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**COMMUNICATION FROM THE COMMISSION TO THE  
COUNCIL AND THE EUROPEAN PARLIAMENT ON  
PROGRESS IN THE IMPLEMENTATION OF THE  
COUNCIL CONCLUSIONS OF 26 APRIL 1994 ON THE  
ROLE OF THE JRC**

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## **A. INTRODUCTION**

### **Towards Implementation of a New Approach for the JRC**

1. The debate in the Community Institutions back in 1993 and 1994, leading to the April 1994 Decisions on the 4th Framework Programme of Community Activities of Research, Technological Development and Demonstration for the EC and the EAEC Framework Programme of Community Activities of Research and Training, included a substantial discussion on the Joint Research Centre (JRC) and its role in the achievement of the Union's policies. Overall it was recognised that a new approach should be added to the traditional role of the JRC, in order for the Union to draw optimal benefit from the activities of the Centre and that clear plans and guidelines should be set to this end.
2. The Council in its Conclusions of 26 April, 1994 on the Role of the Joint Research Centre' coined its views on the future of the JRC and provided guidelines for this.

As an introduction, the Council reaffirmed:

- the Community character of the JRC and its role in the achievement of the objectives of the Union,
- the need for the JRC to pursue and reinforce its move towards a more competitive approach on the basis of a genuine customer/contractor relationship.

It reiterated the JRC contribution to Community research policy and underlined the need to add a new approach for the JRC, whereby it would progressively enter the competitive arena in specific programmes under the Framework Programmes and give scientific and technical support to Community policies of a kind suitable for that competitive approach.

3. The Council furthermore "calls upon the Commission to submit a report on the progress in the implementation of these Conclusions to the European Parliament and the Council in 1996, after obtaining the Opinion of the Board of Governors, so as to enable the European Parliament and the Council to draw up an assessment of the situation".

4. The present Communication from the Commission intends to answer this request. It is largely structured along the Council Conclusions and should demonstrate:

- the progress made so far,
- the further steps necessary,

and in general provide an illustration of

- the JRC situation at mid-term in its 1995-1998 programme.

It should be added that the JRC and its Board of Governors took the relevant initiatives immediately, the process of elaboration and arrangement of all these decisions and measures took much more time than had been expected by the Council in its Conclusions. Therefore, the full implementation of the latter had to be shifted until the full legal process was completed and the present report can only cover one year of an experience which is continuing and has to be seen within the overall context of the Framework Programmes (1994-1998).

The present Communication is accompanied by an Opinion of the Board of Governors.

5. 1995 was the first year of JRC operation under the new approach. The present Communication, therefore, is to be considered together with the JRC Annual Report 1995<sup>1</sup> issued by the Commission and also accompanied by an Opinion of the JRC Board of Governors.

**B. JRC'S ACTIVITIES**

6. The activities of the JRC are outlined in the Council Conclusions and notably in its guidelines defined in detailed terms, in particular in the context of the Framework Research Programmes. A distinction is made between the

- institutional activities
- competitive activities under the Framework programmes
- competitive activities outside the Framework programmes.

The following description of progress, the present situation and further plans thus adheres to this structure.

***Institutional Activities***

7. The Community character of the JRC is to the forefront in this spectrum of activities. The activities, as foreseen in the Council Conclusions, are entirely funded by the Framework Programmes. They should allow the JRC to contribute to Community research policy, particularly in those sectors where it has special, if not unique, skills

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1) COM(96)158 final, 17.4.96

and in areas where its neutrality is essential for scientific and technical support for Community policies.

8. The JRC institutional activities contribute to the following themes of the Framework Programmes:

	<b>MECU</b>
● Information Technologies (S)	11.7
● Industrial and Materials Technologies (R)	89.5
● Standards, Norms and Measurements (R)	111.8
● Environment and Climate (R,S)	306.9
● Agriculture and Fisheries (S)	50.0
● Non-Nuclear Energies (R)	17.1
● Targeted Socio-Economic Research (R,S)	35.0
● Nuclear Fission Safety (R,S)	259.8
● Thermo-nuclear Fusion (R)	<u>49.0</u>
	930.8

The scientific and technical objectives are given in the Council Decisions on the JRC specific programmes 1995-1998. They provide a clear separation between the objectives for institutional research activities (R) and institutional scientific and technical support activities (S), for the formulation and implementation of Community policies and the tasks allotted to the Commission pursuant to the Treaties.

The figures in the preceding list give the distribution of the 930.8 MECU for 1995-1998 attributed to the institutional activities in the Decisions on the Framework Programmes and their first adaptation following the adhesion of the three new Member States. To this amount of 930.8 MECU should be added 17 MECU and 10.7 MECU for JRC participation (50% contribution) in shared-cost activities in the EC and the EAEC fields, respectively, bringing the total for the 4 year operational budget to 958.5 MECU. The Council Conclusions foresaw a total of 900 MECU. To this is added 6.5% (58.5 MECU) from the above-mentioned decisions on the first adaptation of the Framework Programmes. Possible additional funding was foreseen by the Council Conclusions for the second adaptation of the Framework Programmes. The Commission, however, has retained a different approach in its proposal for this second adaptation\*.

9. The results of the work in 1995 are provided in the JRC 1995 Annual Report and the 1995 Annual Reports from the JRC Institutes and the further planning in the 1996 Annual Workprogramme discussed with the Board of Governors. The 1996 resource distribution over the various themes for institutional research is illustrated in Annex i.

### *Institutional Research*

10. Four significant examples, amongst the numerous described in the 1995 Annual Report, may illustrate the scope of JRC institutional research. They have been selected to demonstrate use of particular JRC skills, the network oriented approach to JRC work, industrial relations and to give an example of the exploitation of a special research facility available in the Centre:

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\* COM(96) 12 final, O.J. C115, 19.4.96

- \* Composite Materials: Novel Research with contributions to European industry. On the basis of the longstanding research on high temperature materials and composites, the JRC Institute for Advanced Materials (Petten and Ispra), in collaboration with industry, has developed new coated fibres of high strength for structural materials in high temperature applications, like gas turbines or heat exchangers.
- \* Earthquake Engineering: European research network centred around a JRC major research facility. More than 20 national laboratories collaborate with the JRC Institute for Systems, Informatics and Safety (Ispra) on use of the unique ELSA reaction wall in Ispra and shaking tables in national institutes. The prenormative research includes support to the development of European standards for designing civil engineering structures in seismic areas.
- \* Forest Information System: 1995 saw the completion of the Forest Information from Remote Sensing (FIRS) projects' Planning Phase in cooperation with consortia of organisations from France, Germany, Sweden, the Czech Republic, Russia, Poland, Spain, Ireland and Finland. The major objective of the project is to contribute to the development of a Unified European Forest Information System, providing both production related and environmental forest information. In 1995 the project developed a regionalisation and final stratification of European forest ecosystems and finalised the unified European Forest Nomenclature System.
- \* Reactor Safety Code: Development with national laboratories of a new reactor safety code for calculating fuel/coolant interactions in cases of severe accidents, combined with experimental tests in the FARO installation.

