliance with the objective of protecting the Community's financial interests.</p> <p>Unchanged</p> <p>(10) Research activities carried out within the sixth framework programme should respect fundamental ethical principles, notably those which appear in the Charter of Fundamental Rights of the European Union. Institutions involved in nuclear research should take account of public acceptability of their activities.</p> |
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⁽¹⁾ Resolution of 18 May 2000, PE 290.465, p. 48.

⁽²⁾ Resolution of 15 February 2001.

⁽³⁾ Resolution of 15 June 2000, OJ C 205, 19.7.2000, p. 1.

⁽⁴⁾ Resolution of 16 November 2000, OJ C 374, 28.12.2000, p. 1.

⁽⁵⁾ Opinion of 24 May 2000, OJ C 204, 18.7.2000, p. 70.

⁽⁶⁾ Opinion of 12 April 2000, OJ C 226, 8.8.2000, p. 18.

⁽⁷⁾ COM(2000) 659 final, 19.10.2000.

⁽⁸⁾ OJ C 172, 18.6.1999, p. 1.

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(11) Following the Commission Communication 'Women and Science' ⁽¹⁾ and the Resolutions of the Council ⁽²⁾ and the European Parliament ⁽³⁾ on this theme, an Action Plan is being implemented in order to boost and increase the place and role of women in science and research in Europe.

(12) It is appropriate that the Commission should submit regular progress reports on the implementation of the framework programme 2002-2006 and that it should have an independent assessment carried out concerning the implementation of the activities in good time and before submitting its proposal for the next framework programme.

(13) The Scientific and Technical Committee has been consulted by the Commission and has delivered its opinion.

HAS DECIDED AS FOLLOWS:

Article 1

1. A multiannual framework programme for research and training activities in the field of nuclear energy, hereinafter referred to as the 'framework programme 2002-2006' is hereby adopted for the period 2002-2006.

2. The framework programme 2002-2006 shall comprise all research, technological development, international cooperation, dissemination and exploitation activities as well as training in the following fields:

— treatment and storage of waste;

— controlled thermonuclear fusion;

— other Euratom activities;

— the Joint Research Centre's Euratom activities.

⁽¹⁾ COM(1999) 76.

⁽²⁾ Resolution of 20 May 1999, OJ C 201, 16.7.1999.

⁽³⁾ Resolution of 3 February 2000, PE 284.656.

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(12) Participation in the activities of the sixth framework programme will be encouraged through publication of the necessary information on content, conditions and procedures, to be made available in a timely and thorough manner to potential participants, including those from the candidate and other associated countries.

(13) It is appropriate that the Commission should submit regular progress reports to the European Parliament and the Council on the implementation of the sixth framework programme and that it should have an independent assessment carried out concerning the implementation of the activities in good time and before submitting its proposal for the next framework programme, which will be done in a spirit of openness with respect to all the relevant actors.

(14) The Scientific and Technical Committee has been consulted by the Commission and has delivered its opinion.

(15) The financial implications of the multi-annual sixth framework programme are compatible with the current ceiling under heading 3 of the financial perspective,

Unchanged

1. A multiannual framework programme for research and training activities in the field of nuclear energy, hereinafter referred to as the 'sixth framework programme' is hereby adopted for the period 2002-2006.

2. The sixth framework programme shall comprise all research, technological development, international cooperation, dissemination and exploitation activities as well as training in the following fields:

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3. The Annex sets out the scientific and technological objectives and the related priorities and indicates the broad lines of the activities envisaged.

Article 2

1. The financial reference amount for the implementation of this framework programme for the period 2002-2006 shall be EUR 1 230 million, of which EUR 150 million for the treatment and storage of waste, EUR 700 million for controlled thermonuclear fusion, EUR 50 million for other Euratom activities, and EUR 330 million for the Joint Research Centre's Euratom activities.

