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NEWSLETTER

57

new technologies  
and innovation policyCONTENTS

|  | Page |  | Page |
|--|------|--|------|
| I. Commission explores possible lines of support for science parks                               | 2    | V. SPRINT: THE EUROPEAN PROGRAMME FOR INNOVATION AND TECHNOLOGY TRANSFER           |      |
| II. COMMUNITY R&D RESULTS  |      | 1. Industrial innovation and the modernisation of traditional industries           | 8    |
| 1. Optical logic elements and holographic components for R&D programmes in all-optical computing | 2    | 2. Ceramics manufactures and equipment producers dialogue                          | 8    |
| 2. Waste treatment and recycling technologies  | 3    | 3. Seminars for modernising the textile industry                                   | 8    |
| III. INDUSTRIAL PROPERTY RIGHTS AND INNOVATION   |      | 4. Fifth meeting of the CIT working group on Design                                | 9    |
| 1. Commission promotes the role of patents in the process of innovation                          | 5    | 5. Robotics programme for Irish industry   | 9    |
| 2. CIT-subgroup on innovation and patents  | 5    | 6. News from TII   | 9    |
| 3. New patents from Community R&D  | 5    | 7. Franco-Spanish technological exchange in subcontracting gets Commission support | 9    |
| IV. CONFERENCES AND SYMPOSIA   | 6    | 8. European symposium on training in innovation management                         | 10   |
|  |      | VI. PUBLICATIONS   | 11   |

**MORE THAN 3000 REQUESTS FOR SPRINT — CALL FOR PROPOSALS**

The last Call for Proposals (see Newsletter 56A) has shown a considerable increase of interest in the SPRINT Programme and the activities of DG XIII-C in the fields of innovation and technology transfer.

More than 3000 requests for application forms were sent to the Commission and more than 500 proposals for transnational cooperation projects have been put forward to Directorate C in Luxembourg.

The Commission is very pleased to have received so many interesting proposals which can contribute to the expansion of innovation in Europe. At the same time the Commission regrets that, due to budgetary limitations, a severe selection procedure may well cause disappointment to some applicants.

*This Newsletter is issued by Directorate XIII — C, Exploitation of research and technological development, technology transfer and innovation, in Directorate-General "Telecommunications, Information Industries and Innovation" of the Commission of the European Communities. For more information about its contents please write, including the address label with all your correspondence, to:*

Commission of the European Communities  
DG XIII — C  
L-2920 Luxembourg  
or call (352) 4301 extension 2918 or 3351

# I. COMMISSION EXPLORES POSSIBLE LINES OF SUPPORT FOR SCIENCE PARKS

On the initiative of Vice-president NARJES, the Commission's Directorate General XIII (Telecommunications, Information Industries and Innovation) convened the first meeting of a newly formed Advisors Group on Science Parks on October 5/6 in Brussels. The Group will take stock of the progress of the science park 'movement' in the Community during the last several years and explore the role of science parks at the research-industry interface. The members of the Group are directors of some of the longer established and more successful European science parks, representatives of the International Association of Science Parks, and the services of the Commission.

A first outcome of the Groups' discussions was to clarify the definition of a science park relative to the many other similar-sounding sorts of initiatives — innovation centres, technology centres, business incubators, and so on — which are frequently only an element within a science park and which have also witnessed a rapid development in the last few years.

The Group underlined the significant contribution which science parks promise to make in the course of time to economic modernisation — at the regional and European levels. The older science parks can already demonstrate impacts of these kinds. Their experience also shows that important synergies and an acceleration of development can occur once a science park has achieved a certain critical mass of firms, researchers and supporting infrastructure.

This first meeting of the Group identified a number of points for further discussion which might eventually lead to recommendations for Community action, along the following lines:

First, the Community should give explicit recognition to the role of science parks at the research-industry interface.

Second, there is an evident need for science parks to maintain close links with one another internationally. Experience should be shared and lessons learned. To this effect interaction should be developed between the International Association of Science Parks and the Commission.

Third, the Group was broadly agreed that certain forms of specialised training might be useful.

Fourth, there remains an acute problem of seed and especially pre-seed capital for the kind of innovative new start-up firm found in science parks. The question was posed whether each science park director should not ideally have at his disposal a small discretionary fund allowing modest but often crucial amounts to be advanced to firms in order to facilitate attracting commercial finance.

Fifth, science parks can be a focus for co-operative strategies between established large firms and innovative new firms. Science parks may provide a means to foster and accelerate the process.

Sixth, the kind of innovative firm found in science parks often needs a wider international market in order to be able to generate the sales volume necessary for commercial survival.

The next meeting of the Group on Science Parks will take place on January 25/26 1988 in Brussels.

## II. COMMUNITY RESEARCH AND DEVELOPMENT RESULTS

The usefulness of international cooperation in R&D can be seen from the numerous projects which have been brought to a successful conclusion with the help of the Community in recent years. The Commission intends to present in this and subsequent issues of the News-

letter a selection of recent innovations, i.e. new processes and products which are being used in the economy.

The first presentation concerns:

### 1. OPTICAL LOGIC ELEMENTS AND HOLOGRAPHIC COMPONENTS FOR R&D PROGRAMMES IN ALL-OPTICAL COMPUTING

The entire electronics industry is based on the manipulation (amplification, modulation, switching etc.) of signals transmitted by electron currents (in metals, semi-conductors, a vacuum etc.) or by other signals of the same type, with frequent use being made of electromagnetic radiation for their transmission.

