

INNOVATION AND TECHNOLOGY TRANSFER

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RESEARCH AND DEVELOPMENT POLICY

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Note to readers

The Commission has now tabled its proposal for a revised **RTD Framework Programme**, to cover the period from 1990 to 1994. Following discussion by the Council of Ministers on 18 September and 17 October 1989, a number of supplementary working documents were drawn up to explain the many implications of the proposed new approach — for budgetary and decision-making procedures, the continuation of ongoing programmes and management structures — and to give more detail about the six lines of action (see page 2). The Commission aims to strike a balance between flexibility (adaptation to future needs) and clearly-defined actions.

It may interest our readers that in this context many Member States have stressed their increasing interest in the dissemination of knowledge and the exploitation of results gained from Community RTD.

The rising general interest in information about Community actions related to RTD and innovation is also reflected, we believe, in the growing demand for our **I&TT** Newsletter — we have had to increase its circulation from 8 000 copies in July 1988 to nearly 40 000 copies for this issue.

We take this as an indication that **I&TT** is fulfilling a real need in informing our readers of the latest developments on Community RTD and innovation work. Improvements are always possible, however, and we would welcome your comments and suggestions.

A.S. Strub
Director for Exploitation of Research, Technological Development, Technology Transfer and Innovation

R&D FRAMEWORK PROGRAMME 1990-94

VICE-PRESIDENT PANDOLFI PROPOSES SIX MAIN R&D ACTIVITIES FOR THE NINETIES

Vice-President Pandolfi has presented the proposal of the Commission for a revised Framework Programme for 1990-94. It shall provide for six R&D activities grouped as follows:

	(in million ECU)
I. Enabling or diffusing technologies	
1. Information and communications technologies	3 000
2. Industrial and materials technologies	1 200
II. Management of natural resources	
3. Environment	700
4. Life sciences and technologies	1 000
5. Energy	1 100
III. Management of intellectual resources	
6. Human capital and mobility	700

The overall budget deemed necessary for the revised Framework Programme is estimated at ECU 7 700 Million.

Below we summarize the content of the proposal (the complete version is published in Official Journal C 243 of 23.9.1989):

A. Information and communications technologies

This activity envisages R&D projects in three fields:

1. Information technologies (IT)

Apart from the research produced within the ESPRIT Programme, reoriented towards the new generation of technologies and laying more stress on prototypes etc., new activities will receive priority in the following areas: microelectronics, peripherals, software and IT applied to industrial engineering.

2. Communications technologies

In parallel to the continued development of an integrated broadband network, the aim is to develop intelligent, reliable and secure networks and new value-added and profitable services adapted to developing user needs. Priority must also be given to the growing demand for mobile telephone services and the integration of these services into networks.

3. Development of telematic systems in areas of general interest

Additional Community effort is needed to meet new requirements set by the large internal market. This will involve the development of telematics systems combining information technologies, communications and audio-visual techniques.

B. Industrial and materials technologies

The objective is to contribute to the rejuvenation of the European manufacturing industry by developing its science basis and the advanced technologies required. The following fields are concerned: materials, design, manufacturing, measurement and testing.

C. Environment

The new activities are concerned with the following four areas:

- Participation in the Global Change Programme
- Technologies and engineering for the environment
- Large integrated research projects
- Research on economic and social aspects.

D. Life science and technologies

The long-term strategic objective is to contribute, in a selective and integrated way, to the development of Europe's potential for understanding and using the properties and structures of living matter or in the following fields:

- Basic biotechnology
- Agricultural and agro-industrial research
- Biomedical and health research
- Life sciences and technologies for developing countries.

E. Energy

The central issue of Community action in this field has shifted towards the development of clean and safe energy technologies. This is pursued in the following three areas:

- Fossil, renewable energy sources, energy utilization, Nuclear fission safety, Controlled nuclear fusion.

F. Human capital and mobility

The aim is to provide the European research system with the trained human resources on which it is critically dependent and which are likely to become increasingly scarce in the years to come.

*R & D PROGRAMMES: CALLS FOR PROPOSALS***STEP: SCIENCE AND TECHNOLOGY FOR ENVIRONMENTAL PROTECTION**

The Commission has submitted to the Council a proposal for a four-year R&D programme STEP (Science and technology for environmental protection; see I&TT 1/89, page 3). The main objective of STEP is the provision of scientific and technical support for the environmental policy of the Community. The present call covers nine broad research areas:

- | | |
|---|---|
| 1. environment and human health; | 6. ecosystem research; |
| 2. assessment of risks associated with chemicals; | 7. protection and conservation of the European cultural heritage; |
| 3. atmospheric processes and air quality; | 8. technologies for environmental protection; |
| 4. water quality; | 9. major technological hazards. |
| 5. soil and groundwater protection; | |

In response to this call for proposals, the Commission of the European Communities wishes to receive proposals for participation in the research by means of shared-cost contracts concerning research areas 3, 4, 5 and 6 only. Further calls for proposals concerning research in areas 1, 2, 7, 8 and 9 will be published at later dates.

Proposals must reach the Commission at the address given below by 5 p.m. on 29 December 1989. Further details about the programme and how to apply are given in the STEP information file. It can be obtained on written request from: STEP Programme, Commission of the European Communities, DG XII/E/1, 75, rue Montoyer, B-1040 Brussels, Tlx: 21877 COMEUR B, Fax: (32) 2 236.30.24.

EPOCH - RESEARCH IN THE FIELD OF CLIMATOLOGY AND NATURAL HAZARDS

The Council of Ministers adopted a common position on the proposal for the EPOCH Programme on 20 June 1989, the aim of which is to contribute to our understanding of the climatic system and its changes resulting from both natural and human factors ('greenhouse effect'). The Commission wishes to receive proposals concerning the following research areas:

- | | |
|--------------------------------------|---|
| 1. Past climates and climatic change | 3. Climatic impacts and climate-related hazards |
| 2. Climatic processes and models | 4. Seismic hazards. |

Proposals must reach the Commission by 30 November 1989 at 5 p.m. The EPOCH information file can be obtained from: CEC, DG XII/E/2, 200, rue de la Loi, B-1049 Brussels, Tlx: 21877 COMEUR B, Fax: (32) 2 236.30.24.

PRIMARY RAW MATERIALS AND RECYCLING OF NON-FERROUS METALS

The Council of Ministers, at its meeting of 20 June 1989, adopted a common position on the raw materials and recycling research and development programme proposal made by the Commission. This call for proposals concerns the subprogrammes:

- 1. primary raw materials and 2. recycling of non-ferrous and strategic metals.**

1. The first subprogramme covers three main research areas:

a. Exploration (ore genesis, geochemical methods, geophysical methods, remote sensing and multidata correlation, drilling technology); b. Mining technology (new mining methods, rock fracturing, support systems, load and transportation systems, simulations in mining operations, small mines); c. Ore processing and extractive metallurgy.

2. The second subprogramme covers the following research areas:

a. characterization and classification of secondary materials and physical separation and concentration, b. advanced pyrometallurgical processes, c. advanced hydrometallurgical processes, d. refining technologies and instrumentation for control of the processes.

The final date for submission of proposals is 30 November 1989. An information package containing full details of the programmes and how to apply is available from: Commission of the European Communities, DG XII/C/5, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.39.55, Tlx: 21877 COMEUR B, Fax: (32) 2 235.80.46 (see also OJ C 205 of 10.8.1989).

RENEWABLE RAW MATERIALS: FOREST

The Council of Ministers, on 20 June 1989, adopted a common position on a proposal made by the Commission for a R&D programme in the field of renewable raw materials, with a budget of ECU 12 million. The current call for proposals covers three sectors, each with a number of subsectors:

Sector 1: Forest resources (tree improvement, tree physiology, tree breeding, silvicultural planning and management, forest protection).

Sector 2: Wood technology (quality assessment, testing methods, relation between silvicultural practices and wood or cork properties, processing technology, improvement of processing techniques, quality improvement, improving and/or developing composite wood or cork products).

Sector 3: Pulp and paper manufacturing (improvement in pulping and bleaching, economic and quality improvements, chemicals derived from pulping processes, improvement in paper manufacture and coating, process management, improvement of product quality).

Proposal must reach the Commission before 5 p.m. on 15 December 1989. Detailed information on requirements to be fulfilled can be obtained on request from the following address: Commission of the European Communities, DG XII/F/5, 200, rue de la Loi, B-1049 Brussels, Tlx: 21877 COMEUR B, Fax: (32) 2 235.01.45 (see also OJ C 205 of 10.8.1989).

DELTA PROGRAMME: DEVELOPMENT OF EUROPEAN LEARNING THROUGH TECHNOLOGICAL ADVANCE

DELTA's aim is to organise European cooperation in the field of R&D between industry, broadcasters, producers of **educational material and universities**. The devices and techniques to be addressed include: more powerful processors including image processing; larger and cheaper storage, with new techniques of data organisation; direct broadcasting by Satellite; the Integrated Services Digital Network (ISDN); artificial intelligence; access by near-natural language and, in the more distant future, switched broad-band communications and 'fifth generation' systems with access by voice.

Further information on DELTA can be obtained from: Mr M. Rogers, Commission of the European Communities, DG XIII/F/4, TR 61 3-S/2, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 236.35.05, Tlx: 21877 COMEUR B, Fax: (32) 2 235.06.54.

The **DELTA NEWS** newsletter provides regular information on the progress of this programme. It can be ordered from: Coventry Polytechnic, INTERMAPS, Priory Street, UK-Coventry CV1 5FB.

✂

I order ... copies of DELTA NEWS for one year (6 numbers, 20 ECU)

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The subscription will be valid for a second year if I do not cancel after receipt of the 5th issue.

Date: _____ Signature: _____

✂



ELTA — THE COMPREHENSIVE ASSOCIATION ON EUROPEAN LEARNING TECHNOLOGY



In a few months a new Association on European Learning Technology, ELTA, will start its activities. It aims at bringing together all people involved in European Learning Technology. ELTA will be the place where practitioners and researchers can meet and take advantage of each other's experiences. ELTA was founded on the initiative of participants in the DELTA Programme.

ELTA will provide the means for information exchange between researchers and practitioners, people working in the private and public sectors, learning technology experts, educators and human resource developers, and the learning technology community and international policy makers to promote and encourage the appropriate use of learning technologies in order to improve the quality of education and training.

For more information, please contact: European Learning Technology Association (ELTA), Educational Computing Consortium (ECC), P.O. Box 217, NL-7500 AE Enschede.

DRIVE - DEDICATED ROAD INFRASTRUCTURE FOR VEHICLE SAFETY IN EUROPE

The objectives of DRIVE are the **improvement of road safety, transport efficiency and environmental quality**. By now about 70 research projects set up within the framework of the Drive Programme have started their work. These research projects have been selected out of a total of some 190 proposals submitted to the EC Commission in response to a public call for proposals.

They will be dealing with issues such as:

- | | |
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| speed and distance keeping; | providing information to drivers; |
| hazard warning; | route guidance and planning; |
| monitoring the alertness of drivers; | vehicle location; |
| protection of vulnerable road users (pedestrians, cyclists); | regulation of traffic flow by intelligent signalling systems; |
| recording accident data through 'black box' technology; | demand management, including automatic toll payment. |

For further information please contact: Mr F. Karamitsos, Commission of the European Communities, DG XIII/F/5, TR 61, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 236.34.61, Fax: (32) 2 235.06.54, Tlx: 22045 RACE B / 25946 JEPE B.

CONFERENCE ON THE SINGLE MARKET AND THE ENVIRONMENT: MARKETS, STANDARDS, PROSPECTS IN THE EUROPEAN COMMUNITY

The Environmental Protection industry in Europe is undergoing major change in the run-up to 1992. The world market for goods and services has been estimated at 75 thousand million ECU per annum, with 40% of the expenditure in Western Europe. Growth rates in most regions will exceed 4% and in some reach 10% p.a. How will the EC's 5,000 firms in the sector respond? Some 10,000 companies in Europe are expected to change hands in the next few years. How many will be in the environmental sector?

Acquisitions, strategic alliances and joint ventures are on the agendas of most dynamic companies. The **first NETT conference** will be concerned with these issues and bring together European experts in:

- Market Prospects
- Environmental Policy
- Mergers and Acquisitions
- Buyouts and Joint Ventures
- Legal and Financial Aspects

NETT: NETWORK FOR ENVIRONMENTAL TECHNOLOGY TRANSFER

NETT (Network for Environmental Technology Transfer), is a major new initiative established with the support of the Commission of the European Community **to stimulate the wider adoption of clean and environmental technologies**. Launched in 1988 at the end of the European Year of the Environment, the aims of establishing such a network are to help the exchange of knowhow between companies and organisations and speed up the transfer of technologies throughout Europe by providing detailed information on markets, standards, technologies, finding partners and collaborating with advisory services, consultants, manufacturers and trade associations, university research departments and chambers of commerce to take full advantage of the opportunities offered by the new 'Single European Act'.

FOR FURTHER DETAILS CONTACT THE NETT Secretariat, 25 Square de Meeus, B-1040 BRUSSELS, Telephone: (32 2) 511 2462, Telefax: (32 2) 511 2522



CALL FOR DEMONSTRATION PROJECTS IN THE FIELD OF THE ENVIRONMENT

Invitation to submit proposals on the following subjects:

1. demonstration projects aimed at developing techniques for **locating and restoring sites contaminated by hazardous wastes and/or substances**,
2. demonstration projects aimed at developing techniques and methods for **measuring and monitoring the quality of the natural environment**.

Proposals should reach the Commission by 14 November 1989. Application forms, questionnaires and further information on this programme may be obtained from Mr E. Murillo-Matilla, Commission of the European Communities, DG XI/A/3, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 236.13.88, Tlx: 21877 COMEUR B, Fax: (32) 2 236.27.26.

CATALOGUE OF RESEARCH PROGRAMMES WITHIN THE FRAMEWORK PROGRAMME OF THE EUROPEAN COMMUNITY



This catalogue provides a summary of the specific R&D programmes within the Framework Programme for Community activities in the field of research and technological development 1987-1991.

The entry for each programme gives a brief description of its objectives, its duration, the name of the programme manager, and the amount allocated to it from the Community budget. The reference documents will be found in the Official Journal (OJ) of the European Communities, which may be consulted at any of Commission's Information Offices or European Documentation Centres (see page 40) in the Member States.

The catalogue shows the status of programmes as at 1 September 1989.

Order Form:

Please send a copy of the catalogue of research programmes (free of charge) to:

Name: _____ Institution: _____

Address: _____

Postal Code: _____ Town: _____ Country: _____

Please return to Mrs A: Dissy, Commission of the European Communities, DG XII, SDME 1/34, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.64.19, Tlx: 21877 COMEUR B, Fax: (32) 2 235.88.65.

CALL FOR PROPOSALS UNDER THE EUROPEAN STRATEGIC PROGRAMME FOR RESEARCH AND DEVELOPMENT IN INFORMATION TECHNOLOGY: ESPRIT

Proposals are hereby invited:

- for collaborative precompetitive industrial research and development work in the technological sectors:
 - information processing systems,
 - office and business systems,
 - computer integrated manufacturing;
- addressing the projects and topics described in the 1989 Esprit Work programme for the abovementioned sectors;
- according to the rules specified in the information package published in September 1989.

The required content and form of the proposals is described in the information package. The closing date for proposals is 10 January 1990 at 5 p.m., by which time proposals must have arrived at the Commission.

The information package can be obtained from: Commission of the European Communities, DG XIII, Esprit Proposals Office, A25, 200, rue de la Loi, B-1049 Brussels (the full text of the call is published in OJ C 240 of 20.9.1989).

6th ESPRIT CONFERENCE — 1989

BRUSSELS

27 NOVEMBER - 1 DECEMBER

This year's ESPRIT conference will be devoted to the results, achievements and industrial take-up of Esprit and also address the increasingly important topic of technology transfer.

During the first three days (27-29 November), project results will be presented in plenary and parallel sessions.

During the **Information Technology Forum** on Thursday, 30 November, a number of prominent speakers from industry, politics and science will address the Conference.

The Conference and IT Forum will be complemented by an **exhibition** in which more than 80 projects will demonstrate their results.

