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** A MULTIANNUAL RESEARCH PROGRAMME FOR THE COMMUNITY, involving a total of almost 180,000,000 u.a., over a four-year period, and approximately 1700 personnel, was finally adopted on 6 February 1973 at a meeting of the Council of Ministers in Brussels. After discussions lasting 14 hours, the Member States' Ministers responsible for research reached an agreement embodying the bulk of the proposals put forward by the European Commission (see IRT No. 165) and, in particular, providing the Joint Research Centre with the multiannual research programme which it has lacked since 1968.

This new research programme for 1973-76 comprises three segments, as follows:

- (a) A number of direct projects (i.e., projects to be carried out at Establishments of the Joint Research Centre), have been agreed upon. Most of these relate to the nuclear sector, but some are concerned with non-nuclear fields, notably environmental protection. This segment of the programme, which substantially embodies the proposals advanced by the European Commission, will total 157,200,000 u.a. over a four-year period and will provide work for 1440 personnel. It will be reviewed after two years.

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The information and articles published in this Bulletin concern European scientific cooperation and industrial development in Europe. Hence they are not simply confined to reports on the decisions or views of the Commission of the European Communities, but cover the whole field of questions discussed in the different circles concerned.

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- (b) The second segment of the programme will consist of a number of nuclear and non-nuclear direct projects for which the Council set an overall budgetary limit of 20,000,000 u.a. and 209 personnel. These projects will be selected, on the basis of proposals from the European Commission, by a panel of experts instructed to report back before 30 April 1973. This part of the programme will be revised annually.
- (c) A number of indirect projects, (to be carried out mainly through research contracts) have been proposed by the European Commission and will be the subject of Council decisions before 30 April 1973. It has already been agreed, however, that for their remaining three years the Fusion and Biology programmes adopted in June 1971 (see IRT No. 104) will be modified in the light of the enlargement of the Community. This modification will involve a total of 11,247,000 u.a. and 38 personnel.

A table showing the various objectives of the Community multiannual research programme adopted by the Council of Ministers will be found in ANNEX 1.

** The European Commission is aware of the magnitude and gravity of road safety problems, more especially those arising from the CARRIAGE OF DANGEROUS GOODS, and has striven for some time, as far as the means at its disposal permit, to bring about an improvement in the situation. This was pointed out in its reply to a written question tabled by Mr Müller, Member of the European Parliament. A summary of this reply will be found in ANNEX 2.

- ** THE EURATOM SUPPLY AGENCY concluded 12 toll-enrichment contracts, totalling \$192,714,240, with the United States Atomic Energy Agency in 1972. This is one point that emerges from its recently published report for 1972, which is summarized in ANNEX 3.
- ** THE OIL-REFINING CAPACITY of the six original Community states currently represents over 20% of world capacity. It rose from 32,500,000 t/a in 1950 to 512,500,000 t/a in 1970, and is expected to reach 718,700,000 t/a in 1975. Of this forecast capacity increase in the Six, 25% will stem from the construction of new refineries and the remaining 75% from extensions to existing ones.

The average refinery capacity will therefore continue to rise and will attain 6,000,000 t/a in 1975, compared with 4,800,000 t/a in 1970 and 1,200,000 t/a in 1955. By 1975, over 40% of the total refining capacity in the Six will be accounted for by large refineries with a unit capacity of not less than 10,000,000 t/a.

The table below shows the forecast trend in refining capacities for the six original member countries of the Community:

	Refining capacity (million t/a)		Capacity increase (million tonnes) (% 1975/1970)	
	end 1970	end 1975		
Germany	120.1	205.6	85.5	+ 71.2
Belgium	33.9	47.4	13.5	+ 39.8
France	115.6	175.0	59.4	+ 51.4
Italy	174.4	184.8	10.4	+ 6.0 ¹
Netherlands	68.5	105.9	37.4	+ 35.7
Community	512.5	718.7	206.2	+ 37.7

¹The relatively low rate of growth forecast for Italy is due to the abolition of the legal requirement for 30% spare capacity.

** In order to formulate a DEVELOPMENT STRATEGY FOR THE TEXTILE INDUSTRY, in accordance with the policy document on the textiles sector which it approved in July 1971 (see IRT No. 109), the European Commission has had a study made of two textile manufacturing regions of the Community, namely Lille-Roubaix-Tourcoing (northern France) and Prato (central Italy). Community resources, in particular the re-organized Social Fund (see IRT No. 122), could subsequently be used to promote the structural changes needed in the textile industry under programmes which would be drawn up in collaboration with the local circles concerned. Also as part of a policy for the Community's textile sector, the Commission has had a study carried out on the HEAT TREATMENT OF CHEMICAL FIBRES AND THE TREATMENT OF TEXTILES WITH ORGANIC SOLVENTS. This study is preparatory to the formulation of a research programme to be implemented at Community level by the Coordinating Committee for the EEC Textile Industries (COMITEXTIL), which submitted research proposals to the European Commission in June 1972.