In recent years, the electro-magnetic spectrum used for transmission has been extended beyond the traditional radio and microwave-frequencies to include those in the infra-red and visible spectrum, capable of handling large quantities of information — an example being the optical fibres used in telecommunications.

It would therefore be advantageous to be able to use optical signals to manipulate other optical signals with

no need to convert them to electronic signals and then back into optical signals.

An additional advantage of optical logic elements in comparison to electronic ones is that they are unaffected by strong electric and magnetic fields.

The development of all-optical numerical logic elements is a technological breakthrough based on the phenomenon of optical bistability in semi-conductors. Edinburgh Instruments Ltd is currently marketing the first such digital elements, developed by Heriot Watt University under a 'stimulation Act' contract signed with the European Community as part of EJOB ('European Joint Optical Bistability Project'), administered by DG XII/A/2. The products currently available include:

#### a) Optical logic element ('optical transistor')

In this all-optical equivalent of the electronic transistor, a 'carrier' or 'hold' laser beam (e. g. from a 514 nm argon ion laser) can be modulated or switched by a weaker signal beam. This element can therefore be used as an optical logic gate and be connected to analog equipment to form simple optical logic circuits. It can also be used as a memory element, an optical amplifier or a power limiter.

Moreover, two-dimensional plane arrays of elements (initially 10x10) can be assembled, to form an optical parallel processor.

#### b) Holographic laser beam variable attenuator

This new type of attenuator gives precise and efficient control of the intensity of visible spectrum laser beams over a wide power range.

#### c) Holographic laser beam array generator

This device splits a single laser beam into a divergent network of focussed beams which can be used,

for example, to illuminate the optical logic array or as a display screen.

#### d) Kit for optical logic research

This complete kit includes all necessary optical equipment required by researchers; in particular, optical logic elements, lenses, attenuators and beam splitters (with focussing and other adjustment options), all mounted on a miniature optical bench to form a compact and practical unit.

Further information can be obtained from:

Edinburgh Instruments Ltd.  
Riccarton  
Currie  
UK-Edinburgh EH14 4AP  
Tel.: (31) 449 5844  
Telex: 72553 EDINST G

## 2. INVENTIONS ARISING FROM EUROPEAN COMMUNITY RESEARCH — WASTE TREATMENT AND RECYCLING TECHNOLOGIES —

Four inventions from European Community research were presented recently at the INTERNATIONAL TRADE FAIR FOR WASTE PROCESSING, RECYCLING AND ENVIRONMENTAL TECHNOLOGY' in Utrecht (10- 13 Nov. 1987)

#### 1. Revive System — a new system for the recycling of mixed scrap plastics

The Revive System permits every tonne of scrap plastic to save twice its own weight in petroleum feedstock. This unique system was developed by Cadauta, San Sebastiano da Po, Italy, and allows recycling of mixed scrap plastics without the costly process of separating the various polymers.

The plant can be used for the direct production of compaction materials, panels, fencing, posts, buffers, water treatment components, industrial or semi-finished containers, insulation plates and packaging.

The plant can handle 3 000 tonnes of scrap per year, equivalent to a saving of 6 000 tonnes of petroleum feedstock.

#### 2. Processes for the production of composites using recycled waste

Under a shared-cost research contract administered by DG XII/C/3, the Kataflox company Offenbach, has developed and patented (inventor: Mr A. K. Herr) a range of processes for producing several composite materials — which can be used in the form of boards or mouldings — for everyday purposes, such as construction work, furniture-making or vehicle manufacture.

Thanks to the Kataflox process it is possible to produce composites with a wide range of applications and consisting largely of recycled materials. The flame-retarding composites have none of the drawbacks associated with asbestos.

#### 3. Process for plastic waste recycling

A new method has been developed for recycling mixed plastic waste contaminated with paper and arising from:

1. Household waste (sorted plastics fraction),
2. Industrial and agricultural plastic sheeting,
3. Mixed plastic waste from flexible packaging industries, including laminates of plastics/paper/aluminium.

Such waste containing up to 50% of paper can now be processed into useful end-products in an economic, profitable way.

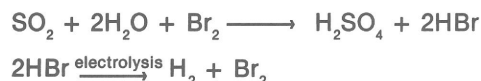
This novel method can be integrated with conventional recovery operations.

The research activities have been carried out with financial support from the Commission of the European Communities, DG XII/C/3.

A production plant is under planning. Interested partners are invited to participate.

#### 4. Ispra Mark 13 A flue gas desulphurization process

The new Ispra Mark 13 A process, invented in 1979 by Mr Van Velzen and Mr Langenkamp at the Joint Research Centre in Ispra (Italy) following research under the hydrogen programme (1977-80), involves the following chemical reactions:



The process simply converts sulphur dioxide and water into two products, sulphuric acid and hydrogen, for which there is a market, instead of into waste products which are costly to dispose of. Bromine, the only other chemical involved in the process, is recycled and hence does not contaminate the environment.

The Community owns the patent rights, and the process has been successfully tried out on test rigs both at the Ispra JRC and the ENEL power station in Livorno (Italy). A pilot plant is now being built at the Saras refinery in Sarroch, Sardinia, where there is a need for sulphuric acid. It will be capable of treating 32 000 m<sup>3</sup> of gas per hour, which is approximately the amount produced by a 10 MWe power station.

