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**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE
EUROPEAN PARLIAMENT**

Fulfilling the JRC's mission in the European Research Area

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1. Objectives:

The present document is a response to the invitation addressed by the Research Council, through its resolution of 15-16 November 2000 on the European Research and Innovation Area, to the Commission *“to submit to the Council as soon as possible, so that it can hold an in-depth discussion before the framework programme is adopted, a communication on the implementation of the JRC's mission, covering management styles, methods and governance, the focusing of research efforts, the match of human resources to the task, improving links with other national research institutes, and the response which the JRC might provide to the needs of users, particularly the Commission's Directorates-General, and public authorities.”*

The purpose of this document is to describe how the Joint Research Centre's resources will be deployed in a way which ensures that it can better fulfil its mission in a changing context and effectively contribute to the development of the European Research Area.

The objectives pursued are to strengthen the JRC by:

- focusing and concentrating its activities,
- reinforcing and broadening its users orientation and base,
- strategically increasing co-operation with external partners,
- streamlining its management.

This will enable the Centre to enhance its scientific vitality, aiming for excellence in the provision of its services in support of the policy-making process. It will be introduced gradually so as to learn during the consolidation process, with a view to confirming proven changes at the start of the next Framework Programme.

2. The Mission of the JRC:

“The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of community policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Community. Close to the policy-making process, it serves the common interest of the Member states, while being independent of commercial or national interests.

Carrying out specific high-level research in close contact with industry and other bodies, the JRC supports the policy-maker in addressing the concerns of the individual citizen, improving the interaction between man and the environment and promoting sustainable development.

In implementing its mission, the JRC will endeavour to co-ordinate RTD activities carried out in the Member States. Its work depends on intensive networking with public and private institutions in the Member States through, for example, research networks, joint projects or

staff exchanges.(...) While the indirect actions will continue to be the main mechanism for developing and testing new ideas, the JRC's role is to help apply them in the service of the policy-maker.”¹

This mission statement was adopted by the Council in its decisions on the JRC specific programmes of the 5th Framework Programme and endorsed by the European Parliament in its comments on these programmes. Since its creation, S&T support to policies of the Union has been a central but only an implicit element of JRC role. The current mission statement spells out this role for the first time.

In general terms, and with due respect to the competence for scientific advice and risk assessment attributed to the existing Scientific Committees and the future European Food authority, the mission of the JRC can be categorised as being two-fold:

i) To support the policy-making process by providing a broad range of specific S&T services at all stages of the policy cycle (conception-development-implementation-monitoring) and in its areas of competence. This would include:

- reliable scientific and technical support on policy issues - both reactive and prospective;
- on-going scientific and technical support for policy implementation and monitoring;
- research, whether fundamental (e.g. on actinides, in analytical chemistry or in toxicology) or more operational (for example to provide support to the Scientific Committees and to policy implementation) but requiring high level technical skills;
- a deep understanding of the S&T issues at stake, and the ability to monitor their evolution and keep abreast of developments;
- an ability to assess uncertainties and risks, integrate scientific knowledge with other relevant information, and translate this information in a usable form for the customer;
- flexible reaction to unforeseen demands, notably in a crisis situation (e.g. illicit trafficking of nuclear materials, BSE or dioxin crisis) with a view, for instance, to develop, refine and validate analysis or detection methods. This requires both a broad set of scientific competencies in specific, rapidly developing areas (to face a range of situations) and the organisational (and budgetary) capability to adapt rapidly to unforeseen urgent requests.

ii) To contribute to the development and operation of EU systems of scientific reference for policy decisions

As stated in the Commission communication on the European Research Area², the objective of systems of S&T reference is to provide the validated knowledge base needed to underpin EU policy and action. JRC will contribute within the relevant networks in areas in which its competence is recognised (e.g. nuclear safeguards, detection and traceability of GMOs, toxicity of chemicals, air quality, etc.). Depending on the area and specific S&T issues involved, its role could span from one of "stage setting" - in the sense of acting as a facilitator in defining the issues and organising the debate and the collective effort of the S&T community - to that of validating research methods and outcomes. Through dedicated efforts

¹ Annex 2 of Council decisions 1999/174/EC and 1999/176/EURATOM of 25 January 1999 (OJ L 64 of 12.03.99)

² COM (2000) 6

in specific areas, it may also help candidate countries implement Community legislation by assisting them to acquire the appropriate scientific and technical tools and methods, through training and the inclusion of research organisations in the relevant networks.