11. The results of the institutional research are provided through the

- extensive networks for collaboration with industry, national research centres and universities, which include JRC participation in selected EUREKA projects, notably with industry,
  - participation in technical committees of standardisation bodies such as CEN, ISO and the International Electro-technical Committee (IEC),
  - Commission activities for exploitation of research results,
- and, as for any other research centre,
- JRC generated publications, participation in scientific meetings, congresses, seminars and symposia. (Annex II gives the number of publications written by JRC scientists in 1994 and 1995).

12. The Commission, however, as encouraged by the Board of Governors and independent evaluations of the JRC, agrees that there is still further scope for an improved

- identification of the users of the JRC research
- focus on materialisation of research results

and, in a wider sense, an exploitation of the institutional research and its output. New measures to this end are planned to bring concrete results before the end of the current programme period.

13. Related to this is the Commission's own use of the competences and skills developed through the JRC's research activities. They clearly form the basis for the concrete projects of institutional support described below. They also allow the Centre to be ready - within the defined scientific-technical objectives of the JRC programme - for new orientations which may be decided for Community research. The Commission is thus profiting from the competences of the JRC in the composition of the Task Forces which have set up on industry/research related themes and one of these Task Forces - Environment-Water - is led by the Director of the JRC Environment Institute.

### ***Institutional Support Activities***

14. In the Council Conclusions these are defined as activities necessary for the formulation and implementation of Community policies and of the tasks allotted to the Commission pursuant to the Treaties, which necessitate the neutrality of the JRC. While ensuring maximum flexibility, the financial resources earmarked for these activities will be entered in the research budget and administered by the Commission within a framework, giving responsibility to the customer Directorates-General which will use the JRC as a service provider.

As stated above, their scientific-technical objectives are defined in the Council Decisions on the JRC specific programmes 1995-1998 and the financial resources included in these. The appropriations are decided on an annual basis, together with other JRC institutional activities, by the Budgetary Authority (Council and European Parliament) in the General Budget of the European Union, the subsection on Research and Technological Development. The resources are around one third of the total for the JRC's institutional activities.

15. The support activities respond to demands from the Commission services in charge of the various policies of the Union - notably environment, energy, agriculture and industry - or tasks allotted to the Commission pursuant to the Treaties (such as nuclear safeguards). The work requested is normally planned on a medium to long term basis. It is regulated through standard agreements between the relevant Commission services and the JRC, specifying objectives, resources, follow-up, reporting and accounting measures. Major support activities have been announced to the Council and the European Parliament through Communications from the Commission. Annex III provides a list of the Agreements and a list of these Communications.
16. The detailed annual planning is included in the Workprogramme with a 1996 resource distribution as given in Annex IV. The outcome of the work is illustrated in the 1995 Annual Report and typical examples are:

● ***The European Reference Laboratory for Air Pollution:***

Harmonisation of EC directives on air pollution, organisation of quality assurance, validation of new monitoring techniques.

● **Application of Remote Sensing to Agricultural Policy:**

Agricultural statistics, monitoring of crop acreage, monitoring and control in support of the Common Agricultural Policy.

● **Nuclear Safeguards:**

Training of inspectors, harmonisation of inspection practices, equipment and systems development, design and operation of on-site laboratories at reprocessing plants, analysis of nuclear materials samples.

● **Detection of Illicit Nuclear Material:**

At the request of the Commission, responding to a Member State demand, the JRC contributes to the combat against illicit trafficking of nuclear material by using its unique laboratory facilities for the characterisation of samples discovered by national authorities.

The latter examples are related to tasks allotted to the Commission by the EAEC Treaty and all four examples illustrate the use the Commission derives from the neutrality of the JRC.

17. The *a priori* definition of the objectives and detailed project planning for the institutional support was made in close consultation with the relevant Commission services at the time of preparing the proposals for the JRC specific programmes 1995-1998. These were decided in December, 1994. Yet further demands have arisen and, given the Union's focus on control measures, it has been possible in the 1996 work programme - within the overall allocated resources - to include projects on:

- Systems developments for the Commission's Anti-fraud Unit (UCLAF);
- Novel methods for animal tagging using microchips, for the Commission's Directorate General for Agriculture. An application of a technique developed in a different context (seals for use by safeguards' inspectors).

The inclusion of these new projects was possible using the adaptation of institutional support foreseen in the Council Decisions on the JRC specific programmes (Article 7.3, last sentence). Nevertheless, these examples illustrate the desirability for future JRC programmes to define objectives with a further degree of flexibility.

### **Competitive Activities**

18. The full spectrum of competitive activities, given in the guidelines of the Council Conclusions, is:

Under the Framework Programmes

- Participation of the JRC in Shared-Cost Actions.

The JRC in association with partners in the Member States may submit proposals in the context of calls for proposals issued by the Commission.



- Competitive Support Measures.

Scientific and technical support activities suited for a competitive approach, where the JRC may respond to requests from the Commission Directorates General.

Outside the Framework Programmes

- Activities on behalf of third parties.

The conduct of research and supply of services under contract to third parties, including contracts secured in the context of Member States/RTD programmes.

- Other Community Activities.

JRC participation in Community actions (e.g. PHARE, TACIS, developing countries, etc.) obtaining Community funding in the context of a competitive approach.

The JRC has had an opportunity to conduct activities on behalf of third parties since 1988-1989 and has reported on these in successive annual reports. All the other types of competitive activities were, however, new and only available to the JRC from 1995 onwards.

19. The Council decided that the transfer to competitive activities should average 22% for the EC Framework Programme and 10% for the EAEC Framework Programme from 1995-1998 and that this transition should be a gradual and progressive process over the 4 year period. In order to make this possible the Council in its Conclusions invited the Commission to amend its internal rules as necessary and propose to the Council all required decisions as early as possible.
20. The JRC, in response, made early plans to grasp the new opportunities for competitive activities as soon as these materialised and as soon as the necessary clarification of the JRC's role in relation to rules and regulations could be provided.
21. For the shared-cost actions under the specific RTD programmes under the Framework Programmes, the JRC was thus ready to respond, together with national partners, to the first calls for proposals issued by the Commission. These were published from 15 December 1994 onwards and in establishing partnerships the JRC largely, but not exclusively, drew on the wide scientific networks already established in previous years. These also included collaboration with the New Member States (Austria, Finland and Sweden), stemming from their previous participation in JRC activities under the European Economic Area Agreement. The JRC Institutes and their partners responded to the first calls for proposals for 15 specific programmes and of these, 100 proposals were accepted, representing an overall acceptance rate of 29% with a considerable variation, however, from programme to programme, as illustrated in Annex V. The total earnings for the JRC from the subsequent contractual arrangements amount to 11 MECU, to be matched during the execution of the work by the same amount from JRC budget lines.

This participation in shared-cost actions has continued. In response to further calls for proposals the JRC and its partners have presented 126 proposals and are awaiting a final decision on the outcome. In its planning for 1996 the JRC noted fewer calls for proposals than were issued in 1995 or at the end of 1994.

It is noteworthy that the JRC, together with its partners, has sought opportunities and obtained acceptance both from shared-cost actions within the Framework Programme themes corresponding to the JRC institutional activities and from some shared-cost actions in other themes, e.g. telematics, advanced communication technologies and services or marine sciences and technologies. This illustrates that the JRC as a multi-disciplinary research centre can develop scientific disciplines outside the prescribed Framework Programme themes in support of its institutional activities which are also fruitful in the competitive arena.