If the trials prove satisfactory, and if the present trend towards stricter control of sulphur dioxide emissions continues, there could be a very large market for the Ispra Mark 13 A process.

**Further information on the four inventions is obtainable from:**

Commission of the European Communities  
Directorate-General XIII/C/3  
'Exploitation of new technologies' Department  
Jean Monnet Building  
**L-2920 Luxembourg**  
Tel.: (352) 43012959  
Telex: 3423/3446 COMEUR LU

## OUVRAGES DE LA C.C.E.

Disponibles chez LAVOISIER — TECHNIQUE et DOCUMENTATION

### ● L'ÉNERGIE ET LE DÉVELOPPEMENT

Quels enjeux? Quelles méthodes? Synthèses et conclusions

152 p., 16 x 24, ill., 1984

2<sup>e</sup> tirage 1985, 80 F

I.S.B.N.: 2-85206-267-4

Egalement disponible

en version anglaise

L'Historique du projet. Les pays en développement et leurs systèmes énergétiques. Les orientations du programme de recherche. La collecte et le traitement des données et des approvisionnements en énergie.

### ● BILANS ÉNERGÉTIQUES — ENERGY BALANCES — BALANCES ENERGETICAS — de 40 pays en développement.

Complément à «énergie et développement.

Quels enjeux? Quelles méthodes? Synthèses et conclusions.

368 p., 15,5 x 24, nombr.

tabl., 1986, 155 F

I.S.B.N.: 2-35206-344-1

Cet ouvrage concerne 40 pays en voie de développement, dont les bilans ont été établis, en principe, pour trois années de la décennie 1970-1980. Leur présentation en bilan énergétique de base fait ressortir l'ensemble minimum des informations nécessaires pour décrire la situation des flux d'énergie dans un système donné. Les annexes situées en fin d'ouvrage fournissent pays par pays, l'origine des principales sources d'information utilisées.

### ● MEDEE 3 — Modèle de demande en énergie pour l'Europe

M. CAMOS, M. DUMORT, P. VALETTE et al.

Préface: A. STRUB, directeur du programme «énergie non nucléaire»

304 p., 16 x 24, 1986, 165 F

I.S.B.N.: 2-85206-351-4

Introduction. Les scénarios associés au modèle MEDEE 3. Références bibliographiques. Annexes.

### ● L'UTILISATION DES MICRO-ORGANISMES II:

Les positions économiques et technologiques de la C.E.E.

Rapport préparé par l'A.R.E.P.I.T., pour la C.C.E.

R. BIVAS

Introduction. Micro-organismes, biotechnologie et bio-industrie: un rappel technique. Les données industrielles et la position de la C.E.E. Technologie et brevets: les axes principaux. La recherche et le développement sur les micro-organismes dans la C.E.E. Perspectives et recommandations. Bibliographie. Annexes.

104 p., 16 x 24,4<sup>e</sup>

trimestre 1986, 90 F

I.S.B.N.: 2-85206-358-1

### ● LA FORMATION MÉDICALE DANS LA COMMUNAUTÉ ÉCONOMIQUE EUROPÉENNE

Rapport établi par le Comité

Consultatif pour la formation des médecins auprès de la C.C.E.

Env. 120 p., 15,5 x 24,

4<sup>e</sup> trimestre 1986

I.S.B.N.: 2-85206-370-0

Les objectifs de ce symposium étaient d'une part, d'évaluer l'impact des directives et le rôle joué par le comité et d'autre part, de tenter d'identifier les orientations et les exigences à retenir pour la formation et la pratique médicale dans les années 2000.

### ● LA SÉCURITÉ ET L'HYGIÈNE DANS LES INDUSTRIES D'EXTRACTION DU PÉTROLE ET DU GAZ

Symposium International -

Luxembourg 19-20 avril

1983

472 p., 16 x 24, ill, 1983,

220 F

I.S.B.N.: 2-852-206-211-9

Séances et ateliers — Facteurs fondamentaux. Salubrité — Facteurs fondamentaux Formation à la sécurité dans les industries d'extraction du pétrole et du gaz. Formation. Salubrité dans les industries d'extraction du pétrole et du gaz. Gestion de la sécurité. Procédures d'urgence. Procédures de sauvetage. Aspects sanitaires relatifs aux incidents graves. Procédures d'urgence. Appréciation finale des résultats du symposium.

### ● ARCHITECTURE SOLAIRE

Conférence Internationale -

Cannes, 13-16 décembre

1982

616 p., 16 x 24, nombr.

fig. et tabl., 1983, 285 F

I.S.B.N.: 2-85206-199-6

Bilan des constructions, solaires passives. Comportement thermique des cellules d'esai. Climatisation passive. Réhabilitation passive. Réhabilitation thermique. Modélisation et simulation. Méthodes analytiques et simplifiées. Forum de l'architecture. Outils d'aide à la conception. Table ronde: les outils d'aide à la conception au service des utilisateurs. Programmes nationaux et internationaux. Composants d'architecture: Fenêtres et occultations — Systèmes de stockage. Aspects éducatifs, économiques et sociaux.

