



## Communications serving Europe's future: Race at CeBIT

The Commission (DG XIII) is currently preparing a major exhibition and conference around the Community's Race programme. The event will be directly linked to CeBIT, the world's biggest display of information and communication technologies, in Hannover (Germany) on 24-31 March.

The aim is to provide a unique opportunity for visitors to CeBIT to see what leading European organizations believe will be the future shape of telecommunications. All the network operators, manufacturers and research centres present at CeBIT and active in the Race programme are supporting this special event through exhibits on their own stands. Such exhibits should be easily recognizable - they all carry the same logo.

The Commission has taken a stand in Hall 13, to act as the focus for this special display. Visitors will be able to see many examples of real applications supported by the state-of-the-art communications technology, provided by Race. Such applications will soon be bringing the world to your desk-top.

(continued on page 5)

## INTERNAL MARKET

### New Commission: IT and telecoms to Martin Bangemann, R&D to Antonio Ruberti

Seven new Commissioners enter the EC's executive body, implying a redistribution of portfolios, under the renewed Commission that will work from 1 January 1993 to 31 December 1995 under Jacques Delor's Presidency.

Vice-President in charge of internal market and industrial affairs in the former Commission, Martin Bangemann will be dealing with industrial affairs, information technologies and telecommunications for the next two years. Antonio Ruberti succeeds Filippo Maria Pandolfi in charge of science, research and development.

Mr Bangemann (58) holds a doctorate in law from Munich University. A member of the Free Democratic Party (FDP) since 1963, he served in the German Bundstag from 1972-1980 and was also a member of the European Parliament from 1973 to 1984. Mr Bangemann was economics minister in the Federal Republic of Germany from June 1984 to the end of 1988 before joining the Commission in 1989, where he has also been responsible for relations with the European Parliament.

Mr Ruberti (65), was an engineer, Rector of La Sapienze University (Rome 1) from 1976 to 1987 before becoming research minister also responsible for university affairs, in the Italian government from 1988 to 1992.

### Esprit: advance notice of a call for proposals

The Commission is launching a further call for proposals in the framework of the research and technological development programme in the field of information technologies (1990-1994).

Proposals will be invited in the following areas: Microelectronics, Design and Engineering Technology for Software Intensive Systems, High Performance Computing and its Applications, Advanced Business and Home Systems; Peripherals; Computer Integrated Manufacturing and Engineering, Basic Research, Open Microprocessor Initiative.

The headline for proposals to reach the Commission is 22 April 1993 at 17.00 hrs local time.

Information from: CEC - DG XIII-7  
Jean-Jacques Manin  
200 Rue de la Loi  
B-1049 Brussels  
Tel: +32 2 2968596  
Fax: +32 2 2968388

## THIS ISSUE

### INTERNAL MARKET

1-4

### PROGRAMMES IN ACTION

5-14

### STANDARDIZATION

15-16

### EUROPEAN DIMENSION

16-18

### NATIONAL SCENE

18

### INTERNATIONAL PERSPECTIVE

19

### PUBLICATIONS

20-22

### AGENDA

22-23

## European area code

The Council of Ministers has adopted a resolution aiming to promote for Europe-wide cooperation on the numbering of telecommunications services. This resolution calls for the setting up of a European Numbering Office (ENO) within the CEPT framework and for the introduction of a European area code for telephony, for use in parallel with existing country codes.

Following this resolution, Member States should coordinate their actions in the field of:

- telephone numbers of European subscribers;
- a flexible delivery service: possibility to freely supply calls to different responsible points, for example, according to where the call comes from, the time, etc.
- pan-European free calling services

("green number");

- pan-European billing service from phone booths with the possibility for private service suppliers to freely set their rates up to a maximum established by the competent national authorities;
- calling services with shared pan-European costs;
- pan-European mobile telephone services.

## Commission investigates telecoms charges

The Commission has asked Member States telecommunications groups for information in order to determine whether the differences in rates on the rental-maintenance of circuits constitute an infringement of Community competition rules.

The Commission's attention was drawn to information on certain practices, which could constitute proof of infringement by telecommunications organizations in different Member States. Analyzing published rates, the Commission noted that there were differences between rates for the rental-maintenance of circuits rented by these organizations to third parties and rental-maintenance rates for circuits providing direct access to public data switched networks. If confirmed, these practices by telecommunications bodies enjoying exclusive rights for the setting up and operating of public networks would be in contravention of principles defined by the Council and Commission in the framework of liberalization of the telecommunications sector.

## Council agrees extra R&D funding

The Council has agreed to make ECU 900 million available in additional funding for 1993 and 1994 under the third EC Framework Programme for research and technology development. The initial budget for the five-year programme was ECU 5.7 billion. The Commission asked for additional funding of ECU 1.6 billion and the European Parliament of between ECU 1.2 and 1.5 billion. The final agreement on ECU 900 million was obtained with Belgium abstaining from voting, arguing that this amount would not guarantee continuity of the EC's R&D efforts.

The additional funding represents an increase of 13.3% for five of the specific programmes (information and communication technologies, industrial and materials technologies; environment; life sciences; mobility and human resources). The sixth chapter - energy - will receive a 30.6% increase (ECU 249 million).

Third Framework Programme		Current funding (ECU million)	Additional funding	Percentage increase
1.	Information and communication technologies	Total: 2221	295	13.3%
	- Information technologies	1352	180	13.3%
	- Communication technologies	489	65	13.3%
	- Telematics systems	380	50	13.3%
2.	Industrial and materials technologies	Total: 888	119	13.3%
	- Industrial and materials technologies	748	100	13.3%
	- Measurement and testing	140	19	13.3%
3.	Environment	Total: 518	69	13.3%
	- Environment	414	55	13.3%
	- Marine sciences and technologies	104	14	13.3%
4.	Life sciences and technologies	Total: 741	99	13.3%
	- Biotechnology	164	22	13.3%
	- Agricultural and agro-industrial research	333	44	13.3%
	- Biomedical and health research	133	18	13.3%
	- Science and technology for developing countries	111	15	13.3%
5.	Energy	Total: 814	249(x)	30.6%
	- Non-nuclear energies	157	60	38.2%
	- Nuclear fission safety	199	29	14.6%
	- Controlled nuclear fusion	458	110	14.0%
	- Human capital and mobility	518	69	13.3%

(x) of which ECU 50 million to be allocated with priority to non-nuclear energies.

## Radiocommunications: allocation of radio frequencies is responsibility of ERC

In a resolution adopted on 19 November after discussion of the proposals for directives relating to the allocation of common frequency bands for the coordinated introduction of terrestrial flight telecommunications systems (TFTS) and road transport tele-matic (RTT) systems, the Council confirmed that the European Radiocommunications Committee (ERC), made up of representatives of national radiocommunications supervisory authorities of all the member countries of the CEPT, is responsible for planning and allocating radio frequencies in these countries. It also underlined that the European Commission participates with adviser

status in the work of the ERC and that the European Telecommunications Standards Institute (ETSI) also cooperates in an active manner. The Council therefore called upon the Member States to actively participate in the groundwork for the ERC's decisions. Once it had made this point, the Council called upon the European Commission to make allowance in the future for the decision-making mechanisms of the ERC, seen as the main path to frequency allocation, and requested that the Member States implement the decisions already taken by the ERC relating to the coordinated introduction of TFTS and RTT systems.

## Women in telecommunications

A third action programme on equal opportunities for men and women has been adopted by the Community, covering the period up to 1995. Following a global overview of telecommunications employment in the Community, several priorities and objectives have been selected. The Commission is in charge of the implementation of this programme and will report on its results to the Council.

Taking into account political prioritization and the availability of resources, two areas emerged as short-term priorities: health and telecommunications.

The telecommunications sector offers scope for industry-wide positive action programmes, with the potential for very broad impact at a national level,

given both the nature and the range of employment opportunities as well as the visibility of the sector.

The Commission's DG V (employment, industrial relations and social affairs) is responsible for the implementation of this programme. It operates in close cooperation with DG XIII. The Joint Committee on Telecommunications, set up in July 1990, will also be associated with this initiative.

### Contact:

CEC-DGV  
Employment, Industrial Relations  
and Social Affairs  
200, rue de la Loi  
B-1049 Brussels  
Belgium

## Council resolution on the assessment of the situation in the Community telecoms sector

After its debate on the Commission's communication on the situation of the Community's telecommunications sector, the Council of Ministers adopted a resolution by which it recognises that substantial progress has been made towards the creation of a Company-wide market for telecommunications services, in particular through the implementation of Open Network Provision. It notes that there is significant user demand for additional pan-European telecommunications services and that priority should be attached to creating the conditions which would permit this demand to be met.

The Council calls upon the Commission to weigh up the economic, social, commercial and political impact of the options presented in the report and stresses the necessity to take account of the interests of peripheral regions of the Community, of the development level of the networks and of the specific needs of small networks.

The Council also had a first debate on the Commission's proposal for a directive aiming to guarantee harmonized access to voice telephony services. The dossier has been handed on to experts for more in-depth work.

## HDTV : Commission prepares new proposals

Although the Council of Ministers debated the action plan for the introduction of advanced television services in Europe three times in December, it reached no final conclusion. The UK remained opposed while the 11 other Member States supported the Commission's proposal (quietly amended by the ministers during the discussions).

The compromise agreed by the 11 allows ECU 500 million for a 5-year plan. The 11 Member States issued a statement expressing their support for the compromise and the hope that the UK will be able to join it.

As from 1 January a new Council Presidency and a renewed Commission are on duty. The Commission's services in charge of this dossier are preparing proposals designed to break the political deadlock.

## Electronic publishing

Four conferences will be held the same week, at the same place, all dealing with electronic publishing and document processing. The place: Darmstadt, Germany from 11-15 April 1993.

- EP'94 13-15 April 1994

Conference on Electronic  
Publishing, Document  
Manipulation and Typography  
Enquiries: ep94@gmd.de  
Fax: +49 22 41 14 26 18

- TEP'94 12-13 April 1994

Workshop on the Tuition of  
Electronic Publishing and  
Typography  
Enquiries:  
Itsdyson@uk.ac.reading  
Fax: + 44 734 351680

- RIDT'94 11-13 April 1994

Conference on Raster Imaging  
and Digital Typography  
Enquiries: ridt94@irisa.fr;  
Fax +33 99 38 38 32

- PODP'94 11-12 1994

Workshop on the Principles of  
Document Processing  
Inquiries: podp94@irisa.fr  
Fax: +33 99 38 38 32

### Contact:

GMD-Ipsi  
Darmstadt (German)  
Enquiries: ep94@gmd.de  
Fax: +49 22 41 14 26 18

## A single market for satellite earth station equipment

The Commission has approved a proposal for a Council directive to approximate Member State legislation concerning satellite earth station equipment, including in particular the mutual recognition of its conformity.

The first measure taken to implement the Commission's Green Paper on satellite communications (1), this proposal meets one of the principal objectives outlined by the Council in its resolution of 19 December 1991 (2) in which it lends its support for the general objectives of the Green Paper and invites the Commission to put forward the necessary measures to ensure its implementation. It extends the scope of the April 1991 council directive approximating Member State laws concerning telecommunications terminal equipment to include satellite earth station equipment.

At present, in order to place on the Community market earth station receiver and/or sender terminals for satellite communications - such as, one and two-way Very Small Aperture Terminals (VSAT terminal equipment), mobile and transportable satellite earth station equipment, satellite news-gathering equipment and television receive-only satellite earth station equipment - companies are currently confronted with different certification procedures in each Member State and wide-ranging variations with regard to technical specifications. The result is a considerable administrative burden for manufacturers, and the need to adapt their products technically to the specificity of each market.

