

DGXIII
Telecommunications,
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and Innovation.



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News Review

Networking in the '90s

Major issues affecting all European IT and telecommunications users are to be debated at *European Networking in the '90s*, the first major conference organized by the European Forum of IT&T Users under the patronage of DGXIII.

The Forum groups CECUA, the Confederation of European Computer User Associations, and ECTUA, the European Council of Telecommunications Users' Associations.

The conference, to be held on 6-7 July in the European Parliament building in Brussels, will examine four core themes in separate workshops:

- Communicating in a unified Europe. Are telecommunications living up to business leaders' expectations?

- Progress towards IT&T standardization in Europe. Is it moving fast or far enough for users?

- IT in public administration. Do products and services fully cover the needs of the public sector in the single market?

- Data protection across Europe. Is this a nightmare or a realistic goal for politicians, public authorities, companies or individuals?

With trans-European networking fast becoming a pressing political and technological challenge for the Community, discussions during the conference will help formulate policy guidelines to shape the changing markets and future structures for IT&T in Europe.

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INTERNAL MARKET

Research after Maastricht : an assessment, a strategy

The Commission proposes to redirect its research and technological development strategy

The Commission proposes to redirect EC research and technological development (RTD) strategy in the light of the decisions taken at Maastricht last December and on the basis of an evaluation of the results of research activities carried out so far.

The thinking behind this was set out in April, at the initiative of Commission vice-president Pandolfi, in the following press release.

'Since the mid-1980s European industry has shown clear signs of a fall in competitiveness, one of the reasons being the inadequate level of RTD expenditure in the Community compared with the United States or Japan. In 1991 the United States devoted 2.8% of its GDP to research, compared with 3.5% for Japan and 2.1% for the Community.

While Europe is comparatively strong when it comes to fundamental research, RTD directly linked to industrial activities has a much lower profile in the Community than in competing countries. European companies also suffer from inability to convert their RTD activities into inventions and their inventions into market shares and profits.

As a result, despite the efforts made in the sphere of RTD and certain relative technological advantages, Europe's position is worrying in terms of absolute advantage, especially in advanced-technology sectors such as semiconductors, display materials and personal computers.

Beyond 1992 : A strategy

Community RTD policy has a pivotal role to play in order to enable European industry to become more competitive. Part of the flanking measures accompanying the establishment of the single market, its industrial dimension has been magnified by the Maastricht Treaty. While the objective of RTD policy is to strengthen European industry's scientific and technological base and enable it to compete more effectively in the international arena, in future the Community should also try to promote more effective exploitation of its industrial potential.

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Evaluation of the results of Community research activities has led to the assessment that there is both darkness and light. It is therefore necessary to redirect these activities and in so doing reflect the ambitions expressed in the Treaty. Quick and effective action needs to be taken in order to cope with the new procedural and institutional constraints. This new policy will inevitably have to be conducted in strict compliance with the principle of subsidiarity, since the increased resources needed to achieve the objectives can be justified only if they are deployed as effectively as possible.

The strategy proposed by the Commission for Community RTD is based on three main guiding principles: redirecting research activities, increasing resources and strengthening the programmes.

Redirecting research activities

While there can be no denying that Community RTD policy in the 1980s, characterized by a large number of transnational projects covering a broad spectrum of science and technology, has beneficial effects (making interested parties aware of the European dimension of problems, speeding up the establishment of transnational RTD networks, producing a significant quantity of results, etc.), this policy is now inadequate given the industrial transformations under way and the new challenges facing European society.

To deal with this state of affairs, the Commission is proposing to implement, alongside the traditional RTD activities, revised and adapted to take account of a changing environment, priority technology projects more directly linked to key generic technologies on which the competitiveness of European industry depends. The projects in question, to be submitted directly by companies, might concern, for example, microelectronics, advanced technologies with an impact on transport, high-performance computing, flat screens, environment-friendly industrial technologies or advanced molecular biology.

In order to ensure that there is an industrial network for the exploitation and dissemination of the research results obtained, greater cooperation between producers and users will be sought, from the outset, within the projects themselves.

Given the scale of the financial and human resources needed to resolve global problems, the Community must

internationalize its research efforts to a greater extent. Particular attention will therefore be paid to increased Community involvement in "big science" projects such as research into controlled thermonuclear fusion, global change and the human genome.

Increasing resources

The establishment by the Single Act of RTD policy as a flanking policy accompanying the establishment of the single market was reflected in the 1988 inter-institutional agreement by an increase in the proportion of Community resources devoted to it. Hence the research budget has been increased from 2.6 % of the total Community budget in 1988 to 3.8% in 1992.

Similarly, this strengthening of RTD policy and the attendant redirection of strategy have been reflected in a substantial increase in resources in the proposal recently submitted by the Commission for the Community's financial perspective for 1993-97. Under that proposal the total resources for Community RTD policy would increase from ECU 2.4 billion in 1992 to ECU 4.2 billion in 1997.

This increase consists partly of a natural increase in resources, to ensure the necessary continuity of research efforts, and partly of an additional increase mainly to finance priority technology projects and Community involvement in "big science" projects.

It should be noted that even if they increased significantly, Community research funds remain limited: they now represent less than 4% of the total financial resources allocated to RTD in the 12 Member States. In order to ensure optimum use of the resources available, it is therefore essential, as provided for in the Maastricht Treaty, to coordinate Community and national RTD policies to ensure that they are mutually consistent.

Strengthening the programmes

1992 is a pivotal year for Community RTD policy. In the course of the year, and in the light of the debate launched in the European Parliament and the Council on the basis of its communication, the Commission will be presenting two very important proposals to implement its new strategy.

Firstly, the Commission will be submitting a proposal for the fourth Community RTD framework programme. In compliance with the "rolling programme" principle, it will cover the five-year period from 1994 to 1998.

Secondly, to avoid a significant reduction in the resources available for Community RTD in 1993 and 1994, the Commission will be proposing additional funding for the third framework programme during those years.

Given the innovative aspects of the provisions introduced in the Maastricht Treaty, and in particular the complex and cumbersome legislative procedure established, the Commission is proposing that inter-institutional conciliation should be carried out in full compliance with the prerogatives of each of the three institutions⁽¹⁾. This should make it possible to resolve the procedural problems in advance thus smoothing the course of the legislative procedure.

Telecommunications procurement

The Advisory Committee for Telecommunications Procurement held its second meeting on 3 March.

This committee was set up under Council directive 90/531/EEC of 17 September 1990 on the procurement procedures of entities operating in the water, energy, transport and telecommunications sectors (Official Journal L 297, 29 October 1990).

The committee is composed of representatives of the Member States and chaired by a representative of the Commission, Mr Piero Ravaioli. It assists the Commission as regards procurement by the contracting entities providing or operating public telecommunications networks or public telecommunications services. The directive says the Commission should consult this committee on the following topics:

- amendments to the list of entities operating telecommunications networks or providing telecommunications services;
- revision of the currency values of the thresholds mentioned in the directive;
- application of the rules concerning contracts awarded under international agreements;
- review of the application of the directive;
- application of the procedures described in article 32 of the directive relating to notices and statistical accounts.

⁽¹⁾Council, Commission, European Parliament.

Council recommendation 84/550/EEC of 12 November 1984 concerning the first phase of opening up access to public telecommunications contracts shall cease to have effect as from the date on which this directive is applied by the Member States, i.e. on 1 January 1993.

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Trans-European Networks: European Parliament wants priority for telecoms and energy

With the single market due to come into force at the end of the year, the Commission believes that complete free movement of persons, goods and services, as required by the 1992 programme, will only become a reality when there are genuine European infrastructure links ('Trans-European Networks') in key sectors such as transport, energy, telecommunications and vocational training. This was partly reflected in the Maastricht Treaty agreed last December, which gives the Community a precise role in the development of transport, telecommunications and energy infrastructure by establishing guidelines and priorities, and supporting Member States through feasibility studies, loan guarantees or interest-rate subsidies.

In a report submitted at the April plenary session of the European Parliament, Joaquim Siso Cruellas (Soc, EPP), reporting for the Economic Affairs Committee, said the scope of the cohesion fund should be extended to take in major telecommunications and energy projects. He insisted that adequate EC funds be set aside for trans-European networks in the current review of the Community's future spending needs and recalled Parliament's previous request for the creation of a European infrastructure fund to be financed from an EC tax on energy consumption.

Security of information systems

Following a Council decision on 31 March, the EC will further strengthen efforts related to the security of information systems. An overall strategy will be drawn up with the help of a two-year ECU 12 million action plan and a group of senior officials of Member States has been given a long-term mandate to advise the Commission on action to be undertaken.