22. The competitive support measures first launched by the Commission during 1995 were a completely new type of activity within the EC Framework Programme. JRC projects totalling 12 MECU were accepted in 1995. The work was in response to openings launched by Commission services and are within the fields of:

- information technology support;
- systems support to environmental problems and non-nuclear energies;
- analytical methodologies in the area of agriculture and fisheries;
- remote sensing applications for agriculture and fisheries including land use classification and agricultural products.

Finally, under the Third activities of the EC Framework Programme:

- projects related to technology transfer and exploitation of EC research results.

23. Outside the Framework Programmes the JRC has earned contracts in other actions introduced by the Community, namely from the PHARE and TACIS programmes. They total some 5 MECU (as of May 1996) and encompass:

- A major PHARE project on agricultural information systems, including applications of remote sensing for 6 PHARE countries. Extensions are foreseen for a further 5 PHARE countries and the project may be extended into following years.
- Another, but smaller PHARE project is concerned with assistance to the Bulgarian authorities on safety of reactor fuel, while a TACIS project provides support to the investigation of the environmental impact of the Chernobyl accident in the Ukraine.
- Several PHARE and TACIS projects described in detail in the Communication from the Commission to the Council and the European Parliament on illicit trafficking of nuclear materials<sup>2</sup> in Annex III.

24. Alongside these new types of activity, the JRC has continued the work for third parties. New contracts won in 1995 totalled 24.8 MECU and 6.6 MECU in the first two quarters of 1996. Recent major contracts include:

- continuing work for the US Nuclear Regulatory Commission of a major experimental installation in Ispra;

- establishment of a Centre for the prevention of pollution and risks associated with the handling and transportation of toxic substances in a Member State region;
- nuclear instrument development for a large nuclear industrial firm in a Member State;
- development of numerical methods for the simulation of the behaviour of concrete structures for a national electricity utility;
- development of ultrasonic systems for monitoring liquid circuits for an industrial company in a Member State.

25. The 1995 outturn of the competitive activities are summarised in the table below.

**Competitive activities  
Amounts earned in 1995 (Mioecu)**

	Earned during 1995	Inscribed as 1995 credits (1)	Inscribed 1.1. - 30.6.96
Shared Cost Actions (50%)	10.7	3.9	4.6
Competitive Support	12.0	4.9	6.9
Competitive Activities outside the Framework Programme	2.3	1.3	4.0(3)
Third Party Work	24.8(2)	24.5(2)	6.6(3)
<b>TOTAL</b>	<b>49.8</b>	<b>34.6</b>	<b>22.1</b>

- (1) *The balance will be inscribed as 1996 credits, after conclusion of procedures*  
 (2) *Including 6.4 Mioecu for work at the HFR reactor coming from contracts with industrial partners*  
 (3) *contract under discussion in 1995*

Annex VI summarises the targets for competitive activities which were given to the Board of Governors in May 1996 by the JRC, together with the financial results obtained in 1995 and early 1996.

**C. JRC OPERATING IN NETWORKS**

26. The Council Conclusions stressed the need for the JRC to become better integrated in networks with partners belonging to all the Member States. A similar recommendation was included in the Council Resolution on the JRC of 29 April 1992.
27. In a published report entitled "JRC Cooperation with National Research Organisations and Universities"<sup>3</sup>, 87 bilateral and 49 multilateral cooperation agreements are described. The number of collaboration agreements has further increased to respectively 93 and 63 and Annex VII illustrates the distribution of partners over the Member States.

3) EUR 16289 EN, 1994

28. Some examples of institutional research given above in Section B illustrate the extent to which the JRC is working in networks. In addition to the already well established networks by the Institute for Advanced Materials (ENIQ, NESC, AMES, EPERC), further typical examples are:

**REIMEP/IMEP:**

Regular European Interlaboratory Measurement Evaluation Programme/International Measurement Evaluation Programme. The JRC Institute for Reference Materials and Measurements (Geel) has organised networks of up to 70 laboratories for comparative measurements of nuclear and non-nuclear samples and to provide the reference value.

**FARO:**

Fuel Melting and Release Oven, where in addition to bilateral agreements with the French CEA and the U.S. NRC, the JRC conducts a network of industrial, national authorities and research organisations on the effects of fuel meltdown in case of reactor accidents and their mitigation, centred around a unique experimental installation at the Ispra Site.

Bilateral cooperation is illustrated by

**Atmospheric Chemistry in Global Change and Urban Air Pollution:**

Where the JRC Environment Institute (Ispra) exchanges staff and organises joint field campaigns for, as an example, studies on urban air chemistry, with a group of national laboratories in a Member State (Denmark).

29. The new spectrum of competitive activities, and notably participation in shared-cost actions, has led to a further dimension being added to the JRC's collaboration in networks and consortia with industry and national research. The JRC are currently executing around 100 accepted projects for shared-cost actions with some 250 different partners, including around a third from industry. The partners are found in all Member States and associated countries under the EEA Agreement.

#### D. IMPLEMENTATION MEASURES

30. The Council, in setting out its Conclusions on the Role of the JRC and endorsing the guidelines for the definition of the JRC activities, foresaw this would require:

- flexible and dynamic operation of the JRC, the necessity to ensure a gradual transition and an adaptation of the existing rules and regulations,
- an action programme for defining the fundamental objectives and thereby permitting an evaluation of the progress.

The Council furthermore referred to:

- an effective coordination between the Centre's institutional activities provided for in the Framework Programmes, by

systematic exchanges of views to be held between the JRC, including the Board of Governors, and the Committees for the specific programmes, with due regard to their respective responsibilities.

The Council finally underlined:

- the need to take due account of the results of the 1994 evaluation by independent experts

and, above all,

- the role of the Board of Governors in implementing the conclusions and guidelines.

The progress in these implementation measures is addressed below.

31. When faced in early 1994 with the modified role, the Commission had two chief concerns for the JRC for allowing the Centre to make this applicable as and from 1 January, 1995.

- Council Decisions on the objectives and resources for the institutional activities, to which end the specific programmes 1995-1998 were decided on 15 December, 1994 for the JRC activities for the EC and the EAEC, respectively.
- A battery of decisions on amendments to existing rules and regulations or decisions on new ones, as already listed in the guidelines annexed to the Council Conclusions.