3. Focus and concentration:

3.1. The JRC has finite resources and it cannot be expert in every single scientific or technical area. Nor does it want to be, as activities need critical mass for credibility and efficiency. Therefore, as outlined in the Commission proposal for the new Framework Programme³, the JRC will concentrate its activities around core areas of competence and specific, underpinning, horizontal activities. The underlying policy preoccupations are safety and security of the European citizens.

The three competence pillars, matching JRC expertise with important policy drivers and which will form the main axes of redeployment, are:

- Food, Chemical Products and Health;
- Environment & Sustainability;
- Nuclear Safety and Security.

A set of horizontal competencies will support and complement these pillars. They include the production of reference materials and measurements, and the development of risk management tools for increased safety and public security, including fight against fraud. Technology foresight activities will be concentrated on networks of national institutes in this field, allowing for synergies and economies of scale.

The JRC should only undertake activities outside these areas, in agreement with its users and within the limits of the available budget, where it has a recognised competence, and where the need for its involvement is clear and of a sufficient level to ensure that a critical mass of competencies may be reached in the foreseeable future.

3.2. A strong scientific basis, adding credibility, acceptability and reassurance to the policy support provided must be ensured to underpin the whole JRC activity. It should be updated regularly and broadened by exploratory research, benchmarked through participation in calls for proposals, work for third parties and technology transfer, and extended by the integration of the JRC in networks with national research centres and universities.

3.3. In its Communication “*Matching the Commission activities with its human resources – The means to achieve our objectives*”⁴ the Commission indicated that the JRC could concentrate its activities by either “closing down of one research institute (or reduction of activities at several institutes)” thus resulting in a reduction of 200 posts. The Commission also indicated that some priority activities needed to be reinforced in the JRC. The net final result is a suggested reduction of 175 posts in its establishment plan.

Assessment and review of the current activities have been carried out to identify areas for concentration and focusing. The activities of the Institute for Advanced Materials in Petten

³ COM (2001) 94

⁴ SEC (2000) 2000/3

were analysed in detail and a realistic potential for increased focus and concentration was identified.

The (scientific and administrative) activities carried out at the other sites of the JRC were then reviewed and assessed in a similar way. A specific task force was set up to this end, involving external expertise. Criteria included European added value, policy relevance within the context of the Commission's strategy 2000-2005⁵, customer orientation, science quality, networking and managerial efficiency (e.g. methods to determine priorities, allocate resources and monitor implementation).

As an interim outcome of this analysis, it is planned to incorporate the suggested reduction of 175 posts in the Preliminary Draft Budget 2002.

4. Strengthening links with the users:

4.1. As a service of the Commission, the JRC has a number of key stakeholders and users:

- **At a strategic level, the Council and the European Parliament (EP)**, who decide on the Framework programme (FP) and fix the budget, are the main stakeholders. They approve the specific programmes and their respective allocation of resources. Ultimately the JRC should satisfy them that it is serving the European Union well and provides value for money. In this context, besides its role of advising the Commission on the management of the JRC and the scientific quality of its work, **the Board of Governors** provides a channel of communication with the Member States, Associate States and Pre-Accession Countries.
- **Within this envelope, the Commission services** are the primary users of JRC output. They approve the multiannual work programmes through the inter-service consultation preceding adoption by the Commission.
- **The wider "users" community** includes also international partners and organisations like WHO, IAEA, BIPM, European agencies or bodies (EEA, EMEA, CEN)⁶ interested in the JRC output and industry. In particular, **the international and national regulating authorities** are users of the JRC services and results, as the support provided to the implementation of European regulation or international agreements is a corner stone of its intervention. Candidate countries are important users as well and, in co-ordination with the respective policy DGs concerned, increased efforts should be made to integrate them as much as possible in JRC's activities related to the implementation and monitoring of Community legislation.