The single European market will also be an electronic market. The flow of information has always been one of the most important elements, if not the dominant element, in trade. As information is carried more and more electronically between trading partners, and between them and the banks and administrations, the underlying information systems will become determinant.

And the market will not only be one of goods; it will also be a market of services and ideas, from financial services to distance learning, health care to entertainment. This new electronic space will have both an economic and a social dimension. It will influence both enterprise and individuals, in their personal and professional lives, at a time of increasing mobility.

It will be formed by linking together current systems, dramatically extending the scope of others and creating new ones. And for that space to develop and include the whole Community, the means have to be available to ensure the security of the information involved, from various points of view.

The number and type of viewpoints concerned underlines the complexity of the problem and the need for Community involvement.

While work has been done in the past on security at Community level, particularly within R&D programmes such as Esprit and Race, the present decision represents a significant step forward.

Information security is usually taken to mean the protection of personal data stored, processed and transmitted electronically against accidental misuse or deliberate abuse; in this context, information security is an aspect of the rights of the individual.

However, the protection of personal data was only one of the motivating forces behind the Commission's proposal. Information in its various forms increasingly contributes to individual,

corporate and national wealth. The growth and performance of an estimated 65% of the economy relies on manufacturing or services heavily dependent on information technology, telecommunications and broadcasting, and therefore depends critically on the accuracy, security and "trustworthiness" of information. This is of as great importance and interest for individuals as for commerce, industry and public administrations. Correspondingly, the protection of information in all its aspects has become a central policy issue and a major concern world-wide.

Copies of the Council decision can be obtained from:

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European Parliament backs standard for short-range radio links

The European Parliament has adopted a report by Barry Seal (Soc, UK) lending support to the Commission's proposal to allocate a specific frequency band to pave the way for a coordinated introduction of digital short-range radio com-

munications (DSRR) in the EC. During the debate on 9 March the rapporteur called for a European telecommunications standard to be defined in order to guarantee security for users and the interworking of the system.

He also stressed the need to take additional steps, not least by establishing a suitable European telecommunications standard for equipment.

Green light for programme to market research findings

The Council of Ministers has approved the Commission's proposal for a centralized programme related to the dissemination and use of research results. Funding of 57 million ecus has been earmarked to back up this decision.

The schemes being proposed by the Commission mainly take their cue from two existing initiatives - Cordis and Value - improving the user-friendliness of the electronic data base

Cordis (supplying information on EC research programmes) and extending the activities of the Value programme to new areas.

Within the new programme, the Commission is proposing to set up a network of relay centres responsible for adapting the information to the needs of local industry, not least smaller companies, universities and research centres. Besides handling pure infor-

mation and the promotion of EC research findings, the centres will act as consultants, defining the opportunities for taking part in EC research programmes and giving candidates advice on how to apply.

PROGRAMMES IN ACTION

ESPRIT NEWS

Product Data Technology Advisory Group

Product data technology is at the heart of developments in CIME (computer integrated manufacturing and engineering). This readable form is suitable for use by all applications in the production process. This is essential for integrating applications. Product data technology is applicable to a wide range of industrial sectors and can help to improve the competitiveness of the European industry.

An Esprit Round Table was held on European goals in product modelling standards in April last year. The Round Table emphasized the need for a European initiative in this field. As a result, a CIM-Europe Interest Group called PDTAG (Product Data Technology Advisory Group) was established with the aims of:

- providing a platform for discussing strategies in product data technology, and to give advice and recommendations to the European CIME community in these matters;

- promoting the formation of a network of cooperating data technology centres.

The advisory group consists of individuals drawn from the European CIME community, both industrial and scientific. Representatives are from a wide range of industries, including the automotive sector, aerospace, architecture, civil engineering and shipbuilding. The group includes a good blend of vendors and researchers with different levels of STEP backgrounds.

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CADEX results now available

The Esprit CAD Data Exchange (CADEX) project will end in June and a number of promising results are emerging. These include:

- A common tool kit containing:
 - * a standard parser for storing a STEP exchange file into a level 2 implementation form;
 - * a formatter for dumping the contents of a working form STEP file into a physical file;
 - * STEP converters to and from native formats of various CAD and FEM systems;
 - * conversion software for mapping between different representations.
- Five application protocols, some of them becoming part of the STEP standard.
- Several prototype processors, supporting the various application protocols.

The tool kit is already available at low cost to companies and private or funded projects for their development of STEP processors. Meanwhile, the vendors included in the CADEX project have started developing their

own products based on its results. By providing working solutions for data exchange problems in the design and engineering world, the results of the project will contribute to competitiveness and productivity in the manufacturing process.

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CAiSE*92: Fourth Conference on Advanced Information Systems Engineering

The CAiSE series of conferences, held in Manchester in May, provide a forum for the presentation and exchange of research results and practical experiences within the information systems engineering field. 'Information systems' implies computer-based systems designed to provide adequate and timely information to human users in organisations. 'Engineering' implies the application of a rigorous set of problem-solving approaches analogous to those found in traditional engineering disciplines.

The CAiSE conference programme includes paper presentations, tutorials by leading experts, an exhibition, product presentations and panel sessions. It is one of the major events of 1992 in the information systems area and it attracts participants from all over the world. In particular it is addressed to decision-makers for information systems development, system development managers and project leaders, data managers and database administrators, business analysts and consultants, quality assurance managers, technical support managers and researchers in information systems.

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Copyright in transmitted electronic documents

The CITED project (Copyright In Transmitted Electronic Documents) is based on the needs of the information industries to safeguard copyright material which is stored and transmitted in digital form, and thus overcome the reluctance of copyright holders to commit their works to a form which is capable of rapid and accurate copying and thus highly susceptible to piracy. The project aims to cover the needs of the users and information providers across the area of software, data/databases, information bases, electronic publishing, video/TV and audio recording.

An in-depth user survey has been carried out in consultation with the World Intellectual Property Organization (WIPO) and most of the concerned standardization bodies with particular reference to the problems introduced by digital technology. This survey has been supplemented by a detailed comparative study of the current and developing legal position on a country/topic basis. The survey has demonstrated that copyright protection is still critical for the electronic information industry, that no successful solutions exist, that a lot of experiences have failed or are not replicable and that standards, where they exist, take the form of de facto industry agreements.

In the light of this user functional requirement survey, CITED has built a generic conceptual model construct to be applied to information irrespective of the industry sector concerned. The CITED model considers that copyright protection has to integrate the information actor chain as a whole, to protect primary information as well as secondary (i.e. catalogues), to secure mass production processes (info masters), to be as transparent as possible with the existing processes, to be applicable in any EC country in conformity with the provisions of copyright laws and to be flexible enough regarding the business strategies of the information makers and users.

The CITED model defines distributed components that will be transparently located at the user level, at the information system level and any time there exists a relationship among the users, the distribution system and the information domain. The CITED model provides counter-measures to various piracy acts which could be either accidental or deliberate. With the objective of easily implementing the model over various current technologies and process, a gui-

deline report will be issued including many examples of implementation. The model will be implemented and tested for two demonstrators, which will embody the distributed components in specified environments within the information industry. From those demonstrators, the partners will develop hardware and software products providing copyrighted features over their existing solution offers.

The first demonstrator is based on an on-line system to supply downloaded document images in digitally stored form (ADONIS), and is designed to demonstrate in practical form the control of a user's ability to exploit those images. This demonstrator shows how the capture and tracking of the various events on the protected system are carried out. The second demonstrator is being developed in the field of digital audio recording (DAT), to study the very different technical/commercial context in which information is transmitted on a physical carrier to the general public in an entertainment market, assumed to be anonymous as far as the copyright holder is concerned.

More than controlling copying of information, these CITED systems are incorporating means to provide legitimately requested information to the copyright holders and other financially interested parties.

In order to widen the scope of the CITED model, to facilitate new implementations and to promote it, a Special Interest Group (SIG) will be created. This CITED SIG should allow a direct dialogue with the political partners and the standardization bodies.

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Parallel Computing Action

This complementary action provided a European manufactured parallel computer to 55 universities and research institutions. Candidates for support were selected from the response to a public call issued in February 1989 asking them to put forward a project that would make best use of a parallel computer.

Successful candidates each chose their own parallel computers and negotiated the purchase directly with the supplier, using financial support transferred to their institution. The majority of suppliers originated from the emerging European parallel processing manufacturers (Telmat, Parsytec, Meiko and Parsys with software from other innovative suppliers such as Perihelion).