The latter encompassed legal, budgetary, financial and administrative matters. Some were internal Commission rules, while others required decisions by the Council upon proposals by the Commission. The total body of required decisions was made before the end of 1995. In summary, they may be described as follows:

- Legal basis for participation on a competitive basis in the Framework Programmes, provided through the Council Decision on Rules for the Participation of undertakings, research centres and universities in research, technological development and demonstration activities of the European Community<sup>4</sup> and the Council Decision concerning the Rules for the participation of undertakings, research centres and universities in research and training activities of the European Atomic Energy Community<sup>5</sup>. These decisions establish that the JRC can participate in Community indirect action RTD activities under the same conditions and with the same rights as other participants. The EC decision also provides for the participation of the JRC in the competitive support activities of the Framework Programme;
- Related amendments to the Financial Regulation decided by the Council on 18 September 1995<sup>6</sup>, to foresee the new competitive activities of the JRC, to ensure JRC access to appropriations for earned activities, both under the Framework Programmes and under other Community programmes, and a degree of flexibility in transfer possibilities for appropriations;
- A new structure from 1995 onwards in the JRC section of the General Budget for the European Union (under the research

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4) Council Decision 94/763 EC, O.J. L306, 30.11.94

5) Council Decision 94/761 Euratom, O.J. L306, 30.11.94

6) Council Regulation No. 2335/95, O.J. L240, 7.10.95

budget) following the institutional activities and with appropriations for the JRC of a 50% contribution to earned shared-cost actions. Appropriate lines for income and expenditure of appropriations earned from competitive activities. Annex VIII provides a table of the 1995-1998 schedule for commitment appropriations under the Budgets of the European Union;

- Similar amendments to the accounting systems, with accounting for the competitive activities being separated from the accounting for the institutional activities;
  - New simplified cost reimbursement model contract for Community activities in the field of RTD, adopted by the Commission on 26 July 1995<sup>7)</sup> and its derived contracts, which in their special conditions provide for the participation of the JRC as a contractor. Relations between Directorates General providing funds and the JRC are specifically regulated by administrative arrangements. Similar administrative arrangements apply to JRC participation in other Community competitive activities within or outside the Framework Programmes.
32. With regard to personnel management the new approach gave rise to several internal measures on staff training, reassignment of staff and a substantial amount of communications to staff at all levels.

The early implementation of the new approach to the JRC's operations coincided with the Commission Decisions in 1995 on a new policy for all Commission research staff. The concept of a 25% contingent of highly mobile staff should add the flexibility necessary for staff management in the JRC, while the new policy also includes a more permanent nucleus of staff in order to ensure continuity in the Centre's work.

33. Furthermore, on 16 January 1996, a reorganisation of the JRC was decided by the Commission and the JRC became an autonomous Directorate General separate from the Directorate General for Science, Research and Development (DGXII). A new post of Deputy Director General was created, whose responsibilities will include commercialisation and communication, while a reorganisation at the Ispra Site merged two of its Institutes into the Institute for Systems, Informatics and Safety (ISIS), thereby strengthening the JRC research performed on technological risk evaluation and safety issues, in particular.

### ***Advice, interchange and guidance to the JRC***

#### ***Evaluations***

34. As stipulated in the Council Conclusions, due account should be taken of the results of the evaluation of the JRC by independent experts.

Reference is made to the follow-up on the results. The results of this evaluation, conducted by 9 Visiting Groups to the JRC Institutes with an overall evaluation by Sir Hermann Bondi, FRS, were made available to the Council, the European Parliament and the Board of Governors as soon as the individual reports were released by the evaluators and provided early guidelines and advice for the discussions in 1994 on the JRC specific programmes 1995-1998 under the Framework Programmes. The full set of all evaluation reports accompanied by the comments of the Board of Governors was issued by the Commission

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7) Commission Decision written procedure E/1412/95, 26.7.95

in early 1995". The evaluation reports include 118 recommendations on research orientations, research management issues, customer relations, quality assurance and policy issues related to financial and personnel management. The Board of Governors in 1995, at successive meetings with the JRC management, reviewed in detail the follow-up on the recommendations. It was found in September, 1995 that a total of 84 recommendations were fulfilled or under immediate implementation. A few recommendations fell outside the scope of the JRC and in 13 cases needed more reflection, which has now led to concrete implementation plans but in a few cases, cannot presently be implemented due to incompatibility with the regulations in force. Some 15 recommendations, particularly related to management issues, while they were judged acceptable, could not likewise be implemented within the rules and regulations currently governing the JRC.

35. More recently, the Report of the 1995 Framework Monitoring Panel of March 1996 has advised that "the Commission should give consideration to changes in the reporting of the JRC's activities, which reflect its prominent position within the Framework Programme through both direct and indirect action.". The Commission is concerned that more and adequately structured information should be available. One action being considered is discussions with the Board of Governors on ways to improve the reporting of the JRC's activities from 1996 onwards.
36. On the occasion of the 5-years' evaluation of the Community research activities, as foreseen in the Decisions on the Framework Programme, an evaluation will be performed by Visiting Groups of external experts to the JRC Institutes, as was the case for the 1994 evaluations. The calendar established calls for the reports to be available in late October 1996.

#### ***Relations with Programme Committees***

37. The Council Conclusions, as well as the Council Decisions on the JRC specific programmes, underlined the role of the Board of Governors as being the committee in charge of assisting the Commission in the programme implementation. Nevertheless, the Council Conclusions prescribed effective coordination between the Centre's institutional research activities and the other activities provided for in the Framework Programmes, through the systematic exchange of views between the JRC, the Board of Governors and the Committees for the specific programmes. This concerns six themes from the Framework Programmes (next to the theme of Thermo-nuclear Fusion, where the JRC contribution is fully integrated in the specific community Fusion Programme work through a Coordination Committee between DG XII - Fusion and JRC).

While the JRC has contributed to all relevant programme committees, an exchange of views with the participation of Members of the Board of Governors has been conducted with four of these programme committees, thus making the committees familiar with the JRC work in the respective themes. The Board of Governors has declared its intention to intensify these mutually useful meeting points to encompass all relevant programme committees. Both the JRC and the Board of Governors find that the first experiences demonstrate there is room for progress, but with respect to the remit of the Board of Governors.

To this end, a programme committee (nuclear fission safety) has taken the initiative to fully integrate the JRC in its recent efforts in the coordination of Community and national research in this field.

### **Board of Governors**

38. The terms of reference for this body of high-level representatives of the Member States is decided by the Commission. Over the years these terms of reference have undergone an evolution towards strengthening the role of the Board of Governors in assisting and advising the Director General of the JRC in all aspects of the JRC planning operations and providing advice to the Commission. An amended version of the terms of reference of November 1994<sup>9</sup> took fully into account the new spectrum of competitive activities introduced in the modes of operation and was reconfirmed by the Commission in early 1996<sup>10</sup>.

Furthermore, the Council Decisions on the JRC specific programmes stipulate that the Commission shall be responsible for their implementation and be assisted in this task by the Board of Governors and assign a role to the Board of Governors in relation to reporting and evaluating the activities.

39. The Board of Governors, consequently - as foreseen in the Council Conclusions - exercised and continues to exercise its role in the implementation of these Conclusions and guidelines for the new approach set out for the JRC. The Board's independent views on the achievements obtained so far and the further steps it advises to be taken are given in the Opinion attached to the present Communication and which the Commission acknowledges.

### **CONCLUSION**

40. The present Communication from the Commission provides a review of the situation at mid-1996 - point by point - on the progress in implementing the 1994 Council Conclusions on the Role of the JRC. They called for new modes of operation and it can be seen that the JRC, without exception, has fully engaged itself in these and yielded promising first results. There has been particular attention on the new range of competitive activities assigned to the Centre.

Many changes in the overall approach to the JRC and its operations are also under way and, as illustrated in the Communication, there is still room for progress on the basis of the emerging new developments. This applies notably to the further commercialisation of the research results and the introduction of yet further ways for interactions with the users of the JRC and its customer relations, operating under rules which fully allow the exploitation of the JRC potentials.

