

## DGXIII AT TELECOM 91

Mobile communications and multi-purpose media are scheduled to be "the stars of the exhibition" at Telecom 91, the world's principal telecommunications show, in Geneva this October.

The European Community stand brings its own 12-star backing to mobile communications by presenting the world's first international digital radio-telephony standard, GSM. Telecom 91 also sees the beginning of trans-European ISDN, scheduled to be interconnected throughout the Community for the single market of 1993. And the EC stand will demonstrate tomorrow's television, the international HDTV system.

European teamwork for an interconnected world - come and see us on the European Community stand, presented by the Commission's Directorate-General for Telecommunications, Information Industries and Innovation: DGXIII.

# INTERNAL MARKET

# Commission thinking on the european telecommunications equipment industry

In April the Commission put forward a strategy paper on the European electronics industries covering components, computers and consumer electronics(1). The document mentions other allied high-growth high technology industries, such as telecommunications equipment.

While discussing the paper, the Council of Ministers asked the Commission to investigate and assess the situation of the European telecommunications equipment industry with a view to coming up with a further paper. This investigation has been made. Its conclusions are presented in a communication that will be submitted for adoption to the Commission before the end of the year.

This second paper in the field of telecommunications and information technologies addresses more particularly the situation and prospects of the European telecommunications equipment manufacturers, recognizing that the industry is intimately linked with developments in the information and communications sector as a whole.

It describes the state of play of the industry and details the policies in the European telecommunications equipment industry required to complement the policies of market expansion which are already under way in the context of the implementation of the telecommunications Green Paper(2) and the subsequent Community legislation leading to the single market in the telecommunications sector.

The communication first analyses the present position of the Community's telecommunications equipment industry in the context of the world market. It then examines the strengths and weaknesses of European suppliers and looks ahead to how strengths can be built on and weaknesses remedied. The international trade position is then examined, as well as the expected market trends, before policy conclusions are drawn. Against this general background, specific action lines are proposed to promote the

development of the equipment sector.

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(1)The European electronics and information technology industry: state of play, issues at stake and proposals for action - Communication from the Commission, SEC(91) 565 final, 3 April 1992. See editorial in XIII Magazine, no 2, July 1991.

(2) Green Paper on the development of the Common Market for Telecommunications Services and Equipment, Commission of the European Communities, COM(87)290 final, Brussels, 30 June 1987.

## All clear for TEDIS II

A new three-year phase of the TEDIS programme (*Trade electronic data interchange systems*) was finally approved by the Council of Ministers on July 22. This second stage has a budget of 25 million ecus, 4 million for 1991 and 6 million for 1992. The total amount allocated to phase two is nearly five times as much as for the first phase (5.3 million ecus).

Tedis was launched in 1987 with the objective of ensuring optimal coordination of developments in electronic data exchange systems for trade. Among the measures foreseen under the programme are: standardization of electronic data exchange (EDE), telecommunications links among EDE users, legal aspects of EDE, information security, multi-sectoral and trans-European projects, analysis of the impact of EDE on enterprise management, and public awareness campaigns.

The second phase of the programme will be aimed primarily at three objectives: intersectoral integration of work carried out in the Member States on defining and implementing EDE systems; analysing the impact of this technique on the management of public and private enterprises, and the economic and social incidence of the measures; and making potential users aware of these systems, in particular small and medium-sized enterprises, software and hardware manufacturers, and service companies.

A first call for tenders was

published in the Official Journal of 20 August and the deadline for the submission of proposals was set for 10 October. A second call for tenders, covering the entire range of activities of the programme, will be published in the first half of 1992.

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### Satellite Green Paper

With the completion of the consultation phase of the Green Paper, on which a report was presented to the Council of Telecommunications Ministers at the beginning of June, the consequential legal instruments to be put in place to implement the policy proposals of the Green Paper are now being prepared.

The Netherlands presidency is also preparing, in association with the Commission and the other Member States, an overall resolution which would provide political backing for the proposals of the Green Paper. This is expected to be discussed at the 4th November meeting of the Council of Telecommunications Ministers.

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# Commission launches formal investigation into international telephone charges

A preliminary examination of international telephone charges has given the Commission reason to believe that the level of these charges both within the European Community and between Member States and other parts of the world might result from anti-competitive arrangements between Telecommunications Organizations in breech of EC competition rules. The Commission has therefore decided to proceed to a full and formal inquiry.

The Commission has writ-

ten to the Telecommunications Organizations in the 12 Member States requesting detailed information on their prices, costs and international pricing arrangements. This will enable the Commission to assess whether there is indeed a violation of the competition rules and to ensure that the level of international telephone charges is proportionate to the costs of the services provided.

The investigation covers both the charges to the users (known as collection charges) and the prices levied by each Telecommunications Organization to its counterparts in other countries for the delivery of the calls originating in those countries (known as accounting rates). The Commission will assess whether any arrangements between the organizations violate Article 85 of the Treaty, or whether they constitute the imposition of unfair selling prices in breach of Article 86.

The investigation is being pursued under Council

Regulation 17/62, which gives the Commission considerable powers of investigation in order to enforce the competition rules.

Sir Leon Brittan, Commissioner for competition policy, said: "The decision to proceed with a formal investigation shows the Commission's determination to ensure that consumers and business users benefit from maximum price transparency and full compliance with the competition rules".

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## Information Technology Industry: Corrigendum

Together with issue number 2 of XIII Magazine readers received a copy of the Commission's "strategy paper" on the European electronics and information technology industry.

Regrettably one of the tables reproduced in the annexes (page 24) was mistaken. The correct version is given below.

## Consumption and production of the IT and electronics industries by main geographical area

1989 (\$ billion)	CONSUMPTION				PRODUCTION			
	Europe	United States	Japan	World	Europe	United States	Japan	World
Components of which:	26.400	38.700	40.200	125.600	20.100	34.700	54.500	125.600
Active Components	13.200	21.200	26.100	73.000	8.300	18.100	37.100	73.000
Passive Components	13.200	17.500	14.100	52.600	11.800	16.600	17.400	52.600
Computers of which:	108.100	164.300	70.200	391.900	85.200	168.000	90.200	391.900
Computer Hardware	62.000	78.500	37.500	204.000	45.200	78.100	50.200	204.000
Software and services	27.600	58.800	14.700	115.000	26.200	63.200	14.000	115.000
Office systems	6.300	12.100	4.900	26.900	4.100	9.400	10.700	26.900
Automation	12.200	14.900	13.100	46.000	9.700	17.300	15.300	46.000
Consumer Electronics	23.400	24.800	16,300	84.000	12.900	10.800	35.700	84.000
TOTAL IN IT & ELECTRONICS	157.900	226.800	126.700	601.500	118.200	213.500	180.300	601.500
As %	26%	37 %	21 %	100 %	20 %	35 %	- 30 %	100 %

Source: EIC 1990

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## The Commission defines competition policy for european telecommunications

The Commission has adopted guidelines on the application of EC competition rules to the telecommunications sector. These guidelines are intended to advise public telecommunications operators, other telecommunications service and equipment suppliers and users, the legal profession and the interested members of the public about the general legal and economic principles which have been and are being followed by the Commission in the application of competition rules to undertakings in the telecommunications sector.

These guidelines do not create enforceable rights. Nor do they prejudice the application of EC competition rules by the Court of Justice or by national authorities (as these rules may be directly applied in each Member State by the national administrative or judicial authorities).

The fundamental technological developments worldwide in the telecommunications sector have caused considerable changes in the competition conditions. These have given rise to and stimulated a wide deregulation process propagated in the Community to varying degrees.

The guidelines on the application of EC competition rules to telecommunications explain the general principles of the the competition rules applicable to telecoms undertakings (Articles 85 and 86 of the EEC Treaty) and the relationship of these rules with competition rules applicable to States (Art. 90) and other Community law (for instance, harmonization on the Open Network Provision). The guidelines list examples of agreements restrictive of competition, and of cases in which an exemption (under Article 85(3)) may be justified. For example, the guidelines explain where agreements between telecom organizations (TOs) on terrestrial facilities (public switched network or leased circuits) or services (voice telephony for the general public) could be liable to restrict competition unacceptably, and on non-reserved services to third party undertakings, inter alia if trading terms are discriminatory.

On price agreements, the guidelines explain how the harmonization of tariff structures may be a key element to the provision of ECwide services, but that price coordination or the prohibition of discounting could cause particularly serious restrictions.

They also provide examples of abuses of dominant positions by public operators (for instance, refusal to provide access to the network, discrimination, cross-subsidization of non-reserved activities) and by private companies (e.g. abuse of standards or refusal to supply interfaces). Specific sections are devoted to restructuring (mergers and joint ventures), satellites, and the interplay with international conventions.

A change in the economic and legal situation should not automatically bring about a simultaneous amendment to the guidelines. The Commission, however, reserves the possibility to make such an amendment when it considers that these guidelines no longer satisfy their purpose, beause of fundamental and/or repeated changes in legal precedents, methods of applying competition rules, and the regulatory, economic and technical context. In particular the guidelines should take into account the progress accomplished in liberalization in the years to come and inter alia the outcome of the review of the situation in 1992 foreseen by the Commission directive on competition in the markets in telecommunication services of 28 June 1990.