### ● OPTIMISATION DE LA PROTECTION RADIOLOGIQUE

Séminaire du 3 au

5 octobre 1979, organisé

par la C.C.E. conjointement avec le C.E.A. —

France Coordonnateurs:

A. OUDIZ, H. EBERT,

G. UZZAN et

H. ERISKAT

Afin de présenter et de discuter les approches méthodologiques envisageables, en matière d'optimisation de la protection radiologique, la CCE a organisé conjointement avec le CEA-France, un séminaire qui s'est tenu à Luxembourg du 3 au 5 octobre 1979. Cet ouvrage contient les communications présentées au séminaire.

400 p., 16 x 24, nombr.

fig. et tabl., 1982, 195 F

I.S.B.N.: 2-85206-127-9

### ● LE DROIT DE LA CONSOMMATION EN BELGIQUE ET LUXEMBOURG

M. Fontaine et T. BOURGNOIGNIE

258 p., 16 x 24, 1981, 216 F

I.S.B.N.: 0-442-30416-1

### ● LE DROIT DE LA CONSOMMATION EN FRANCE

J. CALAIS-AULOY et Collaborateurs

198p., 16 x 24, 1981, 216 F

I.S.B.N.: 0-442-30414-5



11, rue Lavoisier — F-75384 Paris Cedex 08



# III. INDUSTRIAL PROPERTY RIGHTS AND INNOVATION

## 1. Commission promotes the role of patents in the process of innovation

— Videos 'The Patent Office' available soon —

To help promote the significant role played by the patent offices the Commission is now producing a video presentation, (lasting 15 minutes) which will be available shortly in five languages (English, French, German, Italian, Spanish). It is principally aimed at research institutions, associations and companies to increase awareness of the assistance a patent office can

offer in the areas of innovation management and patent information.

For more information on this video tapes, please contact Chanowski Audio-Visual Production BV, Prinsengracht 852-856, 1017 JN Amsterdam, Phone: 020/245580.

## 2. CIT-Subgroup on Innovation and Patents

The Commission has set up an expert sub-group of the CIT (Committee on Innovation and Technology Transfer), 'Innovation and Patents', which has the general task of studying how innovation could be furthered through suitable measures within the field of industrial property.

At the last meeting of this group of experts held on 25/26 November 1987 in Luxembourg, special attention was given to problems in patent infringement proceedings.

In this context the discussion focused on three points:

### a. Commercial legal proceedings insurances:

Introduced by a representative of the insurance industry the experts discussed possibilities to extend and to improve insurances covering risks in patent infringement proceedings. Whilst such insurances proved their usefulness quite successfully in the United Kingdom and in the Netherlands, this possibility to protect innovation is nearly unknown in other Member states.

### b. Patent infringement litigation costs:

Prof. BOUJU, Paris, presented his worldwide survey on patent infringement costs, which was commissioned by the EEC and which just has been published (see the advertisement on the last page of this Newsletter).

### c. Time, costs and risks in obtaining a patent protection:

The group felt that there was a significant lack of transnational information on time, costs and risks in obtaining a patent protection.

Therefore, the group agreed to the proposal of the Commission to hold a conference on this topic and the two other — above mentioned — themes (a. and b.) in autumn 1988 in order to stimulate further the awareness of researchers, engineers and managers of SME's of the important role patents play in the process of innovation.

## 3. New patents from Community R&D

### a) CABLED ULTRASONIC SEAL

This seal is characterized in that the delay line is extended by a frustum-shaped part terminated by a spherical cap, which is able to receive a marking participating in the acoustic identity of the seal. The sealing capsule of the seal is perforated with an opening adapted to the dimensions of the frustum-shaped part of the identity module. The sealing cable is fixed between the module and the sealing capsule.

Application to the monitoring of containers containing dangerous or precious products and the like.

which the entrances of the pores are narrowed to a desired size by treating the porous solid with two chemisorbable materials, one of which is diborane. The treatment may be repeated.

The purpose of the first such treatment is to make the pore entrances so narrow, that unduly large molecules cannot enter and the smaller ones can, while a later treatment may serve to narrow the pores still further, so that the absorbed molecules cannot escape.

### b) SURFACE TEXTURE READING ACCESS CHECKING SYSTEM

Surface texture reading access checking system. The identification information attached to each support object serving as a key is constituted by the texture of a surface portion of said object. A reader reads this information and communicates it to the processing means, which carry out a comparison between the signal read and recorded signals. Application to the production of locks or access checking means for data processing, telematic, banking and similar systems.

### Other new patents:

- Solar energy collector with integrated heat storage and radiator
- Device for passive heat transport
- Process and a device for flue gas desulphurization
- Heat-pipe thermostat of high precision

Further informations on these and other patents can be obtained from:

### c) METHOD FOR A CONTROLLED CHANGE OF THE PORE SIZE IN SOLIDS

A porous solid such as a zeolite of clay can be degassed to make it suitable as an absorbent, after

Commission of the European Communities  
Directorate General XIII/C/1  
Jean Monnet Building  
L-2920 Luxembourg  
Tel.: (352) 4301-2943  
Telex: 3423/3446 COMEUR LU

## IV. CONFERENCES AND SYMPOSIA

### New technologies for the exploration and exploitation of oil and gas resources

Europe's security of hydrocarbons supply heavily depends on the ability of locating and exploiting new oil and gas reserves.

To assure the availability of these resources, a new generation of technology is required: more effective, reliable, less expensive.

Since 1973, the European Community has implemented a programme which provides financial support for technological development in the field of hydrocarbons.