41. Meanwhile, in its proposal for the second adaptation of the Framework Programmes the Commission has presented new perspectives for the bonding of research and industry. The Green Book on Innovation also offers novel challenges for the corporate research laboratory of the Union. Innovative concepts for more intensive industrial collaboration,

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9) O.J. No L330, p.64 of 21.12.94

10) Article 4 of the Commission Decision 96/283/EURATOM, O.J. No. L107, of 30.4.96, p.12

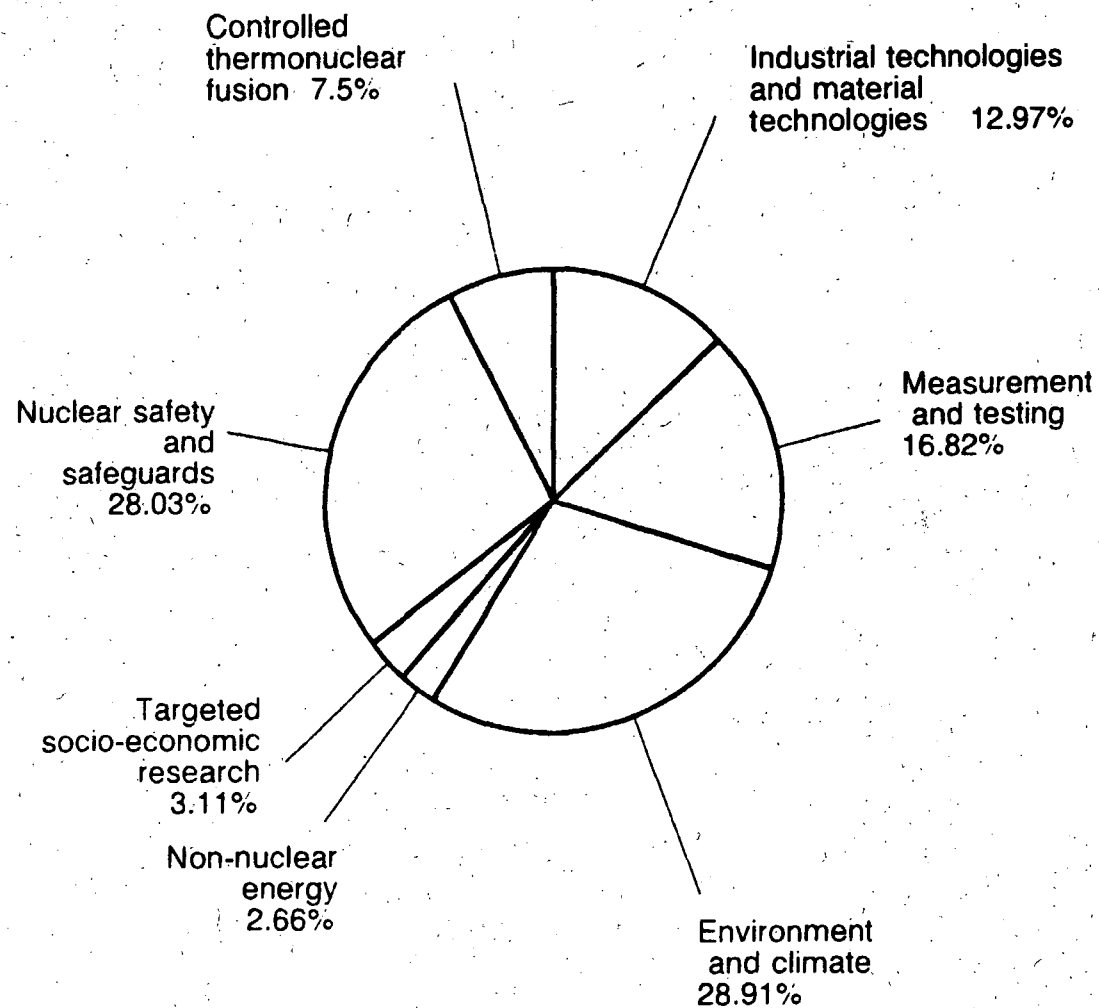


such as those suggested by IRDAC (Industrial Research and Development Advisory Committee), are under consideration. Demands for further research to meet societal needs of a Community dimension have been placed at the door of the JRC. The Commission intends to engage the JRC in these developments and is reflecting on the role to be assigned to it.

42. To meet the present and future challenges the JRC, with the approval of the Board of Governors, has suggested an ambitious strategy for the medium and long term, in a strategic plan, leaving room for a continual process of implementation of the Community Institutions and the Member States' expectations of the Centre.
43. The present report, as intended by the Commission, provides the status at a given check-point in the ongoing evolution of an important instrument for the fulfilment of the European Union's objectives - the Joint Research Centre.

## JRC institutional research activities 1996

Activities	%
Industrial technologies and material technologies	12.97
Measurement and testing	16.82
Environment and climate	28.91
Non-nuclear energy	2.66
Targeted socio-economic research	3.11
Nuclear safety and safeguards	28.03
Controlled thermonuclear fusion	7.50
<b>Total</b>	<b>100.00</b>



**Number of Publications written by JRC Scientists**

	<b>EUR Reports</b>	<b>Conference Papers</b>	<b>Articles in Scientific Journals with Referee system</b>	<b>TOTAL</b>
<b>1994</b>	103	646	195	<b>944</b>
<b>1995</b>	117	772	233	<b>1122</b>

*Sources: JRC Annual Reports*

## List of the Inter-DG Agreements in Institutional Support to the Commission

Directorate General	Subjects	Date of Signature
S.G. - UCLAF(*)	Antifraud Policy Support Office	22.12.1995
F.S.U. (**)	Prospective Technological Studies	21.6.1996
I	IAEA Safeguards Support	Pending
III	Information Technologies	25.04.1996
III	Foodstuffs Analysis	03.06.1996
III	Industrial Innovation Systems - Technology Foresight and Prospective Studies	Pending
VI	Agricultural Policies (Monitoring MARS-STAT, MARS-PAC FEOGA, Animal Identification, BEVABS, Quality Control of Foodstuffs)	17.07.1995
XI	ECVAM - ECB - ERLAP - REM	07.12.1995
XI	Major Accident Hazards Bureau	10.01.1994 09.02.1996
XI	Biotechnology Safety	15.03.1996
XI	Nuclear Safety - European Networks on Component Ageing, Inspection Techniques and Structural Integrity	19.01.1996
XI	Nuclear Safety - Harmonization of Safety Criteria	15.03.1996
XVII	Nuclear Safety - European Networks on Component Ageing, Inspection Techniques and Structural Integrity	23.01.1996
XVII	On-site Laboratories, ECSAM, Safeguards	20.02.1996
XXIV	Quality Control - Cosmetics - Safety of Products - Food Products	23.10.1995
EEA(***)	Harmonisation of environmental measurement techniques	02.02.1995
EMEA(****)	ETOMEP: European Technical Office for Medicinal Products	16.03.1995