The aim of this directive is to replace national certification procedures by a single procedure for approving equipment. From now on, all satellite earth station equipment certified as conforming to the essential requirements (in particular, safety, interconnectivity and the need to preserve the integrity of orbits and radio frequencies) will be authorized for placing on the market and can be connected to the public telecommunications network in all EC Member States, without further procedures. The tests will be carried out and the approval issued by approved laboratories and certification bodies (a list has already been established at EC level for telecommunications terminal equipment). Approved equipment will carry an identical mark the "CE" mark, followed by various identifying symbols.

Receive-only satellite earth station

equipment which is not intended for connection to the public telecommunications network is not covered by the certification procedures established in this directive. However, this equipment must be accompanied by a manufacturer's or supplier's declaration for the consumer and the certification authority when first placed on the market.

Harmonized standards are a prerequisite for the successful implementation of the new directive. The European Telecommunications Standardization Institute (ETSI) has been entrusted with the key task of drawing up common standards. The essential technical requirements, which are verified as part of the approval procedures under this directive, will be derived from these common standards.

Using harmonized conditions at technical and procedural level, the implementation of this directive will help to ensure the free circulation of satellite earth station equipment within the Community, the integrity of the networks and the availability of modern and low-cost equipment. The user will be able to choose from a wider range of telecommunications equipment and services at a lower cost.

(1) COM (90) 490 final of 20 November 1990

(2) Official Journal of the EC, C N°8 of 14 January 1992

## EC Court rules on telecommunications services directive

In 1988, the Commission adopted a directive (90/338/EEC) under article 90(3) of the EC Treaty which had the effect of obliging the Member States to abolish any existing monopoly rights on the supply of telecommunications services other than simple voice telephony. It also obliged them to take all necessary measures to ensure that any company is able to supply these newly liberalized services. Contesting the use of article 90(3) of the treaty, four Member States - France, Belgium, Italy and Spain - brought the case before the European Court of Justice.

The Court has confirmed the Commission's power to issue this directive, taking the same line as in its judgement in the terminals equipment case. The Court confirmed the Commission's jurisdiction to prohibit

the grant of maintenance of monopoly rights that are contrary to the free movement and competition provisions of the EC Treaty. In annulling part of the directive, the Court took exactly the same position that it had taken in the terminals case. This concerns specific provisions regarding the grant of special rights and the renegotiation of existing contracts between telecommunications companies and purchasers of the services which are liberalized under the directive.

The Commission will consider what measures it needs to take in this regard, but this will not effect the substance of the directive, any more than the similar judgement of the Court did in the terminals case.

## XIII Magazine online: now multilingual

The online version of the XIII Magazine database has undergone structural changes and the full-text articles are now available in English, French, Italian, Spanish and German. The database has been restructured in two parts:

- Full-text (where articles are taken from the Magazine section)

e.g. F SO=MAGAZINE;

- News Review which comprises articles taken from the supplement section of the magazine. This section is available in English only

e.g. F SO=NEWS REVIEW.

The language in which the database is searched depends on the language selected by the user at the opening menu. If the user wishes to change the language he/she may do so by choosing the CCL option within the menu and by typing the following command at the ? prompt:

DEF TL=SPAIN

(to search in the Spanish language).

Searches may also be carried out in the following way:

- by using the Controlled Terms (CT)

e.g. F CT=CD-ROM;

- by searching in the index of European Programmes

e.g. F EP=RACE;

- by searching in free-text

e.g. F AGRICULTURE TELEMATIQUE.

Contact:

ECHO Help Desk

B.P. 2373

L-1023 Luxembourg

Tel: +352 34981 200

Fax: +352 34981 234

# PROGRAMMES IN ACTION

## Communications serving Europe's future: Race at CeBIT

(continued from page 1)

Multi-media terminals on the various displays throughout CeBIT will be connected using broadband links. Many will also be connected to trials taking place in other cities of Europe. These will be used to present live audio/visual presentations, providing a glimpse of how we may all be living and working in the years ahead. The race community at CeBIT will thus provide Europe's first public demonstration that IBC (Integrated Broadband Communications) is now possible across national boundaries. This represents a remarkable opportunity to experience the power of communications that should become commonplace in the 21st century.

### What to see

Applications being demonstrated live cover aerospace design, collaborative working, desktop video-conferencing, medical consultation, people with special needs, personal communications, publishing, remote maintenance and technical documentation.

Technologies on display will range from gigabit transmission, network management, optical fibre connection (the "Euro-connector") to the reliability database.

In addition to the Commission, some Race participants are mounting this special display on the stand of their own organization.

A map of CeBIT showing the full extent of this special display will be available from the Commission's stand.

### Towards trans-European networks

Several of the displays at CeBIT will be supported by broadband communications links set up to various cities across Europe. Today, it is not straightforward to establish such links, especially where there is a need to cross national boundaries.

For CeBIT, the communications links have been custom-made to meet the needs of each particular exhibit. They are based on a combination of network facilities existing in the countries

concerned, including copper cable, optical fibre, satellite, ISDN and in Germany, the VBN.

The Race exhibition represents a first public demonstration of what IBC can achieve and points the way for an evolution towards trans-European broadband networks.

### The conference

Coupled to the special display in the CeBIT fair itself, the Commission is supporting a major international conference examining the future of European communications.

This conference will run through three morning sessions on 29, 30 and 31 March.

Following completion of the first phase of Race and the successful launch of the second phase, attention is now focusing on the establishment of an appropriate orientation and strategy for the implementation of trans-European broadband networks beyond Race.

The issues to be addressed by this conference go well beyond those directly associated with a programme of research and development, as a glance at the names and topics included in the advance programme confirms. Never before has CeBIT played host to so many of the leading politicians and business executives who together will determine the future direction of European communications.

This conference will provide the platform of the year; the one at which policy-makers will speak out and set their priorities and agenda for establishing "Communications Serving Europe's Future".

The conference is expected to be of particular importance to directors and senior executives within the telecommunications sector who are actively involved in developing business policy. Significant interest from the technical and business-oriented news media is also foreseen and will be catered for.

The conference will bring together the points of view of leading figures in the European telecommunications sector on a number of issues central to the development of communications. These are the central themes for the main sessions of the conference, included in the outline programme.

At each session of the conference, the invited speakers will be asked to present their point of view, after which there will be a panel debate to draw out overall conclusions. Each panel will be actively chaired by a leading figure in the field under discussion and should have time for questions and points of view put from the floor of the conference.

The duration of the main sessions of the conference will be balanced against the need for delegates to attend more detailed discussions on particular issues, and to see the associated special display within the CeBIT fair itself.

## Transport telematics: Drive technical days

The 57 research and development projects participating in the Community's current programme on transport telematics - the successor to Drive - will present the findings of their first year's work at technical days to be held in Brussels from 8-10 March. Attendance will be by invitation of the Commission, but an open international conference in this field of research is planned for 1994.

### Contact:

CEC DG XIII-C  
André Vits  
200 Rue de la Loi  
B-1049 Brussels  
Tel: +32 2 2963523

## Community Telematique programme in Martinique

The Commission has adopted an operational programme relating to the Community initiative Telematique in Martinique (Objective 1 region, France). This programme related to ERDF funding totalling ECU 800,000.

In accordance with the guidelines defined for this initiative by the Commission in 1991, Community aid to Martinique will be used to promote the use of advanced telecommunications services in this region :

- creation of a service centre at the University of Antilles-Guyane;
- establishment of an E-mail service for diabetics and their health care partners (doctors, nurses, etc);

- establishment of an E-mail service for people working in the recruitment and training sector,
- establishment of a computerized hotel reservation system, and the restoration of tourist routes.

This programme follows on from the one decided in December 1990, under the Community support framework for the Martinique region, which enjoyed ECU 73.2 m from the ERDF, and from the December 1991 decision on a multi-fund Community initiative Regis-Stride programme with aid of ECU 24.8 m from the structural funds.

## Basic Research: participating at CeBIT '93

Esprit Basic Research is exhibiting at the "Strategic Research Center" at CeBIT Hannover, 24-31 March 1993.

The nine recently launched Networks of Excellence will be there to explain what they are and what they do. In addition, the training action Eurochip and two other Basic Research projects will be participating :

6019 Insight II, 6107 Hiten, 6280 Neome, 6295 Elset, 6345 Semagraph II, 6361 Cabernet, 6573 Eurochip, 6606 Idomeneus, 7115 ML-Net, 7183 Compulog-net, 7217 Nexus, 7360 Phantoms, Esprit BR Division.

Coordinates of exhibition : CeBIT'93 Hall 22/Floor 0, Stand A08/A12.

Contact CEC-DG XIII-A1 :

I. Hussla

tel.: 32 2 2968074

fax: 32 2 2968390

## High-performance computing and networking : Europe's role and responsibilities

A new action plan could give Europe a recognized world position in high-performance computing and networking, according to a committee of experts.

The plan was proposed in a report presented in Brussels on 26 November by Professor Carlo Rubbia, Nobel Laureate for Physics in 1984 and Director-General of CERN .

Drawn up by high-level industrial and scientific experts, the report of the High Performance Computing and Networking Advisory Committee concludes that Europe now has a real chance of taking the lead in the most advanced computing techniques.

Presenting the report, Professor Rubbia made the following points:

The leading edge of information technology, involving the most advanced computing systems interconnected by high speed networks, is known as High Performance Computing and Networking (HPCN). HPCN is a crucial technology for European industrial and scientific competitiveness and for improving the quality of life. The emergence of parallel computing systems coupled with high-speed communications offers new and dramatic possibilities for the development of innovative applications, essential to meet the needs of the industrial, commercial and academic communities within Europe. HPCN thus has the potential for great and far-reaching impact on productivity, industrial competitiveness, environmental management and

many other aspects of society in general.

European R&D programmes have led to a world-class understanding of parallel systems and to the industrial development of hardware and software. Action taken now can ensure that Europe leads in the use of new and emerging parallel computing techniques both to improve on the current situation and to generate an environment favourable to the creation of a substantial number of new industrial activities

Large programmes of public and private investment in HPCN technology are being deployed in the USA and Japan. Europe is in a privileged position to use its promising R&D results and culture to take advantage of the current window of opportunity provided that action is begun immediately, before the market opportunities are seized by the established players in the computing arena. But Europe has now to define the exact roles to be played by the various actors in the programme, and from the very beginning in the world wide context.

A large and focused programme is proposed, which is driven by user needs, is industry-oriented and aimed at establishing a European industrial and scientific lead in HPCN; creating domestic market conditions favourable to the development of a competitive supply industry.

Four action lines are proposed: applica-

tion support and development; R&D and demonstration of key technologies; HPCN supporting infrastructure; education and training.

The report is addressed to the EC and all those whose future is affected by HPCN in the European Community, including users and suppliers of systems and services, both from the private and public sectors and governments. This programme should run for at least 10 years with a mid-term review. The resources to be mobilized during this period should be made available from public and private, national and European sources, including the European Community. Such a complex and ambitious programme calls for coordination and catalytic action by the Commission at the European level and a proper management structure to handle its components. Concerning the world-wide context, HPCN is a typical case where international cooperation, notably with the US and Japan, needs to be pursued.

Contact:

CEC DG XIII-A  
Steven F. Joseph  
200, rue de la Loi  
B-1049 Brussels  
Tel: 32 2 2968060  
Fax: 32 2 2968363

## Design awards at the 3rd Eurochip Workshop on VLSI Design Training

The 3rd Eurochip Workshop on VLSI Design Training attracted more than 370 delegates from 22 countries (including about 50 students) to Grenoble, from 30 September - 2 October 1992. As at the '91 annual workshop, an exhibition of design and chips from training courses and practicals was arranged. A total of 45 circuits were exhibited and competed for awards in several categories.