For the European Community, today and tomorrow, the challenge is to:

- face up to the more and more difficult conditions of exploration and exploitation;
- develop technologies which will activate, at minimum cost, the oil and gas reserves for production in the year 2000.

The European industry has already expanded considerably its efforts to attain the current technological level.

The third symposium will offer the opportunity to:

- present the results of projects that have benefited from the Community's financial support in the following disciplines: geology, geophysics, drilling, production, technical exploitation, enhanced recovery, pipe laying, storage, natural gas;
- determine the priority of technological objectives for the forthcoming years;
- discuss in the frame of a round-table the future and effectiveness of the Community's support programme.

Weitere Auskünfte erteilt:

For further information, please contact:

Pour de plus amples informations, s'adresser à:

Per ulteriori informazioni, rivolgersi a:

Mr E. Millich  
Commission of the European Communities  
Directorate-General for Energy  
Rue de la Loi 200 (T. P. 5/11)  
B-1049 Brussels  
Tel.: (32/2) 235 36 25  
Telex: comeu b 21877

The **Commission of the European Communities** through its Directorate-General 'Energy', Coal Directorate, and with the collaboration of the Directorate-General 'Telecommunications, Information Industries and Innovation' is organizing from **4 to 6 May 1988** in Luxembourg at the Jean Monnet Building, Room M 6, an information symposium on

#### **IMPROVING PRODUCTIVITY THROUGH TECHNOLOGY MODERN MANAGEMENT IN THE COAL-MINES OF THE EUROPEAN COMMUNITY**

You are hereby invited to attend this conference and are requested to return the attached registration form not later than **15 April 1988** if you intend to take part.

please return to:

P. P. ROTONDO'  
CEC  
DG XIII/C2  
L-2920 LUXEMBOURG  
(Tel. 4301-3166)  
Telex 3423 }  
3446 } COMEUR LU

#### **Einschreibeformular/Registration form Bulletin d'inscription**

(Bitte in Druckbuchstaben ausfüllen)  
(Block capitals please)  
(Prière de remplir en caractères d'imprimerie)

Name/Name/Nom: \_\_\_\_\_

Vorname/Forename/Prénom: \_\_\_\_\_

Beruf/Position/Profession: \_\_\_\_\_

Unternehmen/Firm/Entreprise/Institution: \_\_\_\_\_

Anschrift (bitte unbedingt Postleitzahl angeben):  
Mailing address (please include the postal code):  
Adresse postale (ne pas oublier le code postal):

Tel.: \_\_\_\_\_ Datum/Date: \_\_\_\_\_

**INTERNATIONAL CONFERENCE  
'ENERGY EFFICIENCY IN LAND TRANSPORT'  
Luxembourg, 16—18 May 1988**

The Commission of the European Communities is organizing an International conference on the energy efficiency in land transport in the framework of general policy objectives:

- (i) to improve the energy efficiency of transport systems;
- (ii) to encourage replacement of hydrocarbons wherever justified because of positive effects on primary energy consumption and because of related financial considerations.

Those who are active in the sector of energy efficiency in land transport are invited to participate in this conference and present an abstract describing the work which they have done. For this purpose they may send a summary of not more than two typewritten pages of the presentation they intend to give.

The summary should include the following information:

- |  |   |
|--|---|
| (i) reference subject session listed in the programme, | (v) name of speaker's affiliation,                      |
| (ii) title of the presentation,                        | (vi) purpose of the work,                               |
| (iii) name(s) of author(s), (list speaker first),      | (vii) issues (to be discussed),                         |
| (iv) full address and telephone number of speaker,     | (viii) significant results obtained and/or conclusions. |

Tables and diagrams should be attached to the summary only if they may be of use in selection of the presentations. The summary should be written in English.

**INTERNATIONAL CONFERENCE  
'PYROLYSIS AND GASIFICATION'**

Luxembourg, November 1988

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.

Those who are active in the sector of pyrolysis and gasification are invited to participate in this Conference and present an abstract describing the work which they have done. For this purpose they may send a summary of not more than two typewritten pages of the presentation they intend to give.

The summary should include the following information:

- |   |  |
|---|--|
| (i) reference subject number listed in the programme, | (v) name of speaker's affiliation,             |
| (ii) title of the presentation,                       | (vi) purpose of the work,                      |
| (iii) name(s) of author(s). (List speaker first),     | (vii) conditions of the execution of the work, |
| (iv) full address and telephone number of speaker,    | (viii) significant results obtained.           |

Table and diagrams should be attached to the summary only if they may be of use in the selection of the presentations. The summary may be written in French, German or, preferably, English.

I wish to receive further information about the conference: — Energy Efficiency in and Transport   
— Pyrolysis and Gasification

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

please return to:

P.P. ROTONDO'  
CEC  
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L-2920 LUXEMBOURG  
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3446 COMEUR LU

# V. SPRINT, THE EUROPEAN PROGRAMME FOR INNOVATION AND TECHNOLOGY TRANSFER

## 1. INDUSTRIAL INNOVATION AND THE MODERNISATION OF TRADITIONAL INDUSTRIES

Within the SPRINT Programme, the Commission of the European Communities launched a year ago two sub-programmes to stimulate transnational cooperation between industrial research associations (RA's) and to encourage the modernisation of traditional industries (MIT).

Over 100 individuals and 60 organisations actively involved in these two pilot programmes met in Luxembourg on November 12-13 to take stock of their progress. They represented a dozen mostly traditional industrial sectors and came from all parts of the Community.