** In order to promote possible collaboration by Community industry in the INDUSTRIAL DEVELOPMENT PROGRAMME OF THE ANDEAN GROUP OF COUNTRIES FOR THE METALWORKING AND ENGINEERING INDUSTRIES, the European Commission, together with the Andean Group's representatives, is to hold information meetings in Brussels on 21, 22 and 23 February 1973 for the benefit of industrial firms interested in such cooperation.

The Andean Group was set up by Bolivia, Colombia, Chile, Ecuador and Peru with the aim of setting up a customs union and promoting the economic development of its member countries, in particular through economic integration. The industrial development programme for the metalworking and engineering sector is the first sectoral programme to be adopted by the Andean Group as

part of the planning of industrial development in the Andean region. Coordinated implementation of the programme by the member countries would be facilitated by closer cooperation with industrialized countries and with industrial circles in those countries, and this could not fail to benefit both sides.

** The European Commission recently ordered a survey to be conducted on the SAFETY OF NUCLEAR INSTALLATIONS. The work planned will centre largely on the safety of nuclear power stations equipped with light-water reactors and will relate chiefly to: the compiling of a comparative schedule of the criteria, guidelines and standards in use in the countries of the enlarged Community, the Scandinavian countries, the United States and Japan; the revelation of possible differences in the interpretation of these standards in the said countries; the compiling of a schedule of non-standardized practices adopted in these countries.

** A compendium of the LAW RELATING TO COMPETITION in the European Economic Community and the European Coal and Steel Community (as at 31 December 1971) has recently been published in Dutch, French, German and Italian by the European Commission. It can be bought from the Office for Official Publications of the European Communities (case postale 1003, Luxembourg 1).

A MULTIANNUAL RESEARCH PROGRAMME FOR THE COMMUNITY (1973-76)

A multiannual research programme for the Community, involving a total of almost 180,000,000 u.a., over a four-year period, and approximately 1700 personnel, was finally adopted on 6 February 1973, at a meeting of the Council of Ministers in Brussels. After discussions lasting 14 hours, the Member States' Ministers responsible for research reached an agreement embodying the bulk of the proposals put forward by the European Commission (see IRT No. 165) and, in particular, providing the Joint Research Centre with the multiannual research programme which it has lacked since 1968.

This new research programme for 1973-76 comprises three segments, as follows:

A. A number of direct projects (i.e., projects to be carried out at Establishments of the Joint Research Centre), both nuclear and non-nuclear, were adopted. This segment of the programme, which substantially embodies the proposals advanced by the European Commission, will total 157,200,000 u.a. over a four-year period and will provide work for 1440 personnel. It will be reviewed after two years. The table below shows the subjects concerned.

Direct projects, to be carried out by the Joint Research Centre	Appropriation (million u.a.)		Personnel
	1973	Four years	
(a) <u>Nuclear projects</u>			
. Waste treatment and storage	1.57	6.90	75
. Plutonium and trans-plutonium elements ¹	4.95	< 13.00 8.65	210
. Materials science	1.94	8.50	89
. Reactor safety	4.83	21.10	232
. Applied data-processing	1.38	6.05	51
. Information analysis bureaux	1.16	5.10	51
. Central Bureau for Nuclear Measurements (CBNM)	4.45	20.35	170
. Technical back-up for nuclear power plant operators	1.40	6.10	60

Direct projects, to be carried out by the Joint Research Centre	Appropriation (million u.a.)		Personnel
	1973	Four years	
. Training	0.33	1.45	15
. Surveillance/management of nuclear materials ²	1.23	5.40	57
. Contract research	0.42	1.85	17
. Management and coordination	1.80	8.10	79
<u>(b) Non-nuclear projects</u>			
. Standards and reference substances	1.24	5.40	62
. Environmental protection	2.97	13	142
. Remote sensing of earth resources	0.24	1.05	10
<u>(c) Petten high-flux reactor³</u>	5.26	23.00	95
<u>(d) Use of Ispra-1 reactor</u>	0.50	2.20	25

¹Supplementary programme involving all countries except Italy.

²Supplementary programme involving all countries except France.

³Supplementary programme involving Germany, Belgium and the Netherlands.