Since the number of participants is limited, you are kindly requested to complete and return the enclosed Registration Form together with the registration fee by the deadline of 27 October to give us the opportunity to confirm your invitation.

Registration fee: BFR 11,000 (including three lunches) or BFR 9,000.

Registration Form

Kindly complete in CAPITALS and send to the address below:

Title Code () Prof () Dr () Mr () Mrs

Name: _____

First Name: _____

Institute/Company: _____

Address: _____

Country: _____

Telephone: _____ Telefax: _____ Telex: _____

Payment of fees

() I enclose a cheque

() I am transferring to your account No. 310-0119278-54 at Banque Bruxelles Lambert the total amount of Bfr net of bank charges

Date: _____ Signature: _____

Registration Forms and inquiries should be addressed to: E.C.C.O. (European Congress Consultants & Organisers), Rue Vilain XIII, 17a, B-1050 BRUSSELS, Tel.: (32) 2 647.87.80, Fax: (32) 2 640.66.97, Tlx: 61434 SDRBRU B

MR CARPENTIER, DIRECTOR-GENERAL OF DG XIII, CONFIRMS THE COMMISSION'S INTENTION TO CONTINUE THE TEDIS PROGRAMME ON ELECTRONIC DATA INTERCHANGE (EDI)

Over two hundred participants attended a Conference to review the progress of the Commission's TEDIS Programme (Trade Electronic Data Interchange Systems) and to listen to representatives from the automobile, banking, chemical, insurance, retail and transport industries explain how the use of Electronic Data Interchange (EDI) was expanding in their industry.

In the opening speech **Mr Carpentier**, Director-General for Telecommunications, Information Industries and Innovation (DG XIII) of the European Communities, gave his assurance that the Commission would be proposing the continuation of the TEDIS Programme beyond the end of 1989 and that it would continue its support for UN/EDIFACT standardisation of EDI messages. He also stressed the importance of the modified directive on open network provision (ONP) and the directive under Article 90 of the Treaty of Rome, which will allow independent undertakings to compete with the Member States' telecommunications monopolies in offering news services such as EDI on the telecommunications network.

Mr Etienne Dreyfous, Chairman of the UN working party responsible for UN/EDIFACT said that European industry, commerce and public administrations needed secure and transparent telecommunications services, and he asked the Commission to support projects which were transnational and broke down the barriers to EDI between different industries and between the public and private sectors.

NEW EDI/ELECTRONIC DATA INTERCHANGE BOOKLET PUBLISHED

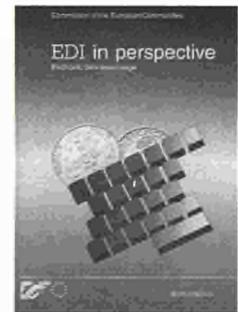
This booklet '**EDI IN PERSPECTIVE**' is one of a series of documents which the TEDIS Programme is publishing to promote wider awareness of EDI.

In addition to explaining EDI and its benefits in the exchange of business data between computers, 'EDI in perspective' emphasizes three main points:

- the development of EDI standards, and in particular specific message formats at an international level through UN-Edifact and in Western Europe through the Edifact Board under the auspices of a United Nations working party on trade facilitation;
- the need for the participation of representatives of all industry sectors in the message development effort;
- the commitment of the European Commission to the coordinated development and implementation of EDI in the Member States, through the TEDIS Programme.

This document is aimed at organizations which have not yet been involved in EDI and especially at small and medium-sized enterprises which may not have the resources to follow developments in EDI.

Further information on TEDIS and the booklet (please indicate language) can be obtained from: Mr H. Wakeling or Mr E. Peeters, Commission of the European Communities, DG XIII/D/5, ART 3/20, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.50.27 or 235.573.30, Tlx: 21877 COMEUR B, Fax: (32) 2 235.02.99.



EUROPEAN COMMISSION'S CONFORMANCE TESTING SERVICES OPEN TESTING FOR OPEN SYSTEMS

The formation of the **Open Systems Testing Consortium** is a significant move in Information Technology with an eye to 1992. OSTC enables data communications products to be independently tested in an open and harmonised way throughout Europe. This strategy will enable progress towards **Open Systems Interconnection (OSI)**.

OSTC comprises European public network providers, commercial organisations and research establishments. These bodies are recognised authorities in data communications and have experience in technical harmonisation through the **European Commission's Conformance Testing Services project** (see I&TT 3/89, page 10). Their goal is to ensure conformance of computer and network products to International and European standards.

The members of OSTC are committed to a policy of openness. Innovation and competition in test tool technology and services is encouraged. Open agreements on how products are to be tested has led to consistency of testing by OSTC participants. In particular, these agreements provide the technical basis for mutual recognition throughout Europe and beyond. The OSTC charter aims to make this harmonised testing available to all on equal terms. Future moves will aim to extend this recognition to achieve global Open Systems Interconnection.

The work of OSTC will assist the interconnection of multivendor environments. OSTC test services give manufacturers and users confidence in the interoperability of products. Open harmonised conformance testing is the economic way forward to true open systems.

For further information, contact: Ms M. Smith, OSTC Secretariat, NCC Ltd, Oxford Road, UK-M1 7ED Manchester, Tel.: (44) 61 228.63.33, Fax: (44) 61 228.25.79, Tlx: 668.962 G or Mr V. Toft, Chairman, OSTC, PTT-DK, Telecom Denmark, Telecommunications Laboratory, Telegade 2, DK-2630 Taastrup, Tel.: (45) 42 52.91.11, Fax: (45) 42 52.80.76, Tlx: 15.840 tellab dk, Teletex: 2381-127.317 TELLAB.

ECHO DATABASES AND SERVICES

— SET OF INFORMATION BROCHURES JUST PUBLISHED —

ECHO was set up in 1989 by the Commission of the European Communities to contribute actively to and encourage and support **the use of online information in Europe**. ECHO comes under the umbrella of DG XIII-B, which is responsible for the development of the European Information Services Market.

The **main aims** of ECHO are as follows:

- promoting the use of and demand for **advanced information services**;
- increasing **market transparency** for the user through **multilingual electronic directories** and other information sources;
- **facilitating access to information services** by providing a multilingual online training facility;
- providing a **test bed for data-bases** and information services in an experimental phase;
- acting as a **help desk** and sounding board for users of information services in Europe.

ECHO is a non-commercial organisation offering access to unique databases and databanks either wholly or partly sponsored by the CEC which are not available from any other online host service.

For further information on ECHO please contact: ECHO, B.P. 2373, L-1023 Luxembourg, Tel.: (352) 48.80.41, Fax: (352) 48.80.40, Tlx: 2181 EUROL LU.

ORDER FORM FOR PUBLICATIONS

I hereby order the following free ECHO brochures:

Number of copies	Languages
1. ___ ECHO leaflet (9 Languages)	_____
2. ___ ECHO databases and services (9 Languages)	_____
3. ___ Inventory of the European Community information services market (9 Languages)	_____
4. ___ Access to information via Videotex and Microcomputer (9 Languages)	_____
5. ___ ECHO Pocket Guide (9 Languages)	_____
6. ___ Introduction to On-line services (9 Languages)	_____
7. ___ CCL Training manual (9 Languages) (Complement to training database)	_____
8. ___ Off-line CCL-training diskette (9 Languages)	_____
The following descriptive material will be sent only on receipt of a cheque made out to the appropriate value in ECU!	
9. ___ ECHO user's handbook (English and French, 10 ECU / handbook)	_____
10. ECHO videos:	
15 ECU / video. Please state video system and standard (PAL / SECAM).	
a) ___ ECHO in brief (presentation of ECHO) (languages: DE, EN, ES, FR, IT)	_____
b) ___ ECHO in full (presentation of ECHO and brief introduction to CCL) (languages: DE, EN, ES, FR, IT)	_____
c) ___ TED (description of the TED databank) (languages: DE, EN, ES, FR, IT)	_____

Please return this order form to:

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B.P. 2373
L - 1023 LUXEMBOURG



DATABANKS OF INTEREST TO SMEs

One of the biggest problems which small and medium-sized enterprises (SMEs) face is lack of information - on Community legislation, measures in favour of SMEs, public procurement, various kinds of tenders, research programmes, certain types of joint ventures, a great number of products and several other subjects.

This brochure is aimed at the entrepreneur and is intended to help him with his information problem through the use of data banks. Using the keyboard of your terminal, you can have immediate access to a vast amount of information made available to you by the Community data banks.

You can order your guide on data banks (please indicate language) at the Community's press and information offices (see page 40) or from Mr R. Schneider, Commission of the European Communities, DG XXIII, ARLN 05/30, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.63.22, Fax: (32) 2 236.12.41, Tlx: 21877 COMEUR B.



COMETT II WELL UNDER WAY

- CALL FOR PROPOSALS EXPECTED SOON -

The Commission is now paving the way for COMETT II, which will be a greatly expanded version of the first programme. The new programme will have a number of innovative features. For instance, it will fit in better with the RTD Framework Programme and involvement will be through national agencies. It primarily seeks to develop cooperation between the academic and industrial sectors by creating an infrastructure for this sort of cooperative relationship. COMETT II will also seek to pay more attention to the training requirements of small and medium-sized businesses, and there will be efforts to redress the problems of peripheral regions.

The first call for tenders will probably be in November this year, with the deadline for involvement in the programme being February of next year. Proposals for the following schemes will be invited:

- the development and reinforcement of **university-enterprise training partnerships** and related activities;
- **transnational exchange** through the allocation of grants for students, persons who have completed their initial training and personnel seconded from university and industry;
- **joint projects for further training**, particularly in advanced technology, and multimedia distance training.

For further information please contact: COMETT, Technical Assistance Unit, 71, av. de Cortenberg, B-1040 Brussels, Tel.: (32) 2 733.97.55, Fax: (32) 2 734.56.41.

COMMISSION PROPOSES 'EUROTECNET II' (1990-1994)
FOR VOCATIONAL TRAINING IN NEW TECHNOLOGY

The Commission of the European Communities has adopted its proposal for a new enlarged EUROTECNET Programme for the next five years (1990-1994). With a budget of 24 million ECU EUROTECNET II will have two principal objectives:

- a. **to improve the capacity of training systems** in the Community to take account of technological changes and their effect on jobs, work and qualifications;
- b. **to develop training systems geared to the future**, in such a way as to adapt them to the repercussions of technological developments on present and future professions and so as to provide the new capacities and qualifications needed.

The basic scheme of Eurotecnet I has been maintained: a network of demonstration projects will be set up with the aim of improving training to take account of technological change. It will concern various groups such as women, young unskilled workers and semi-skilled unemployed persons. The new programme is part of efforts undertaken at Community level to improve dialogue between the two sides of industry on the subject of training and motivation of manpower in the face of technological changes, notably with an eye to the Single Market.

The full text of EUROTECNET II is published in Official Journal C 242 of 22.9.1989. Further information can be obtained from Mr T. Mawson, Commission of the European Communities, Task Force Human Resources, Education, Training and Youth, A-1 08/48, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.50.00, Tlx: 21877 COMEUR B, Fax: (32) 2 235.65.07 and 235.01.29.

GUIDE ON ERASMUS PROGRAMME NOW AVAILABLE

In issue 3/89 of I&TT (page 8) we reported on the Commission's proposals regarding the second phase of the ERASMUS Programme for student mobility in the Community. The ERASMUS bureau has just published a **guide for applications** under this programme. This brochure presents the ERASMUS financial aid available for activities to be undertaken during the period 1 July 1990 to 30 June 1991.

This guide can be obtained from the ERASMUS bureau, 15, rue d'Arlon, B-1040 Brussels, Tel.: (32) 2 233.01.11, Tlx: 63528, Fax: (32) 2 233.01.50 (please see also page 15, Calls for proposals).

✂

Order form:

Please send me a copy of the ERASMUS guide in (please tick):

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To be returned to the ERASMUS bureau (see address above).

COMMISSION TACKLES LANGUAGE BARRIERS - LINGUA PROGRAMME ADOPTED -

The Council has adopted the LINGUA Programme, the principal objective of which is to **promote a quantitative and qualitative improvement in foreign language competence** with a view to developing communication skills within the Community. To that end, it intends, by means of Community-wide measures, to provide opportunities for supporting and complementing Member States' policies. The programme will run for five years with a total budget of ECU 200 million. It covers four areas:

1. Grants of max. ECU 1 500 for the **training of foreign language teachers**. Further-training institutions wishing to take part in **transfrontier cooperation** and **exchange programmes** may apply for subsidies of up to ECU 25 000 p.a.
2. Promotion of foreign **language teaching at universities** and improving the standards training for language teachers. Grants may be made to support **cooperation between European universities** and for **visits of students and teachers** abroad.
3. Extended foreign **language teaching in industry and commerce**: foreign languages should become an integral part of the training of employees and trainees. This applies above all to small and medium enterprises.
4. Promotion of the **exchange of young people** between 16 and 25 as part of their vocational training; the Member States may themselves decide whether the grants made available by the EC should be awarded to all young people over the age of 16 or only to young school-leavers.

The full text of the LINGUA Programme is published in the Official Journal L 239 of 16.8.1989. For further information please contact: Mr D. Coyne, Commission of the European Communities, Task Force Human Resources, Education, Training and Youth, A-1 08/48, 200, rue de la Loi, B-1049 Brussels, Tlx: 21877 COMEUR B, Fax: (32) 2 235.01.29.

THE COMMISSION'S SYSTRAN TRANSLATION SYSTEM

USE OF MACHINE TRANSLATION WITHIN THE COMMISSION INCREASED

Since 1976, the Commission has been developing Systran for its internal use, a machine translation system to facilitate and accelerate the enormous volume of translation, which is inevitable in any transnational organisation.

Systran is available for several European language pairs. Perhaps not surprisingly, experience has shown that the Latin languages and English generally cause fewer problems in machine translation development than the Germanic ones. As a result, the quality of English-French or French-Italian translations, for example, is considerably better than those from German into French or French into Dutch. Nevertheless, encouraging progress is being made on all the above language pairs.

At the Commission, Systran runs on an Amdahl mainframe (IBM compatible) under the MVS operating system. **Translations are processed at a rate of up to 400 000 words per hour**. Systran has thus successfully contributed to new forms of translation. The average number of translation requests per month has now reached over 250 documents of about 12 pages.

For further information on SYSTRAN please contact: Mr I. Pigott or Ms Delfina Campanella, Commission of the European Communities, DG XIII-B, B4/24a, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-2903/2092, Tlx: 2423 / 3446 COMEUR LU, Fax: (352) 4301-2847.

In the next issue of I&TT we will report on the EUROTRA R&D project which aims at the completion of a machine translation system of advanced design and to the benefit of all concerned within the Community (see also page 12: Texts of R&D programmes).

GUIDELINES FOR IMPROVING THE SYNERGY BETWEEN THE PUBLIC AND PRIVATE SECTORS IN THE INFORMATION MARKET



To promote **optimal synergy between public sector support and private sector initiatives**, the Commission undertook a series of consultations and discussions with representatives of the public and private sectors of the European information market in all Member States. As a result, the Commission has now produced 'Guidelines for improving the synergy between the public and private sectors in the information market', which are advisory only and have been endorsed by the representatives of the Member States meeting within the Senior Officials Advisory Committee (SOAC).

A copy of the guidelines (please indicate language) can be obtained from Mr D. Buckley, Commission of the European Communities, DG XIII-B, JMO B4/036, Tel.: (352) 4301-2898, Fax: (352) 4301-2847, Tlx: 3423/3446 COMEUR LU.

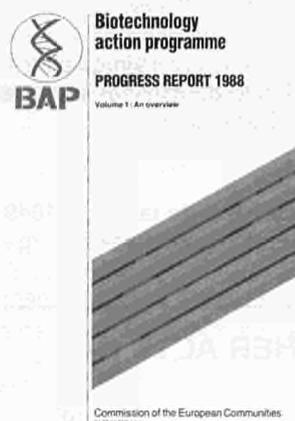
CALL FOR PROPOSALS IN THE FIELD OF RADIATION PROTECTION

The CEC calls for research proposals in the following subject areas: A. Human exposure to radiation and radioactivity, B. Consequences of radiation exposure to man; assessment, prevention and treatment, and C. Risks and management of radiation exposure.