One of the major conclusions of the seminar was that while investment in high technologies is vital for Europe's future, European firms can derive much competitive strength from „medium“ technologies: more action is needed at national, sectorial and Community levels to disseminate existing proven technologies rapidly and widely throughout the traditional industries. It was also strongly suggested that „on-site“ demonstration actions be undertaken to convince SMEs of the potential benefits of advanced technologies. Scope for action in the next SPRINT programme!

The 40 presentations of the intensive two-day work-programme highlighted both the clear successes as well as remaining tasks after a year's pilot work.

The successes included a study of the performance characteristics of available Computer Aided Design (CAD) systems for the shoe industry. This joint project in eight countries under the SPRINT RA programme is producing a buyer's guide to CAD, a CAD awareness video and skeleton training course for CAD operatives. The package is specially tailored to the needs of small shoe firms contemplating the first-time purchase of CAD systems, and will be translated, published and diffused throughout the Community shoe industry by the participating RA's.

But much remains to be done; the seminar revealed, for example that while many of the generic technologies (e. g. CAD/CAM, robotics, laser technology) have quickly found application in the various sectors, the transfer of less spectacular technologies from one sector to another, which can be the most rapid route to a proven solution to a technological problem in a sector, is often more a matter of chance than systematic search — and that considerable economies of scale and scope could come from European cooperation in transectoral technology transfer.

Further information can be obtained from the Commission of the European Communities DG-XIII/C/2, Tel. (352) 4301-4407.

## 2. CERAMICS MANUFACTURERS AND EQUIPMENT PRODUCERS DIALOGUE

On 15 and 16 October a forum between producers of traditional ceramic products, e. g. tiles, table- and sanitary ware, and equipment manufacturers took place in Stoke-on-Trent at the same time as the INTER-CERAMICS fair held there.

During the forum about 100 producers of traditional ceramic products from all over Europe expressed their

needs and views to about 15 of the larger European equipment manufacturers on the modernisation of their sector.

This forum is only one of the events that have recently been organised in the context of SPRINT's activities on the modernisation of traditional industries.

## 3. SEMINARS FOR MODERNISING THE TEXTILE INDUSTRY

In 1987, four international seminars have already been organised under the Action 'Modernisation of traditional industries' (sub-group Textiles) for industrialists and experts concerned on:

- CAD/CAM applications in textiles industries, Barcelona (Spain), on 25 March 1987;
- Fixation and migration of dye stuffs, Ghent (Belgium), on 7 May 1987;

— Use of sensors, Amveenendal (Netherlands), on 24 September 1987;

— Quality control, Biella (Italy), on 29 October 1987.

For further information contact DG XIII-C2, JMO, 2920 Luxembourg Tél.: (352) 4301-4564



## 4. FIFTH MEETING OF THE CIT-WORKING GROUP ON DESIGN

The fifth meeting of the CIT-working group on Design took place on 19 October 1987 in Luxembourg.

The activities undertaken on support of Design under the SPRINT-Programme were reviewed.

These include co-operative projects between Design-Centres such as:

- joint publications on the role of Design in the process of innovation
- exchange of staff

- organisation of seminars and workshops
- launching of the first European Design Prize.

Further information can be obtained from:  
Commission of the European Communities  
Directorate-General XIII/C/2  
SPRINT-Programme  
L-2920 Luxembourg  
Tel.: (352) 4301-4564

## 5. ROBOTICS PROGRAMME FOR IRISH INDUSTRY

In July 1987 a technology transfer programme started to promote the awareness of robotics and its application in Irish industry. It is sponsored by the Commission of the European Communities under the SPRINT-Programme and run by the Irish Institute for Research and Standards (IIRS). The Institute for Manufacturing, Engineering and Automation (IPA), based in Stuttgart, will have a major input in this 12 months programme.

Phase 1 of the programme will involve a series of regional day-long seminars to raise the awareness level of robotics and its application. Phase 2 will take the form of detailed feasibility studies for companies which consider that robots may have potential in their production processes. The studies will be carried out by experts from the Institutes, to investigate a company's needs, propose equipment and test applications in Stuttgart if appropriate.

## 6. NEWS FROM TII, THE EUROPEAN ASSOCIATION FOR THE TRANSFER OF TECHNOLOGIES AND INDUSTRIAL INFORMATION:

### TII Membership grows

TII, has undergone a rapid growth in its membership over the past six months: 8 new members were admitted in May; 14 in September and 15 in October. At the end of October the number of member organisations totalled 245. TII groups bodies such as ANVAR and VDI together with consultants in the field of Technology Transfer and Innovation management.

### The Marketing of Information Services:

The marketing of information services to provide scientific, technical and economic information to firms (and particularly to SMEs) is the theme of the international

seminar, organised by the European Association TII, which took place on 7 and 8 December 1987 in Strasbourg.

It will address questions such as: which products and which services to develop and how to sell them to firms?

For further information on T.I.I., please contact:

Mr. Michel Duhamel  
TII, 3 rue des Capucins,  
L-1313 LUXEMBOURG  
Tel.: (352) 46.30.35

## 7. FRANCO-SPANISH TECHNOLOGICAL EXCHANGE IN SUBCONTRACTING GETS COMMISSION SUPPORT

Assistance supplied under the SPRINT programme has enabled two Chambers of Commerce and Industry, one French and the other Spanish, to carry out surveys and to publish the results in a document examining FRANCO-SPANISH TECHNOLOGICAL EXCHANGE IN SUBCONTRACTING.

