## industry research and technology

WEEKLY

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- \*\* The Commission of the European Communities is considering SETTING UP A COMMUNITY BUSINESS LIAISON OFFICE to facilitate contact between firms wishing to cooperate on joint projects or to form closer links, inform them of the ways of overcoming the difficulties inherent to international cooperative schemes, and draw the attention of the Community authorities to the obstacles that hinder such schemes; the Commission has sent the Council of Ministers a communication on this subject, a short summary of which will be found in ANNEX 1.
- \*\* By 1985 the total energy requirements of the Community of the Six will amount to some 2000 million tons tce and the Community will depend, as to 69% of its supplies, on imports from non-member countries. These are the estimates put forward by the Commission of the European Communities in a study on THE PRIMARY ENERGY DEMAND PROSPECTS IN THE COMMINITY (1975-1980-1985). which provides a yardstick for decisions on the measures to be taken under the common energy ANNEX 2 gives a number of details policy. extracted from this study.

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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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- \*\* If a EUROPEAN COMPUTER PROGRAM INFORMATION CENTRE were set up it would ensure computer users easier access to the considerable body of existing programs and avoid repetitious effort, in different places, devoted to the analysis and programming of problems that have already been solved. The creating of such a European Centre and, at a later stage, of a proper European-scale program library, was one of the projects for scientific cooperation approved in principle by the Ministers for Research of 19 European countries in November 1971. The Commission of the European Communities has now sent the Council of Ministers a draft Council Decision comprising directives to the Commission with a view to the negotiation of an agreement on the setting up of a European Computer Program Information Centre, together with a proposal for a Council Decision on the European Atomic Energy Community's research and training programme in the field of information on computer programs. Some details on this subject will be found in ANNEX 3.
- \*\* MOTOR FUEL CONSUMFTION in the Community countries exceeded the 1970 figure by 7.3% in 1971. This rise was due to the growing number of motor vehicles in the Community, which went from 46.5 million in 1970 to 50.5 million in 1971. The energy consumption in the transport sector as a whole in 1971 was 6.6% higher than in the previous year.
- \*\* Between 1954 and the end of 1971, the Coal and Steel Community (ECSC) allocated aid totalling 156.2 million units of account for the RETRAINING OF 440,000 MINERS AND STEEL WORKERS; in addition, the CONVERSION LOANS granted by the ECSC to finance the creation of new activities or the conversion of undertakings capable of providing jobs for redundant workers reached a total of some 250 million u.a. from the beginning of 1960 to the end

of 1971. It is worthwhile recalling these figures at a time when the European Coal and Steel Community is celebrating its twentieth anniversary.

\*\* To improve the organization of <u>AIR TRANSPORT</u> in Europe, the Commission of the European Communities recently issued a paper defining the first elements of joint action on air transport, which has now been approved by the Transport Committee of the European Parliament. The following table shows the weaknesses of the air transport system in Europe as compared with the United States.

	USA	Europe
Number of take-offs per airport per year	5,700	900
Cost per ton/km	\$0.14	\$0.27
Km/tons per aircraft per year	7,900	4,500
Length of internal network	500,000 km	850,000 km
Number of places served on internal network	1,100	750

\*\* In an effort to increase MOTOR VEHICLE SAFETY, the Commission of the European Communities on 15 September 1972 adopted two proposals for directives under the general programme to remove technical barriers to trade; one of these concerns safety windows and the other the driver's safety in the event of a collision.

Having tested the two types of safety glass marketed today - laminated and toughened - the Commission considers that laminated glass provides the greater safety. It therefore proposes that, under the Community's vehicle acceptance

regulations, the <u>USE OF LAIMINATED GLASS FOR THE WINDSHIELDS</u> of motor vehicles shall be obligatory as from 1 October 1976 (and earlier for vehicles that can exceed 130 km/h). The acceding States were consulted on this proposal. Only the United Kingdom asked for further comparative studies on the different types of windshield.

The second proposed directive concerns the behaviour of the steering column in the event of collision. The Commission proposes that new vehicles be fitted with REINFORCED STEERING COLUMNS able to sustain an impact at a speed of 50 km/h without shifting back more than 12 cm. Two detailed tests were proposed, a frontal impact test against a barrier and a test of energy dissipation in the event of impact against the steering gear.

