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COMMISSION OF THE EUROPEAN COMMUNITIES

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2005/0190 (CNS)

Proposal for a

COUNCIL DECISION

**concerning the specific Programme implementing the seventh Framework Programme
(2007-2011) of the European Atomic Energy Community (Euratom) for nuclear
research and training activities**

(presented by the Commission)

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSALS

The Commission adopted its proposal¹ for the 7th Framework Programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities (2007 to 2011) on 6 April 2005. The Commission indicated that the activities were to be organised in two Specific Programmes corresponding to “indirect” actions on fusion energy research and nuclear fission and radiation protection and the “direct” research activities of the Joint Research Centre in the field of nuclear energy, and these are the subject of the present proposals. The Commission will be presenting proposals for the associated “Rules for Participation and Dissemination”.

The policy context and objectives are those set out in the Communication “Building the ERA of knowledge for growth”².

The Specific Programmes of the 7th Euratom Framework Programme are designed to address, in combination with the necessary national and industrial efforts, the major issues and challenges in this field of research in Europe.

Financial support at a European level offers opportunities to increase the excellence and effectiveness of research in a way that cannot be achieved at national level. The Specific Programmes of the 7th Euratom Framework Programme represent further consolidation of the European Research Area in this sector, achieving critical mass and structures in new areas of research and by new means, and further supporting the free movement of ideas, knowledge and researchers.

Throughout the implementation of the Specific Programmes, the potential for European level actions to strengthen excellence in research will be utilised to the maximum. This implies identifying and supporting existing excellence in this field wherever it exists across the European Union as well as creating capacities for future research excellence.

Where possible, the impact of the Specific Programmes will be enhanced through complementarities with other Community programmes, such as the Structural Funds. This is in conformity with the approach to be followed in the EC Capacities Specific Programme, since an important aspect of the Euratom Specific Programme for indirect actions will also be the support for research infrastructures, though in this case in the specific area of nuclear science and technology.

2. PRIOR CONSULTATION

In the preparation of current proposals, as for the Framework Programme, the Commission has taken into account the views expressed by the other EU institutions and the Member States, as well as by many stakeholders in a broad consultation, including the scientific community and industry. In addition, the Specific Programme proposals draw from the in-

¹ COM(2005) 119.

² COM(2005) 118.

depth impact assessment undertaken for the 7th Framework Programme proposal³ and the outcome of the five year assessment of the Framework Programme⁴.

3. LEGAL ASPECTS

The present Specific Programme proposals cover the same period as the Framework Programme, 2007-2011, which in turn is based on Article 7 of the Euratom Treaty. In accordance with this Article, second paragraph, research programmes are drawn up for a period of not more than five years. Hence, the present proposals are not for the same duration as the EC Specific Programmes.

The Commission proposes that, unless extenuating circumstances arise, these Specific Programmes will be renewed for the period 2012-2013, in accordance with the foreseen legislative procedure.

4. BUDGETARY IMPLEMENTATION

The “legislative financial statement” attached to this Decision sets out the budgetary implications and the human and administrative resources, and also provides indicative figures for the period 2012-2013.

The Commission intends to set up an executive agency which will be entrusted with certain tasks required to implement the specific programme of indirect actions⁵.

5. A COHERENT AND FLEXIBLE IMPLEMENTATION

5.1. Adapting to new needs and opportunities

It is vital that the implementation of the Specific Programmes is sufficiently flexible to enable them to remain at the forefront of scientific and technological developments in the nuclear field in general and to respond to emerging industrial, policy or societal needs. For the indirect actions, this will be achieved primarily through the work programmes which will be updated on an annual basis with the assistance of the committees of Member State representatives and identify the topics for calls for proposals to be launched. Revisions may be made more rapidly in case of new priorities requiring an urgent response, in particular arising from unforeseen policy needs.

This multi-annual programming will benefit from a wide range of inputs to ensure that the activities supported maintain direct relevance to the evolving research needs of industry and

³ SEC(2005) 430.

⁴ COM (2005) 387.

⁵ Article 54.2 (a) of the Financial Regulation (EC, Euratom) allows the Commission to entrust tasks of public authority to executive agencies. However, Council Regulation (EC) No 58/2003 laying down the statute for the executive agencies to be entrusted with certain tasks in the management of Community programmes, and Commission Regulation (EC) No 1653/2004, on a standard financial regulation for executive agencies pursuant to Regulation (EC) No 58/2003, are EC Regulations which, consequently, would not apply in the Euratom field. The Commission intends to request the Council to extend the scope of these regulations to the Euratom Treaty.

EU policies in the nuclear field. The external advisory group for energy established under the EC Cooperation Specific Programme, with effective multi-disciplinary membership and a balance of academic and industrial views, will provide one of these inputs.

Additional external inputs may also be forthcoming from the technology platforms that it is envisaged could be established in certain thematic domains of the Specific Programmes in the near future.

Other forums and groups, such as European Strategy Forum on Research Infrastructures (ESFRI), may provide the Commission with timely advice on opportunities and priorities with relevance to the Euratom research sector.

5.2. Cross-cutting issues

Overall coherence in the implementation of the 7th Euratom Framework Programme will be ensured by the Commission. The work programmes across the Specific Programmes will be revised in a coordinated way to allow cross cutting issues to be fully taken into account.

The committees of Member State representatives also have an important responsibility in assisting the Commission in the effective coherence and coordination of implementation across and within Specific Programmes. This implies a strong level of coordination within Member States between representatives of different committee configurations.

Particular attention will be paid to those actions cutting across Euratom and EC Specific Programmes, for example the use of advanced reactors in the production of hydrogen, or the development of advanced materials. Where feasible in view of the difficulties posed by the existence of two Framework Programmes coming under separate Treaties, joint calls may be used building on the experience gained in the 6th Framework Programme.

The following issues are of particular importance, and specific arrangements for a coordinated approach are foreseen:

- *International cooperation:* This is an important aspect of the Euratom programme and a strategic approach will be taken to promote actions in this respect and to address specific issues where there is a mutual interest and benefit.
- *Research infrastructures:* There needs to be close collaboration with the EC Capacities programme to ensure support for key nuclear research infrastructures with more general research applications.
- *Link with Community policy:* Arrangements for effective coordination within the Commission services will be put in place, in particular to ensure that activities continue to meet the needs of developments in EU policies. For this purpose, the multi-annual programming may draw on the help of user groups of different Commission services associated with the policies concerned.
- *Dissemination and knowledge transfer:* The need to foster the uptake of research results is a strong feature across the Specific Programmes, with a particular emphasis on transferring knowledge between countries, across disciplines and from academia to industry, including through the mobility of researchers.

