

# INNOVATION AND TECHNOLOGY TRANSFER

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## Note to readers

The activities of DG XIII-C are currently undergoing a process of change and reinforcement.

The dissemination and utilisation of results derived from scientific and technological research wholly or partly financed by the Community — one of DG XIII-C's main tasks — will in future be carried out in the framework of a specific programme proposed by the Commission under the name **VALUE** („VALorisation et Utilisation pour l'Europe"). This new multiannual programme is an integral part of the Framework Programme for Community Research and Technological Development. It should help to increase the impact of Community research by a series of measures taken in collaboration with the individual R & D programmes under way.

DG XIII-C's other main task, the direct promotion of innovation, will be carried out under a new reinforced **SPRINT** Programme proposed by the Commission in July 1988, since the current SPRINT Programme expires at the end of 1988. The new SPRINT Programme should provide for both the continuation of the activities carried out so far (in particular the reinforcement of the European infrastructure for innovation under its various cooperation schemes) and a number of new activities, aimed particularly at those regions which are "lagging behind".

Both VALUE and SPRINT are now being discussed by Parliament, the Economic and Social Committee and the Council. On the next pages we publish some information on these Commission proposals.

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

**'VALUE: Dissemination and utilisation of results from scientific and technological research (1988-92)'**

The Commission has recently made a proposal (COM(88) 260 final) for a new, four-year, 38 million ECU programme for the dissemination and utilisation of results from scientific and technological research in the Community.

This new initiative has been launched within the Framework Programme for Community RTD (Research and Technological Development) adopted in September 1987. It is intended to complement the various R&D programmes and activities of the Community by giving new priority to the dissemination and commercialisation of the results of such work. It covers both the results from the Joint Research Centre's activities wholly financed by the Community and results from Community shared-cost contracts with firms, research centres and universities.

This programme will be called VALUE and will comprise two sub-programmes.

**Sub-programme I**

The four priorities of this main part of the programme are:

**1. Provision of information about Community RTD programmes and projects**

The aim is to provide interested groups in industry, universities and research centres with advance information in the public domain on planned or current RTD programmes and projects, so that contacts between them may be more easily established.

The provision of selected information which safeguards the legitimate interests of its owners but is adapted to users' needs should therefore be developed using appropriate means, including existing or new data bases and associated services.

**2. Identification, screening and protection of results**

This chapter concerns the continuation of the patenting activity for results of Community research for which industrial and intellectual property rights have not been claimed directly (e.g. by the contract partner).

This activity resembles that of the patents department of an industrial company engaged in its own research. Some 8700 first and second patent applications were made between the commencement of this activity in 1960 and the end of 1987. VALUE contains some measures for improved identification, screening and protection of R&D results.

**3. Dissemination of results judged to be without commercial value in the short to medium term**

The dissemination of R&D results should be carried out using traditional means (private and public publishing houses - including the Office for Official Publications of

the European Communities - libraries, documentation and translation bureaux). Emphasis will be placed on computerized data bases and associated information services.

**4. Support for the active exploitation of results**

To ensure that potentially exploitable results from Community RTD activities may benefit fully from the completion of the internal market it is proposed, where necessary,

- a) to use professional marketing consultants to identify Community-wide (or even extra-Community) market opportunities;
- b) in the event of a favourable outcome of (a), to use consultants to prepare outline business plans and, if appropriate, to undertake (pre-)feasibility studies defining the technical and economic hurdles which remain to be overcome;
- c) to use exhibitions, technology transfer agents and other consultants to identify any missing partners;
- d) to conduct licensing negotiations in the case of Community-owned inventions and to advise on them in other cases;
- e) to support the development and testing of any prototypes and/or pilot or demonstration installations which may be necessary to reduce technical risks.

**Sub-programme II - 'Computer communication networks'**

The objective of this sub-programme is to contribute to the creation of a common integrated computer communications infrastructure and associated services, accessible to the various public and private research centres in Europe.

The intention is to develop a network connecting the 'research and development world' of Europe, since European RTD activities increasingly involve close collaboration between teams and individuals spread across the Community. This is particularly true of Community-sponsored research projects within the Framework Programme and others in which the Community is active, such as EUREKA.

Such distributed research projects need efficient computer communications networks in order to carry the information they require and give access to their results, thus stimulating the process of innovation and the industrial exploitation of research results.

The VALUE Programme is now being discussed by Parliament, the Economic and Social Committee and the Council.

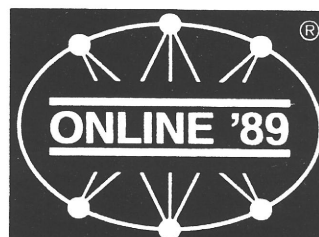
Further information on the VALUE Programme can be obtained from Mr B.B. Goodman, Commission of the European Communities, DG XIII-C, Jean Monnet Building, B4/069, L-2920 Luxembourg, Tel.: (352) 4301-2959/3176, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.

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Kongressmesse für  
Technische Kommunikation**

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**12th European  
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## Strengthened SPRINT Programme will enhance the development of innovation

As already reported briefly in 'Innovation and Technology Transfer' 3/88, the Commission has proposed that the SPRINT Programme should be significantly strengthened over the next few years. The SPRINT Programme, which is coming to the end of its experimental stage, represents one of the fundamental elements in the Community's action to promote and stimulate industrial innovation. The programme is designed to facilitate the transfer of technology throughout the Community, enabling Community industry to make better use of the results of research and technological progress.

The current SPRINT Programme has demonstrated the added value of Community action in this field, and especially the benefits which result from establishing intra-Community networks of agents in technology transfer and innovation support. The results obtained illustrate the need to follow up the efforts already undertaken and to draw up a programme which concentrates more on its objectives and which has greater resources, thereby assuring the necessary synergy with other related Commission initiatives in the context of its policies for establishing the large internal market, for reducing regional disparities, for small and medium-sized enterprises, for financial engineering and for training.

According to Mr Narjes, this innovation programme is at the core of the technological transformation process in the European economy. It will play an essential role in meeting the challenges of the large internal market, in giving a practical industrial meaning to the results of RTD programmes, and in translating economic and social cohesion into concrete terms.

### SPRINT's main lines of action

On the basis of the experience already acquired, the Commission proposes that Community action in this field should centre on three main areas:

1. Reinforcement of the European infrastructure for innovation services through the establishment or consolidation of intra-Community networks of agents for technology transfer and innovation support (such as consultants, sectoral research centres, experts in design, quality/value analysis, science parks, etc.). These networks are pursuing concrete objectives in terms of transfer of technologies between firms, dissemination of new

technologies in traditional sectors or the improvement of the quality of European products or services.

2. Support for pilot projects for intra-Community transfer of innovations, focused chiefly on the application of existing technologies to receptive sectors, especially those located in regions within the Community which are 'lagging behind' or are in industrial decline.

These operations will combine awareness actions, demonstration of the possibilities of the technologies concerned, training and technical support to businesses, effective execution of these transfers and the setting-up of close partnerships between the businesses, research centres or universities, local economic operators and financial organisations.

3. Improvement of the environment for innovation through a better knowledge of its workings and increased cooperation between the Member States and the Commission. As a matter of fact, considerable progress has yet to be achieved in the areas of analysis of the innovation process, identification of the obstacles in its path, measurement of the results obtained, evaluation of the instruments which have been used - and hence of the effectiveness of the different policies aimed at promoting innovation - and finally in the area of their coordination.

Two series of complementary projects are therefore proposed:

- a close follow-up of innovation in Europe ('European Innovation Monitoring System');
- reinforcement of the cooperation and exchange of experience between the Member States and the Commission.

The Commission proposal for the new SPRINT Programme (1989-93) is making good progress and has now been put forward to the European Parliament, the Economic and Social Committee and the Council of Ministers for discussion and decision.

For further information on SPRINT please contact: Mr R. Miège, Commission of the European Communities, DG XIII/C/1, Innovation and Technology Transfer, Jean Monnet Building, B4/099, L-2920 Luxembourg, Tel.: (352) 4301-4180, Tlx: 3423, 3446 COMEUR L, Fax: (352) 4301-4129.

## INNOVATION 'MARRIAGE BUREAU'

We have started to receive several requests from organizations who are seeking potential partners in other Member States for cooperative ventures in the field of innovation.

If you, our readership, feel that this is a service which you would like us to offer, and which you feel would benefit you, please let us know by writing to Newsletter 'I + TT', Commission of the European Communities, DG XIII/C, B4/091, Jean Monnet Building, L-2920 Luxembourg.

We publish below by way of example details of two such requests received in the last few weeks.

1. The High-Tech-Center Hamburg, which organizes the 'Hamburger Innovationsmarkt' every year is interested in changing the current format, so that the exhibition would be held biennially in Hamburg, and every other year in another European venue. Please contact Mr Krüss, High-Tech-Center Hamburg, Holzmühlenstraße 84-86, D-2000 Hamburg 70, Tel.: (49) 40 695.99.90.
2. The University of Manchester and other associated educational institutions and industrial firms in North-West-England, together with the British Licensing Executive Association, are looking for partners to develop an international training course for industry concentrating on the management of innovation and technology transfer. Please contact Mr G. Kloss, Centre for European Studies, Dover Street, UK-Manchester M13 9PL, Tel.: (44) 61 275.47.40.

Technology Transfer Networks

— Transnational technological cooperation between enterprises under SPRINT —

Under the SPRINT programme a transnational network of specialised intermediaries has been built up (working within chambers of commerce and industry, consultancy bureaux, industrial liaison offices at universities, regional development agencies, etc.). These intermediaries help enterprises to find partners in other European countries with whom they can come to satisfactory technology-based agreements.

About 170 SPRINT contractors in this action are organized in about 50 projects or micro-networks. Most of these have 3-4 partners in as many different Community countries.

In this section of 'I & TT' we are publishing on a regular basis the addresses and contact persons of all SPRINT— sponsored advisory bodies and their partners. They will help you in carrying out your transnational technology transfer projects. Do not hesitate to contact them when you think your innovations, new products and processes are eligible for applications abroad.

In this issue we publish the addresses of the advisory bodies in Denmark, Portugal and the United Kingdom.

Denmark

Name and address of advisory body	Partner advisory bodies	
The Danish Invention Center Mr Axen Gregersensvej Postboks 141 DK-2630 Taastrup Tel: 45.2-996611 Fax: 45.2-991016 Telex: 33416 ti dk	Vila Sud Erfinderzentrum Nord-deutschland Newtech (CLWYD) Limited	I D UK
Dto-Danish Technical Information Services Mr B.C. Rasmussen Rygaards Allee Nx 131 A DK-2900 Hellerup Tel: 45.1-18711 Fax: 45.1-185804 Telex: 15324 dto dk	Impiva Agence Régionale de Développement	E F
West Jutland Development Council Mr K. Weber Oostergarde 1 / Postboks 56 DK-6950 Ringkøbing Tel: 45.7-321577 Fax: 45.7-324820 Telex: 60876 edeci dk	TOSI & C. S.R.L GITT GmbH	I D

Name and address of advisory body	Partner advisory body	
DTO - Danish Invention Center Mr B.C. Rasmussen Gregerdensenvej Postboks 141 DK-2630 Taastrup Tel.: (45) 2 99.66.11 Fax : (45) 2 99 10 16 Tlx : 33416 TI DK	Technology Exchange (Ex G.L.E.B.) GOM SOFAD EETAA ARIST - Chambre régionale de Commerce et d'Industrie de Lorraine, Nancy IDA, Dublin	UK B E GR  F IRL
CENTEC Business Consultants Mr F. Knudsen Rygaards Allee 131 A DK-2900 Hellerup Tel.: (45) 1 187.11 Fax : (45) 1 185.04 Tlx : 15324 DTO DK	VDI/VDE Technologiezentrum, Informationstechnik GmbH Scottish Development Agency	D UK
Danish Technical Information Services Mr B.C. Rasmussen Rygaards Allee 131 A DK-2900 Hellerup Tel.: (45) 1 187.11 Fax : (45) 1 185.04 Tlx : 15324 DTO DK	EOLAS, Dublin G.O.M., Antwerpen Technical University of Eindhoven	IRL  NL

Portugal

Name and address of advisory body	Partner advisory bodies	
Tradicom Mr Garrido de Figueiredo R. Pascoal de Melo 3 P-1100 Lisboa Tel: 351.1-840216/2	New Products-EC	UK
IAPMEI Mr M. Vicente Rua Rodrigo da Fonseca 73 P-1297 Lisboa Codex Tel: 351.1-525419	Instituto de Fomento de Andalucia Aprodi	E F
Emdeme Mr R. Antas Fernandes R. Thomas Ribeiro 34-36 P-1000 Lisboa Tel: see below	Dr. Ing. Guido Levi Sacerdotti CCE Brest CCI Valencia	I F E
Emdeme R. Thomas Ribeiro 34-36 P-1000 Lisboa Tel: 351.1-524165 Telex: 42548 emdeme P	Infogroup Lafora & Comas Agricontact D'Adler Racz Polytec	GR E NL B D

Name and address of advisory body	Partner advisory bodies	
CGI-Wolffgram Av. Columbano Bordalo Pinheiro 103-2E P-1000 Lisboa Tel: 351.1-7262566 Fax: 351.1-7260914 Telex: 13341	GDS-Tecnogestion Cimo srl Innovi NV	E F B
Challenge, Lda Mr J.-J. Campis Rodrigues AV. Duque de Loulé, 50-3x P-1000 Lisboa Tel: 351.1-560617	Ditt Paris Sallingbury Casey Ltd Wiggo Döring	F UK D
IAPMEI Mr Pires Rua Rodrigo da Fonseca 73 P-1297 Lisboa Tel.: (352) 1 815.60.37	IHK Karlsruhe	D

# INNOVATION POLICY

Name and address of advisory body	Partner advisory bodies	
Comissão de coordenação da região do Norte Mr L. Braga da Cruz Rainha D. Estefania, 251 P-4100 Porto Tel.: (351) 2 69.52.36 Tlx: 241.93 ccrnor p Fax: (351) 2 620.40	Centre européen du Développement régional Strasbourg	F
	Centro regionale servizi per la piccola e media industria SRL, Trieste	I
	Instituto tecnologico de Aragón, Zaragoza	E