- \*\* THE EUROPEAN UNION OF SCIENTIFIC JOURNALISTS' ASSOCIATIONS held its first general meeting at Como, Italy, on 16-17 September 1972, on the occasion of a scientific conference on ecology and bioclimatology organized by the University of Milan. Over a hundred journalists from Austria, Belgium, France, Germany, Italy, the Netherlands, Switzerland and the United Kingdom attended.
- \*\* THE EUROPEAN INVESTMENT BANK has granted the Istituto Mobiliare Italiano (IMI) two loans, totalling 22,500 million Italian lire (36 million u.a.) to help to finance two construction projects, the first a new hot rolling mill and two new tube manufacturing shops at the Tarento steel centre, and the second by Fiat SpA, Turin, a plent for the manufacture of automobile steering mechanisms at Sulmona (L'Aquila). When completed, these two projects will provide some 2,100 new jobs, plus the employment possibilities generated in ancillary activities.

- \*\* STEEL ORDERS recorded in the Community in August 1972 totalled 6276 million tons, orders originating in the Community amounting to 4657 million and those from non-member countries to 1619 million tons.
- \*\* In a document on the policy for the TEXTILE sector which it approved in July 1971 (see IRT No. 109) the Commission of the European Communities suggests that the structures of the textile and clothing industries should be reorganized with a view to increasing productivity. This development will entail extensive changes and redeployment inside the sector. In this context, the Commission has decided to have a survey carried cut, in order to obtain more information on the ENVIRONMENTAL CONSEQUENCES OF THE TECHNICAL AND STRUCTURAL DEVELOPMENT OF THE TEXTILE AND CLOTHING INDUSTRY.
- \*\* The Commission of the European Communities has published the following studies in the "RESEARCH AND DEVELOPMENT" series:

Organization and planning of research and development in the Netherlands. (EUR 4814 - No. 2 in RD collection - 132 pages - FB 180 - available in Dutch, French and German).

This study, carried out under a programme launched by the European Commission to analyse the scientific and technological research and programming effort in the six Community countries, sets out the results of the efforts made in the Netherlands in recent years to create structures that will allow increasingly thorough rationalization of the R&D planning system.

Prospective benefits from the creation of a European meteorological computing centre. (EUR 4850 - No. 4 in RD collection - 76 pages - FB 100 - available in English, French and German)

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This is a study carried out by a working party in 1971 and deals mainly with the field of activity of the proposed Centre, which should prove extremely useful from the economic and the social standpoint. It is estimated that by 1980, for the main economic sectors concerned (more especially agriculture and building), the economic value of forecasts covering periods of 4-10 days will amount to 400-500 million u.a. for the European countries that join forces to set up this European medium-term meteorological forecasting centre.

These two studies are on sale at the Sales Office for Official Publications of the European Communities (Post Box 1003, Luxembourg 1).

## ANNEX 1 p.1

## A COMMUNITY LIAISON OFFICE FOR COMMUNITY FIRMS

The Commission of the European Communities is considering setting up a Community Business Liaison Office to facilitate contacts between firms wishing to cooperate or forge closer links, inform them of the ways to surmount the difficulties inherent to international joint projects and draw the attention of the Community authorities to the obstacles that hinder cooperation; it recently sent the Council of Ministers a communication on this subject.

The creation of a Community Business Liaison Office, already suggested by the French government, had been advocated as early as March 1971 by the Working Party on Industrial Policy of the Council of Ministers. In the past months the Commission has studied the bodies that put firms in touch with one another and has held far-ranging talks with all the professional organizations concerned. These surveys and contacts confirmed that it would be helpful to set up a Community-level body, which could be a decentralized department of the Commission.

Although a certain number of public and private organizations deal with inter-company links as a part of their work, none of them is at present in a position to encourage tie-ups between firms in the different economic sectors over the whole area of the Community. An office set up at the Community level would be able to supplement and assist the work of the present bodies by establishing the necessary contacts between them and fulfilling certain demands which cannot be met at the moment. It could also form one of the elements of a Community policy for small and medium-size businesses, which often lack the big firms' facilities for finding the right type of partners.

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The office in question would be a small one, and its resources would only be increased if experience proved the need for it. This office, attached to the Commission, would be independent of the other Commission departments with reference to the general directives addressed to it by the Commission. Its officials would be bound by official secrecy in regard to information concerning the individual firms.

The office would work in liaison with the interested professional organizations set up at the Community level.