Meeting users' requirements must be the guiding principle in implementing the mission.

4.2. Since 1999, with its new mission, the JRC has intensified the dialogue with its customer Directorates General and Services. Already significant improvement has been made in strengthening and formalising JRC relations with its main users (adoption of multi-annual work programmes through a Commission decision, annual workshops with main user DGs,

⁵ COM(2000) 154 final: STRATEGIC OBJECTIVES 2000-2005, "Shaping the New Europe".

⁶ WHO: World Health Organisation - IAEA: International Atomic Energy Agency - BIPM: Bureau International des Poids et Mesures - EEA: European Environment Agency - EMEA: European Medicine Evaluation Agency - CEN: Comité Européen de Normalisation.

memoranda of understanding and administrative arrangements⁷, user groups, projects steering committees, bilateral contacts, support to the EP, etc.).

To strengthen the customer-contractor relationship, the Commission decided on 22 January 2001 to set up **an inter-service group**. It will be composed of the Directors General of user DGs and will be chaired by the Director General of the JRC. Its role would include arbitration and priority setting in the allocation of resources to the activities directly related to policies, within the limits of the Framework programme and Specific programmes and other budgetary constraints. It will formulate an opinion on the JRC multi-annual and annual work programmes in the light of the yearly strategic programme of the Commission, proposing possible shifts of emphasis and new activities, within the limits of the specific programme.

The process of establishing the JRC work programme will also make due allowance for the JRC's need to manage coherent scientific programmes and a long-term scientific resource.

4.3. Furthermore the Commission intends to establish **a strengthened relationship between the JRC and the EP** and, to this end, to initiate, via the respective Secretariats General, the organisation of a programme of meetings with the Committees particularly concerned with the JRC activities.

4.4. Other mechanisms to increase the user orientation will be examined, including, for instance:

- **Tighter links with national regulators and/or enforcement agencies:** a common element in many successful JRC projects⁸ is the strong links established with European regulatory bodies, building three-corner networks: the JRC, inserted in relevant S&T networks; the policy DG, responsible for designing legislation and controlling its enforcement; and competent authorities in the Member States and Pre-Accession States charged with implementing the legislation and monitoring its application. In this way, the JRC helps concerned actors to achieve the intended objectives: good legislation design, efficient implementation and smooth and effective monitoring.
- **Increased flexibility:** in its areas of competence, the JRC should also be in a position to provide a rapid reaction to unforeseen demands, notably in a crisis situation. Its programme should therefore be designed to cater for unexpected requests. A budgetary provision could be foreseen and mechanisms to rapidly pool together the required human and scientific resources from partner organisations should be developed.
- **Pro-active help to customer DGs in formulating their needs.** In its areas of competence, the JRC could alert the DGs on consequences of S&T evolution in respect of their sectoral policies, thus promoting the incorporation of novel S&T concepts, issues and techniques into policy-making at an early stage. To help this process **the systematic secondment of a**

⁷ Already a number of Memoranda of Understanding or framework Administrative Arrangements detailing needs, deliverables and monitoring processes have been signed with several DGs (under FP5 for instance DG ENV, DG ENTR, DG EAC, DG TREN) and with external European level partners (EEA, EMEA, CEN). Others are being considered (DG RELEX, DG SANCO, OLAF).

⁸ Some examples of projects where this three-corner relationship is functioning are:
MAHB (Major Accidents Hazards Bureau),
ECCAIRS (civil aviation incidents),
MARS (Management of Agriculture by Remote Sensing),
EIPPC (European Integrated Pollution Prevention and Control bureau),
ECB (European Chemicals Bureau).

limited number of JRC staff in policy-related Commission services will be promoted. Selected JRC staff would spend time working in user DGs for defined periods (e.g. 6 to 9 months).

5. Scientific excellence and quality management:

An important effort is needed to regularly communicate to the main stakeholders and Member State authorities the *raison d'être* of the JRC, its added value and its results. In addition to relevance and added value, the services that the JRC provides are only accepted in as much as its work is acknowledged as being based on excellent science and technology. The JRC will therefore aim at being recognised by its peers through e.g. networking with “the best”, publications and participation in high level conferences. It will also reinforce the communication on its activities and results towards policy makers and the public at large.