Financial support was also provided for participation in a set of four workshops held in Southampton (July 1990), Ispra (December 1990), Bonn (May 1991) and Barcelona (March 1992). The workshops offered a forum to present the results being achieved in the projects as well as identifying opportunities and solutions to problems in the use of parallel technology. Manufacturers and software producers also held clinics for problem solving and information exchange. The work-

shops were organized around four topics: "development tools and environment", "simulation and numerical methods", "real time and industrial systems" and "signal processing and neural networks".

One of the most interesting results is in relation to education and training. The availability of the parallel machines in universities has allowed courses in parallelism to be held resulting in at least 1,500 people receiving some training in this subject and at least 150 people from industry following courses where the machines have provided hands-on training.

At both the systems software and the applications software level there is a need for considerably more effort, particularly industrial effort, to realise a body of software that is functionally rich, robust and user-friendly enough to be considered for third party use.

At the systems software level, Meikos CS Tools, Perihelion's Helios and Idris have been the main operational systems. Applications in simulation and in image rendering appear to be the most promising, as indicated by progress in VLSI simulation, simulation of molecular

dynamics, simulation in robotics and machine tools and image rendering in industrial and medical applications.

The link with the industrial use of this technology is being made by many of the institutions in the action, but as yet it is an indirect link using prototype applications. Whilst the action has supported the development of skills and made an attempt to be a catalyst in creating a market for these machines, the technology is moving very fast in this sector. Until now the European parallel computing supply industry has had some advantages with technology based mainly on transputers. This is fast being eroded, both by the swift increase in capability of the basic technology and the better marketing of other suppliers. Systems and applications software for parallel machines have some way to go before reaching the possibility of mature implementation.

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ITHACA promises workbench for the year 2000

The Esprit Ithaca project (Integrated toolkit for highly advanced computer applications) aims to develop a workbench which will add a new dimension to software production.

The project will provide participating organizations with a pre-competitive product for the construction of high-quality commercial application software, quicker, better and more reliably than is possible with current techniques. Object-orientation - a mainstay of future software development - the UNIX operating system and the open ISO/OSI standards play a major role in achieving this.

The consortium behind Ithaca, launched in 1989, is led by Germany's Siemens Nixdorf Informations-systeme AG and includes Bull S.A. of France, Datamont S.p.A. of Italy (the information technology subsidiary of the Ferruzzi Group), Spain's TAO S.A. (a software house specialising in applications for the public administration sector), FORTH of Greece and the Centre Universitaire d'Informatique at the University of Geneva.

The key feature of Ithaca is object-orientation, widely accepted as a basis for producing leading-edge application software rationally and to high quality standards. Compared with procedural development methods (using Cobol, for example), object-orientated modelling and programming offer many benefits. Time and development are cut drastically and the end-product is of higher quality, more reliable and better geared to the user. Object-orientation also ensures greatly improved software adaptability and reduces maintenance overheads.

The Ithaca system is made up of four basic components: an object-oriented system kernel (HooDS); an object-oriented software information base (SIB); a tools environment for application developers/end-users; and a set of commercial sample applications as pilot projects.

This 'workbench for the year 2000' is rounded off by a powerful framework which provides a sturdy and highly versatile toolbox. A particularly innovative feature of the kernel is the concept of transparent persistence, a feature which



enables objects to be stored permanently. Application developers are provided with an easy-to-use filtering and browsing system (FBi), a powerful, high-level multi-language debugger (MaX) for interactive error retrieval and recovery, a configuration tool and a graphical user interface. Furthermore the environment will provide a set of powerful libraries (CoLibri, GO) to allow users to develop applications with a minimum of effort. Libraries such as these will be crucial for state-of-the-art application development in the foreseeable future.

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Y-Net opens X.400 E-mail service

The X.400 E-mail service, the first of the OSI services offered through Y-Net, is now fully operational. To date, Y-Net service points are active in nine EC countries: Belgium, Denmark, France, Germany, Greece, Italy, Portugal, Spain and the United Kingdom. Y-Net was present at this year's CeBit show in Hanover on the EC stand and on the Siemens-Nixdorf Informations-systeme AG and Olivetti stands.



All the service points are now fully interconnected 24 hours a day, 365 days a year. The national operators managing the service points are available during normal working hours (generally from 08.00 to 17.00) five days a week, except during national holidays, in order to offer all the necessary information and help needed to access the Y-Net service. Outside working hours, answering machines are in operation and users may also send messages to a special "helpdesk" mailbox provided at each service point.

Y-Net offers its users an open communication environment with each service point connected to the national Cosine "well-known entry point", allowing the Y-Net users to communicate with the users of the national R&D community in countries where Y-Net service points are not present.

A special gateway, accessible from all the service points, was also recently established in France in order to allow the communication between the X.400 Y-Net community and the EUnet (European Unix Mail network). In the meantime, Y-Net users can also communicate with EuroKom users via the X.400 gateway.

The Y-Net user community is growing rapidly. There are already some 400 registered users using the service daily.

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COSINE provides international user group support



As part of its strategy aimed at widening its user base, the Cosine Project Management Unit (CPMU) asked Logica, a leading international IT consultancy and systems company, to carry out a study to determine the form of user best suited to initiating and promoting usage of Cosine by groups with little or no experience of international data communication facilities.

Concentrating on groups with members spread across a number of European countries, the study identified a large number of research groups with a need for improved communications. Recommendations were made on the level and type of support required in order to quickly adopt and make effective use of Cosine services.

The CPMU has now established a pan-European support project for special interest groups. The project will help selected international research groups to adopt and make effective use of international data communications.

With the help of the Cosine user support project, the groups involved can look forward to the benefits that pan-European data networking will provide to their group communication and the quality of their collaborative research by the end of 1992.

Ten groups have been selected. The assistance will be provided by staff operating from a central support unit provided by Logica, with other user support staff from IXI-connected networks and Cosine services. Throughout Europe, 150 sites, established in all the 18 Cosine countries, are already participating. Their research interests range from marine technology to developmental psychology and from machine translation systems to organ transplantation. Although most of the groups had no previous experience of data communications, they now have their own electronic mail distribution list.

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Comex 1: promoting the take-up of Community RTD results

Results of the Comex 1 call for tenders issued in the EC's Official Journal (91C328/22) by the DG XIII's Luxembourg unit responsible for promoting the exploitation of Community research, technological development and demonstration projects (DGXIII/C2), are expected shortly.

The purpose of this invitation to tender is to draw up a list of experts and consultants to assist the Commission in the dissemination, exploitation and optimization of the results of activities arising from past, present and future Community research, technological development and demonstration.

The deadline for receipt of tenders was 21 February.

A considerable number of proposals (528) have been received from all over the Community.

A team of expert evaluators has now examined all the tenders received in order to issue a pre-selection list, which will be submitted for approval to a committee of Member States delegates).

The final list of selected tenders, including all relevant information and details, should be officially available by the end of June.

Race II and Telematics programmes

Following the call for proposals of June 1991, subsequent evaluation and selection of projects, some 250 new trans-European R+D projects have now started (see *XIII Magazine* no.4, supplement p. 9 ff.)

The Commission service concerned (DG XIII - Directorate F) has just brought out summary reports giving brief descriptions of all projects which have successfully gone through the evaluation and selection procedure. The reports cover the EC communications technology R+D programme (Race II) and five of the seven action lines of the telematics systems R+D programme, namely transport (Drive), distance teaching/flexible learning (Delta), medi-

cine/health care (Aim), administration (ENS) and rural areas (Ora).

All reports and project descriptions are harmonized, addressing issues such as the main objectives, technical approach and expected achievements. A complete list of project partners is included.

A limited number of copies of the six reports are available and can be obtained from :

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No bulk orders please !

Training technology and telematics



The Delta project T3RT (Training Technology and Telematics Round Table) has successfully launched its round table of leading IT&T companies, PTTs, large in-company training users, educational bodies, etc. Its aim is to stimulate market uptake of information technology and telecommunications for training and education. The round table will analyse training market needs and recommend technical solutions.

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Network operators form consortium for technology-based distance education

Representatives of SIP, Deutsche Bundespost Telekom, Telefonica de Espana, Swedish Telecom, Swiss PTT and PTT Nederland signed a contract on 20 March creating EPOS International, a new European research and development consortium in the field of technology-based distance education.

The agreement is a direct result of the partners' successful work together in the EPOS project, part of the EC's Delta programme.

The partners in EPOS International, based in Rapperswil near Zurich, believe modern telecommunications and computer technology provide unique opportunities for organizations in industry, government and the education sector to deliver cost-effective teaching and training to large numbers of users at their place of work or in their homes. EPOS International aims to develop appropriate software for the technology and promote the use of technology-based distance

education on a European scale. The consortium will work closely with other companies and organizations interested in the same goal.