A selection committee, formed by the workshop programme committee and the Eurochip foundry working group noted that "great strides" had been made in the quality of chip designs and presentations since 1991. The award in the category "best circuit exhibited at the workshop" designed and manufactured with support from Eurochip went to a team of students under the guidance of Prof. Ferrari and P. Merriot of the University of Aveiro,

Portugal, for "A Reduced Instruction Computer Hopefully" (ARICH).

Awards for designs to demonstrate the results of the Eurochip Community were given to:

- Mr A.J. Fisher from the University of Sheffield, United Kingdom, for "A Real-time Direct Digital Synthesis of Audio Data".

- 64 students in 32 teams under the guidance of Prof. Noullet at INSA, Toulouse, France for "Interface Ring".

- Mr Brunfaut from the University of Ghent, Belgium, for "A Correlation Coprocessor".

Afterhurst Limited Publishers, John Wiley & Sons Ltd and Elsevier Science Publishers B.V. offered some 50 books to be awarded to prize winners. As an additional prize the book "The Synthesis Approach to Digital System Design", edited by Petra Michel, Ulrich

Lauther and Peter Duzy (Siemens AG), was given to the winners.

The designers were also invited to display their results at the Esprit Exhibition 1992 in Brussels.

The following documents are available from the 3rd Eurochip Workshop:

- a final list of participants;
- a list of circuits exhibited;
- the proceedings of the workshop (price 220 FF);
- a list of CAD demonstrations.

The next workshop will be held in Toledo, Spain, from 29 September - 1 October 1993.

Contact:

B. Courtois  
CMP/Eurochip  
Tel: +33 76 57 46 15  
Fax: +33 76 47 38 14

## RARE News

### New members

Two new members and two changes in existing membership were accepted during the 24th meeting of the RARE Council of Administration, which took place on 24-25 September in Bratislava, Czechoslovakia. The Turkish national research network TUVAKA and the Croatia CARNet became new full national members. All European countries can become full national members, the voting members of the association. Poland and Hungary changed their membership status from Associate to full national member. RARE now has 41 members.

### Signature of 2Mbps contract

RARE has assumed the responsibility of signing and managing the 2Mbps contract with the Commission on behalf of those national networks receiving EC funds in support of their participation in the 2Mbps pilot service. The 2Mbps pilot is part of the European Multi-Protocol Backbone (EMPB) service. The pilot - a successor service to IXI (International X.25 Infrastructure) - is capable of providing interfaces operating at 2Mbps, supports both X.25 and TCP/IP protocols, and has the ability to interwork between these different approaches to networking.

### Liaison with Isode consortium

RARE has become a member of the Isode consortium. This consortium was founded to support further development of Isode, a package of OSI upper layer software and applications used by many organizations in the research community as a tool for working with a range of OSI applications. The Isode consortium will take Isode out of the public domain (although it will still be distributed free of charge to academic institutions). Commercial organizations will be able to gain access by joining the Isode consortium; revenue from product licences will ensure the long term viability of the consortium.

### Combined JENC5/INET94

The RARE Council of Administration has agreed that the 5th Joint European Networking Conference, scheduled for 1994, should be organized in conjunction with INET94, a yearly conference organized by the Internet Society. The RARE Executive Committee has been asked to follow up an offer from Prague to host the event and to negotiate with the Internet Society on the basis of this offer.

### New Publications

RARE Technical Reports 2, 3 and 4 have been published. RTR 2 and 3 are hard copies of RFCs produced in a joint effort between RARE and IETF working groups. They are titled "Mapping between X.400 (1988)/ISO 10021 and RFC 822" (RTR 2, RFC 1327) and "X.400 1988 to 1984 downgrading" (RTR3, RFC 1328). RTR 4, "State of the Union", introduces the members of RARE, their current activities and plans for the future. Paper copies of RTRs are available from the RARE Secretariat; electronic versions can be obtained from the RARE document server (anonymous FTP: raredoc.rare.nl under the directory /RARE/RTR).

Contact:

Josefien Bersee  
RARE Secretariat  
Singel 466-468  
NL-1017 AW AMSTERDAM  
Tel: +31 20 639 1131  
Fax: +31 20 639 2 89  
e-mail X.400: C=nl; ADMD=400net;  
PRMD=surf; O=rare; S=raresec;  
e-mail RFC822: raresecd@rare.nl

RARE



## Networks of excellence: start-up activities

Nine networks of excellence in strategically important information technology fields have been launched following the last Esprit basic research call for proposals in 1991. A network of excellence provides a well organized infrastructure for nodes throughout Europe, in Community Member States, the EFTA countries and central and east Europe. All the nodes in a network of excellence are working towards a common long-term industrial goal. Activities centre on the coordination of research, the establishment of strong links with industry with an emphasis on SMEs and the organization of training for students, including the drawing-up of new university curricula.

The concept of a network of excellence was described in detail in the second issue of the *XIII Magazine* (July 1991). Requests for further information on existing networks of information should be directed to the respective contact points, listed below:

### 1. HITEN: Network of Excellence in High-Temperature Electronics

Contact Point:  
Dr I.M. Buckley-Golder  
AEA Technology  
B552 Harwell Laboratory  
UK-DIDCOT OX11 0RA  
Tel: +44 235 434 574  
Fax: +44 235 434 340

### 2. NEOME: Network of Excellence on Organic Materials for Electronics

Contact Point:  
Prof. G. Zerbi  
Politecnico di Milano  
Piazza Leonardo da Vinci 32  
I-20133 MILANO  
Tel: +39 2 23993235  
Fax: +39 2 23993231

### 3. ELSNET: European Network in Language and Speech

Contact Point  
Prof. E. Klein  
University of Edinburgh  
Centre for Cognitive Science  
2 Buccleuch Place  
UK-EDINBURGH EH8 8LW  
Tel: +44 31 650 4594

### 4. CABERNET: Network of Excellence in Distributed Computing System Architecture

Contact Point:  
Prof. H. Whitfield  
University of Newcastle-upon-Tyne  
Computing Laboratory

### UK-NEWCASTLE-UPON-TYNE NE1 7RU

Tel: +44 91 222 6336  
Fax: +44 91 222 8232

### 5. IDOMENEUS: Information and Data on Open Media for Networks of Users

Contact Point:  
Prof. Dr. J.W. Schmidt  
Universität Hamburg  
Department of Computer Science  
Vogt-Koelln-Str. 30  
D-W-2000 HAMBURG 54  
Tel: +49 40 54715 420  
Fax: +49 40 54715 328

### 6. ML NET: Network of Excellence in Machine Learning

Contact Point  
Prof. D. Sleeman  
Department of Computing Science  
King's College  
University of Aberdeen  
UK-ABERDEEN AB9 2UE  
Tel: +44 224 272288/96  
Fax: +44 224 273422/487048

### 7. NEXUS: Network of Excellence in Multifunctional Microsystems

Contact Point:  
Prof. W. Benecke  
Fraunhofer Gesellschaft  
Institut für Mikrostrukturtechnik  
Dillenbergr. 53  
D-W-Berlin 33  
Tel: +49 30 82 998 110  
Fax: +49 30 82 998 199

### 8. COMPULOG-NET: Network of Excellence in Computational Logic

Contact Point:  
Dr. Claudia Cardone  
Universita di Roma La Sapienza  
Prof. L.C. Aiello  
Dipartimento d'Informatica e Sistemica  
via Salaria 113  
I-00198 ROMA  
Tel: +39 6 4747076  
Fax: +39 6 4745505

### 9. PHANTOMS, Networks of Excellence in the Field of Mesoscopic Systems

Contact Point:  
Prof. M. Van Rossum  
IMEC vzw  
Kapeldreef 75  
B-3001 LEUVEN  
Tel: +32 16 281325  
Fax: +32 16 229400

## Science park networks

The future development and growth of science and technology parks in Europe could be stimulated by linking them in networks, both human and telematic.

Sprint, in collaboration with DG XVI and DG XIII (Telecommunications Directorate), is currently looking into the feasibility of a Project for Networks of Science Parks and the Diffusion of Advanced Telematic Tools (SPNET). Sprint recently launched a call for tenders for a feasibility study on this topic.

A first step in SPNET is to study real needs and establish ways of building human networks between Parks and between tenants at regional, national and international levels, with the ultimate objective of linkages between a high proportion of European Science Parks.

The telematic connections between the Parks will support the transfer of technology, exchanges of experience and cooperation between Science Parks and firms and between research centres located in these Parks.

SPNET will stimulate the key role of the Science and Technology Parks as demonstration centres of advanced telematic networks for local and regional enterprises. The use of this technology will not only improve the telecommunications infrastructure of these firms, but also their management and operational performance.

#### Contact:

Gottfried Thesen  
CEC-DG XIII-D4  
Jean Monnet Building  
L-2920 Luxembourg  
Tel: +352 4301 32508  
Fax: +352 4301 34544

#### Contact:

Jacques Bonnin (Sprint  
Technical Assistance Unit)  
119, Avenue de la Faïencerie  
L-1511 Luxembourg  
Tel: +352 465588  
Fax: +352 465550

## Innovation monitoring system

The aims of the European Innovation Monitoring System (EIMS) are to establish a knowledge base and to develop research capabilities on the innovation process. The EIMS encourages the exchange of knowledge and experience between the Member States and the Commission concerning innovation policies and innovation support measures for the benefit of the Community. The workplan of the EIMS has three implementation areas.

- Development of a network linking experts and research teams performing applied innovation research and surveys at a European level.

- Systematic diffusion of results, studies and surveys performed in the Member States, by the Commission and outside the Community.

- Establishment of a permanent Community-wide data collecting system for monitoring the innovation capabilities and performance of industries and regions.

On the basis of a call for tenders launched in July 1990, Sprint has established a pool of authoritative experts from about 50 organizations to tackle specific tasks within EIMS. A new call for tenders will go out early this year.

So far, the implementation of the EIMS has prompted the organization of seminars and the preparation of reports following a systematic exchange of experience between professionals and policy-makers within the Community. Among the achievements, special mention must be made of a

study reviewing national and regional schemes and measures in the field of quality promotion among smaller enterprises.

This will form the background for the organization of a European seminar on quality promotion in Aachen in April.

In collaboration with Eurostat, EIMS has also initiated national innovation surveys in 10 Member States. For the first time, these surveys will be implemented on the basis of a common OECD-EC questionnaire, bringing together the basic factual information for a European database on innovation capabilities and activities of firms, which will allow international comparisons.

The EIMS will turn policy research results into tools for those with responsibility for implementing practical programmes and will provide a permanent forum for disseminating information and knowledge. One important outcome of the system is the supply of appropriate and accurate information to policy-makers, academia, intermediaries and companies helping them in their innovation decisions.

Contact:  
Gerhard Bräunling/Michel Languish  
CEC DG XIII-D4  
Jean Monnet Building  
L-2920 Luxembourg  
Tel: +352 4301 34532  
Fax: +352 4301 34544

## SMEs and Value: crossroads days

This spring the Value programme is organizing "Value SME Crossroads Days" which will take the form of three workshops. The aims of this pilot project are to help European SMEs apply for Value SME exploratory and technology exchange awards and to promote SME exploitation of Community RTD results by means of a Euromanagement study of around 650 SMEs.

During the workshops, a selected number of RTD projects under the Esprit, Brite-Euram and biotechnology programmes will be presented. Selected projects must be completed or have potential for SME exploitation. Value experts, with Commission help, will select projects most likely to be of interest to SMEs.