Subcontracting is a distinctive aspect of the relationship between large and small enterprises. The Commission devotes considerable attention to spotlighting high-technology fields in which border-area companies can cooperate to their mutual benefit.

The study published by the C.C.I. of Bayonne and Guipuzcoa comprises a major contribution in that it links

clients on one side of the Franco-Spanish border with contractors on the other. Previously, there had been virtually no contact between the industries of these two zones.

The new study will make it possible for clients and main contractors to select the subcontractor best able to meet their specific requirements, whereas subcontractors will find it easier to assess the market demand, and the technical specifications required, for very specific products and industrial processes.

Finally, high-technology subcontracting will benefit from closer cooperation in a further move towards the single European market.

## 8. EUROPEAN SYMPOSIUM ON TRAINING IN INNOVATION MANAGEMENT

**Ministère de la Recherche et de l'Enseignement Supérieur**  
**Paris, 14-15 April 1988**

This symposium is jointly organised by the Commission of the European Communities and ANVAR (Agence Nationale de Valorisation de la Recherche).

Increasing international competition means that the systematic search for technological advance is increasingly becoming a part of corporate strategy.

Product, service and process innovation are now part of the daily life of corporate managers and policy makers.

The implementation of innovation and technical progress requires multiple skills which are increasingly offered in specialist training courses.

The aim of the symposium is to compare the training courses in innovation management currently offered in the different countries of the Community with a view to encouraging transnational exchange in this field, increasing awareness among the target audiences, and making progress towards a better definition of the content of the training offered.

The symposium is intended for:

- policy makers in the area of training and curriculum development;
- teaching staff in management, relevant personnel of technical universities, etc.;
- corporate managers, the prime clients of such training courses;
- specialised consultancy organisations;
- regional and national innovation-support bodies, etc.

The symposium will consist of both plenary sessions on the global issues as well as parallel working groups devoted to specific themes.

### Papers are invited

which help better define the training (content of training programmes, target audiences, professions involved, teaching methods used, etc.) on offer in the different areas making up the management of innovation.

The emphasis will be on modern teaching methods using case studies and modern means of communication.

### Suggested subjects: (which may be modified)

- Group A** A.1 Utilising research results: from invention to market place;  
 A.2 Product engineering: creativity, value analysis, design;
- Group B** B.1 Protecting innovations: patents, marks, copyright;  
 B.2 Marketing innovations: market research for new products — technology transfer — licence negotiation;
- Group C** C.1 Financing innovation;  
 C.2 Accounting, taxation and insurance of innovation.

### Those wishing to propose papers should be following:

1. Papers should relate strictly to the theme of innovation management (see list of suggested themes above)
2. A summary of not more than two typed pages should be supplied. It should be in one of the official languages of the European Community, preferably in English, French or German. The organisers will endeavour to translate summaries in another language into one of these three, but cannot guarantee this.
3. Please note that due to budgetary constraints the participants presenting a paper will have to pay the fee as well as their travel expenses for attending the symposium.

Offers of papers should be received by the symposium organisers **no later than 4 January 1988** at the following address:

Commission of the European Communities  
 Att. Mr R. MIEGE or Mr F. MAHIEUX  
 DG XIII/C2  
 L-2920 LUXEMBOURG  
 Tel.: (352) 4301 - 4370  
 Telefax: 4301-4129  
 Telex: 3423/3446 comeur lu

Title of the paper: \_\_\_\_\_  
 Titre de la communication: \_\_\_\_\_  
 Titel des Referates: \_\_\_\_\_

**PROPOSAL OF PAPER**  
**PROPOSITION DE COMMUNICATION**  
**REFERATSVORSCHLAG**

The summary of the paper (two typed pages maximum) is enclosed  
 Le résumé de la communication est joint en annexe (deux pages dactylographiées au maximum)  
 Die Zusammenfassung des Referates liegt bei (Maximum zwei maschinengeschriebene Seiten)

Name/Nom \_\_\_\_\_  
 Forename/Prénom/Vorname \_\_\_\_\_  
 Occupation/Profession/Beruf \_\_\_\_\_  
 Firm/Entreprise/Unternehmen \_\_\_\_\_  
 Mailing address/Adresse postale/Anschrift \_\_\_\_\_

Date/Datum: ..... Signature/Unterschrift \_\_\_\_\_

I would like my communication being presented during the following working group  
 Je souhaite que ma communication soit présentée lors du groupe de travail suivant  
 Ich wünsche daß mein Referat in der folgenden Arbeitsgruppe vorgestellt wird

|                   |     |                          |     |                          |     |                          |
|-------------------|-----|--------------------------|-----|--------------------------|-----|--------------------------|
| Working group     | A.1 | <input type="checkbox"/> | B.1 | <input type="checkbox"/> | C.1 | <input type="checkbox"/> |
| Groupe de travail |     |                          |     |                          |     |                          |
| Arbeitsgruppe     | A.2 | <input type="checkbox"/> | B.2 | <input type="checkbox"/> | C.2 | <input type="checkbox"/> |

## VI. Publications

### **Electronic Publishing: The New Way to Communicate**

This book reports on the latest developments worldwide, and covers areas such as corporate publishing, electronic pre-press techniques, personal information systems, home-based services in Japan, the next generation of telecommunications facilities in Europe, optical storage media such as compact discs and videodiscs, and the French videotex boom. The first findings of the European Community's DOCDEL project on electronic publishing and document delivery are included.