(\*) Unité Coordination Lutte Antifraude

(\*\*) Forward Studies Unit

(\*\*\*) European Environment Agency

(\*\*\*\*) European Agency for the Evaluation of Medicinal Products

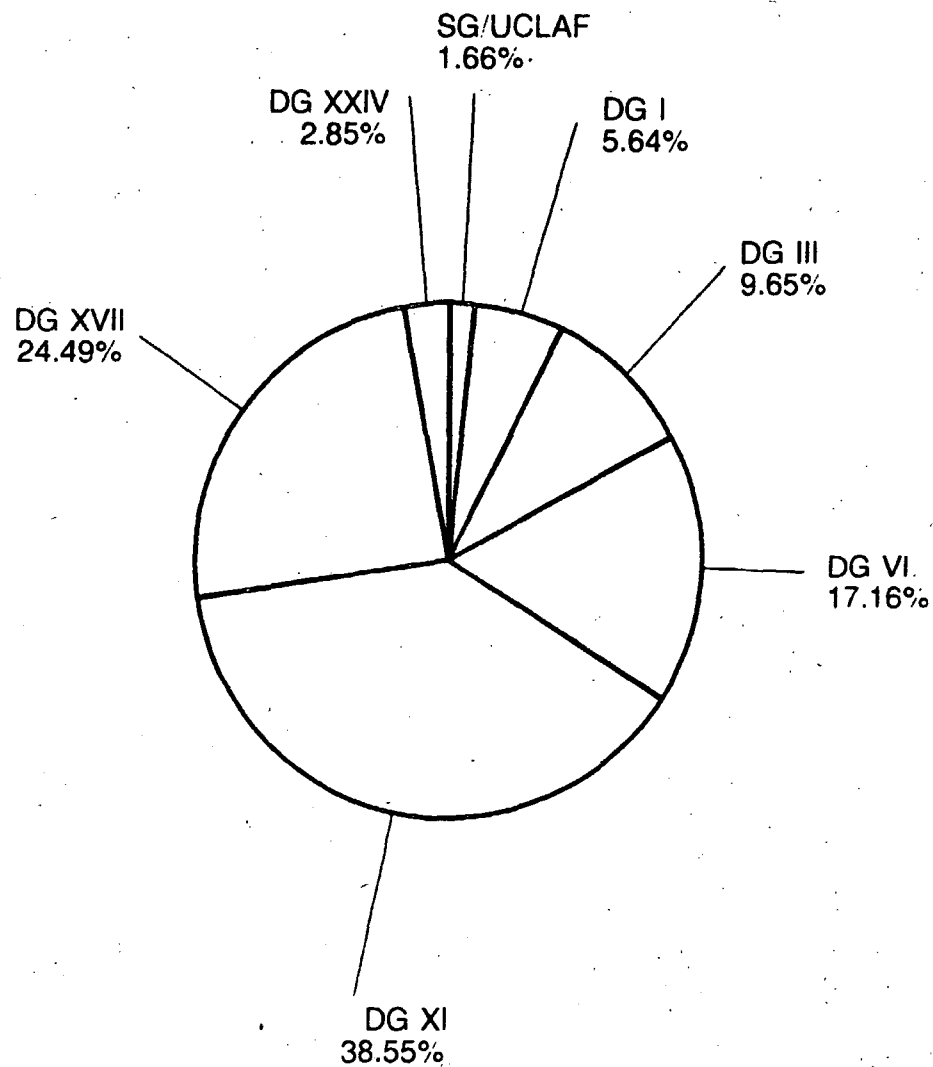
## JRC Institutional Support Activities

INSTITUTIONAL SUPPORT ACTIVITIES	DECISIONS, DIRECTIVES, REGULATIONS OF THE COUNCIL AND COMMUNICATIONS OF THE COMMISSION TO THE COUNCIL AND EUROPEAN PARLIAMENT ON INSTITUTIONAL SUPPORT ACTIVITIES OF THE JRC
<b>Environment and Climate</b>	
European Reference Laboratory for Air Pollution (ERLAP)  European Chemicals Bureau (ECB)  European Centre for the Validation of Alternative Methods (ECVAM)	Work in support of Directives 80/779 EEC, 89/427 EEC, 82/884 EEC, 85/203 EEC and 92/72 EEC  Communication from the Commission to the Council and European Parliament (93/C1/02). OJ No. C1/3 of 5.01.1993 on the European Chemicals Bureau (ECB). Work in support of Directives 67/548 EEC, 92/32 EEC  Communication from the Commission to the Council and European Parliament SEC(91)1794 final of 29.10.1991. Establishment of a European Center for the Validation of Alternative Methods (ECVAM). Work in support of Directive 86/609 EEC
Support to the European Environment Agency (EEA)	Council Regulation (EEC) No. 1210/90 of 7.5.1990 on the creation of the European Environment Agency (OJ No. L120/1, 11.5.1990) (see in particular Article 15 and Annex A Cooperation with the JRC)
European Community Pharmaceutical Information Network (ECPHIN)	Work in support of Directives 93/39 EEC, 93/40 EEC and Council Regulations 93/2309 EEC and EEC 2377/90
Quality Control of Consumer Products (Consumer Protection)	On Cosmetics: 6th modification of Regulation EC/76/768 on Safety of Products: General Safety Directive 92/59/EEC of 29.6.1994
Industrial Reliability: Major Hazards. Biotechnology Safety	Communication COM(96) 7 final, on the Major Accident Hazards Bureau from the Commission to the Council and European Parliament. Work in support of Directive 82/501 EEC
Methodologies for UCLAF	Commission Decision SEC(87) 1310/6 and SEC(95)249
<b>Agriculture and Fisheries</b>	
Remote Sensing for Agriculture	Decision of the Council of 14.11.1994 on Remote Sensing applications to Agricultural Statistics for the period 1994-1998 (94/753 EEC, OJ No. L299/27, 22.11.1994)

<p style="text-align: center;"><b>INSTITUTIONAL SUPPORT ACTIVITIES</b></p>	<p style="text-align: center;"><b>DECISIONS, DIRECTIVES, REGULATIONS OF THE COUNCIL AND COMMUNICATIONS OF THE COMMISSION TO THE COUNCIL AND EUROPEAN PARLIAMENT ON INSTITUTIONAL SUPPORT ACTIVITIES OF THE JRC</b></p>
<p>Animal Identification</p> <p>European Office for Wine, Alcohol and Spirit Drinks (BEVABS)</p> <p>Reference Measurements and Materials for Quality Control of Foodstuffs</p>	<p>Communication from the Commission to the Council and European Parliament (COM(93)360/3). Work in support of Council Regulations (EEC) No. 2048/89, 2348/91 and 2347/91 and Commission Regulation No. 2676/90</p> <p>EC Directives on foodstuffs and other consumer goods</p>
<p><b>Nuclear Safety and Safeguards</b></p>	
<p>Euratom Safeguards Support: General</p> <p>Euratom Safeguards Support: On-Site laboratories and ECSAM</p>	<p>Communication from the Commission to the Council and European Parliament of 24.3.1992 (SEC (92)515 final, concerning the Commission Decision on on-site laboratories, for the period 1991-1996 (see in particular Art. 16 Cooperation with the JRC)</p> <p>Communication from the Commission to the Council and European Parliament COM(94)383 final, of 7.9.1994 concerning the illicit circulation of radioactive material</p>
<p>IAEA Safeguards Support</p>	<p>Communication from the Commission to the Council COM (80) 681 final, concerning an Agreement in the form of an Exchange of Letters between the International Atomic Energy Agency on the one hand and the Commission on behalf of the European Atomic Energy Community, on the other, on cooperation in the field of research and development in Safeguards</p>