There is a clear need for regular evaluation and benchmarking of the JRC scientific activities, making use of external experts, internationally recognised as top scientists in its fields of competence. The mechanism to be put in place will be defined in close consultation with the Board of Governors. It will recognise that the different activities undertaken by the JRC need different level of scientific expertise (for instance, direct support needed for implementing a broad range of directives, which is a significant part of the JRC work, generally comprises a limited research component though it requires in-depth knowledge of the subject and high level technical skills; therefore, it may require specific criteria for the assessment of its quality).

Furthermore, the JRC will continue implementing the ambitious managerial improvement scheme it started with the introduction of Total Quality Management (TQM), strengthened project management procedures and project oriented budgeting. Key performance indicators will be monitored on a continuous basis to assess the output of the Centre. They include customer opinion with regard to the timeliness and relevance of advice as well as quality of the scientific information it provides. The range of services that are quality controlled through accreditation to internationally recognised standards (e.g. good laboratory practice or ISO standards) will be extended. Quality and value for money will be assessed, in research and services, through market testing, e.g. through competition for Indirect Action funding and external contracts.

6. Networking and co-operation:

The mission of the JRC stipulates that its work depends on intensive networking with public and private institutions in the Member States. In line with the general thrust of the ERA and to support European policy makers to access the best pool of knowledge, the JRC will systematically increase the association of Member States and Accession Countries research or regulatory organisations to the development and performance of its work. It must strive to develop its ability to participate in, set up, animate and/or manage networks. This ability will be a crucial element of the JRC's future development. Proactive networking with scientific and other organisations will be one of the selection and evaluation criteria for the JRC projects under the new Framework Programme.

These networks will be dedicated to the provision of both specific services (early alert; anticipation; quick response; validation & integration of knowledge; interfacing with stakeholders and policy makers) and products (e.g. generation and harmonisation of databases, common standards, validated detection methods, etc.).

Thus the JRC will co-operate with a broad range of partners including centres of excellence, industry or regulatory authorities. It will strive to participate in Indirect Actions under the Framework programme, which has historically helped to build up partnerships with other scientific organisations and benchmark its competencies. It will also, whenever needed to fulfil its mission, collaborate with selected international partners. In this process a specific effort will be dedicated to the inclusion of organisations from the Pre Accession Countries in its networks.

7. Human resources development and mobility:

A medium to long-term strategy will be developed in this field, linked to the JRC's work programme and balancing flexibility and continuity. A comprehensive medium term rolling plan for skills development will be established and knowledge management and training will be further developed.

In the context of the European Research Area the JRC will aim to contribute to providing research training to young scientists, including those from candidate countries, with a view to attracting a permanent inflow of young and dynamic researchers, thus constantly rejuvenating its intellectual vitality. The JRC can offer via its "training through research" scheme interdisciplinary research in an international environment with a good infrastructure, front line projects, some unique installations and networking opportunities. Such training will be carried out in association with the Community and national mobility schemes.

In addition, staff mobility and exchange between the JRC and national institutes will be proactively encouraged making better use of all existing instruments to that end (e.g. training through research grants, national experts detached to the Commission (DNE) and visiting scientists schemes). For example, within the current budgetary constraints, the JRC will aim to at least double the number of DNE over the next two years and will promote greater awareness of available instruments (e.g. website, information days, presentation to network partners).

Within the Commission Reform process, on the occasion of the review of the research staff policy, careful attention will be paid to measures that could strengthen this mobility and flexibility of the JRC staffing policy. In particular, the secondment of temporary agents to national organisations, inapplicable under the current rules, will be examined.

8. Conclusions:

The proposed orientation aims at strengthening the JRC and helping it make a successful contribution to the European Research Area. The new mechanisms envisaged (inter-service group, strengthened link with the Parliament, staff mobility, etc.) will be introduced progressively and on an experimental basis. This experiment will be followed by an assessment at the end of the 5th Framework Programme, which will have as a consequence either the confirmation of the mechanisms or any modifications necessary in the light of experience.