The Business Liaison Office would have three tasks:

- 1. To provide firms with general information relating to economic analyses and studies on cooperation and to any general national or Community provisions of a legal, fiscal, financial or administrative nature which might permit or encourage cooperation or closer ties between firms in different member countries.
- 2. To bring together firms that wish to work together on a cooperative or closer basis. The office would have to work in close collaboration with all the organizations (public, professional, private) which are active in this field in the Community. It would seek the best ways of putting prospective partners in touch with one another on a non-committal basis (i.e., without supplying an assessment of the firms concerned), but once it had put them in contact its job would end there.
- 3. To notify the Community institutions of obstacles to cooperation.

  Thus the office would inform the Community institutions of any kind of obstacle or hindrance encountered by firms in different

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Member States who wish to work together. To safeguard professional secrecy, this information would be conveyed in a general form, possibly as an annual report.

x x

x

The European Commission desired to inform the Council of Ministers of the results of its investigations in this field before taking a decision to set up the Office. It wishes to hold a discussion on this project on which only recently certain member countries stated their views and attitudes.

## OUTLOOK FOR PRIMARY ENERGY DEMAND. IN THE COMMUNITY (1975-1980-1985)

In ten years the Community's energy imports have risen from 200 to 650 million tce, and at present the Community depends on deliveries from non-member countries for 66% of its energy supplies. Oil, which now holds a leading position in the Community's internal energy consumption (61%), is almost entirely imported (95%).

To ensure energy supplies for the Community under the best price and dependability conditions is the basic aim of the common energy policy, the main lines of which were defined by the Commission of the European Communities in 1968 (see IRT No. 5). To provide a framework of action for the Community policy and a yardstick for decisions as to the measures to take, the European Commission analysed the factors of the energy market and their probable trend over the next 15 years. It has now published medium-term forecasts and guidelines for the oil and gas sectors, a second illustrative nuclear programme, and a summary review of the primary energy demand prospects in the Community (1975-1980-1985). (These documents deal only with the Community of Six, as collated data for the acceding countries are not yet available).

## The energy demand in 1975-1980-1985

Energy is still the driving force of economic development, and power consumption will increase with the foreseeable growth of automation in industry, the rise in the standard of living, the emergence of new uses of energy (e.g., as a raw material in the chemical industry) and the measures designed to protect the environment. Meanwhile the opportunities for improved yields

allowing lower consumption are already shrinking in certain sectors (notably conventional thermal power plants and blast furnaces). Hence, assuming that the economic growth is comparable with that of the last twenty years, it can be estimated that energy consumption will continue to grow at an average rate of 5.2% a year, a little less than the rate observed between 1960 and 1970 (+6.2%).

The table below shows the trend of internal energy consumption in the Community for various sectors:

Sector	consumption tce x 10 <sup>6</sup>			percentage share of the various sectors				
	1970	1975	1980	1985	1970	1975	1980	1985
Industry Transport Domestic	465 108 271	607 137 351	789 174 452	1012 228 570	55 13 32	55 13 32	56 12 32	56 12 32
Total	844	1095	1415	1810	100 .	100	100	100
Average annual variations +5.3% +5.3% +5.0%								

The total energy requirements, which as well as internal consumption include exports, bunker deliveries and stocks, will probably go from 973 million toe in 1970 to 2000 million in 1985.

The share borne by the different energy sources in the coverage of

the Community's gross internal consumption is shown by the following table:

(breakdown by %)

	1950	1960	1970	1975	1980	1985
Coal Lignite Oil Natural gas Hydro, geoth.	70 8 12 0	52 7 30 3	22 4 59 9	14 3 63 14	10 3 63 16	. 7 2 62 16
and other energy Nuclear energy	10 -	8 0	<i>5</i> 1	2	<i>5</i> 5	10
Total	100	100	, <b>100</b>	100	100	100

It is hoped that petroleum products will meet most of the new requirements that arise between now and 1985, and by 1985 the Community will depend on imports from non-member countries for 69% of its supplies:

# Native and imported energy Hypotheses 1975-85

(tce x 10<sup>6</sup>):

	1970	1975	1980	1985
Internal consumption	844	1095	1415 <sub>:</sub>	1810
Fraction covered by native production	-325	-390	-470	<b>-</b> 625
Balance to be covered by imports	519	705	945	1185
Imported energy fraction (%)	61%	64%	67%	65%
Total requirement (internal consumption + exports and bunkers)	974	1240	, . 1580	1995
Fraction covered by native production	-325	<b>-</b> 390	-470	<b>-</b> 625
		,		7
Balance to be covered by imports	649	850	1110.	1370

A look at the share of imported energy in the coverage of requirements suggests, however, that although the Community's present energy dependence seems bound to increase up to 1980, this trend may be reversed thereafter through the nuclear contribution to home-grown energy.