The workshops will be held in three different countries, representing the north, centre and south of the Community. An average of 100 SMEs will take part in each workshop, the first of which will take place in Brussels towards the end of March. During the workshops, projects and results will be presented and interested SMEs assisted by experts in applying for a Value SME exploratory award.

Contact:  
Massimiliano Dragoni  
CEC DG XIII-D3  
2920-Luxembourg  
Tel: +352 43013 4194  
Fax: +352 43013 4194

## IMO workshop on information market policy/economics

The Information Market Observatory (IMO) organized a workshop in Luxembourg on 3-4 November to discuss "The role of information in the economy and society". It was attended by over 60 industry experts from the EC and other countries, including Australia and Japan.

The workshop was part of the IMO's 1992 work programme, part of which covered assessing changes in the information market in the broadest sense. The workshop considered the development of information markets in the context of a society in which electronic information and its use is increasingly becoming an integral part of economic, social and political life.

The speakers were able to offer insight into a variety of legal, economic and social aspects concerning the use of information in society, which provided the stimulus for further discussion. One clear conclusion was that electronic information cannot be looked at in isolation from the information market as a whole. It is also clear that whilst there are significant contributions to be made in terms of productivity for organizations, such gains need also to take account of the social and legal aspects of the use of information. The provision of clear pan-European legal guidelines concerning the use of information is regarded as a vital element in the development of a European information market.

As a first response to these information policy needs, the Commission should thus stimulate the creation of an information market policy support network to structure the exchange of experience and knowledge in the area of information policy/economics between its members. In this way, the network could support the Commission in the further development of an information market policy. Action should initially focus on case studies of European interest, with particular emphasis on how information usage can affect competitiveness.



## Impact 2 and government information resources

The objectives of the Impact 2 programme include the establishment of an internal information services market and the reinforcement of the competitive capability of European information services suppliers.

It is not difficult to identify the factors which continue to hamper the development of the European information industries, but what can or should be done at Community or national level to remedy the situation? One factor which is common to all Member States is the fact that in each case government is the largest national information provider. Increasingly, government information is being collected and stored in electronic formats, which means that it can be manipulated to suit individual or diverse needs and produced as a variety of sophisticated information products such as CD-ROM.

In association with these developments, there is now recognition by the private sector of the potential commercial value of government information. Large data sets, such as land registers, company registers, demographic statistics and topographic information (maps) are routinely produced as a by-product of the day-to-day functioning of public administrations. Information is not an end in itself; sound and comprehensive information is needed if government is to frame workable public policies, plan effective services and distribute resources fairly and equitably. Government information, therefore, constitutes a resource of considerable importance.

At the same time, these comprehensive data sets which describe so many aspects of contemporary economic and social life can be given new life and new forms of expression through value-addition and re-interpretation. For example, private companies are obliged to provide information about their accounts to the State, essentially for the purposes of public scrutiny. Yet there is considerable potential to exploit this particular data set for uses and purposes quite unrelated to the reasons why the information was collected in the first place. So, for example, raw data from a company's accounts can be transformed to produce a rating of its creditworthiness. Or it can be mixed with other data sources, originating in either the public or private sectors, to create new high

value-added information services. The private sector is well placed to combine information from a variety of official sources and to produce and distribute information products and services oriented to the needs of the market. In other words, the public sector can play a vital role in stimulating innovation in the information market and the supply of new services by granting rights to the private sector to add value and re-sell public data, but without the private sector incurring the full economic cost of that original bulk data collection.

In 1989 the Commission of the European Communities published a set of *Guidelines for improving the Synergy between Public and Private Sectors in the Information Market*. These guidelines are intended to encourage governments and public sector bodies to make available basic information and data to entrepreneurs in the information industries for the creation of new value-added services. Three years later, the Commission sponsored a follow-up study to assess the impact of the guidelines. This study, PUBLAW 2, was carried out by a consortium led by the Policy Studies Institute in London.

The objectives of the PUBLAW 2 Study were to:

- assess the impact of the published guidelines on the public and private sector actors in the information market;
- explore related policy developments in the US and Canada;
- suggest what further actions should now be undertaken by the European Commission.

These suggestions range from the upgrading of the guidelines and their enrichment, to address practical issues facing emerging markets, to the organization of forums and the investigation of the possibility of establishing a pan-European body to coordinate and provide policy advice on information activities across Europe.

These issues are fully explored in the PUBLAW 2 team's final reports to the Commission and will form the basis of a workshop which will be organized in Luxembourg on 4 March.

Contact:  
Willem Verpoest  
CEC DG XIII-E  
L-2920 Luxembourg  
Tel: +352 4301 34705  
Fax: +352 4301 32847



## Technology transfer: the Sprint Science Park Consultancy Scheme

More than 50 proposals have been submitted following the third call for proposals of the Sprint Science Park Consultancy Scheme, launched in July 1992. They include the cities of Marseilles, Rome, Florence, Lisbon and Amsterdam, together with smaller-scale initiatives, for example in Greifswald and Cadiz. The size of the response follows the success of the two previous calls in 1990 and 1991, which produced about 100 applications between them, 45 of which were selected for participation in the scheme.

Sprint helps science park promoters to benefit from the achievements of other European parks and also from the experience of recognised experts in the planning and development of technology and science parks.

The scheme is specifically aimed at helping promoters to carry out feasibility and market studies, either for initial planning or to refocus existing projects. Particular emphasis is placed on less-favoured regions.

Sprint provides financial support to science park promoters for three to five experts to advise them on the main features of their proposed development. The experts come from different countries and are chosen from a list drawn up by the Commission services (although one consultant not on the list can be accepted). The panel of experts produces a feasibility study, including the definition of strategy, technology transfer orientation and marketing plans for the proposed park.

### Contact:

Gottfried Thesen  
CEC DGXIII-D4  
Jean Monnet Building  
L-2920 Luxembourg  
Tel: +352 4301 32508  
Fax: +352 4301 34554  
or

Jacques Bonnin (Sprint Technical Assistance Unit)  
119, Avenue de la Faïencerie  
L-1511 Luxembourg  
Tel: +352 465588  
Fax: +352 465550

## Call for proposals on Open Information Interchange



A call for proposals in Open Information Interchange was published on 27 November (03 92/C 310/06) with a deadline of 14 January 1993.

The issuing of the call is part of this year's actions to promote awareness of the standards and guidelines for the smooth interchange of electronic information between systems and applications. Pilot information services are invited to this end. The following types of information in particular need to be publicized:

- Basic information on existing standards, what they offer, how they can be used, the arguments for using standardized forms of interchange in different circumstances and what products implementing the standards are available.
- News services to enable developers and users to make informed decisions and to help companies take part in the standardization process.

The standards to be covered are:

- encoding of basic information types such as text, images and sound;
- encoding of document structure;
- encoding of presentation aspects such as colour and font;
- encoding of advanced features used in new products such as multimedia; and
- semantic encoding for specific applications (e.g. EDI: STEP) wherever there is interaction with more basic encoding practices.

It is hoped to kick-start the market in information services for data encoding standards. Proposals are expected from information service companies engaged profitably in providing similar information services in allied areas such as Open Systems Interconnection (OSI) or Electronic Data Interchange (EDI).

Successful submissions will be co-funded (to a maximum of 50%) by the

Community for the first year of commercial activity, with a possibility of another year's partial financing thereafter. The services supported are expected to become profitable as soon as possible and support from the EC will not extend beyond the period initially agreed.

Contact:

Gerhard Heine  
CEC DGXIII-E2  
L-2920 Luxembourg  
Tel: +352 4301 33620  
Fax: +352 4301 33190

## Support measures for technology transfer networks

Since 1986, Sprint has supported about 300 transnational networks of organizations (chambers of commerce and industry, research institutes, consultants, regional technological advisory centres) providing technology transfer services to SMEs. Along with other types of action, these networks are considered a significant means of improving the industrial innovation capabilities of smaller companies.

It has become clear that additional activities are required to support these networks. In 1990, Sprint launched a call for proposals for techniques designed to exploit and disseminate the best practices of successful networks, under the heading "accompanying measures".

These included a series of coordinated technology transfer days, professional exchanges, group visits and investment fora. Following this successful two-year programme, some of these actions were the subject of a renewed call for proposals in July 1992. This call was divided into three strands: identifica-

tion and dissemination of best practices, technology transfer days and investment fora.

For the identification and dissemination of best practices in network operation, 38 proposals involving 118 organizations were received. A further 18 proposals from 60 organizations have been presented for the organization of technology transfer days, aimed at introducing companies in a given Member State or region to technology brokerage and liaison services located in different Member States, thereby leading to technical cooperation between firms situated in different Member States.

Finally, eight proposals involving 28 organizations have been presented for the transnational investment fora. The aim here is to introduce innovative small and medium-sized companies, from several Member States and seeking funding, to financiers - notably venture capital concerns - also from several Member States, to provide investment opportunities and to encourage collaboration between them.

These fora can also be attended by large multinational companies which are looking for corporate venturing opportunities.

The selection of successful proposals will be finalized in early 1993.

Contact:

Daniel Janssens  
CEC DGXIII-D4  
Jean Monnet Building  
L-2920 Luxembourg  
Tel: +352 4301 34544  
Fax: +352 4301 34544

or

Bernard Hex (Sprint Technical Assistance Unit)  
119, Avenue de la Faiencerie  
L-1511 Luxembourg  
Tel: +352 465588  
Fax: +352 465550

## Call for proposals in GIS



A call for proposals in the area of information services based on Geographic Information Systems was published on 26 November (O,J, 92/C308/06).

Projects must be submitted by a partnership of at least two independent companies from two different Member States. Proposals must reach the Commission in Luxembourg by 17.00 hrs on 1 March 1993. These will be considered in March and negotiations with successful applicants will take place in the following two months. Accepted projects - expected to number around 30 - will first go through a six-month definition phase beginning on 1 July. After careful evaluation of this phase, the 10 or so most promising will be selected for an implementation phase lasting a further 18 months. This phase will begin in early 1994,

subject to budgetary availabilities at that time.

During the definition phase, projects will receive minimum co-funding from the Commission of 50% of permitted costs, rising to 65% for small and medium-sized businesses and for those in less-favoured regions. In all cases, a support ceiling of ECU 50,000 will be applied. Projects moving on to the implementation phase will be 50% co-funded up to a ceiling of ECU 400,000 each.

Contact:  
Martin Littlejohn  
CEC DG XIII  
L-2920 Luxembourg  
Tel: +352 4301 32187  
Fax: +352 4301 33190

## Dissemination of Community RTD results

"Innovation in the regions: The role of EC RTD" was the title of a conference held in Mold, North Wales (UK) on 11 November under the banner of the programme for the dissemination of Community RTD results. The conference took the form of presentations on Community programmes by high-level European Commission and UK government representatives and of case studies of companies in metal/materials, health and electronics sectors. Parallel workshops provided advice and assistance to firms wishing to participate in EC programmes.

Contact:  
Peter Tomaszewski  
CEC DG XIII  
L-2920 Luxembourg  
Tel: +352 4301 3798  
Fax: +352 4301 2084

## Value II programme: network of relay centres

The Commission has launched a new initiative to set up a network of relay centres in the Community. On the basis of proposals submitted by the Member States, 27 relay centres have been selected in light of their skills and their role at national or regional level in dissemination and value addition. The network should be operational by the beginning of 1993.

The role of the relay centres will be to encourage participation in Community RDT programmes and promote their activities and use of their results by industries, especially by SMEs. These centres will draw on their knowledge of the local industrial and scientific environment to adapt, interpret and target the dissemination of the information available at Community level. They will provide advice to enterprises and laboratories wishing to take part in Community RDT programmes and will assist the transfer of results and scientific and technological knowledge to organizations which can exploit these. They will contribute to the process of raising awareness of highly topical themes such as the protection of scientific knowledge, marketing of research and the funding of technological innovation.