Name and address of advisory body	Partner advisory bodies	
INEC Laboratorio Nacional de engenharia Civil Mr A. Ravara Avenida do Brasil, 101 P-1799 Lisboa Tel.: (351) 1 88.21.31 Tlx: 167.60 inec p Fax: (351) 1 89.76.98	EOLAS, Dublin	IRL
	METEK Engineering & Contracting S.A., Athens	GR

## United Kingdom

Name and address of advisory body	Partner advisory bodies	
C.T.A. Economic and Export Analysis Dr Cosgrove 96 London Road UK-Reading RG1 5AU Tel: 44.734-6683819 Fax: 44.734-35440 Telex: 25435	Setacom	F
	Europool S.A.	B
	Marketing Adviesbureau	NL
	Roderkerk Ibcom	I
Metropolitan Borough of Calderdale Mr Blackburn Town Hall, Crosseley Street UK-Halifax HX1 1UJ Tel: 44.422-57257 Telex: 517403 Calmet G	B.T.C.-Twente	NL
	Denac	E
	Promotech	F
	Centre Socran S.A.	B
New Products-EC Mr Beechey Quayside Wing Shire Hill UK-Gloucester GL 1 2 HY Tel: 44.425-42043 Fax: 44.452-425042 Telex: 43155	Tradicom	P
Pax Technology Transfer Ltd Mr John D. Emanuel 112 Boundary Road UK-London NW8 ORH Tel: 44.1-3288823 Fax: 44.1-6241242 Telex: 268040 EXT LDN	Techn. Managem. Consult./ Helicon Techno.	NL
	International Licensing Services	I
	Actinove	F
	Durexport Byrne Lowe & Associates WS Heuft — Industrie- & Wirtschafts-Beratung	E IRL
Newtech (CLWYD) Limited Dr Alleen Kelsterton Road, Industrial Park UK-CH54BR Clwyd Tel: 44.244-822881 Fax: 44.244-822002 Telex: 6171731 newtech	Vila Sud	I
	The Danish Invention Center Erfinderzentrum Nord-deutschland	DK
		D
Technology International Exchange Mr M. Jones Ripplevale Grove 37 UK-London N1 1HS Tel: 44.1 607 9047 Fax: 44.1 607 9728	Corporación de Gestión de Empresas	E
	Extramet Management SA	F
	Masbiotech SPA	I
Sallingbury Casey Ltd Dr I.C. Douek Victoria Street, 25 UK-London SW1HOEX Tel: 44.1-799 10 20 Fax: 44.1-222 32 20 Telex: 268456	Ditt Paris	F
	Wiggo Döring	D
	Challenge, Lda	P
European Technology Entrepreneurs Centre Mr F. Monds 40 Linahall Street UK-Belfast BT2 8BG Tel: 44.232-233909 Telex: 747878	University of Twente/ Transferpunt	NL
	Z.A.M. Der Bayerischen Fachhochschulen	D

Name and address of advisory body	Partner advisory body	
SKEKELL Mr Mooring Rosebank House Gravel Path UK-Berkhamsted Herts HP4 2PF Tel.: (44) 4427 48.30 Tlx: 33.80.24	G.O.M. Limburg Technology Guidance Ltd.	B IRL
	Götz Schaudé Innovationsberatung	D
	Metaconsult	F
The Technology Exchange Mr P. L. Morgan South Bank Technopark 90, London Road UK-London SE1 6LN Tel.: (44) 1 922.88.15 Fax: 941.37.06 sbt g Fax: (44) 1 633.09.41	G.O.M. Vlaams-Brabant SOFAD EETAA ARIST - Chambre régionale de Commerce et d'Industria de Lorraine, Nancy	B E GR F
	DTO - Danish Technical Information Services, Copenhagen	DK
	IDA, Dublin	IRL
Heriot-Watt University Mr Dalton Room 2.01 Riccarton UK-Edinburgh Tel.: (44) 31 449.51.11 Tlx: 94.62.40	N.V. Rede, Eindhoven Technologiezentrum Dortmund	NL D
together with Life, Motherwell Mr Agnew 116, Cadzon Street UK-Hamilton ML3 6HP Tel.: (44) 698 89.15.15 Tlx: 77.62.45 entexe g Fax: (44) 698 28.63.31		
P.E. Consulting Services Park House Wick Road UK-Egham Surrey TW20 OHW Tel.: (44) 784 344.11 Fax: (44) 784 378.28	Bossard Consultants Kienbaum Unternehmensberatung GmbH	F D
Capital Partners International Dr C. von Luttitz Kingsmead House 250, Kings' Road UK-London SW3 5UE Tel.: (44) 1 351.48.99	GUP International Consulting GmbH, Neuss	D
	Capital Partners International, London	UK
	DENAC, Bilbao GUP International Consulting Sàrl, Champs-sur-Marne	E F
Wintech Mr D. Graham Greyfriars Road Pearl House UK-Cardiff CF 1 3XX	ARIST Alsace, Strasbourg	F
	Landesgewerbeanstalt Bayern, Nürnberg	D
Scottish Development Agency Mr A. Reilly Bothwell Street 120 UK-Glasgow G2 7JP Tel.: (44) 41 248.27.00 Tlx: 77.76.00 Fax: (44) 41 221.32.17	CENTEC Business Consultants APS, Copenhagen	DK
	VDI/VDE-Technologiezentrum Informationstechnik GmbH, Kassel	D

### Five Specific RESEARCH PROGRAMMES APPROVED

The Council of the European Communities has approved the following five specific research programmes:

- a) the DRIVE programme (applying information and telecommunications technology to road transport - 60 million ECU for 36 months - see also the article on DRIVE in this issue);
- b) the DELTA programme of Community action in the area of learning technologies (20 million ECU for 24 months from 1 June 1988 to stimulate research and development to integrate new technologies into advanced training support infrastructure and tools, particularly multi-media distance training, in the Community);
- c) the BCR programme (60 million ECU for 1988-92) in the area of applied metrology and chemical analysis, to be carried out by the Community Bureau of References);
- d) the SCIENCE programme (167 million ECU for 1988-92) to stimulate the international cooperation and exchanges needed by European researchers, and
- e) revision for 1988/89 of the 1985/89 programme in the area of biotechnology. The aims of the revised programme are to include Spain and Portugal, to intensify current efforts, to assess the risks associated with modern biotechnologies, and to step up work aimed at informing all groups concerned about the programme and its results.

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### Commission proposes new BRITE-EURAM programme for new technologies and application of advanced materials in industry

The European Commission has proposed a new research programme to apply new technologies and use advanced materials in industry. It will combine the BRITE (Basic Research in Industrial Technologies for Europe) and EURAM (European Research in Advanced Materials) in a new joint programme with the objective of using the most recent technologies to modernise industry.

The programme's budget is 439.5 million ECU, of which 300 million are to go to science and technology in manufacturing industry and 139.4 million to advanced materials technology. These appropriations are already entered in the framework research programme.

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### JOULE programme for non-nuclear energies and the rational use of energy

In the context of the energy research framework programme, the European Commission has proposed a four-year specific programme (1989-92) for non-nuclear energies and the rational use of energy. The new programme pursues and updates the efforts made in this area since 1975; its budget would be 122 million ECU.

The programme, called JOULE (Joint Opportunities for Unconventional or Long-Term Energy Supply) is intended to

serve as a framework for transnational university/industry research projects in four sectors:

- models for energy and the environment,
- rational use of energy,
- energy derived from fossil sources,
- renewable energies.

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### Strategic research programme for the aircraft industry

The European Commission has approved a proposal to the Council for a strategic research and technology acquisition programme for the aircraft industry. The proposal advocates a two-year pilot phase to lay the foundations for wide-ranging cooperation between the aircraft industry and the industrial sectors concerned (electronics, materials, etc.), national research centres, universities and small and medium-sized enterprises, even in Member States that have no aircraft industry of their own.

In this pilot phase the Community should commit about 60

million ECU (research costs would be shared, with the Community's contribution not usually exceeding 50 %) from the industrial modernisation chapter of the framework programme budget.

The pilot-phase programme covers seven disciplines: aerodynamics, materials, acoustics, calculation systems, on-board systems and equipment, design and manufacturing technologies, and propulsion.

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### Future JRC programme approved

The main thrusts of the activity of the Joint Research Centre for the period 1988-91 have been approved, thanks to the positive stance taken by the European Parliament on the second reading of the 'common guidelines' of the Council. The

Parliament noted (Linkohr report) that the Council had accepted most of the previous demands made by the Parliament itself, concerning in particular the increase in financial resources for non-nuclear research, and especially for en-



vironmental protection. Compared to the past, the JRC will in future have less bureaucracy, increased autonomy, younger managerial staff and greater personnel mobility (see 'Innovation and Technology Transfer' 3/88).

The Vice-President of the European Commission, Mr Narjes welcomed the agreement between the Parliament, the Coun-

cil and the Commission; the JRC can in future play a more important role in environmental protection and prevention of industrial risks and contribute to the completion of the large internal market. Mr Narjes also stressed the increased links between the JRC and industry.

For further information on the Commission's various R&D programmes and initiatives please contact:

Mr E. Bock, Commission of the European Communities, DG XII, SDME 03/47, 200, rue de la Loi, B-1040 Brussels, Tel.: (32) 2 23.54132/57056, Tlx: 21877 COMEUR B, Fax: (32) 2 23.61094 — For DELTA Mr R. Hüber, Commission of the European Communities, DG XIII-F, J-70 06/8, 200, rue de la Loi, B-1040 Brussels, Tel.: (32) 2 23.57963, Tlx: 21877 COMEUR B, Fax: (32) 2 23.50148 — For DRIVE see the following article.

### DRIVE — Dedicated Road Infrastructure for Vehicle Safety in Europe

DRIVE is a 120 million ECU, three-year European Community programme of collaborative research and development which seeks to alleviate some of the present problems in road transportation through the application of advanced information technology and telecommunications. It is a partnership between the Community, which is contributing 60 million ECU, and European industry, which is providing the rest. DRIVE aims not only to improve road safety, but also to reduce wasted time and fuel through the improvement of transport ef-

ficiency, and thereby reduce vehicle emissions and noise pollution.

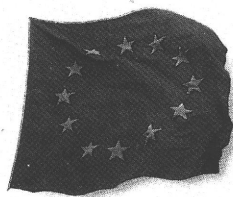
To find out more about DRIVE, contact the DRIVE Central Office:

DRIVE Central Office, TR61 1/31, Commission of the European Communities, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 23.61130, Tlx: 21877 COMEUR B, Fax: (32) 2 23.62391.

### Community Research and Development Programmes Deadlines for the next Calls for Proposals

	Directorate-General responsible	
DELTA (training in information technology)	XIII	31.10.1988
Programme of research into the decommissioning of nuclear plants	XII	4th quarter 1988
ECLAIR (programme of biotechnological and agricultural research)	XII	4th quarter 1988
SCIENCE (former programme: stimulation of interchange and cooperation in science and technology)	XII	December 1988
R&D Programme 'Science and Technology as Aids to Development' (research into tropical medicine and agriculture)	XII	31.12.1988
BRITE II (industrial technologies), including EURAM II (advanced materials)	XII	31. 3.1989
Technology research - coal (ECSC)	XVII	31. 8.1989
Steel research (ECSC)	XII	31. 8.1989
Pilot and demonstration projects in the iron and steel industry (ECSC)	XII	1.10.1989

Application forms can be obtained from the Directorate-General concerned (Commission of the European Communities, DG ....., 200, rue de la Loi, B-1049 Brussels).



Commission des Communautés  
Télécommunications, industrie  
Service «actions de valorisation  
technologique»

Commission of the European Community  
Telecommunications, Information Industry  
Department: 'Promotion of the exploitation of  
technological development'

The catalogue for the 6th International Meeting of Paper Industries  
(in September 1988), containing 12 innovations from Community research,  
can be obtained from Mr M. Leibold, Commission of the European Communities,  
DG XIII/C/2, Jean Monnet Building, COMEUR LU, Fax: (352) 4301-4129

— Direction générale XIII  
Recherche et innovation  
la RDT communautaire

General XIII

Research and



**6<sup>es</sup> rencontres  
des industries pap  
exposition**

**6th international meeting  
of paper industries  
exhibition**

Lieu/Location: ALPEXPO  
Stand: 323-442

Innovations issues de la recherche communautaire  
Innovations from Community research

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Participation of DG XIII in IP '88

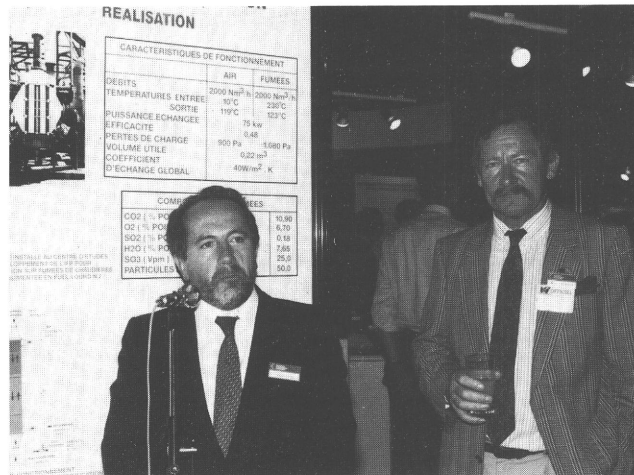
IP '88, the major paper industry event involving an exhibition of papermaking material and a series of symposia on the problems of the industry, was held in Grenoble (France) from 27 to 30 September.

The IP is the largest event in the paper and paperboard sector to take place in the Community.

The Commission (DG XIII/C/2) took part both as an exhibitor, with a stand showing twelve products developed from Community research, and as the organizer of a European symposium on the subject of 'From invention to industrial development'.

The success of the Commission's participation was evident at the stand, where the products exhibited were a constant subject of discussion. Those responsible for explaining their properties had hardly a slack period. The European symposium attracted speakers who were heads of major companies and a highly qualified public. Mr Parajon Collada, Deputy Director-General of DG XIII, gave a well-received address in which he explained to the paper industry the Commission's framework and instruments for research and innovation policy, with particular reference to the VALUE programme.

For further information on IP '88 please contact: Mr F. Engels, Commission of the European Communities, DG XIII/C/2, Jean Monnet Building, B4/106, L-2920 Luxembourg, Tel.: (352) 4301-2952, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.