- *Science in society*: This activity in the EC Capacities programme also has parallels in activities in the nuclear sector, and there is a clear potential for mutually beneficial cross-fertilisation in areas such as governance and stakeholder issues, especially those associated with the local acceptance of controversial facilities.

6. SIMPLIFICATION AND MANAGEMENT METHODS

A significant simplification will be achieved in the implementation of the 7th Framework Programme, following the ideas presented in the Commission Working Document of 6 April 2005 and the extensive dialogue on the basis of this document. Many of the proposed measures are to be presented in the Rules for Participation and Dissemination, notably to reduce “red tape” significantly and simplify the funding schemes and reporting requirements.

Within the fission part of the Specific Programme for indirect actions, improvements will be proposed that are comparable with those foreseen for actions in the collaborative part of the EC programme.

7. CONTENT OF THE SPECIFIC PROGRAMMES

7.1. Nuclear research and training activities (indirect actions)

This Specific Programme covers the following two thematic priorities:

(i) **Fusion energy research**: 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:

- The realisation of ITER
- R&D in preparation of ITER operation
- Technology activities in preparation of DEMO
- R&D activities for the longer term
- Human resources, education and training
- Infrastructures
- Responding to emerging and unforeseen policy needs.

(ii) **Nuclear fission and radiation protection**: to promote the safe use and exploitation of nuclear fission and other uses of radiation in industry and medicine. This thematic priority includes the following areas of activity:

- Management of radioactive waste
- Reactor systems
- Radiation protection

- Support for and access to research infrastructures
- Human resources and training including mobility.

In general, this Specific Programme represents strong elements of continuity with previous framework programmes building on the demonstrated added value of European support of this type. There are, in addition, important novelties in this Specific Programme which require specific consideration for the implementation:

- A strengthened approach to the coordinating of national research programmes in the field of nuclear fission and radiation protection.
- The joint implementation of ITER in an international framework, the establishment of a Euratom Joint Undertaking for ITER, and a further strengthening of the co-ordination of the integrated European fusion energy research activities.
- A more targeted approach to international cooperation within each theme is foreseen with specific cooperation actions to be identified in the work programmes in line with the strategic approach for international cooperation foreseen.
- A component to allow a flexible response to emerging needs and unforeseen policy needs will be supported under each of the themes and the implementation will build on the experience of the Scientific Support for Policy and New and Emerging Science and Technology schemes introduced in the 6th Framework Programme, as well as the Future and Emerging Technology scheme in the ICT area.

During the lifetime of this Specific Programme, and the foreseen extension to 2013, opportunities for the creation of effective Joint Undertakings may arise, for example in the field of radioactive waste management⁶. The Commission services will submit proposals for the creation of such undertakings to Council at the appropriate time.

7.2. JRC (direct actions)

The JRC will implement its mission in taking into account the internal evolution within Commission services, as well as the European and worldwide context in the nuclear field.

To this end, the strengthening of JRC relations with Member States research organisations will be systematically sought.

In connection with the Lisbon agenda and upon request of most of JRC stakeholders, the JRC will make a significant effort on training and knowledge management. The JRC will pursue its R&D activities in areas linked to waste management and environmental impact.

In nuclear safety, the most important changes are an answer to the Community policy developments, new needs expressed by Commission services and to the Community involvement in international initiatives, such as Generation IV.

⁶ See the Explanatory Memorandum to the Commission's revised proposal for the "Nuclear Package" - COM(2004) 526, 8.9.2004.

The JRC is involved in nuclear safety for 30 years, but the international context has significantly changed these very last years and the non-proliferation dimension is becoming more important. However, internal evolution of Commission Services also relies on JRC continuous support in more traditional areas.

8. BUILDING THE ERA OF KNOWLEDGE FOR GROWTH

Achieving the necessary rapid progress towards a knowledge economy and society requires a new ambition and effectiveness in European research. All actors across the European Union – national governments, research establishments, industry – have their role.

All Specific Programmes implementing the 7th Framework Programmes (EC and Euratom) are designed to maximise the leverage and impact of European-level research spending within the available budget. Key features are: the focus on the thematic priorities in the corresponding Specific Programmes with activities and means of implementation designed to meet these objectives; a strong element of continuity; a consistent focus on supporting existing excellence and creating the capacity for tomorrow's research excellence; a streamlined and simplified management to ensure user friendliness and cost effectiveness; and an inbuilt flexibility such that the Framework Programme can respond to new needs and opportunities.

Proposal for a

COUNCIL DECISION

concerning the specific Programme implementing the seventh Framework Programme (2007-2011) of the European Atomic Energy Community (Euratom) for nuclear research and training activities

(Text with EEA relevance)

THE COUNCIL OF THE EUROPEAN UNION,

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

Having regard to the proposal from the Commission⁷,

Having regard to the opinion of the European Parliament⁸,

Having regard to the opinion of the European Economic and Social Committee⁹,

Whereas:

- (1) In accordance with Council Decision No xxx/Euratom concerning the seventh framework programme of the European Atomic Energy Community (Euratom) for nuclear research and training activities, (2007-2011) (hereinafter referred to as ‘the Framework Programme’), the Framework Programme is to be implemented through specific programmes that define detailed rules for their implementation, fix their duration and provide for the means deemed necessary.
- (2) The Framework Programme is structured in two types of activities: (i) indirect actions in fusion energy research and research on nuclear fission and radiation protection, and (ii) direct actions for activities of the Joint Research Centre in the field of nuclear energy. The activities under (i) should be implemented by this specific programme.
- (3) The rules for the participation of undertakings, research centres and universities and for the dissemination of research results, for the Framework Programme (hereinafter referred to as ‘the rules for participation and dissemination’) should apply to this programme.
- (4) The Framework Programme should complement other EU actions in the area of the research policy that are necessary for the overall strategic effort for the

⁷ OJ C , , p. .

⁸ OJ C , , p. .

⁹ OJ C , , p. .

implementation of the Lisbon strategy, alongside in particular with those on education, training, competitiveness and innovation, industry, health, consumer protection, employment, energy, transport and environment.

