# THE INFORMATION SOCIETY

## G7 MINISTERIAL MEETING BRUSSELS, 24-26 FEBRUARY 1995

The European Commission hosted the G7 Ministerial Conference in Brussels from 24-26 February 1995. This conference followed the G7 Naples Summit of 9 July 1994, when the Heads of State and Government decided that a meeting should be organised in Brussels to give ministers the opportunity of discussing how to "encourage and promote the innovation and development of new technologies, including, in particular, the implementation of open, competitive, and world-wide information infrastructures".

The Conference concentrated on the following topics:
• the regulatory framework and competition policy;
• the implementation of information infrastructures and their accessibility for the public, together with the development of applications;
• the social, and cultural aspects of the information society.

A welcoming dinner took place on 24 February. On this occasion, opening addresses were delivered by Jacques Santer, President of the European Commission, and Klaus Hänsch, President of the European Parliament. Al Gore, Vice-President of the United States also gave a speech.

Jacques Delors chaired a round-table discussion during the morning of 25 February, which was attended by around fifty prominent business leaders, each nominated by the G7

member governments. The ministerial meeting began in the afternoon.

**Showcase to illustrate the Information Society**

Taking place alongside the G7 ministerial meeting, the European Commission staged an interactive multimedia showcase as a visual support to the G7 debates.

The central theme of the showcase was the major role played by the information society in transforming the quality of life for a growing number of people around the world. It also demonstrated new or 'leading edge' applications related to the information society and the kind of uses to which they might be put.

Around 100 partners involved in the development of applications, including small as well as large enterprises, were invited by the G7 countries to take part in this showcase to demonstrate how technological progress is making a difference to life today, and how it might do so in the future.

The showcase featured a number of real-time, real-use situations to familiarise the visitors with new applications in a number of areas such as business, education, health care, leisure and domestic environments.

## Essen Summit

At their meeting in Essen on 9-10 December 1994, the Heads of State and Governments of the European Union discussed the European Commission's action plan "Europe's way to the information society". The Presidency's conclusions were as follows:

"The European Council emphasised that the Commission Action Plan *Europe's way to the information society* and the conclusions of the Ministers for Industry and Telecommunications have set the agenda for the development of an information society. The European Council sees the basic decision on liberalising the telecommunications infrastructure by 1 January 1998 as a decisive step in establishing information infrastructures for the future. In this connection it stressed the importance of new services and information content as well as the audiovisual sector in its cultural dimension. In this connection the European Council called on the Commission to prepare proposals for

## Essen Summit (continued)

revision of the Directive on television without frontiers and for a new MEDIA programme before the next European Council.

The European Council stressed the role of the private sector in building up and financing information infrastructures. It requested Member States to establish a suitable environment for such initiatives. International cooperation must be further strengthened, above all in relation to Central and Eastern Europe and the Mediterranean. The European Council calls upon the Commission to make appropriate proposals to that end.

The European Council asked the Ministers for Industry and Telecommunications to ensure coordination of further measures. It requested the Council to create rapidly the legal framework conditions - in areas such as market access, data protection and the protection of intellectual property - that are still necessary.

The European Council welcomed the G7 Ministerial Conference on the global information society to be held in February 1995 in Brussels."

# *internal market*

## ISPO: the Commission's new tool for the information society

On December 12 1994, the European Commission launched ISPO, the Information Society Project Office. Its aim is to support, promote and advise private and public initiatives related to the information society.

ISPO forms part of the Commission's Action Plan entitled "Europe's way towards the information society" (COM(94) 347) published in July 1994.

ISPO will act as a user-friendly interface or "one-stop shop" enabling everyone involved in the creation of the information society to gain quick and easy access to the appropriate Commission information. Its main clients will be businesses, including SMEs; public authorities at European, national or local level; universities and research bodies; user groups and associations.

ISPO aims to foster new partnerships by acting as a broker of ideas and expertise, and to encourage awareness of the benefits, opportunities and challenges of the information society. It will help organise information campaigns and produce reviews, summaries and articles, making increasing use of the information age's new tools, including e-mail and on-line databases.

ISPO will contribute to the learning process among all participants in the information society through fostering the exchange of shared experiences and best practices in application projects, and by setting up joint workshops and demonstrations together with national, regional and local administrations.

ISPO will also help promote international cooperation by aiming to build a global information infrastructure, disseminating information on projects outside the Union and helping European parties establish worldwide partnerships.

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## Green Paper on Telecommunications infrastructures: both parts issued

Both parts of the Commission's Green Paper on telecommunications have now been issued, - the first on 25 October '94, the second on 25 January '95.

Part I sets out the timetable for the general principles and Part II looks at what needs to be done to create the regulatory framework for full telecoms liberalisation.The Telecommunications Council endorsed Part I in November '94 and confirmed that the target deadline for accomplishing liberalisation was 1 January '98.