## Interchangeable energy forms

Some of the energy requirements can be termed "specific" in that, in the present state of technology and allowing for constraints and inertia due to capital investment, they can only be met with a given source or form of energy. Under this head we should also include the requirements which are covered by certain energy forms available in any case for technical reasons or by reason of the supply terms, or because they are forms which must be developed for technological reasons.

The rest of the demand, a field where various energy sources may compete, amounts to about 65% of the total requirement. Thus in 1985 some 1100-1200 million tce (770-840 million TOE) would be open to competition on the Community market and would also be the chief field in which political action might be taken. This is only a maximum figure, however, because even in this section of demand there are inertia factors that prevent complete market fluidity.

The competition between interchangeable energies will operate under other conditions than those of the recent past, because the consumers' selection criteria will tend to change, at both the individual and the collective level. The two traditional criteria of quality and price will still be decisive, but dependability of supply and the effects on the quality of life will also have to be taken into account.

## ANNEX 3 p.1

## A EUROPEAN COMPUTER PROGRAM INFORMATION CENTRE

If computer users could have easy access to the considerable volume of existing programs, this would do away with the enormous waste of energy and funds at present being expended in repeated analysis and programming work in different places on problems that have already been solved.

A computer program library covering all fields of application, operating on a multinational basis and partly financed by government authorities would be an appropriate solution. The Community's Committee of Senior Officials, asked by the Council of Ministers to look into the possibilities of European cooperation in the field of scientific and technical research (COST), proposed this solution to the 19 European Ministers for Research who met in Brussels on 22-23 November 1971. The Ministers approved the scheme in principle and asked the Senior Officials to draft agreements on cooperation covering the creation of a European Computer Program Information Centre which would subsequently develop into an actual program library (see IRT Nos. 120 and 122).

Belgium, France, West Germany, Italy, Portugal, Switzerland, the United Kingdom and Ireland, Yugoslavia and the Commission of the European Communities stated there preference for a single centre, and chose the Ispra establishment of the Joint Research Centre as the site for this European Centre. The United Kingdom stated that as a new member of the Community it would concur in this choice, provided that the scheme is set in a Community framework and is financed by the Community budget.

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It is particularly easy to set up the European Computer Program Centre at Ispra because the European Commission has already acquired wide experience in the field of program libraries.

## The Information Centre will have the following tasks in particular:

(a) To assemble, record and disseminate all information concerning computer programs, whatever their nature or purpose.

The chief fields of application to be considered are: chemistry, physics, engineering, soil science, computer science, management science, administrative data processing, biomedicine, data management and information retrieval, and social sciences.

This task will be carried out entirely by the Ispra Establishment.

(b) To assemble, record and disseminate any information on other subjects that may facilitate the use of the programs, including: hardware components (especially peripherals); electronic data processing equipment; software manufacturers; opportunities for training in data processing; literature on data processing.

This task will be carried out wholly or partly (notably as regards the compiling of information) through contracts signed with organizations in the different countries.

(c) To promote the standardization of descriptions of programs, thesauri, indexes, etc.

This task will be carried out by Ispra as to the programs and by contract as to the other fields.

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(d) To facilitate contacts and exchanges between program producers and users.

The Joint Research Centre Program Library will meanwhile continue to provide the services required under the Euratom research programme, namely, the acquisition, testing and distribution to users of the programs and relevant data files in the commonest fields of application.

With a view to negotiating the agreement on the setting up of the European Computer Program Information Centre with the non-member countries involved, the Commission of the European Communities wishes to obtain directives from the Council of Ministers concerning the legal basis for the action proposed (under the Euratom Treaty), the adoption of a joint programme and the procedures for its execution and financing (the Member States participating therein solely through the general Community budget, in accordance with the condition laid down by the United Kingdom). It has therefore now sent the Council a draft decision on these lines.

The budget cover necessary to achieve the whole of the proposed project would amount to 6.10 million u.a., including 3.65 million for the European Computer Program Information Centre (three years) (part of this sum being reimbursed by the non-member countries participating in the project), and 2.45 million for the Joint Research Centre Program Library (five years), for which the European Commission has drafted its own programme proposal.