The activities of the relay centres will be coordinated at Community level by the Commission's services (DG XIII in Luxembourg), supported by a team of

external experts and consultants. This initiative, in which the Member States are closely involved, is fully in step with the principle of subsidiarity since it rests upon existing skills in the Community countries. Furthermore, it will facilitate better interaction between Community R & D activities and national research programmes and will establish new transnational "pathways" between national networks for the dissemination of and addition of value to research.

Funding of ECU 16 m has been earmarked for the planned relay centres network for 1993-94, 28% of the amount allocated to the centralized dissemination and value addition action (Value II). This reflects the importance attached to the project by the European Community.

Contact:  
CEC DG XIII  
Jean-Noël Durvy (Value)  
Tel: +352 4301 33610

Javier Hernandez-Pos  
Relay Centre project manager  
Tel: +352 4301-34533

### List of the Value relay centres

Ministerie van de Vlaamse  
Gemeenschap Department Coördinatie,  
Administratie voor de Programmatie  
van het Wetenschapsbeleid (Flemish  
Region)  
Boudewijnlaan 30  
B-1210 Brussel  
Mr F. Colson  
Tel: +32 2 507 60 08  
Fax: +32 2 507 60 07

Ministère de la Région wallonne, direc-  
tion générale des technologies et de la  
recherche (Wallony)  
Avenue Prince de Liège, 7  
B-5100 Namur  
Mr O. Dierckx  
Tel: +32 81 32 14 06  
Fax: +32 81 30 66 00

Bruxelles Technopole A.S.B.L.  
(Brussels-Capital Region)  
Rue de la Fusée, 64  
B-1130 Bruxelles  
Mr O. Van Geloven  
Tel: +32 2 215 92 00  
Fax: +32 2 215 83 08

Zentrum für Innovation und Technik  
in Nordrhein-Westfalen GmbH  
(ZENIT)  
Dohne 54  
D-4330 Lülheim An Der Ruhr 1  
Mr P. Wolfmeyer  
Tel: +49 208 30004 31  
Fax: +49 208 30004 29/68

Steinbeiss-Zentrum Europäischer  
Technologietransfer  
Haus der Wirtschaft  
Willi-Bleicher-Str. 19  
D-7000 Stuttgart  
Mr H.J. Tümmers  
Tel: +49 711 229 09 33  
Fax: +49 711 229 09 80

VDI/VDE-Informationstechnik  
Technologiezentrum GmbH  
Budapester Strasse 40  
D-1000 Berlin 30  
Mr. J. Gabriel  
Tel: +49 30 264 890  
Fax: +49 30 264 891/41

Agentur für Innovationsförderung und  
Technologietransfer GmbH Leipzig  
(AGIL GmbH)  
Prager Strasse 28  
D-7010 Leipzig  
Mr Weidner  
Tel: +49 341 798 26 10  
Fax: +49 341 798 26 12

PUF - Danish Information Service on  
EC RTD programmes  
PUF - Industri-og Handelsstryrelsen  
Rygards Alle 131 A  
DK-2900 Hellerup  
Ms Pia Jorno  
Tel: +45 31 18 11 11  
Fax: +45 31 18 58 04

Comision Interministerial de Ciencia y  
Tecnologia (CICYT)  
CDTI  
Paseo de la Castellana, 141  
E-28046 Madrid  
Mr L. Del Pozo  
Tel: +34 1 581 55 18  
Fax: +34 1 581 55 84 (76)

Centro para el Desarrollo Tecnológico  
Industrial (CDTI) and General del  
Plan Nacional de I + D (SGPN I + D)  
SGPN I + D  
Rosario Pino, 14-16  
E-28020 Madrid  
Mrs M.D. De Torres  
Tel: +34 1 572 00 98  
Fax: +34 1 571 57 81

Assemblée des Chambres Françaises  
de Commerce et d'Industrie (réseau  
des agences régionales d'information  
scientifique et technique) (ARIST)  
Service Industrie  
45 Avenue d'Iena  
BP 448-16  
F-75769 Paris Cedex 16  
Mr Vassy  
Tel: +33 1 40 69 38 32  
Fax: +33 1 40 70 93 62

Association des Conseils Régionaux  
des Régions du Nord de la France  
Conseil Régional Picardie

11 Mail Albert 1er - BP 2616  
F-80026 Amiens Cedex 1  
Mr Touret de Coucy  
Tel: +33 22 97 37 37  
Fax: +33 22 92 73 11

Route des Hautes Technologies  
Immeuble CMCI  
2 rue Henry Barbusse  
F-13241 Marseille Cedex 01  
Mr J. Dorne  
Tel: +33 91 57 53 71  
Fax: +33 91 57 43 76

Association Nationale pour la  
Recherche Technique (ANRT)  
ANRT Europe  
16 Avenue Bugeaud  
F-75116 Paris  
Mme F. Girault  
Tel: +33 1 47 04 47 57  
Fax: +33 1 47 04 25 20

France Innovation Scientifique et  
Transfert (FIST S.A.)  
19 rue de Bièvre  
F-75005 Paris  
Mme A.C. Jouanneau  
Tel: +33 1 40 51 00 90  
Fax: +33 1 40 51 78 58

Greek Relay Antenna "HERA" -  
National Documentation Centre  
(NHRF)  
48 Vas. Konstantinou Ave  
GR-116 35 Athens  
Mr Bouboukas  
Tel: +30 1 771 44 25  
Fax: +30 1 723 68 24 (29)

Agenzia per la promozione della ricerca  
European (APRE)  
A.P.R.E. ARC  
L.re Thaon di Revel, 76  
I-00196 Roma  
Mrs R. Zobbi  
Tel: +39 6 32 26 17  
Fax: +39 6 32 32 61

Ente per le nuove tecnologie, l'energia  
e l'ambiente (ENEA)  
Sportello Tecnologico ENEA  
c/o TEMAV  
Via delle Industrie, 39  
Mestre-Venezia  
Mrs A.G. Gandini  
Tel: +39 6 304 841 47

Genova Ricerche  
Consorzio Genova Ricerche  
Via dell'Acciaio, 139  
I-16152 Genova  
Mr. G. Bertucci  
Tel: +39 10 65 14 000  
Fax: +39 10 60 38 01

Tecnopolis CSATA Novus Ortus  
(LATIN)  
Tecnopolis CSATA Novus Ortus

S.P. per Casamassima, Km3  
I-70010 Valenzano (Ba)  
Mr G. Vessia  
Tel: +39 80 877 01 11  
Fax: +39 80 69 51 868

The Irish Science and Technology  
Agency (EOLAS)  
Glasnevin  
IRL-Dublin 9  
Mr O. McBreen  
Tel: +353 1 370101  
Fax: +353 1 379082

Junta Nacional de Investigaçao  
Cientifica  
Agencia do Inovacao  
Praca duque de Saldanha, 31-4°  
L-1000 Lisboa  
Mr. J. de Carvalho Alves  
Tel: +351 1 541 129  
Fax: +351 1 540 926

Luxinnovation  
7 rue Alcide de Gasperi  
L-1615 Luxembourg-Kirchberg  
Mr S. Pommerell  
Tel: +352 43 62 63  
Fax: +352 43 83 26

Local Enterprise Development Unit  
(LEDU) - The Small Business Agency  
(Northern Ireland)  
LEDU House, Upper Galwally  
UK-BT8 4TB Belfast  
Northern Ireland  
Mr B. McGowan and Mr D. Maxwell  
Tel: +44 232 49 10 31  
Fax: +44 232 69 14 32

The Technology Broker Ltd. (southern  
and central England)  
Long View, Mill Field  
UK-CB4 4RE Cottenham (Cams.)  
Mrs A. Brooking  
Tel: +44 954 523 30  
Fax: +44 954 523 48

Euro Info Centre Ltd. (EIC)  
(Scotland and Northern Ireland)  
Atrium Court  
50 Waterloo Street  
UK-G2 6HQ Glasgow  
Mr. I.E. Traill  
Tel: +44 41 221 0999  
Fax: +44 41 221 6539

Welsh Development Agency (WDA)  
(Wales)  
QED Centre  
Main Avenue  
Treforest Estate  
Pontypridd  
UK-Mid Glamorgan CF37 5YR  
Mr B. Dormand  
Tel: +44 443 841 345  
Fax: +44 443 841 393

## Libraries: second call for proposals



The deadline following the second call for proposals for the EC R+D programme concerning libraries (telematic systems) closes on 15 February.

The scope and objectives of this second call are identical to those of the first call launched in 1991. The aim is to encourage new proposals and to allow proposers to build on their experience of the first call. In the full documentation provided proposers will also receive the synopses of projects resulting

from the first call, and some details of priority themes, as additional help in formulating their proposals.

### Contact:

A. Iljon  
CEC DG XIII/E3  
L-2920 Luxembourg  
Tel: +352 4301 32923  
Fax: +352 4301 33530

## Mint: helping companies manage the integration of new technologies

Managing the integration of new technology is the subject of a new Sprint action, called Mint, aimed at promoting the absorption of new technologies by small and medium-sized enterprises (SMEs) through the use of experienced consultants in the management of innovation.

Mint will be delivered, administered and operated in each Member State according to its own policy and business culture. Member States have proposed 24 organizations, as coordinating agencies at regional or national level. These will be responsible for selecting, training and monitoring a core group of experts who carry out the individual consultancy assignments. The Commission will ensure harmonization of procedures through exchange of best practice.

This flexible scheme is designed to provide firms with a diagnosis of their use of technology and the potential for integrating relevant new technology and management techniques (e.g. design, quality, value analysis) as a part of an overall business strategy.

Target companies are SMEs in the manufacturing sector with the commitment, operating potential and management resources to take full advantage of the likely benefits resulting from the better use of new technologies.

Following a short diagnostic analysis of how the firm is, or could be, using and managing technology within the busi-

ness, the consultants will help the firm develop an implementation plan, taking into account the real needs of the business. As a part of the process, training workshops will be run for groups of firms with common business or technology needs. To ensure that there is follow-through from the consultancy, Mint will relate synergetically with regional and national schemes, so that companies can be guided to other relevant national and Community support programmes. Sprint will ensure a common methodology through a series of quality assurance workshops for the approved experts, administered nationally but monitored by Commission services.

### Contact:

Robin Miège  
CEC DG XIII-D4  
L-2920 Luxembourg  
Tel: +352 465588  
Fax: +352 465550

or

Jack Burgess  
(Sprint Technical Assistance Unit)  
119, Avenue de la Faïencerie  
L-1511 Luxembourg  
Tel: +352 465588  
Fax: +352 465550

## Linguistic research and engineering

A second call for EC R+D proposals in linguistic research and engineering has been issued.

The aim of the research and technology development projects in this area is to develop a basic linguistic technology for natural language processing which can be incorporated into a large number of computer applications where natural language is an essential ingredient, overcoming the limitations and inefficiencies due to the use of different languages within the Community.

Work will be supported in three complementary areas:

- Research aimed at the improvement of the scientific basis of linguistic technologies;
- The creation of common methods, tools and linguistic resources;
- Pilot and demonstration projects.

The proposals selected will be co-funded by the Community. Detailed information about procedures for submissions and background material on the research topics is available on request in the form of information packages. In the short period since the public announcement of the call, 2200 such packages have already been mailed and there is a steady flow of telephone enquiries. Additional interest has been raised through several 'information days' in Member States.