Deputy Director-General of DG XIII, Mr Parajón Collada, welcoming visitors to the Community stand



DG XIII-C's stand at the IP '88

## INNOVATIONS FROM COMMUNITY R&D

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

### 1. Acoustic crack detection

Acoustic signals are small-amplitude elastic waves created by deformation within a material. The formation of a crack releases elastic energy and a burst of waves radiating out into the surrounding structure from the site of the crack - rather like the ripples formed when a stone is thrown into water. Any enlargement of the crack generates a new burst of elastic waves.

The elastic waves provoke momentary minor displacements on the surface of the structure which can be detected at a distance by sensitive transducers attached to the surface. Several transducers, suitably arranged, can identify the source of the wave by comparing the time the signals take to reach each transducer - the method employed to locate the epicentre of earthquakes.

In this way, 'listening' to the structure makes it possible to detect and locate cracks as soon as they form. Monitoring of their subsequent progress can indicate when failure is imminent.

This technique has been developed by the British Steel Corporation (Redcar plant) and is marketed by:

British Steel Corporation, Teesside Laboratories, Grangetown, UK-Middlesbrough (Cleveland) TS6 6UB, Tel.: (44) 642 467.144, Tlx: 58347.



An example of acoustic monitoring of corrosion cracking in Cowper stoves, showing acoustic emission transducers attached to the stove dome.

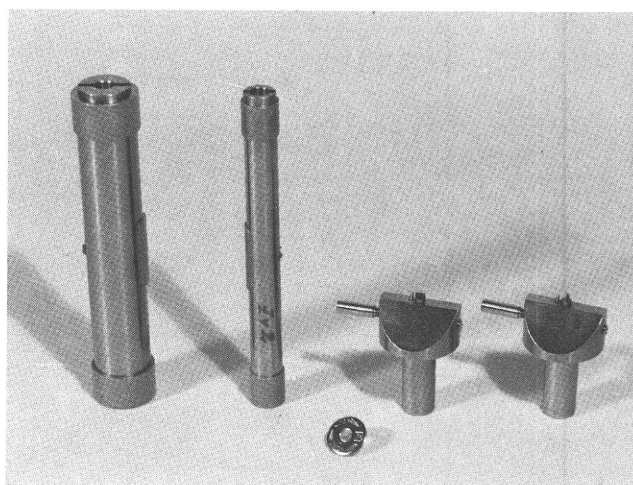
### 2. Reference faults for the calibration of non-destructive testing equipment

Non-destructive testing (by ultrasound, X-rays, eddy currents etc.) is being more and more widely employed to check the integrity of mechanical components subjected to forces increasingly close to their theoretical limits. It is therefore imperative to have precise knowledge of the available safety margin.

This implies precise knowledge of the faults (cavities, cracks, inclusions etc.) which may be present in the components concerned. Precise interpretation of the information provided by non-destructive testing equipment often requires the presence of a range of reference faults of varying size and shape. Moreover, such test equipment is subject to drift and therefore requires regular calibration.

The techniques developed by the Joint Research Centre at Ispra for the manufacture of such faults comprise micro-punching, micro-milling and spark machining. These reference faults can therefore be made in a range of shapes (V, U, circular cross-sections etc.) and in lengths or depths from 0.03-4mm - with tolerances of between 5 and 10 thousandths of a millimetre.

These reference faults have an extremely wide span of industrial applications ranging from the traditional sectors (e.g. railways) to leading-edge technologies such as aeronautics.



The micro-punching tool for producing reference faults.

Further information may be obtained from:

ENEA - COMB/IFEC, Laboratorio Fabbricazione Difetti Artificiali di Riferimento, I-13040 Saluggia (VC), Tel.: (39) 161 483.519, Tlx: 212.690 ENEASA I.



**IMPROVING THE UTILIZATION OF PUBLICLY FUNDED RESEARCH**

Comprehensive Community-wide survey proposes improvements for the exploitation of R&D results

— Summary report just published —

Under the umbrella of SPRINT, its programme for stimulating innovation and technology transfer in Europe, the Commission of the European Communities engaged a number of experts to investigate and report on the present situation concerning the utilization of the results of public and publicly funded research and development in each of the Member States.

These reports have now been completed, and the purpose of this study is to summarize them, to consolidate their findings and to reach some conclusions to assist in the formulation of European initiatives in this vital area.

The report is presented in three parts. Part 1 gives an extensive discussion of the findings of the reports.

Part 2 reduces these data and suggests a number of measures which might be considered for Community action.

Part 3 gives individual and highly-summarized versions of the original reports for each Member State.

This study is an extremely useful source of recommendations for improving the utilization of publicly funded R&D results along the following lines:

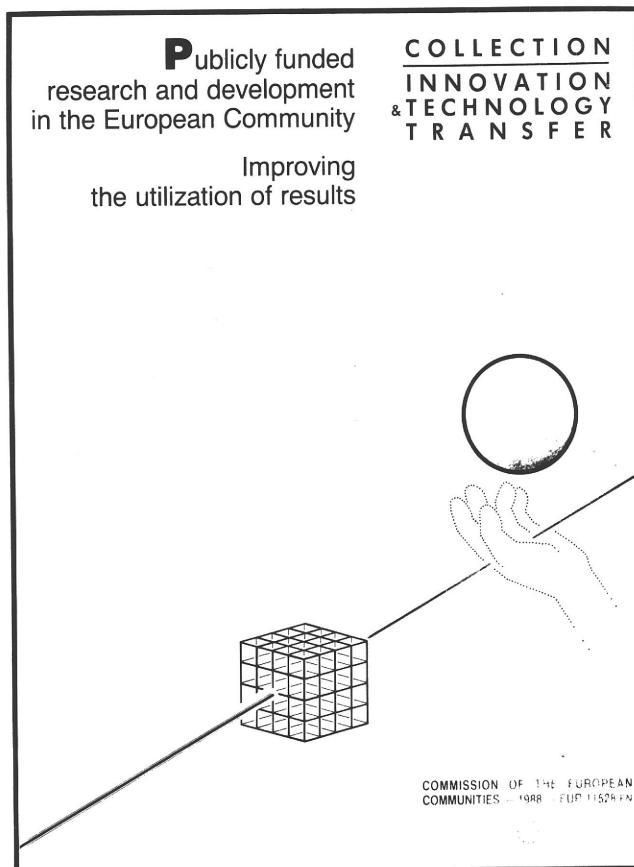
- actions related to innovation
- actions related to dissemination
- actions related to commercial development
- actions related to patents and intellectual property

The author, Dr John McMullan, is Director of the Centre for Energy Research at the University of Ulster, UK.

European Communities - Commission, Publicly funded research and development in the European Community

EUR 11528 - XI, 83 p.p., ISBN 92-825-8269-8, Price (excluding VAT) in Luxembourg: ECU 8.75

Published by the Office for Official Publications of the European Communities, L-2985 Luxembourg



**EUR 11243 — Utilization of the results of public research and development**

Edited by: H. Corsten, K.:O. Junginger-Dittel — 1988 — XVI, 540 pp., 59 tab., 35 fig., 13 ph. — 16.2 x 22.9 cm

Luxembourg: Office for Official Publications of the European Communities

DE, EN, FR — ISBN 92-825-8203-5 — Catalogue number: CD-NA-11243-EN-C

Price (excluding VAT) in Luxembourg: ECU 41.80

PATENT APPLICATIONS RECENTLY PUBLISHED

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

1. DEVICE FOR MEASURING THE DEFORMATION OF A TESTPIECE

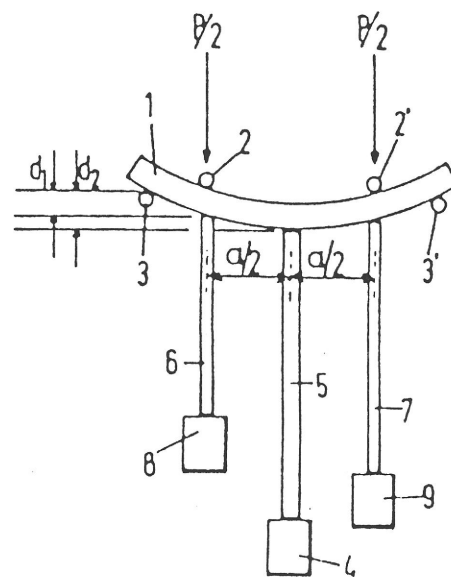
Inventors: S. VALKIERS, C. BOBELDIJK, O. VAN DER BIEST

Ref.: EUR Pat 2200

This device allows accurate measurement of changes in the radius of curvature of a testpiece (1) undergoing load deflection produced by two loading pins (2,2') and two supporting pins (3,3'). Three independent feeler rods (6,5,7) equipped with displacement transducers (8,4,9) touch the same surface of the testpiece at three different points on the same horizontal line. The central rod (5) touches the point of highest deformation, and the outer rods (8,7) are arranged symmetrical to it. Each displacement transducer may emit an electric signal measuring the degree of the longitudinal displacement of the respective rod compared to the testpiece. Based on the measurements of longitudinal displacement of the outer rods ( $d_1$ ), the central rod ( $d_2$ ), and the horizontal distance between the rods, the changes in the radius of curvature can be calculated according to the formula

$$R = \frac{a_2}{8(d_2 - d_1)} + \frac{d_2 - d_1}{2}$$

The device is particularly useful for testing high-stress and high-temperature creep behaviour of ceramic components such as are employed in engine construction.



2. MANUFACTURING PROCESS FOR STRUCTURAL ELEMENTS SUBJECTED TO HIGH THERMAL STRESS AND PROVIDED WITH A PROTECTIVE COATING

Inventors: J. WINTER, P. WIENHOLD, H.G. ESSER, Pr. WAELBROEK

Ref.: EUR Pat 2210

This process provides a protective amorphous hydrogen-containing carbon layer for structural elements, made of a material of high thermal conductivity, like molybdenum, tungsten, copper, aluminium, or an alloy of these metals. First, surface impurities are removed by exposing the element to a hydrogen flow at temperatures from 100°C to 600°C and a pressure from 10<sup>-2</sup> to 10<sup>2</sup> Pa. The hydrogen atoms and/or ions touching the surface are formed by contact dissociation or by glow discharge or by electron cyclotron resonance. After the volatile products have been pumped away, the layer of amorphous carbon is formed by directing a hydrocarbon ion stream onto the cleaned surface at pressures from 10<sup>-2</sup> to 10<sup>2</sup> Pa.

3. IMPROVED PROCESS FOR COATING A WORKPIECE WITH AN AMORPHOUS HYDROGEN-CONTAINING LAYER

Inventors: J. WINTER, P. WIENHOLD, H.C. ESSER, Pr. WALBROEK

Ref.: EUR Pat 2211

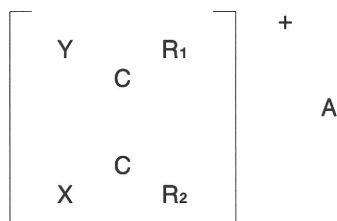
Carbon-coated articles are used in fusion reactors as particle and electromagnetic beam absorbers. As the carbon coatings tend to loosen from workpiece materials such as nickel, iron or inconel, in the process invented an intermediate adhesion-promoting layer made of tungsten, chromium, titanium, silicon, palladium, molybdenum, or combinations thereof, is first applied to the workpiece surface by electrolytic deposition, vacuum vapour deposition, spraying or other metal-to-metal coating processes. To attain good adhesion of the carbon layer on the intermediate layer, surface impurities are removed from the workpiece and the intermediate layer by exposing them to a hydrogen flow reacting with the impurities. Then the volatile reaction products are pumped away and the amorphous hydrogen-containing carbon layer is applied by directing a hydrocarbon ion flow to the intermediate layer surface where it forms a well-adhering coating.

4. SYNTHESIS OF SULPHURIZED HETEROCYCLES

Inventors: M. PFEFFER, J. DUPONT

Ref.: EUR Pat 2228

This synthesis process gives an efficient output of sulphurized heterocycles from sulphurized palladocyclic complexes in cationic form according to the formula



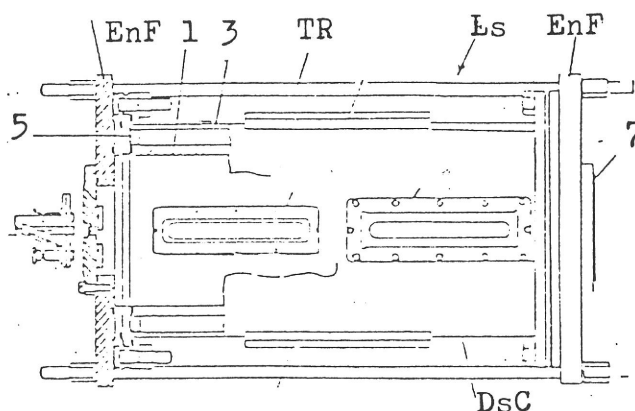
where A corresponds to an anion and -X-Y to an organic residue bound at the Y side by a positively-charged sulphur atom, and at the X side by a carbon atom. R<sub>1</sub> and R<sub>2</sub> are chosen independently of each other among the hydrogen of aryl groups like phenyl, alkyl groups, haloalkyl groups, alkenyl groups, groups corresponding to the formula -COOR<sub>3</sub> or -CO-R<sub>3</sub>, -CR<sub>4</sub>R<sub>5</sub>OH, -NR<sub>6</sub>R<sub>7</sub>, -SR<sub>8</sub> or -SO<sub>2</sub>R<sub>8</sub>, to a -CHO group or a trimethylsilyl group.

5. IMPROVEMENTS IN LASERS

Inventor: J.W. VAN DIJK

Ref.: EUR Pat 2234

A pumped laser is equipped with an efficient multiple screening device which protects its adjacent control computer against the radiation emitted. The discharge chamber (DsC) of the laser (Ls) contains two vessels (1,3) made of stainless steel tubes located one within the other, thus forming a first and second electromagnetic screen. The tubes are provided with access slots for light voltage leads which can admit cooled gas and also act as inspection or diagnostic ports. Two ring sets (5) hold the inner vessel in position and seal the space between the steel tubes. End flanges (Enf) are held together by tensile rods (TR) to withstand the axial pressure. The end flanges carry in their centre circular ports to which Brewster windows or resonator mirrors can be fitted.