Research proposals may be submitted up to 31 January 1990. Details of the programme and the forms by which an application may be made can be obtained on written request from: Commission of the European Communities, DG XII/D/3, Radiation Protection Programme, 200, rue de la Loi, B-1049 Brussels, Tlx: 21877 COMEUR B, Fax: (32) 2 236.20.06.

BRIDGE - RESEARCH IN THE FIELD OF BIOTECHNOLOGY

Call for proposals under way



BRIDGE is a Community proposal for pre-competitive research in the field of biotechnology, geared to medium and long-term objectives essential for the strategic strength of European industry. It should, in particular, foster transnational research and promote its catalytic effects for accelerating the production of biological data, materials and methods necessary for the optimal exploitation of useful organisms.

The **present call invites proposals for two types** of transnational projects:

- 'N' projects, for the integration in appropriate Community structures (European Laboratories Without Walls: ELWW) of research efforts in sectors where the main bottlenecks result from gaps in basic knowledge.
- 'T' projects, for the removal, through a significant investment of skills and resources, of major bottlenecks resulting from structural and scale constraints.

Details on these two types of project are contained in an information package, which can be obtained from Mr D. de Nettancourt, Commission of the European Communities, DG XII/F/2, SDME 03/67, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.40.44, Tlx: 21877 COMEUR B, Fax: (32) 2 236.33.08.



RESEARCH IN THE FIELD OF COMPETITIVENESS IN AGRICULTURE

— Call for proposals pending —

The Commission has proposed a Community **research programme on competitiveness in agriculture and management of agricultural resources**. The proposed Community contribution to this programme is 55 million ECU.

It is expected that the Council of Ministers will soon adopt a common position on the modified proposal made by the Commission. Pending this decision, a call for proposals for the programme is to be published in the near future.

The research activities under the call have been divided into four sectors:

1. Conversion, diversification, including extension of production, reduction of costs and protection of the rural environment.
2. Product quality, new uses for traditional products, and aspects of plant and animal health.
3. Socio-economic aspects and specific actions for regions lagging behind in development.
4. Methods and services to disseminate agricultural research information.

This call for proposals will be valid until 31 December 1991.

Further information on the programme and the call for proposals can be obtained from: Mrs Dumoulin, Commission of the European Communities, DG VI/F/II-3, 200, rue de la Loi, B-1049 Brussels, Tlx: 22037 AGREC B, Tel.: (32) 2 235.89.39, Fax: (32) 2 236.30.29.

CALL FOR PROPOSALS UNDER THE FISHERIES R&D PROGRAMME

This R&D programme covers the fields of fishery management, fishing methods, aquaculture and upgrading of fishery products. The Commission will launch a call for proposals by the end of October 1989. Application forms can be obtained from: Mr J.-P. Repussard, Commission of the European Communities, DG XIV, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.93.02, Tlx: 21877 COMEUR B, Fax: (32) 2 236.30.33 / 235.25.69.



DOSES PROGRAMME ON STATISTICAL EXPERT SYSTEMS

The brochure on DOSES and the information package can be obtained from: Statistical Office of the European Communities, Programme DOSES, Jean Monnet Building, L-2920 Luxembourg, Tlx: 3423 / 3446 COMEUR LU, Fax: (352) 4301-3015.

COUNCIL DECIDES ON A NEW SUPPORT PROGRAMME FOR SMEs

The European Community's industry ministers adopted a decision on 21 June aimed at **improving the environment in which businesses, especially small and medium-sized enterprises (SMEs), operate in the Community**. The programme adopted will cover the period from 1990 to 1993 having a budget of ECU 135 million.

It seeks to encourage the creation and development of businesses by introducing measures at Community level aimed at: the elimination of unnecessary administrative, financial and legal constraints; the supply of information to businesses and the encouragement of inter-company cooperation, especially among SMEs in different regions of the Community.

The full text of this decision is given in Official Journal L 239 of 16.8 1989.

Contact: Mr R. Schneider, Commission of the European Communities, DG XXIII, ARLN 05/30, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.63.22, Tlx: 21877 COMEUR B, Fax: (32) 2 236.12.41. From this address you can also order free of charge **EUROINFO**, which provides regular information on important European policy issues for SMEs.

REPERTORY OF COMMUNITY LEGISLATION IN FORCE AND OTHER ACTS OF COMMUNITY INSTITUTIONS (Special issue of the Official Journal)

This 13th edition updates acts in force as of 1 June 1989. The repertory notably includes law derived from the Treaties instituting the European Communities, supplementary law and agreements between the EC and third countries. References are classified according to subject.

Volume I: Analytical Repertory. 794 pp. Volume II: Chronological and Alphabetical Index. 187 pp. 13th edition. Reference date: 1 June 1989. Price for Volumes I and II: 75 ECU. Orders: Office for Official Publications, 2, rue Mercier, L-2920 Luxembourg.

ENERGY IN EUROPE: MAJOR THEMES IN ENERGY Special issue, September 1989

In this document the Commission analyses **the future of European energy**. After a brief review of current developments in energy policy at Community level and the challenges of the Single Market in this field, the Commission gives a long-term view of the evolution of energy between now and the year 2010.

'**Energy in Europe**' is published three times a year (in EN, FR, DE, ES) and can be ordered at the Office for Official Publications, 2, rue Mercier, L-2985 Luxembourg (price 12.70 ECU per issue).

Full texts of new R&D programmes published in the Official Journal

Official Journal L 200 of 13 July 1989 contains the full texts of the following new R&D programmes:

EUROTRA (Specific programme for the completion of a machine translation system of advanced design)

FLAIR (Specific RTD programme in the field of food science and technology)

VALUE (Specific programme for the dissemination and utilization of scientific and technological research results)

MAST (Specific RTD programme in the field of marine science and technology - MAST)

MONITOR (Community programme in the field of strategic analysis, forecasting and evaluation in matters of research and technology)

DOSES (Specific programme for the research and development of statistical expert system)

Radiation Protection (Specific research and training programme for the European Atomic Energy Community in the field of radiation protection).

Order form:

Please send me a copy of the Official Journal L 200 of 13 July 1989 (price ECU 7) in (please tick):

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R&D NEWS:

TELEMAN PROGRAMME ADOPTED - CALL FOR PROPOSALS UNDER WAY

At its meeting of 18.7.1989 the Council adopted the TELEMAN Programme on remote handling in hazardous or disordered nuclear environments (see I&TT, 3/89, page 8). A call inviting proposals for various Research projects is under way (for details see OJ C 242 of 22.9.1989). Contact: Commission of the European Communities, DG XII/D/1, ARTS 3/38, 200, rue de la Loi, B-1049 Brussels, Tlx: 21877 COMEUR B, Fax: (32) 2 236.20.06.

EUROPEAN COMMUNITY CONTEST FOR YOUNG SCIENTISTS

The Commission is organizing a European Community contest for young scientists, to be held in Brussels on 18 and 19 October 1989, bringing together the top finalists from national contests. Each project will be exhibited on a display stand. There will be a ceremony at which six awards of ECU 5 000 and six awards of ECU 3 000 will be made (see I&TT, 3/89, page 5).

PANTHAREI NEWSLETTER FOR 'TRAINING IN HYDROLOGY AND WATER MANAGEMENT'

This new newsletter published in the framework of the ERASMUS and COMETT Programmes is intended as a communication and interaction bulletin for all those interested in the field of hydrology, water management and water resources technology. Contact: Mr van der Beken, Laboratory of Hydrology, Free University of Brussels, Pleinlaan 2, B-1050 Brussels, Tel.: (32) 2 641.30.21, Fax: (32) 2 641.22.82.

ESRA — THE EUROPEAN SAFETY AND RELIABILITY ASSOCIATION

The European Safety and Reliability Association (ESRA) is an association of European organizations aiming at the **advancement and harmonization of safety and reliability techniques in all branches of technology** and across many different sectors. ESRA was launched by the CEC in 1986 to support these aims and to offer the opportunity to produce joint compatible solutions. For further information please contact: ESRA General Secretariat, Mr B. Tolley, Commission of the European Communities, DG XII, 200, rue de la Loi, Tel.: (32) 2 235.11.11, Tlx: 21877 COMEUR B or Mr G. Volta, Commission of the European Communities, Joint Research Centre, I-21020 Ispra (Varese), Tel.: (39) 332 78.91.11, Tlx: 380058 EUR I.

**'MATINÉE EUROPÉENNE' IN THE CITÉ DES SCIENCES, PARIS**

The Commission of the European Communities and the Cité des Sciences intend to hold a conference '**Matinée Européenne**' on the **general state of culture, science and technologies in Europe** (Paris, Cité des Sciences et de l'Industrie de la Villette, 6 December 1989). Leading representatives from the world of science will participate. Further information can be obtained from Mr M. André, Commission of the European Communities, DG XII, SDME 01/38, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 236.07.81, Tlx: 21877 COMEUR B, Fax: (32) 2 235.88.65.

JUST PUBLISHED:

JOINT RESEARCH CENTRE ANNUAL REPORT 1988**Work for external bodies for the first time****First year of new four year programme successfully completed**

The Joint Research Centre (JRC) has just published its 1988 annual report, which stresses the enormous progress of its activities. The report gives a detailed overview on the progress of the individual initiatives. 1988 was characterized by decisions which constitute a thorough reform of the JRC. In 1988 it launched for the first time a policy towards the commercialisation of its services to attract contracts with European industry. Some highly interesting R&D projects in the field of advanced materials, environmental protection, safety technology, system engineering, etc. were successfully initiated.

The JRC annual report 1988 can be obtained from: Mr G. Pellegrini, JRC, I-21020 Ispra (Varese), Tel.: (39) 332 78.98.19, Fax: (39) 332 78.98.39, Tlx: 380042 / 380058 EUR I.



NEW VIDEO FILMS ON COMMUNITY RESEARCH PROGRAMMES

1. The RTD Community

This film shows different aspects of European Community activities in the field of Research and Technological Development illustrated by 15 examples of R&D projects in programmes such as ESPRIT, BRITE and SCIENCE.

Length: 17 minutes; available in ES, DA, DE, GR, EN, FR, IT, NL, PT.

2. BRITE-EURAM

This film shows the various aspects of the activities and objectives of the BRITE-EURAM Programme (industrial technologies and advanced materials).

Length: 12 minutes; available in EN, FR, DE.

Both videos can be obtained free of charge by research institutions, educational establishments, public administrations and other institutions wishing to inform a larger public on the Community's R&D policy.

»<

Order Form:

Please send me a copy of (please tick):

The RTD Community; language

BRITE-EURAM; language

Name: _____

Institution: _____

Address: _____

Postal Code: _____ Town: _____ Country: _____

Video will be presented to: _____

Please return to Mrs A. Dissy, Commission of the European Communities, DG XII, SDME 1/34, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.64.19, Tlx: 21877 COMEUR B, Fax: (32) 2 235.88.65.

SOON TO BE PUBLISHED: GUIDE TO EUROPEAN COMMUNITY RESEARCH***A Manual for Applicants***

The Commission of the European Communities intends to publish **the first comprehensive manual containing information on both the legal, administrative and technical aspects and the contents of all R&D programmes**. At a time of ever increasing interest in the technological elements of the European Single Market, the Commission will fill an information gap often expressed by interested parties, particularly SMEs and research institutions.

The manual will be available at the beginning of December 1989.

»<

Order Form:

Please send a copy of the Guide to European Community Research to:

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Please return to Mrs A. Dissy, Commission of the European Communities, DG XII, SDME 1/34, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.64.19, Tlx: 21877 COMEUR B, Fax: (32) 2 235.88.65.

COMMUNITY RESEARCH AND DEVELOPMENT PROGRAMMES

DEADLINES FOR THE NEXT CALLS FOR PROPOSALS

Programme	Directorate-General responsible	Deadline
VALUE (see I&TT 3/89 page 2 and Official Journal C 229 of 6.9.1989)	XIII	20.10.1989
LINGUA (see page 10)	TFHR	30.10.1989
ERASMUS — interuniversity cooperation programme (ICP); (see page 9)	TFHR	31.10.1989
— grants for students not participating in an ICP (see page 9)		01.01.1990
DEMONSTRATION PROJECTS IN THE FIELD OF ENVIRONMENT (see page 5)	XI	14.11.1989
EPOCH — Climatology and natural hazards (see page 3)	XII	30.11.1989
SPRINT 1. Conferences to be held later than 31.8.1990 (see page 33)	XIII	30.08.1990 30.11.1989
2. Specific Projects (see page 34)		27.10.1989
Primary raw materials and recycling of non-ferrous metals and strategic metals (see page 3)	XII	30.11.1989
TELEMAN — Remote handling in hazardous and disordered nuclear environments (see page 13)	XII	30.11.1989
BRIDGE — Biotechnology research for innovation (see page 11)	XII	15.12.1989
Renewal raw materials: FOREST (see page 3)	XII	15.12.1989
STD — SCIENCE AND TECHNOLOGY FOR DEVELOPMENT	XII	31.12.1989
ESPRIT (see page 6)	XIII	10.01.1990
RADIATION PROTECTION (see page 10)	XII	31.01.1990
COMETT (see page 9)	TFHR	28.02.1990
BCR (Metrology and Reference Materials)	XII	no deadline
SCIENCE: Plan to stimulate the international cooperation and interchange needed by European researchers	XII	no deadline
SPES — A plan to stimulate cooperation in economic sciences	XII	no deadline
MONITOR: Expression of interest	XII	no deadline

Application forms can be obtained from the Directorate-Generals concerned (Commission of the European Communities, DG ..., 200, rue de la Loi, B-1049 Brussels); TFHR stands for Task Force Human Resources (see article 'EUROTECNET' on page 9).

FORTHCOMING CALLS

Programme	Call expected
BRITE/EURAM	First half of 1990
RADIOACTIVE WASTE	Early 1990

The information above is a sort of early warning system. The dates indicated may change and are not definitive. I&TT declines all responsibility for any changes. Proposals should be prepared well in advance of this deadline in order to avoid last-minute problems. Proposers should consult the programme managers for advice on questions of presentation.

INNOVATIONS FROM COMMUNITY R&D

Under this section 'Innovation and Technology Transfer' reports regularly on recent innovations stemming from Community-funded research.

**OZONE-FRIENDLY PRODUCT
FRIMIP®NON-AZEOTROPIC MIXTURE OF INDUSTRIAL FLUIDS**

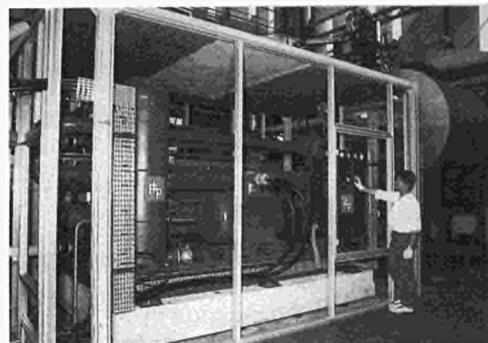
The recent entry into force of the Montreal Protocol restricting the manufacture and use of certain chlorofluorocarbon fluids (CFCs) because of their damaging effect on the ozone layer has highlighted the need to find replacement products.

Frimip® is the result of several years of study and development and has been defined and patented by the Institut Français du Pétrole (IFP). It is a non-azeotropic mixture containing none of the fluids restricted by the Montreal Protocol. It is successfully used in a range of domestic and industrial appliances for refrigeration or the generation of medium-temperature heat ($T < 55^{\circ} \text{C}$). Refrigeration and/or heat output has been increased by 10-20% without affecting the coefficient of performance.

The successful development of this product by IFP and its manufacture and distribution, particularly in France, by Atochem and Dehon SA show that it is possible to achieve the fast industrial development of replacements for fluids which are considered harmful for the environment.

The work was carried out with the support of the Commission of the European Communities (DG XII) and has resulted in a range of more efficient and environment-friendly products.