2. The detailed rules for financial participation by the Community shall be governed by the Financial Regulation applicable to the General Budget of the European Communities, supplemented where appropriate by the research and training programme(s) which the Council will adopt in order to implement this Decision.

Article 3

All the research activities carried out under the framework programme 2002-2006 shall be carried out in compliance with fundamental ethical principles.

Article 4

Progress with implementing the framework programme 2002-2006, and in particular progress towards achieving its objectives and meeting its priorities, shall be presented in detail in the report to be published by the Commission each year pursuant to Article 7 of the Treaty.

Article 5

Before submitting its proposal for the next framework programme, the Commission shall have an assessment carried out by independent high-level experts of the implementation of Community activities during the five years preceding that assessment. The Commission shall communicate the conclusions thereof, accompanied by its observations, to the European Parliament, the Council and the Economic and Social Committee

Article 6

The framework programme 2002-2006 is open to the participation of

- the EEA countries, in accordance with the conditions established in the EEA agreements;
- the central and eastern European candidate countries (CEEC), in accordance with the conditions established in the Europe Agreements, in the additional protocols thereto and in the decisions of the respective Association Councils;

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1. The financial reference amount for the implementation of the sixth framework programme for the period 2002-2006 shall be EUR 1 230 million, of which EUR 150 million for the treatment and storage of waste, EUR 700 million for controlled thermonuclear fusion, EUR 50 million for other Euratom activities, and EUR 330 million for the Joint Research Centre's Euratom activities.

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All the research activities carried out under the sixth framework programme shall be carried out in compliance with fundamental ethical principles. Equality of opportunity, irrespective of gender, will be fully respected.

Unchanged

Progress with implementing the sixth framework programme, and in particular progress towards achieving its objectives and meeting its priorities, including its financial aspects shall be presented in detail in the report to be published by the Commission each year pursuant to Article 7 of the Treaty.

Unchanged

Before submitting its proposal for the next framework programme, the Commission shall have an assessment carried out by independent high-level experts of the implementation of Community activities during the five years preceding that assessment. The Commission shall communicate the conclusions thereof, accompanied by its observations, to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions.

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The sixth framework programme is open; in accordance with the relevant agreements, decisions or protocols, to the participation of the EEA countries, the candidate countries, and other countries including Switzerland.

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- Cyprus, Malta and Turkey, on the basis of bilateral agreements to be concluded with these countries;
- Switzerland and Israel, on the basis of bilateral agreements to be concluded with these countries.

ANNEX

SCIENTIFIC AND TECHNOLOGICAL OBJECTIVES

1. PRIORITY THEMATIC AREAS OF RESEARCH

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1.1. **Waste treatment and storage**

Nuclear fission energy today supplies 35 % of electricity in the EU. It is an element in the debate on how to combat climate change and reduce Europe's dependence on imported energy. The power plants at present in operation will continue to be operated for at least 20 years.

Looking to the longer term, new technologies for the safe exploitation of nuclear fission energy could be developed in order to meet European energy needs in the decades ahead in such a way as to take into account the requirements of sustainable development.

The exploitation of nuclear fission energy for energy production is now encountering the problem of waste, and more particularly the individual implementation of technical solutions for the management of long-lived waste.

European public and private sector research efforts with regard to nuclear waste treatment and storage technologies are significant. Through its coordination effects, EU action in this area makes it possible to assemble them into a critical mass and ensure the coherence of the guidelines adopted by the waste management organisations and industries concerned.

EU action will cover both the immediate problem of waste storage and the longer term question of reducing its impact. In this connection, it will address the following aspects:

- research into processes for long term storage in deep geological strata, with the networking of the activities carried out on various sites in the three main types of geological formations envisaged;
- research aimed at reducing the impact of waste, more particularly as a result of the development of new concepts for reactors producing less waste and the development of technologies to reduce the hazards associated with waste by means of partitioning and transmutation techniques.

