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\*\* The Commission of the European Communities recently forwarded to the Council of Ministers a PRELIMINARY DRAFT NUCLEAR RESEARCH BUDGET for 1971.

This provides for a staff of 2 450 and a total budget of 62 676.5 million units of account (1 unit of account = \$US 1), 58 818.5 million of which are intended for carrying out various parts of the research programme, in line with the breakdown shown in ANNEX 1.

It will be recalled that on 6 December 1969 (cf "Research and Technology" No. 36) the Council of Ministers of the Community decided to extend the 1970 nuclear research programme into 1971, pending agreement on a new multiannual programme still under discussion.

\*\* The work of the Aigrain Group on SCIENTIFIC AND TECHNICAL RESEARCH POLICY will be resumed on 15 September; at its first meeting after the holidays, the Group is to discuss LINKS BETWEEN RESEARCH AND INDUSTRY and to continue the GENERAL COMPARISON OF THE MEMBER STATES' SCIENTIFIC AND TECHNICAL RESEARCH PROGRAMMES. In this connection it will examine the possibility of a priority study of certain sectors (e.g., urban and rural development, public health) in which the need for cooperation seems especially pressing.

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- \*\* For the first time, an attempt has been made to draw up statistics on the structure of the various sectors of the COMMUNITY'S NUCLEAR FUEL INDUSTRY in a note compiled by the Statistical Office of the European Communities. A brief summary of the conclusions drawn in this note will be found in ANNEX 2.
- \*\* Five new TECHNICAL NOTES, each summarizing a result obtained under Euratom research programmes, have been issued by the Commission of the European Communities. The purpose of these texts is to enable industrial firms to assess the prospects for industrial exploitation of the results described. The subjects of these new technical notes are as follows:
- No. 4/C: Teleprocessing transmission system for data handling between a remote station and a computer
- No. 53/C: Differentiation of brightness levels by attenuation when recording data photographically and cinematographically.
- No. 60/C: Automatic digital device for tensile testing machines
- No. 62/C: Gripping device for testing tensile strength of particularly brittle materials
- No. 63/C: Numerical flowmeter
- \*\* An international conference on RADIATION AND ISOTOPE TECHNIQUES IN CIVIL ENGINEERING is to be held in Brussels on 28 and 29 October 1970 by the Commission of the European Communities, in conjunction with the US Atomic Energy Commission.
- \*\* SIX YOUNG PRIZEWINNERS OF THE "YOUTH AND RESEARCH" COMPETITION organized by the German weekly "Stern" in collaboration with industrial companies were the guests in Brussels of Mr Haferkamp, Vice-President of the Commission of the European Communities, prior to spending a few days at the Ispra Establishment of the Joint Research Centre.

- \*\* The results of attempts to STANDARDIZE FILM DOSIMETERS will be discussed by the experts of the Community Member States at a meeting to be held by the Commission in Luxembourg on 29 September next.
  
- \*\* A TOTAL OF 44 STUDENT TRAINEES AND 52 SCIENTIFIC OR TECHNICAL GRANT-HOLDERS, 34 of whom are preparing theses and 18 of whom are specializing in a particular nuclear field, are currently working in the departments of the Commission of the European Communities.

ANNEX 1

Appropriations Earmarked by the Commission of the European  
Communities for Carrying out the Community's Research  
Programme in 1971

	(millions u.a.)
1. Fast reactors	1 674.5
2. Heavy water reactors	12 003
3. High temperature gas reactors	3 921
4. Technological problems connected with reactor development	1 901.5
5. Plutonium and transplutonium elements	5 021
6. Reactor physics	691.5
7. Condensed state physics	4 145.5
8. Nuclear materials	2 876
9. Direct energy conversion	725
10. Fusion and plasma physics	6 766
11. Biology and health physics	4 120.5
12. Data processing	4 13
13. Nuclear measurements and standards	3 688.5
14. Operation of the BR-2 reactor	605
15. Operation of the HFR reactor	3 956.5
16. Education and training	615
Coordination	1 978
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	58 818.5
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The Community's Nuclear Fuel Industry

For the first time, an attempt has been made to draw up statistics on the structure of the various sectors of the Community nuclear fuel industry in a note compiled by the Statistical Office of the European Communities. The main object is to provide a basis for the compilation of further statistics on the industry, which has expanded steadily over the last ten years.

The Community's nuclear fuel industry is now virtually independent of the nuclear industries of non-member countries with regard to fuel production, fuel element fabrication and irradiated fuel reprocessing. It is still dependent on non-member countries for supplies of natural uranium and for uranium enrichment.

The Community's uranium ore resources are mainly centred on France. French mines currently produce 1 200 tons of contained uranium per year and, together with the overseas French deposits, available supplies will amount to 3 600 - 4 300 tons a year in 1974.

There are five pre-concentration and concentration plants located near the mines in France.

Three refining plants have been set up in the Community - one in Belgium and two in France (where the proposed closure of the le Bouchet plant will have the effect of concentrating refining in the Malvézi plant, near Narbonne).

The fuel production and fuel element fabrication industry is the most advanced in the Community.

In Germany there are three major fuel production and fuel element fabrication plants:

- (i) Nukem, at Wolfgang/Hannau, made up of the companies of Degussa, Metallgesellschaft, RWE and Rio Tinto Zinc UK;
- (ii) KRT, at Grosswelzheim, made up of AEG and General Electric;

(iii) RBG, at Wolfgang/Hanau, made up of the Siemens-AEG Association and Nukem.

In addition, Alkem is producing plutonium fuel elements at Leopoldshafen, on the site of the Karlsruhe Centre.

In France, four companies account for most of the annual output, which is currently 2 100 tons of cast elements, 25 000 rolled element plates and 100 tons of ceramic elements:

- (i) SICM, whose main plant is at Annecy, makes cast elements and fuel pins for the Phénix fast reactor;
- (ii) CERCA, at Romans, makes cast and ceramic elements;
- (iii) CICAFA, at Bollène, makes  $UO_2$  pellets;
- (iv) UCP, at Pierrelatte, is engaged in the conversion of uranium tetrafluoride, uranium hexafluoride and uranyl nitrate.

In Belgium three companies are currently active in this sector:

- (i) MMN, at Dessel, equipped to make rolled plate and ceramic type elements;
- (ii) Belgonucléaire, at Mol, specializing in plutonium fuel elements;
- (iii) Métallurgie Hoboken-Overpelt, at Olen, which concentrates on the conversion of uranium hexafluoride into the dioxide.

A fourth company, the Société de Fluoration de l'uranium (SFU), has in addition recently been set up by a number of European companies.

In Italy, two plants at Saluggia - COREN and LFCEC - make ceramic fuel elements and MTR-type rolled elements.

Finally, the Community possesses seven plants for reprocessing irradiated fuel, the production capacity of which at present exceeds demand.