Further information may be obtained from: Institut Français du Pétrole (IFP), 1-4, avenue des Bois-Préau, BP 311, F-92506 Rueil Malmaison Cedex, Tel. 47 49 02 14



**LOW-POLLUTION PROCESS
INCINERATION OF PETROCHEMICAL WASTES CONTAINING POLLUTANTS**

An innovatory high-temperature incineration plant was set up at the Dollbergen refinery in 1988, mainly to incinerate:

- (i) non-recyclable waste oils;
- (ii) heavy oil fractions;
- (iii) refining residues;
- (iv) reaction products.

The plant consists of equipment to homogenize the products to be incinerated, a burner, a high-temperature incineration chamber, a boiler and a mixing chamber with fabric filter to dehalogenate and desulphurize the flue gases.

The residues are homogenized during the pretreatment phase, i.e. any concentration differences are evened out, viscosity is reduced to manageable levels and — of particular significance — calorific values are raised if necessary. A combustion chamber has been installed ahead of the boiler in order to harness the energy from the petrochemical wastes and non-recyclable waste oils. The system consists of a special heavy-oil burner, in which the oil is vigorously swirled during incineration, and a limed combustion chamber. Burn-up is complete at the end of the combustion chamber and an even temperature in excess of $1\ 200^{\circ} \text{C}$ is achieved. Combustion in the burner is only partial in order to reduce nitrogen oxide emissions. Full incineration is achieved by feeding secondary air and an inert gas into the combustion chamber to prevent high temperatures and thus reduce the formation of reactive nitrogen. The temperature of over $1\ 2000^{\circ} \text{C}$ in the combustion chamber and a dwell time of no more than 0.3 seconds prevent the formation of oxychloride compounds and break up any halogenated aromatic hydrocarbons.

Cofinancing: DG XII

The flue gases pass from the boiler to a mixing chamber, into which an aqueous calcium hydroxide solution or dry calcium hydroxide and water are blown to dehalogenate the waste gases. A fabric filter is then used to extract dust from these gases.

Further information may be obtained from: PWE, Anlagenbaugesellschaft für Wärme- und Umwelttechnik mbH, Bahnhofstraße 15, D-3360 Osterode-Harz 1, Tel. (05522) 3035/3036



DIRECTORY OF COLLECTIVE INDUSTRIAL RESEARCH CENTRES IN EUROPE

A directory containing the coordinates of about 400 collective industrial research centres in Europe - often called 'industrial research associations' in the United Kingdom, 'centres techniques' in France and 'Forschungsgemeinschaften' in Germany - has been compiled on a country-by-country basis as a part of the SPRINT action to promote transnational cooperation between these centres.

Further information on this SPRINT scheme can be obtained from Mr D. Janssens, Commission of the European Communities, DG XIII/C/1, B4/101, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-4407, Tlx: 2423 / 3446 COMEUR LU, Fax: (352) 4301-4129. A copy of this directory can be obtained on written request from Mrs S. Dria (same address).

IMPROVING THE UTILISATION OF PUBLICLY FUNDED RESEARCH

FIRST COMPREHENSIVE REPORT ON THE STATE OF TECHNOLOGY TRANSFER IN THE COMMUNITY NOW AVAILABLE

— STUDIES ON THE SITUATION IN THE MEMBER STATES PUBLISHED —

There has been growing concern in recent years that the **results of publicly funded research and development should be fully exploited** and that society should derive maximum benefit from them.

First of all, there has been a **lack of information on the actual measures adopted throughout the Community** and on their effectiveness. In order to fill this gap and to identify measures which might have general utility, the Commission initiated a series of studies to be made under the SPRINT Programme by groups of experts from university or the economy (See list of authors below). The objectives of these studies were to examine the procedures adopted in each Member State **to promote the effective utilisation of publicly funded R&D**, and to suggest measures which, in the opinion of the consultants, would be useful at both national and Community level. These studies have now been published:

Title: **Utilisation of the results of public research and development** (plus the name of the Member State concerned)
 Edited by: H. Corsten/K.-O. Junginger-Dittel/B.B. Goodmann/A.v. Witzleben - 1989, Published by: CEC, DG XIII-C, Luxembourg

IMPROVING THE UTILISATION OF PUBLIC AND PUBLICLY FUNDED R&D RESULTS			
List of studies/authors and order form			
Please send me the following publications (please tick):		Price in ECU (excluding VAT)	
<input type="checkbox"/>	Summary report EUR No. 11528 EN ISBN 92-825-8269-8	John T. McMullan Centre for Energy Research University of Ulster UK-Coleraine BT52 1SA	8.75
<input type="checkbox"/>	Denmark EUR No. 11530 EN ISBN 92-825-9046-1	Leif Christensen DTO - Danish Technical Information Service Rygaards Allé 131 A DK-2900 Copenhagen, Hellerup	10.00
<input type="checkbox"/>	France EUR No. 11531 FR ISBN 92-825-9047-X	Thomas Durand, Thierry Gonard and Roland Schell ANVAR 43, rue de Caumartin F-75436 PARIS Cédex 09	16.25
<input type="checkbox"/>	Germany EUR No. 11532 DE ISBN 92-825-9048-8	Gerhard Bräunling Fraunhofer-Institut für Systemtechnik und Innovationsforschung Breslauer Strasse 48 D-7800 Karlsruhe 1 and Michael Maas GHS Duisburg	11.25
<input type="checkbox"/>	Greece EUR No. 11533 EN ISBN 92-825-9049-6	D. Deniozos, T. Giannitsis and H. Tsipouri University of Athens Omirou 19 GR-10672 Athens	15.00
<input type="checkbox"/>	Netherlands EUR No. 11537 EN ISBN 92-825-9052-6	F.A. de Jonge Stichting LICENTEC Bernadottelaan 15 NL-3503 RH Utrecht	8.75
<input type="checkbox"/>	Ireland EUR No. 11534 EN ISBN 92-825-9050-X	B.A. O'Sullivan and D.J. Cogan Science Policy Research Centre Department of Business Administration University College Dublin	10.00
<input type="checkbox"/>	Italy EUR No. 11535 EN ISBN 92-825-9062-3	Giuseppe Bellei, Domenico Corradetti and Renato Facci FORMIT Fondazione per la Ricerca sulla Migrazione e sulla Integrazione delle Tecnologie Via Giovanni Gemelli Careri 11 I-00147 Roma	12.50
<input type="checkbox"/>	Luxembourg EUR No. 11536 FR ISBN 92-825-9051-8	M. Oestreicher LUXINNOVATION 7, rue Alcide de Gasperi, B.P. 1304 L-1013 Luxembourg	5.00
<input type="checkbox"/>	Spain and Portugal EUR No. 11538 EN ISBN 92-825-9053-4	Prof. Pedro Nuño IESE, Universidad de Navarra Avenida Pearson 21 E-08034 Barcelona	11.25
<input type="checkbox"/>	United Kingdom EUR No. 11539 EN ISBN 92-825-9054-2	R.E. Quince Segal Quince Wicksteed Economic and Management Consultants Hall Keeper's House 42, Castle Street UK-Cambridge CB3 0AJ	10.00

Name: _____ Address: _____
 _____ Date: _____ Signature: _____

Please return to: Sales Division, Office for Official Publications, 2, rue de Mercier, L-2985 Luxembourg

A copy of the revised version of the study on Belgium, taking into account the most recent developments, can be obtained on written request from Mr A. v. Witzleben, CEC, DG XIII/C/1, JMO, B4/091, L-2920 Luxembourg, Fax: (352) 4301-4129, Tlx: 3423 / 3446 COMEUR LU.



KEM-TEK 1989

FAIR FOR THE BIOTECHNOLOGICAL, CHEMICAL AND FOOD INDUSTRIES

BELLA CENTER COPENHAGEN

Kem-Tek Conference
November 7 to November 10, 1989, at the Bella
Center, Copenhagen.

8th int. fair for plant and equipment for the biotech-
nological, chemical and food industries.



The KEM-TEK Conference is based upon a brand-new concept - a non-profit arrangement where both participants and contributors take part free of charge.

The conference form is new in that the companies themselves present background material, research results, visions of the future, and other matters influencing the development of one or more specific products.

The Commission will be exhibiting a series of innovations stemming from Community R&D at KEM-TEK.

Further information on KEM-TEK:

Bella Center A/S, Center Boulevard, DK-2300 Copenhagen S, Contacts: E. Nöhlind and B. Rasmussen, Tel.: (45) 32 52.88.11, Fax: (45) 31 51.96.36, Tlx: 31188 bella dk or

The Danish Technological Institute, Mr H. Berg, Gregersensvej, DK-2630 Taastrup, Tel.: (45) 42 99.66.11, Fax: (45) 42 99.54.36.

WHY DOES A PRODUCT LOOK THE WAY IT DOES?
— an invitation to companies to submit contributions free of charge to the Kem-Tek Conference.

Last date of registration: August 31, 1989.



Further information on the participation of the CEC can be obtained from Mr F. Engels, Commission of the European Communities, DG XII/C/2, B4/106, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-2952, Tlx: 3423/3446 COMEUR LU, Fax: (352) 4301-4129.

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Please return to: Mr M. Leipold, Commission of the European Communities, DG XIII/C/2, B4/086, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-2936, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.



SIDEROMETALURGICA '89



The photo shows Mr Engels, head of the section responsible for commercialisation within DG XIII/C/2, at the CEC stand at SIDEROMETALURGICA.

The Commission participated actively in the metallurgical industrial fair 'SIDEROMETALURGICA' from 25 to 30 September 1989.

At its stand 17 products from Community research were presented (essentially ECSC — European Coal and Steel Community). It was visited in particular by managers of the Spanish steel industry. Mr Parajon Collada, Deputy Director-General of DG XIII presented the VALUE Programme.



The catalogue on Siderometalurgica '89 can be obtained from Mr M. Leipold, Commission of the European Communities, DG XIII c/2, B4/086, Jean Monnet, Building, L-2920 Luxembourg, Tel.: (352) 4301-2936, Tlx: 3423/3446 COMEUR LU, Fax: (352) 4301-4129.

National Energy Management



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21st & 22nd NOVEMBER 1989
Birmingham Metropole Hotel, NEC



MEI'90

ENERGY MANAGEMENT IN INDUSTRY AND THE TERTIARY SECTOR ENGINEERING AND SERVICES
MAITRISE DE L'ENERGIE DANS L'INDUSTRIE ET LE TERTIAIRE L'INGENIERIE ET LES SERVICES

APRIL 23-27, 1990 CNIT - PARIS LA DEFENSE
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Europe's only international forum on energy management
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Further information on these two events: R. Gardner, CEC, DG XVII, TERV 8/5, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 22353798.

EVCA PROGRAMME OF EVENTS

October 17-22: SITEF 89 - INTERNATIONAL MARKET FOR ADVANCED TECHNOLOGIES, Toulouse (Info: CCIT (33) 61.33.65.00)

November 20-22: EVCA INSTITUTE IV, Brussels (Info: EVCA (32) 2 720.60.10)

June 1990: VENTURE SYMPOSIUM 90, Nice (Info: (32) 2 720.60.10)

PATENT APPLICATIONS RECENTLY PUBLISHED

The Patent Applications shown in this section concern Inventions resulting from EG-funded or cost-shared EC Contract Research

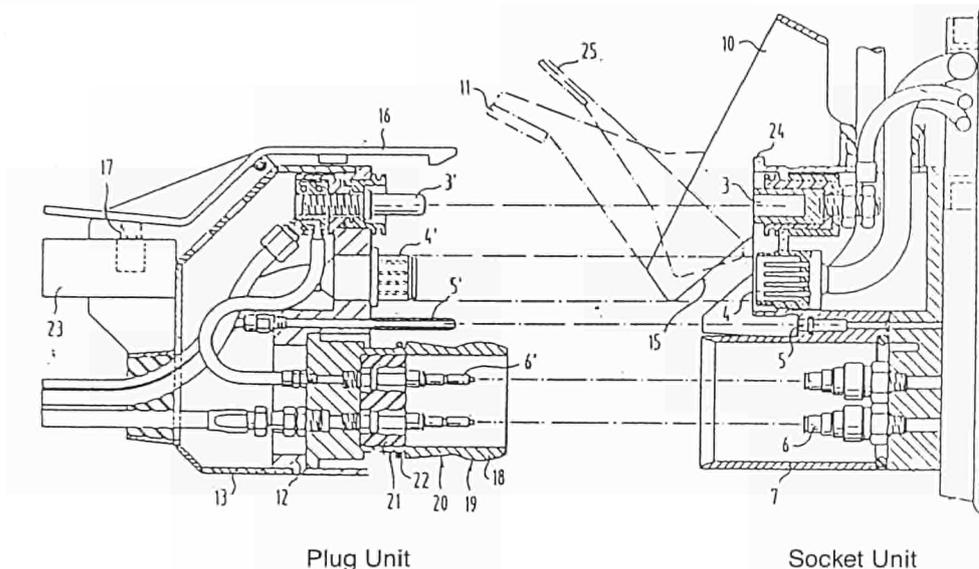
1. MULTICONNECTOR

Inventor: S.F. MILLS

Ref: EUR Pat 2230

This device assembles several individual connectors (welding junctions 3, low power electrical junctions 4, gas supply lines 5, liquid supply lines 6) for a variety of remote handling tools. It is composed of a stationary socket unit with individual connectors and a free plug unit with corresponding complementary connector (3', 4', 5', 6') halves. Prior to any operative engagement of the individual connectors the plug unit has to be aligned with the socket unit. Thereby the spherical portion (19) of the tube (18) protruding from the plug unit's front plate (12) is pressed into the cylindrical chamber (7) of the socket unit. As soon as the following conical portion (20) of the tube penetrates into the cylindrical chamber of the socket unit, the claw (16), pivotably mounted on the plug unit's chassis (13) and extending with its rear end to the spring (17) of the grasping block (23) of a remotely handled gripper, latches behind the shoulder (24) of the socket unit. It pushes down the actuation plate (11) of the engagement lever (10) so that two cam followers mounted on opposite side surfaces of the plug unit enter the lever cam slots (15) and both units are brought into the final operating position. The chamber containing the liquid supply lines is sealed by means of an O-ring (22). The engagement lever is protected by a spring loaded safety lock (25).

The device requires one telemanipulator arm only for the coupling operation.



2. A DEVICE FOR MEASURING THE IMPEDANCE OF A MEDIUM ALONG A MEASUREMENT LINE

Inventors: C. N. MURRAY, T. R. FORTESCUE

Ref: EUR Pat 2222

Exploring the possibility of sub-seabed disposal of waste vitrified in torpedo-shaped containers to be released by gravity into the sea-bed requires thorough research into the geophysical situation of the area through which the container will pass and where it will finally penetrate and stay. Leakage from the container should not cause sea pollution or spontaneous underground nuclear explosions. Therefore, it is fundamental that the hole created by the impact in the bottom sediment closes after impact and that the impedance of the medium through which the container passes (water, sediment, etc.) is known.

The device invented helps to explore the area projected for disposal. Its components are partly housed inside the (test) container (AC generator 17, current meter 18, multiplex switch). The medium's impedance data are transmitted by acoustic signals through an antenna (2) extending along the measurement line to a receiver at water surface.

Design: A plurality of electric wires (9) are wound around the antenna's core and coupled at their lower ends to a multiple connector. The wires are surrounded by an insulating layer through which their cut upper ends contact the corresponding electrodes of a series of braid sections divided into even and odd numbered length portions (10, 11). The medium's impedance is measured each time by two neighbouring electrodes of an even numbered braid section (10, 10') coupled through cyclically

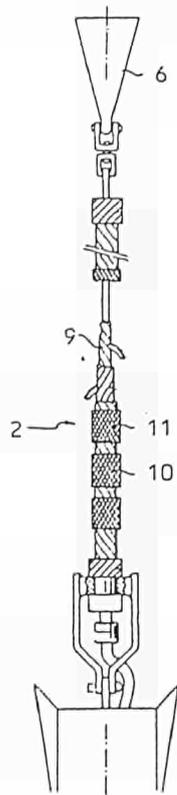


FIG. 1

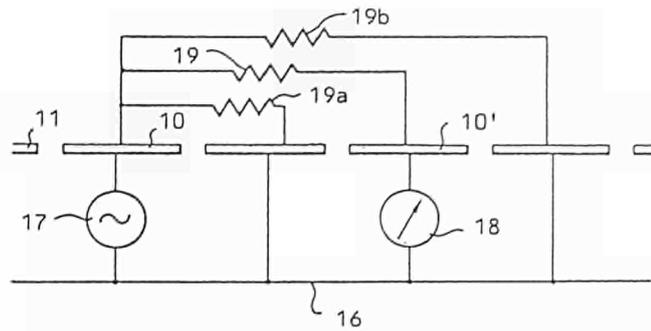


FIG. 2

switched Reed relays to the AC generator and to the current meter respectively. The odd numbered braid sections are connected together by one common wire to a ground line (16). Resistor (19) symbolizes the medium's impedance and resistors (19a and 19b) the parasitic impedances towards the guard electrodes. The float body (6) coupled to the antenna's upper end is intended to remain above the sediment layer.