The consortium's first products - ready within two years - will be marketed directly by the EPOS partners or through national organizations which each partner is free to create for this purpose. All the products will be designed for use on market standard hardware and software platforms, and will be based on public telecommunications networks.

In parallel with its product development activities, EPOS International will carry out longer-term research concentrating on technologies of "strategic importance" to distance education, in particular advanced applications of ISDN and multimedia technology. The group will also be responsible for coordinating the EPOS partners' contribution to the ECOLE project, part of the Delta programme.

Gazing at the telecoms tea-leaves: Pace 92

Assessments and forecasts of the potential impact of advanced communications are an essential complement to the research activities of the Race programme. They support the development of a common understanding of the trends and opportunities in Europe, the USA and Japan and therefore contribute to reducing the R&D and investment risks for all the sector actors. They also serve as a basis for the strategic orientation of the Race programme and provide a regularly updated reference to both technical and regulatory developments in Europe, the USA and Japan.

Working under Commission contract, a group of international consultants recently finalized a Pace 92 report: "*Perspectives on advanced communications in Europe*". It is a self-contained update of the Pace 90 report issued in December 1990, containing an executive summary and the main report covering "impact assessment and forecasts" of the significant issues seen as governing the evolution of advanced communications for Europe.

The issue analyses in the main report are structured as in the earlier documents Pace 89 and Pace 90.

Copies can be obtained from :

Jurgen Rosenbaum
DG XIII/ E5
Tel. 236.90.28
Fax 236.90.37

Delta '92 guide



The R&D planned by each of the 22 Delta projects is detailed in this guide, which includes an overview of how the results of the work will help create European infrastructures for flexible and distance learning.

Contact:

Delta Central Office
Rue de la Loi 200
B-1049 Brussels
Fax +32 2 236.23.92
e-mail: ahuy@postman.dg13.cec.be.

Impact Central Office

DGXIII/B has set up an Impact Central Office to act as a focal point in promoting the activities of the Impact 2 programme, with particular emphasis on the central theme of Info Euro Access ("improving the accessibility of information at the European level for all interested parties").

The Impact Central Office will have two principal tasks:

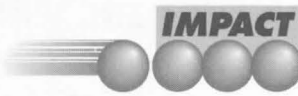
- to respond to general or specific enquiries about Impact;
- to coordinate information campaigns aimed at clearly defined target groups. Such groups will include potential participants in calls for proposals or tenders, users (existing and potential), intermediaries, multipliers, the specialized press and political circles.

Telephone enquiries may be made by using the following freephone numbers,

10,000 ECHO users

The European Commission Host Organization (ECHO) registered its 10,000th user in January. Since its launch in 1980, ECHO has played a significant role in introducing new users to the world of online access to electronic information services. As an experimental host, especially for new users, it continues to provide support and guidance to individuals and organizations throughout Member States and beyond who lack experience or proficiency in information retrieval techniques. Support to new users takes the form of a European-wide freephone help-desk service, awareness seminars and the distribution of documentation and training diskettes in all Community languages. ECHO also helps to demonstrate the benefits of using electronic information services in business, through databases available in all Community languages. The total of 10,000 reflects the consistent programme of awareness efforts undertaken by ECHO within the framework of DG XIII/B's Impact programme. Recent statistics reveal that 60% of new registered ECHO users are first-time users of on-line information services, indicating that their first online contact is made through ECHO. This confirms that efforts to increase awareness among potential users are working.

Contact:
ECHO B.P. 2373
L-1023 Luxembourg
Tel: +352 34981200
Fax: +352 34981234



from Monday to Friday, between 08h00 and 18h00:

Belgium	078 118 437
Denmark	80 010 737
France	05 906 937
Germany	0 130 823 337
Ireland	1800 555 237
Luxembourg	08 003 337
The Netherlands	060 223 137
United Kingdom	0 800 899 237
All other countries	+352 34 981 222.

Contact:
Impact Central Office
DGXIII B1
Jean Monnet Building
L-2920 Luxembourg
Fax: +352 4301 2847

Technology Venture Capital Initiative

The second Technology Venture Capital Initiative (TEVCAI) was held on 7 April in Delft (Netherlands). The Community initiatives participating in the event included DGXVIII - Eurotech Capital, DGXIII/C - Value and Esprit, DGXIII/A5 - Advanced Business Home Systems - Peripherals (ABHS-P).

About 25 contractors of Esprit - ABHS-P participated, primarily SMEs. Eurotech Capital was present with 10 venture capitalists specialized in RTD project financing, who gave a half-day training seminar on how to raise venture capital for SMEs.

The Value programme participates in the initiative and can finance business plans and market studies necessary for the SMEs to present their Community RTD exploitation projects to venture capitalists. Value launched this initiative and co-sponsors it together with Eurotech Capital.

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Value programme
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Fax: +352 4301 4129

First International Symposium on Interworking

Bern, 18-20 November 1992

Call for Papers

An important aspect of the EC's communications technology programme (Race) is the provision of ATM network platforms, the basis for future broadband services. Accordingly the interconnection of Local Area Networks (LANs) with ATM infrastructures is studied in many Race II projects.

Project Combine, carrying out research and development work in the area of LAN-DQDB-ATM interworking, and the Commission's Race team have initiated an international symposium "Interworking '92" to provide a platform for the exchange of views on heterogeneous network evolution, concepts, services, standards, equipment and user requirements at international level.

The more technical aspects of the symposium will be set against the background of a keynote speech addressing the political impact of the Maastricht Treaty on telecommunications and emphasizing the importance of interconnection and interoperability for the provision of trans-European networks. These networks form a prerequisite for the promotion of the EC's economic and social cohesion.

Papers to be submitted for the "Interworking '92" symposium should address the following areas of work:

- Heterogeneous networks, interworking principles and their evolution
- CCITT, ISO, ETSI, ANSI, IEEE standards for interworking
- Models, simulations and performance analysis
- Service interworking
- Market trends, new products and systems

A 200-word abstract should be sent to the chairman of the *Interworking '92* Technical Committee

Dr. S. Rao, Ascom Tech,
Freiburgstrasse 370, CH-3018 Berne.
Tel: +41 31 999 4263 or +41 38 205641
Fax: +41 31 991 5211 or +41 38 205630
E-Mail: rao@tech.ascom.ch

Proposals should include a title page indicating the name, complete return address, telephone and fax numbers of the author.

Deadline for the submission of abstracts: 15 July 1992

LAB airs legal questions: audiotex and videotex

The legal aspects of European audiotex and videotex were at the centre of discussions when the Legal Advisory Board for the information market (LAB) met on 11 and 12 March.

LAB chairman Charlotte-Marie Pitrat welcomed a gathering of 50, comprising legal experts, Commission representatives and company representatives. DGXIII director F. De Bruine noted that audiotex and videotex are two examples of the infancy stage in the information services market and are at present nationally orientated. The European Commission's role would be limited at this stage to providing a discussion platform for experts and organizations to address (in the case of the LAB) the prevailing legal problems. The aim is "to improve the accessibility of information at the European level for all interested parties", the concept of Info Euro Access, which characterizes the objectives of the Impact 2 programme.

Concerning the legal questions of trans-border interconnection of videotex networks, participants examined the possible restrictions to free movement of information and the necessity of striking a balance between profitability for service providers and privacy for users. Professor Henrik Kaspersen of the Vrije

Universiteit Amsterdam offered a focus for discussion with a paper describing videotex and its legal framework, also considering the provisions which a European code of conduct should contain. Discussions concentrated on conditions of access to and operation of the videotex service, as well as information content. It was generally felt that, with the range of information offered, European standardization in terms of regulation was necessary. Possible alternatives could take the form of either a hard and fast directive or a more flexible code of good practice.

As far as content is concerned, two approaches were proposed: first, the drawing up of a list of "undesirable information" or of standard clauses as a minimum requirement for pan-European premium rate services; second, a system of tariff/content-based categories established as a pan-European grid.

A draft code of practice for pan-European premium rate services (PRS) was submitted by the European Information Industry Association's (EIIA) audiotex working group. Discussion included formal presentations on the background to this code, on audiotex problems, the British and French solutions, and the aims of the

industry, citing experiences from both a network operator and a service provider. The EIIA draft code would create a voluntary, contractual and binding agreement which would establish, at multilateral level, a network of obligations, a scheme of prior authorization and a licence which would effectively bind service suppliers to comply with the code of practice regulations. This draft code will be further discussed and revised by EIIA.

The meeting was aimed mainly at launching a dialogue between market actors and legal experts, leaving decisions on possible Community action for a later stage. It is clear that, both on economic grounds and in terms of protecting potential users, early action is necessary in this sector.