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1.2. Controlled thermonuclear fusion

Controlled thermonuclear fusion is one of the long term options for energy supply in conditions of sustainable development, in particular for the centralised supply of base-load electricity.

For reasons bound up with the complexity of fundamental knowledge in physics and the technological problems to be resolved, the developments needed for the possible application of fusion for energy production will necessarily take the form of a process in several steps each of which, possibly taking several tens of years, has an impact on the next.

The efforts deployed in the context of the integrated European research programme on controlled thermonuclear fusion implemented by the EU have enabled Europe to become a world leader in the field of research into fusion by magnetic confinement.

The progress made on the research and the results obtained, in particular with the European JET Tokamak, now make it possible to consider moving on to the 'Next Step': the production of a machine capable of producing fusion reactions in conditions comparable to that of an energy production reactor.

The completion of the preparatory work on the detailed design of the 'Next Step' in the context of the ITER international cooperation project makes it possible to take a decision about the launching of this project and the construction of the machine.

The objective of this will be to demonstrate the scientific and technological feasibility of fusion energy production. The precise arrangements for implementing the project will depend on the outcome of the negotiations at present under way in the framework of international cooperation and subsequent developments, more particularly the decisions taken concerning Europe's contribution to the ITER project and the site where the machine is to be installed. An appropriate legal framework will need to be established.

EU participation in the ITER initiative requires the implementation of an accompanying programme including the following elements:

- Operation of the JET machine in such a way as to derive benefit from the improvements currently being made, as well as possible participation in the research activities needed to complete the decommissioning of JET at the end of its life cycle.
- The continuation of research into fusion physics and technology, including: study and evaluation of alternative magnetic confinement formulas, with in particular the continuation of the construction of the Wendelstein 7-X 'stellarator' and operation of the existing installations in the Euratom Associations; coordinated activities regarding technological research, in particular research into materials for fusion.

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Realising the 'Next Step' will mobilise significant human and financial resources. The current efforts of Euratom's European partners with regard to fusion should be adjusted accordingly, once a decision is taken about the construction of ITER.

2. OTHER ACTIVITIES IN THE FIELD OF NUCLEAR SAFETY AND SAFEGUARDS

On the basis of calls for proposals and in support of EU policies in the fields of health, energy and the environment:

- Research in the field of radiation protection, more particularly with regard to the quantification of the risks associated with low levels of exposure;
- Studies of innovative concepts for new and safer processes for the exploitation of nuclear energy;
- Education and training concerning nuclear safety and radiation protection.

3. ACTIVITIES OF THE JOINT RESEARCH CENTRE

In accordance with its task of providing scientific and technical support for EU policies, the JRC will focus its activities on the following fields:

3.1. Nuclear safety and security

Waste treatment and storage, in particular separation and transmutation techniques for long-lived actinides; radiation protection; safety of existing reactors (with priority for reactors in the candidate countries), as well as reactors of the new generation; control of fissile materials and support for their non-proliferation; monitoring the decommissioning of obsolete nuclear installations.

3.2. Measurements and reference materials

Radionuclide metrology, in particular in the case of low activity and round robin tests in the framework of networks of laboratories of excellence; interaction between neutrons and matter for the generation of base data for studies concerning the transmutation of waste and the development of new systems.

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3. NUCLEAR ACTIVITIES OF THE JOINT RESEARCH CENTRE

In accordance with its task of providing scientific and technical support for EU policies, the JRC's activities will have the following focus. The principal objective will be to further develop collaboration through networking, leading to broad consensus on a range of these issues at European and world-level. Special attention will be given to co-operation with candidate countries. Training activities will be an important component for JRC to help equip the Community with a future generation of scientists with the necessary competencies and expertise. The main areas of research activity will be as follows ⁽¹⁾:

Unchanged

⁽¹⁾ In addition, the JRC is entitled to participate in all research activities on the same basis as national research organisations (e.g. on the basis of calls for proposals).