## **PROGRAMMES IN ACTION**



## Call for proposals - R&D in telematics systems for libraries

The Commission invites the submission of proposals for area 5 (libraries) of the work programme for research and technology development in the field of telematic systems of general interest. The deadline is 2 December 1991.

The objective in this area is to facilitate user access to library resources through the optimum use and development of equipment and telematic services and products, at the same time overcoming the obstacles caused by fragmented and disparate infrastructures throughout Member States. It is intended to start a process which will accelerate the efficient penetration of new technologies in the development of modern library services.

The four sub-areas of work cover :

- Computerized bibliographies : both international services provided by national bibliographic services and retrospective conversion of catalogues of important international collections.
- International interconnection of systems and related standards.
- Provision of new library services using information

and communication technologies.

- Stimulation of a European market in telematic products and services specific to libraries.

Examples of some of the priority themes open for proposals in these sub-areas are: enhanced bibliographic records; use of different tools and methods for retrospective conversion (OCR/ICR, file merging interconnected etc.); OPACS; use of EDIFACT for acquisition functions; extended user access to bibliographic/catalogue information; new information products in libraries;

tool-boxes for interfacing; options and methods for multilingual access to library resources.

The proposed projects should demonstrate the technical and economic feasibility of shared tools, methods and resources in an operational environment.

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## Call for proposals - R & D in linguistic research and engineering

Following Council decisions on the 1990-94 Framework Programme for research & technology development and on the specific programme in the field of telematic systems of general interest, the Commission invites the submission of proposals for research and technology development projects for area 6 (linguistic research and engineering). The deadline is 2 December 1991.

The objective of the present programme is the development of a basic linguistic technology (natural language processing) which can be incorporated in a variety of applications involving natural language components, to help overcome the problems due to the variety of national languages within the Community.

The three sub-areas of work cover :

- Research aimed at improving the scientific basis of linguistic technologies.
- Creation of common methods, tools and linguistic resources.
- Pilot and demonstration projects.

Topics relating to sub-area 1 include, among others, interfaces with speech systems and applications, and use of advanced development environments for language researchers, developers and professionals; automated tools to facilitate reuse of existing resources and creation of new multifunctional resources; and machine-processable grammars, dictionaries, terminology collections and text corpora for the Community languages.

Detailed information on the objectives and themes covered by this call for proposals, and on submission procedures, is available on request, together with descriptions of work undertaken in earlier and related programmes such as EURO-TRA.

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## STAR Telecommunications service centres: the Irish model

Faster progress than expected has been made in the implementation of the Star programme (Special telecommunications action for regional development) in Ireland. The programme, covering the whole country, has a total budget of 92 million ecus, including a contribution of 50 million ecus from the European Regional Development Fund. Most of this is allocated to the infrastructure (84%), 16% going to promotion and the stimulation of demand.

For the infrastructure sector, several telecommunication links have already been set up or completed: the Ireland-UK submarine optical fibre link, the fibre optic link to the border with Northern Ireland, the packet switched network (EIR-PAC) including videotex access points, three videoconferencing studios, the extension of the cellular radio (EIRCELL) network, the IBS earth station and the DASSNET data transmission network.

Regarding promotion and

demand stimulation, the objective was the introduction of new services (databases, EDI, etc.), the establishment of service centres and a promotion campaign to raise awareness of advanced telecommunications services. The originality of the Irish model is the emphasis put on the creation of telecommunications service centres in key locations that will serve particular regions. The centres, organized by local groups, are geared to local needs.

Four Star projects to set up centres are in progress and a fifth is planned. The Starcentres are used to host other Star projects, and to demonstrate and provide training in advanced telecommunications services. The centres differ in size and configuration according to local conditions but they generally offer the following services: information and advice on advanced telecommunications services; access to services, including Star databases: demonstration and assistance; and the creation of locally-based information services (tourist videotex, databases, etc.).

The following centres have been created :

- The Regional Advanced Telecommunications and Information Technology Centre, Letterkenny (Donegal), which introduces SMEs to both advanced telecommunications services and information technology. It has videoconferencing facilities and has established a local tourist videotex service, "Kisstell".
- The Medium scale Telecommunications Services Centre, set up "Undaras na Gaeltachta", serving the Irish-speaking region and offering similar functions to Letterkenny, with a particular role to promote the Irish language and to maintain indigenous enterprise in the area.
- The "Vistar" project, consisting of six small advanced telecommunications units in the mid-west (Limerick region) set up by

the Micro Electronic Application Centre at Limerick University. They simply consist of a computer, modem and software to facilitate easy connection to databases.

- Five small centres in the south-west coordinated by RTC in Cork. These centres are being established by local chambers of commerce and are closely geared to the local economy (fishing, craft industries).

The last project, the South Tipperary centre located in the tourist town of Cashel, is still at the planning stage.

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## Impact Information Day Presentation of Impact 1 project results

Based on the success of the Knowledge Transfer Workshop held in October 1990, during which demonstrations were given of a number of projects carried out under the Ec's *Impact* (*Information market policy actions*) programme, a second meeting is scheduled for 6 November 1991 at the European Commission in Luxembourg.

Status reports will be given on two advanced information access projects demonstrated last year : NLA and Max NLA (natural language access) enable inexperienced users to ask questions in "natural" (i.e. spoken) language. Max, a "talking robot" or interactive voice system, with which the enquirer can carry on a limited dialogue, is the culmination of a research project involving speech recognition and speech output.

A completely new project, MIM, will be presented. This demonstrates multilingual database interrogation, in which full-text databases can be accessed using languages other than the original database language.

Further papers will deal with the European Com-

mission Host Organization's presence in all operational European videotex systems, and its contribution towards multilingual information distribution, in particular through the medium of the I'M Guide, a comprehensive directory of European information services. The results of three pilot and demonstration projects (probably TECDOC, Mediterranean Atlas and Disnet) developed by commercial firms from the private sector will also be featured.

In presenting results of the Impact 1 programme, the meeting will demonstrate the active role played by the Commission in developing the European information services market, as well as illustrating ECHO's activities in promoting electronic information services through innovative experiments.

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## MAX at EXPO'92, Seville

The popularity of Max, the conversing robot introduced by ECHO, the European Commission Host Organization in Luxembourg, continues to increase. Max is reported to be receiving calls at all times of the day and night to answer questions about the Community, in particular following his television debut on German television in April. Statistics for the month of June record calls received from Germany alone totalling more than 5000. Max, also operational in French and English, is accessible from most Member States via a freephone number.

So impressed by Max and his success were the organisers of next year's world Expo in Seville, Spain, that they have invited ECHO to set up a demonstration during the event, with Max available to understand and respond to questions in Spanish.

For those unfamiliar with this ECHO service, Max can be accessed by almost anyone, with the minimal requirement of a telephone and no training necessary. Max "understands" a limited vocabulary including Yes and No. Continue. Spell, Repeat, Help and Stop. He offers a choice of topics about which he can speak and the caller selects one by indicating the appropriate number. Topics include details of EC programmes, daily ecu exchange rates, monthly statistics on major economic indicators, addresses and telephone numbers of EC offices in Member States, news about ECHO, etc.

For futher information, contact ECHO (see above).

## Second IMO report identifies information services market trends

The European Information Market Observatory (IMO), established as an action line of the Impact programme, recently presented its second annual report based on data collected in 1990 on events and developments in the European electronic information services market.

Trends identified during 1989-1990 in four sectors online ASCII databases, videotex, fax-based/audiotex services, and CD-ROM publishing - revealed that a wide diversity of markets is served by these channels in terms of financial services companies, research institutes and consumers. Massmarket applications have become feasible due to the installed base of 120 million telephones, 6 million videotex terminals and 3.2 million fax machines in the Community. CD-ROM and CD-I are attracting increasing interest from consumer electronics manufacturers and publishers, especially in educational applications.

Figures for 1989 for access to information by electronic means showed expenditure within the EC of 3000 mil-

lion ecus - less than half of that in the USA. Although ASCII online services predominated, CD-ROM, audiotex and videotex experienced faster growth rates. Increased uptake of electronic information services by traditional publishers was reported, through either acquisition of American firms or operating in the US market, rather than by developing such activities in fragmented national markets, or on a European basis.

Opportunities for newspaper and magazine publishers are enhanced by the development of videotex, audiotex and fax-based information services, which extend the potential market dramatically. The very large storage capacity of CD-ROM and scope for media combinations with CD-I make this optical publishing sector increasingly attractive for dictionaries, encyclopaedias, educational and reference books.

There are still obstacles to the creation of pan-European databases (for online or offline distribution). Increased harmonization

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and standardization of primary data collections are necessary if EC companies are to benefit from access to information on national markets which depends on data produced by government and public organizations (market research data, mailing lists, credit ratings, company information).

The report finally addresses policy issues such as the creation of a European "kiosk"; the emergence of fax as a key component of the telematic infrastructure; the effect of "mobile services" on electronic information services; the convergence through common standards of multimedia platforms; and ISDN. Concepts like "kiosk", one-stop shopping and open network provision are seen to be crucial elements of a Community telematic infrastructure.

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## **OPEN INFORMATION INTERCHANGE**

Open Information Interchange (OII) is a Commission initiative to promote awareness and use of media-independent coding standards for information interchange in the electronic information services market. The initiative is part of the proposed Impact 2 programme.