## JRC institutional s/t support activities 1996

Activities	%
SG/UCLAF	1.66
DG I	5.64
DG III	9.65
DG VI	17.16
DG XI	38.55
DG XVII	24.49
DG XXIV	2.85
<b>Total</b>	<b>100.00</b>



## SHARED COST ACTIONS

### JRC INSTITUTES RESPONSE TO THE FIRST CALLS OF THE 4TH FWP (15/12/94 through 27/04/95) Summary of Results by Specific Programme

SPECIFIC PROGRAMME	JOINT RESEARCH CENTRE		
	Submitted	Accepted	%
1. Telematics	13	5	38%
2. Advanced Communication Technologies and Services	4	2	50%
3. Information Technologies	8	1	13%
4. Industrial and Materials Technologies	53	6	11%
5. Standards, Measurement and Testing	27	8	30%
6. Environment and Climate	98	32	33%
7. Marine Sciences and Technologies	12	1	8%
8. Biotechnology	-	-	-
9. Biomedicine and Health	6	1	17%
10. Agriculture and Fisheries	4	0	0%
11. Non-nuclear Energy	55	14	25%
12. Nuclear Fission Safety	45	25	56%
13. Controlled Thermonuclear Fusion	-	-	-
14. Transport	1	0	0%
15. Targeted Socio-Economic Research	-	-	-
Activity 1: Research, technological development and demonstration programmes (sub-totals)	326	95	29%
16. Activity 2: Cooperation with third countries and international organisations	12	1	8%
17. Activity 3: Dissemination and exploitation of research results	5	3	60%
18. Activity 4: Stimulation of training and mobility of researchers (TMR)	4	1	25%
<b>TOTAL</b>	<b>347</b>	<b>100</b>	<b>29%</b>



**TARGETS OF EVOLUTION OF JRC COMPETITIVE ACTIVITIES 1995-1998 (in Mecu)**

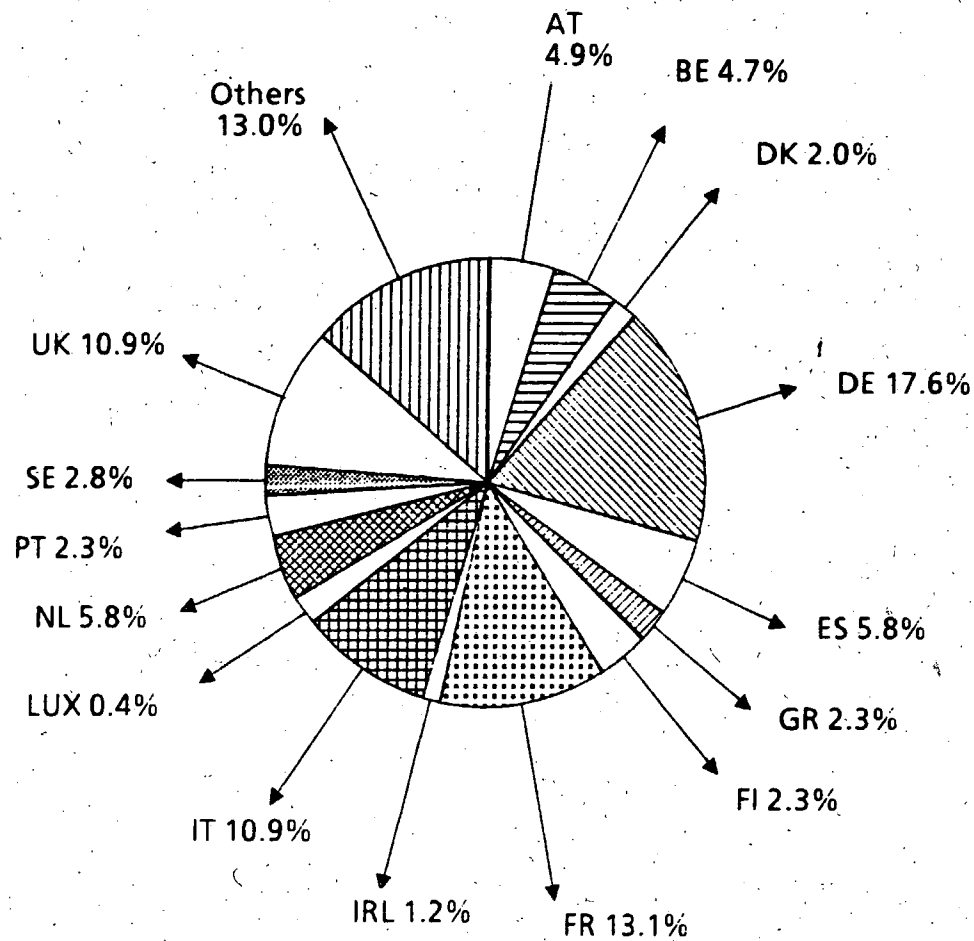
	<b>I Updated Targets 1995-1998</b>	<b>II Earnings 1995</b>	<b>III Targets 1996 <i>(new contracts)</i></b>	<b>IV Targets 1997</b>	<b>V Targets 1998</b>	<b>Total II-V</b>
<b>Shared-cost actions 50%</b>	27.7	10.7	7.5	6.0	3.4	<b>27.6</b>
<b>Competitive support</b>	80.0	12.0	19.5	22.0	26.6	<b>80.1</b>
<b>Other Community activities</b>	18.0	2.3	4.5	4.0	5.0	<b>15.8</b>
<b>Third Party Work</b>	60.0	18.4(1)	20.0	21.0	22.0	<b>81.4</b>
<b>TOTAL</b>	<b>185.7</b>	<b>43.4</b>	<b>51.5</b>	<b>53.0</b>	<b>57.0</b>	<b>204.9</b>

(1) HFR - Reactor Third Party Work not included.

Distribution of JRC Cooperation with National Research Organisations and Universities, by country

Distribution per country in percentages

Country	Percentage %
AT	4.9
BE	4.7
DK	2.0
DE	17.6
ES	5.8
GR	2.3
FI	2.3
FR	13.1
IRL	1.2
IT	10.9
LUX	0.4
NL	5.8
PT	2.3
SE	2.8
UK	10.9
Others	13.0
<b>Total</b>	<b>100.0</b>