3. APPARATUS OPERATING WITH CONTACT IONIZATION FOR THE PRODUCTION OF A BEAM OF ACCELERATED IONS

Inventor: H. LIEBL
 Ref.: EUR Pat 2235

The apparatus housed in a vacuum container (12) comprises a source of atoms in a reservoir (8) surrounded by a heating jacket (10) and a tubular rod-shaped ionisation electrode (1) tapering in the direction of an annular disc acceleration electrode (3) located at a certain distance (d) in front of the ionisation electrode's tip (2) which has a capillary bore and a small diameter compared to the distance (d).

The atoms pass from the reservoir through the stepwise decreasing tubular duct of the ionisation electrode which is heated by a surrounding thermionic cathode electron source (6) covered by a tubular heat shield. They impinge upon the hot inner wall (in particular the capillary part) of the duct and are vaporised as positive and negative ions. At duct exit, the positive ions emerging from the capillary are accelerated towards the acceleration electrode where a beam (5) of several keV energy emerges through a central opening and can then be focused by an electrostatic lens (11).

Compared to known devices of this kind, the design of this apparatus allows a much lower vapour pressure or, alternatively, gives an appropriate increase in the vapour throughput, whereby a much higher emission current density is achieved before any electrical breakdown occurs.

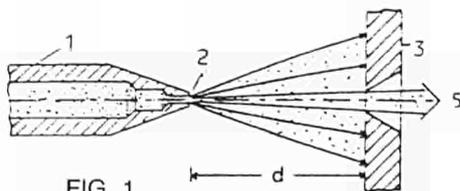


FIG. 1

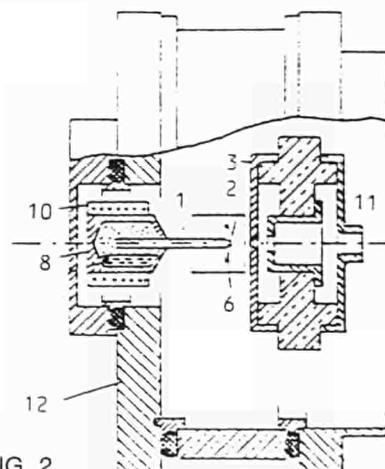


FIG. 2

4. A SUBMARINE VEHICLE INTENDED TO MEASURE DATA AT THE DEEP OCEAN SEA-BOTTOM

Inventor: C. N. MURRAY

Ref: EUR Pat 2231

This vehicle descends by gravity onto the sea-bottom from where it can be recovered together with its measurement instrumentation. Its vertical support structure (2-7) comprises a central tube (7) and four horizontal discs (2, 3, 4, 5), interconnected via bolts (6). Float clusters (8) are spaced out regularly around the central tube. An ultrasound transmitter/receiver (10) and measuring probes (9) are disposed between the tube and the float clusters. At its lower end, the support structure carries a penetrator divided into two cylindrical parts secured to each other along a line (14) by explosive bolts to be released by sound signals. The lower (ballast) part of the penetrator (11) is designed to penetrate into the sediment and to remain there while the upper part (12) equipped with measuring probes and control means can be placed at any given sediment depth according to the position of the support structure's upper disc (2) functioning as an end stop. Upon explosion of the bolt (13) the upper part of the penetrator is pushed upwards to the ocean surface by the float clusters assisting the vehicle's take off.

In the case of strong sediment friction forces, a pyrotechnical device (15) can assist the take off operation by inflating a bag with gas, drawing the vehicle upwards. A set of jet engines (18) mounted on the support structure allows the vehicle to be directed to a desired landing site under the control of a sound navigation system comprising several transmitters (16) and distance measuring probes (17). The vehicle's descent speed predetermining the penetration depth can be controlled by adjusting the weight of the ballast through the vertical impact of jet engines (18).

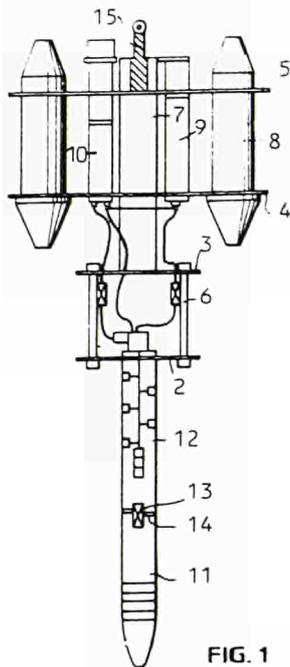


FIG. 1

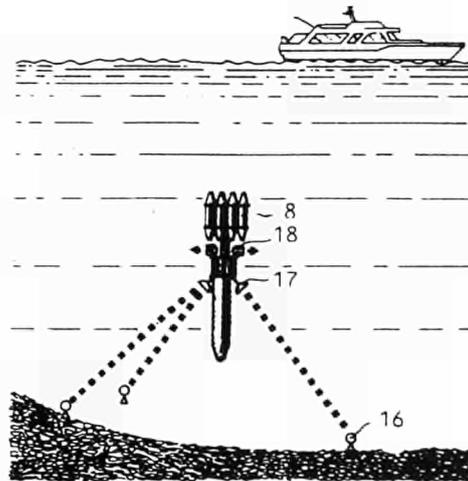


FIG. 2

Further information on the patent applications above can be obtained from Ms L. Gerlach, Commission of the European Communities, DG XIII/C/1, B4/068, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-2922, Tlx: 24223 / 3446 COMEUR LU, Fax: (352) 4301-4129.

EUROCOURSES — TRAINING IN ADVANCED SECTORS OF SCIENCE ORGANIZED BY THE JRC



The Joint Research Centre of the Commission of the European Communities is organizing **EUROCOURSES for the training of scientific and technical staff in advanced sectors of science.** These are linked with Commission research and development programmes, especially those being carried out by the Institutes of the Joint Research Centre itself.

The programme includes seminars and training courses in key areas characterised by rapid development and where national and international public or private organizations are required to ensure harmonious development and a high standard of living for Community citizens.

The Eurocourses programme 1990 will be available in November 1989. It can be obtained from Mr G. Pellegrini, JRC, I-21020 Ispra (Varese), Tel.: (39) 332 78.98.19, Fax: (39) 332 78.98.39, Tlx: 380042 / 380058 EUR I.

Commission of the European Communities

FIRST ANNOUNCEMENT

PATINNOVA '90

MADRID, 21-23 MAY 1990

Palacio de Congressos

— STRATEGIES FOR THE PROTECTION OF INNOVATION —

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PATINNOVA '90 will be the **first European congress dealing with patent and innovation matters**. It will focus on how to promote innovation and accelerate the spread of new technologies by means of the patent system.

Its overall objective is to **improve general awareness of the economic and marketing importance of the patent system**. PATINNOVA '90 aims to have a lasting impact on those who should be concerned in Europe. It will illustrate the potential benefits at all levels that **'best practice' in the field of industrial property rights** can bring to industry by means of case studies and model simulation.

PATINNOVA '90 will both highlight to the public the importance of property rights in the innovation process and bring together those currently working in the field of industrial property rights for a mutual and transnational exchange of views and experience.

The following issues will be addressed:

- **protection and filing policies** for technical innovations as part of the systematic marketing of technology;
- the role of **patent attorneys** and other patent consultants in filing and protection strategies;
- **patent-assisted marketing of inventions** from university and research institutions;
- impact of **patent-assisted marketing of licences** on the competitiveness of industry in the Single Market;
- strategies for avoiding and solving **patent disputes and litigation**;
- **requirements to be met in future** by the system of industrial property rights and by the patent system in particular.

The **draft programme for PATINNOVA '90** will be available by the end of november 1989. It can be obtained on **written request** from:

Dr A. v. Witzleben, Commission of the European Communities, DG XIII/C/1, B4/091 Jean Monnet Building, L-2920 Luxembourg, Tlx: 2423 / 3446 COMEUR LU, Fax: (352) 4301-4129 or

Dr U. Täger, IFO - Institut für Wirtschaftsforschung, Poschinger Straße 5, D-8000 München 86, Tel.: (49) 89 92.24-0, Tlx: 522.269, Fax: (49) 89 985.369.

✂

Please send me the draft programme of PATINNOVA '90 (to be returned to one of the addresses above):

Name: _____

Profession/Institution: _____

Address: _____

Postal Code: _____ Town: _____ Country: _____

Date: _____ Signature: _____

✂

Registration:

Mrs Maria Gasca Elosegui, OEC, Organización de Exposiciones y Congresos S.A., Plaza de la Encarnacion 2, E-28013 Madrid, Tel.: (34) 1 247.70.42/36, Tlx: 49.515, Fax: (34) 1 542.75.49.

PATINNOVA '90 — Call for scientific contributions

In connection with the organisation of PATINNOVA '90, the Commission intends to **publish a collection of articles** on the topics to be addressed. This publication is designed to give a **comprehensive view of the state of scientific discussion**. Interested persons, enterprises and research institutions are therefore invited to submit abstracts of possible contributions (max. 2 pages) to the IFO Institut für Wirtschaftsforschung, München by 15.1.1990 (Dr U. Täger, IFO-Institut, Postfach 860460, D-8000 München 86, PATINNOVA '90). Authors of selected contributions will be asked to submit their final articles by 30.3.1990.

SEMINARS AND CONFERENCES ON ENERGY EFFICIENCY

INTERNATIONAL SYMPOSIUM ON SOLAR ENERGY TECHNOLOGIES

Venue: Rio de Janeiro, Brazil, 1-3 November 1989

This international symposium aims at

- presentation and exchange of **information on solar technologies** existing in Europe and Brazil;
- presentation of selected **CEC demonstration projects** in this area;
- promotion and start up of **industrial joint ventures** between Brazilian and European companies;
- evaluation of the **CEC's supporting role**.

Organised jointly by the Commission of the European Communities, Directorate-General for Energy and Ministry of Mines and Energy, Brasilia, Brazil.

Languages: English, Portuguese and French with simultaneous interpretation

Further information: Mr G. Molina, Commission of the European Communities, DG XVII/D/1, TERV 6/4, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.15.24, Tlx: 21877 COMEUR B, Fax: (32) 2 235.01.50.

EUROPEAN SEMINAR ON ENERGY EFFICIENCY IN THE FOUNDRY SECTOR

Venue: The Conference Centre, Bilbao, Spain, 11-12 December 1989

Organised jointly by the Commission of the European Communities, Directorate-General for Energy, the Basque Enterprise for Energy, the International Fair of Bilbao.

The aim of the seminar is to disseminate the energy saving techniques for waste heat from foundries that have been learned through the Energy Demonstration Programme and to foster new and innovative ideas that can be pursued by companies in the foundry sector. The seminar will cover the following topics: direct and indirect heat recovery, process optimisation and the Energy Demonstration Programme.

Further information: Mr G. Molina (see address above)

FIRST ANNOUNCEMENTS

EUROPEAN SEMINAR ON COMPUTER-ASSISTED ENERGY MANAGEMENT

Venue: Paris, 23-27 April 1990

This Seminar, which is part of the MEI 90 Event, aims at presenting the latest developments in computer-assisted energy management in Europe.

Organised jointly between the Commission of the European Communities, Directorate-General for Energy and Agence Française pour la Maîtrise de l'Énergie (AFME).

Further information: Mr R. Gardner, Commission of the European Communities, DG XVII/D/1, TERV 8/5, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.96.33, Tlx: 21877 COMEUR B, Fax: (32) 2 235.01.50.

EUROPEAN WORKSHOP ON WASTE HEAT RECOVERY FROM GLASS FURNACES

Venue: Savona, Italy, 14 March 1990

This workshop aims to present the results of a successful EC funded Demonstration Project carried out by Vitrofil S.p.A. The workshop will also include a site visit to the company's plant at Valdo Ligure.

Organised jointly by the Commission of the European Communities, Directorate-General for Energy and Vitrofil S.p.A.

Further information: Mr R. Gardner, Commission of the European Communities, DG XVII/D/1, TERV 8/5, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.96.33, Tlx: 21877 COMEUR B, Fax: (32) 2 235.01.50.

ENERGY EFFICIENCY IN BUILDINGS

International Conference

Palais des Congrès, Lille, 28-30 November 1989



Organised by the Commission of the European Communities and the Conseil Régional de Nord-Pas de Calais in collaboration with the Agence Française pour la Maîtrise de l'Énergie. The Conference will review progress made to date, evaluate the scope for future improvements, assess future prospects, and stimulate the dissemination and implementation technology in buildings.

Languages of the conference: French, English, German, Italian.

Further information on this conference can be obtained from Mr M. Gowen, Commission of the European Communities, DG XVII/E/2, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 236.04.36, Tlx: 21877 COMEUR B, Fax: (32) 2 235.01.50.

EUROPEAN SEMINAR ON ENERGY EFFICIENCY IN THE CEMENT INDUSTRY

OPORTO, 6 and 7 November 1989

The fact that the long-term prospects for energy supply and demand are very uncertain following the rapid fall in oil prices, has stimulated both the international energy situation and that of the Community, and made it essential that the substantial progress already made in restructuring the Community's energy economy be maintained and, if necessary, reinforced.

Cement production is one of the most energy-intensive sectors. Although, much progress has already been achieved today in the field of energy economy in the Cement Industry in EEC Countries, some stages of cement production still offer opportunities for further improvement.

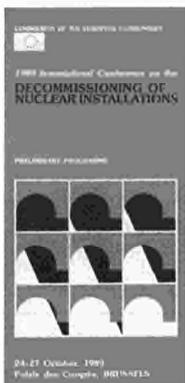
This Seminar aims to present a **panorama of the current situation of energy efficiency in the Cement Industry** in and outside Europe.

Organized by the Commission of the European Communities and CIMPOR - Climentos de Portugal, E.P. with the Cooperation of CEMBUREAU - the European Cement Association.

Information: Mr J. Sirchis, Commission of the European Communities, DG XVII/E/2, TERV 06/11, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 235.36.33, Fax: (32) 2 235.01.50, Tlx: 21877 COMEUR B.

THE 1989 INTERNATIONAL CONFERENCE ON DECOMMISSIONING OF NUCLEAR INSTALLATIONS

Brussels, 24 - 27 October 1989



The European Community is conducting **research on the decommissioning of nuclear installations** with the prime objective of developing effective techniques and procedures to ensure the protection of man and his environment against the potential hazards of nuclear installations that have been finally shut down.

A conference will be organised again upon completion of the programme, to present the results achieved and to provide an opportunity for discussions between experts and scientists from within and outside the European Community on the issue and options for future research.

Topics which will be covered are:

- Long term integrity of buildings and systems;
- Decontamination for decommissioning purposes;
- Dismantling techniques;
- Treatment of specific waste materials;
- Large waste containers;
- Estimation of radioactive waste quantities;
- Influence of installation design features;
- Testing of new techniques under real conditions.

Only invited papers will be presented by scientists involved in the programme through contracts, members of the Commission's scientific staff and guest experts. **The Scientific Secretary** is: Mr K. Pflugrad, Commission of the European Communities, DG XII, 200, rue de la Loi, B-1049 Brussels, Tel. (32) 2 235.84.25 or 236.04.63, Tlx: 21877 COMEUR B, Fax: (32) 2 236.20.06.