A two-day OII workshop, held in Luxembourg on 27-28 June, gave an account of the current situation and prompted discussion of the future path of OII activity with those active in the application of standards in the information market. More than 50 participants attended, representing information providers, standards makers and software developers.

The keynote speech was given by Mari Pijnenborg, director f strategic planning at Elsevier Science Publishers, who discussed his expectations of the development of scientific-technical-medical publishing in the next 10 years, focusing on the growth of the digital library environment and the standards that are needed to make it a reality.

Richard McArthur of Pira International presented the results of a study of OII standards commissioned by the CEC from IEPRC. Phil Homes of Jordan's, chairman of CD-ROM SPAG (CD-ROM Standards & Practices Action Group), spoke about the standardization issues for CD-ROM and multimedia production, and Volker Reible of Detecon outlined online requirements based on the Berlom project experiments with telepublishing.

Other speakers presented their experience with telepublishing projects, graphics standards, multimedia projects, hypermedia, SGML and ODA. A user perspective from the engineering industry was given by Phil Buckberry of British Aerospace and US experience was reported by Jon Cunnyngham of the Foundation for Electronic Publishing.

Considerable time was devoted to discussion among the representatives of the various groups of the scope of OII, the standardization process and the proposed CEC work programme of OII. Work items given greatest priority by participants were the development of a reference model to provide a firm base for discussion of the issues, and the generation of an information base to help information providers make better decisions on the use of standards in their products. An important point highlighted was the current lack of resources for action where applications require the integration of standards from different working groups.

The workshop provided a sound platform for launching further activities in OII. Over the next 18 months a variety of actions are planned, including work on a reference model for OII related standards, a workshop on hypermedia standardization and a follow-on to the initial workshop, a study of image standardization problems, publication of the workshop proceedings and the IEPRC study, and further definition of the OII community and its information requirements with a pilot information service.

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## Action on Audiotex Inaugural Meeting of EIIA Chapter

Following an audiotex workshop organized last December by the Commission, the European Information Industry Association (EIIA) held the first meeting of its Audiotex Chapter on 14 June at the CEC, Luxembourg. Among other recommendations on the development of audiotex services in Europe, the workshop identified the need to establish a European code of practice and to initiate action to set up pan-European premium rate

services (PRS). These specific themes were addressed at the June meeting, which was attended by about 50 participants representing mainly European information and service providers, equipment suppliers, network operators and regulators.

David Worlock, EIIA President of Council, introduced Wolfgang Huber of DG XIII-B/1, who outlined action lines of the Impact programme that may influence audiotex : overcoming legal and administrative barriers, increasing user-friendliness and improving information literacy.

The main presentation of the morning session devoted to a European code of practice was given by Claire Monville and Etienne Montero of the Centre de Recherches Informatique et Droit (CRID), University of Notre Dame, Namur, and dealt first with law and new information technologies, as well as codes of deontology. It was concluded that a code must make provisions for information to the user concerning the service, the quality of information supplied, the quality of service supplied, and promotional and advertising activities.

Shorter presentations focused on the crucial need for consumer protection, the need to balance business interests, and special requirements for banking services.

Concentrating on the development of pan-European premium rate services, the

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afternoon session featured a summary by Jennie Wilson, Halcyon Solutions, of the service requirements. Access should be available to callers from all countries regarded as European: billing should be through the PTT; services should observe a pan-European, not a national code of practice; costs should be in line throughout the Community. Existing problems revolved around interconnectivity, cross-border billing, international number codes, capacity, tariffs, and the range of languages required.

This inaugural meeting generated a good level of interest and interaction. In the final part of the programme, Mr Worlock outlined plans for proceeding with practical action. Two working groups (European Code of Practice Working Group and PRS Group) were announced, with the specific brief of addressing problem areas. The groups were encouraged to define objectives and work programmes at the earliest opportunity and be alert to technological advance.

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## **The European Software and Systems Initiative - ESSI**

The European Software and Systems Initiative, Essi, aims to secure a sharp increase in the productivity and capabilities of systems and software engineers by encouraging the take-up and use of modern system design and program production techniques. A two-year pilot phase has been propo-sed, with ECU 100 million of Community funding, as part of the information technology area of the Commission's 1990-94 Framework Programme for research and technology development.

European companies continue to become more and more dependent on information technology (IT) to achieve and maintain internal efficiency, quality of service and their competitive edge. Manufacturing industries are critically dependent on access to state-ofthe-art hardware and software - both for their IT systems, used to optimize the deployment of production lines, shorten product design and development times and handle general administration, and in their products themselves, many of which contain a considerable software element. Service industries are dependent on IT to improve the timeliness and quality of the decisions taken and advice given - state-of-theart hardware and software is a key part of the service offered. And public administrations are no less reliant: the effective operation of the single European market will be impossible without high-quality integrated systems that support, for example, the smooth movement of goods between EC Member States.

These information technology systems are themselves extremely software-intensive, with the software component often accounting for the majority of development and purchase costs. And the demand for software is with the increasing, European software and services market showing healthy growth at the same time as the ratio between software and hardware expenditure by European users shifts increasingly in software's favour.

Yet software is difficult to specify and design; its development is costly and timeconsuming; and it is not easy to test programs comprehensively for failures that might occur during their use. Most system designers and programmers working today employ software tools and methods developed at least 20 years ago; though users of more recently invented techniques report significant gains in productivity and quality, it often takes a decade for new methods to make the move from research institute to industry.

These factors have led to an acute crisis of supply. Software creation is still largely labour-intensive, and the demand for suitably skilled people continues to outstrip the resources available. The industry badly needs many more software engineers trained in the use of advanced methods just to meet the present demand for software, let alone the forecast level. Furthermore, with current methods it is frequently easier to rewrite programs than adapt and reuse them, which increases costs and production times. Nor can the current state of the art deal with the stringent requirements for higher quality and levels of integration that stem from the growing incorporation of software into aircraft, railways, mass-transit systems and other such safety-critical applications.

Essi will address these issues in three main ways:

Application experiments: Essi will provide funding for people working in the applications development field to try out and report on advanced methods and tools. The intention is to reach software project leaders, key opinion-formers who are in a position to introduce and foster the use of new techniques.

. Training: Essi will establish a mechanism for funding a large number of activities aimed at establishing the better understanding and acceptance by software practitioners of the best methods and tools available, underpinning this with provision for the upgrading of existing skills.

Dissemination: Essi will set up Community-wide dissemination activities to link developers with users and ensure the rapid transfer of new and proven tools and methods into industry. Software clearing houses (repositories of tools, methods and environments accessible to developers and users) will play a major part in this process. This strand of Essi is directed towards individual users and software developers, and the creation and widespread adoption of standards is a particular objective.

SMEs will feature very strongly throughout Essi. The growth of independent software suppliers has been dramatic and there are now some 13,000 enterprises in the European Community, mainly small and very small, operating in this sector. The strengths of this vigorous and comparatively new industry are particularly apparent in systems integration and custom software packages, where Europe has developed a world-class reputation, and it is here that Essi can particularly foster the gaining and maintaining of competitive advantage through stimulating the adoption of the very best specification, design and production techniques. The organizational structure planned will comprise a service organization responsible for day-to-day operations and an Essi board charged with strategic oversight and coordination. The start-up schedule involves the initial selection of the Essi service organization by open competitive tender.

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## VALUE: Geovariances wins award in Eurochallenge 91

Eurochallenge, the "springboard of European competition", is an open compatition for European companies willing to promote a research project, which they have previously defined, across Europe. In the 1991 edition, Eurochallenge was organized under the patronage of Commission President Jacques Delors.

Eurochallenge '91 awarded Geovariances SA, an SME located at Fontainebleau (France), with the special prize "Défis - Eurocréation : Jeunes Entrepreneurs Européens" (Eurocreation challenge : Young European Entrepreneurs).

Their research project concerned the promotion of the OP.MINE software for open-pit coal mines in

VALUE:

Spain, Germany, UK and France.

Geovariances was created in 1988 by three engineers (Luc Sandjivy, 36, Jacques Deraisme, 42 and Jean-Jacques Perandin, 32), former researchers at the Ecole des Mines de Fontainebleau. Their idea was to apply geostatistics to several fields : the exploitation of oil sites, quarries, mines, etc. Since then, they have developed specific software now being used by worldwide clients (Total and Mines de Carmaux in France, Mobil and Amoco in the USA, in Brazil and South Africa).

The Community has strongly supported the research work of Geovariances, firstly through two research contracts for developing the OP.MINE software, in the framework of the primary raw materials R&D programmes managed by DG XII/C. and more recently by a new contract in the framework of the Value-SME's support scheme (joint action between the Value programme and the Commission's Directorate-General for enterprise policy, distributive trade, tourism and cooperatives. DG XXIII) for the industrialization and testing of the OP.MINE package. This on-going project is being carried out in cooperation with their partners Mining Italiana S.p.a.

This project is a good success story both for the primary raw materials R&D programme and Value. The latter offers Community contractors and/or their exploitation partners support for promoting the results of their research results. The type of aid can cover different actions such as market surveys, the search for industrial partners, the financing of prototypes or the production of dissemination material.

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## Value to cooperate with Flair in the Flair-Flow Europe project.

