

## ROADMAP

Title of the initiative (draft):	<b>Proposal for a renewal of the Council regulation and decisions on the 7<sup>th</sup> Framework Programme of Euratom for nuclear research and training (2012-13)</b>
Lead DG:	DG RTD, Unit J.1
Expected date of adoption of the initiative (month/year):	End of 2010
Date of modification:	25 March 2010

### Initial IA screening & planning of further work

#### **A. Context and problem definition**

What is the political context of the initiative? How does this initiative relate to past and possible future initiatives, and to other EU policies?

Since the adoption of the Euratom treaty in 1957 Europe supports research activities in nuclear energy. At present this support is carried out through the 7th Framework Programme of Euratom (Euratom FP7), the specific programmes for direct and indirect actions and the rules of participation which accompany them<sup>1</sup>. The Euratom Treaty limits all research programmes to 5 years. The legislation in force will expire at the end of 2011 and a new package of proposals should be adopted by the Commission to replace it. In order to remain within the current financial perspectives it will be limited to years 2012-2013. When adopting its proposal for the Euratom FP7 in 2006 the Commission stated that, "*unless special circumstances arise, the Euratom FP will be renewed for the period 2012-2013, in accordance with the foreseen legislative procedure*" (COM/2006/364 Final). In line with this, the proposals will ensure the continuity of the European support to research activities with the same priorities, rules and instruments, paying attention to simplification wherever possible, while addressing the budgetary issues resulting from the needs arisen in the construction of the ITER project. In view of the above, the Impact Assessment will address only fusion research activities with a focus on the ITER project, and its new circumstances (i.e. substantial increase of budgetary needs).

What are the main problems identified?

The current Framework Programme provides substantial funding to ITER in order to meet the commitment to the international agreement with China, India, Japan, Korea, Russia, and the USA. The successful accomplishment of the ITER project is central to establishing whether fusion can become a major sustainable energy source contributing to the EU's long term strategy for climate change and energy security. A review of the original ITER project design concluded that the estimated costs will be substantially higher than initially planned. The EU budget foreseen for 2007-2013, in particular the projected funds for years 2012-13, do not provide sufficient funding for meeting Euratom's commitment to construct ITER. The overall tight budgetary constraints may also have an impact of the rest of the European Fusion Research programme, that needs to be minimised.

Is EU action justified on grounds of subsidiarity? What is the added value of EU actions?

The right of the Euratom Community to act in the field of nuclear research is set out in the Euratom Treaty (articles from 2 to 7). On this basis Euratom should contribute to the raising

<sup>1</sup> Council decision on the Euratom Framework Programme (2006/970/EURATOM) OJ L54, 22.2.2007, p.21; Council decision on the Specific Programme for indirect actions (2006/976/Euratom) OJ L54, 22.2.2007, p.139; Council regulation on the rules for participation (1908/2006) OJ L54, 22.2.2007, p.4; Council decision on the specific programme for direct actions carried out by JRC (2006/977/Euratom), OJ L54, 22.2.2007, p.149;

of the standards of living in Member States by inter alia promoting research. In this respect the Commission shall be responsible for promoting and facilitating nuclear research in the Member States. It may also complement it by carrying out a Community research and training programme.

Radiation protection and nuclear energy research are of such significance that a Member State cannot provide alone the necessary resources and expertise. Euratom R&D projects can therefore allow research to achieve the required "critical mass", while producing a leverage effect on private and national investment. EU-scale R&D actions also play an important role in transferring skills and knowledge across frontiers. This helps to foster excellence in research and development through enhancing capability, quality and EU-wide competition, as well as improving human capacity in R&D through training and mobility. Euratom support can also contribute to a better integration of European R&D, by encouraging the coordination of national policies, by the EU-wide dissemination of results, and by funding research for pan-European policy challenges.

For the development of fusion as a viable option for power generation, the Commission, on behalf of Euratom, is committed internationally to build ITER, hence the need to reconsider the budgetary provisions and align them with the revised needs.

## **B. Objectives of EU initiative**

What are the main policy objectives?

Commission proposals for the Council regulation and decisions on the Framework Programme of Euratom (2012-13) will support key research and training actions. The objectives of the proposed legislation are as follows:

1. to continue the activities planned in the Euratom FP7 decisions adopted in 2006, namely:
  - to develop knowledge and technology in fusion
  - to enhance the safety performance, resource efficiency and cost-effectiveness of fission and other uses of radiation in industry and medicine
  - to ensure a robust system of protection against the harmful effects of ionising radiation.
  - to provide scientific and technical support to the Community policy making process in the nuclear field (direct actions by the Joint Research Centre)
2. to support the construction phase of ITER taking into account new budgetary needs. This item will be the main focus of the Impact Assessment.

The Commission aims to maximise coordination between EU and national/industrial research programmes thereby reducing fragmentation and increasing effectiveness in line with the goals of European Research Area. The proposed programme will also support SET-Plan initiatives relating to the use of nuclear energy.

