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The Commission of the European Communities  
defines "Euratom's Future Activities"

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Is it conceivable that the Community countries can go on seeing their NUCLEAR EFFORTS SPENT PIECEMEAL on two high-temperature reactor projects, four heavy-water reactor variants and three separate fast reactor programmes? Do they think they can afford to go on maintaining some fifteen nuclear power plant constructors (whose combined order books total less than that of the smallest of the few - four or five - American constructors), thirteen fuel element manufacturers (whose total production is about to be equalled by that of Westinghouse alone), ten turbine makers (there are only two in the United States), nine steel pressure vessel makers, and so on?

The programme of Euratom's future activities which the Commission of the European Communities has forwarded to the Council of Ministers, after consulting interested circles in the Community, is in line with the findings of the White Paper published by the Commission last October<sup>(1)</sup> and sums up a situation that has gone downhill through the scattering of the member countries' efforts, which have been marked by a fundamentally national orientation. FOR LACK OF A clearly stated POLITICAL DETERMINATION to take the imperative corrective measures, the creation of a genuine common market will be irremediably jeopardized and the present walling-off of each country's market will become yet more pronounced,

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(1) This White Paper, entitled "Survey of the Nuclear Policy of the European Communities", can be obtained free on request.

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thus helping non-Community techniques to consolidate a supremacy that will soon be impregnable. While the funds which the Commission is asking for in order to carry out its programme then seem to be comparatively small, representing as they do only some 8.5% of the total sum spent on nuclear research by the Member States, it is the political commitment for which the Commission is appealing that is the decisive factor in the success of the proposed programme, since the aim is to bring about:

1. AN IMPROVEMENT IN THE STRUCTURES OF THE NUCLEAR INDUSTRIES, by encouraging transnational groupings of firms with a view to setting up a small number of competitive consortia capable of obtaining a large volume of business.

As is also the case with most advanced-technology industries, the nuclear industry has so far reaped scarcely any benefit from the Common Market: the abolition of customs duties has not done away with the compartmentation of the market because the development of advanced industries depends much more on the actions of the public authorities than on the normal working of the laws of supply and demand. Even today it is still an easier matter for a European constructor to sell a nuclear power plant to a non-member country than to another Community country. The RESTRUCTURING OF THE INDUSTRY ON A MULTINATIONAL BASIS is therefore an essential condition both for the actual creation of the Common Market and for the development of healthy competition. In order to achieve this the Commission proposes, in particular:

- that guarantees be given against the exceptional uncertainties inherent even now in the use of nuclear power, provided that calls for bids are open and that suppliers have grouped themselves into multinational consortia;
- that Community or national aid be granted for the development of advanced designs, with a view to helping

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one or more multinational groupings, depending on the sector;

- that assistance at Community or national level be coordinated in order to promote also the restructuring of the reactor component industry on a Community basis;
- that an attempt be made to unify technical and safety standards, in order to prevent new obstacles from hampering the creation of the market and industrial reorganization.

2. RAPID DEFINITION OF A JOINT POLICY AS REGARDS THE CHOICE OF REACTOR TYPES on which the Community must concentrate its efforts.

By granting certain reactor families selective aids ("joint enterprise" status, partial guarantee against certain risks inherent in plant start-up, financial aid for head-of-line advanced power reactors, participation in research and development, etc.), the Community must promote the concentration of resources on a common technique in respect of fast breeders, high-temperature reactors and heavy-water reactors (in the last-mentioned field the Commission proposes that the development of the ORGEL family be abandoned).

3. ADOPTION OF A JOINT POLICY ON FISSILE MATERIALS and especially on ENRICHED URANIUM.

In order to assure reactor constructors in the Community of a continuous supply of nuclear fuels on satisfactory terms, the Community must encourage exploration for resources both at home and abroad, systematically diversify its external sources of supply and review the provisions governing the operation of its Supply Agency. With regard to the construction of a uranium enrichment facility in the Community, the Commission will shortly submit to

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the Council of Ministers a number of proposals for action, which will amount to the pursuance of the activities already undertaken on this subject.

4. MORE EFFECTIVE COORDINATION OF THE NUCLEAR RESEARCH PROGRAMMES carried out in the Community.

In order to avoid duplication of effort, which is still all too frequent, the Commission proposes that the activities of national and Community laboratories engaged on research projects which come within the same field should be closely coordinated by appropriate committees at whose meetings the programmes would be discussed.