The Flair-Flow project is exploring existing and new national routes and procedures in EC and in some non-EC states for the dissemination of food-related information stemming mainly from the ongoing Flair programme (Food Linked Agro-Industrial Research programme) to SMEs, consumers and policymakers. An analysis and assessment of the effectiveness of alternative ways of checking the efficiency of the dissemination process is also being made, as is feedback from SMEs and consumers on the usefulness of the disseminated information. The project began with two special studies in Germany and Spain (commissioned by the Value programme) on the flow of foodrelated information. These studies are serving as models for the projects in other countries.

The project is organized via national networks which

disseminate the "tailored" information on an ongoing basis. The project is managed by a project leader together with a five-person team. Each participating country has a national network and a network leader. The national network leaders together with the project management team and occasional co-opted experts comprise an international network which meets twice annually. The information from the Flair projects is summarized by the project management team into practical elements suitable for dissemination to SMEs and consumers on an ongoing basis. Linkages of interested SMEs and consumer groups with the actual research workers is a major priority of the project.

The national networks represent the kernel of the dissemination process. Each is headed by a network leader and comprises from 15-

20 national personnel involved in (and/or highly motivated for) dissemination. The network members are from organizations and institutions involved with the food industry, such as confederations of industry, the media, food promotion and marketing organizations, ingredient and equipment suppliers, quality associations, food R & D establishments, consumer groups, government departments, the multiple medical organizations and EC information offices. Each national network meets twice annually. National network leaders are the key personnel as regards the successful outcome of the project. The functions of a national network leader include : establishing a viable national network annually and assessing the "pulse" of network reaction to information suitability; assessing information flow methods; pushing edited Flair information through the network system and assessing feedback; reporting progress at meetings of the international network; entering Flair information on in-house databases.

Some of the anticipated results and benefits from the project include :

- 1. Deep penetration of accurate and useful information from the Flair programme to SMEs and consumers in each of the participating countries; this should in turn enhance a two-way flow of information, thereby bringing SMEs and/or consumer organizations into direct contact with the workers in particular Flair projects.
- 2. The identification of new methods and routes for information flow and also ways of assessing the quality, accuracy, usefulness

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and penetration of the dissemination informa-

3. The setting up of key dissemination networks in each country for the dissemination of information flow and feedback will be worked into a dissemination blueprint which could be used as a model for other EC programmes.

An evaluation of the pilot plase of Flair-Flow Europe will be made at the end of 1991.

## **Report on Information Security**

DG XIII has just brought out a report on "Information Technology Security Evaluation Criteria" which is an updated version of a draft report which had already been made public in 1990. The report reflects efforts of France, Germany, the Netherlands and the United Kingdom to jointly define and to agree upon common, harmonized security criteria in the information technology field.

Cooperation of the four Member States and the EC Commission shows that public authorities increasingly recognise the need for the definition of common security criteria at European level and that they wish to benefit from another's experience in this important area. Industry strongly supports these efforts.

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## Proposed projects for Race and telematics systems

As part of the EC's third Framework Programme for research and technological development, two public calls for proposals were published in mid-June addressing the communication technologies programme (Race) and the programme for telematics systems in areas of general interest (including the follow-up of the programmes Aim, Delta and Drive).

The deadline for the submission of proposals, was 16 September.

A first quantitative overview (which was not finalized at the moment of going to print) shows that the response was impressive. A total of 665 proposals for both programmes have been submitted, of which 180 proposals addressed research and development to be carried out in the follow-up of Race and 485 proposals addressing the various action lines of the telematics programme.

The breakdown of the 485 telematics proposals is as follows:

36 for trans-European networks between administrations. 134 for Transport services (Drive).

170 for Health care (Aim).99 for flexible and distance

learning (Delta). 46 for telematics systems for rural areas.

The qualitative evaluation of proposals will be carried out by outside experts from all EC Member States. The Commission is confident that the evaluation and subsequent contract negotiations will allow contracts to be signed before the end of the year so that work on the selected projects could start in early 1992.

## The 1991 Esprit exhibition

The 1991 Esprit Conference will be held in Brussels from Monday 25 November to Friday 29 November. The conference is a key element of the annual Esprit operation cycle and of the process of disseminating information on Esprit. It is the major annual public event of the Esprit programme.

This year's Esprit conference will be devoted to the results, achievements and new perspectives of information technologies within the Esprit programme. During the first three days (25-27 November), project results will be presented in plenary and parallel sessions. These sessions will be complemented by panel sessions and workshops where invited speakers will discuss issues relevant to Esprit. The conference proceedings will be available for all those who have paid the registration fee.

During the Information

Technology Forum on Thursday 28 November, a number of prominent speakers from industry, politics and science will address the conference.

The conference and IT Forum will be complemented by an exhibition in which more than 140 projects will demonstrate their results. The exhibition will be open on 25,26,27 and 29 November and facilities will be available for informal meetings. Additional projects will participate via poster displays or videos.

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## ITHACA'S software technology signals the future

An Esprit technology integration project in the office and business systems area could help pave the way for major breakthroughs both in Europe and the USA, in the development of an *inte*grated toolkit for highly advanced computer applications, and provide project participants with a pre-competitive product designed to construct high-quality software quickly at a fraction of cost.

The Ithaca project (Esprit 2705) is being developed by a consortium led by Siemens Nixdorf Informations systeme (SNI) (Germany), Bull (France), Datamont SpA (Italy), TAO SA (Spain), FORTH (Greece) and the Centre Universitaire d'Informatique (Switzerland). The two latter organizations are renowned in the field of object-oriented technology, which features prominently in the project.

In order to provide interested user groups with a taste of things to come, the Ithaca kernel technology can already be tested and assessed under the terms and conditions stipulated in an evaluation licence agreement which can be obtained from SNI, the partner mainly responsible for development of this component. Before the project ends, it is planned to offer similar licenses for other components of the Ithaca system.

The mainstay of future software development is objectorientation and the incorporation of industrial standards, such as Motif, play a major role in achieving this goal.

The experience of the project participants has helped make Ithaca a major success in the field of objectoriented application support system development. The Ithaca technology is already able to prove its worth in the future market for highly efficient, integrated software production environments to safeguard investments in the long term.

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### Europe leads the world in CAD framework technology

Thanks to Esprit's JESSI CAD-Frame project (5082), Europe can claim to lead the world in demonstrating advanced computer-aided design CAD framework technology.

At the San Francisco Design Automation Conference held on 17-21 June, the CAD Framework Initiative (CFI) exhibit, which included the first prototype version of the JESSI common framework together with other commercially available partial frameworks, was able to demonstrate commercial adoption of the CFI standard guidelines through international cooperation.

The demonstration allowed a range of tools from different companies to interwork on a range of CAD frameworks, including European tools on US frameworks and vice-versa.

Siemens Nixdorf Informationssysteme (SNI) have announced a new product called Frameware which incorporates CFI standards. The product is based on the first release of an earlier prototype CAD framework as a result of collaboration in the Esprit project.

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### Harlequin's knowledgeworks

Based on Esprit re-search UK Lisp-company Harlequin has launched a development environment called Knowledgeworks for creating object-oriented knowledge-based applications. It has access, via LispWorks, to windowing interface tools and an SQL interface. Knowledgeworks supports CLOS and provides a mix of paradigms for knowledge representation, including objects and rules. It incorporates a full graphical development interface, with Emacs-style editor. Rules are compiled into machineexecutable code and, Harlequin claims, the optimal use of CLSO provides a high-performance delivery system.

Knowledgeworks runs on top of LispWorks and is available for development and delivery on most major Unix workstations.

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PARADISE, the Cosine X.500 pilot, was launched last November to provide an international directory service for the European R&D community and to coordinate national pilots across the 18 countries participating in Cosine. A distributed directory has long been seen as a key element in creating an infrastructure which will allow the spread of other OSI applications, such as electronic mail (X.400) and file transfer (FTAM).

The project recently announced a simple public access interface to enable anyone with access to a network to look up information about colleagues across Europe, North America and the rest of the world. The service is able to provide a range of information about participating organizations and their employees, from telephone, fax and room numbers to corporate logos, photographs and voice mes-



# PARADISE - an X.500 directory for the research community

sages for those with more sophisticated terminals.

Paradise is managed by University College London (UCL), X-Tel Services (Nottingham) and a group of service providers - PTT Telecom (Netherlands), PTT Switzerland and Telecom Finland - whose role is to survey the responses of the European PTTs to the problems of large-scale migration of existing telephonybased services to the X.500 standard.

The operational core of the project is the provision of a central directory system agent (the distributed directory database) and directory user agent (the user interface), both of which are based at ULCC and managed by X-Tel.

Over the summer Paradise released a package featuring both DSA and DUA software to offer a turnkey solution for organizations wishing to use the directory service or actively participate in the pilot.

The international directory is new and growing steadily. It began at the Esprit Conference in November 1988, which saw the first demonstration of a distributed OSI directory. The six DSAs, involving five organizations in the UK, Norway, the United States and Australia, contained a directory tree of 10,000 entries. Almost three years later, the global directory in 20 countries has 200 DSAs, involving 500 organizations and over 350,000 entries.

One aim of the project is to stimulate the market for X.500 products and to demonstrate their interoperability in the pilot. Currently the principal implementations used in Europe are those developed at UCL (QUIPU) and INRIA (PIZARRO) under the Esprit INCA and THORN projects.