Information regarding the conference programme, registration, fees, accommodation, transport, official and social events:

CONFERENCE SERVICES

Mrs F. Rey · Avenue de l'Observatoire 3 · Boîte 17 · B-1180 BRUSSELS

COST SEMINAR ON ELECTRONIC DATA INTERCHANGE IN INTERNATIONAL TRANSPORT, BRUSSELS, 23 NOVEMBER



The Commission of the European Communities, in cooperation with the European Cooperation on scientific and technological research (COST), is organising, in Brussels on 23 November, an international seminar on the **exchange of computer data in the area of international transport**. During the one-day Seminar results of the international trials of COST-306 and an overview of the ultimate outcome of the project will be presented. Speakers will provide the latest information on the present state of Electronic Data Interchange in transport, plus the current situation in standardisation, international messages, legal issues and other related topics.

Further information can be obtained from Mr D. Rösigen, Commission of the European Communities, Centre de Conférences A. Borschette, 36, rue Froissart, bureau 4/4, B-1040 Brussels, Tel.: (32) 2 235.87.35, Fax: (32) 2 235.95.84.

Seminar on

Reactor Safety Research

20-24 November 1989, Congress Centre 'Villa Ponti', Varese (Italy)

The seminar is organized by the Joint Research Centre (JRC) of the Commission of the European Communities with the aim of presenting the results of the Reactor Safety Research Programme carried out between 1984 and 1988.

Request for further information

Surname

Forename

Mailing address

Please return to: Mr. W. Krischer, Commission of the European Communities, Institute of Safety Technology, Joint Research Centre — Ispra Site, I-21020 Ispra (Varese), Italy

Tel.: + 39-332-789610 · Telex: 380042 EUR I Fax: + 39-332-789045



AUTOTECH

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GENERAL AND CONGRESS ENQUIRIES

Please contact: Mrs J. Brown or H. Anderson, Conference Department C 399, Institution of Mechanical Engineers, 1, Birdcage Walk, Westminster, UK-SW1H 9JJ London, Tel.: (44) 1 222.78.99, Fax: (44) 1 222.98.81, Tlx: 917944 IMELDN.

NUEVA INFORMACION SOBRE EL PROGRAMA SPRINT DISPONIBLE

El I.M.P.I. (Instituto de la Pequeña y Mediana Empresa Industrial) de España acaba de publicar un juego de fichas explicando detalladamente el contenido de la fase principal del programa SPRINT (1989-1993), así como información práctica en lo tocante a las condiciones, tipos de acciones y plazos de las convocatorias de SPRINT.

Se ruega a las personas y organismos interesados por este documento de información, que se dirijan al Sr. D. Ignacio Atorrasagasti, IMPI, Pº. de la Castellana 141, E-28046 Madrid, Tel.: (34) 1 572.02.78, Fax: (34) 1 571.28.31.



EUROTECHALERT SERVICE TO SUPPLY INDUSTRY WITH INFORMATION ON RESULTS OF PUBLICLY-FUNDED RESEARCH

This service provides information from a reservoir of innovative ideas which can lead to the development of new products and services, the introduction of new technologies and improvements in manufacturing and processing methods.

To bring these ideas to the attention of potential users, several Member States of the European Community, with support from the Commission of the European Communities, have cooperated in the creation of the **EuroTechAlert Service**. It is receiving support under the European Community's Strategic Programme for Innovation and Technology Transfer - the SPRINT Programme, one aim of which is to improve access to information and knowledge, so as to encourage innovation and technology transfer across the European Community.

The EuroTechAlert leaflets **give details of the most recent reports identified by EuroTechAlert as being of special interest to business and industry**. By summarizing the data in printed form it is hoped to give a greater impact and emphasize the value and benefits of the information to be found in technical report literature of this nature.



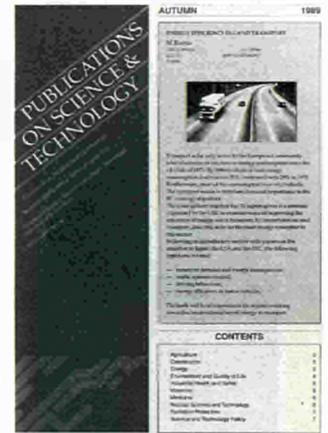
A specimen copy can be obtained on written request from Dr E. Phillips, Commission of the European Communities, DG XIII/C/3, B4/078, Jean Monnet Building, L-2920 Luxembourg, Tlx: 2423 / 3446 COMEUR LU, Fax: (352) 4301-4129 (the following languages are available: DE/EN/F/IT/NL).

REGULAR INFORMATION ON SCIENTIFIC AND TECHNICAL PUBLICATIONS NOW 30 AVAILABLE

Regular information on scientific and technical publications resulting from the work of the European Communities can be found in a **new booklet** issued by the Scientific and Technical Communication Unit of DG XIII-C. To be issued four times per year, the booklet includes news of reports arising from the research and technological development programmes as well as publications on innovation and technology transfer and on science policy. The current issue includes books and reports on

- agriculture
- biotechnology
- energy
- environment and quality of life
- industrial health and safety
- nuclear science and technology
- physical sciences
- radiation protection
- science and technology policy.

A specimen copy can be obtained on written request from Dr E. Phillips, Commission of the European Communities, DG XIII/C/3, B4/078, Jean Monnet Building, L-2920 Luxembourg, Tlx: 2423 / 3446 COMEUR LU, Fax: (352) 4301-4129.



THE 1 MW WIND TURBINE AT WIERINGERMEER

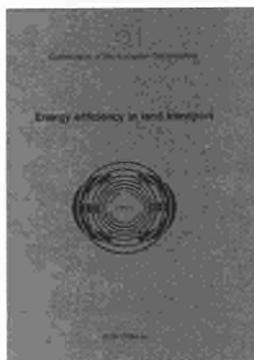
by A. Van der Steen, H. Overbeek

The 1 MW wind turbine in the Netherlands was primarily a technical tour de force of the Dutch wind turbine industry. However, it also distinguished itself as a project in which a comparatively limited number of very enthusiastic and dedicated people made a real step forward in the realization of large-scale wind energy production.

Published by the Commission of the European Communities, DG XIII-C, EUR 12239 EN, ISBN 92-825-9992-2

Office for Official Publications of the European Communities, Luxembourg, 1989

ENERGY EFFICIENCY IN LAND TRANSPORT



Edited by M. Roma

Where energy is concerned, the transport sector is a very special case compared with other sectors of activity. Firstly, it accounts for an increasing proportion of final consumption compared with other sectors. Secondly, it depends almost entirely on petroleum products.

It is therefore vitally important to take further initiatives in order to:

- improve the energy efficiency of transport systems, and
- encourage the use of alternatives to petroleum products, provided that this has a favourable impact in terms of primary energy (in addition to the possible financial benefits).

Published by the Commission of the European Communities, DG XIII-C, EUR 12284, ISBN 92-825-9930-2

Office for Official Publications of the European Communities, Luxembourg, 1989

INDUSTRIAL PROCESSES BUILDING AND CIVIL ENGINEERING TIMBER STRUCTURES

Edited by H. J. Larsen, J. Kuipers, J. Ehrentreich

Proceedings of a European conference held in Luxembourg from 14 to 16 September 1988 and organized by the Commission of the European Communities, Directorate-General for the Internal Market and Industrial Affairs, in collaboration with the International Council for Building Research, Studies and Documentation.

Published by the Commission of the European Communities, DG XIII-C, EUR 12136 EN-DE-FR, ISBN 92-825-9944-2

Office for Official Publications of the European Communities, Luxembourg, 1989

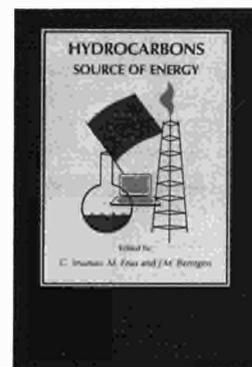
HYDROCARBONS AS AN ENERGY SOURCE

Edited by G. Imarisio, M. Frias, J. M. Bemtgen

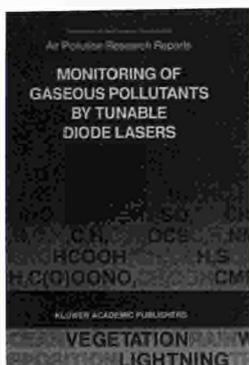
Proceedings of the First Seminar on the results of the sub-programme 'Optimization of the Production and Utilization of Hydrocarbons' held in Lyon, France, 21-23 September, 1988.

Publication arrangements: Commission of the European Communities, DG XIII-C, EUR 12212 EN, ISBN 1-85333-287-9

Published by Graham & Trotman Ltd, 1989



MONITORING OF GASEOUS POLLUTANTS BY TUNABLE DIODE LASERS



Edited by R. Grisar, G. Schmidtke, M. Tacke, G. Restelli

This volume contains the papers presented at the Second International Symposium on Monitoring of Gaseous Pollutants by Tunable Diode Lasers, held on October 17-18, 1988, in Freiburg, Federal Republic of Germany.

The volume is divided into five sections: Atmospheric Trace Gas and Exhaust Gas Analysis; Lead Chalcogenide Diode Laser Development; Components and Techniques; Special Applications; Photoacoustics.

Publication arrangements: Commission of the European Communities, DG XIII-C, EUR 11956, ISBN 0-7923-0344-2

Kluwer Academic Publishers, P.O. Box 17, 3300 AA Dordrecht, The Netherlands, 1989

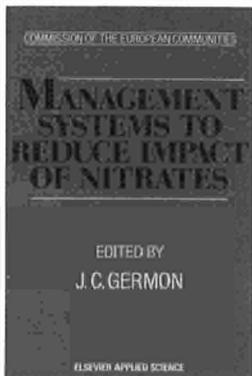
THE REMOVAL OF CONCRETE LAYERS FROM BIOLOGICAL SHIELDS BY MICROWAVES

by D. L. Hills

Published by the Commission of the European Communities, DG XIII-C, EUR 12185, ISBN 92-825-9998-1

Office for Official Publications of the European Communities, Luxembourg, 1989

MANAGEMENT SYSTEMS TO REDUCE THE IMPACT OF NITRATES



Edited by J. C. Germon

Nitrate concentration in water is a topic of pressing concern in many areas of Europe. The CEC has therefore held a meeting entitled 'Management Systems to Reduce the Impact of Nitrates', which was organized within the framework of the Community Programme on Land and Water Use Management (DG VI).

The main aims of the meeting were as follows:

- to provide an overview of the different methods to reduce nitrate pollution due to agriculture;
- to record the main steps of the nitrogen cycle by which it is possible to control nitrate availability in soil and to evaluate recent progress;
- to highlight areas needing more research in order to manage the nitrogen cycle in agriculture more efficiently.

Publication arrangements: Commission of the European Communities, DG XIII-C, EUR 11262, ISBN 1-85166-402-5

Published by Elsevier Applied Science, London and New York, 1989

ENZYME SYSTEMS FOR LIGNOCELLULOSE DEGRADATION

Edited by M. P. Coughlan

Vast quantities of lignocellulosic materials, i.e. biomass, are available for exploitation as potential sources of food, fuels and chemical feedstocks. As the term 'lignocellulose' implies, such materials are comprised, in the main, of cellulose, hemicellulose and lignin. Thus, exploitation of the potential of biomass requires that each of these major polymers be utilized, perhaps by conversion to their simpler constituents and then to more valuable end products.

For a variety of reasons, biological conversion is preferred to chemical conversion procedures. Obviously, such processes must be efficient. Thus, it is clear that one must have a thorough understanding of the enzyme systems required for the hydrolysis of each of the major components in question and of the microorganisms (fungi and bacteria) that produce these enzyme systems.

Publication arrangements: Commission of the European Communities, DG XIII-C, EUR 12231, ISBN 1-85166-411-4

Elsevier Science Publishers Ltd, Crown House, Linton Road, Barking, Essex 1G11 8JU, England, 1989

AUTOMATION OF CYTOGENETICS

Edited by C. Lundsteen, J. Piper

The multidisciplinary field of automated chromosome analysis is covered in all its aspects by the 20 contributions from users and leading researchers in this book. They include evaluations of complete image-based chromosome analysis systems, current research into new image analysis techniques, the development of systems for chromosome aberration scoring, automatic specimen preparation and the use of flow systems for chromosome measurement and analysis.

Publication arrangements: Commission of the European Communities, DG XIII-C, EUR 11968, ISBN 3-540-51105-9, 0-387-51105-9

Published by Springer-Verlag, Berlin, Heidelberg, New York, 1989



APPLICATION OF NMR TECHNIQUES ON THE BODY COMPOSITION OF LIVE ANIMALS

Edited by E. Kallweit, M. Henning, E. Groeneveld

This volume contains the proceedings of the seminar on 'The application of NMR techniques on the body composition of live animals', held on 14-15 June 1988.

Publication arrangements: Commission of the European Communities, DG XIII-C, EUR 11713, ISBN 1-85166-404-1

Published by Elsevier Science Publishers Ltd, Crown House, Linton Road, Barking, Essex 1G11 8JU, England, 1989

Please see also the order form for publications of the Office for Publications on page 39.

SPRINT, THE EUROPEAN PROGRAMME FOR INNOVATION AND TECHNOLOGY TRANSFER

THE EUROPEAN DESIGN PRIZE 1990 TO BE AWARDED IN SPRING 1990

The international jury responsible for awarding the European Community Design Prize (ECDP) met on 14/15 September 1989 in Barcelona.

The prize is to be awarded for the second time as part of the design promoting activities of the SPRINT Programme. This time it will be organized by the foundation BCD - Barcelona Design Centre. The jury comprises one representative per Member State participating and its first meeting was opened by Dr A. Strub, Director of DG XIII-C. It appointed Mr Giuliano Molineri (Giugiaro Design, Milan) as its Chairman.

Further to the designations of the eleven participating Member States the jury has nominated 52 enterprises for the ECDP which all contribute to the development of an innovative policy in the field of industrial design.

The ECDP award ceremony will take place in the first quarter of 1990 in Spain. An exhibition of all 52 nominations will be organised, and could also be moved elsewhere subsequently (if interest is expressed).

Contact: Mr E. Faroult, Commission of the European Communities, DG XIII/C/1, B4/075, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-4371, Tlx: 2423 / 3446 COMEUR LU, Fax: (352) 4301-4129.



JORNADAS DE TRANSFERENCIA DE TECNOLOGIA IN PAMPLONA

MR PARAJON COLLADA WISHES FOR MORE DIRECT TRANSBORDER CONTACTS BETWEEN THOSE ACTIVE IN THE FIELD OF INNOVATION



The photo shows from left to right Mr Parajón Collada (Deputy Director-General of DG XIII), Mr Julián Balduz (Government of Navarra) and Mrs Oiz (Director of Iniciativas Empresariales de Navarra).

With the support of the Commission, a technology transfer conference was organised in Pamplona on 26/27.6.1989. Its purpose was to allow firms from this area to meet technology transfer agents from other Member States and diversify into new activities. Sixteen representatives from well-known technology transfer institutions (Arist-Aquitaine (F), Arist Midi Pyrénées (F), NESDA (UK), Shekell (UK), Gomov (B), Gom Limburg (B), Jalles consultores (P), CIDEA (P), Team (I) and Hager & Hager (D)) participated and had more than 230 individual meetings with 42 enterprises from the Pamplona area.

Mr Vincente Parajón Collada, Deputy Director-General of DG XIII welcomed the participants and gave a lecture on the Commission's innovation promoting activities under the SPRINT Programme. He said that he was very impressed by the success of this event: 'Direct contacts between those active in the field of innovation seem to be the best way to achieve transborder technology transfer agreements. For this reason the Commission will attach great importance to this issue and encourage further events of this nature under the new SPRINT Programme'.

For further information on the jornadas de transferencia de tecnologia please contact: ASESORIA INDUSTRIAL, Mr J. M. ZABALA, Navas de Tolosa 5-2, E-31002 Pamplona, Tel.: (34) 48 22.89.63, Fax: (34) 48 22.88.82.

THE T.I.I. TECHNOLOGY REQUEST NETWORK (TRN)

In order to make the demand for and supply of technology more transparent, a large number of printed catalogues and, more recently, electronic data-bases of technology opportunities have been introduced.