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Fax: +352 4301 2847

Libraries: 14 RTD programme proposals accepted

The evaluation of proposals submitted under the first call in the libraries RTD programme was completed at the end of February, with 14 proposals retained. These involve 67 participants in 10 Member States from all library sectors, but predominantly academic libraries, from library networking organizations and from a range of private sector companies. The proposals retained cover all four lines of action although the coverage of the 19 suggested themes is uneven. While only a limited number of proposals address core areas, the scope and variety of those selected provide a broad base for project experience and learning in the EC library community.

The proposals incorporate technical developments in the field of optical character recognition applied to catalogue data and of system-aided, intelligent formatting of records.

A major boost to the international interconnection of library systems and services is provided through proposals to develop test-beds of electronic document delivery between different networks using OSI standards, to develop and test the ordering and acquisition of library materials using Edifact standards, and to pilot the implementation of the search and retrieve protocol, a library oriented ISO/OSI standard.

Some projects cover the extension of library services to include access to and delivery of materials held in image banks, including both art and photographic materials as well as more traditional text-based materials held in image form. All involve the transfer of technologies to the library environment and the development of appropriate retrieval applications, tools and standards.

The results take the form either of test-beds for services or of prototype workstations.

Other prototyping projects will look at tools for disadvantaged users (the blind) or for more specialist materials (audio, music scores).

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Interactive multimedia information services

Promoting the development of interactive multimedia information services is one of the first actions envisaged by the Commission under the Impact 2 programme. A call for proposals, specifying applications in the areas of cultural and tourism information, will appear soon in the Official Journal of the European Communities.

The call is intended to encourage cooperation between holders of source material in the cultural and tourism fields, multimedia production studios and publishers and other distribution channels. Multimedia production is a new industry, requiring the fusion of expertise from different environments to produce new information products combining images, text, sound and video in a seamless interactive service.

The intention of this Impact action is twofold: by stimulating the supply of new advanced interactive multimedia products on the market, new users will

be attracted to electronic information by virtue of its ease of use and appropriateness to their requirements; at the same time the embryonic production environments created in Europe will be capable of satisfying these new users with a new generation of information services. This should produce an improvement in the competitiveness of the European information industry.

In the first instance, the Commission will support selected projects for a period of up to six months to enable an initial definition phase to be carried out. This phase, which will qualify for financial support of up to ECU 50,000 per project on a shared-cost basis, will produce a prototype multimedia product for demonstration and a project that is ready for implementation with a detailed work, finance and business plan and full partnership and copyright agreements. The results of the definition phases will be reviewed no later than mid-1993 and the

Commission expects a limited number of projects will then be chosen for further financial support to cover their implementation phase.

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European Information Market Observatory working papers 92/1, 92/2

The 1991 Executive Panel (92/1)

This survey conducted by the IMO sought to identify types of information sources, levels of technology awareness and means of information retrieval used across a range of European industry sectors and businesses.

The survey shows that 41% of executives spend between 11 and 20% of their working time searching for information. Journals and trade shows are popular sources. Only one third of executives, however, use on-line sources. There is a very low awareness of audiotex and kiosk facilities. CD-ROM is acknowledged by around half of those surveyed; although a large proportion are aware of it, they nevertheless have no access to it. Office use of videotex is seen as irrelevant by 75% of the panel - although in France the reverse is true.

The survey therefore shows that there are still many gaps in executive use of electronic information, and the executive needs to be made much more aware of the opportunities available in the business environment. On an optimis-

tic note, 73% of non-users plan to meet future information needs through electronic information services.

Overview of the former East Bloc (92/2)

This working paper examines the status of the on-line information services market in what was the East Bloc. Notable differences already existed between these central and eastern European countries prior to the processes of reform. The political and economic changes which have since taken place have caused further uncertainty and confusion about the future of the information services sector.

Nevertheless, there are some reasons for cautious optimism. Hungary, for example, already has contact with more than 15 international hosts and Bulgaria operates one of the most advanced public data networks. Although databases in Czechoslovakia are becoming more widely available, international access remains restricted. The former Soviet Union, with its poor telecoms structure and lack of personal computers, is losing its promi-

nent position among these countries, after a decade of rapid growth in its electronic information industry.

Liberalization is encouraging international companies from the west to look at the market opportunities, although an international focal point has as yet to be developed. The example of the former GDR shows that integrating a centralist information regime into an established information economy is not easy. Real progress is inextricably linked to the development by these former East Bloc countries of a functioning market economy and basic telecommunication infrastructures.

The IMO working papers are available from the national IMO agents (see next item).

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Fax: +352 4301 2847M

New contacts for IMO working papers

IMO working papers, which contain the results of the European Information Market Observatory's research, have previously been distributed directly and free of charge by the

IMO in Luxembourg. The following agents will in future be responsible for the national dissemination of IMO working papers. Under the new procedure, a small fee (ECU 10) and a charge

for transmission will be levied for each report. To receive future IMO papers, please contact the appropriate national agent as indicated below:

DENMARK DDK Mr Gorski Sigurdsgade 41 DK-2200 Copenhagen Tel: +45 31 816666 Fax: +45 35 821655 ERHVERVS-INFO Mr Clausen Forskerparken Gustav Wieds Vej 10 DK-8800 Arhus C Tel: +45 86 202000 Fax: +45 86 201222 FRANCE A JOUR Mr de Valence 11, rue du Marché St Honoré F-75001 Paris Tel: +33 1 42966722 Fax: +33 1 40200775 ADBS Mr Pomart 25, rue Claude Tillier F-75012 Paris Tel: +33 1 43722525 Fax: +33 1 43723041 BASES PUBLICATIONS Mr Libmann 27, rue de la Vistule F-75013 Paris Tel: +33 1 45827575 Fax: +33 1 45824604	ITALY INFOPARTNERS ITALIA M. Gabriele Lunati Viale Don Minzoni 39 I-50129 Firenze Tel: +39 55 5001834 Fax: +39 55 5001363 NETHERLANDS BUREAU EG LIAISON Mr Heringa Grote Markstraat 43 Postbus 13766 NL-2501 ET Den Haag Tel: +31 70 3610444 Fax: +31 70 3562811 PORTUGAL CHALLENGE Mr Campos Perdigoto R. Tierno Galvan Torre 3-405 P-1000 Lisboa Tel: +351 1 684736 Fax: +351 1 684753 SPAIN FUINCA Mr Berenguer Alcala 61 2° E-28014 Madrid Tel: +34 1 4353215 Fax: +34 1 5767481	STI Mrs Martinez Paseo Castellana 180 E-28046 Madrid Tel: +34 1 4578277 Fax: +34 1 2596022 UK ASLIB Mr Bowes Information House 20-24 Old Street GB-London EC1V 9AP Tel: +44 71 253 4488 Fax: +44 71 430 0514 CICI Mr Green 19 Bedford Square GB-London WC1B 3HJ Tel: +44 71 607 0021 Fax: +44 71 607 0415 BELGIUM, IRELAND, GERMANY, GREECE AND LUXEMBOURG INFOPARTNERS Mr Pascal Hubert 5, rue Höhenhof L-1736 Senningerberg Luxembourg Tel: +352 34981448 Fax: +352 34981234
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New perspectives for teleworking

"If only 50% of commuters in Los Angeles telecommuted one day each week, they would save 205 million miles of travel each year and keep 47,000 tons of pollutants from entering the atmosphere." President George Bush quoted these figures in giving his support to US teleworking initiatives in 1990. As European cities face similar problems of congestion and pollution, interest in teleworking in Europe is growing fast.

A new review of experiences and perspectives for teleworking in Europe is now available, prepared for DG XIII in

the context of the research on telecommunications technologies and telematic systems for rural areas.

The report reviews the recent teleworking initiatives in the USA and in Europe. It focuses on a number of specific case studies of telecommuting, work centres and decentralized business operations, and identifies reasons for the success of some initiatives and the failure of others.

The introduction of multimedia communication facilities could radically change the way many people work and greatly extend the range of jobs that

can be done outside central offices. The report analyses current technology trends and highlights key new research initiatives on both side of the Atlantic. It contains an extensive bibliography of recent reports and publications on teleworking and is available, free of charge, on request from DG XIII.

Contact:

CEC - DG XIII/F
ORA Office
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Fax: +32 2 235.06.54

STANDARDIZATION

Health care and transport: new priorities for IT standardization in CEN

1991 was marked by the progress and momentum regarding standardization in CEN of information technology applied to specific sectors.

A notable example of the development is an ambitious work programme in the area of health care informatics, carried out by CEN TC 251. This takes into account more than 50 work items covering, amongst others, health care information modelling and medical records, terminology, communications and messages, imaging and multimedia, devices, security and privacy and quality and safety.

