

research and technologybulletin published by the press and information services
of the commission of the european communities

REPRODUCTION AUTHORIZED

Brussels, 17 February 1970

No. 43

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** The Commission of the European Communities has just published the GENERAL REPORT ON THE COMMUNITIES' ACTIVITIES during the year 1969. A brief analysis of those pages in the report which are devoted to RESEARCH and INDUSTRIAL DEVELOPMENT are given IN AN ANNEX.

** THE EXPANSION OF THE MARKET which would result from BRITAIN'S JOINING THE EUROPEAN COMMUNITY would enable British and Continental firms to devote sufficient funds to research and development in sectors where this is not possible at the moment. This opinion is expressed by the British government in THE WHITE PAPER which it has just published on the COST OF THE ENTRY OF GREAT BRITAIN INTO THE COMMON MARKET.

Admittedly, the document continues, some cooperation already exists at the European level with regard to research and technology, and Britain is often associated with it. Extension of this cooperation is possible even if Britain is not a member of the Community, but it will only yield really significant results within the context of a wider economic union.

** It is expected that within the next few days the Commission of the European Communities will forward to the Council of Ministers a communication on the subject of the REORGANIZATION

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OF THE JOINT RESEARCH CENTRE, following the resolution passed by the Council on 6 December 1969 (see "Research and Technology" No. 36). This will have to be undertaken and carried out in the wider context of the efforts now being made along the same lines in various national nuclear research centres in the Community Member States.

In the meantime, of course, work is continuing with a view to DEFINING THE COMMUNITY'S FUTURE RESEARCH PROGRAMME in both the nuclear and the non-nuclear sectors, and - again in accordance with the decisions taken on 6 December 1969 - to reviving cooperation on ADVANCED REACTORS and the creation of European URANIUM ENRICHMENT facilities.

- ** The note on the COMMUNITY'S INDUSTRIAL POLICY which Mr. Jean Rey recently said would be published within a few weeks (see "Research and Technology" No. 42) is at present being finalized by the competent departments of the Commission of the European Communities. In the next few days these departments will be having further intensive discussions with the professional organizations concerned.
- ** 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:
1. Rolling mill equipment for working metals and alloys at the temperature of liquid nitrogen (N. 33/C).
 2. Universal measuring bench for testing the geometry of cylindrical objects (N. 34/C).
 3. Numerical solution of the transport equation by the collision-probability method (N. 51/C).
 4. Machine tool for cutting a coaxial tube assembly, especially the channels of a pressure tube reactor (N. 408/782).
 5. Radiation shield for passing a manipulator arm through the roof of a hot cell (N. 498).

The Common Research Policy
and the Common Policy on Industrial Structures
in the General Report on the Activities of the Communities in 1969

"The year 1969 ended better than it started": these are the opening words of the general report on the activities of the European Communities in 1969 which has just been published by the Commission. In this document of more than 500 pages one important chapter is devoted to the common policy on scientific, technical and nuclear research and another to the common policy on industrial structures.

1. The common policy on scientific, technical and nuclear research

The Commission first notes that in 1969 the upward trend in national expenditure on research continued in all Community countries; the mean rate of increase was 7.7%, which raised public R & D funding in 1969 to 4,200 million units of account (dollars), or about 1% of the gross domestic product. The table below reveals considerable differences between one country and another;

Public R & D Expenditure in the Community
(in millions of u.a.)

	Germ.	Belg.	France	Italy	Nether- Lands	Total Community
1969: Total	1,439	106	2,008	334	271	4,158
Civilian purposes	1,166	103	1,391	320	256	3,236
International contributions	144	15	247	50	17	473
Annual increase						
mean (in %)						
1967-69	8.5	9.5	8.0	8.0	15.3	8.7
1969-70 (estimated)	13.0	16.8	-5.8	37.2	13.7	6.0
1969: R & D expenditure per inhabitant (in u.a.)	24	11	40	6	21	22

In fact 1969 can be considered as a year of reflection on the chances of a partial reorientation of the research policy of the Member States. There are grounds for satisfaction that a general attempt is being made to rethink and rationalize the highly complex subject of scientific policy, and it is fortunate that the comparison of national research policies decided upon by the Member States is beginning at a moment when each of them is examining the paths taken hitherto; this could make it easier to map out a common attitude.