The Paradise directory service can be contacted via the IXI service using the number 2043 3450 400 254, log-in "dua".

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## A Preliminary Assessment of the IXI Pilot Service

A review of the first year of operation of the IXI Pilot Service recently confirmed the following preliminary results.

IXI has shown that an X.25 backbone network is a viable solution for carrying both X.25 traffic and for other protocols by means of "tunnels", i.e. encapsulating other types of traffic in X.25 packets. By suitable adjustment of operating parameters, high levels of throughput are achievable.

It has become evident that the management of concatenated networks requires new tools and skills beyond those normally used for the operation of national networks. In particular, good contact between network management centre (NMC) staff at the operational level is needed to solve problems. Quality of service definitions are needed; the overall reliability of the backbone network may be satisfactory, but the perception of the network quality for connected networks has in some cases been adversely affected by failures of individual links.

The current regulatory environment, and the changes taking place, created some difficulties in establishing the service, particularly in the area of connection to public networks. In several countries special exemptions were required in order to permit interconnection between IXI and private research networks.

The pilot service had as a major objective the investigation of the management and operational requirements of a Europe-wide data network. Funding and operational responsibilities are seen as major areas to be addressed for the production service. The pilot service has been fully funded by the Commission and the non-Community Cosine countries. In future, the service must be sustained through charges to its users. A suitable mechanism for this, together with the appropriate organizational structures for pan-European service provision,

are under discussion between Cosine and RARE.

New management structures will be required for operation of the production service to ensure coordination between networks in tracking and resolving problems. These are now under consideration.

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## Y-NET awards service points contracts

Subscribers to Esprit's Y-Net pilot OSI project now enjoy a wide range of potential communication partners. The project provides EC R&D participants with access to open communications, not only to other subscribers of the Y-Net service but also to the RARE/ Cosine community and soon via gateways to EUnet and EuroKom.

In September, the Y-Net

X.400 service began its initial phase. During this phase the remaining service points will be gradually integrated into the network, providing full connectivity to its user community.

The Y-Net Management Unit (YMU) and Switch, the managing organization of the Cosine MHS project (Cosine MHS S2.1), have agreed to interconnect the Y-Net and Cosine X.400 networks. Successful interconnections have already been established in France, Germany and Italy.

Y-Net also offers gateway facilities between its X.400 networks and other e-mail networks. A EUnet gateway is now being installed at INRIA (France) and will be operative this autumn. A gateway between EuroKom and Y-Net is also being implemented. Y-Net will also use IXI.

Researchers and SMEs involved in EC R&D projects who would like to subscribe to the Y-Net service free should contact either the YMU or their national contact point.

#### **Contact:**

Teleo/YMU 12 Rue du Trône B-1050 Brussels Tel: +32 2 514 31 32 E-mail: C=DE;ADMD=DBP;PRMD=Y-NET;O=SN=Corte;GN=Carlo E-mail: C=DE;ADMD=DBP;PRMD=Y-NET;O=SN=Berrino;GN=Carlo E-mail: C=DE;ADMD=DBP;PRMD=Y-NET; O=SN=Manuello;GN=Daniela

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## VALUE enhances National OSI R&D Networking Infrastructure

Several initiatives backed by the Community's Value programme (Valorization and utilization for Europe) aim to improve pan-European R&D networking in general, and collaborative research in particular, through OSI- based networks: the EUREKA Cosine project, RARE and national R&D networks.

OSI networking in Member States varies from an advanced state to initiation of the first steps. Usage of standardized communication infrastructures is essential for collaborative projects such as Esprit, along with the use of Cordis (Community research and Development Information *Service)* and other Community databases to retrieve information.

The objective of the initiative is to promote the availability in each Member State of an OSI based networking infrastructure and associated services, with emphasis on the service aspect. The following general characteristics apply for projects under Value sub-programme II:

Initiatives must be linked to the Cosine message handling services and Y-Net projects covering technical, operational and organizational aspects;

Projects should improve geographical coverage of

OSI networking, establishing a quality level of R&D network service throughout Member States.

They should aim at improved pan-European R&D network service for academic and industrial R&D networking users.

Initiatives should be co-funded, if possible, attracting public and industrial support to ensure long-term availability of proposed services.

Basic user services are required, related to electronic mail (message exchange), file transfer and directory services.

A number of projects for

electronic mail services based on CCITT X.400 recommendations will be initiated in certain Member States this year and further projects relating to directory and file transfer services will be initiated in 1992.

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## RARE: Second joint european networking conference



From 13-16 May 1991, RARE held its 2nd Joint European Networking Conference in Blois, France, in the middle of the historic Loire chateaux region. Nearly 400 networking specialists from 19 European countries, Israel, the United States and Australia attended the conference.

During the four-day conference, the latest technical developments in research networking were discussed. In more than 50 presentations aspects of progress and problems in the area were considered. RARE organized the conference in cooperation with NORDU-NET, EurOpen, EARN, the IAB and the French Ministry of Research and Technology.

One of major themes of the conference was "The Networked Campus". The importance for universities to keep pace with technical developments was highlighted by several speakers, as were the difficulties in doing so. The intricate operations of different services on multiprotocol networks, with their range of gateways and management problems, were also addressed. Other topics included : funding and policy, CONS/ CLNS interworking, group communication, network management strategies and techniques, applications and services, high performance strategies and techniques, security, multimedia techniques, lower layer technology and distributed systems. Proceedings of the conference will be published in October in a special issue of Computer Network and ISDN Systems.

Notable at this conference was the growing involvement of European with non-European networking organizations. In particular the number of attendees from the United States was substantial. For the first time, the US-based Internet Activities Board was actively involved in organizing the conference.

In an after-dinner speech, DG XIII's Esprit operations manager Horst Hünke helt that research networking still has a long way to go. He stressed the need for a clear, agreed statement of the interests, motivations and objectives of the European research networking community. Better communication between users, networking service providers, the common carriers, the funding bodies and the decision-making world, he said, will be essential to guarantee progress. He encouraged RARE to continue developing into a strong, viable and responsible organization able to provide the required services at the pan-European level.

Through this 2nd Joint Networking Conference RARE intends to give a new impulse to activities to create a harmonized computer communications infrastructure within and from and to Europe. With the help of others RARE will continue to support efforts to this end. The fast-growing interest in international cooperation between research networking organizations was evident at this conference

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## **EuroKom News**

This has been an exciting year for EuroKom staff, following their transition to a company limited in January. Apart from the Computer Mediated Conferencing service, which continues to grow more and more popular, they are being asked to tailor the service to specific needs, provide a special-purpose functionality and implement some innovative new services.

There are now a number of database packages (including dBASE) running on the EuroKom host; a number of clients are developing database applications which will collect data at personal computers around Europe and pass it to EuroKom, using special-purpose, unattended, scripted file-transfer sessions, thus maintaining a consolidated database on the host.

The first example of this technology was the Eurocontact system which was successfully implemented for the recent Esprit call for tenders. A new dBASE system was developed for the national contact points throughout Europe; special communications facilities were provided; and the entire system, with data being collected at the contact points, flowing into the central host and being made available to the general user community, is working smoothly and efficiently.

EuroKom connectivity continues to expand. To access EuroKom, users now have the choice of:

**X.25** - EuroKom is connected to the global public X.25

#### **BE OUR GUEST**

In issue 2/91 of XIII Magazine, there was an unfortunate omission from the EuroKom article. The EuroKom GUEST system was announced, which allows prospective users to try out the service free of charge. A box giving details of how to access this system was omitted. Our apologies.

#### Here it is:

Becoming a guest of EuroKom Use your PC and modem,

or your regular terminal, to connect to the EuroKom host computer in any of these ways:

- X.25: EuroKom's NUA is 0272431001992
- JANET: EuroKom's JANET address is 0000 2300 3007

network service.

**IXI** - IXI is a CEC-sponsored European X.25 network, which gives access speeds of 64Kbit/s to subscribers. IXI can be accessed via private leased line (EuroKom) or through the national PSPDN.

**Internet** - The Internet is a world-wide research network with over five million subscribers. Remote log-ins to the EuroKom host (using telnet) and file transfers (using ftp) are supported.

**JANET** - The JANET network is a private X.25 leased line network for the UK academic community. Since access to JANET is free, users connecting to EuroKom in this way do not incur any X.25 connection charges.

Dial-up - For users who

- IXI: Our NUA on IXI is 2043 7250 1992
- Internet:EuroKom's address on the Internet is 137.43.19.92. (We require that your own Internet address is registered with us before you are permitted access).
- Use the dial-up (voice) telephone network. The telephone number is

cannot avail of any of the access methods described above, direct dial-up to the EuroKom Service, at speeds up to 2400 baud, is offered. A range of mail and file transfer protocols are offered, including:

**RFC Intermail** - RFC-822 is the mail protocol used on many international networks, such as the Internet, USENET etc.

**Uucp File Transfer** -Uucp is used for file transfer between the EuroKom host and a user's Unix machine over X.25.

**PSI Mail** - PSI mail is used for VAX to VAX mail over X.25 - both sides need PSI software and a connection to X.25

+353-1-2838455. When the EuroKom host computer answers, specify EUROKOM as the service your require. When the system confirms that you are connected, press RETURN twice.

When asked, give the Username EVALUATION, and the password EURO-KOM.