The discharge circuit operates by release of stored electrical energy at the moment of closure of a make/break device effected by a trigger circuit inductively coupled to the discharge circuit and providing for its earth return. A current-limiting resistor prevents imposition of a voltage pulse at the moment of the trigger circuit's earth return during operation of the discharge circuit.

Further information on the inventions above can be obtained from:

Commission of the European Communities, Directorate-General XIII/C/1, Ms L. Gerlach (JMO B4/068), L-2920 Luxembourg — Tel.: (352) 4301-2922, Telex: 3423/3446 COMEUR LU

**Evaluation of the Biomolecular Engineering Programme - BEP (1982-86) - and the Biotechnology Action Programme - BAP (1985-89)**

Dr Charlotte af Malmberg, Chairman of the independent evaluation panel appointed by the Commission of the European Communities, presented the panel's report on the first two biotechnology research programmes, BEP (Biomolecular Engineering Programme 1982-86) and BAP (Biotechnology Action Programme 1985-89).

She said: 'We were struck by the research contractors' enthusiasm for going European, and their praise for the technical meetings held by the Commission. But the contracts were too small to interest industry much, and good research alone cannot remove the real bottlenecks, which are the lack of clear European regulations and of intellectual property rights.'

For additional information, please contact:

Dr Grant Lewison, Secretary, Biotechnology Evaluation Panel, Commission of the European Communities, Mont. 5/9, 200, rue de la Loi, B-1049 Brussels, Tel.: (32) 2 23.60646, Tlx: 21877 COMEUR B, Fax: (32) 2 23.50145.

Copies of the report, EUR 11833, are available from the Office for Official Publications of the European Communities, L-2985 Luxembourg, price: 11.25 ECU.

## LEGAL IMPACT OF NEW TECHNOLOGIES

— WIPO FORUM IN GENEVA —

More than 200 participants from about 75 countries met in Geneva to attend the WIPO Worldwide Forum on the Impact of Emerging Technologies on the Law of Intellectual Property (September 14-16 1988).

The symposium aimed to examine the interrelationship of advanced or new technologies and the law of intellectual property. Special reference was made to biotechnology, software technology (including micro-chips, software and the use of it in creating, storing and recording data, sounds and images), and new techniques of reproduction and communication, such as reprography, and the transmission of audio or visual programmes by both satellite and cable.

The large number of participants - among them representatives of all major international organisations - reflects the increasing interest in the implications these new techniques are likely to have for the nature, scope and effectiveness of property rights protecting intellectual creativity, such rights having been set out mainly in the Berne and Paris Conventions by the end of the 19th century, and in the Geneva Universal Copyright Convention signed in 1952.

New forms of intellectual property rights, such as semi-conductor topography, and rights to results from genetic engineering are likely to be adopted by an increasing number of countries. On the other hand, concern was expressed by some developing countries that such protection-oriented legislation might turn out to impede their access to new technologies by restricting their dissemination.

Reprography, electronic copy, on-line data bases and other easy-to-access means of large-scale reproduction of works protected by copyright, outside the control of the holder of the right, have also been the subject of great concern.

The matter of so-called private copies was discussed because of the great losses industry and authors are allegedly suffering from the large number of 'free' copies becoming available to the public - an example of this being photocopies in universities and public or private bodies, home copies of video or audio cassettes and the use of information stored in on-line databases through internal extensive networks, within companies or other bodies, each terminal having instantaneous access to information which can then be duplicated or printed.

Two main possible remedies for preventing losses in this field were proposed: the introduction of a special levy on blank tapes and magnetic supports, this levy then being distributed among authors, audio producers and other right-holders, and - secondly - the collective administration of copyright by so-called reproduction rights organizations, which license the rights on behalf of their associates, thus making control and collection of fees easier.

In spite of the present difficulties raised by technological changes in respect of the traditional concept of intellectual property rights and their enforcement, it was generally accepted that protection of such rights should be sought in a manner which did not prevent the social benefits expected from new technologies in the present information era.

L. Ferrao, Commission of the European Communities, DG XIII/C/1, Jean Monnet Building, B4/071, L-2920 Luxembourg, Tel.: (352) 4301-3164, Tlx: 3423, 3461 COMEUR LU, Fax: (352) 4301-4129.

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### Patents as a technology indicator for predicting industrial trends in selected countries

In addition to our article in 'I & TT' 3/88 on ongoing research projects in the field of early recognition of technical trends on the basis of patent data, we would like to introduce in this issue another research project carried out by the Fraunhofer Institut für Systemtechnik und Innovationsforschung (ISI) in Karlsruhe (D).

This project, begun at the end of 1985, initially restricted its statistical surveys of patents to four selected technologies. In particular, the information stored in patent data banks was processed according to various parameters in order to obtain quantifiable characteristics. Analyses based on European or German patent applications proved to be much more up-to-date than those based on surveys at the US Patent and Trademark Office, where only granted patents are accessible (some years after application).

When selected technologies are compared in different countries of origin, however, an additional US search is needed in order to correct for international or regional corporate strategies and for preferences of the applicant firms for domestic markets. The most striking result in the advanced, research-intensive technologies in question is the considerable improvement over the past ten years in Japan's relative weakness and dependency on other countries. Up to the mid-1980s, therefore, the USA's original leadership in patented technology was progressively undermined. German technology was in general unable to keep pace with

Japanese development; very recently, however, there have been signs that the gap is closing.

Patent analyses have twofold significance. On the one hand they document successful innovation, i.e. are a measure of applied research and development output. On the other, applicant firms follow marked regional strategies, i.e. selectively establish industrial property rights in promising new markets, so revealing their marketing intentions. A method of separating these effects, using statistical analysis, has been developed.

The results obtained in the technologies selected are not easily summarized. In many, but not all, cases it was shown that patent statistics on precisely defined technologies correlate well with economic (production and foreign trade) statistics on the corresponding product, with a lead of a few years in the case of international property rights. Patent statistics are therefore an ideal early indicator provided that they are broken down as far as possible on the basis of expert knowledge.

The final report was published in March 1988 by Verlag TÜV Rheinland, Cologne, under the title 'Technikprognosen mit Patentindikatoren' edited by H. Grupp (author U. Schmoch) ('Technology prognosis using patent indicators'), ISBN 3-88585-492-9.



## EEC Publications on industrial property

- Patent Information and Documentation in Western Europe, Commission of the European Communities, An Inventory of Services available to the Public, Third Edition — Edited by Brenda M. Rimmer and K.G. Saur, EUR 6614 (1988 Edition)
- The application of recent software technology to access to patent information systems, Commission of the European Communities, Report — 1987 — EUR 11326 EN
- One century of technical progress based on an analysis of German patent statistics, J. Slama — Osteuropa-Insitut, Commission of the European Communities Report, 1987, EUR 11044 EN
- Patent Infringement Litigation Costs — A Practical Worldwide Survey, Commission of the European Communities and André Bouju, Longman Group UK Limited, 1987, ISBN 0 85121 324 3
- Patent Portfolio — Methode einer Technik des strategischen Patentmanagements, Prof. Dr. Werner Pfeiffer, Lehrstuhl für Industriebetriebslehre — Universität Erlangen-Nürnberg, (in Bearbeitung)

Further information on the publications above can be obtained from:

Commission of the European Communities  
 Directorate-General XIII/C-2  
 Attn: Mr H. Bank  
**L-2920 Luxembourg**  
 Tel.: (352) 4301-2939  
 Telex: 3423/3446 COMEUR LU

## PATENT INFRINGEMENT LITIGATION COSTS: A Practical Worldwide Survey

**The Editor: André Bouju, Professor of Patent Law (CEIPI),  
 European Patent and Trademark Attorney with contributors from 18 countries**

Commissioned by the EEC, this practical worldwide survey on patent infringement litigation gives you essential information on costs incurred by the patent owner when suing an infringer.

### Immediate evaluation

Designed to enable you to make an immediate evaluation of the costs and duration of an infringement suit, it demonstrates how to assess the economic advantages of initiating such an action and budget for future fees.

### Country-by-Country

Each individual country is covered in a separate chapter, which starts with a general survey on the basic rules of the infringement suit. It goes on to examine the important roles of the individuals acting on behalf of the plaintiff (or defendant) in the proceedings.

A study of the costs of patent infringement in 18 different countries, this book analyses the

**LONGMAN GROUP UK LTD FREEPOST LONDON WC1N 3BR**

different steps of patent litigation procedure and the costs involved at each stage.

Unique tables summarise the calculation of the costs and helpful flow charts illustrate the infringement suit procedure.

### Easy to use

With charts to clarify this complex and often costly area of the law, this international survey enables you to make country by country comparisons of costs that can be incurred by you or your client.

### About the editor

André Bouju, Professor of Patent Law, is both a European Patent Attorney and Patent & Trademark Attorney. With extensive international experience, he has written many successful books on different aspects of patent law.

**November 1987**



**PATENT INFRINGEMENT  
 085121 3243**

The completion of the single European market in 1992 presents new challenges and opportunities for the European information technology sector.

In preparation for international industrial competition in IT in the 1990s, the European strategic programme for research and development in information technology - ESPRIT - was launched by the Commission of the European Communities in 1984.

More than 200 projects have been selected under the first phase of ESPRIT, bringing together nearly 3000 IT professionals in trans-European R&D teams involving some 500 companies, universities and research institutes. The second phase of ESPRIT, with total funding of ECU 3.2 billion, is now about to begin.

ESPRIT will nearly double the level of European Community IT cooperation, involving some 5,500 researchers, and building on the considerable success of the first phase within the overall objectives of the Community 1987-1991 Framework Programme for Research and Technological Development.

ESPRIT goes on show this year at the annual conference which provides the principal overview of the work accomplished or in progress. A major exhibition of ESPRIT technology will be held in parallel with the conference at the Palais des Congrès in Brussels.

In view of the strong interest in ESPRIT achievements, the exhibition will be opened for information technology professionals on Friday 18 November 1988.

This open day offers a valuable opportunity to explore many of the front-line ESPRIT projects, as the programme prepares to move into its expanded second phase, with some 50 technical demonstrations representing an impressive array of the results achieved so far.

It is our pleasure to invite you to the special exhibition open day on 18 November.

Since places will be limited, please return the attached reply form for registration in the information briefing of your choice. By return of post you will then receive a personal invitation, to be presented as your entry card at the 1988 ESPRIT Exhibition.



## 5th Esprit Conference 1988

PUTTING THE TECHNOLOGY  
TO USE

BRUSSELS

14 - 18 NOVEMBER 1988

ANNOUNCEMENT

Commission of the European Communities

D.G. XIII - Telecommunications,  
Information Industries and Innovation



### Registration form

Block capitals please

Please return **before 10.11.1988** to: Mrs Anne BRUYLAND-LOGIST  
Commission of the European Communities  
DG XIII/E/5  
200, rue de la Loi  
B-1040 BRUSSELS

I wish to participate in the ESPRIT Exhibition:

Name: \_\_\_\_\_

Forename: \_\_\_\_\_

Occupation: \_\_\_\_\_

Firm: \_\_\_\_\_

Mailing address (please include the postal code):  
\_\_\_\_\_



**International conference  
'Pyrolysis and gasification'  
Luxembourg, 23.-25. May 1989**

The Commission of the European Communities is organizing an international conference on the pyrolysis and gasification of waste materials (including plastics, rubber and wood wastes, various forms of biomass and other low-grade solid fuels) as a potential resource for:

- (i) the production of storable fuels, chemical intermediates, synthesis gas, monomers, or activated carbon;
- (ii) the fuelling of spark-ignited engines, gas turbines or retrofitted boilers.

Weitere Auskünfte erteilt:

For further information, please contact:

Pour de plus amples informations, s'adresser à:

Per ulteriori informazioni, rivolgersi a:

Commission of the European

Communities — DG XVII/E1

Att. Mr G.L. Ferrero

200, rue de la Loi (Terv 06/8)

B-1049 BRUSSELS

Tel. (32/2) 235 79 72

Telex: COMEU B 21877



**4th Annual Conference  
at the Heriot-Watt Conference Centre,  
EDINBURGH**

On Thursday and Friday, 6th and 7th April, 1989

SUBJECT

**'THE ROLE OF SCIENCE PARKS IN THE PROMOTION  
OF INNOVATION AND THE TRANSFER OF TECHNOLOGY'**

*A two-day residential conference during the first  
Edinburgh Festival of Science and Technology  
(3rd-12th April 1989)*

Supported by the Commission of the European Communities under  
the 'SPRINT' programme, and organised in association with:

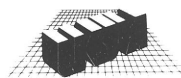
 Peat Marwick McLintock

**TII** The European Association for the transfer of Technologies,  
Innovation and Industrial Information;

**ADT** The Arbeitsgemeinschaft Deutscher Technologie-und  
Gründerzentren.

Make a note for your forward planner **NOW**.

For further details contact: Brian Worrall, UKSPA  
— 44 Four Oaks Road, Sutton Coldfield, B74 2TL, England.



**4 ème Conférence Annuelle  
au Centre de Conférences Heriot-Watt,  
EDIMBOURG**

Les jeudi et vendredi 6 et 7 avril 1989

SUJET:

**'LE ROLE DES PARCS SCIENTIFIQUES DANS LA PROMOTION  
DES INNOVATIONS ET LE TRANSFERT DE TECHNOLOGIES'**

*Une conférence résidentielle de deux jours, au cours  
du premier Festival de la Science et de la Technologie d'Edimbourg.  
(3-12 avril 1989)*

Dans le cadre du programme 'SPRINT' de la Commission des  
Communautés Européennes, et organisée conjointement par:

 Peat Marwick McLintock

**TII** (Association Européenne pour le Transfert de Technologies,  
Innovation et Information Industrielle;)

**ADT** (Arbeitsgemeinschaft Deutscher Technologie-und  
Gründerzentren.)

Notez **DÈS MAINTENANT** ces dates dans votre agenda.

Pour tout autre renseignement, veuillez contacter: Brian Worrall, UKSPA  
— 44 Four Oaks Road, Sutton Coldfield, B74 2TL, Angleterre.