### Contact:

CEC DG XIII/E  
L-2920 Luxembourg  
Tel: +352 4301 34668  
Fax: +352 4301 34655

## Correction

One digit was wrong in the telephone number given in the last issue of the News Review for contacting the Esprit Conference secretariat, ECCO. Our apologies. The correct number is +32.2.6478780

# STANDARDIZATION

## Single information source on Community standards

The European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC) and the European Telecommunications Standards Institute (ETSI) are issuing a joint monthly information bulletin listing all the standards adopted and proposals published for public scrutiny. It also contains the main decisions taken by the committees which shape the policy principles of the three organizations, notably the major developments in the evolution of work programmes, new specific subjects and liaison with third organizations. Two sections cover relations with the EC Commission and the secretariat of the European Free Trade Association, mentions made of standards in the EC's Official Journal and standardization briefs issued.

The 24-page bulletin is published monthly (except in August) and available by subscription. For more information and a copy of the bulletin please

### Contact:

Erik Petersen  
Tel: 32 2 519 6821  
Fax: +32 2 519 6819

For more general information on the contents of the bulletin or on standardization in Europe,

### Contact:

CEN Stewart Sanson  
Tel: +32 2 519 6852  
Fax: +32 2 519 6919.

CENELEC Tony Snape  
Tel: +32 2 519 6871  
Fax: +32 2 519 6919

ETSI Chris Corbett  
Tel: +33 92 94 42 15  
Fax: +33 93 65 47 16

## Dissemination of standards and Intellectual Property Rights

The Council has adopted the conclusions below on policy relating to intellectual property rights and the European Telecommunications Standardization Institute (ETSI).

- The Council and the Commission consider important that European telecommunications standards used in legally binding Community instruments be accessible on an equitable basis throughout the Community.

- The Council therefore urges the Commission to continue cooperating

with the European Telecommunications Standardization Institute (ETSI) and to conclude without delay an agreement with the latter responding to the transitional nature of this requirement and complying with Community law.

- The Council furthermore requests that the Commission find, as rapidly as possible in the wider framework of the Community's international obligations, a solution to these questions which can serve as a model for future agreements with the ETSI.

## Standardizers listen to market influence

Some 250 industrialists, trade union and consumer representatives met standardizers in Brussels at a conference (9-10 November) to discuss the future direction of European standardization.

The conference, Standards for Europe - 1993 Onwards, was organized by the Joint Presidents Group of CEN, CENELEC and ETSI, the three European standards bodies. The objective was to allow market operators from EC and EFTA countries who are confronted with European standards, but not always involved in the standard-making process, to receive direct information about future prospects of European technical harmonization, and to offer their own views on their expectations from the European standardization system.

During this conference, the three standards bodies showed their commitment to creating standards that meet market needs during sessions and discussions on three important standardization topics: the influence of research and development on European standardization; the impact of European standards on the global market; and the need for proving conformity to European standardization through testing, certification and marking.

An extensive discussion ensued after each session, enabling the market representatives attending the conference to represent their interests directly to the three standards bodies. They called on the organizations to:

- Produce simpler and more widely available information on their activities.

- Set firmer priorities in the vast catalogue of standardization work items currently under consideration.

- Involve more smaller and medium-sized enterprises in their work.

- Adopt a project management approach to standards-making and communicating the dates when standards, meeting Euro-directives, will be available.

- Ensure a greater market acceptability of standards.

- Build on world-wide standards and recommendations and for regional standards bodies to move towards a convergence of standards.

- Ensure a greater quality in standardization programmes.

- Clearly communicate the requirements for visibility for conformity.

Given the success of this second European standardization conference, the Joint Presidents Group reaffirmed its intention to further enrich opportunities to gather market input to the standardization process and announced the dates of this year's conference, which will be held in Brussels on 30 November - 1 December 1993.

### Contact:

Christopher Corbett  
ETSI, JPG Secretariat  
F-06921 Sophia Antipolis Cedex  
Tel: +33 92 94 42 15  
Fax: +33 93 65 47 16

## Slovenia becomes affiliate of European standards body

The National Electrotechnical Committee of the Republic of Slovenia was accepted as an affiliate of CENELEC, the European electrotechnical standards-making body, at the organization's general assembly in Luxembourg on 18 November.

Affiliate status means that the Slovenian Electrotechnical Committee will be able to implement all CENELEC's existing European Standards and its future standards immediately they have been ratified. Slovenian representatives will also be able to attend CENELEC technical meetings, a range of workshops, seminars and conferences and the general assembly, as well as receive regular data from the organization.

Slovenia, which was also granted affi-

liate status to the European Committee of Standardization (CEN) last month, is CENELEC's sixth affiliate. The others, accepted last year, are Czechoslovakia, Hungary, Poland, Romania and Turkey.

This was the 32nd CENELEC general assembly meeting. Decisions are taken by delegations from CENELEC's members, the 18 National Electrotechnical Committees of the European Economic Area (EC and EFTA countries).

Noting the progress of CENELEC activities, the general assembly welcomed the news that, by the end of 1992, the CENELEC Catalogue would list almost 1200 standards. More than 2000 work items are currently in progress with the CENELEC structure.

The Luxembourg meeting also empowered CENELEC's president to sign cooperation agreements with EACEM, the European Association of Consumer Electronics Manufacturers, and EUROCAE, the European Organization for Civil Aviation Equipment. These agreements will allow CENELEC to take draft documents from these organizations and develop or incorporate their contents into future European Standards.

### Contact:

Tony Snape  
CENELEC  
Rue de Stassard 35  
B-1050 Brussels  
Tel: +32 2 519 69 96  
Fax: +32 2 519 69 19

## USA votes to adopt UN/EDIFACT

As America was voting for a new President the American National Standards Institute (ANSI) was deciding whether to continue developing domestic standards for Electronic Data Interchange (EDI) or move to the international standard UN/EDIFACT.

Of the returned ballots, 76% were in favour of adopting UN/EDIFACT. The ANSI committee responsible for EDI standards, ANSI X12, will now stop developing their national messages after X12 version 4, expected in 1997. After that they will devote all their

efforts to the international standards being developed within the United Nations framework.

Since the first UN/EDIFACT standard was agreed in 1987, Europe has played a key role in the work of standardizing the electronic equivalents of purchase orders, invoices, payments, transport and customs documents. Over 50 UN Standard messages have already been agreed and work is progressing on some 70 more, covering all aspects of administrative, commercial and transport transactions. The Commission,

through the Tedis programme, has been providing the secretariat for the Western European EDIFACT Board and support for message development groups since 1988.

While Europe was quick to realise the importance of international standards, America has up until now preferred to work with domestic messages. This decision gives a clear signal to businesses worldwide that confusion over different standards is no longer a reason to hold back from implementing EDI.

# EUROPEAN DIMENSION

## Danish GSM telephones to be used in Switzerland

GSM, the new pan-European mobile telephone system, is being implemented rapidly: in October, roaming agreements opened up Germany for Danish GSM phones and Sonofon, a Danish company, signed another roaming agreement with Swiss PTT Telecom in November. This makes it possible for Sonofon customers to use their GSM phones in Switzerland.

Since 1 December it has been possible to use GSM type phones in major Swiss cities such as Geneva, Lausanne,

Berne, Basel, Zürich and Lugano. The highways connecting these cities will be covered in the beginning of 1993 and the remaining parts of the country will have full coverage at year's end 1995.

Sonofon customers are now able to use their GSM phones in an area covering more than 65 million people, from Finland and Sweden to Switzerland. The Danish GSM net already covers more than 79% of the population.

### Contact:

Ole Mikkelsen  
Managing Director  
Sonofon  
Skelagervej 1  
Postbox 330  
DK-9100 Aalborg  
Tel: +45 9936 7000  
Fax: +45 9936 7070

## JRC courses and seminars

The EC Commission's Joint Research Centre has drawn up its 1993 programme of courses and seminars. Essentially this programme reflects the disciplines or the objectives of the research activities carried out in the institutes of the four JRC sites. It includes:

- basic or advanced courses in specialized disciplines;
- seminars at research level discussing the state of the art in sectors of science where rapid development is taking place.

The courses are aimed at scientific and/or technical staff from research institutions, industry, government, consultancies, teachers, research workers and post-graduate students of universities and institutes of higher education.

The lecture staff is composed of members of the JRC institutes and guest lecturers from universities, research organizations and industrial firms from all over the world. The international character of the courses is emphasized.

### Nuclear science and technology

Safety in Tritium handling technology Seminar

Scientific coordinator: F. Mannone, IST Ispra, 28-30 April 1993

Decommissioning of nuclear installations

DG XII-D  
Scientific coordinator: R. Wampach, DG XII-D2

Ispra, 17-19 May 1993

### Remote sensing

The use of ERS-synthetic aperture radar imagery

IRSA, Ispra in collaboration with the European Space Agency (ESA)  
Scientific coordinator: A. Sieber  
Ispra, 15-17 March 1993

Remote sensing applied to agricultural statistics: regional inventories

IRSA, Ispra  
Scientific coordinators: J.H. Delincé, F. Gallego  
Greece, 19-23 April 1993

Advances in the use of AVHRR data for land applications  
IRSA, Ispra

Scientific coordinator: A. Belward  
Ispra, 22-26 November 1993

### Chemical and environmental science

Quality of environmental measurements

El Ispra, in collaboration with DG XII - BCR

Scientific coordinators: H.W. Muntau, B. Griepink  
Ispra, 6-10 December 1993

Chemistry of aquatic environment: local and global perspectives

El Ispra in collaboration with the Swiss Federal Institute of Technology, ETH, Zurich

Scientific coordinators: G. Bidoglio, W. Stumm  
Ispra, 27 September - 1 October 1993

Environmental informatics applications

Summer course  
El Ispra in collaboration with the University of Athens

Scientific coordinators: F. Argentesi, N. Avouris  
Athens, Greece 21-25 June 1993

Technologies for environmental clean-up: toxic and hazardous waste management

El Ispra in collaboration with the LLNL, CA, USA

Scientific coordinators: A. Avagadro, R.C. Ragaini  
Ispra, 13-17 September 1993

Business and Environment

IPTS Ispra  
Scientific coordinator: M. Rogers  
Sevilla, Spain 8-12 November 1992

### Computer and information science

Information technology and disability: the assistive technology approach

ISEI Ispra sponsored by DG XIII-D1  
Scientific coordinators: R. Puig de la Bellacasa, G. Pirelli  
Ispra, 7-11 June 1993

### Mechanical and materials science

Qualification of inspection procedures  
IAM Ispra/Petten

Scientific coordinator: S. Crutzen  
Ispra, 18-22 October 1993

## Reliability and risk analysis

Applying MCDA for environmental management

Seminar of the European Working Group on MultiCriteria Decision Aid (MCDA)

Scientific coordinators: M. Paruccini, A. Zenié

Ispra, 7-8 (or 14-15) October 1993  
Ispra, 3-7 May 1993

## East meets West: science and technology cooperation in the wider European context

The call for proposals under the EC scheme for science and technology cooperation with the countries of central and eastern Europe, which closed on 7 August 1992, received a huge response exceeding all expectations. In all, 11,750 proposals were received for the six action lines: mobility (47%), networks (4%), conferences (14%), joint research projects (22%), participation in Community programmes (7%) and COST participation (6%). This resulted in over-subscription by a factor of four for mobility, 50 for networks and conferences and 65 for joint research projects. The quantity and quality of the replies gave a clear indication of the cooperation scheme's timeliness and aptness.

Proposals covered a wide range of scientific fields, including the environment, social science, information technologies and communication, industrial materials technologies, agriculture/food industries and fundamental science. This made evaluation extremely challenging.

The work was organised by a joint DG XIII - DG XII team, chaired by DG XIII's Esprit basic research unit. It was carried out by over 200 external experts from 22 nations of east and west Europe, pooling their efforts for the first time. The continuous exchange of views between scientists from east and west gave everyone new insight into and understanding of the situation in central and eastern Europe. The new scientific contacts made will themselves be of great value in east-west cooperation.