B. The second segment of the programme will consist of a certain number of nuclear and non-nuclear direct projects, for which the Council has set an overall budgetary limit of 20,000,000 u.a., and 209 personnel. These projects will be selected, on the basis of proposals from the European Commission, by a panel of experts instructed to report back before 30 April 1973. This part of the programme will be revised annually.

The table below sets out the projects proposed by the Commission on which decisions will be taken, subject to an overall upper limit of 20,000,000 u.a.

Direct projects, to be carried out by the Joint Research Centre	Appropriation (million u.a.)	Personnel
	<u>1973</u>	
. The environment	1.04	50
. Standards and reference substances	0.18	9
. Fusion	1.32	57
. New technologies	0.83	36
. Recycling of raw materials	0.74	32
. Materials	1.16	42 +8
. Systems analysis	0.46	20
. ESSOR loop and safety studies	1.24	28
. Pulsed neutron sources	0.66	23
. Data processing, support for the Commission	0.12	5
. Hydrogen production	1.83	39

C. A number of indirect projects, (to be carried out through research contracts, in particular) have been proposed by the European Commission and will be the subject of Council decisions before 30 April 1973. It has already been agreed, however, that for their remaining three years the Fusion and Biology programmes adopted in June 1971 (see IRT No. 104) will be adjusted in the light of the enlargement of the Community. This will involve a total of 11,247,000 u.a. and 38 personnel.

The projects in question are listed in the table below.

<u>Indirect projects (to be carried out through research contracts, in particular)</u>	Upper limit on expenditure (million u.a.)	Personnel
(a) <u>Fusion</u>	9.696	38
<u>Biology</u>	1.551	0
(b) <u>Nuclear projects</u>		
. Plutonium recycling	3.729	1
. Advanced reactors	8.772	59
. Test reactors	0.279	2
. Instruction and training	6.975	71
(c) <u>Non-nuclear projects</u>		
. Standards and reference substances	1.904	6
. Environmental protection	8.688	6
. Materials	-	-

ROAD SAFETY AND THE CARRIAGE OF DANGEROUS SUBSTANCES

The European Commission is aware of the magnitude and gravity of road-safety problems, more especially those arising from the CARRIAGE OF DANGEROUS GOODS, and has striven for some time, as far as the means at its disposal permit, to bring about an improvement in the situation. This was pointed out in its reply to a written question tabled by Mr Müller, Member of the European Parliament.

The European Commission is keeping a close watch on work being carried out by other international organizations with a view to drawing up regulations the application of which will extend beyond the borders of the Community. At the same time, it has deemed it useful to take action at Community level to improve road safety, one aspect of which is action relating to the carriage of dangerous goods by road. Moreover, in February 1971, it sent to the European Parliament's Committee on Transport a "Note on guidelines for Community action designed to contribute to the enhancement of road safety", and in the autumn of 1971 it laid before the Council of Ministers a memorandum on the development of the common transport policy.

As a first step towards the implementation of the programme formulated by it in this field, the European Commission has already submitted to the Council of Ministers a proposal for a Directive on the approximation of the Member States' laws relating to reinforced-plastics tanks for the carriage of dangerous substances by road, a proposal for a Directive on the harmonization of laws relating to licences to drive a road vehicle, and a proposal for a Directive on the approximation of the Member States' laws relating to the technical inspection of motor vehicles and trailers. Furthermore, the cause of road safety was advanced considerably with the adoption by the Council of Ministers of the Regulation governing the driving times and rest periods for drivers of commercial vehicles.

The European Commission has also put in hand the study of the following points:

- The banning of vehicles carrying more than a certain quantity of dangerous substances from passing through built-up areas and the concomitant adoption of prohibition signs, as proposed by the Inland Transport Committee of the (Geneva-based) Economic Commission for Europe.
- Introduction of mandatory speed limits for vehicles carrying dangerous goods.
- Temporary bans on the operation of certain categories of road vehicle with a view to segregating dangerous traffic from peak traffic at certain times of the year or week.
- The introduction of a minimum age or experience limit for prospective drivers of vehicles carrying dangerous goods.
- The institution of more stringent periodical medical examinations.
- The formulation of criteria for the systematic training of all drivers, which would contribute, among other things, to the understanding by those concerned of the dangers inherent in the very nature of the category of dangerous substance carried, and to the conditioning of their behaviour in the event of an accident or in circumstances giving grounds for assuming that an accident is imminent; etc.
- The introduction, where necessary, of a mandatory requirement for double crewing and specific rest periods.
- The introduction of mandatory minimum headways.