**Esprit**

Programma strategico europeo  
di ricerca e sviluppo  
sulle tecnologie  
dell'informazione

Commissione delle Comunità europee



**Esprit**

European Strategic Programme  
for Research and Development  
in Information Technology

Commission of the European Communities



**Esprit**

Ευρωπαϊκό Στρατηγικό  
Πρόγραμμα  
Έρευνας και Ανάπτυξης  
στον τομέα των τεχνολογιών  
των πληροφοριών

Επιτροπή των Ευρωπαϊκών Κοινοτήτων

The ESPRIT workplan, information packages relevant to the calls for proposals, synopses and other information can be obtained from the Commission's information offices in each Member State or from the ESPRIT Operations Office, Mr Horst Hünke, Commission of the European Communities, DG XIII, A-25 8/7, 200, rue de la Loi, L-1049 Brussels, Tel.: (32) 2 23.57666, Tlx: 21877 COMEUR B, Fax: (32) 2 23.50655.

**A selection of recent publications from the Scientific and Technical Communications Services**

**Safety and health in mining and quarrying industries**

Edited by the CEC, Directorate-General 'Employment, Social Affairs and Education'

For more than 29 years the Safety and Health Commission for the mining and other extractive industries has been trying to promote an exchange of knowledge and experience, so that improvement and application of new health and safety technology can be introduced as quickly as possible throughout the industry.

This was the purpose of the conference reported on in this volume. 33 papers are included and are divided into the following sections: introduction (mining and quarrying in the EEC countries: France, Germany, Italy, United Kingdom, Belgium and Spain); reducing the risk of accident in the quarrying industries; safety in industries other than underground coal-mining; protection and health in the mining and quarrying industries.

EUR 11319 VIII, 429 pp., 76 fig., 87 tab., 77 ph., ISBN 92-825-8280-9

Published by the Office for Official Publications of the European Communities, 2, rue Mercier, L-2985 Luxembourg

**Biomass Forestry in Europe: a Strategy for the Future**

Edited by F.C. Hummel, W. Palz, G. Grossi

'Biomass Forestry in Europe: a Strategy for the Future' summarises the results of what has been achieved in the European Community and makes recommendations for future policy, practice and research. Part I covers the general technical, economic, social and environmental aspects, while Part II deals with the subject country by country.

The text is intended in the first place for foresters, agriculturists and research workers directly concerned with growing crops for industry and energy, but the sections on future strategy are intended also for readers without technical knowledge, but with a concern for the policy aspects of land use and natural resources.

EUR 11487, ISBN 1-85166-255-3, Published by Elsevier Applied Science Publishers Ltd., 1988, Barking, UK

**New Advanced Materials**

— A Report from the FAST Programme of the CEC —

Edited by P. Cohendet, M.J. Ledoux, E. Zuscovitch.

This book contains a detailed study of the effects of developments in new materials on industrial strategies in Europe. The study shows the emergence of a new information-rich economic system, based on uncertainty and complexity management. The mechanisms of the emergence and viability of such a system involve new strategies in terms of gathering know-how, management of skills and industrial partnership.

Available in English, French, ISBN 3-540-19414-2 (English), ISBN 2-7178-1295-4 (French)

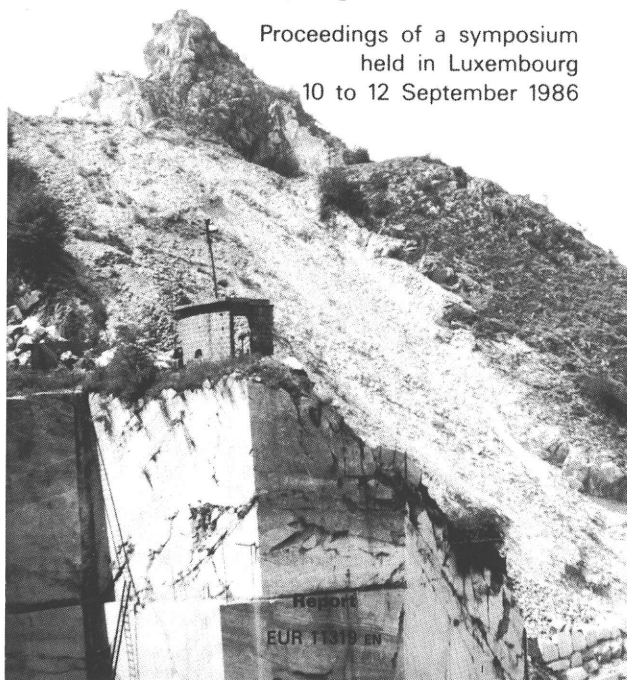
Published by Springer Verlag, Berlin, Heidelberg, New York, London, Paris, Tokyo, 1988



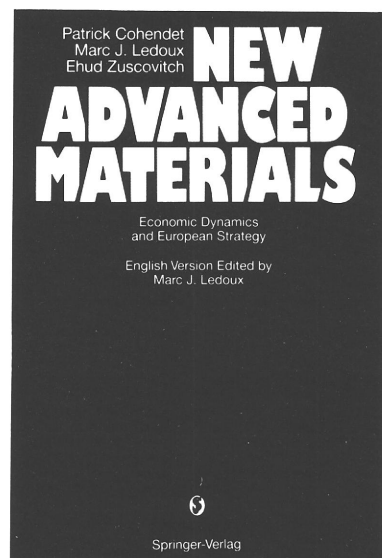
Commission of the European Communities

**Safety and health in mining and quarrying industries**

Proceedings of a symposium held in Luxembourg 10 to 12 September 1986



Report  
EUR 11319 EN





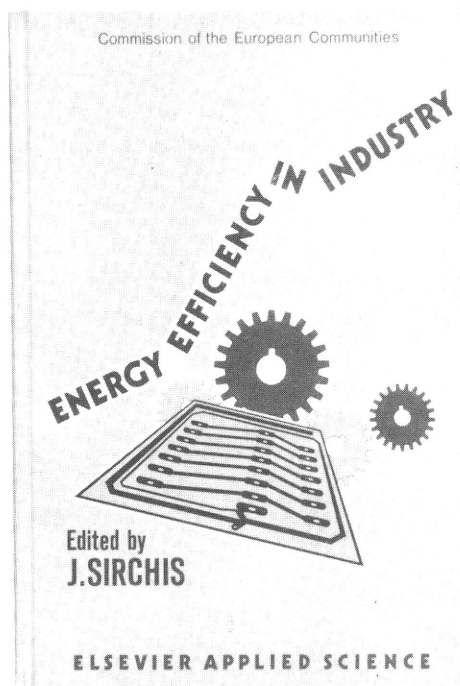
**Elimination or Reduction of Diseases? - Opportunities for Health Service Action in Europe**

Edited by A.J. Silman, S.P.A. Allwright

It is widely held that there are disorders whose incidence can be reduced substantially by the direct intervention of programmes based on the health service. It is the purpose of this publication to consider targets for such programmes within western Europe and to consider how likely it is that this intervention will achieve a worthwhile reduction in disease in the next decade or so.

EUR 10855, ISBN 0-19-261700-1

Published by the Oxford University Press, Oxford, New York, Tokyo, 1988



**Energy Efficiency in Industry**

Edited by J. Sirchis

Energy is an input of major significance for many industries, and an appreciable cost element for many others. Furthermore, energy prices are a volatile factor which could again increase significantly in the future.

This book is the result of a conference, organised by the Commission of the European Communities, aimed at making firms fully aware of the different opportunities for improving the efficiency of energy use, and reviews the latest techniques and systems including:

- process integration
- industrial plant process control and optimisation
- new techniques for low temperature and heat recovery
- the energy management of utilities
- sources of finance for energy efficiency investment

EUR 11490, ISBN 1-85166-243-X

Published by Elsevier Applied Science Publishers Ltd., 1988, Barking, UK

**Library policy for preservation and conservation in the European Community: principles, practices and the contribution of new information technologies**

Edited by A. Wilson

This is a study of current policy and practice on conservation and preservation in libraries of EEC countries, giving American experience for comparison. The report reviews the preservation scene on a world-wide basis, noting developments in mass deacidification, cooperative microfilming, and the application of optical technology to libraries and archives. Campaigns for the use of 'permanent' paper in new books, education and training of conservators, the preservation content of library education, and awareness measures are other topics.

The second part is a survey of preservation needs and provision by country. Striking similarities are noted, as well as differences of approach determined by the structure and organisation of each library system, the distribution of early book collections, and the state of development of library services.

EUR 11563, ISBN 3-598-10766-8, Published by K.G. Saur Verlag, Munich, New York, London, Paris, 1988

**Radiation protection in the European Community - Evaluation and suggestions by a committee of high-level independent scientists**

Edited by G. Bengtsson, W. Jacobi, H. Jammet, E. Pochin, G. Slini, A. Wambersie

The accident at Chernobyl has highlighted the need for an independent assessment of the present situation and future actions with respect to the protection of the population in the European Community from the danger of ionizing radiation.

The Commission of the European Communities, in its 'Outline communication from the Commission to the Council on the consequences of the Chernobyl accident', announced a series of activities in different fields to take account of the lessons to be learnt from the Chernobyl accident. Problems of safety standards and consequences to health take an important place in the considerations of the Commission. Consequently a 'Committee of high-level independent scientists' was convoked and asked:

- (i) to assess the scientific evidence arising from current research in view of recent nuclear incidents and to consider the possible implications for the basic standards and emergency reference levels; and
- (ii) to advise the Commission on future actions in radiological protection.

EUR 11449, 277 pp., 16 tab., ISBN 92-825-8158-6

Published by the Office for Official Publications of the European Communities, 2, rue Mercier, L-2985 Luxembourg

**Health and safety protection in industry: Participation and information of employers and workers**

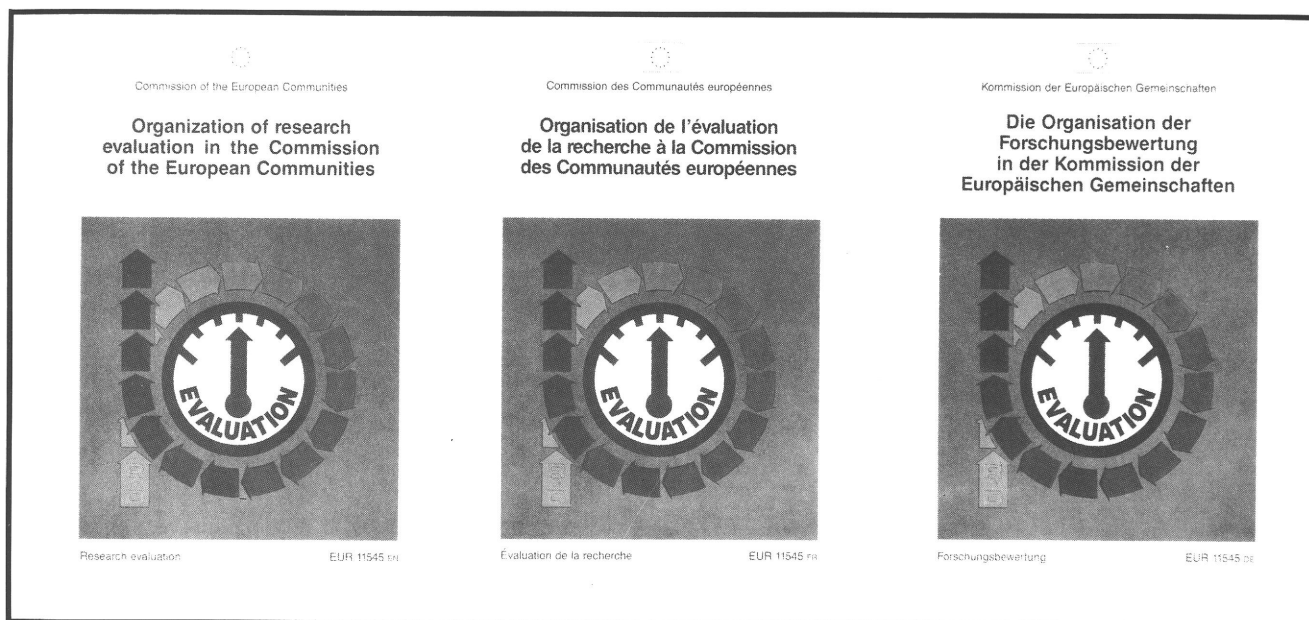
Edited by J.K.M. Gervers

The first part of this report deals with the involvement of representative organizations of employers and workers at the national level in the development and implementation of policies and legislation in the field of occupational safety and health. The second and most extensive part of the study deals with worker participation in health and safety at the level of the workplace.

Both parts contain a survey of national arrangements, a comparative analysis of the arrangements and a discussion of the desirability of and scope for Community action. Whereas the conclusion in Part 1 is that such action is not necessary or appropriate in respect of the involvement of employers and workers organizations at the national level, Part 2 results in recommendations and proposals for action by the Community in respect of employee participation in safety and health within undertakings.

EUR 11314 VIII, 265 pp., ISBN 92-825-8057-1

Published by the Office for Official Publications of the European Communities, 2, rue Mercier, L-2985 Luxembourg



**Organization of research evaluation in the Commission of the European Communities**

Edited by R. Chabbal

Evaluation is a major tool in multiannual management of scientific and technical policies. The subject is not directly 'Evaluation by a peer group', but evaluation as required by and destined for the public sector decision-makers.

Analysis leads to the identification of two large families of evaluation types with separate methods but complementary objectives: the first aims at providing the basis for decisions about the launch, renewal or orientation of a research programme; the second, referred to as 'Strategic and forecasting studies', aims at defining the trends of scientific and technical policy.

The objective is to provide the Commission with a proposal for a system of organization of evaluation at the level of its scientific and technical policy and its research potential.

Available in German, English, French - EUR 11545 XVI, 59 pp., ISBN 92-825-8490-9

Published by the Office for Official Publications of the European Communities, 2, rue Mercier, L-2985 Luxembourg

**EUROPEAN CONFERENCE ON STRATEGIES FOR LOCAL ECONOMIC DEVELOPMENT**

**30 - 31 March 1989 at Trinity College, Dublin, Ireland**

Organized by the Regional Studies Association, Irish Branch, and sponsored by the Commission of the European Communities under the SPRINT Programme.

Many interventions to support local economic development fail or are less than optimal. This Conference will examine the factors of significance in stimulating innovation, entrepreneurship and growth within a local economy. It will identify the parameters for the design of local economic development strategies and of interventions by private and public organizations.