**INTERNATIONAL PERSPECTIVE** 

## EIB finances submarine cable linking France, Portugal and Morocco

The European Investment Bank is providing a loan of PTE 3 000 million (16.8 million ecus) (1) to Companhia Portuguese Radio Marconi S.A. (CPRM), the Portuguese member of a consortium set up to operate a new submarine telecommunications cable linking France, mainland Portugal, the island of Madeira and Morocco. The other major partners in the consortium are French, British and Moroccan companies. CPRM will use the funds to part-finance its share in the investment.

The scheme comprises around 3,300 km of optical fibre submarine cable linking St Hilaire on the French Atlantic coast, Sesimbra to the south of Lisbon, Madeira and Casablanca (Morocco). The cable between France and mainland Portugal will have a capacity of 15,000 circuits and the sections from mainland Portugal to Madeira and Morocco of about 7,700 circuits each. The Madeira section will allow connection to a planned cable linking Europe with South Africa.

The total cost of the project is estimated at 104 million ecus, including terminal stations. The EIB's board of governors has granted the special authorization required for EIB financing of projects in the common interest of the Community but located outside the territory of its Member States. The cable is expected to go into service by mid-1992.

(1)Conversion rates used by the EIB during the first quarter are those on 30/06/91 when 1 ECU = FRF 6.96, PTE 178.7, DEM 2.05, UKL 0.699, MAD 10.49

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## **EIB** loan for Polish telecommunications

The European Investment Bank is advancing 70 million ecus(1) for the modernization and expansion of Polish telecommunications. The 17-year loan, to Polska Poczta Telegraf i Telefon (PPTT), the company currently in charge of telecommunications in Poland, will be used to finance an emergency investment scheme within a larger development programme. It comprises the implementation of a digital overlay network to improve inter-urban and international communications, and increase the level of service required in the

context of the liberalization of the Polish economy. The scheme includes 12 trunk exchanges interconnected by 18 digital microwave radio links, 1500 km of optical fibre cable, a Eutelsat groundstation and a national control centre, as well as the connection of some 60,000 high-usage businesssubscribers and the provision of better access for long-distance communications. The work, due to be completed by the end of 1993, is also supported by the World Bank and the Commission of the European Communities, which is

financing technical assistance.

This is the fourth EIB loan in Poland, bringing total EIB finance for projects in the country to 165 million ecus. Previous financing included 50 million ecus for a scheme to rehabilitate the production, treatment and storage of natural gas; 20 million ecus for railway rolling-stock repair-shops; and a global loan of 25 million ecus to the Export Development Bank, Warsaw, for on-lending to small and medium-sized projects, particularly export-orientated businesses and related services. The European Investment Bank's board of governors has authorized the EIB to lend up to a combined 1.7 billion ecus in Bulgaria, Czechoslovakia, Hungary, Poland and Romania, as part of the Community's policy to help these countries introduce marketorientated economic systems.

(1)Conversion rates used by the EIB during the first quarter are those on 28/03/91 when 1 ECU = DEM 2.06, PLZ 11 400, GBP 0.69, FRF 6.98, USD 1.20.

### PHARE projects in telecommunications

An ECU 6 million programme was decided at the end of June, for support to the reorganization of the Czechoslovakian telecommunications system, with the following main components:

- assistance in the management of a modern telecommunications service;
- assistance for the setting up of standards and certifications procedures;
- sectoral reorganization and preparation of a new

regulatory framework; preparation of a new

- tariff policy;
- human resource development.

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## Professor Turski: a correction

Gremlins were at work in the article on IT research in east and central European countries in the recent XIII Magazine News Review The name of (p.20). Professor Turski, the eminent and active Polish computer scientist, was changed by a misprint to that of his illustrious logician compatriot, now deceased, Professor Tarski. Both have played eminent roles in the Polish research community and both should have been referred to in the appropriate paragraphs. Our apologies.

Professor Tarski, born in Warsaw in 1902, was recognised worldwide as a founder of modern mathematics and logic. He gained his PhD at the University of Warsaw and, before World War II, headed a team of logicians at the University of Lwow. Prior to 1939, he emigrated to the USA where, from 1942, he worked at the University of Berkley. He was famous for the mathematical notion of TRUTH.

Professor W M Turski, a generation younger than Tarski, is currently an active member of the University of Warsaw and is wellknown for his contributions to computer science. He graduated from Lomonosov University (Moscow) and his career has taken him to Polish institutions, to Imperial College, London and to many other distinguished institutions throughout the world.

W M Turski was also the first president of the Polish Society for Information Processing and he is a Distinguished Fellow of the British Computer Society.

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## EUROPEAN DIMENSION

## **Commission clears digital's purchase of Philips computer activities**

The Commission has cleared an agreement between Digital Equipment International Limited (DEIL), a wholly owned subsidiary of Digital Equipment Corporation (DEC), and Philips Electronics NV (Philips), according to which DEIL will acquire the marketing activities of Philips Information Systems Division (ISD) concerning the latter's small and mediumsized multi-user computers,

financial workstations, software products and hardware maintenance services.

The proposed transaction excludes most of the manufacturing facilities related to the products covered by the agreement as well as the ISD's smart card and dictation equipment activities.

Of particular importance for the Commission's appraisal was the market for small multi-user computers. where DEC will become the market leader within the Community ahead of IBM and Siemens/Nixdorf. However, a number of other strong players are also present on this market, including Unisys, Bull and AT&T/NCR. For this reason, and considering the stage most of the proprietary product lines of Philips ISD have reached in their life-cycle, the Commission concluded that the concentration does not create or strengthen a dominant position which raises serious doubts as to its compatibility with the common market within this product market.

The Commission's examination of the other relevant markets led it to the same conclusion. It has therefore decided not to oppose the proposed concentration.

# Commission welcomes the cooperation of Siemens and IBM in semiconductors

The Commission welcomes, from an industrial policy point of view, the announcement by Siemens and IBM of their agreement to cooperate in producing 16 megabit-dram semiconductors. In a statement issued in Brussels, Martin Bangemann, Vice-president of the Commission in charge of Internal Market and Industrial Affairs, states he sees this as a useful approach which follows the direction of strengthening international cooperation, a need for which the Commission stressed in its communication on the European Electronics and Information Technology Industry.

In this communication, the Commission had advocated cooperation on both European and international level in order to provide for the competitiveness of European industry in technology and productivity. The high cost of developing and producting semiconductors makes cooperation in this sector paramount.

For Vice-president Bangemann, the envisaged cooperation, which includes activities in several countries in the Community as well as the United States may contribute considerably to ensuring that the most advanced semiconductor production technologies will be available for Europe.

## **Commission clears bid for SD-Scicon by EDS**

Electronic Data Systems Corporation (EDS), the USbased information technology services company, has announced a takeover bid for SD-Scicon, a UK-based company active principally in the same markets as EDS. EDS is a subsidiary of General Motors.

The Commission has authorized the proposed concentration. The market and sub-market in systems maintenance, programme writing and other information technology services are fragmented in the EC and the increase of EDS's market shares that would be caused by the concentration is not sufficient to give rise to any concern that a dominant position would be created.

## NATIONAL SCENE

# Commission approves dutch scheme aid to promote business technology

The Commission has decided to approve the refinancing for 1991 of a Dutch aid scheme for the stimulation of business-oriented technology (Progammatische B e d r i j f s g e r i c h t e Technologie-Stimulering -PBTS). This aid scheme covers feasibility studies, basic industrial research and demonstration projects in the field of information technology, material technology, biotechnology and environmental technology. The 1991 budget totals HFL 124 million (about 53.4 million ecus) out of which HFL 24 million is reserved for information technology.

The aid intensity is in principle 37.5% of eligible costs but not more than 25% of the real cost of the project. For feasibility studies and research projects, cumulation with other schemes is possible up to 50% of eligible cost for firms with more than 250 employees and up to 60% for firms with less than 250 employees. For demonstration projects, the level of the aid cannot be more than 37.5% of eligible costs.

## Contact for these articles:

Mr A Stekke CEC - DG XIII/E6 Tel: 32 2 2359604

# Belgium: Commission looks into aids granted to Siemens by the government of the region of Brussels

The Commission has decided to initiate an enquiry into 17 aid awards totalling. BF 336 million granted by the authorities of the region of Brussels towards investments by Siemens in its data-processing industrial activities.

The enquiry will be based on Article 93(2) of the EEC Treaty. The Commission believes these aids were granted illegally by the Belgian authorities since it was not duly informed in advance. In addition, the Belgian court of auditors questioned the legality under Belgian law of the same aid awards, maintaining that those aids were granted to Siemens in breach of the provisions of the Lax of 17 July 1959 -

the legal basis used by the Brussels regional authorities for the awards.

Given the intense competition prevailing between Community producers of data-processing products, the Commission considers that the aids in question distort or threaten to distort competition within the common market. In addition, after a first examination the Commission considers that these aids do not qualify in principle for any of the exemptions under Article 92 of the treaty.

# FRANCE: Commission launches enquiry into proposed aid to Bull

The Commission has decided to open a procedure under Articles 93.2 of the EEC Treaty to enquire into capital injections of FF4bn and research aid of FF2.6bn recently proposed by the French authorities in favour of the Compagnie des Machines Bull.