- (5) With reference to the Council Decision of 26 November 2004 amending the directives of negotiations on ITER¹⁰, the realisation of ITER in Europe, in a broader approach to fusion energy, will be the central feature of the activities on fusion research carried out under the Framework Programme.
- (6) The EU activities to contribute to the realisation of ITER, and in particular those necessary for starting the construction of ITER at Cadarache and executing the ITER Technology R&D during the Framework Programme shall be steered by a joint undertaking within the meaning of Title II, Chapter 5 of the Treaty .
- (7) Aspects of research and technological development in the field of nuclear fission science and technology may also be amenable to implementation through Joint Undertakings established under Title II, Chapter 5 of the Treaty.
- (8) In accordance with Article 101 of the Treaty, the Community has concluded a number of international agreements in the field of nuclear research and efforts should be made to strengthen international research cooperation with a view to further integrating the Community into the world-wide research community. Therefore, this specific programme should be open to the participation of countries having concluded agreements to this effect and should be also open on the project level, and on the basis of mutual benefit, to the participation of entities from third countries and of international organisations for scientific cooperation.
- (9) Research activities carried out within this programme should respect fundamental ethical principles, including those which are reflected in the Charter of Fundamental Rights of the European Union.
- (10) The Framework Programme should contribute towards promoting sustainable development.
- (11) Sound financial management of the Framework Programme and its implementation should be ensured in the most effective and user-friendly manner possible, as well as ease of access for all participants, in compliance with Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities, Commission Regulation (EC, Euratom) No 2342/2002 of 23 December 2002 laying down detailed rules for implementation of the Financial Regulation and any future amendments.
- (12) Appropriate measures should also be taken to prevent irregularities and fraud and the necessary steps should be taken to recover funds lost, wrongly paid or incorrectly used in accordance with Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities, Commission Regulation (EC, Euratom) No 2342/2002 of 23 December 2002 laying down detailed rules for implementation of the Financial Regulation and

¹⁰ Not published in the OJ.

any future amendments, Council Regulations (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests¹¹, (Euratom, EC) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities¹² and Regulation (EC) No 1074/1999 of the European Parliament and of the Council concerning investigations conducted by the European Anti-Fraud Office (OLAF)¹³.

- (13) Each thematic area should have its own budget line in the General Budget of the European Communities.
- (14) In the implementation of this programme adequate attention needs to be paid to gender mainstreaming, as well as to, inter alia, the working conditions, transparency of recruitment processes, and career development as regards the researchers recruited on projects and programmes funded under the actions of this programme, for which the Commission Recommendation of 11 March 2005 on the European Charter for Researchers and on a Code of Conduct for the Recruitment of Researchers¹⁴ offers a reference framework.
- (15) The Scientific and Technical Committee has been consulted,

HAS ADOPTED THIS DECISION:

Article 1

The specific programme for nuclear research and training activities in the fields of Fusion Energy, Nuclear Fission and Radiation Protection under the 7th Euratom Framework Programme, hereinafter the "Specific Programme" is hereby adopted for the period from 1 January 2007 to 31 December 2011.

Article 2

The Specific Programme shall support the activities for research and training on nuclear energy, supporting the whole range of research actions carried out in the following thematic areas:

- (a) fusion energy research;
- (b) research on nuclear fission and radiation protection.

Within the field of Fusion energy research, a joint undertaking established under Title II, Chapter 5 of the Treaty shall be created for managing and administering the European contribution to ITER as well as complementary activities aimed at the fast realisation of fusion energy.

¹¹ OJ L 312, 23.12.1995, p. 1.

¹² OJ L 292, 15.11.1996, p. 2.

¹³ OJ L 136, 31.5.1999, p. 1.

¹⁴ C(2005) 576.

The objectives and the broad lines of those activities are set out in Annex.

Article 3

In accordance with Article 3 of the Framework Programme, the amount deemed necessary for the execution of the Specific Programme shall be EUR 2 553 million, of which 15 % shall be for the Commission's administrative expenditure.

Fusion energy research	2 159
Nuclear Fission and radiation protection	394

Article 4

1. All research activities carried out under the specific programme shall be carried out in compliance with fundamental ethical principles.
2. The following research shall not be financed under this programme:
 - research activities that are prohibited in all the Member States,
 - research activities to be carried out in a Member State where such research is prohibited.

Article 5

1. The specific programme shall be implemented by means of the funding schemes established in Annex II to the Framework Programme.
2. The rules for participation and dissemination shall apply to this Specific Programme.

Article 6

1. The Commission shall draw up a work programme for the implementation of the specific programme, setting out in greater detail the objectives and scientific and technological priorities set out in Annex, the funding schemes to be used for the topic on which proposals are invited, and the timetable for implementation.
2. The work programme shall take account of relevant research activities carried out by the Member States, Associated States and European and international organisations. It shall be updated where appropriate.
3. The work programme will specify the criteria on which proposals for indirect actions under the funding schemes shall be evaluated and projects selected. The criteria will be those of excellence, impact and implementation and within this framework additional requirements, weightings and thresholds may be further specified or complemented in the work programme.
4. The work programme may identify:

- (a) organisations that receive subscriptions in the form of a membership fee;
- (b) support actions for the activities of specific legal entities.

Article 7

1. The Commission shall be responsible for the implementation of the specific programme.
2. For the purposes of implementing the specific programme the Commission shall be assisted by a consultative committee. The members of this committee can vary according to the different subjects on the committee's agenda. For fission-related aspects, the composition of this committee and the detailed operational rules and procedures applicable to it shall be as laid down in Council Decision 84/338/Euratom, ECSC, EEC of 29 June 1984 dealing with structures and procedures for the management and coordination of Community research, development and demonstration activities¹⁵. For the fusion-related aspects they shall be as laid down in the Council Decision of 16 December 1980 setting up a Consultative Committee for the fusion programme, as amended by Council Decision 2005/336/Euratom of 18 April 2005¹⁶.
3. The Commission shall regularly inform the committee of the overall progress of the implementation of the specific programme, and shall provide it with information about all RTD actions funded under this programme.

This Decision is addressed to the Member States.

Done at Brussels,

*For the Council
The President*

¹⁵ OJ L 177, 4.7.1984, p. 25.

¹⁶ OJ L 108, 29.4.2005, p. 64.

ANNEX

SCIENTIFIC AND TECHNOLOGICAL OBJECTIVES, BROAD LINES OF THE THEMES AND ACTIVITIES

1. INTRODUCTION

Nuclear power is the principal carbon-free source of base load electricity in the EU, totalling some 135GWe of installed capacity and accounting for one-third of current electricity generation. It therefore plays a key role in limiting the EU's emissions of greenhouse gases, and makes an important contribution to improving the Union's independence, security and diversity of energy supply.

In the longer term, nuclear fusion offers the prospect of an almost limitless supply of clean energy, with ITER being the crucial next step in the progress towards this ultimate goal. The realisation of the ITER project therefore lies at the heart of the present EU strategy, though must be accompanied by a strong and focused European R&D programme to prepare for the exploitation of ITER and to develop the technologies and knowledge base that will be needed during its operation and beyond.

On the other hand, nuclear fission remains a viable option for those Member States wishing to avail themselves of this technology for a balanced mix of their energy supplies. Research and training activities are of paramount importance in ensuring continued high levels of nuclear safety both now and in the future, maintaining the progress towards implementation of sustainable waste management solutions, and improving efficiency and competitiveness of the sector as a whole. Research in radiation protection constitutes an essential aspect of this policy, ensuring optimal safety of the public and workforce in all medical and industrial applications.