In the nuclear sector, the "fresh political climate" following the summit conference at The Hague has made it possible to reach agreement on the reorientation of the activities of Euratom. This should greatly facilitate cooperation both as regards long-term supplies of enriched uranium and as regards prototype reactors, general nuclear technology and the applications of nuclear energy to purposes other than the generation of electricity. The report briefly surveys the progress of the research programme in 1969 and recalls the various stages in the preparation of a new multiannual programme, which is to concentrate upon three important sectors, namely, support for reactor development (including fuel cycle studies), nuclear projects of a public service nature and basic nuclear research.

In the non-nuclear sector, The Commission notes that the Council of Ministers took an important step on 28 October 1969 when it decided to initiate concrete cooperative projects in seven research fields; proposals have been communicated to nine non-member countries, with which negotiations can shortly be opened. After rapidly reviewing the main proposals in the seven priority fields, the Commission recalls that it has proposed that the Joint Research Centre should be asked to carry out certain non-nuclear research activities chosen on the basis of technical knowledge acquired, and at the same time closely related to the essential tasks of the Community, namely, environmental hygiene, data processing and the creation of a Community Bureau of Standards which would help the drive to harmonize technical standards and regulations within the Community with a view to the elimination of technical barriers to trade.

Common policy on industrial structures

The Commission first emphasizes that the year 1969 saw an exceptionally rapid rise in industrial production within the Community, namely, 12% - the highest rate since the creation of the Common Market. The Commission for its part has tried to define more clearly the general lines of the development and transformation of industrial sectors and has made analyses of several branches of the mechanical and electrical engineering industries, the aeronautical and space industries, the chemical industry, the textile industry, the agricultural and foodstuffs industries, etc.

In the steel sector, the Commission's report notes that the output of crude steel within the Community increased by 8.8% between 1968 and 1969, reaching 107.3 million tons in 1969. In order to give better guidance to enterprises in their economic decisions, the Commission will as soon as possible define "general objectives" for a period extending up to 1975. Lastly, as regards research, the Commission continued its activity in 1969 in the light of present and future requirements determining the development of the Community's iron and steel industry.

Lastly, in the nuclear sector the Commission notes a slight improvement in the market situation. Six nuclear power stations using light water reactors and representing an installed power of about 4,750 MWe were ordered in 1969 - two in Belgium, two in Germany, one in the Netherlands and one in Italy. In addition, one direct-cycle high temperature test reactor was ordered in Germany (Geesthacht), one prototype fast-neutron power plant in France (Phenix) and a fog-cooled heavy-water prototype reactor in Italy (Cirene).

The change in the orientation of French nuclear policy confirms "that a technological success cannot lead to economic results unless an adequate pooling or concentration of resources has been achieved at the R & D levels, the new product enjoys a very wide market, and its development and commercial exploitation are in the hands of a technically and financially powerful industry". For the first time there is de facto agreement in the six Community countries on the type of reactors to be built during the next few years: "it is to be hoped that this will permit the electrical engineering and nuclear industries

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of the Community to reorganize themselves with a view to cooperation beyond national frontiers", which alone can enable it to face up to international competition.

In 1969 the Commission continued its activity in the field of nuclear industry along five lines:

- (a) the drawing up of basic principles and criteria which would point the way to a coordinated industrial policy, by arranging periodical meetings of electricity producers, and which at the same time would help in the improvement and comparison of estimates of power plant construction, pending the introduction of various new incentives to the opening-up of the market and the regrouping of industry across frontiers;
- (b) the implementation of the Treaty as regards the declaration of investments;
- (c) the implementation of the Treaty with respect to Joint Enterprises;
- (d) safety of nuclear installations, and
- (e) the promotion of the use of radiation and radioisotopes in industry.