Does the objective imply developing EU policy in new areas or in areas of strategic importance?

No new policy areas will be developed, but the initiative will continue ongoing actions in the area of developing low-carbon energy technologies. The construction of ITER and the maintenance of safe and sustainable fission power as future energy option are important policy matters addressed by the EU strategic agenda.

## **C. Options**

What are the policy options? What legislative or 'soft law' instruments could be considered? Would any legislative initiatives go beyond routine up-date of existing legislation?

1. **Renationalisation of nuclear collaborative research (do-nothing option)**: This option means that Euratom FP7 expires and the Commission does not table a proposal for a renewal of the Framework Programme.
2. **Adoption of Euratom Framework Programme for 5 years (2012-16)**. The Euratom Treaty allows research programmes for a period of not more than 5 years.
3. **Renewal of Euratom Framework Programme for 2012-13 with separate decision on new needs for ITER**: It would mean adopting a straightforward Euratom FP7 renewal with a separate decision on ITER financing. This would confirm quickly the budget provided in the existing plans of financial perspective up to 2013, and give some more (limited) time to refine new needs and requirements for ITER construction.
4. **Renewal of Euratom FP7 with the integral decision on ITER (as a separate specific programme for ITER facility construction)**. This option would propose a renewal of FP7 fully addressing the new budgetary needs for the construction of ITER.

Does the action proposed in the options cut across several policy areas or impact on action taken/planned by other Commission departments?

Yes. The proposed Euratom FP may have some impact on policy actions taken by DG ENERGY, and also in other areas of research which are cross-cutting with the Euratom programme. It will also include the direct research actions to be carried out by the JRC.

Explain how the options respect the proportionality principle

Action proposed under option 2, 3 and 4 are proportionate to the aims pursued. The proposals will not go beyond what is necessary to reach their objectives, based on the Euratom Treaty's provisions and international obligations of the Community, in particular ITER and Broader Approach agreements.

#### **D. Initial assessment of impacts**

What are the significant impacts likely to result from each policy option (cf. list of impacts in the impact assessment guidelines), even if these impacts would materialise only after subsequent Commission initiatives?

1. **Renationalisation of nuclear collaborative research (Do-nothing option)**: Nuclear research and training activities in Europe would be carried out only on the basis of existing national programmes as the Euratom FP7 will expire by end of 2011. This option can be discarded at an early stage of the impact assessment due to the Euratom Treaty obligations and to international commitments of the Community (e.g. towards ITER).
2. **Adoption of Euratom Framework Programme for 5 years (2012-16)**. The Euratom Treaty allows research programmes for a period of not more than 5 years. Although this option would provide a longer and more stable framework for European research it would take us beyond the current financial perspectives (2007-2013) and the financial commitments would be conditional.
3. **Renewal of Euratom FP7 with separate decision on ITER**: With the exception of ITER this would mean that the budgetary envelope indicated for Euratom in the current financial perspectives would be respected. By retaining the same structure, priorities and rules, this option would provide an advantage of rapid confirmation of continuity and stability of the Euratom research budget within the planned appropriation for 2012-2013. A separate, but necessarily linked decision on complementary funding for ITER would allow the EU to fulfil its commitments towards ITER International Organisation.

4. **Renewal of Euratom FP7 with the integral decision on ITER (as a specific programme for ITER facility construction)**: This option would propose a renewal of FP7 fully addressing the new budgetary needs for ITER construction, and consider the introduction of a specific programme focused on ITER construction. Particular attention would be paid to the efficiency of the implementation and simplification of the rules of the programme. This option means that the budget agreed under the financial perspectives (2007-13) should be supplemented by other funding possibilities for ITER construction. A specific programme for the construction of ITER would allow the integration of the various funding sources and propose if appropriate 'ad-hoc' implementation rules, while still keeping ITER as a part of the research programme of Euratom.

Could the options have impacts on the EU-Budget (above 5 Mio €) and/or should the IA also serve as the ex-ante evaluation, required by the Financial Regulation?

1. **Option 1 - Renationalisation of nuclear collaborative research**: stopping the funding of European research after 2011 would result in carrying some research activities by national programmes. The winding-up process would require a substantial amount of funds. The small remaining budget foreseen under the current financial perspectives for the Euratom research in 2012-2013 could be redeployed for other purposes.
2. **Option 2 - Adoption of Euratom Framework Programme for 5 years (2012-16)**: Such proposal would provide only conditional financial commitments due to the fact that there is no decision on EU budget beyond 2013. Long-term international commitments of Euratom require a stable funding for the period of construction of the ITER facility.
3. **Option 3 - Renewal of Euratom FP7 with separate decision on ITER**: With the exception of ITER this would mean that activities would be financed as planned in the current financial perspectives. The impact of a separate decision on complementary funding for ITER would need to be assessed independently.
4. **Option 4 - Renewal of Euratom FP7 with the integral decision on ITER** is the only one which will be subject to an ex-ante evaluation, required by the Financial Regulation.