In all domains, the right level of investment in research is essential if Europe is to remain competitive; for maximum effectiveness this requires a concerted approach at the EU level with continued co-operation between Member States and significant efforts to maintain infrastructures, competences and know-how. In general, research will also be needed to explore new scientific and technological opportunities and to respond in a flexible way to new policy needs that arise during the course of the Framework Programme.

2. THEMATIC AREAS OF RESEARCH

2.1. Fusion energy

The construction of ITER at Cadarache in France, and of "Broader Approach" projects to accelerate the development of fusion energy, will take place within the framework of international co-operation. An international ITER agreement will establish the ITER Organisation. The construction of ITER and Broader Approach projects, and their exploitation together with other facilities in international collaboration will expand such collaboration to an unprecedented level. This will

provide significant benefits to Europe, in particular in terms of efficiency and possible cost sharing.

The Domestic Agency for ITER will be established as a Joint Undertaking under the EURATOM Treaty. It will provide the means for EURATOM to discharge its international obligations under the ITER Agreement and to ensure that EURATOM provides in an efficient and coherent manner the European contribution to ITER and to Broader Approach projects, including the R&D activities in support of these projects.

Europe's leading position in fusion energy research is due to the combination of a single and fully integrated European fusion programme of the European Research Area (ERA) type, strong continuous Community support, co-ordination by EURATOM, and the development of human capital in the EURATOM Fusion Associations. The Fusion Associations are centres of excellence in fusion research and have an extensive network of collaborations, largely based on their experimental facilities. The outstanding technology developments achieved by EURATOM in contributing to the ITER Engineering Design Activities and the successful exploitation of the JET facilities have contributed significantly to further enhancing the strong cohesion of the European fusion programme. This has also given Europe the knowledge and experience needed for broad collaborative efforts in all aspects of fusion energy research, including the realisation of ITER and Broader Approach projects. Building on these achievements, the organisation and management of FP7 will ensure that the R&D will be effectively and efficiently co-ordinated for the fulfilment of the near and long term goals of the programme.

The rapid development of fusion also requires a wide industrial base to ensure a timely deployment of fusion energy. European industry has already contributed substantially to the ITER Engineering Design Activities. During FP7, European industry, including SMEs, will play a leading role in the construction of ITER and will position itself to participate fully in the development of fusion power technologies for DEMO (a "demonstration" fusion power station) and future fusion power plants.

ITER and the European fusion energy research programme will contribute to some of the urgent actions identified in the report of the High Level Group ("Kok Report") as necessary to make progress in the Lisbon strategy. In particular, ITER will become a magnet for the best fusion scientists and engineers and high technology industries. This will create benefits for both the European fusion programme and the overall scientific and technical knowledge base. The skills and knowledge which will be acquired by European industry when building systems and components to meet the highly demanding technical requirements of the ITER device will help boost its competitiveness.

Overall Objective

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.

Activities

(i) The realisation of ITER

This includes activities for the joint realisation of ITER as an international research infrastructure:

- The EU will have a special responsibility within the ITER Organisation as the host of the project and will assume a leading role, in particular regarding site preparation, establishing the ITER Organisation, management and staffing, plus general technical and administrative support.
- EU participation in ITER as a Party will include contributions to the construction of equipment and installations which are within the perimeter of the ITER site and necessary for its exploitation and support to the project during construction.
- The R&D activities in support of ITER construction will be carried out in the fusion Associations and European industries. They will include the development and testing of components and systems.

(ii) R&D in preparation of ITER operation

A focused physics and technology programme will aim at consolidation of ITER project choices and preparation for a rapid start-up of ITER operation, reducing significantly the time and cost needed for ITER to achieve its baseline objectives. It will be executed through co-ordinated experimental, theoretical and modelling activities using the JET facilities and other devices in the Associations, it will ensure that Europe has the necessary impact on the ITER project, and it will prepare for a strong European role in its exploitation. This programme will include:

- assessment of specific key technologies for ITER operation through the completion and exploitation of the JET Enhancements (first wall, heating systems, diagnostics);
- exploration of ITER operating scenarios by means of targeted experiments on JET and other facilities, and co-ordinated modelling activities.

During FP7, a review will be carried out of the facilities in the programme, examining the possibility of phasing out existing facilities, and considering the need for new devices in parallel to ITER exploitation. The review will be used as a basis for the possible support of new or upgraded devices in order to ensure that the programme will maintain an adequate set of fusion facilities for the relevant R&D.

(iii) Technology activities in preparation of DEMO

Key technologies and materials required for the licensing, construction and operation of the DEMO power plant will be further developed in Associations and industry in order to test them in ITER and to position European industry to be able to construct DEMO and develop future fusion power plants. The following activities will be implemented:

- establishment of a dedicated project team and implementation of the Engineering Validation and Engineering Design Activities (EVEDA) to prepare for the construction of the International Fusion Materials Irradiation Facility (IFMIF), which will be used for testing materials of a fusion power station - an essential pre-condition for the licensing of DEMO;
- development, irradiation testing and modelling of low activation and radiation resistant materials; development of the key technologies required for fusion power plant operation; conceptual design activities of DEMO, including safety and environmental aspects.

(iv) R&D activities for the longer term

Building on the activities aimed specifically at ITER and DEMO, the fusion programme will develop competences and enlarge the knowledge base in fields which are strategically relevant to future fusion power stations. These research activities will lead to enhanced technical feasibility and economic viability of fusion power. Specific actions for these purposes in FP7 will include:

- improved concepts for magnetic confinement schemes will be studied on those concepts offering a high reactor potential. Work will concentrate on completion of the W7-X stellarator; utilisation of existing devices for expansion of the experimental databases; and appraisal of the future perspectives for these configurations;
- an experimental fusion physics programme will be carried out with the objective of realising a comprehensive understanding of fusion plasmas aimed at the optimisation of power station design;
- theory and further modelling with the ultimate aim of a comprehensive understanding of reactor-grade fusion plasmas will be pursued;
- studies of the sociological aspects and economics of fusion power generation will be undertaken, and actions aimed at the promotion of public awareness and understanding of fusion will be pursued;
- the existing activity in Inertial Fusion Energy, which maintains a watching brief on Member States' civil research activities on inertial confinement will continue.