More than 500 European experts representing industry, users, academic world and the medical environment are involved in the activities

The R&D community is providing a major part of the input through the EC Aim projects and the first results with respect to standards are expected before the end of the year.

Another example is the development of standards for machine-readable cards and related devices and operations.

The work programme covers cards, communications, intersectoral applications, financial transactions, telecommunications, transport and health applications. Coordination with the financial sector, distribution sector, ETSI and R&D through Drive has been taken into account.

CEN has also started new standardization activities in the field of informatics and communications applied to road transport, including elements requiring technical harmonization to allow interoperation with other means of transport covering: the identification of containers, swap bodies and goods wagons, communication between vehicles and road infrastructure, communication between vehicles, man-

machines interfaces on board the vehicle, traffic and parking management, road tolls, public transport management and user information.

Liaison has been established with CENELEC and ETSI. One of the main inputs to the committee is expected to come from the relevant projects in the Commission's R&D Drive programme.

EWOS recently published the guide to profiles for the open system environment. The main issue concerns the exploration of standardization related to a common application environment. Key characteristics of such an environment are:

- portability of application software
- interoperability and interfaces.

The first guide to profiles for the Open Systems Environment (OSE) has become the internationally harmonized definition of ISO/IEC JTCl and OIW (US OSI workshop).

The main characteristic of the pre-standardization activities carried out by EWOS is the international alignment towards ISP development. This also defines the new activities leading towards the definition of standardized test specifications. The FTAM area has been considered as first priority. Decisions on other areas could be taken in the near future, eg. lower layers (transport), directory, virtual termination and ODA.

PCTE

The portable Common Tool Environment (PCTE) was initiated as an Esprit R&D aimed at the establishment of a set of open interface standards that would significantly improve the market for computer aided software engineering (CASE) tools and environments.

Such a standard aimed to provide the user with a wider freedom to mix and match individual tools to suit particular requirements, and to offer vendors the possibility of lower development costs and the added value of integrating their specific offering with complementary tools from other sources.

This broad-based Esprit activity, involving a coordinated set of some eight separate projects, has now led to the establishment of the first public standard in this area (ECMA standard 149) and a range of commercially available implementations now increasingly adopted by both European suppliers and major users.

To complement this essentially civil use of the standard and the environment, a major military assessment project is now nearing completion by the Independent European Program Group (IEPG-TA13) concerned with military software engineering matters. This project has made a considerable contribution to the definition of the ECMA standard and has concluded that it provides the necessary basis for meeting military needs. As such, ECMA PCTE is now positioned to be actively considered as a NATO standard. Indeed, a number of major US Department of Defense projects are now proposing to use PCTE as their "repositories".

The extensive activities that have led to the international adoption of this European technology will be the subject of an article in the next edition of the *DGXIII Magazine*.

INTERNATIONAL PERSPECTIVE

Call for proposals

The Commission published a call for proposals on 30 April (Official Journal no. C III/15) to launch a number of preparatory and pilot actions "with the objective of exploring the perspectives of scientific and technological cooperation" between the Community and central and eastern European countries.

The countries concerned are those which already have an agreement with the Community in science and technology, i.e. Albania, Bulgaria, Czechoslovakia, Estonia, Hungary, Latvia, Lithuania, Poland and Romania. Participation of others is under consideration.

The actions concerned are the following:

- Scientific and technical mobility involving nationals of the European Community and those of the central and eastern European countries (research fellowships). The areas include all exact and natural sciences, economic and management sciences as well

as human and social sciences.

- Preparatory actions with a view to explore the setting up of pan-European scientific networks (action B1) and the organization of and participation in conferences, workshops and seminars (action B2). The areas include all exact and natural sciences, economic and management sciences as well as human and social sciences.

- Joint research projects in priority areas, between organizations and enterprises, both public and private, of the Community and the countries of central and eastern Europe. The areas include the quality of life (environmental protection, health protection, social sciences and societal problems) and the industrial technologies (information and communication technologies, materials and production, agro-industry and food).

- Support for the participation of organizations and enterprises of central and eastern European countries in projects of those specific Community programmes for research and technological

development, which allow such participation on a project by project basis.

- Support for the participation of organizations and enterprises established in central and eastern European countries in COST actions.

Proposals for participation in actions A, B 1, B 2 and C and expressions of interest for actions D and E must be received by the Commission by 7 August (17.00 hrs) at the following address:

CEC
Scientific and Technical Cooperation
with Central and Eastern European
Countries
75, rue Montoyer
B-1040 Brussels
Fax: +32.2.2363308.

Selected proposals will be funded according to conditions set out in an information package, which can be obtained from the above address, providing further details and application forms.

Fast forward to fax networking

Falling prices, innovative use of distribution channels and enhanced memory and computational powers have spawned growth in the facsimile equipment and services market, promoting revenue increases expected to reach \$21.3 billion by 1997 up from \$9.3 billion in 1990 according to *Facsimile Equipment and Services Market*, a new report from Market Intelligence Research Corporation (MIRC).

MIRC reports that new technological trends are proving lucrative for vendors. As corporate buyers turn increasingly to

multi-user computing solutions and new technology enables single networks to simultaneously process voice, image, video, and data messages, network fax solutions will surge, becoming the largest sector in terms of revenues by 1993.

MIRC says numerous market opportunities will open up to both new entrants and established manufacturers, although smaller companies must adopt increasingly aggressive marketing strategies to survive in a market occupied by major corporations.

(*Facsimile Equipment and Services Market - Price \$14.95*)

Contact:

MIRC Europe
54 rue Vandenhoven
1150 Brussels
Tel: +32.2 762.27.81
Fax: +32.2 771.72.48

Third country projects extend electronic information services awareness

In the framework of cooperation with third countries, DG XIII is currently involved in two projects aimed at improving awareness of the potential of electronic information services and increasing accessibility to European information.

The first comprises provision of a stand-alone workstation, which will serve as a self-teaching and training facility by means of which the user can become acquainted with the basic technologies involved in accessing electronic information services, the process of information retrieval, and local facilities of information management.

The second involves two-day training courses aimed at educating potential users in online information retrieval techniques, followed by an opportunity for them to consolidate their learning by means of continuing access for a limited period, free of charge, to an experimental host service (in this case, the Commission's host ECHO).

Agreements have been reached with organizations in China, India and Mexico. Readers of this publication in these countries who are interested in receiving details of the locations at which

training courses will be organised are welcome to contact the project leader at the address below.

Contact:

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NATIONAL SCENE

Infonet extends its global network to Greece

Infonet has announced that it is extending its global communication services network to Greece. The firm has signed a comprehensive services agreement with the Greek PTT, the Hellenic Telecommunications Organization S.A. (OTE).

The agreement with OTE will ensure local service and support for Infonet customers in Greece. As a result, the world-wide Infonet support organization now covers 45-plus countries.

Infonet's communications facility in Athens will be fully operational this month. The Athens business community will then have direct access to Infonet's network by making a local phone call. The Infonet network is accessible in more than 125 countries for global data, E-mail, store and forward, fax and telex transmissions.

According to Michael J. Timmins, corporate vice-president of Infonet's international operations, the primary purpose of this operation is to better serve the rapidly growing Infonet customer base in Greece. "In their race to modernize, many Greek enterprises are collaborating with Infonet's multinational clients in the European Community and North America who can supply them with industrial equipment and technical licenses," explained Timmins. "Our multinational customers in EC member countries, such as Germany, have in turn invested in previously state-owned textile plants and mining operations which the Greek government recently privatized," added Timmins.

An interconnect is being established between the Infonet's world-wide network and Greece's Hellaspac national public data network as well. Once this interconnect is completed, Hellaspac subscribers will have direct local access to the Infonet network from other major business centres, including Thessaloniki, Patras, Heraklion, Volos, Piraeus, Kavala, Kalamata and Larissa.

"Infonet will initially handle a significant portion of the data communications traffic between leading firms in the strong Greek tourist industry and major hotel and travel reservation centres in North America and western Europe," stated OTE general director Dimitrios Kouremenos. "Thereafter, Infonet will also meet the needs of the

increasing number of foreign companies who use Greece as their home base for penetrating lucrative market niches in the Middle East and North Africa."

Under its agreement with Infonet, OTE will maintain the new Infonet communications facility, which is located on its premises in Athens. Additionally, OTE will connect Greek businesses to Infonet's network and Notice 400 messaging service and install Notice PC E-mail software at their sites. Such customers can choose dial-up access to the Infonet networks or dedicated connections via analog leased circuits which speeds up to 9600 bps.