With a turnover of FF35bn, Bull is the eighth largest world supplier of information systems. Since 1989 it has been incurring losses: FF267m in 1989 and FF6.8bn (almost 20% of turnover) in 1990. In order to redress this situation, the company has embarked on a restructuring plan aimed at developing new products and refocussing its activities and production centre on certain products, a strategy which will require site closures and redundancies.

The Commission's role at this stage is to ascertain whether the proposed capital injections constitute state aid and, if so, to assess the compatibility of these and R&D aid with the treaty rules. In view of the company's financial situation and the absence of details on many aspects of the restructuring plan, the Commission has come to the preliminary conclusion that the operation does involve state aid which must be assessed according to the Community's competition rules. At this stage, the Commission has doubts about the compatibility of the proposed aid since it is not yet possible to assess whether it will have a beneficial or adverse impact on the rest of the sector in the Community, particularly in a situation where competitors facing similar difficulties are not receiving aid from their governments.

The R&D aid has been presented by the French authorities as linked to the restructuring plan, so the Commission has decided to examine them together. In particular, the Commission wishes to examine whether the aid can be demonstrated to facilitate clearly the development of Bull's activities in the Community's interests or whether it has some of the characteristics of an operating aid to a company in difficulty.

The French authorities have been asked to provide more detailed information on both operations which will enable the Commission to come to a final view on the nature of the measures and their compatibility with the EEC Treaty.

## STANDARDIZATION

### European consortium uses STEP

The International Standards Organization (ISO) is preparing a Standard for Exchange of Product Data (STEP). The new international standard will make it possible to exchange product-related data between different systems.

The Esprit CAD Data Exchange (CADEX) project (2195) has already begun developing data exchange processors for CAD models. CADEX provides an important application of the upcoming international standard. CADEX has provided two application protocols (204 and 205 of STEP) covering the description of boundary representation solid models and surface models. All CADEX processors have the same internal data structure and tools to read, write, check, manipulate, create or delete STEP data. The kernel is connected to system-specific modules that passes data to or from the native data-bases. The development of processors and use of STEP is an efficient way of enabling European companies to have processors ready as soon as the STEP standard is completed.

#### **Contact:**

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## IT standards in public procurement: EPHOS and EUROMETHOD

Council Decision 87/95 provides the legal basis for information technology standards reference conformance in the field of public procurement, but the means of implementing it is left very much to the administrations concerned. This means, in practice, to their procurement officials. These individuals often have neither the resources nor the expertise needed to follow the sometimes quite complex standardization requirements implied by the 87/95 decision. To assist them in this and related issues, two important initiatives have been taken by Commission and the Public Procurement Group – a body composed of EC procurement officials mandated by their respective national administrations. These are EPHOS and EUROMETHOD. EPHOS (European Procurement

Handbook for Open Systems) is explicitly concerned with standards implementation in general IT systems procurement. It takes the form of a non-specialist reference guide, with the emphasis not so much on the standards themselves but on their relevence to the procurement process. It will provide the background to applicable standards in each relevant procurement domain. with references as required and standard clause formats for inclusion in, for example, call for tender documentation. EUROMETHOD, which can be described as a "methodology of methods", relates to the management of the life-cycle of commissioned IT systems. As such it is more implicity concerned with standards, representing as it does a harmonization of the many disparate "national" methods, used by public

administrations and others, in this area. For example, one of the main goals of EUROMETHOD is to enable both the customer (EC public administration) and the supplier (system vendor) to "talk in a common European language" throughout all the phases which make up the systems acquisition life-cycle, i.e. planning, specifying, developing and maintaining. The use of EPHOS and take-up of EUROMETHOD should have a very positive effect on the IT systems market in Europe. Both are concerned with the practical means for standards implementation, the concomitant widening of choice for the customer (public administration) and the creation of a more coherent and open market for the supplier (system vendor). The status of these initiatives is as follows:

For EPHOS, a first version has been produced by the Member State themselves and will be widely distributed within their public administrations over the coming months. A second fuller version will soon be under development (con-tracts under negotiation).

For EUROMETHOD, following a detailed feasibility study, a call for tender to produce an initial version by mid-1993 has just been launched.For further information on the activities of the Commission in this area (including the PPG activities in general and the EPHOS and EUROMETHOD programmes in particular):

#### **Contact:**

CEC-DGXIII/E4 "APITS" secretariat Tel: 32 2 235 3867 Fax: 32 2 235 9379

## Specification for Exchange of Product Analysis Data

D. Thomas, J. van Maanen, M. Mead, Oxon, UK (Eds.)

#### Version 3

1989. XVI, 146 pp. (Research Reports ESPRIT. Project 322. CAD-Interfaces (CAD\*1). Eds.:I. Bey, J; Leuridan. Vol. 2) joftcover DM 35,- ISBN 3-540-51579-8)

This book presents a complete specification of a neutral file for exchange of product analysis data. The topics covered are wider than any previous standard in this area and include the finite element mesh, properties loads, constraints, analysis selection, output control, substructuring and results, for static, thermal and dynamic analyses.

The specification is presented in both formal and informal ways. The syntax is formally described in Backus-Naur Form and a reference model for the data is given in an information modelling language called Express. These formal methods are state of the art and facilitate the automatic generation of software tools to read and write the neutral files. In addition, an informal description and an example are given for each entity.

The topic is treated in enough depth to enable the reader to implement the specification. The book also includes a chapter which looks at the problems of transforming CAD geometry into a suitable form for input to a finite element mesh generator. Some initial heuristic rules are presented.

#### **Contact:**

Springer-Verlag Heidelberger Platz 3 D-1000 Berlin 33

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## PUBLICATIONS

## Language industry monitor

As an increasing volume of the world's information becomes available in digital form, governments, businesses and institutions are actively seeking improved ways of entering, storing, retrieving and distributing this primarily languagebased material. There is an increasing awareness, particularly in Europe, that natural language is not peripheral to information technology but becoming increasingly central to it. *Language Industry Monitor* is a newsletter which tracks trends, developments and products in the field of natural language processing, with particular emphasis on European IT solutions to multilingual issues. Six times a year it provides news and analysis of this strategic and rapidly evolving field. Specific technologies covered include computer-aided writing and translating, speech processing, natural language interfaces, information retrieval and - of course machine translation. ISSN: 0925-3327

#### **Contact:**

Uitgeverij LIM Eerste Helmersstraat 183 NL-1054DT Amsterdam TEL: 31 20 685 04 62 FAX: 31 20 685 43 00

## The Online Manual

Jill Cousins and Lesley Robinson

The Online Manual is a new reference tool and guide for those who wish to use the powerful techniques of modern online searching. With over 2000 databases in Europe alone, there is a significant need to simplify and interpret such a range of information.

The first section of the book explains in detail how to identify the database most relevant to an enquiry, find its host and access it. The Online Manual also gives the user a new and powerful keyword thesaurus, designed to enable any user to find the most useful database to search in any given subject, quickly and efficiently. The source listing can then be used to find the online versions of any popular business or trade journals. The manual is a major achievement in organizing and simplifying the whole field in order that information professionals, consultants, market researchers, analysts, planners, bankers, or anyone who needs to use information as a ressource. can identify the precise sources of data they require. The guide offers :

- A comprehensive list of English language databases (over 2000 in the first edition). - The most comprehensive worldwide listing of over 40,000 information sources.

- A complete list of European hosts and synopses, detailing all aspects of how they can be accessed.

- A keyword thesaurus enabling searches to be carried out from any business area through the necessary database.

- Clear introductory chapters to get the non-specialist online quickly.

The Online Manual has been created with the help and backing of one of the world's largest consultancies, KPMG, and will be published annually to maintain its position as the leading guide in the field. The first edition is due to be published during autumn 1991.

c. 500 pages, 297 X 210mm c. û125

#### **Contact :**

Roberta Burtsal, Dept DM, Blackwell Publishers, 108 Cowley Road, Oxford, OX4 1JF. Tel 0865 791100.

## General access to information legislation

Published in January 1991, the Publaw subject report on *GENERAL ACCESS TO I N F O R M A T I O N LEGISLATION* is now available. The subject area is defined as such national legislation that provides a general right of access to administrative documents. This legislation is examined in the light of the current information market.

The report on the situation in the EC covers privacy exemptions to access, commercial secrecy exemptions restrictions on re-use, and the usage of access legislation in the EC.

Attention is then focused on the North American example, discussing information policy developments, the impact of electronic filing and current policy reassessments.

#### Contact :

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## **RARE** Publications

RARE, the association of European networking organizations and their users, has published its 1990 annual report. A pamphlet has also been produced on the achievements of the first five years of RARE.

#### **Contact:**

RARE Secretariat Postbus 41882 NL-1009 DB Amsterdam The Netherlands TEL: 31 20 592 50 78 FAX: 31 20 592 80 43



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## **Telecommunications for Europe 1992** The CEC Sources, Volume 2

Edited in cooperation with H. Ungerer, C. Berben and P. Scott, CEC

Foreword by M. Carpentier 1991, approx. 630 pp, hard cover

ISBN:90 5199 047 2

Price: NLG 260 / GBP 80 / USD 150

This work constitutes a continuation of the first volume of the source book published in 1989. This contained the work leading to, including, and immediately following the Green Paper on the development of the common market for telecommunications services and equipment. The first volume comprised the period up to the end of 1988, while this second volume covers regulatory and policy developments in 1989 and 1990.