(v) Human resources, education and training

Ensuring adequate human resources and a high level of cooperation within the programme, both for the immediate and medium term needs of ITER, and for the further development of fusion, will be addressed by:

- support for the mobility of researchers between organisations participating in the programme, in order to promote enhanced collaboration and integration of the programme, and to foster international co-operation;
- high-level training for engineers and researchers at post-graduate and post-doctoral level, including the use of facilities in the programme as training platforms and dedicated seminars and workshops;

- promotion of innovation and exchange of know-how with related universities, research institutes and industry.

(vi) Infrastructures

The realisation of ITER in Europe, in the international framework of the ITER Organisation, will be an element of the new research infrastructures with a strong European dimension.

(vii) Responding to emerging and unforeseen policy needs

A “fast track” fusion development programme could bring fusion energy earlier to the market, as part of a wider policy of addressing the issues of the security of Europe’s energy supply, climate change, and sustainable development. The primary objective and a major milestone of the “fast track” would be an earlier realisation of DEMO. In FP7, this would involve activities and projects embedded in the international Broader Approach to fusion energy, undertaken by EURATOM in collaboration with ITER partners.

2.2. Nuclear fission and radiation protection

Indirect actions will be undertaken in five principal areas of activity detailed below. However, important cross-cutting links exist throughout the programme, and interactions between different activities must be adequately accommodated. Crucial in this respect are support for training activities and research infrastructures. Training needs must constitute a key aspect of all EU-funded projects in this sector, and these together with support for infrastructures will be an essential component in addressing the nuclear competence issue.

A common European view on key problems and approaches is required in accordance with the needs of strengthening the European Research Area. Links will be established among national programmes and networking will be promoted with international organisations and third countries including USA, NIS, Canada and Japan. Where there is a clear Community interest, EURATOM must play a full role in existing forums co-ordinating RTD (research and technological development) activities at the international level. Coordination will also be assured where appropriate with the programme of direct actions carried out by the JRC in this field as well as with indirect actions under fusion energy research.

Equally important links must be established with research in the EC Framework Programme, in particular in the activities of European standards, education and training, environmental protection, material science, governance, common infrastructures, security, safety culture and energy. International collaboration will be a key feature of the activities in many of the thematic areas.

(i) Management of radioactive waste

Objectives

Through implementation-oriented RTD, the activities aim to establish a sound scientific and technical basis for demonstrating the technologies and safety of disposal of spent fuel and long-lived radioactive wastes in geological formations, to

underpin the development of a common European view on the main issues related to the management and disposal of waste, and to investigate ways of reducing the amount and/or hazard of the waste by partitioning and transmutation or other techniques.

Activities

- **Geological disposal:** RTD in the field of geological disposal of high-level and/or long-lived radioactive waste involving engineering studies and demonstration of repository designs, in-situ characterisation of repository host rocks (in both generic and site-specific underground research laboratories), understanding of the repository environment, studies on relevant processes in the near field (waste form and engineered barriers) and far-field (bedrock and pathways to the biosphere), development of robust methodologies for performance and safety assessment and investigation of governance and societal issues related to public acceptance.
- **Partitioning & Transmutation:** RTD in all technical areas of partitioning and transmutation (P&T) to develop pilot facilities and demonstration systems for the most advanced partitioning processes and transmutation systems, involving sub-critical and critical systems, with a view to reducing the volumes and hazard of high-level long-lived radioactive waste issuing from treatment of spent nuclear fuel. Research will also explore the potential of concepts that produce less waste in nuclear energy generation, including the more efficient use of fissile material in existing reactors.

(ii) Reactor systems

Objectives

The aims of these actions are to ensure the continued safe operation of existing installations and, as a contribution to enhancing diversity and security of supply and combating global warming, to explore the potential of more advanced technology to deliver an even safer, more resource-efficient and more competitive exploitation of nuclear energy.

Activities

- **Nuclear installation safety:** RTD in operational safety of current and future nuclear installations, especially plant life assessment and management, safety culture, advanced safety assessment methodologies, numerical simulation tools, instrumentation and control, and prevention and mitigation of severe accidents, with associated activities to optimise knowledge management and maintain competences.
- **Sustainable nuclear systems:** RTD to improve the efficiency of present systems and fuels and, in collaboration with the international efforts in this field such as the Generation IV International Forum, to investigate aspects of selected advanced reactor systems in order to assess their potential, proliferation resistance and long-term sustainability, including activities in the field of basic research (especially material science) and the study of the fuel cycle and innovative fuels.

(iii) Radiation protection

Objectives

The safe use of radiation in medicine and industry relies on a sound radiation protection policy and its effective implementation. Research plays a key role in maintaining and improving the standards of protection, and this is a common objective of all activities in the programme. Research also has the important objectives of underpinning Community policies and their effective implementation and responding rapidly and effectively to emerging needs.

A key objective of this research will be to help resolve the controversy over the risk from exposures to radiation at low and protracted doses. Resolution of this scientific and policy issue has potentially important cost and/or health implications for the use of radiation in both medicine and industry.

Activities

- **Quantification of risks for low and protracted exposures:** Better quantification of the risks to health for low and protracted exposures, including individual variability, through epidemiological studies and an improved understanding of the mechanisms from cellular and molecular biology research.
- **Medical uses of radiation:** Enhance the safety and efficacy of medical uses of radiation in diagnosis and therapy (including nuclear medicine) through new technological developments and achieving a proper balance between the benefits and risks of such uses.
- **Emergency management and rehabilitation:** Improve the coherence and integration of emergency management (including the rehabilitation of accidentally contaminated territories) in Europe through the development of common tools and strategies and demonstrate their efficacy in operational environments.
- **Malevolent uses of radiation or radioactive material:** Develop robust and practicable approaches to manage the impact of malevolent uses (or threatened uses) of radiation or radioactive material including direct and indirect health effects and contamination of the environment, particularly inhabited areas and food and water supplies.
- **Other topics: National research activities** in other areas (e.g. natural radiation, radioecology, protection of the environment, dosimetry, occupational exposure, risk governance, etc) will be more effectively integrated.

(iv) Infrastructures

Objectives

Research infrastructures are an essential part of RTD in nuclear science and technology and the radiological sciences, ranging in size from very large and expensive plant and laboratory networks to much smaller facilities such as databases, numerical simulation tools and tissue banks. The objectives of the programme are to provide support for key infrastructures where there is clear EU added value,

especially in order to establish critical mass and for the replacement of ageing facilities such as e.g. research reactors. This will consolidate the success of previous Community programmes, which have facilitated transnational access to such infrastructures, and contribute to maintaining the high standards of technical achievement, innovation and safety in the European nuclear sector.

Infrastructures also make an important contribution to the training of scientists and engineers.