These have undoubtedly helped many technology partners to meet and do business. In addition to these various initiatives, TII has just launched the TII Technology Request Network (TRN) for a pilot phase of six months. It is a mechanism for circulating technology demand from client companies of TII members. The distinguishing features of the TRN system are: demand-led, quality-oriented, confidential and selective.

Only TII Members will be allowed to enter requests into the TRN. However, after the pilot phase, it is intended to circulate requests outside of the membership (on a subscription basis). This will maximise the probability of a matching supply being found.

For further information, please contact the TII secretariat, 3, rue de Capucins, L-1313 Luxembourg, Tel.: (352) 46.30.35, Fax: (352) 46.21.85, Tlx: 6105111 GMA LU.

1st CONFERENCE OF THE EUROPEAN ASSOCIATION OF CONTRACT RESEARCH ASSOCIATIONS-EACRO

- The Contract Research Organizations (CROs) in Europe will hold their **first congress** in Amsterdam, The Netherlands, on February 25-27, 1990.
- This congress is sponsored and organized jointly by the **SPRINT** Programme of DG XII of the Commission and by **EACRO**, the recently founded European Association of Contract Research Organizations, which has already gathered together a major part of the profession within Europe.
- The first aim of the congress is **to emphasize the role of CROs in improving the competitiveness of European industry**, bringing efficient technologies more cheaply and quickly to their customers, and converting the results of scientific research and large national or European programmes into practical know-how.
- The second aim is to examine better ways of **cooperation among members** of the profession, its clients, governments and the Commission.
- According to a recent survey carried out for the SPRINT Programme CROs in Europe represent more than **100 organizations, 20 000 employees and 1 billion ECUS** in contracts. They thus form a very important tool for technological development in Europe. EACRO and the Commission expect that the congress will form a good basis for the future development of contract research in Europe and for better use of all its potential by the industry and the EC.

1st Conference



of the European Association
of Contract Research Organizations

RAI Congress Centre
Amsterdam, The Netherlands
25 - 27 February 1990



Please send the preliminary conference programme, registration and hotel reservation forms to:

Name: _____ Company: _____

Address: _____

Postal Code: _____ City: _____ Country: _____

Return this form to: TNO Corporate Communication Department, P.O. Box 297, NL-2501 BD The Hague.

EUROTECH CAPITAL - PILOT SCHEME LAUNCHED BY THE CEC

The Commission has launched a pilot scheme (Eurotech capital), designed to provide financial support for transnational high-technology projects. The **'Eurotech capital'** label will be granted to financial entities that comply with certain specific criteria (investment capacity of at least ECU 50 million, of which at least 20% must be earmarked for financing transnational high-technology projects) and will enable the recipient to make use of various services which will be partially financed by the Commission. A document describing the operating principles of Eurotech capital and any further information required can be obtained from: Unité Études et nouvelles Techniques Financières, Directorate-General XVIII 'Credit and Investments', Commission of the European Communities, rue Alcide de Gasperi, L-2920 Luxembourg.

SPRINT NETWORK PARTNERS MEETING IN LUXEMBOURG

Over 250 members of the SPRINT Transnational Technology Transfer networks met in Luxembourg on July 10-12 for their annual evaluation conference. The theme of the conference was 'Networking across Europe'. Key speakers on this theme were Prof. Juan Carlos Jarrillo of the Instituto de Empresa Madrid and Professor Paula Dubini of Bocconi Business School Milan. Networking between the SPRINT partners and links with other Community-led programmes, schemes and associations was encouraged in a series of networking sessions and parallel working groups. Improving network efficiency was the main subject on day two in the form of a panel discussion and plenary debate. The meeting heard that in 1988 64 inter-Company agreements had been signed as a result of the SPRINT partners' activities. This represented a 50 % increase on the yearly average for the first three years of the programme.

Proceedings of the Conference will be available by the end of 1989. To request a copy please write to Mr I. Traill, Commission of the European Communities, DG XIII/C/1, B4/105, Jean Monnet Building, L-2920 Luxembourg, Tlx: 2423 / 3446 COMEUR LU, Fax: (352) 4301-4129.

VENTURE CAPITAL: SURVEY SHOWS EUROPE OUTPACING THE UNITED STATES

— EVCA YEARBOOK 1989 JUST PUBLISHED —

The growth of venture capital in Europe continues to outpace the United States. The results of the EVCA survey of the European venture capital market in 1988 show that the total pool of venture funds in Europe (16 countries) grew by 18.5 % in 1988 to a total of ECU 18.7 billion compared to an expansion of just 7 % in the United States to a total of ECU 26 billion (\$ 31.14 billion).

The rate of investment of funds accelerated considerably in 1988 leading to a 22.7 % increase in investments made (ECU 3.48 billion). In the U.S., ECU 2.5 billion was invested during the same period. The United Kingdom still continues to dominate Europe's venture industry and grew by 15 % in 1988 to ECU 11.249, representing 60 % of the European total. Impressive rates of growth in funds and in levels of investment are evident in a number of countries. Investment in start-up companies in 1988 increased to represent, by number, 26.6 % of all investments made. In money terms they represented 12 % of investments.

Investments at the 'seed' stage fell back from 1.1 % in 1987 to 0.3 % in 1988. Generally early-stage investments appear to have been underserved in favour of later-stage deals, an issue about which EVCA as an organisation intends to take corrective action. Management buy-outs in 1988 represented 17.6 % of all deals but accounted for 38.1 % of funds invested (1987: 37.5 %). 42.5 % of investments were for business expansions compared to 50 % the previous year.

Industry structure

The survey looked at the structure of the industry and found that 55 % of the funds are independent compared to 85 % in the United States. 27 % are captive, 7 % are semi-captive and 11 % are government funds. The majority of investments continue to be made on a national basis though 8.0 % of investments were syndicated on a transnational basis.

The survey shows a trend towards investment in industrial and consumer companies and away from the high-tech sector. Consumer investment grew substantially in 1988, accounting for 24.1 % against 19.8 % the previous year (partly a reflection of the growth of consumer-oriented management buyouts). Manufacturing accounted for 17.8 % of investments during the year, with the construction sector rising from 0.1 % to 7.8 % in 1988.

(Final statistics are published in the EVCA YEARBOOK for 1989, which is available from the EVCA Secretariat; see address below).



VENTURE CONSORT — INNOVATION FINANCE SCHEME

The venture consort is a catalyst to encourage transnational syndication of VC-companies for innovative projects within the CEC. The VENTURE CONSORT pilot system is aimed at encouraging the growth of European SMEs through the formation of crossborder syndicates of venture capitalists. It was launched by the Commission of the European Communities and the European Venture Capital Association.

THE EVCA INSTITUTE

The EVCA Institute is the Management Development Institute of the European Venture Capital Association. It was set up by the Management Development Committee of EVCA, as a response to the need for training for new Venture Capital Managers and Advisers specialising in the Venture Capital industry. The EVCA Management Development Course was developed by a Working Committee of senior Venture Capital Executives with the support of the European Communities. The Course has been designed in a non-theoretical and VC-practice oriented way. The composition of both teachers and participants is international.

The EVCA Institute Management Development Course is a three day seminar organised for newer members of Venture Capital firms, whether junior managers or senior managers new to the industry. Institute courses are held twice a year. The next course will take place on 20-22 November 1989 in Brussels.

THE TRANSNATIONAL VENTURE MANAGER EXCHANGE SCHEME

The Transnational Venture Manager Exchange Scheme aims to encourage Venture Capital Managers to work one to three months in a Venture Capital company located in another country of the European Community.

The objectives of the Scheme are to give Venture Managers the opportunity to gain first-hand practical information and experience in other European markets and to establish a basis for long-term transnational cooperation between Venture Capital companies and the individuals involved.

The Commission of the European Communities, which supports the scheme under its SPRINT Programme, intends to reimburse the Venture Capital company which sends the Manager to compensate for the (temporary) loss of manpower and the extra costs resulting from the secondment (i.e. travel, subsistence).

Please send your application and Curriculum Vitae to the EVCA Secretariat, stating preferences for the country to which you want to send your Manager(s). EVCA will help you to find a suitable host.

For further information on the above schemes please contact: EVCA, Keibergpark, Minervastraat 6, Box 6, B-1930 Zaventem, Tel.: (32) 2 720.60.10, Fax: (32) 2 725.30.36

SPRINT CALL FOR PROPOSALS FOR THE PROMOTION OF EUROPEAN CONFERENCES OR WORKSHOPS ON TECHNOLOGY AND INNOVATION

This scheme is intended to promote the Community-wide dissemination of information concerning innovation and/or technology transfer. Proposals will be invited from the organizers of conferences on innovation or technology who are prepared to give a European dimension to conferences which would normally be held on a national or regional basis. Proposals may be submitted by any natural or legal person, public or private body, institution or group established in the territory of a Member State by 30. 11. 1989. Only proposals for European conferences etc. which are scheduled to take place after 31 August 1990 will be accepted.

✕

ORDER FORM FOR APPLICATION FORMS

(to be returned to the SPRINT Secretariat — see address below)

Name of the person requesting the application form(s)

If applicable, name of the enterprise or organization which you represent

Address

Telephone

Telefax

Telex

Please send to the above address an application form for the promotion of European conferences on technology and innovation

Please send the application form in the following languages:

ENGLISH

FRENCH

GERMAN

Please return to: The SPRINT Secretariat, Commission of the European Communities, DG XIII/C1, B4/100, Jean Monnet Building, L-2920 Luxembourg.

DIRECTORY OF CONTRACT RESEARCH ORGANIZATIONS IN THE EEC

Edited by R. Miège / I. Traill



This first major survey and Directory of over 150 European Contract Research Organisations (CROs) has been published by DG XIII as part of its innovation promotion activities under the SPRINT Programme.

The report analyses for the **first time the nature and structure of contract research** in each of the EEC Member States and points out the vital role of CROs in technology transfer.

It further recommends strengthening of cooperation between the CROs at the European level.

Following these recommendations, the European Association of Contract Research Organisations has been formed by the associations of CROs in France and Britain in conjunction with major CROs in Germany, the Netherlands and Italy (see page 31).

✕

Please send a copy of the publication 'Contract Research Organisations in the EEC' EUR 12112, ISBN EN-92-825-9766-0, FR-92-825-9767-9 (price 40 ECU) in English , French to:

Name: _____

Address: _____

Please return to: Office for Official Publications, 2, rue de Mercier, L-2985 Luxembourg



TII — THE INNOVATION LINK IN EUROPE

News from TII, the European Association for the Transfer of Technologies and Industrial Information

PROGRAMME OF TII EVENTS

26-27	Oct	Tii Conference, 'Enterprise, Innovation and 1992 - Innovation Support Services in Europe', Nice (see ad vertisement below)
16-17	Nov.	Seminar: Marketing of Innovative Products, Valencia
20-21	Nov.	Group visit to Oporto
27	Nov.-	Intensive Induction Seminar on Technology Transfer and Innovation Advisory Techniques and Methods (for newcomers to the profession), Luxembourg
1	Dec.	
14-15	Dec.	Seminar: Technology Auditing, Brussels

For further information please contact TII, 3 rue des Capucins, L-1313 Luxembourg (Tel. 352.46.30.35)



TII - EUROPEAN ASSOCIATION FOR THE TRANSFER OF TECHNOLOGY, INNOVATION AND INDUSTRIAL INFORMATION

in cooperation with



EUROPEAN CONFERENCE

ENTERPRISE, INNOVATION AND 1992: INNOVATION SUPPORT SERVICES IN EUROPE

NICE
October 26-27, 1989



with the support of "Conseil Régional Provence, Alpes, Côte d'Azur", in association with AMAS-PHIRAMA, under the patronage of "Ministère de la Recherche et de la Technologie", and "C.R.C.I. Provence, Alpes, Côte d'Azur et Corse"



with the support of the SPRINT programme of the C.E.C. under the patronage of the President of the European Parliament

A European conference for professionals in: innovation and technology management and consultancy, technology transfer, licensing, business information, contract research, research-industry liaison, innovation financing, business incubation, regional economic development, policy design, implementation and research

EUROPEAN CONFERENCE

"ENTERPRISE, INNOVATION AND 1992: INNOVATION SUPPORT SERVICES IN EUROPE"

Aims of the conference

To highlight the **rich variety of innovation-support services** available to firms in Europe.

To emphasise the **growing economic importance of these services**, individually and collectively.

To **exchange views and experience** on trends and working methods in innovation support.

To **promote multi-disciplinary and transnational contact and cooperation** between innovation-support organisations and professionals.

Reply

Name _____

Organisation _____

Full postal address _____

Tel.: _____ Fax: _____ Telex: _____
I wish to receive the final programme for the conference

Return to: TII, 3, rue des Capucins, L-1313 LUXEMBOURG, Tel.: (352) 46 30 35, Telefax: (352) 46 21 85, Telex: 6105111 GMA Lu

SPRINT CALL FOR SPECIFIC PROJECTS

Under the SPRINT Programme the Commission has launched a Call for Proposals to provide financial support for the definition phase of **Specific Projects for Intra-Community Innovation Transfer**.

'Specific Projects' aim to highlight the economic importance of new technologies by demonstrating their impact in selected applications. Their design should allow the broad communication of the results of these projects to those concerned by demonstration the benefits of new technological solutions. Proposals must reach the Commission by 27.10.1989.

This call is published in the Official Journal C 185 of 22.7.1989. The information package and application forms can be obtained on written request from: Mr R. Miège, Commission of the European Communities, DG XIII/C/1, B4/099, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-4180/4371, Tlx: 3423/3446 COMEUR LU, Fax: (352) 4301-4129.

**2nd LES PAN-EUROPEAN CONFERENCE
TURIN**

7/8 September 1989

On September 7 and 8 1989, the 2nd Licensing Executives Society's Pan-European Conference, organized by LES - Italia, was held in Turin, Italy, at the premises of Unione Industriale, under the sponsorship of Municipality of Turin and the Commission of the European Communities. The theme of the Conference was 'Licensing towards 1992: challenges and prospects of the European Single Market', and it comprised three working sessions, dealing respectively with:

- 'Licensing strategies with an eye to the European Single Market' (1st session);
- 'The legal framework' (2nd session);
- 'Technology and communication' (3rd session).

Mr Bruce B. Goodman of DG XIII in the European Commission spoke on 'European Community activities in innovation and technology transfer', Mr Edwin P. Rutan, II, of A T&T Europe, reported on 'U.S. views on the European Single Market', Mr Sergio Pininfarina, Chairman of the National Association of Italian Industries (Confindustria) highlighted the present Italian situation and its trends, Mr Aurelio Pappalardo, honorary Director-General in the European Commission, reported on 'Interrelation between national and anti-trust legislations, and David Vaughan, Q.C., lectured on 'The attitude of the Commission and the jurisprudence of the Court of Justice'.



The photograph shows the speakers at the opening session of the LES conference.

The next Pan-European Conference will be organized by LES - France in Bordeaux in September 1990.

Further information on this event can be obtained from: Avv. Stefano Sandri, LES - Italy, Via le B. Buoizzi, 51, I-00197 Roma, Tel.: (39) 6 87.75.95 / 87.02.72, Fax: (39) 6 887.04.30, Tlx: 610539.

HIGH TECH FAIR IN DENMARK:

TECHTRANS CENTRE '90

... aims to build a **bridge between high technology and the producer** and ...

... will be an **international forum for exchanges of ideas** between suppliers of high-technology products, new technologies and techniques, as well as advanced processes, systems and know-how on the one side, and industrialists and technicians, producers looking for new results, licences and patents, investors, product developers and scientists, as well as technology and patent brokers on the other side. Furthermore, TechTrans Centre '90 will be a meeting place for colleagues with the opportunity to exchange experience and points of view at both conference and exhibition level.