Among the milestones treated in the current volume are the:

- definition of open network provision;
- opening of the services market to competition;
- introduction of ISDN in the European Community;
- regulation of mobile communications;
- Green Paper on a common approach in the field of satellite communications in the EC;
- opening of public procurements procedures;
- guidelines for the application of competition rules;
- developments concerning

the protection of personal data;

- establishing of the E u r o p e a n Telecommunications Standards Institute.

The source book contains the main official documents related to the telecommunications industry in the European Community, pertaining to developments during the period 1989-90 towards the goal of a Europe-wide market for telecommunications products and services in 1992. The volume is a must for users, equipment suppliers, service providers, as well as for those in public or private sectors concerned with regulation or policy in the telecommunications field.

IOS Press Van Diemenstraay 1013 CN Amsterdam Netherlands Fax: +31 20 22 60 55



## Advanced telematics in road transport

Proceedings of the DRIVE Conference, Brussels, February 4-6, 1991 EUR 13283 EN xxvi + 1542 pp (in 2 vols.) Dfl 450 ISBN 0-444-89043-2 English

Financial and logistic support from the Value programme for the dissemination and utilization of research results have made possible the publication of the proceedings of the first major conference of the Drive programme. As reported in the last issue of Magazine News XIII Review, the conference brought together more than 1000 participants to discuss the application of information technology and telecommunications to a range of problems in the transport sector. The proceedings present the texts of more than 90 papers delivered at the conference.

Contents : Volume I: RTI

architecture. Route guidance and variable message signs. Short-range communication. Driver support. Evaluation and implementation. Field trials. Strategic issues. Urban traffic management and control. Volume II: Databases, dataflows and expert systems. Cooperative driving. Transport modelling and traffic simulation. Freight operation and public transport management. Weather and

infrastructure and system

pollution monitoring. Performance standards. Tunnel management and communication in tunnels. Processor and terminal development. Road user behaviour. The proceedings are published for the Value programme by:

Elsevier Science Publishers B.V. Sara Burgerhartstraat 25 P.O. Box 211 NL - 1000 AE Amsterdam

## **PATINNOVA 90: Strategies for the protection of innovation**

Proceedings of the First European Congress on Industrial Property Rights and Innovation Edited by U. Täger and A. von Witzleben EUR 13217 EN xi + 337 pp English PATINNOVA 90, organized under the European Communities' Sprint programme for the promotion of new technologies and innovation, was the first

European congress to examine the important and complex relationship between innovation and industrial property rights. The proceedings of the congress have now been published, containing more than 30 texts on topics which include: protection and filing policies, the role of patent attorneys and other patent consultants in filing and protection strategies, patent-assisted marketing of inventions from research institutions, patent disputes and litigation, etc. Co-published for DG XIII by: Kluwer Academic Publishers Group, P.O. Box 322 NL - 3300 AH Dordrecht and Deutscher Wirtschaftsdienst Marienburger Strasse 22 D - 5000 Köln 51 (ISBN 3-87156-129-0)



## AGENDA

# EUROTC 92, a forum for European communications technology

More than a mere showcase for existing and future programmes, infrastructure and services, EuroTC 92 will be an international forum entirely devoted to technologies and issues concerning the development of communications in the European Community. The objective of this ambitious programme is to set global guidelines and initiatives which will have a bearing on the evolution of communication services between now and the year 2000 and beyond.

The trend in the transfer of power and initiative towards private enterprises in recent years has led to an explosion of creativity and technological breakthroughs in the services sector: a trend which will culminate over the coming years in an increase in competition. EuroTC may be seen as one way of highlighting this phenomenon, in that it will focus attention on the critical role of the private sector and service enterprises in developing new high-performance means of communication for European users. Under the aegis of the European Commission, the European Telecommunications Standards Institute, the French Post, Telecommunications, the Space Ministry, and France Telecom, EuroTC 92 will have some 7,500 m2 of floor space for its exhibits at the new "Bibliothèque/ Mediathèque" in Chambéry (Savoie, France), from 11-15 February, 1992.

#### **Contact:**

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Sacha Dunas Paris TEL: 33 1 47 56 50 00 FAX: 33 1 47 56 11 90 or in writing:

Capric/Blenheim 22/24 Rue du Président Wilson F - 92532 Levallois-Perret Cedex - France

## Symposium on natural language and speech

As a special event at the Esprit Conference (November 25-29), a symposium on natural language and speech will take place in Brussels on November 26-27.

The symposium will be held from 14.00 to 18.00 hrs on 26 November and from 9.00 to 18.00 hrs on 27 November. It will consist of nine lectures following an introduction by Ewan Klein (University of Edinburgh) and a 90-minute panel discussion.

The lectures will cover a wide range of current research topics in natural language and speech, with a final panel discussion on the topic Spoken language understanding systems: technological goals and integration issues, chaired by Henry Thompson (University of Edinburgh).

#### Contact:

Esprit Conference Secretariat CEC DG XIII/A2 B-1049-Brussels Tel: Fax:

European Congress Consultant & Organizers (ECCO) Rue Vilain XIIII, 17a B-1050-Brussels Tel: +32 2 647 87 80 Fax: +32 2 640 66 97

## Industrial and materials technologies for the 1990s

The Commission is organizing a series of events this autumn and at the International Fair of Seville (May 1992) to promote participation in the new ECR+D programme on industrial and materials technologies (Brite/Euram II).

By strengthening industry's scientific base through research and technological development, Brite/Euram II will encourage user industries to integrate new technologies and acquire the scientific and technological knowledge needed to establish codes of good practice and the transfer of new technologies.

The EC Value programme for technology transfer will

be present at these meetings as well as in Seville, for the 4th Brite/Euram Conference and Exhibition. Information Days will be held in Milan (24-25 October) and Madrid (21-22 November) and a final Proposers Forum in Brussels (10-11 December). The Swedish government. in collaboration with the Commission, is also organizing Information Days in Stockholm (2-3 December). Each Information Day will have its own specific theme. The 4th Brite/Euram Conference and Exhibition which will be held from 25 to 27 May in Seville, during the 1992 Universal Exposition - Expo'92. Through an analysis of Brite/Euram's

current activities, the conference aims to establish new strategies for industrial technological research which are more responsive to changes and trends in a developing Europe.

#### **Contact:**

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Service for Technology Management General Secretariat -Brite/Euram Days Rue du Commerce 20-22 B-1040-Brussels Tel: 32 2 511 72 90 Fax: 32 2 512 21 65

### Home systems for the disabled

How much can electronic technology really help people with physical disabilities? A showcase of progress in this area will open in January in ChambÇry, France, under the EuroTC 92 exhibition's overall theme of communications technologies for the year 2000.

Home systems for the disabled will present a range of applications using information and communications technology to:

- improve communication with the outside world;
- make it easier to use ordinary household appliances and

- special appliances adapted for disabilities;
- enhance security and safety at home;
- help develop remote control systems.

Among the applications will be controls using infra-red, videotex and radio links; interphones and visualization systems for internal communications; and outside links via ISDN and telematics lines. Ergonomics and reliability will be key features of the user interfaces designed to facilitate remote control services for the disabled.

The special display will present five units fitted with home systems, which can be activated by a portable transmitter from anywhere in each unit.

Home systems for the disabled will be held during the Winter Olympics (Savoie) and the Para Olympics (Tignes) by the Commission of the European Communities, the French State Secretariat responsible for the disabled and accident victims, and the municipality of Chambéry. Its theme is: "Information and communications technologies for the disabled -European savoir-faire." Chambéry: from 10 January to 18 February and 25

March to 1 April 1992

#### **Contact:**

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Jean-Pierre Gauthier Vitrine technologique européenne 1992 Mairie de Chambéry F - 73000 Chambéry TEL: 33 79 33 93 55 FAX: 33 79 75 07 79

## DG XIII participation in technology exhibitions

#### October 1991 - May 1992

SMAU (Esprit/OBS) Milan	Oct.3-7	Brite/Euram Information Day Stockholm	Dec.2-3
Telecom 91 Geneva	Oct.7-15	Brite/Euram Final Proposers Forum (Value) Brussels	Dec.10-11
VDM Europe 91 (Esprit/IES/IPS) Noordwijkerout	Oct.22-24	Cité des Sciences (General) Paris	December
Brite/Euram Information Days (Value Milan	Oct.24-25	1992	
EDI 91 (Tedis) Birmingham	Oct. 29-31	Home systems for the disabled (IT and Communications) Chambéry	Feb.11-15
Brite/Euram Information Days (Value) Madrid	Nov.21-22	EuroTC 92 (Communications) Chambéry	Feb.11-15
Esprit 91 (Esprit Week) Brussels	Nov.25-29	CEBIT '92 (Telecommunications) Hanovre	March 11-18
Symposium on Natural Language and Speech (Esprit) Brussels	Nov.26-27	EDBT (Database Technology) Vienna	March 23
EDI 91 (Tedis) Wiesbaden, Den Haag	Nov. 26-27	Home systems for the disabled (IT and Communication) Chambéry	March 21-28

### Readers please note:

Due to the move of DG XIII services to new offices, some confusion may occur in telephone numbers given in this issue. In case of difficulties, please call the central Commission switchboard: +32 2 235 11 11.

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