OTE will also hold on-site education and training classes introducing users to their new Infonet technology and provide ongoing service and support, complete with a telephone hotline staffed by senior technical experts in Athens. "Locally, we are already receiving numerous requests for Infonet service from Greek exporters of petrochemicals and pharmaceuticals in Athens vicinity industrial estates who want to communicate with their EC trading partners," emphasized Alexander Lambrakis, director of OTE's telematics department. "Additional demand is coming from importers with warehouses in the duty-free zones of ports like Piraeus and Thessaloniki." Established in 1970, Infonet is the leading standards-based international value-added network services company. It provides and directly supports communication and computer services world-wide. All told, Infonet serves more than 10,000 user sites throughout the world. The company is jointly owned by 11 major telecommunication administrations in Europe, the US and Asia-Pacific.

Contact:

Infonet Europe
(32.2) 645.02.90

Infonet Athens, OTE
(30.1) 611.83.56

EIB loan to upgrade telecoms systems in Portugal

The European Investment Bank has granted a loan to Portugal to be used to upgrade and expand the telecommunications system in Lisbon and Porto. The loan to Telefonos de Lisboa e Porto (TLP) is worth 77.8 million ecus.

In doing so, the EIB has decided to take part in the TLP's medium-term plan to provide in these regions with high performance telecommunications facilities. The aim is to reach the Community average of 45 telephones lines per 100 population and to reduce both fault rates and waiting time for the installation of new links. The loan will pay for the installation of some 600,000 telephone links using digital equipment.

Telecoms: EIB loan to Spanish network

The European Investment Bank (EIB) is advancing a loan of 12.75 billion pesetas (ECU 100 million) to Telefonica de España to promote the modernization and expansion of Spain's telecommunications network. This includes the installation of new lines, digital switching equipment, fibre optic cables and public telephones booths.

The Instituto de Credito Oficial (ICO) is acting as intermediary for the financing operation. The project forms part of an investment programme being carried out by Telefonica, which is seeking to increase the number of telephone connections in Spain.

EUROPEAN DIMENSION

European Parliament votes on privacy directives

Following a long debate at its February plenary session, the European Parliament adopted its opinion concerning the first reading of the data protection (privacy) directives on 11 March. Most of the 95 amendments proposed by the Legal Affairs Committee in December and a few of those submitted subsequently were adopted. The main ones concern: extension of the scope to cover data (not only files); exclusion of the "explicit consent" with the "opportunity to object" concept; and abolition of distinctions between public and private sectors. Considerably fewer (12) amendments were proposed and adopted with regard to the ISDN directive. The Commission will now redraft its original text to take into account the Parliament's opinion and will submit its new proposal to the Council in order to arrive at a common position to be voted on by Parliament in the second reading of the cooperation procedure.

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FID International Clearing-House moves to Copenhagen

The International Clearing-House for Information Education and Training has moved to the Royal School of Librarianship in Copenhagen after leaving Syracuse University in the USA at the start of 1992.

The International Clearing-House was created on an experimental basis in 1979 at the University of Maryland (USA) as a project of the FID Education and Training Committee. In 1983 it was established on a more permanent basis at Syracuse University (N.Y.) as a support to developing countries.

FID has members or affiliate members in over 80 countries in all regions of the world and devotes much of its attention to the training and development of the modern information professional; corporate information (industrial, business and finance information); information policy research; the application of information technology; information service management; the marketing of information systems and services; content analysis, eg. in the design of database systems; linking information and human resources; and the repackaging of information for specific user audiences.

The Clearing-House - under the direction of Professor Irene Wormell - maintains contacts with researchers, policy-makers and practitioners.

Intergovernmental and non-governmental organizations often turn to it with queries and schools of library and information studies in developing countries can obtain materials such as course syllabi, examples of tests, reports, specialized course bibliographies, addresses of funding sources and sample teaching aids.

The Clearing-House services a specialized collection on information, educational planning, instruction, research and policies, and serves as a source of sources, answering queries by locating, evaluation and repackaging information for users.

It publishes a quarterly newsletter on education and training programmes for information personnel.

Contact:

FID
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2509 LK The Hague
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Fax: +31 70 3140667

Commission approves draft directive on legal protection of databases

On 29 January the Commission presented a draft directive on the legal protection of databases. This provides for full copyright protection for databases meeting the originality criteria necessary for such protection and a shorter term of protection, (10 years) for databases that do not. The Commission proposal will follow the cooperation procedure (discussions with the European Parliament, the

Council and the Economic and Social Committee) before it is finally adopted by the Council.

The Commission will present this draft directive to selected information industry representatives at a workshop in Luxembourg on 1 and 2 July.

Contact:

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Fax: +352 4301 2847

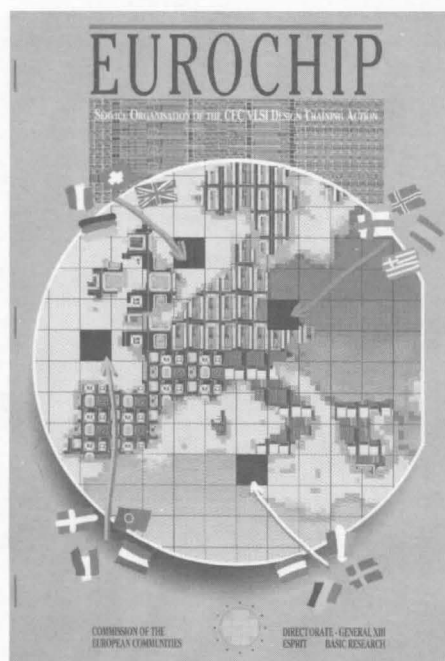
PUBLICATIONS

Eurochip Design Catalogue

Service Organization of CEC VLSI Design training action
CEC - DGXIII Esprit - Basic Research

Eurochip, the service organization of Esprit's VLSI design training action, has published a first version of the Eurochip Design Catalogue, a summary of 18 fabricated chips based on designs from students who take part in the training. This catalogue will be continuously updated and is available upon request. The reader will find contact persons, descriptions of the designed circuits, a picture of the layout and testing results as well as dimensions of the chip, the foundry, the CAD software used and the technology employed.

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Fax: + 33 76 47 38 14



Advanced Algorithms and Architectures for Speech Understanding

G. Pirani, Torino, Italy (Ed.)
1990. XIV, 274 pp. (Research Reports Esprit. Project 26 (SIP). Vol. 1)
Softcover DM 45,- ISBN 3-540-53402-4

This book gives an overview of the major results achieved in the field of natural speech understanding in Esprit project 26.

The book describes the complete speech understanding system, from the speech input of a question to the answer formulated in spoken natural language. All the components of the system are described in detail: speech recognition algorithms, understanding techniques, hardware based on digital speech processing and parallel architectures and languages. It is also shown how the single components can be integrated to build the overall system.

The main features of the system described are:

- continuous speech;
- vocabulary size of 1000 words;
- training independent of application vocabulary;
- natural language with limited syntactic coverage;
- constrained semantic domain relevant to a database enquiry.

The book should be useful for researchers involved with the problem of designing a speech understanding system as well as for students interested in principles and fundamentals.

Contact:
Springer-Verlag
Heidelberger Platz 3
D-1000 Berlin 33

European Procurement Handbook for Open Systems

CEC - DG XIII Telecommunications, Information Industries and Innovation
Report Version 7.0 - 1992
EUR 14021 ISBN 92-826-3736-0

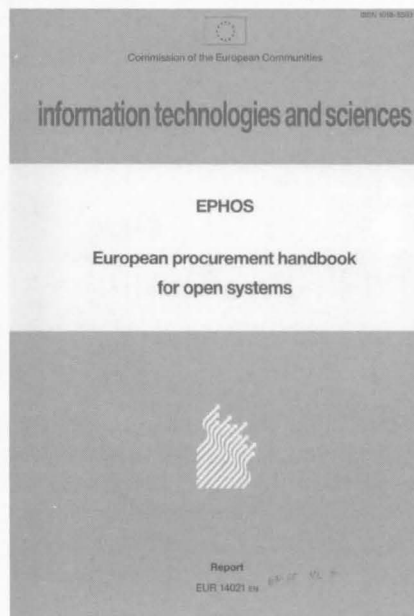
As announced in *XIII Magazine News Review* No 1/92, the first EPHOS handbook is now available in English, Dutch and Portuguese (other languages to follow soon). This handbook is intended to provide all those involved in European public administration procurement with definitive information and guidance on

the standards and specifications to be used in the acquisition of OSI conformant goods and services in the field of information technology communications.

Contact

Office for Official Publications of the EC.