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The EURATOM RESEARCH PROGRAMME proper (a recapitulatory table of the proposed activities and appropriations is given as an ANNEX) will concentrate on the following matters:

- Support for REACTOR DEVELOPMENT WORK which will absorb about one-third of the total proposed manpower and funds, in activities orientated in accordance with precise objectives chosen on the basis of long-term industrial considerations.
- The general problems of the FUEL CYCLE, which on account of their wide range are particularly suitable for activity at Community level.
- Intensification of PUBLIC SERVICE activities in the nuclear field; in addition to Euratom's traditional activities in this field (Central Bureau for Nuclear Measurements, high-flux irradiations, the Scientific Data Processing Centre (CETIS), development of methods for the control of fissile materials, nuclear plant safety, biology, health and safety, industrial applications of radiations, dissemination of information, training and instruction) WORK WILL HENCEFORWARD BE CARRIED OUT IN THE ESTABLISHMENTS OF THE JOINT RESEARCH CENTRE ON REQUEST AND FOR PAYMENT, on behalf of third

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parties, public authorities or industrial undertakings.

- The pursuit of basic research in the fields of THERMONUCLEAR FUSION and plasma physics, and in that of CONDENSED STATE PHYSICS (the Commission proposes here the construction of a pulsed reactor, SORA, which would give Community researchers a modern instrument for the study of matter in the condensed state).

Lastly, the Commission proposes the GRADUAL REORIENTATION OF THE RESEARCH POTENTIAL OF THE JOINT CENTRE TOWARDS NON-NUCLEAR FIELDS.

The attainment of industrial maturity by some nuclear research projects will free some of this potential. A slight cutback in staff thus becomes possible, and some employees can therefore be transferred to Community industries. Above all, however, the Commission proposes that non-nuclear activities should be carried out by the Joint Research Centre, in accordance with the wishes of the Council of Ministers. These projects, which are indisputably the province of the Community, and for which the Joint Research Centre possesses the necessary technical skills, are for the time being confined to:

- INFORMATION SCIENCE (with the development of software and certain hardware components) and ABATEMENT OF NUISANCES (aimed at greater protection of man and his environment), two of the seven fields adopted by the Council of Ministers as priority areas for the development of broader-based scientific cooperation;
- the setting-up of a Community Bureau of Standards, which would provide the Community with the technical instrument it requires for harmonizing the various countries' technical standards, which still hamper intra-Community exchanges in too many cases.

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It is a fact that ten years after the creation of the European Atomic Energy Community the target is still far from being

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achieved, i.e., the development of a powerful nuclear industry within the Community. The causes of this situation are not to be sought in a lack of funds, nor in any inadequacy on the part of European scientists and technicians, but mainly in the fragmentation of the activities being pursued in the six Community countries.

The programme of action which the Commission has just submitted to the Council of Ministers would make it possible to remedy the situation if each of the six Community countries were to back it up with a political will which it is in the interest of all concerned to focus on the joint objectives specified by the Commission.





PROPOSED EURATOM RESEARCH PROGRAMME  
 Proposed appropriations for a five-year period  
 (30 April 1969)

Activities	Personnel	Appropriations (in millions of u.a.)
<b>I. Contribution to reactor development</b>		
Fast reactors	175	29
High-temperature reactors	185	45.2
Heavy-water reactors	490	55.9
<b>II. General fuel-cycle problems</b>		
	220	25.3
<b>III. Public service activities</b>		
Central Bureau for Nuclear Measurements	180	24.9
CETIS	177	16.3
Control of fissile materials	40	3.2
Nuclear plant safety	47	3.8
Biology and health physics	112	38
Training and instruction	9	7
High-flux irradiation	90	20.9
<b>IV. Basic research</b>		
Thermonuclear fusion	94	45
Condensed-state physics	180	29.7
<b>V. Non-nuclear field</b>		
Abatement of nuisances	103	8.2
Information science	105	11
Community Bureau of Standards	189	15.3
<b>TOTAL AMOUNT TO BE CHARGED TO RESEARCH BUDGET 2,336</b>		<b>378.7</b>
<b>III bis. Public-service activities to be charged to Operating Budget</b>		
Uses of radiations	9	0.9
Dissemination of information	119	12
<b>GRAND TOTAL</b>		<b>391.6</b>