Although the final selection of the projects put forward for funding is still underway, the evaluation process was completed in around six weeks.

## East Europeans join Eutelsat

Eutelsat's Assembly of Parties, meeting in Paris on 3 December, unanimously approved requests to join the organization from Albania, Bosnia-Herzegovina, Croatia, Georgia and the Ukraine. Their applications were already fully endorsed by the Board of Signatories which brings together the telecommunications operators investing in Eutelsat.

In the short term, the new member

countries intend to use Eutelsat for digital telephony links with western Europe and for business networks. They are also considering using the satellites for television transmissions and for other applications such as the Euteltracs land mobile service.

"In only three years Eutelsat has grown from 26 to 38 member countries", said Eutelsat Director-General Jean Grenier on the approval of the

new members. "The broad coverage and the flexibility of the Eutelsat satellites puts us in a unique position for the rapid development of telecommunications and for bringing European citizens closer together".

The European Telecommunications Satellite Organization was set up in 1977. It operates a trans-European network comprising eight satellites for fixed and mobile communications.

## Electronic information services in EFTA countries

The IMO's latest working paper (92/6) provides a broad overview of the size and structure of the markets for electronic information services in the seven countries of the European Free Trade Association (EFTA): Austria, Finland, Iceland, Liechtenstein, Norway, Sweden and Switzerland. With the agreement to create a European Economic Area (EEA) between the EC and EFTA entering into force on 1 January 1993, the paper offers useful

and timely information concerning the expansion of sales of professional information goods and services. Based on 1989 figures, the EEA will account for 45% of total world trade in this area.

This working paper is based on desk research supplemented by material gathered from interviews with key industry players. The results of this research show that the four Nordic members of EFTA present quite dis-

tinct differences in terms of market development, whilst the markets of Austria, Liechtenstein and Switzerland share close cultural ties and all have strong technical links with Germany.

The paper concludes that in spite of small populations and minority languages, even small countries can compete in international on-line markets.

# NATIONAL SCENE

## Crash programme for Greek telecommunications

The Commission has approved a new crash programme for the development of telecommunications in Greece, allocating ECU 104.7 million within the Community Support Framework for Greece to an investment/technical assistance programme totalling ECU 207.6 m. The programme is the precursor to a substantial effort to modernize Greek telecommunications before the year 2000, being carried out by Greece with Community assistance.

EC regional policy Commissioner Bruce Millan emphasized the Commission's interest. "This programme constitutes a major first step towards a definite restructuring of Greek telecommunications," he said, and will serve as a test-bed for a more effective approach to investment in this sector in Greece".

The programme was drawn up following a strategic study on the modernization of Greek telecommunications, jointly managed by the Greek authori-

ties and the Commission. The specific initiative known as the "crash programme" constitutes part of an overall approach for the development of the telecoms sector in Greece. It is a short-term programme; its principal objectives are to relieve urgent pressures on the present analog telephone network and to lay the foundations for a new regulatory environment. It also paves the way for organizational changes to enable the Greek authorities to respond better to the management challenge inherent in the modernization process.

This first tactical step to long-term strategic development includes the following measures:

1. Technical assistance for the development of the new legal and regulatory framework.
2. Improvement of network infrastructure:
  - Attica network, which will provide

the digital switches and connections for a new overlay network in Athens.

- Refurbishment and maintenance of local networks.
- Network efficiency.

### 3. Special Projects:

- Rhodes network, involving improvement of the island's network with new value-added services catering primarily for tourist users.
- Improvement of the data network (Hellaspac).
- Piraeus data network. The creation of a high-speed backbone data network.

### 4. Organizational improvement:

- Pricing structure.
- Subscriber waiting-list management.
- Key-customer department.

5. Monitoring and implementation: special monitoring arrangements have been made for the planning and implementation phases of the programme.

## Software: Commission approves aid to UK participants in Eureka

The Commission has approved the granting of research and development aid to SEMA (UK) Ltd and the Imperial College of Science, Technology and Medicine for their participation in a Eureka software project (project 43: European Software Factory).

The aid has been allowed under article 92(3)(b) of the EEC Treaty since it promotes the execution of an important project of common European interest. The total UK share of the project amounts to ECU 55 m and the UK government has offered an outright grant of ECU 55 m to the two participants.

The project involves basic industrial research, applied research and development. SEMA (UK) Ltd will be aided at an intensity of 37% gross and the Imperial College at 50%.

# INTERNATIONAL PERSPECTIVE

## EC participation in Asia Telecom '93

As part of its trade promotion activities towards third countries, the Commission intends to organize a coordinated participation of European industry in Asia Telecom '93 (Singapore, 17-22 May 1993).

The European Community pavilion at Asia Telecom '93 will be the first organized by the Commission in the series of exhibitions and forums staged by the International Telecommunication Union every four years in each continent. Asia being the world's fastest growing telecommunications market, this top-level event is of particular commercial interest.

The performance of the European telecoms industry and the objectives of EC strategies and programmes in this sector are drawing particular attention at the start of the single European market. The objective of the Community's participation in Asia Telecom '93 is to build on this interest, to provide a forum for companies to present their products and achievements and for the Community as a whole to show its determination to play a key role in information and communications technology at international level. The participating EC companies will be supported by the Commission's export promotion scheme.

Companies accepted for participation will be eligible for a financial incentive towards the cost of space rental and construction of the special EC shell stand up to a maximum of 30 m<sup>2</sup> per company. Companies wishing to build a larger stand are naturally free to do so. An EC exhibition architect will be selected by tender by the Commission and will be responsible for coordinating the design, construction and decoration of the entire EC pavilion. Companies should apply for all stand services direct to the architect.

A special high-quality illustrated catalogue of EC exhibitors will be produced

by the Commission. Each exhibiting company will be entitled to a full page, including a colour photograph, the company logo, name and address and a description of products and services. There is no charge to exhibitors for this service.

The EC Commission will also organize a European Community Day. EC companies will be invited to an official reception, giving them an opportunity to establish closer links with government institutions, other relevant official organizations and the local business community.

Enquiries about the conditions for participation should be addressed to:

**Contact:**

Mrs Danielle Dille  
CEC DG I  
Tel: +32 2 2990050  
Fax: +32 2 2991028

## EC-India software centre

The Commission and the Government of India have agreed to jointly set up a software centre under the Indo-EC Commercial and Economic Cooperation Agreement and in accordance with the memorandum on technical cooperation between DG XIII and the Indian government's Department of Electronics.

The objectives of the Software Services Support and Education (3SE) centre are:

- to create an adequate environment in order to improve industrial cooperation between India and the European Community;
- to promote the level of information technology sophistication and awareness of the strategic importance of IT in India;
- to promote the acceptance and use of European software technology tools,

methodologies and standards in the Indian IT market.

3SE will initially offer the following services to the Indian market: gathering and dissemination of information relating to software technology; marketing and promotion of software engineering tools, methodologies and standards; providing training and demonstrations on software engineering tools, methodologies and standards; providing support and advice for software technology projects.

The centre will be an autonomous society, scheduled to start in the third quarter of 1993 with an initial staff of 20. It will be supervised jointly by the Commission (DG XIII) and the Indian government (Department of Electronics) for a 30-month start-up period, after which the ownership and management of 3SE will be transferred to industry.

A 3SE newsletter will be issued every two months, from mid-February 1993 to the end of the start-up phase, when the newsletter will be replaced by a telematics journal. Additional information on 3SE will be published in the first issue including details of where and when to reach the 3SE information help desk. To receive the newsletter, please register by sending your name to one of the following addresses:

**Contact:**

Commission of the European Community  
Mr Jean-Pierre Lebrun  
CEC-DG XIII  
International Cooperation  
Ave de Beaulieu, 29 3/185  
B-1160 Brussels  
Belgium

Government of India  
Joint Secretary, Department of Electronics  
Mr Roy Paul  
Electronics Niketan  
6, C.G.O. Complex  
I-New Delhi 110003  
India

# PUBLICATIONS

## The CD-ROM Directory 1993 International 9th Edition

The CD-ROM Directory 1993 is the 9th edition of this international guide to the CD-ROM & multimedia CD market.

For companies selling into the CD-ROM & multimedia CD market, *The CD-ROM Directory 1993* provides a precision method of getting your message across.

Sections of the directory are as follows, with the beginning of each offering section divider positions for advertising :

- Company information
- Multimedia CD titles
- Hardware
- Books & journals
- CD-ROM titles
- Software
- Conferences & exhibitions
- Indexes.

### Contact:

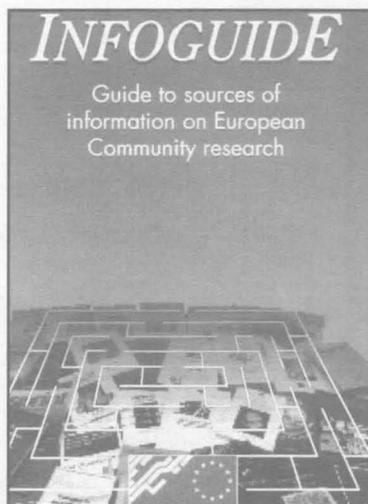
Frank Bevis  
TFPL Publishing  
22 Peter's Lane  
London C1M 6DS, UK  
Tel : +44 71 251 5522  
Fax : +44 71 251 8318

## Information on EC research: infoguide

The Infoguide aims to show how information on EC research and its results can be located, through publications, newsletters, databases, conference proceedings, reports, videos and help-desks. It does this by identifying key publications which can be used as the starting point for deeper and more detailed searches in the appropriate subject area.

### Contact:

CEC, Dissemination of Scientific and Technical Knowledge Unit  
CEC DGXIII  
L-2920 Luxembourg  
Tel: +352 4301 3161  
Fax: +352 4301 208



## Computer Networks and ISDN Systems

The International Journal of Computer and Telecommunications Networking (special issue) 25(1992) November 1992.

*Computer Networks and ISDN Systems* is an international journal providing a publication vehicle for complete coverage of all topics of interest to those involved in the area. The readership includes managers and operators of networks, designers and implementors, regulatory lawyers, economists, policy analysts and sociologists specializing in the area.

Material is provided on all aspects of the design, implementation, use and management of computer and telecommunication networks, communication sub-systems and integrated services digital networks. Specifically included are non-technical topics such as economics, legal and regulatory issues and social impact.

This special issue includes proceedings of the 3rd Joint European Networking Conference held in Innsbruck, Austria from 11-14 May 1992.

### Contact:

Elsevier Science Publishers  
Ursula Van Dijk  
P.O. Box 103  
1000 AC AMSTERDAZM (NL)

## Artificial and biological vision systems

G.A. Orban, University of Leuven, Belgium; H.-H. Nagel, University of Karlsruhe, FRG (Eds.)  
(Esprit Basic Research Series. Ed. : Commission of the European Communities)

1992. ISBN 3-540-56012-2

This volume is a collection of reports on work in computer and biological vision. The work is supported by the Esprit basic research project Insight, in which an interdisciplinary group of scientists are integrating techniques and results

from computer science, mathematics, neuroscience and psychophysics into a coherent framework to study general purpose vision systems.

The methods reported in the volume range from anatomical and physiological studies to psychophysical, algorithmic, mathematical and simulation techniques. Particular topics discussed include optic flow, texture, 3D surfaces, cue convergence, segmentation, corner detection and multiscale representations.

The main feature of the book is its dis-

ciplinary nature. It includes an approximately equal number of contributions from biological and computer sciences, where biology is taken to include neuroscience, psychophysics and perceptual studies.