Activities

- **Supporting infrastructures:** Support for the design, refurbishment, construction and/or operation of key research infrastructures required in any of the above thematic areas; for example: underground laboratories for research on geological disposal of radioactive waste, pilot/test facilities for partitioning and transmutation devices, reactor components and systems, hot cells, facilities for severe accident testing and thermal hydraulic testing, material testing reactors, numerical simulation tools and radiobiology facilities, databases and tissue banks for use in radiation protection research.
- **Access to infrastructures:** Facilitate transnational access to existing and future infrastructures by individual research workers and research teams.

(v) Human resources and training

Objectives

Owing to the concern in all sectors of nuclear fission and radiation protection over maintaining the required high level of expertise and human resources, and the implications this may have especially on the ability to retain current high levels of nuclear safety, the objectives of the programme will be to support, through a variety of measures, the spreading of scientific competence and know-how throughout the sector. These measures aim to guarantee the availability of suitably qualified researchers and technicians, for instance through improved coordination between EU educational institutions in order to ensure qualifications are equivalent across all Member States, or by facilitating the training and mobility of students and scientists. Only a truly European approach can ensure the required incentives and harmonised levels of higher education and training, thus facilitating the mobility of a new generation of scientists and catering for the career-long training needs of engineers faced with tomorrow's scientific and technological challenges in an increasingly integrated nuclear sector.

Activities

- **Training:** Co-ordination of national programmes and provision for general training needs in nuclear science and technology through a range of instruments, including competitive ones, as part of general support to human resources in all thematic domains. Includes support for training courses and training networks.
- **Mobility of research workers:** Support principally through grants and fellowships for the increased mobility of scientists and engineers between

different universities and institutes in Member States and also in countries outside the EU. Special assistance may be provided in the case of research workers from the NIS.

3. ETHICAL ASPECTS

During the implementation of this programme and in the research activities arising from it, fundamental ethical principles are to be respected. These include, *inter alia*, the principles reflected in the Charter of fundamental rights of the EU, including the following: protection of human dignity and human life, protection of personal data and privacy, as well as animals and the environment in accordance with Community law and the latest versions of relevant international conventions, guidelines and codes of conduct, e.g. the Helsinki Declaration, the Convention of the Council of Europe on Human Rights and Biomedicine signed in Oviedo on 4 April 1997 and its Additional Protocols, the UN Convention on the Rights of the Child, the Universal Declaration on the human genome and human rights adopted by UNESCO, UN Biological and Toxin Weapons Convention (BTWC), International Treaty on Plant Genetic Resources for Food and Agriculture, and the relevant World Health Organisation (WHO) resolutions.

Account will also be taken to the opinions of the European Group of Advisers on the Ethical Implications of Biotechnology (1991-1997) and the opinions of the European Group on Ethics in Science and New technologies (as from 1998).

In compliance with the principle of subsidiarity and the diversity of approaches existing in Europe, participants in research projects must conform to current legislation, regulations and ethical rules in the countries where the research will be carried out. In any case, national provisions apply and no research forbidden in any given Member State or other country will be supported by Community funding to be carried out in that Member State or country.

Where appropriate, those carrying out research projects must seek the approval of the relevant national or local ethics committees prior to the start of the RTD activities. An ethical review will also be implemented systematically by the Commission for proposals dealing with ethically sensitive issues or where ethical aspects have not been adequately addressed. In specific cases an ethical review may take place during the implementation of a project.

The Protocol on protection and welfare of animals annexed to the Treaty requires that the Community pays full regard to the welfare requirements of animals in formulating and implementing Community policies including research. Council Directive 86/609/EEC on the protection of animals used for experimental and other scientific purposes requires that all experiments be designed to avoid distress and unnecessary pain and suffering to the experimental animals; use the minimum number of animals; involve animals with the lowest degree of neurophysiological sensitivity; and cause the least pain, suffering, distress or lasting harm. Altering the genetic heritage of animals and cloning of animals may be considered only if the aims are ethically justified and the conditions are such that the animals' welfare is guaranteed and the principles of biodiversity are respected. During the implementation of this programme, scientific advances and national and international provisions will be regularly monitored by the Commission so as to take account of any developments.

LEGISLATIVE FINANCIAL STATEMENT

1. NAME OF THE PROPOSAL :

Proposal for a Council Decision adopting a specific programme for nuclear research and training activities under the 7th Euratom Framework Programme

2. ABM / ABB FRAMEWORK

Fusion energy research:

- The realisation of ITER
- R&D in preparation of ITER operation
- Technology activities in preparation of DEMO
- R&D activities for the longer term
- Human resources, education and training
- Infrastructures
- Responding to emerging and unforeseen policy needs

Research on nuclear fission and radiation protection:

- Management of radioactive waste
- Reactor systems
- Radiation protection
- Infrastructures
- Human resources and training

3. BUDGET LINES

3.1. Budget lines (operational lines and related technical and administrative assistance lines) including headings:

08 11 01 01 Controlled thermonuclear fusion; 08 11 01 02 Management of radioactive waste; 08 11 01 03 Radiation protection; 08 11 02 Other activities in the field of nuclear technologies and safety

(final budgetary nomenclature for FP7 will be established in due course)

3.2. Duration of the action and of the financial impact:

2007-2011 subject to the approval of new financial perspectives framework

3.3. Budgetary characteristics (*add rows if necessary*):

Budget line	Type of expenditure		New	EFTA contribution	Contributions from applicant countries	Heading in financial perspective
08	Non-comp	Diff ^{17/}	YES	NO	YES	No [1a]
XX.01	Non-comp	Non-diff ¹⁸	NO	NO	NO	No [1a...]
XX.01.05	Non-comp	Non-diff	YES	NO	YES	No [1a...]

¹⁷ Differentiated appropriations.

¹⁸ Non-differentiated appropriations here after referred to as NDA.

4. SUMMARY OF RESOURCES

4.1. Financial Resources

4.1.1. Summary of commitment appropriations (CA) and payment appropriations (PA)¹⁹

EUR million (to 3 decimal places)

Expenditure type	Section no.		2007	2008	2009	2010	2011	Total
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Operational expenditure²⁰

Commitment Appropriations (CA)	8.1	a	280,916	358,377	477,708	493,220	527,103	2.137,324
Payment Appropriations (PA)		b	112,366	227,626	354,780	440,367	1.002,185 ²¹	2.137,324

Administrative expenditure within reference amount²²

Technical & administrative assistance (NDA)	8.2.4	c	177,503	190,795	197,945	203,300	184,645	954,188
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TOTAL REFERENCE AMOUNT

Commitment Appropriations		a+c	458,419	549,172	675,653	696,520	711,748	3.091,512
Payment Appropriations		b+c	289,869	418,421	552,725	643,667	1.186,830 ²³	3.091,512

Administrative expenditure not included in reference amount²⁴

Human resources and associated expenditure (NDA)	8.2.5 d		4,986	5,085	5,187	5,291	5,397	25,946
Administrative costs, other than human resources and associated costs, not included in reference amount (NDA)	8.2.6 e		0,148	0,151	0,154	0,157	0,160	0,770

Total indicative financial cost of intervention

¹⁹ These figures refer to the expenditure for the entire Euratom Framework Programme - see COM(2005) 119.