For further information contact:  
Gerry Sweeney, SICA, 44 Fitzwilliam Square, Dublin 2

## INFORMATION ON COMMUNITY R&D RESULTS — SCIENTIFIC AND TECHNICAL ABSTRACTING SERVICE —

The abstracting service of the Commission contains references to the published results of scientific and technical research programmes of the European Communities carried out either by the Joint Research Centre or under contract. The service is produced and managed by Directorate C of DG XIII, in Luxembourg.

Sources are articles and conference papers, technical reports, monographs and proceedings on nuclear research, new sources of energy, environmental research, medical research, biology, agriculture, coal and steel technology research, etc. The information is available either via EUROABSTRACTS, a monthly abstracting journal, or via its on-line version EABS.

**EUROABSTRACTS** is available on a subscription basis from the

OFFICE FOR OFFICIAL PUBLICATIONS  
OF THE EUROPEAN COMMUNITIES  
L-2985 LUXEMBOURG

**EABS** is accessible on ECHO (European Community Host Organisation) free of charge. ECHO users may order directly on-line copies of original articles, reports or other documents that they have located within the EABS database. All document orders are processed automatically by the Office for Official Publications of the European Communities (OPOCE). Documents are sent out by OPOCE and will be accompanied by their corresponding invoices if necessary. When using the on-line document ordering facility, it is important to notice that all ECHO users undertake to pay the prices indicated in the 'RF' field of each EABS record.

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Further information can be obtained as follows:

#### 1. on EUROABSTRACTS

from Mr E. Phillips, Commission of the European Communities, DG XIII/C/3, Jean Monnet Building, B4/078, Tel. (352) 4301-2916, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129

#### 2. on EABS

from Mr R. Rapparini, Commission of the European Communities, DG XIII/C/3, Jean Monnet Building, B4/089, Tel.: (352) 4301-2780, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129 or from ECHO Customer Service, P.O. Box 2373, L-1023 Luxembourg, Tel. (352) 488.041, Tlx: 2181, Fax: (352) 488.040.



### EURO ABSTRACTS SECTION I

Scientific and technical research in certain key areas, such as alternative energy sources, environmental research, nuclear reactor safety, radiation protection, thermonuclear fusion and others is being carried out by the Commission of the European Communities in its Joint Research Centres (direct actions) or through research contracts with national research organizations and industry (indirect actions). Current information on published results from these research actions is announced in the monthly abstracts journal 'euro abstracts' — Section I.

### EURO ABSTRACTS SECTION II

Current information on scientific and technical research in coal, steel and social matters is announced in the monthly abstracts journal 'euro abstracts' — Section II.

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# SPRINT, THE EUROPEAN PROGRAMME FOR INNOVATION AND TECHNOLOGY TRANSFER

## ICONE: Comparative Index of National Standards now available

### — Europe 1992: Data base on norms and standards developed under the SPRINT Programme —

Both within Europe and at international level there is a distinct lack of harmonization with regard to standards and technical rules. As a result it is often difficult for European enterprises, - particularly small and medium-sized firms wanting to market their products elsewhere without having to carry out thorough and time-consuming technical investigations - to identify the degree of equivalence between different national standards for a given product.

In order to improve information on the large number of national technical standards, the Commission has developed under its SPRINT Programme the ICONE data base, with the aim of comparing and establishing the relationships between

27 100 national standards of EEC Member States, 5 700 national standards of EFTA countries and 11 100 key international and European standards. This first phase of the ICONE project was completed recently by the contractor, the European Committee for Standardization (CEN).

The first-phase data base is now available from the relevant national standards institutions. ICONE is now to be integrated with the INFOPRO (Information Procedure on Standards) data base, and information on this, together with further planned developments in the standards field, should also be available from the national standards institutions. A list of the relevant addresses is printed below:

#### **BELGIUM**

Institut Belge de Normalisation (IBN)  
Département des ventes  
29, avenue de la Brabançonne  
B-1040 BRUXELLES  
TP: +32 2 734 92 05  
TG: benor  
TX: +23877 benor b

#### **DENMARK**

Dansk Standardiseringsråd (DS)  
Sales Department  
Aurehøjvej 12  
Postboks 77  
DK-2900 HELLERUP  
TP: +45 1 62 32 00  
TG: danskstandard  
TX: +15615 dansta dk  
TFX: +45 1 62 30 77

#### **FRANCE**

Association Française de Normalisation (AFNOR)  
Service édition-vente  
Tour Europe  
CEDEX 7  
F-92080 PARIS LA DEFENSE  
TP: +33 1 42 91 55 55  
TG: afnor courbevoie  
TX: +611974 afnor f  
TFX: +33 1 42 91 56 56

#### **GERMANY**

Deutsches Institut für Normung e.V. (DIN)  
Beuth Verlag GmbH  
Burggrafenstr. 6  
Postfach 11 07  
D-1000 Berlin 30  
TP: +49 30 2601-1  
TG: beuthverlag bln  
TX: +183622 bvb d  
TFX: +49 39 260 12 31

#### **GREECE**

Hellenic Organization for Standardization (ELOT)  
Sales Division  
Didotou 15  
GR-10680 ATHENES  
TP: +30 1 360 95 17  
TG: elotyp athens  
TX: +219621 elot gr

#### **IRELAND**

The National Standards Authority of Ireland (NSAI)  
The Standards Division  
Ballymun Road  
EI-DUBLIN 9  
TP: +353 1 37 01 01  
TG: research dublin  
TX: 32501 iirs ei  
TFX: +353 1 37 96 20

#### **Italy**

Ente Nazionale Italiano di Unificazione (UNI)  
Dipartimento di vendita delle norme nazionali/internazionali  
Piazza Armando Diaz 2  
I-20123 MILAND  
TP: +39 2 87 69 14  
TG: unificazione  
TX: +312481 uni i  
TFX: +39 2 86 13 06

#### **Netherlands**

Nederlands Normalisatie-Instituut (NNI)  
Sales Department  
Postbus 5059  
Kalfjeslaan 2  
NL-2600 GB DELFT  
TP: +31 15 61 10 61  
TG: normalisatie  
TX: +38144 nni nl  
TFX: +31 15 61 10 61

#### **Portugal**

Instituto Portugues da Qualidade (IPQ)  
Rua José Estevão, 83-A  
P-1199 LISBOA Codex  
TP: + 351 1 53 98 91  
+351 1 53 13 87  
TG: igpai  
TX: +13042 qualif p

#### **Spain**

Instituto Español de Normalización (IRANOR)  
Departamento de formación y asesoramiento  
Servicio de difusión y publicaciones  
Fernandez de la Hoz, 52  
E-Madrid 10  
TP: +34 1 410 48 51  
TG: iranor  
TX: +46545 unor e



**United Kingdom**

British Standards Institution (BSI)  
 Sales Department  
 Linfort Wood  
 GB-MILTON KEYNES MK 14 6LL  
 TP: +44 908 32 00 66  
 TX: +825777 bsimk g  
 TFX: +44 908 32 08 56

Availability of the ICONE data base should also be possible at the standards institutions in the EFTA countries.

Further information on ICONE can be obtained from:

Mr E. Pérez Carbonell, Commission of the European Communities, DG XIII/C/1, Jean Monnet Building, B4/092, L-2920 Luxembourg, Tel.: (352) 4301-4117, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.

**ROBOT APPLICATIONS IN IRISH INDUSTRY INCREASED  
 — A SPRINT activity successfully completed —**

The application of robots in Irish industry is lagging behind other Member States. Whilst a couple of years ago several thousand robots had already been installed in France, the United Kingdom or Italy, the number for Ireland was less than ten. This was the reason why the Commission, in cooperation with EOLAS, the Irish Science and Technology Agency, two years ago launched a specific project to promote awareness of robotics and its application in Irish industry.

The project 'Robotics for Irish Industry' was based on the following three phases:

**1. Acquainting Irish industry with robot applications**

This phase ran from January to June 1987 and involved:

- articles in the media informing Irish industry about the benefits of using robots;
- informative announcements in economic and technical journals;
- devising training material;
- directly approaching 1212 companies felt to have a potential need for robotics.

**2. Seminars on the advantages of robotics**

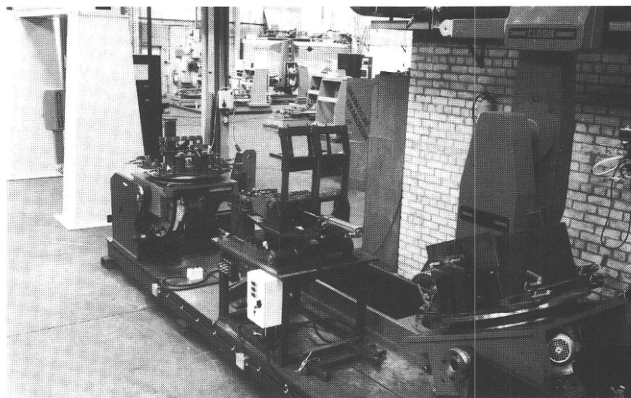
A total of six seminars was held in the second half of 1987 with the aid of experts from the IPA (Fraunhofer Institut für Produktionstechnik und Automatisierung) in Stuttgart. These addressed various issues, i.e. a training seminar for EOLAS staff, an awareness seminar for people with a major disseminatory role in industry, and various robot applications (in welding, the plastics industry, assembly lines and for various selected applications).

**3. Suitable tests in selected Irish companies**

Suitable tests for robot applications in about 20 selected Irish companies were carried out in the first half of 1988 by experts from other Member States.

These feasibility studies within Irish SMEs have recently been completed and led to five robot applications. At least three others are expected to follow.

This project has made some contribution to increasing robot applications in Irish industry since 1986 (about 45 by mid-1988) and has helped to pave the way for a further spread of robotics in Ireland. The Commission has contributed 153 000 ECU to this project, thus covering 50 % of the total costs.



Welding system for heating appliances, at end of building up. Now installed in Cork, Ireland.

This action has proved to be a good model for similar actions covering other Community regions as well as other technologies.

For further information please contact:

Mr A. von Witzleben, Commission of the European Communities, DG XIII/C/1, Jean Monnet Building, B4/091, L-2920 Luxembourg, Tel.: (352) 4301-3351, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129, or

Mr K. McGuigan, EOLAS, Ballymun Road, IRL-Dublin 9, Tel.: (353) 1 370.101.

**SUBCONTRACTING AND EUROPEAN INDUSTRIAL COOPERATION TRADE FAIR  
 Valencia, 14 to 18 November 1988**

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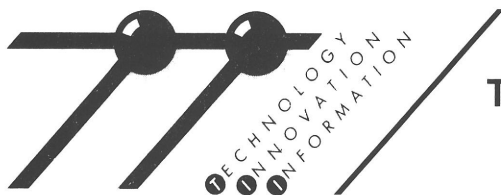
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## News from TII, the European Association for the Transfer of Technologies and Industrial Information

### TII — THE INNOVATION LINK IN EUROPE

Innovation — exploiting technology to create and serve market demand — is the driving force of modern economies and successful businesses. The pressures of competition in increasingly global markets are making continual innovation a must for more and more firms.

TII is the European Association of the innovation support professions. Its aims are:

- to promote their services, to make them more widely known and used by firms;
- to facilitate European cooperation between them, to help them and their client firms benefit from the large internal Community market;
- to provide training in innovation support methods and to encourage high professional standards;
- to represent their interests at European level.

TII is a non profit-making association (association sans but lucratif) under Luxembourg law. Founded with the initial financial support of the European Communities' SPRINT Programme, TII is committed to achieving financial autonomy in the medium term.

TII's current 270 members (target: 500 by 1990) are:

- innovation and technology management consultants
- universities and technical institutes
- contract research organisations
- science parks, innovation centres and business incubators
- venture capitalists and financial institutions
- large industrial firms
- licence brokers and intellectual property advisers
- chambers of commerce and trade
- local and regional governments
- regional development bodies
- government ministries and agencies
- engineering and design consultants
- information brokers, data-base operators and technology publishers
- organisation and management consultants
- technology and trade fair organisers

They cover the full range of innovation support services throughout the European Community and beyond.

#### TII SERVICES

TII FOCUS, the Association's quarterly newsletter, carries information on TII and members' activities and news of European Community and, other initiatives. Special supplements

give members advance warning of new Community initiatives, invitations to tender, etc.

TII DIRECTORY OF MEMBERS, revised annually, profiles individual members' services. It makes members known to



one another and to a wide audience of professionals and firms.

TII EUROPEAN INNOVATION DIRECTORY, based on the Association's 9,000-strong file of innovation support organisations in Europe, is a unique Who's Who giving prominence to TII members and targeted for world-wide distribution.

TII TRAINING SEMINARS use experienced professionals to introduce members to proven techniques of innovation management and support. Current topics in the short (two-day) seminar series are: technology auditing, marketing techniques for innovative products, innovation financing by venture capital, marketing of information services, practice and legal protection of technology transfer. Basic training seminars (one-week) for new entrants to the innovation support professions provide an overview of key methods and practices.

TII CONTACT SERVICES include two-day GROUP VISITS to meet the innovation support community in selected regions

### TII Programme of events

- 3 - 5 November 1988: **Group visit** to Turin
- 10 - 11 November 1988: **Seminar:** Marketing of Innovative Products (Bilbao)
- 10 - 11 November 1988: **Seminar:** Marketing of Information Services (Lisbon), date to be confirmed
- 1 - 2 December 1988: **Conference:** 'Innovation and Regional Development' (Berlin), in association with EBN, the Technical University of Berlin and the Technology Transfer Agency (TVA) Berlin.
- 6 - 7 December 1988: **Seminar:** Practice and legal protection of technology transfer (Luxembourg)
- 8 - 9 December 1988: **Seminar:** Marketing of Information Services (Madrid)
- Autumn 1989: **Conference:** 'Innovation and technological development of firms: Europe facing the challenge of 1992', date and venue to be confirmed

For further details please contact the TII Secretariat, 3 rue des Capucins, 1313 Luxembourg, Tel. 352 46 30 35

of the European Community, INDIVIDUAL STAFF EXCHANGES for up to two weeks or three months, VISITS TO TECHNOLOGY FAIRS for heads of firms. These services are supported by the European Community's SPRINT Programme.

TII TECHNOLOGY OPPORTUNITY EXCHANGE is being developed to provide an exclusive service through which members can post carefully screened technology requests from their client firms.