Could the options have significant impacts on simplification/administrative burden or on relations with third countries?

1. **Renationalisation of nuclear collaborative research (do-nothing option)**  
Discontinuation of support for R&D via Euratom would reduce administrative burden in the Commission but greatly increase it in the Member States as national and industrial programmes try to replicate the coordination and cooperation provided via the Euratom FP. In addition, relations with 3<sup>rd</sup> countries would be affected since Euratom is involved in bilateral activities and multilateral initiatives in both fission and fusion research.
2. **Adoption of Euratom Framework Programme for 5 years (2012-16)** This option would provide a longer and more stable framework for European research but it would pre-empt the decisions to be taken in view of a new financial framework beyond 2013. It will also prevent taking advantage of the new simplified rules, likely to be proposed in the next Research Framework programme.
3. **Renewal of Euratom FP7 with separate decision on ITER** This would mean some improvements regarding simplification of the access to the Framework Programme funding possible without amendment of the legal acts (i.e. offering administrative simplifications without changing the existing rules).
4. **Renewal of Euratom FP7 with the integral decision on ITER (as a separate specific programme for ITER facility construction)** 'Ad-hoc' implementation rules could be adopted for the implementation of activities related to ITER construction. These adaptations should be guided by the pertinent recommendations made in the external assessments (e.g. interim and ex-post evaluations of the Framework Programme).

Who is affected?

The Euratom FP involves all stakeholders who participate in nuclear research & development in Europe: utilities, nuclear suppliers, universities, public and private laboratories, technical safety organisations. Any changes to the Euratom FP must be considered in terms of the effects on all these groups. The Euratom FP is directly responsible for, or catalyses work in, a number of strategy/policy areas of key concern for the Community and its citizens: low-carbon energy systems and related sustainability, competitiveness and security of supply, nuclear safety, management of radioactive waste, and radiation protection. Any changes to the Euratom FP must also be viewed in terms of the effects in these areas.

#### **E. Planning of further impact assessment work**

What information and data are already available? What further information needs to be gathered? How will this be done (e.g. internally or by an external contractor) and by when? What type and level of analysis will be carried out (cf. principle of proportionate analysis)?

The Impact Assessment report will draw on a number of evaluations of the current and previous Euratom research programmes. In particular the IA report will take account of the findings and recommendations of the reports on the Interim Evaluation of Euratom FP7 (direct and indirect actions) and the ex-post evaluations of the Euratom FP6 programmes. Further evidence will be provided by the in-depth reports on some aspects of the programme such as the fusion facilities review.

For the purpose of carrying out impact assessment work on ITER and fusion activities, the following reports will be used:

1. Report on the Interim Evaluation of Euratom FP7 (direct actions, report completed in February 2010).
2. ITER project baseline (scope, costs and schedule) – Report under preparation by ITER International Organisation, expected by July 2010.
3. Report on the financing possibilities for ITER (under preparation, expected by the first trimester of 2010).
4. Report on "the relationship between Euratom Supported fusion research laboratories and industry" (under preparation by DG RTD. Expected in 2nd quarter 2010).
5. Euratom FP6 ex-post evaluation of fusion programme (report prepared in 2009)
6. Fusion facilities review report (prepared in 2009)
7. Review of the studies on socio-economic aspects of fusion energy (under preparation by DIR J in cooperation with external experts, expected in June 2010).

For the preparation of the proposal for renewal of Euratom Framework Programme for 2012-2013, in view of updating content and take stock of recent developments in the field of fission research, the following reports will be used:

8. Report on the Interim Evaluation of Euratom FP7 direct actions implemented by Joint Research Centre (final report completed in February 2010).
9. Study on the legal and financing options for the European Sustainable Nuclear Industrial Initiative (under the SET-Plan). (Study carried out by external consultancy, final report completed in March 2010).
10. Deployment Strategy for Sustainable Nuclear Energy Technology Platform (Report under preparation by SNETP secretariat, expected in first half 2010).
11. Information on the implementation of the Euratom FP7 in fission and radiation protection research activities, outcome of the calls for proposals (2007-2009).

12. Strategic Research Agenda and Vision Report adopted by the Sustainable Nuclear Energy Technology Platform (SNETP) – adopted in 2009
13. Vision Report adopted by the Implementing Geological Disposal Technology Platform (IGDTP) on 12 November 2009
14. Vision report for Multidisciplinary European Low Dose Initiative (MELODI) – to be prepared in 2010

Which stakeholders & experts have been/will be consulted, how and at what stage?
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Possible options for the consultation with stakeholders on the Euratom FP7 renewal (indirect and direct actions):

1. According to the Euratom Treaty (Article 7) the Commission shall consult the Euratom Scientific and Technical Committee.
2. Consultation with citizens, scientific community and relevant stakeholders in nuclear R&D, including industry via Europa website.