## JRC COMMITMENT APPROPRIATIONS 1995-1998 (in ECU)

Budget Line	Title	1995 Execution	1996 Budget	1997 Proposed	1998 Foreseen	1995-1998 TOTAL
B6-2113	Information Technologies	1,924,124	3,346,831	3,219,103	3,209,942	11,700,000
B6-2121	Industrial and Material Technologies	24,983,909	20,993,470	21,499,776	22,022,845	89,500,000
B6-2122	Measurement and Testing	28,258,930	27,171,331	27,821,772	28,547,967	111,800,000
B6-2131	Environment and Climate	74,671,577	75,924,604	77,324,747	78,979,072	306,900,000
B6-2143	Agriculture and Fisheries	10,228,685	11,604,084	13,883,237	14,283,994	50,000,000
B6-2151	Non-nuclear Energy	5,040,023	3,723,607	4,117,059	4,219,311	17,100,000
B6-2171	Targeted Socio-Economic Research	5,133,323	9,178,246	10,206,430	10,482,001	35,000,000
B6-291	JRC Participation in Shared Cost Actions (EC)(50%)	51,102	4,699,827	6,880,876	5,368,195	17,000,000
	<b>TOTAL EC Programme</b>	<b>150,291,672</b>	<b>156,642,000</b>	<b>164,953,000</b>	<b>167,113,328</b>	<b>639,000,000</b>
B6-3111	Nuclear Fission Safety and Safeguards	63,813,825	64,193,094	65,184,585	66,608,496	259,800,000
B6-3121	Controlled Thermo-nuclear Fusion	11,486,770	12,303,171	12,587,121	12,622,938	49,000,000
B6-391	JRC Participation in Shared Cost Actions (EAEC)(50%)	0	2,799,735	2,375,294	5,524,971	10,700,000
	<b>TOTAL EAEC Programme</b>	<b>75,300,595</b>	<b>79,296,000</b>	<b>80,147,000</b>	<b>84,756,405</b>	<b>319,500,000</b>
	<b>TOTAL EC + EAEC Programmes</b>	<b>225,592,267</b>	<b>235,938,000</b>	<b>245,100,000</b>	<b>251,869,733</b>	<b>958,500,000</b>

**OPINION OF THE BOARD OF GOVERNORS  
OF THE JOINT RESEARCH CENTRE****ON****THE COMMUNICATION OF THE COMMISSION  
TO THE COUNCIL AND THE EUROPEAN PARLIAMENT  
ON PROGRESS IN THE IMPLEMENTATION OF THE  
COUNCIL CONCLUSIONS OF 26 APRIL 1994 ON THE  
ROLE OF THE JOINT RESEARCH CENTRE (JRC)****INTRODUCTION**

1. The Council Conclusions of 26 April 1994 on the Role of the JRC call upon the Commission to submit a report in 1996 to the European Parliament and the Council on the Implementation of these Conclusions, after obtaining the Opinion of the Board of Governors, so as to enable the European Parliament and the Council to draw up an assessment of the situation.
2. After considering the text of the report from the Commission and following extensive discussions on the current situation of the JRC, the Board of Governors expresses the following Opinion.

**JRC EVOLUTION SINCE 1994**

3. The Council Conclusions outline the role of the JRC and set out guidelines for its operations. They signal a new approach to the JRC and call for a transition which should be introduced progressively during the period from 1995 to 1998. This includes targets for a novel set of competitive activities, the necessary changes to rules and regulations governing the JRC and a call for further collaboration with partners belonging to all the Member States.
4. The JRC is now approaching mid-term in this evolutionary process, for which the planning was initiated with the Board of Governors in 1994, upon the decisions of the Framework Programmes for 1994-1998 and the issue of the Council Conclusions on the Role of the JRC.

The report from the Commission and the JRC 1995 Annual Report which reports on the first year under the modified role of the JRC, clearly bear witness to the fact that encouraging progress has already been made towards fulfilling the intentions of the Council, the European Parliament and the Commission.

This modified role included participation in a wider spectrum of competitive activities than was the case in the past. The JRC should participate in Community programmes on an equal basis with partners from research and industry, to whom collaboration should be extended. The Board notes that the Centre responded in a dynamic way to the new challenge and that it has obtained good results in the competition, exceeding expectations. With regard to shared cost action (specific) programmes under the Framework Programmes, the Board wishes to draw attention to the fact that this encompasses accepted projects outside the themes where the JRC has institutional activities, thus capitalising on its multi-disciplinary competences. Good results were also obtained for the other modes of competitive activities. In general, targets were exceeded.

At the same time, the JRC has continued through its institutional activities to contribute to the formulation and implementation of Community policies, including research policy. Ties with national research activities have been reinforced and efforts in this direction should be maintained.

Having confirmed its overall favourable impression with progress to date, the Board emphasises, however, the need to sustain the initiatives already taken and remarks that there is still room for improvement, both in the operations of the Centre itself and in the boundary conditions which govern its activities and that an effort is still required before the Council Conclusions can be said to be fully implemented.

## THE WAY FORWARD

5. The Board welcomed the steps taken by the Commission in accordance with its recommendations to further strengthen the commercialisation and communication of the JRC's work and its results. The addition of a Deputy Director General to the management team of the Centre is welcomed and should facilitate further progress in this direction. Related to this, the Board points to new ways in which the JRC in fulfilment of its objectives may further augment its relations with European industry, and a series of additional measures for measuring the performance (performance indicators) of the JRC, its institutes and the satisfaction of its customers.

The Board notes that its relations with the committees of the specific programmes which share the same framework programmes lines with the JRC own research programmes, have been initiated but need strengthening. Specifically, it would be beneficial for Institute Directors to have detailed annual discussions with relevant Programme Committees.

With regard to the management team of the JRC, the Board has also, as described in its Observations to the JRC Annual Report 1995, advised the Commission on appointments to vacant senior posts at Institute Director level. The considerable number of highly qualified applicants confirmed the exciting and challenging nature of these posts and the growing recognition of the merits of the JRC in the European scientific and industrial community.

6. As prescribed in the Council Conclusions and recorded in the Report of the Commission, the new modes of operation of the JRC, and notably the competitive activities, required a series of amendments to the rules and regulations governing the JRC and its working methods. Such amendments and new rules have been implemented and the Board welcomes the Commission's Decision to give the JRC status as an autonomous Directorate General. As indicated previously in the Observations to the JRC Annual Report 1995, the Board is of the firm opinion that a further evolution in the status of the JRC within the Commission is essential to allow the Centre to fully live up to expectations for its working methods and relations with industry and national research, as set out by the Framework Programmes and highlighted in the Council Conclusions. Whereas a series of incremental changes have been accomplished, a more basic reorganisation of the JRC statute is called for. The Board acknowledges the Commissioner's indications of the intentions in this direction and looks forward to playing a full part in advising on these important matters, which for the benefit of the JRC may include a redefinition of the operation and responsibilities of the Board itself.

Like the staff of many other European research institutes, the JRC staff has an age distribution which will continually result in vacancies in the coming few years, a process which is already in progress and which requires replacements at all levels. The JRC is about to undergo significant changes involving increased participation in competitive activities and an improved responsiveness to the new needs of its customers, and an increased flexibility in its operations is necessary. In this situation the Commission has established a new policy for its entire research personnel, including JRC staff. Its most important feature is the three categories: officials, temporary agents and the new category of temporary agents having non-renewable, three year contracts, and the assignment of goals for the proportion between these categories (40%, 35% and 25%). Ever since its inception it has had the attention of the Board. Whereas the Board welcomes the Commission's recognition of the need for a contingent of highly mobile staff, it has persistently expressed reservations as far as the JRC is concerned with regard to the implications of raising the proportion of officials, at present 33%, within the total staff contingent of the JRC. The Board expects to be consulted on this process of change.

#### ACKNOWLEDGEMENTS

7. The Board finally notes that the Council Conclusions underlined its role in implementing the conclusions and guidelines. The Board appreciates the responsiveness it has had from the Commissioner and the Director General, in particular, to its views and advice, but notes that its views on the above-mentioned staff policy have not fully been taken into account. The Board welcomes the several contacts it has had with the Commissioner for Research, Mrs. Edith Cresson, and looks forward to further discussions on the evolution of the JRC status and strategy.

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