²⁰ Expenditure that does not fall under Chapter xx 01 of the Title xx concerned.

²¹ Payment appropriations refers to 2011 and following years.

²² Expenditure within article xx 01 05 of Title xx.

²³ Payment appropriations refers to 2011 and following years.

²⁴ Expenditure within chapter xx 01 other than articles xx 01 05.

TOTAL CA including cost of Human Resources	a+c +d +e	463,553	554,408	680,994	701,968	717,305	3.118,228
TOTAL PA including cost of Human Resources	b+c +d +e	295,003	423,657	558,066	649,115	1.192,387 ²⁵	3.118,228

Co-financing details

If the proposal involves co-financing by Member States, or other bodies (please specify which), an estimate of the level of this co-financing should be indicated in the table below (additional lines may be added if different bodies are foreseen for the provision of the co-financing):

EUR million (to 3 decimal places)

Co-financing body		Year n	n + 1	n + 2	n + 3	n + 4	n + 5 and later	Total
.....	f							
TOTAL CA including co-financing	a+c +d+ e+f							

4.1.2. Compatibility with Financial Programming

- Proposal is compatible with next financial programming (Commission's February 2004 Communication on the financial perspectives 2007-2013 COM (2004) 101).
- Proposal will entail reprogramming of the relevant heading in the financial perspective.
- Proposal may require application of the provisions of the Interinstitutional Agreement²⁶ (i.e. flexibility instrument or revision of the financial perspective).

4.1.3. Financial impact on Revenue

- Proposal has no financial implications on revenue
- Proposal has financial impact – the effect on revenue is as follows:

Certain Associated States may contribute to the funding of the framework programmes.

²⁵ Payment appropriations refers to 2011 and following years.

²⁶ See points 19 and 24 of the Interinstitutional agreement.

In accordance with Article 161 of the Financial Regulation, the Joint Research Centre may benefit from revenue from various types of competitive activities and from other services provided for outside bodies.

In accordance with Article 18 of the Financial Regulation, certain revenue may be used to finance specific items.

EUR million (to one decimal place)

Budget line	Revenue	Prior to action [Year n-1]	Situation following action						
			[Year n]	[n+1]	[n+2]	[n+3]	[n+4]	[n+5]	
	<i>a) Revenue in absolute terms</i>								
	<i>b) Change in revenue</i>	Δ							

4.2. Human Resources FTE (including officials, temporary and external staff) – see detail under point 8.2.1.

Annual requirements	2007	2008	2009	2010	2011
Total number of human resources ²⁷	1.848 (+ 15)	1.848 (+ 25)	1.848 (+ 15)	1.848 (+ 5)	1.848

5. CHARACTERISTICS AND OBJECTIVES

5.1. Need to be met in the short or long term

This Specific Programme addresses the need to enhance the excellence and innovation and to ensure cooperation and effectiveness through support for research and training in the areas of (i) Fusion Energy Research and (ii) Nuclear Fission and radiation protection.

5.2. Value-added of Community involvement and coherence of the proposal with other financial instruments and possible synergy

The value added of the support to be provided in this Specific Programme will be to strengthen nuclear research in the area (i) Fusion Energy Research and (ii) Nuclear Fission and radiation protection on Community level. Whenever appropriate, synergies and complementarity will be sought with other community policies and programmes.

²⁷ Figures indicated in the table refer only to the staff financed by the establishment plan for all indirect actions under the responsibility of DGs RTD, INFSO, TREN, ENTR and FISH, including 60 additional staff positions for ITER. Therefore these figures do not comprise the posts of the establishment plan from the operating budget and the posts from the JRC's establishment plan - see documents COM(2005) 439 & 445.

5.3. Objectives, expected results and related indicators of the proposal in the context of the ABM framework

1. Fusion Energy Research: Developing the knowledge base for, and realising ITER as the major step towards, the creation of prototype reactors for power stations which are safe, sustainable, environmentally responsible, and economically viable.

2. Nuclear Fission and Radiation Protection: Establishing a sound scientific and technical basis in order to accelerate practical developments for the safer management of long-lived radioactive waste, promoting safer, more resource-efficient and competitive exploitation of nuclear energy and ensuring a robust and socially acceptable system of protection of man and the environment against the effects of ionising radiation.

Performance indicators will be developed at three levels. Quantitative and qualitative indicators will be developed to show the path or direction of scientific and technical progress, such as new standards and tools, scientific techniques, patent applications and licence agreements for new products, process and services.

Management indicators will be developed to monitor performance internally and support senior management decision making. These could include level of budget execution, time to contract and time to payment.

Outcome (impact) indicators will be used to assess the overall effectiveness of the research against high level objectives. These could include assessment at the aggregate Framework Programme Level (e.g. impact on the achievement of the Lisbon, Goeteborg, Barcelona and other objectives) and assessment at the SP level (e.g. contribution made to the EU S&T and economic performance).

5.4. Method of Implementation (indicative)

Show below the method(s) chosen for the implementation of the action.

Centralised Management

Directly by the Commission

Indirectly by delegation to:

Executive Agencies

Bodies set up by the Communities as referred to in art. 185 of the Financial Regulation

National public-sector bodies/bodies with public-service mission

Shared or decentralised management

With Member states

With Third countries

□ *Joint management with international organisations (please specify)*

The Commission proposes a centralised management of this programme, both directly by the Commission and indirectly by delegation to an Executive Agency or to structures created according to the Euratom Treaty.

Part of the Programme will be executed through the European Legal Entity for ITER (Barcelona).

For certain parts of the programme, where the link between the detailed follow-up of the actual projects funded and the development of S&T policy is clear, an executive agency will be entrusted with the administration of calls and evaluations and will perform such tasks as the reception and administrative management of proposals submitted, inviting and paying expert evaluators (chosen by the Commission), providing logistical support to proposal evaluation and possible further tasks, such as financial viability checking and provision of statistics. The continued possibility to sub-contract specific tasks to private companies (e.g. for the development, operation and support of IT tools) will not be ruled out. The evaluation, contracting and project management of the projects will be carried out by the Commission services, in order to maintain the close link between such activities and policy formulation.

6. MONITORING AND EVALUATION

Monitoring and evaluation aspects are set out in the Legislative Financial Statement of the proposal of the 7th framework programme, COM(2005) 119 final.