TechTrans Centre '90, which takes place at the same time as the Herning Fair '90, **will concentrate on five key areas:**

- intelligent products, new technologies, processes and techniques
- new energy technologies and techniques
- new materials
- infrastructure
- bioengineering

**Sponsored by the Commission of the EC
under the SPRINT Programme**

Organizer:

Messecenter Herning, (Exhibition Centre Herning), Vardevej 1, DK-7400 Herning, Phone: +45 97 12 60 00, Fax.: +45 97 22 30 60, Telex: 62 135 (herhal dk)

Pour toute information s'adresser à: Mme M. Morange, Laboratoire Central des Industries Électriques, Division Matériaux et Instrumentation, 33, av. du Général Leclerc, F-92260 Fontenay-aux-Roses, Tél.: (33) 40.95.63.83, Fax: (33) 40.95.60.40, Tlx: 250.080 F.



séminaire

Fontenay-aux-roses 24/25 octobre 1989

LABORATOIRE CENTRAL DES INDUSTRIES ELECTRIQUES

**Nuisances d'origine électrostatique
dans l'Industrie**

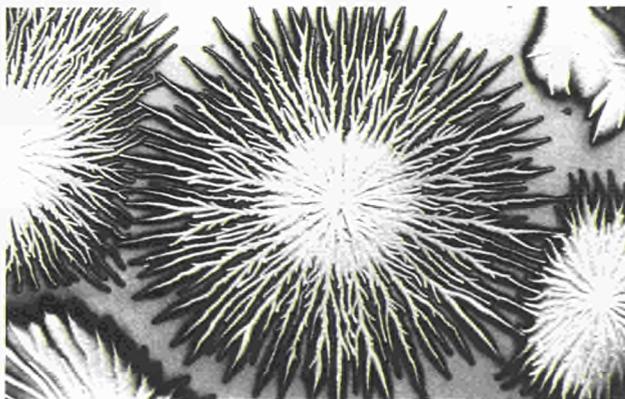
L'électricité statique constitue une gêne ou un danger dans un grand nombre d'industries (**électronique, chimie, pharmacie, textiles, mines...**)

Sous l'égide du programme **SPRINT** (Strategic Programme for Innovation and Technology) de la **Communauté Economique Européenne**, la division Matériaux et Instrumentation du LCIE organise un séminaire sur ce thème.

Les représentants des organismes de 5 pays (France, Allemagne, Grande-Bretagne, Espagne, Italie), qui, depuis plus d'un an, coopèrent à ce programme, présenteront en Français des exposés sur chacun des principaux thèmes du séminaire. Des experts français représentant divers domaines de l'industrie y feront part de leur expérience.

L'objet de ce séminaire est de mettre en commun les divers types de problèmes rencontrés dans différentes branches de l'industrie, de présenter les solutions actuellement retenues, de discuter leur efficacité, et d'établir la liste des principaux problèmes non résolus ainsi que les remèdes envisagés pour les minimiser.

C'est au cours de la table ronde que pourront être tirées les principales conclusions de ce séminaire.



Avec le parrainage de la
Société des Electriciens et Electroniciens



EXAMPLES OF SUCCESSFUL TECHNOLOGY TRANSFER AGREEMENTS PRODUCED BY THE SPRINT NETWORK

Technological Cooperation between the UK and Italy

In previous issues of I&TT we have reported at various times on the transnational cooperation scheme between innovation advisory bodies. At present the Commission supports about 70 'mini networks'. One of these, comprising three consultancies in various Member States (LAMBRECHT - D, PROGET - F and CIMATEC - I) has informed us of the conclusion of four highly interesting technology transfer projects in the **field of electrochemical gas sensors**.

This case of cooperation between a British company having developed a particular technology and an Italian industrial company looking for ways to replace certain of its products with more modern ones is good example of the many steps required for successful international technology transfer between R&D companies and industrial companies.

City Technology Ltd is a world leader in the manufacture and development of electrochemical gas sensors (trademark CiTicel®). Set up by London University in 1977 to exploit a novel oxygen sensor pioneered by the University's Wolfson Unit for Electrochemical Technology, the Company has successfully bridged the gap between the high technology of the laboratory and commercial success.

Through the intermediary of CIMATEC, 4 agreements with Italian firms were concluded:

1. Master, active in the field of thermocouples, is now manufacturing portable instruments for **gas detection** and finalising a deal for **gas monitoring** in tunnels.
2. Silimet, whose main business is meteorology, is now using City Technology's sensors to manufacture instruments (fixed and portable) for **atmospheric monitoring**.
3. Originally Felcom Srl, a small company of 5 people, used to market British (explosive-gas-detection) instruments in Italy. Now with the assistance of Cimatic, Felcom has started its own production of instruments **to detect toxic gas and oxygen**.
4. Inesa Spa, whose main business is the use of electronics in territory management, including pollution monitoring, is using City Technology's sensors in their systems to **monitor industrial pollution in the atmosphere**.



CiTicelR 4-20mA transmitters for gas detection

Further information on these technologies can be obtained from the partners: 1. CIMATEC, Mr M. Caocci, Via Pedemonte 3, I-16149 Genova, Tel.: (39) 10 410.91, Fax: (39) 10 46.85.08, Tlx: 270212, 2. Industrieberatung Lambrecht, Mr J. Lambrecht, Max-Ruetters-Straße 29, D-8021 Irschenhausen/Isartal, Tel.: (49) 8178 41.41, Fax: (49) 8178 80.72 or 3. PROGET, Mr E. Vogel, 2, place d'Estienne d'Orves, F-75009 Paris Cédex 09, Tel.: (3) 1 48.74.92.22, Fax: (33) 1 48.74.54.56, Tlx: 660651 Iavoix.

For further information on the SPRINT cooperation scheme please contact Ms G. Hetterich, CEC, JMO, B4/105, Tel.: (352) 4301-4788, Fax: (352) 4301-4129, Tlx: 3423 / 3446 COMEUR LU.

II. INTERNATIONAL SYMPOSIUM

ADVANCES IN THE STERILISATION AND ASEPTIC PACKAGING OF FOODS

Valencia

15-17 November 1989

The aim of this conference is the **interchange of technology and information** among scientific centres, equipment manufacturing firms and SMEs.

The firms involved in the Symposium are: Zewathener, Scholle Europe, Robert Bosch, Alfa-Laval, C.M.B. Packaging, Tetra Pak, Stock, Serac France and PKL-Jagenberg Ibérica. Scientists from the I.A.T.A.-C.S.I.C. (Spain) and the D.F.D.R.A. (United Kingdom) will present papers on the technical and scientific basis of these processes.

This symposium is the result of cooperation between the Instituto de Agroquímica y Tecnología de Alimentos (IATA), a Research Centre of the Consejo Superior de Investigaciones Científicas (CSIC) of the Ministry of Science and Education, and the Campden Food and Drink Research Association (C.F.D.R.A.) from Chipping Campden, U.K., which is sponsored by the CEC under its SPRINT Programme.

This cooperation has the following objectives:

- Establishment of a system for the exchange of technologies and information between centres and industries on the preservation of foods.
- State of the art and needs of SMEs in the field of thermal treatment of foods (HTST) specially thermoresistance problems and aseptic processes.
- Dissemination of this new technology between firms member in Spain and U.K.

For further information, contact: Dr M. Rodrigo, IATA-CSIC, Calle Jaime Roig, 11, E-46010 Valencia, Tel.: (34) 6 369.08.00, Fax: (34) 6 393.00.01, Tlx: 64197 AYTVE.

SECOND ANNOUNCEMENT
CALL FOR PAPERS

ACTUATOR 90

The second International Technology-Transfer Congress ACTUATOR 90 will take place on 21/22 June 1990 in Bremen, West Germany. ACTUATOR 90 is a biennial conference aiming at bringing together leading experts in the field of actuators from all over the European community.

New actuators

- o Magnetostrictive actuators
- o Piezoelectric actuators
- o New materials
- o Electrorheological devices
- o New actuator concepts

Power semiconductors

- o Smart power devices
- o Electrical noise (EMC)
- o Bipolar power semiconductors
- o MOS-controlled power semiconductors

Fluid-technique

- o Drive systems
- o Interfaces
- o Sensors
- o Fluids

Electromechanical converters

- o Microelectronic controlling
- o Closed loop drives
- o Interfaces
- o Stepper and linear drives

Contributions are invited from engineers of institutes and companies working in the field of actuators. For oral presentation, preference will be given to contributions expressing an overall view on the chosen subject. Very specialized papers are more suitable for the poster session. Authors should send their abstract in English, not exceeding one typewritten page in double columns to the conference office not later than 30 November 1989. Abstracts will be reviewed by the scientific committee who decide on the acceptance. All papers will be published in the proceedings.

Please obtain further information from:

**VDI/VDE-Technologiezentrum
Informationstechnik GmbH**
Office Bremen
Am Wall 119
2800 Bremen 1
Tel.: 0421/170531
Fax: 0421/171686

JUST PUBLISHED: BROCHURE ON INDUSTRIAL RESEARCH ASSOCIATIONS

SPRINT is currently providing partial financial support to 16 transnational cooperation projects between 94 industrial research associations in the Community. The core objective of each project is to diffuse information to assist innovation among the firms in the corresponding sector. A list of these institutions was published in I&TT 1/89, page 23.

Five of these, being considered fairly typical, have been selected to feature in a new brochure, which has just been published. The industries concerned are wood, footwear, building, paint and composite materials.

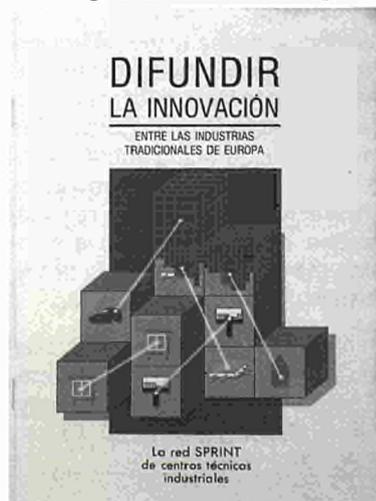
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Please return to: Mr D. Janssens, Commission of the European Communities, DG XIII/C/1, B4/101, Jean Monnet Building, L-2920Luxembourg, Tel.: (352) 4301-4407 / 4372, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.



NEW EXPERT SYSTEMS FOR THE DESIGN OF OFFICE VENTILATIONS SYSTEMS TRANSNATIONAL COOPERATION IN THE BUILDING INDUSTRY

As part of the SPRINT Programme, the Expert Systems Section of the Building Services Research and Information Association (BSRIA) in cooperation with partners from other Member States have developed a range of **expert systems for the design and selection of office ventilation systems**. The partners in this project are: BPS-Centret, Hørsholm (DK), Comité Scientifique et Technique des Industries Climatiques (COSTIC), Saint-Rémy-les-Chevreuse (F), The Institute for the Study and Promotion of Research in the field of Heating and Air Treatment (ISSO), Rotterdam (NL) and Laboratório Nacional de Engenharia Civil, Lisbon (P). The expert systems were developed on the basis of both the expertise, the experts in this field and published documents, and are capable of designing suitable ceiling-, floor- and sill-mounted air supply systems, as well as a ceiling-mounted extraction system.

Further development of the expert system using funding from one or more private companies to bring them to a commercially viable form is planned.

A report describing the project, including the knowledge used in the expert systems, is available from BSRIA for £ 20 + delivery costs. Please contact: John PASCALL, Expert Systems Section, BSRIA, Old Bracknell Lane West, UK-RG12 4AH Bracknell.

THE 2ND EUROPEAN TECHNOLOGY TRANSFER & INNOVATION OPPORTUNITIES EXHIBITION & CONFERENCES

22-24 May 1990 Scottish Exhibition & Conference Centre Glasgow UK

In March 1988 'Eurotech Scotland' arrived as a major event for companies, organisations and institutions active in research and development. In 1990, Eurotech will take place under the new banner of TRANSTECH EUROPE to cover the range of technology transfer frontiers. Main backing for the event will be from the Commission of the European Communities.

TRANSTECH EUROPE will be stressing five main areas:

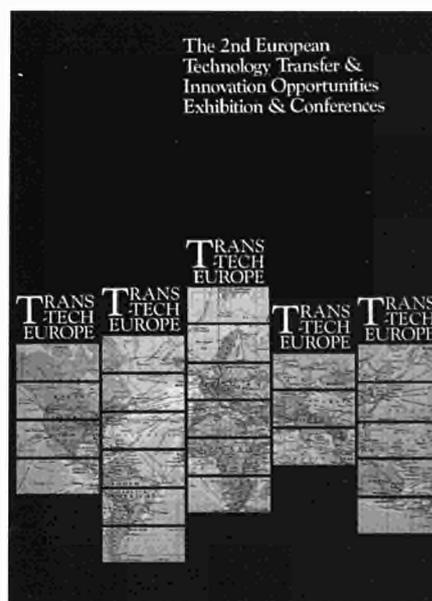
European Technology

Industrial/Academic Collaboration

Discovery & Creativity in Science and the Arts

1992 and the Open Market

Finance and Venture Capital



Organised by SITE in cooperation with the Commission of the European Communities, Scottish Industrial & Trade Exhibitions Ltd, 8a Charlotte Square, Edinburgh EH2 4DR, Tel.: 31 225 5486, Telex: 72 8117 SELEH G, Fax: 031 226 3848



Secretariat du congrès:

CTC

4, rue Hermann Frenkel

69367 LYON CEDEX 07

France

Téléphone: 78.69.50.12

Télex: 340.497

Téléfax: 78.61.28.57

A EUROPEAN CONFERENCE

THE COOPERATION PHENOMENON
- PROSPECTS FOR SMALL FIRMS AND THE SMALL ECONOMIES
6-7 NOVEMBER 1989, DUBLIN, IRELAND



This conference will examine critically the recent **experience of small firms in networking and cooperation** - particularly in the smaller economy context - and the regional, national, international and EC policies and programmes aimed at encouraging and enhancing that cooperation. The Conference is intended for international, national and regional decision makers, as well as advisers and researchers who are interested in maximising the benefits for SMEs of the cooperation phenomenon.

For further information please contact Ms Renee Browne, Head - Industrial Education Programme, EOLAS - The Irish Science and Technology Agency, Glasnevin, Dublin 9, Ireland, Tel.: (353) 1 37.01.01 ext. 2327, Fax: (353) 1 37.96.20.

Sponsored by the Commission of the European Communities under the auspices of the ESF II
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"Innovation and Technology Transfer" is published by DG XIII-C of the Commission of the European Communities and reports regularly on

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Under the SPRINT Programme the Commission is promoting efforts to give conferences on new technologies a European dimension. Here is an overview of some of the forthcoming events:

Date	Title	Venue	Organizer	See page or contact
11-14.10.89	European Footwear Technologies	Nantes (F)	Centre Technique Cuir, Chaussure, Maroquinerie, Lyon (F)	38
26-27.10.89	Enterprise, Innovation and 1992: Innovation support services in Europe	Nice (F)	TII, Luxembourg (L)	34
2-4.11.89	La gestion totale de la qualité, clé de la mutation que les PME européennes doivent réussir pour relever le défi de 1992	Lille (F)	Eurosoft-System SA, Bruxelles (B)	Mr C. Baldé S.A. Eurosoft-Systems, av. Louise 327 bte. 18, B-1050 Brussels
6-7.11.89	The cooperation phenomenon in industry - Prospects for smaller firms and smaller countries in the EEC	Dublin (IRL)	EOLAS, Dublin (IRL)	38
21-23.2.90	Open industrialisation of construction, as a solution for the modernisation of small and medium-sized firms and industries	Stuttgart (D)	CERIB, Epernon (F)	Mr M. Rollet, CERIB, rue des Longs Réages, B.P. 59, F-28232 Epernon Cédex
21-22.3.90	Application of new technologies to traditional industrial sectors	Bilbao (E)	Parque tecnologico Bilbao (E)	Mr A. Aranzabe, Parque tecnologico, Gran Via 58, Pral, E-48011 Bilbao
21-22.6.90	Actuator 90	Bremen (D)	VDI/VDE, Bremen (D)	37
5-8.11.90	A European conference on rehabilitation technology	Maastricht (NL)	Dutch Innovation Programme for Aids for Disabled People, Hoensbroek (NL)	Dr Ir. M. Soede, Programme for Disabled People, Zandbergsweg III, NL-6432 CC Hoensbroek

Further information on the SPRINT scheme to promote efforts to give conferences a European dimension can be obtained from: Dr E. Pérez Carbonell, Commission of the European Communities, DG XIII/C/1, B4/092, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-4117, Tlx: 3423 / 3446 COMEUR LU, Fax: (352) 4301-4129.

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