THE EURATOM SUPPLY AGENCY - ACTIVITIES IN 1972

In 1972 the Euratom Supply Agency concluded 12 toll-enrichment contracts with the United States Atomic Energy Commission to a total value of \$192,714,240. This is one point to emerge from its recently published annual report for 1972, a brief summary of which is given below.

I. The natural-uranium sector

Market conditions in the natural-uranium sector underwent a sweeping change after the main producers, with the support of their governments, reached an agreement at the beginning of the year on the movement of prices. The price of natural uranium reached its lowest level at the end of 1971, since when an appreciable upward trend has prevailed. In the second half of 1972, as a consequence of this rise in prices, the US producers were able for the first time to submit competitive bids to consumers in the Community. It can be assumed, therefore, that deals will be concluded on the basis of US bids.

In the natural-uranium sector, a total of 29 contracts was concluded in 1972, of which 21 were under the "simplified procedure", which is to expire on 31 December 1973 unless the European Commission decides otherwise. Of these 29 contracts, 21 involved natural uranium proper, to a total quantity of 9505 metric tons. The suppliers are: South Africa (4605 t), France (2239 t), Germany (2632 t) and Belgium (29 t).

II. The enriched-uranium sector

In this sector, the year 1972 was marked by the signing on 20 September 1972 of an Amendment to the Additional Euratom/US Agreement for Cooperation in which the supply provisions were revised. For the supply of enriched uranium for nuclear power stations the emphasis is on toll enrichment.

The new agreement also lays down that conversion and fabrication work can be carried out in the Community for US customers. An important new market is thereby opened up for Community manufacturers of fuel elements.

As regards special fissile materials produced in the Community from American materials, the option granted up to now to the IAEA and the USAEC for the purchase of these products has now been abolished. Provided that international safeguards are observed, the Community can export these materials freely.

The maximum quantity of U^{235} which consumers in the Community can procure from the USA (215 t) will soon be exhausted. The Agency therefore asked the USAEC in March 1972 to increase this ceiling. This application concerned long-term supplies for an additional 15,000 MWe due to be installed in the Community by 1976, and also a further increase of 25 t of U^{235} for research projects and fabrication work for third countries. A law has to be passed in the USA to permit the release of the additional quantities requested.

In December 1972 the USAEC announced its intention of changing its supply policy regarding toll enrichment; in particular, it intends to conclude only contracts for firm-quantities, to require a down payment when the contract is signed, and to make the conditions relating to termination even more stringent.

The year 1971 saw the first appearance, side by side with the USAEC, of a new supplier of toll-enrichment services, namely, the Soviet organization Technsnabexport. The Supply Agency entered into exploratory contact with Technsnabexport with a view to enabling users in all the member countries to take advantage of this new source of supply, and it will continue its endeavours along these lines in 1973.

During 1972 a total of 12 toll-enrichment contracts, representing a total value of \$192,714,240, were concluded with the USAEC. These contracts are broken down as follows:

Belgian consumers	one contract for	37,852 kg/SWU
German consumers	six contracts for	4,606,930 kg/SWU
French consumers	two " "	51,737 kg/SWU
Italian consumers	one contract for	320,660 kg/SWU
Netherlands consumers	two contracts for	<u>1,005,141 kg/SWU</u>
	<u>Total:</u>	6,022,320 kg/SWU

Furthermore, a total of 15 purchase contracts was concluded with the USAEC in 1972 under the Master Sales Agreement, the value of the enriched uranium bought amounting to \$351,500, as were also ten lease contracts, relating to 833,994 kg of U²³⁵ for the Community as a whole, under the Multi-lease Contract. The latter contract is due to expire on 30 June 1973 and, despite repeated requests, the Agency has not yet been able to obtain a formal answer from the USAEC regarding its extension.

III. The plutonium sector

Few transactions took place in the plutonium sector in 1972. A number of nuclear plants have, however, already started work on the recycling of plutonium. In order to fill gaps due to delays in the reprocessing of irradiated fuel elements, the Agency was able to arrange an exchange contract for 60 kg of plutonium. The Agency was also able to find buyers in the Community who were put in touch with two other reactor operators who did not wish to undertake the recycling of plutonium. This led to the conclusion of two supply contracts for 63.6 kg of fissile plutonium. Plutonium procured from the USA was used solely for research purposes.

IV. Transfers of fissile materials

During 1972 there were 162 transfers of special fissile materials of US origin from or to non-member countries. The growing activity of the nuclear industry in the Community, notably in the field of fuel-element fabrication, has caused a rise in the number of intra-Community transfers of nuclear fuel, especially enriched uranium.