7. ANTI-FRAUD MEASURES

Appropriate measures should also be taken to prevent irregularities and fraud and the necessary steps should be taken to recover funds lost, wrongly paid or incorrectly used in accordance with Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities²⁸, Commission Regulation (EC, Euratom) No 2342/2002 of 23 December 2002 laying down detailed rules for the implementation of Council Regulation 1605/2002²⁹, Council Regulations (EC, Euratom) No 2988/95 of 18 December 1995 on the protection of the European Communities financial interests³⁰, (EC, Euratom) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities³¹ and Regulation (EC) No 1073/1999 of the European Parliament and of the Council concerning investigations conducted by the European Anti-Fraud Office (OLAF)³².

²⁸ OJ L 248, 16.9.2002, p. 1.

²⁹ OJ L 357, 31.12.2002, p. 1.

³⁰ OJ L 312, 23.12.1995, p. 1.

³¹ OJ L 292, 15.11.1996, p. 2.

³² OJ L 136, 31.5.1999, p. 1.

8. DETAILS OF RESOURCES

8.1. Objectives of the proposal in terms of their financial cost

Commitment appropriations in EUR million (to 3 decimal places)

(Headings of Objectives, actions and outputs should be provided)	Year 2007		Year 2008		Year 2009		Year 2010		Year 2011		Year 2012 (indicative)		Year 2013 (indicative)		TOTAL	
	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost	No. outputs	Total cost								
OPERATIONAL OBJECTIVE No.1 ³³																
OPERATIONAL OBJECTIVE No.2 ¹																
OPERATIONAL OBJECTIVE No.3 ¹																
OPERATIONAL OBJECTIVE No.4 ¹																
OPERATIONAL OBJECTIVE No5 ¹																

³³ As described under Section 5.3.

TOTAL COST		356,886		444,591		567,903		585,572		597,483		689,751		713,569		3.955,754
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8.2. Administrative Expenditure

8.2.1. Number and type of human resources

Types of post		Staff to be assigned to management of the action using existing and/or additional resources (number of posts/FTEs)				
		Year 2007	Year 2008	Year 2009	Year 2010	Year 2011
Officials or temporary staff ³⁴ (XX 01 01)	A*/AD					
	B*, C*/AST					
Staff financed ³⁵ by art. XX 01 02						
Other staff ³⁶ financed by art. XX 01 05	A*/AD					
	B*, C*/AST					
TOTAL ³⁷		1.848 (+ 15)	1.848 (+ 25)	1.848 (+ 15)	1.848 (+ 5)	1.848

8.2.2. Description of tasks deriving from the action

Implementation of the Framework Programme

8.2.3. Sources of human resources (statutory)

(When more than one source is stated, please indicate the number of posts originating from each of the sources)

- Posts currently allocated to the management of the programme to be replaced or extended
- Posts pre-allocated within the APS/PDB exercise for year 2006
- Posts to be requested in the next APS/PDB procedure

³⁴ Cost of which is NOT covered by the reference amount.

³⁵ Cost of which is NOT covered by the reference amount.

³⁶ Cost of which is included within the reference amount.

³⁷ Figures indicated in the table refer only to the staff financed by the establishment plan for all indirect actions under the responsibility of DGs RTD, INFISO, TREN, ENTR and FISH, including 60 additional staff positions for ITER. Therefore these figures do not comprise the posts of the establishment plan from the operating budget and the posts from the JRC's establishment plan - see documents COM(2005) 439 & 445.

- Posts to be redeployed using existing resources within the managing service (internal redeployment)
- Posts required for year n although not foreseen in the APS/PDB exercise of the year in question

8.2.4. *Other Administrative expenditure included in reference amount (XX 01 05 – Expenditure on administrative management)*³⁸

EUR million (to 3 decimal places)

Budget line (number and heading)	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	TOTAL
Statutory staff						
xx.01 05 01	132,100	137,665	142,206	145,659	141,128	698,758
External staff						
xx.01 05 02	23,520	30,809	32,971	34,418	19,830	141,548
Other administrative expenses						
xx.01 05 03	21,883	22,321	22,768	23,223	23,687	113,882
Total Technical and administrative assistance	177,503	190,795	197,945	203,300	184,645	954,188

8.2.5. *Financial cost of human resources and associated costs not included in the reference amount*³⁹

EUR million (to 3 decimal places)

Type of human resources	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	TOTAL
Officials and temporary staff (08 0101 and)	4,986	5,085	5,187	5,291	5,397	25,946
Staff financed by Art XX 01 02 (auxiliary, END, contract staff, etc.)						
Total cost of Human Resources and associated costs (NOT in reference amount)	4,986	5,085	5,187	5,291	5,397	25,946

Calculation– *Administrative expenditures*

Have been calculated taking into account the following hypothesis:

³⁸ These figures refer to the expenditure for the entire Euratom Framework Programme - see COM(2005) 119.

³⁹ These figures refer to the expenditure for the entire Euratom Framework Programme - see COM(2005) 119.

- the number of official staff on the ex part A of the budget remains at 2006 level
- expenditures increased by the 2% each year according to the inflation foreseen such as indicated in Fiche 1 REV (working document of commission services related to the financial perspectives),
- the assumption of 108 000 € for each official staff, and 70.000 € for the external staff(2004 prices)

Calculation– *Staff financed under art. XX 01 02*

Reference should be made to Point 8.2.1, if applicable

8.2.6 Other administrative expenditure not included in reference amount⁴⁰

EUR million (to 3 decimal places)

	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	TOTAL
XX 01 02 11 01 – Missions	0,036	0,036	0,037	0,038	0,038	0,185
XX 01 02 11 02 – Meetings & Conferences	0,001	0,001	0,001	0,001	0,001	0,005
XX 01 02 11 03 – Committees ⁴¹	0,111	0,114	0,116	0,118	0,121	0,580
XX 01 02 11 04 – Studies & consultations						
XX 01 02 11 05 - Information systems						
2 Total Other Management Expenditure (XX 01 02 11)						
3 Other expenditure of an administrative nature (specify including reference to budget line)						
Total Administrative expenditure, other than human resources and associated costs (NOT included in reference amount)	0,148	0,151	0,154	0,157	0,160	0,770

⁴⁰ These figures refer to the expenditure for the entire Euratom Framework Programme - see COM(2005) 119.

⁴¹ CST Euratom.

Calculation - *Other administrative expenditure not included in reference amount*

These figures are estimated on the basis of the 2006 DG RTD requests increased of the 2% for the yearly foreseen inflation. (Fiche 1 REV)

The needs for human and administrative resources shall be covered within the allocation granted to the managing DG in the framework of the annual allocation procedure. The allocation of posts should take into account an eventual reallocation of posts between departments on the basis of the new financial perspectives.