TII CODE OF PROFESSIONAL CONDUCT is designed to establish clear minimum rules of professional ethics binding on members. It will provide a 'label of quality' to assist them in supplying services to firms.

#### TII MEMBERSHIP

TII membership is generally open to all organisations involved in innovation support.

Annual membership subscriptions are calculated on a sliding scale — from 250 to 3,000 ECU in 1988 — according to the member organisation's size. The average subscription is approximately 600 ECU. Benefactor members make discretionary additional contributions.

#### 1992

The completion of the Community's internal market by 1992 promises not only new opportunities for Europe's firms, but



*TII President Ian Dalton (centre) flanked by Secretary General Michel Duhamel (right) and Assistant Secretary General Christopher Hull (left)*

also increased competition. The pressures on firms to innovate are bound to grow, and with them demand for the services of innovation support organisations.

The European challenge of 1992 implies a European response. Do you have the information and contacts to help your client firms succeed in Europe? TII can help.

### Who to contact at TII

Innovation management  
Search for partners  
EC programmes  
New developments



**Michel Duhamel** (FR, EN, SP)  
Secretary General  
**Christopher Hull** (EN, DE, FR)  
Assistant Secretary General

Methodology seminars  
Group visits  
Staff exchanges  
General information



**Christine Robinson** (EN, FR, DE)  
Administrative Assistant  
**Myriam Dumont** (FR, EN, DE)  
Commercial Assistant

Directory of Members  
European Innovation  
Directory



**Giulia Mongelli** (FR, IT, DE, EN)  
Database Manager

## THE TRANSNATIONAL VENTURE MANAGER EXCHANGE SCHEME

The European Venture Capital Association, EVCA, with the support of the EEC's SPRINT Programme, is launching a scheme to encourage (young) 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 (young) venture capital managers the opportunity to acquire first-hand practical information and experience in other European markets; conversely, they will provide the host venture capital company with first-hand information and experience concerning their home market;
- \* to establish a basis for long-term transnational cooperation between venture capital companies and the individuals involved.

In order to provide the greatest benefits to the managers and the venture capital companies involved, the secondments should last a minimum of one month, but preferably two to three months each. During this period, the venture capital manager, who already has medium to high-level responsibility in his home country, should be exposed to tasks which allow him to utilize the full range of his skills. The scheme is open to (young) managers who are permanently employed by a venture capital company. In order to compensate for the (temporary) loss of manpower and the extra costs resulting from the secondment (i.e. travel, subsistence), the Commission of the European Communities, which supports the scheme, reimburses part of the costs resulting from sending a manager abroad.

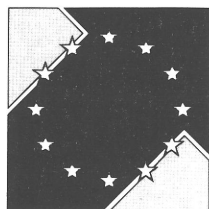
For more information contact:

Y. FASSIN, Secretary-General of EVCA, EVCA, Clos du Parnasse 11F, B-1040 Brussels, Tel.: (32) 2 513.74.39, Fax: (32) 2 513.63.97, Tlx: 23379 or D. JANSSENS, Commission of the European Communities, DG XIII/C/1, Jean Monnet Building, B4/101, L-2920 Luxembourg, Tel.: (352) 64301-4407, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.

## New Secretary-General for EVCA

Yves Fassin (33) was formerly Director of the Industrial Liaison Office at the University of Ghent and has considerable experience in the areas of technology transfer and entrepreneurial development - the key areas for the growth of venture capital in Europe during the coming decade.

'After the considerable success of the European Venture Capital Association in its growth phase under the guidance of Robert Ceurvorst, we are extremely pleased on behalf of the Association to welcome on board the talents of Yves Fassin to coordinate the expanding range of services now being run by the Association for its members,' commented EVCA Chairman, Dr Klaus Nathusius of GENES Venture Services GmbH. EVCA has grown since its creation in 1983 from 43 members to more than 185 members located in 21 countries, a reflection of the rapid expansion of venture capital activities.



EG-Beratungsstelle

bei  
**ZENIT**

Dohne 54 - 4330 Mülheim/Ruhr 1  
Telefon (02 08) 3 00 04 - 0

## SPRINT-Informationsveranstaltung am 12.12.1988, ab 14.00 Uhr in Mülheim/Ruhr

Die EG-Beratungsstelle bei ZENIT informiert über die Fortführung von SPRINT - dem strategischen Programm für Innovation und Technologietransfer.

Das Programm dient der raschen und umfassenden Verbreitung von neuen Technologien und Forschungsergebnissen in der Europäischen Gemeinschaft. Vorrangig angesprochen werden Vermittler im Auftrag kleiner und mittlerer Unternehmen, wie Innovationsberatungsstellen bei Industrie- und Handelskammern, Handwerkskammern, Wirtschaftsförderungsgesellschaften, Technologietransferstellen, Unternehmensberater u.ä. SPRINT ist ebenfalls von Interesse für industrienaher Forschungseinrichtungen, die eine europäische Kooperation im Bereich der Verbreitung von Forschungsergebnissen anstreben. Mit einer neuen Ausschreibung ist Anfang 1989 zu rechnen.

Ort: ZENIT GmbH, Dohne 54, D-4330 Mülheim a.d. Ruhr  
Teilnehmerbeitrag: DM 50, einschließlich Tagungsunterlagen  
Anmeldung: Frau Rygalski, Tel.: (49) 208 300.04-21



## New project launched to promote the utilisation of publicly-funded research associations

Under the SPRINT Programme, five national research and development organisations (NRDOs) have started a new project, EUROTECH, to improve the general level of exploitation of the results of national R&D. One of the major aims of this new project is to increase the flow of new technologies within the Community. In the past, only little attention was paid by national NRDOs to European aspects. With a view to 1992 EUROTECH will try to help overcome this situation.

In accordance with the SPRINT philosophy of building up networks of bodies for innovation and technology transfer, this partnership is of particular importance, since it enables for the first time broad European cooperation between national R&D and exploitation institutions.

The cooperation between the National Research Development Corporation (UK), the Agence Nationale de Valorisation de la Recherche (F), the Danish Invention Center (DK), the Netherlands Organisation for Applied Scientific Research (NL) and the Fraunhofer Gesellschaft zur Förderung der angewandten Forschung (D) provides for the following activities:

- technologies with good commercial prospects will be selected for exploitation abroad;
- the partner organisations will help each other to identify companies interested in licence agreements;
- the partner organisations will actively follow up any contacts which emerge between firms and one of the NRDOs.

An evaluation of these activities will be undertaken at the end of the last year of the EUROTECH project. If it proves successful, a major EUROTECH programme on a broader basis will be set up including participants from further Member States.

Further information on EUROTECH can be obtained from:

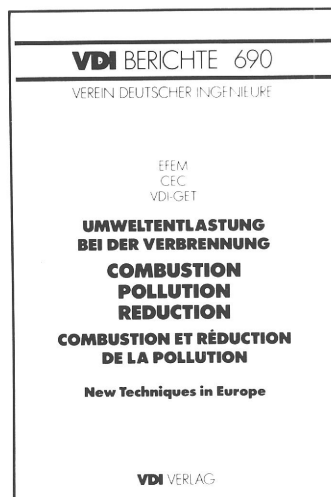
Mr J.E. de Freitas, Commission of the European Communities, DG XIII/C/1, Jean Monnet Building, B4/075, L-2920 Luxembourg, Tel.: (352) 4301-4851, Tlx: 3423, 3446 COM-EUR LU, Fax: (352) 4301-4129.

## European Conference 'Combustion Pollution Reduction: New Techniques in Europe'

Under the aegis of SPRINT, a European conference on 'Combustion Pollution Reduction: New Techniques in Europe' was held in May 1988 in Hamburg.

The conference achieved its aim of serving as a European exchange for know-how and experience in maintaining the purity of the air and saving energy, as shown by the presence of 195 participants from 16 countries. Speakers and chairmen were invited from 12 European countries. The papers (14 in English, 4 in German) appeared in a 378-page conference report 'VDI-Berichte Nr. 690'.

Further copies of the conference proceedings may be ordered from VDI-Verlag GmbH, Abt. VKA, P.O. Box 82 28, D-4000 Düsseldorf 1, at a price of DM 128.



## MANAGING TRAFFIC ON MOTORWAYS: A TECHNOLOGY TRANSFER PROJECT UNDER THE SPRINT PROGRAMME

SERMO-Electronique was founded by Michel Munoz, born in Spain, but now a French citizen, and René Basei in 1983. The company specialises in the supply of traffic management systems on roads and motorways, developed in partnership with SAE Lacroix.

The two best known systems are probably STAR'MAX and METEO'MAX.

STAR'MAX is a real-time traffic management device designed to reduce traffic jams on motorways to a minimum. It makes it possible to supervise and manage traffic over hundreds of miles. Traffic stations, judiciously located on the road network, register such data as the number of vehicles per lane, the average speed, the type and the loading of the vehicles, etc. and do so with an accuracy which compares well with that of other systems.

Calculations, forecasts and analyses can be carried out by all the stations and then processed through a computer by region, giving information on the real state of the traffic and on the changes which can be expected. This makes it possible for motorway managers to decide what steps to take to keep traffic fluid and thus safer, e.g. by displaying messages for the attention of users on electronic panels.

METEO'MAX is also a real-time management device. It enables motorway managers to supervise the state of the road surface and meteorological conditions and likewise take all necessary preventive and curative measures.

SERMO-Electronique has installed its systems in France, on the Paris Rhin Rhône motorway network, for instance, and in the Dijon Beaune Pouilly-en-Auxois triangle, notorious for its accidents.



René Basei was interested in seeing the firm's activities expanding to other European countries, particularly Germany, which possesses the largest network of motorways in Europe.

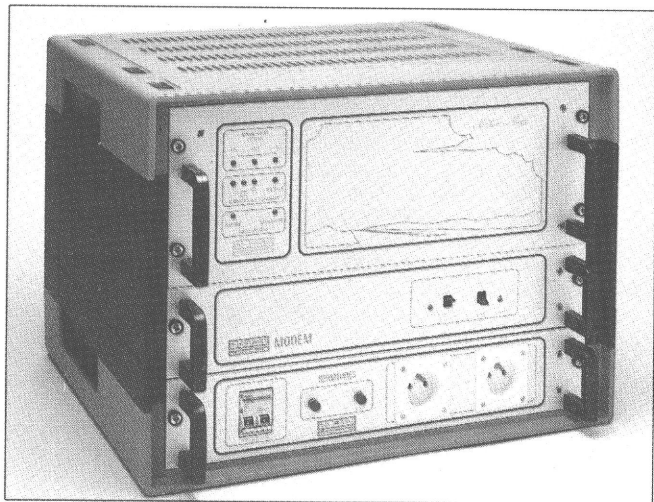


Figure 1: Part of a METEO'MAX station. Placed at various carefully selected locations on the motorway network, these stations provide the system, at intervals of six minutes, with information on the state of the road surface (dry, wet or icy), on air temperature and humidity, etc.

With the help of advisory bodies participating in the SPRINT Programme, SERMO-Electronique has succeeded in finding a partner for the introduction of its technologies STAR'MAX and METEO'MAX to the German market: MEDIA NOVA GmbH & Co. KG in Duisburg. Within a short time, wide-ranging cooperation has developed between these two bodies, involving not only marketing of the respective partners' products, but also joint research for a more ambitious traffic management system, 'EUROTRAFFIC 2000', which has partner firms in Spain and Luxembourg as well.

The transfer of the high-tech products of SERMO-Electronique from France to the Federal Republic of Germany is a typical example of almost 200 technology transfer projects carri-

ed out under the SPRINT Programme. This transfer would not have been possible without the help of the following advisory bodies, which participate in the SPRINT Programme:

Norbert BREUER  
 GESELLSCHAFT FÜR WIRTSCHAFTSFÖRDERUNG  
 SAAR  
 Bismarckstraße 39-41  
 D-6600 SAARBRÜCKEN  
 Tel.: (49) 681 687.990

Bernard HEITZ  
 BOURSE DE LA SOUS-TRAITANCE DE L'EST  
 Maison de l'Innovation  
 93, rue de Metz  
 F-54042 NANCY CÉDEX  
 Tel.: (33) 8 33.67.164

Bernd HAGER  
 HAGER & HAGER Unternehmensberatung für die Mittelständische Wirtschaft  
 Schwarzer Bär 2  
 D-3000 HANNOVER 91  
 Tel.: (49) 511 44.50.51/2



Figure 2: An electronic panel designed by SAE Lacroix for the display of messages to motorway users.

## TECH/TRANS CENTER IN HERNING, DK

For about twenty years the Messecenter Herning, which now has over 50,000 m<sup>2</sup> of covered exhibition space, has been hosting a variety of specialised international exhibitions throughout the year. This year the 'Herning-Fair', with about 800 exhibitors, also featured (for the second year) the 'Tech Trans Center' for licensing negotiations, where about forty technology transfer organisations (slightly more than half of them from other countries) had negotiation booths. Among these were 21 advisory bodies participating in SPRINT and representing six transnational cooperation projects involving ten Member States.

In its second year of existence Tech Trans has in fact already become one of the major market place for the buying and selling of technology in Northern Europe.

For further information on Tech Trans please contact:

Messecenter Herning, Vardevej 1, DK-7400 Herning, Tel.: (45) 7 12.60.00, Fax: (45) 7 22.30.60.



A technology presentation at the Tech Trans '88

## Technical Assistance to Industry to Minimise Electrostatic Problems

— European cooperation under the SPRINT Programme —

Electrostatic hazards have long been recognised in a number of industries, and appropriate means to minimise their effects have been developed.

In recent years, and for several reasons, the fields in which damage or risks due to electrostatic effects or discharges occur have changed and expanded. The main reasons are probably the increased use of plastic materials and the diversification in the use of sensitive electronic and computer-based systems.

It is therefore the objective of a project, set up under the aegis of the SPRINT Programme, to obtain a European-wide view of electrostatic problems and solutions and to disseminate the information widely to industry.

The collaborating organisations are: ERA Technology Ltd. (UK), L.C.I.E. (France), L.O.M. (Spain), Università di Genova (Italy) and WBK-BVS (Germany).