### Contact :

Springer-Verlag  
Heidelberg Platz 3  
D-1000 Berlin 33

## Parallel Computing and Transputer Applications

Transputer and Occam Engineering Series

Part I and II

Proceedings of the International Conference, PACTA'92, 21-25 September 1992, Barcelona, Spain.

Edited by: M. Valero, M. Onate, M. Jane, J.L. Larriba and B. Suarez. 1992, ISBN: 90 5199 096 0 (set of 2 volumes)

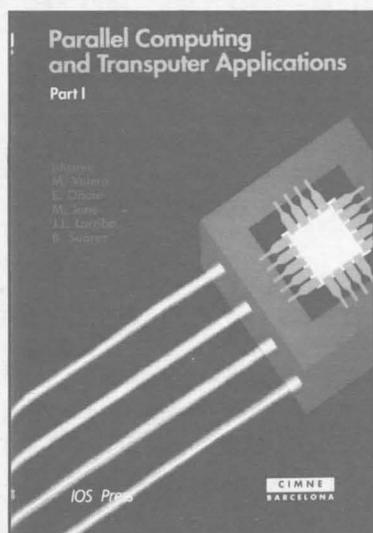
PACTA '92 was the major conference on parallel computer and transputer applications held in Europe last autumn. The Open Microprocessor systems Initiative (OMI) was the subject of the opening presentation in this monumental two-volume work constituting a record of the state of the art and a blueprint for the next generation of parallel computers.

In the first part, major manufacturers and their close associates review their current plans and achievements. These leading edge developers are faced with challenges in the areas of hardware, software, algorithms, languages and code. Interaction with practising end-users is, however, the

key to successful implementation of the new technologies. Four major directions of work, divided into 14 specialized sections, are dealt with in depth by leading representatives of the professional and user communities.

Contact:

IOS Press  
Van Diemenstraat 94  
1013 CN Amsterdam (NL)  
Fax: +31 20 620 3419



## Acronyms and abbreviations in telecommunications

Interconnect Communications Ltd has published a second edition of *Acronyms and Abbreviations in Telecommunications*. Following the success of the first edition - more than 10,000 copies were distributed worldwide - a more comprehensive and updated version was required.

This pocket-sized handbook contains 500 acronyms regularly used in European telecommunications organizations and regulatory bodies. It has been of particular use to central and eastern European countries adapting to the requirements of western telecommunication regimes.

Contact:

ICC Ltd  
Merlin house  
Station Road  
Chepstow NP6 5PB  
Tel: +44 291 620425  
Fax: +44 291 627119

## LPCVD Silicon Nitride and Oxynitride Films

Material and Applications in Integrated Circuit Technology  
F.H.P.M. Habraken, Utrecht State University (Ed.)

1991. X, 159 pp. (Research Reports Esprit, Project 369. Edited in cooperation with the ISBN 3-540-53954-9

This volume reports the work done in Esprit project 369 "Physical-chemical characterization of silicon oxynitrides in relation to their electrical properties". The project concentrated on material obtained by low pressure chemical vapour deposition (LPCVD) and involved measuring and comparing a very large number of samples. General interest in silicon oxynitrides for applications in integrated circuit technology stems from the fact that proper choice of deposition conditions enables one to produce materials with properties which can be either oxide-like or nitride-like.

The papers collected in this volume give a broad overview of the chemical and physical characteristics of silicon oxynitrides, with special emphasis on the way in which these properties influence the electrical characteristics and behaviour of this important material. Most of the contributions describe original scientific and technical work. The aim of the book is to provide the material scientist and the integrated circuit technologist with enough information to consider this class of materials for application in integrated circuit technology.

Contact :

Springer-Verlag  
Heidelberg Platz 3  
W-1000 BERLIN 33  
F.R. Germany

## FAST: List of publications

CEC 1992

The Fast programme (Forecasting and Assessment in Science and Technology) has published a catalogue of all books and studies published under the Fast umbrella between 1978, the year in which the programme was launched, and May 1992.

The catalogue covers Fast documents, series, occasional papers, books published by private and public editors and exploratory and strategic dossiers.

Contact:

CEC Fast Programme  
200 Rue de la Loi  
B-1049 Brussels  
Tel: +32 2 2959755  
Fax: +32 2 2964299

## Parallel Computing: From Theory to Sound Practice

Proceedings of EWPC'92, the European Workshops on Parallel Computing, 23-24 March 1992, Barcelona, Spain.

Edited by: Wouter Joosen, Elie Milgrom (K.U. Leuven, Belgium)  
1991, ISBN: 90 5199 080 4

The EWPC'92 emerged from the Esprit Parallel Computing Action (PCA) to become the most important parallel computing meeting in spring 1992. Leading research projects in the area

were presented and some 80 articles are contained in this work.

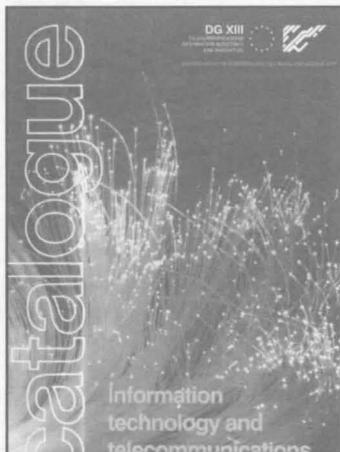
Contact:

IOS Press  
Van Diemenstraat 94  
1013 CN Amsterdam (NL)  
Fax: +31 20 620 34 19

### Parallel Computing: From Theory to Sound Practice

Wouter Joosen and  
Elie Milgrom, Editors

IOS Press  
Amsterdam Oxford Washington Tokyo



## European research catalogues

Under the Value programme, DG XIII's unit for the dissemination of scientific and technical knowledge has published a series of catalogues of works, books and studies covering different sectors of European research activities. Those already published cover renewable energy, materials, coal and steel, environment, information technology and telecommunications.

Contact:

CEC, Dissemination of Scientific and Technical Knowledge Unit  
L-2920 Luxembourg  
Tel: +352 4301 3161  
Fax: +352 4301 2084

# AGENDA

## Pics 93

The biennial trade fair for logistic management will be organized in Kortrijk (Belgium) from 17-18 March 1993

It covers all products and services which contribute to more effective and efficient logistic management. This includes inventory management, just-in-time, master planning, materials and capacity requirements planning, production activity control, purchasing management, forecasting, computer integrated manufacturing systems (EDI, PDI, ...), manufacturing cost control and performance measurement, integrated logistics, transportation planning and routing systems, distribution, warehousing, shipment, operations scheduling, simulation tools, theory of constraints and bill of materials configurations.

In addition to exhibitors presenting the above software, exhibitors are also invited from the services sector.

Companies active in the fields of preliminary research and support for implementation are also eligible to exhibit at Pics Software Show.

Contact :

International Centre for Fairs and Congresses  
CV De halle-Kortrijk  
Door Miksesteenweg 216  
B-8500 Kortrijk  
Tel : +32 56 20 40 00  
Fax : +32 56 21 79 30

## Last minute: Telecommunications

*Conference on the new regulatory framework for EC telecoms.*  
Paris 17-18 March 1993

Contact:

Delphine Frete  
Tel: +33 1 4076 64 62  
Fax: +33 1 4076 63 62

## Software Automation 93

The annual trade fair and conferences for development and systems software will be organized in Kortrijk (Belgium) from 10-11 March 1993

The exhibition programme for Software Automation 93 includes the following products and services :  
Relational, semantic and object-oriented database management systems, multi-media database systems, knowledge database systems, expert system shells, 4 GL, program and application generators, CASE tools, data dictionary systems and repositories, operating systems, UNIX, etc...

Contact :

International Centre for Fairs and Congresses  
CV De Hallen-Kortrijk  
Door Miksesteenweg 216  
B-8500 Kortrijk  
Tel : +32 56 20 40 00  
Fax : +32 56 21 79 30

## 4th Joint European Networking Conference

Organized by RARE (Réseaux Associés pour la Recherche Européenne), the 4th Joint European Networking Conference will be held in Trodheim, Norway from 10-13 May 1993. The theme of the conference, European Networking in a Global Context, acknowledges the fact that networks covering a specific geographical area or networks for a specific user group will only be successful if they are connected to the rest of the world. Global connectivity offered to a large number of users and applications makes networks more interesting to use. Considering that in Europe today only a small fraction of all academic and research staff are network users, it is fair to say that there is still a long road ahead of us. This conference is intended to explore the next steps to take.

As in previous years, a poster wall will be available for the display of posters. Participants are invited to submit a poster presentation of the project they

work on or a topic of common interest to the conference participants. The programme committee will select the best two posters during the conference for inclusion in the conference proceedings. The best poster wins a free registration to the next JENC.

During the conference there will again be the opportunity for participants to present their project or activities in the form of a demonstration, either as part of their presentation or separately.

For the first time tutorials will also be organized. They will be held at the end of the conference, on Thursday afternoon and Friday morning.

### Contact:

Singel 466-468  
NL-1017 AW Amsterdam  
Tel: +31 20 639 1131  
Fax: +31 20 639 3289

## ECIO'93: The 6th European conference on Integrated Optics

ECIO'93, the 6th European conference on Integrated Optics, will take place at Neuchâtel, Switzerland on 18-22 April 1993.

The most attractive and newest feature of this event will be the integrated optics exhibition which, for the first time, gives a global picture of this field at its turning point towards industrial exploitation. More than 35 exhibitors will be present, among them the main component and system suppliers such as Ericsson, GEC-Marconi, Siemens, Pirelli, United Technologies, IOT and Corning; integrated optic sensor manufacturers like CSO, Hommelwerke and CSEM; tool makers such as Karl Süss and Veeco; and design, characterization and hybridization tool companies. The exhibition is adjacent to the conference.

All related Race, Esprit, Brite, Cost and Eureka projects will be presented in a session dedicated to European efforts in integrated optoelectronics.

### Contact:

ECIO'93 Secretariat  
Maladière 71  
PO Box 41  
CH-2007 Neuchâtel  
Suisse  
Tel: +41 38 205 111  
Fax: +41 38 205 580

## ERA Conference on Digital Signal Processing

With modern communications systems coming under greater pressure to provide a wider range of services, ERA Technology is to hold a conference and exhibition on digital signal processing. The event "DSP - The Enabling Technology for Communications", will provide delegates with a timely forum for discussing the impact of the latest techniques and technologies in the major areas of communications. The conference, to be held at the RAI Congressentrum in Amsterdam from 9-10 March 1993, comes at a time when the establishment of fast, easy-to-use communication facilities within Europe is seen as vital to the effective operation of the single market.

The conference will be opened by Dr. S. Konidakis, who is head of communications technologies for the EC's Race R+D programme. The first day will be concerned with the various applications of DSP technology, and will cover system and technology trends, mobile systems and new services. Day 2 will examine device technology, algorithms for applications and routes to implementation. The papers will reflect experience gained in a number of European countries and in the USA.

The associated exhibition will be open throughout the two days, and there will be ample time to discuss specific techniques and requirements with manufacturers and suppliers.

### Contact :

Miss Janine Wilson  
ERA Technology  
Cleeve Road, Leatherhead,  
Surrey KT22 7SA  
Tel : 0372 374 151, Ext. 2592 or 2288  
Fax : 0372 377 927

*XIII Magazine* and *XIII News Review* are published by the Directorate-General for Information Technologies and Industries and Telecommunications (DG XIII) of the Commission of the European Communities.

The opinions expressed in these publications do not necessarily reflect those of the Commission. All correspondence should be addressed to:

Mr Jean Siotis  
CEC DG XIII  
BU24 -01/03  
Rue de la Loi, 200  
B - 1049 Bruxelles