L-2985-Luxembourg



EPHOS is also publishing a quarterly newsletter and a bimonthly gazette which can be obtained from XComs International SA - Rue d'Argoussart 54 - 1301 Bierges (Belgium) - Tel: +32.10. 41 11 72 - Fax: 32.10.411 742

AGENDA

Telecommunications Forum, Brussels, 22 - 24 July 1992

With the support of the EC Commission, the London-based International Institute of Communications (IIC) will organise a three-day conference on the achievements and future challenges of the EC's telecommunications policy. The timing of the event is related to the 1992 review of telecommunications, currently under preparation by the Commission's services. Accordingly the conference programme will analyse the impact of Community legislation resulting from the implementation of the 1987 Green Paper proposals and will look at new

aspects influencing regulation and competition in the telecommunications sector.

Further conference sessions will focus on the development of telecommunications in central and eastern Europe, including reports about the impact of the Community's Phare programme on telecommunications in selected countries.

The Commission's support of the event will include the financing of the partici-

pation of representatives from 10 central and eastern European countries.

The Forum follows up a similar event of 1990, equally organised by IIC, which both participants and the Commission considered as having been very successful.

Further conference details are to be obtained from the organisers:
IIC, Tel. 44-71-388.06.71, Fax. 44-71-380.06.23.

Lisboa '92 - An advanced course on distributed systems

An advanced course on distributed systems will take place from 29 June - 8 July in Estoril, Portugal, organized by INESC. This course has been held four times now, in June or July; in Tromsø, Norway (Artic 88), at Cornell, USA (Fingerlakes 89), in Italy (Bologna 90) and in Japan (Karnizawa 91).

The objective of the course is to familiarize practitioners and researchers with key issues in distributed systems. The lectures will discuss the fundamental problems of the area, review known solutions and paradigms, and show how to apply known theoretical results to the design of practical systems. Lisboa 92 lecturers are internationally-known researchers whose interests and experiences span the full range of distributed computing.

The course will be organized as a series of daily lectures with several discussion sessions. The discussions will permit small groups of attendees to interact directly with lecturers, either to

focus on issues that arise during the lectures or to pursue other topics of interest to the group.

The introduction of the course will present a rationale for distributed systems, give motivations, specify requirements, goals, advantages, disadvantages and explain limitations. Fundamental concepts will be presented, followed by overviews about communication and services. Security, fault tolerance, transactions and data storage are further topics.

Contact:

Paulo Verissimo
Lisboa '92
INESC - Instituto de Engenharia de
Sistemas e Computadores
R. Alves Redol, 9
Apartado 10105
1017 Lisboa Codex- Portugal
e-mail: lisboa92-org@inesc.pt

New trade fair for networking

Networking, a new professional fair, will be held from 24-26 November 1992 in Courtrai, Belgium. Concerning computer networks, Lan, Man, Wan and systems integration, the fair aims to offer a contact place between computer personnel, network managers, suppliers and users. Conferences will be organized in parallel with the fair. The full programme is available.

Contact:

Networking
Doorniksesteenweg 216
8500 Kortrijk - Belgium
Tel: +32 56 20 40 00
Fax: +32 56 21 79 30

LPSS'92: International Logic Programming Summer School

Organized by the Esprit Computational Logic Network and the Department of Computer Science at the University of Zurich, the second International Logic Programming Summer School will be held on 7-11 September 1992 in Zurich,

Switzerland. The agenda includes industrial applications of deductive technology in constraint handling, deductive databases, natural language, software engineering, knowledge-based systems, etc.

Contact:

Gérard Comyn
ECRC
Arabellastrasse 17
D - 8000 Munich 81

Borbert E. Fuchs
Department of Computer Science
University of Zurich
CH-8057 Zurich



Privacy Laws & Business 5th Annual Conference

July 20-22 1992, Cambridge

The European Parliament last month voted on the Commission's draft data protection directive, which will strengthen privacy rights and regulate more strictly the way organizations hold data on us all. The directive is scheduled to be adopted by the Council of Ministers by the end of this year as part of the single European market programme.

The Privacy Laws & Business 5th Annual Conference will be the first opportunity to hear directly from those responsible for this revised proposal at the Commission, the European Parliament and the Council of Ministers. The conference will cover what the revised directive says, and what it will mean for:

- * Individuals whose records are held on computer and in manual form.
- * Companies, for example for personnel, market and credit data.
- * The public sector, such as the police and the health sector, central and local government.
- * Everyone responsible for ensuring compliance with the Data Protection Act.

The conference will also cover new data protection management techniques, including data protection auditing and raising and maintaining employee awareness.

Contact:
Steward Dresner
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Privacy Laws & Business
3 Central Avenue
Pinner
Middlesex HA5 5BT
Tel: +44 81 866 8641
Fax: +44 81 868 2915

CD-AL-92-002-EN-C

East-West technology transfer

The European Materials Research Society (E-MRS), has decided to invite eastern scientists to participate in its activities. An agreement was reached between the MatTech East-West Conference organization in Helsinki to join efforts with the E-MRS for a joint venture, starting in 1992 by organizing a common European East-West Conference in Strasbourg, (3-6 November), on advanced materials processes.

Contact:

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Tel: +33.88.28 65 43
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DG XIII participation in technology exhibitions

IEEE Robotics 92 (Robotics and automation) Nice	11-17 May
Aticelca (Paper) Bologna	19-22 May
CIM-Europe (CIM-E) Birmingham	27-29 May
ADA Europe 92 (Ada product market) Zandvoort	1-4 June
Compat (Tedis/EDI)	2-4 June
Avignon 92 (Artificial intelligence) Avignon	3- June
Fantastic Future (General telecoms) Aalborg	26 July - 9 Aug.
IFIP 92 (Information processing) Madrid	7-11 Sept.
ECOC 92 (Optical communication) Berlin	28 Sept.- 1 Oct.
SICOB (Business equipment) Paris	5-9 Oct.
Interkama (Multimedia) Düsseldorf	5-10 Oct.
EuroTelecom (Telecommunications) Budapest	12-17 Oct.
Tec (Multimedia) Grenoble	14-17 Oct.
IEEE Medicine (AIM) Paris	29 Oct.- 1 Nov.
Esprit 92 Brussels	23-27 Nov.

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The opinions expressed in these publications do not necessarily reflect those of the Commission.
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Commission adopts Green Paper on Postal Services

On 13 May the Commission adopted its *Green Paper on the development of the Single Market for postal services*, on a proposal from Vice-Presidents Filippo Maria Pandolfi, responsible for telecommunications, and Sir Leon Brittan, responsible for competition policy.

The Council of Ministers asked the Commission to prepare a Community-wide framework for the postal sector, considered a crucial element for the completion of the single European market.

The aim of this comprehensive consultation document is to stimulate detailed discussion with governments, users, operators, employees and other interests in order to shape policies which will ensure that all customers throughout the Community receive efficient, high-quality postal services at affordable prices. Following this period of consultation the Commission will draw up conclusions and propose the necessary action.

The Green Paper analyses the existing situation, identifies the main problems and lays out options for their possible solution. It calls for a universal service to be defined and safeguarded, enabling postal administrations to fulfil their public obligation to provide a good postal service between all citizens and

businesses both within each country and across borders. It would allow the establishment of a set of reserved services that confer exclusive rights on national postal administrations. These would broadly cover personal and business correspondence, with clear limits defining the precise scope of the reserved area in terms of weight and price. The scope of the reserved area would have to be strictly proportional to the need to maintain a universal service.

The Green Paper envisages that other postal services would be outside the reserved area in order to ensure that free competition is further introduced to improve efficiency, once the universal service objective is achieved. This means that a number of services previously only offered by the post offices could now be offered by other companies from the public or private sector. These would include express mail and the mailing of publications. The liberalization of direct mail (advertising messages sent in bulk) and also of cross-border mail would be envisaged.

The consultation period will enable the Commission to further examine the economic and financial consequences of these proposals. Where necessary, the liberalization process should be implemented in a gradual manner. Moreover, in accordance

with article 90(2) of the EC Treaty, where particular circumstances within a Member State mean that the universal service objectives would be obstructed by this liberalization, an exception could be provided for.

In order to avert the risk of a two-speed postal service reducing the benefits to customers and business of the single European market, the Green Paper aims to improve the level of harmonization between Member States.

Rules of access to the national networks should be the same in each country so that postal administrations or private operators wishing to exercise their right to use the network to provide their services would not be hindered by regulatory or technical barriers; common performance standards should be set, with the results being published; and tariffs, including the system of compensation between postal administrations in different countries (terminal dues), should reflect the average cost of each service. The Green Paper also argues that in order to ensure impartial treatment of all operators, whether public or private, the body regulating postal services in each Member State should be separate from the service providers.