Edited by Franco Mastroddi

344 pages

£25

Published by Kogan Page, 120 Pentonville Road, London N1 9JN, England

### **The State of the Environment in the European Community 1986**

This report, fully illustrated in colour, shows how the environment has changed in recent years, particularly in the period since the adoption of the first European Community Environment Programme. It follows two earlier reports published in 1977 and 1979, linking the state of the environment with the development of the Community's activities in the environment field.

The report examines the effect of man's activities, and looks at the state of the environment under the five headings: air, land, inland waters, the seas, and wildlife. Economic aspects of environmental policy are fully examined. Seventeen special insets highlight areas of topical interest such as lead pollution from vehicles, the quality of bathing waters, and the disappearing hedgerows.

The report provides an in-depth review of the state of the environment in the European Community, fully documented by the latest measurements and scientific information. German and French editions will be published shortly.

XVI + 370 pages, ECU 18.20, Bfr 800, IRL 12.90, UKL 11.60, USD 18

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

### **Monitoring of Gaseous Pollutants by Tunable Diode Lasers**

The tunable diode laser has proved a potent instrument for measuring trace gases in the atmosphere. This volume reports the use of these lasers in studies of the environment, for example for the measurement of exhaust gases from road vehicles and from power stations. It contains 23 papers grouped into three sections: atmospheric trace gas detection, exhaust gas monitoring and special applications. Comparatively few meetings have been devoted to the application of this technique to environmental problems, and the book therefore provides a valuable up-to-date review likely to be of interest to all involved in measuring gaseous pollutants.

Edited by R. Grisar, H. Preier, G. Schmidtke and G. Restelli

VII + 175 pages

Hfl 95

Published by D. Reidel Publishing Company, P. O. Box 17, 3300 AA Dordrecht, Holland

### **Heat Pipes: Construction and Application A Study of Patents and Patent Applications**

Patents, patent applications and some other technical and scientific literature published in the United States, Japan, the United Kingdom, the Federal Republic of Germany and France, as well as European and PCT (Patent Cooperation Treaty) patent applications are covered, for the decade from 1975 to 1984, to provide a systematic review of research activities on heat pipes and their uses. The report will be of interest to all concerned with research on and the construction of heat pipes, irrespective of whether their work involves the development of new pipes or the applications of heat pipes to thermodynamic or thermostatic apparatus.

Edited by Marten Terpstra and Johan G. van Veen

IX + 386 pages

£ 50 USD 90

Published by Elsevier Applied Science Publishers, Crown House, Linton Road, Barking, Essex IG11 8JU, England

### **An Analysis of the Print Media in Europe Following the Chernobyl Accident**

Newspaper coverage of the Chernobyl accident during the weeks immediately after the accident are analysed for seven European countries: Austria, Denmark, the Federal Republic of Germany, France, Greece, Italy and the United Kingdom. The goal was to identify common communications problems and to suggest how they might be resolved. Apart from difficulties with technical information on units of radiation exposure, contamination, and effects, the media did a reasonably good job of presenting to the public the information they were given by official sources. Some evidence of confusion was found, and it affected the credibility of communications, but the press seemed to be reflecting confusion existing within crisis management teams and the scientific community rather than creating it. Some of the more common problems are discussed and ideas for improving crisis management and the communication of information about risks are explored.

H. Otway, P. Haastrup, W. Cannell, G. Gianitsopoulos, M. Paruccini

V + 76 pages, ECU 7, BFR 300, IRL 5.40, UKL 4.90, USD 7.90

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

### **Integrated Tse-Tse Fly Control: Methods and Strategies**

Effective control of the tse-tse fly, which due to its role in the transmission of the trypanosome parasite is a major vector of disease of man and livestock, could add

as much as seven million square kilometres to the land available for agriculture and stockbreeding in inter-tropical Africa, with a correspondingly major impact on the food supply. The large-scale use of insecticides may however be damaging to the environment and lead to the development of resistance in the flies. The research reported in this volume, presented at a symposium organised by the Commission of the European

Communities, particularly concentrates on alternative methods of control.

Edited by R. Cavalloro

X + 203 pages

Hfl 75

Published by A. A. Balkema, P. O. Box 1675, 3000 BR Rotterdam, Netherlands

## **PATENT INFRINGEMENT LITIGATION COSTS: A Practical Worldwide Survey**

**The Editor: Andre Bouju, Professor of Patent Law (CEPI),  
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

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**

Andre 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**

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

## **THIRTY NINE PERCENT GROWTH IN EUROPEAN VENTURE CAPITAL**

Venture capital in the European Community expanded 39% last year to a projected total of some ECU 10 billion, according to the latest annual survey of the European Venture Capital Association (EVCA) just published in the EVCA YEARBOOK.

**\*'VENTURE CAPITAL IN EUROPE 1987' - EVCA YEARBOOK available from the EVCA Secretariat or from KPMG Peat Marwick McLintock offices priced £20 or ECU 30.**

For further information, please contact:

Nigel Griffiths, Eurocommunications Group, Tel: + 32.2.640.92.23 or  
EVCA, Clos du Parnasse 11 F, B-1040 Bruxelles, Tel. + 32.2.5137439