Analysis of electrostatic problems has shown that three main circumstances arise in most industries, namely:

- the industry has identified the problem and set up its own specifications for methods of control;
- the industry has established that the problem is caused by electrostatics but has not found a solution and believes the problems are insoluble, and
- the industry is entirely ignorant of the cause (and, hence, solutions) of their problems arising from electrostatic effects.

To overcome these problems on-site, surveys of problems identified during visits to industry have been carried out. This was the basis for identifying common features in all the problems and to propose appropriate solutions. These are based both on established methods of controlling charge accumulation and also by applying novel techniques. The breadth of experience of different industrial areas provided by the consortium is proving very effective in cross-fertilising specific solutions. The 'on-site' surveys are continuing, and the rate of enquiry is growing as the awareness of the problem and sources of help increase.

In a further step, the cooperation partners are planning to disseminate the information gained to a wide audience in industry and increase the general awareness of electrostatics.

Whilst there is a need to increase general awareness of electrostatic effects, this is also valid for 'on-site' training of operati-

onal staff, with information on the risks, sources of charge and the need for and effectiveness of preventive measures. Management needs to be informed which precautionary measures are to be taken.

As a concrete example in this context, a public seminar will be held in the UK on 13 and 14 December 1988, with speakers from each of the collaborating laboratories as well as other recognised experts. This meeting should be of interest to all those concerned with electrostatic problems.

In the future, further national seminars will be held in each country represented as well as at major international symposia.



From left to right: The Working Group on Electrostatic Problems during its September meeting in Madrid: A. Vega Remesal (E), G. Coletti (I), B. Fallou (F), J. Tiscar (CEC SPRINT Team), D.K. Davies (UK), E. Eisfeld (D).

D.K. DAVIES, ERA Technology, Cleeve Road, Leatherhead, UK-Surrey KT22 7SA, Tel. (44) 372 374.151

B. FALLOU, C. MENGUY, Laboratoire Central des Industries Electriques, 33, av. du Gal Leclerc, F-92260 Fontenay aux Roses, Tel.: (33) 1 409.563.79

L.G. CENTURIONI, Dipartimento di Ingegneria Elettrica dell'Università, Via All'Opera Pia, 11 A, I-16145 Genova, Tel.: (39) 10 356.47.28

A. VEGA REMESAL, Laboratorio Oficial J.M. Madariaga, C/Alenza, 1, E-Madrid 3, Tel.: (34) 1 442.13.66

D. EISFELD, Westfälische Berggewerkschaftskasse, Bergbau Versuchsstrecke, Beylingstr. 65, D-4600 DORTMUND DERNE, Tel.: (49) 231 2491.258

### SPRINT Seminar on Electrostatic Problems in Industry Leatherhead, Surrey: 13-14 December 1988

The seminar will provide industry with a better appreciation of electrostatic effects, as well as prospective answers to difficulties in widely disparate industries. The presentations will review the fundamental processes underlying the generation and storage of charge in dielectrics and the mechanisms of discharge ignition and electronic damage.

For further information on the seminar, please contact one of the research centres listed above or  
Mr Davies  
ERA Technology  
Cleeve Road  
GB-Leatherhead, Surrey KT227SA  
Telephone (0372) 374151 — Fax 0372.374496.

## DESIGN-PROMOTING ACTIVITIES ARE FORGING AHEAD

'Innovation and Technology Transfer' has reported several times on the design-promoting activities of the Commission under the SPRINT Programme (e.g. the awarding of the European Community Design Prize - ECDP - by Vice-President Narjes in February 1988). The CIT working group on Design and Innovation set up under the SPRINT Programme discussed at its last meeting the scope for further activities in support of design. The experts perceived that there was a need for further activities along the following lines:

### 1. Assistance to enterprises

This assistance to enterprises should be focused on **indirect measures** such as:

- establishment of a European register of professionals;
- development of the function of general intermediaries whom firms could consult on how to introduce designers and design into their structure. This might include:
  - \* training of these interfaces;
  - \* analysis of standards and practices in Europe through a comparison of experience;
  - \* help for regions wishing to establish this service;
- protection of design

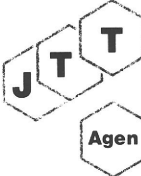
### 2. Education and training

Three levels of concern for possible future action were mentioned:

- general education, involving the development of activities propitious to the development of creativity, although difficult to envisage in practical terms;
- training of designers developed through exchanges of experience in studies and seminars;
- training in the areas of general teaching, business schools and engineering.

Possible future implementation of this activity could take the form of:

- analysis of current practices at national level;
- transnational secondment of students;
- joint development of instruments, such as instruction materials, for the technical support of design teaching (including awareness and supplementary training elements for managers and engineers).



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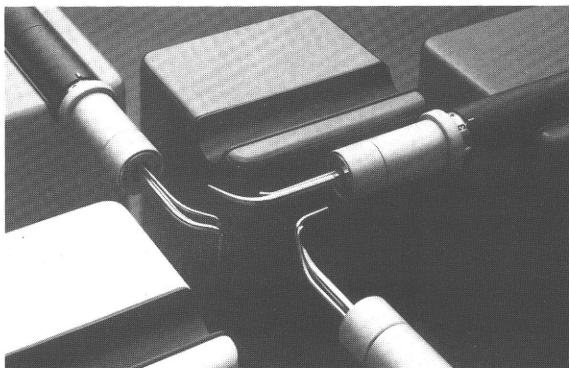
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52, cours Gambetta, B.P. 279,  
47007 AGEN CEDEX - FRANCE,  
Tel. 53.66.79.96

## The European Design Prize 1988



European/EEC  
Design Editions

The Design Council  
London

APCI  
Paris

Fundación BCD  
Barcelona

ioN  
Rotterdam

Kilkenny Design  
Kilkenny

Inst. Belge DID  
Brussels

### 3. Design promotion

The European Community Design Prize (ECDP) was found to be the best vehicle to accomplish the objectives of promoting design in industry inside the Community and of promoting European design outside Europe.

These recommendations by the experts will form the basis for further CEC design-promotion policy under the SPRINT Programme.

Further information on these activities can be obtained from Mr F. Simoes, Commission of the European Communities, DG XIII/C/1, Jean Monnet Building, B4/101a, L-2920 Luxembourg, Tel.: (352) 4301-4564, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.

←  
The catalogue 'The European Design Prize' is available from the Danish Design Center, H.C. Andersens Boulevard 18, DK-1553 Copenhagen.

## Mr Carpentier proposes cooperation between contract research organisations: BOSSARD SURVEY OF EUROPEAN CONTRACT RESEARCH ORGANISATIONS COMPLETED

In the field of industrial innovation, an important role is played by independent Contract Research Organisations; these may offer technological consultancy at the strategic level or can act as technology troubleshooters to resolve particular technological problems. Within this range of activity, the CROs may advise on product and process development or undertake contract research for the medium to long term. In today rapidly changing business environment, the CROs can provide companies with the technological edge to ensure survival. For these reasons, DG XIII recently commissioned BOSSARD Consultants, Paris, to carry out a survey of Contract Research Organisations in the EEC. The results of this survey were presented to a meeting of invited experts under the chairmanship of Mr M. CARPENTIER, Director-General of DG XIII, in Luxembourg, on 12 October, 1988. BOSSARD surveyed nearly 500 organisations throughout the Community and have produced a list of 130 CROs which fulfilled their criteria. As a result of the October meeting, their listing will be published as a European Directory of CROs by DG XIII, to be available in early 1989, and further actions including a symposium for the European contract research industry will be launched. Commenting on the results of the survey, Mr CARPENTIER said 'The CROs are among the most effective agents for the transfer of technology into industry. This study and the Directory will assist the Commission in formulating actions to further encourage the diffusion of Europe's rich technological base into our industrial structure for the 1990s'.



Mr. Carpentier (centre), Director-General of DG XIII, chairing the meeting on contract research

For further information, please contact Mr R. Miège, DG XIII/ C/1, B4/100, Jean Monnet Building, L-2920 Luxembourg, Tel.: (352) 4301-4180, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.

## SPRINT COOPERATION ON VALUE ANALYSIS STARTED

A first meeting of experts on Value Analysis (VA) was held in Luxembourg on 8 September 1988. It included representatives of several national associations for the promotion of VA and independent experts, most of whom had participated in the European session of the congress of the French Association for VA in Paris on 28 April 1988, where they had expressed the desire to explore ways of forging closer links and setting up joint projects on a European scale.

The presentation of the situation in the Member States with regard to the practical application of VA and the structure (association) for promoting this management method painted a very varied picture: associative structures have existed for several years in some of the Member States (B, D, F, I, NL, UK). The discussion led to a consensus on the priority need

to harmonize the concepts used, since standardization of the VA specifications is vital for a joint project.

To start with, it was agreed to propose a cooperative project on drawing up a draft **European glossary** and an initial plan of action to be presented to the next meeting of the Consultative Committee on Innovation and Technology Transfer (CIT) which advises the Commission in implementing the SPRINT Programme.

Further information can be obtained from Mr F. Mahieux, Commission of the European Communities, Jean Monnet Building, B4/102, L-2920 Luxembourg, Tel.: (352) 4301-4370, Tlx: 3423, 3446 COMEUR LU, Fax: (352) 4301-4129, or from Mr Tiscar, CEC, Tel.: (352) 4301-4102.

The European Policy Unit at the European University Institute, Florence

### 1992: One European Market?

#### A Critical Analysis of the Commission's Internal Market Strategy

Edited by: R. Bieber, R. Dehousse, J. Pinder, J.H. Weiler

In this comprehensive work 18 international experts review the economic, political, social and legal aspects of the European internal market. The subjects covered include the cost and consequences of the internal market, the significance of technical harmonization for consumer protection, the scope for removing tax barriers, problems connected with the European capital market, the need for border checks, the role of the Court of Justice in establishing the internal market, and the institutional limits of the internal market.

The annex contains: the Commission White Paper the Council Decision on the new method for technical harmonization, the Single European Act (excerpts)

1988, 463 p., DM 138, ISBN 3-7890-1522-9, Nomos Verlagsgesellschaft, Baden-Baden



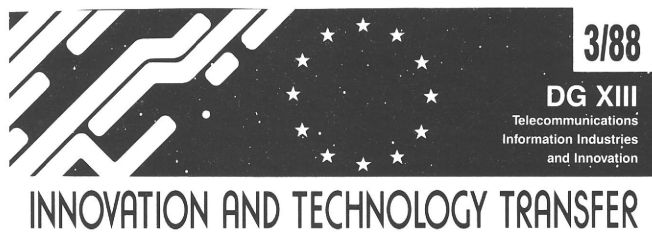


## Conferences under the SPRINT Programme

Under the SPRINT Programme the Commission is promoting the 'Europeanisation' of conferences on new technologies. Here is an overview of some of the forthcoming conferences :

Date	Conference	Venue	Organizer
2- 4.11.88	3e Forum sur l'utilisation de la micro-informatique dans les bureaux d'études	Paris (F)	CETIM Centre technique des industries mécaniques, Senlis (F)
3- 4.11.88	L'isolation thermique extérieure des façades: une technique européenne	Paris (F)	Centre scientifique et technique du bâtiment, Paris (F)
14-17.12.88	International symposium on ceramics and advances in zirconia science and technology	Bologna (I)	Centro ceramico, Bologna (I)
26-27. 1.89	Methods and techniques for implementing manufacturing systems in SMEs	Amsterdam (NL)	Intervisie, Leiden (NL) Forschungsinstitut für Rationalisierung, Aachen (D), Brighton Polytechnic, Centre for Business Research, Brighton (UK)
30-31. 3.89	European conference on strategies for local economic development	Dublin (IRL)	Regional Studies Association, University College, Dublin (IRL)
5- 6. 4.89	Rencontre internationale des organisations de sous-traitance	Biarritz (F)	Entente interconsulaire du Bassin de l'Adour (Chambre de commerce de Bayonne, Pau, Tarbes, Landes), Bayonne (F)
6- 7. 4.89	The role of science parks in the promotion of innovation and the transfer of technology	Edinburgh (UK)	U.K. Science Park Association, Birmingham (UK), Peat Marwick McLintock, London (UK), Arbeitsgemeinschaft deutscher Technologie- und Gründerzentren, Syke (D), Association TII, Luxembourg

Further information can be obtained from: Commission of the European Communities, DG XIII/C/1, Attn.: Mr E. Pérez Carbonell, Jean Monnet Building, B4/092, L-2920 Luxembourg, Tel.: (352) 4301-4117, Telex : 3423, 3446 COMEUR LU, Fax: (352) 4301-4129.



### Innovation and Technology Transfer (‘I & TT’)

‘Innovation and Technology Transfer’ is published by DG XIII-C of the Commission of the European Communities and reports regularly on new research results originating from the CEC Joint Research Centre, the implementation of the SPRINT Programme and related matters.

‘Innovation and Technology Transfer’ (5-6 issues per year) can be obtained free of charge.

Please send me on a regular basis ‘Innovation and Technology Transfer’ (Only forms filled in by typewriter or with block capitals can be accepted)

Name: \_\_\_\_\_

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To be returned to the Commission of the European Communities, DG XIII/C, Newsletter ‘I & TT’, Jean Monnet Building, B4/091, Plateau du Kirchberg, L-2920 Luxembourg

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#### Note to our readers

With the present issue, in its ninth year of publication, a new name 'INNOVATION AND TECHNOLOGY TRANSFER' has been chosen for our Newsletter (previously 'new technologies and innovation policy') which reflects more accurately the two main tasks of the Commission's Directorate XIII-C:

— **Promoting the exploitation of Community research results** originating from the CEC's Joint Research Centre and EC sponsored contract research. Thus, DG XIII-C is acting as an intermediary between EC research and its potential users in science and industry.

— **Direct promotion of innovation and technology transfer**, i.e. improvement of the conditions permitting the rapid transnational dissemination of new technologies throughout the European Community via the promotion of transnational technology transfer as an instrument to strengthen the economic cohesion of the Community. The primary aim is to help to overcome some of the many obstacles to innovation through the SPRINT programme in particular.

INNOVATION AND TECHNOLOGY TRANSFER will regularly inform you about both fields of activity.

Please do not hesitate to contact us for more detailed information on the various projects announced. Your comments and suggestions regarding any aspect of our work would be most welcome.

A.S. STRUB

Director for Exploitation of  
R, D&T, Technology Transfer  
and Innovation

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