**Key points**

Part I: before voice telephony becomes open to competition, restrictions on the use of own or third-part infrastructure need to be removed for satellite communications services, all terrestrial services, including cable TV used for this purpose, ie data and added-value services, and for voice services for corporate networks and closed user groups only. Links for mobile communications services are also needed, including microwave links. All this is subject to safeguards ensuring adequate financing of networks and their future development. Only when this is in place can the provision of voice telephony for the general public be ensured.

Part II: universal service, its scope, and how to finance it in a competitive environment is defined. Interconnection and interoperability are discussed, and

the Interconnection Directive outlined. Licencing will remain a matter for each national regulatory authority, within an appropriate shared framework. The international dimension and the need for fair and open competition are also stressed.

The Green Paper demonstrates that the liberalisation of telecoms is also in harmony with other EU policies on broadcasting, computing, intellectual property rights and related issues, and puts the whole matter of telecommunications infrastructures firmly within the context of the developing information society.

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# The Commission opens cable TV networks to liberalised telecoms services

### A first step to the multimedia world

The Commission adopted on 21 December 1994 a directive for public consultation which will lift restrictions on the use of cable TV networks for the carriage of all liberalised telecommunications services. The proposal represents a modification of Article 90 directive liberalising those services (90/388). It aims, in particular, to allow new multi-media telecoms services to be carried on cable networks throughout the European Union by 1 January 1996. During 1995, the Commission will present the directive to the Member States and the European Parliament and consult with other interested parties on the draft directive before formally adopting a decision, in an open procedure ensured by Mr. Van Miert at the last Telecoms Council. The precedent for such a procedure was set by consultations on the satellite amendment to the services directive which was finally adopted in October 1994.

Liberalising access to cable infrastructure should permit a reducing of costs and a significant increase in the amount of capacity available for new services. Alongside this, it encourages use of state-of-the-art technology and represents an important contribution to the development of the information society.

### The goal: multimedia services

In many of the Member States, existing national regulation restricts use of cable TV networks for all but simple, one-way broadcasting services. The regulatory restrictions which would be abolished by the directive currently prevent cable TV operators from offering carriage or provision of any of the new interactive and multimedia services. Most of these involve the digital transmission of moving pictures which the traditional telecommunications networks are not designed to - and in many cases cannot-carry. The main goal of the Commission is to lift those restrictions in order to foster pilot projects and new initiatives in the multimedia field. This area was highlighted in the White Paper on Growth, Competitiveness and Employment as being of fundamental importance in realising the information society.

Examples of such new services include:

• Home shopping (including catalogue-browsing, live video displays, "navigation" around the shopping centre from home, viewing property);
• Home transactions packages (banking, making ticket reservations, buying, selling)
• "Edu-tainment" (interactive video games which entertain and educate)
• specialised interactive on-line databases (for example for the medical or dentistry professions, which involve detailed and/or moving images)

The lifting of current restrictions will also encourage the provision of new distributive applications, such as home alarms and telemetry (i.e. distance meter-reading). Cable operators can offer capacity for such services at a significantly lower cost than telecom operators.

A further important market for cable capacity concerns **mobile services**. New entrants are looking for alternatives to using the telephone operator's network since the latter is often a competitor in their own mobile market. Once liberalised, the fast-growing market of mobile communications is expected to generate sufficient revenues to allow cable operators to upgrade and expand their infrastructure for increasingly sophisticated multimedia services.

Like the satellite directive adopted in October, the cable directive involves an amendment to the 1990 Telecoms Services Directive. The amendment allows service providers the choice of offering their services over cable TV networks. This does not affect the Member States' rights to maintain monopolies in provision of voice telephony until 1998, as the directive concerns only the provision of non-reserved services.

The current situation in most of the Member States is that only the telecoms organisations are allowed to lease out capacity for or to carry telecoms services on behalf of anyone else. This severely constrains possibilities and opportunities for both service providers and users. Furthermore, the tariffs for lease of high-capacity lines from the telephone operators in the EU is on average 10 times higher than in liberal environments such as Sweden and North America. Maintaining restrictions on CATV networks means that while capacity is restrained, the cable operators are not investing in adaption to their infrastructure to provide high capacity for telecoms services, since they are not allowed to respond to the demand for it.

The directive also introduces competition safeguards aimed at preventing operators using a dominant position in one market to impose predatory prices in another. It requires the Member States to adopt measures to allow the monitoring of cross subsidies between reserved and liberalised activities, when a single operator provides both. This concerns on the one hand telephone operators who also operate CATV networks, and on the other, CATV operators enjoying exclusive rights for their broadcasting activity who also enter the liberalised telecoms market.

# The Commission proposes a level playing field for telephone services

The European telecommunications market is currently in the process of liberalisation. However, the liberalisation of the voice telephony market must be accompanied by strict guarantees concerning user rights and access by service providers to telecommunications networks. With this very much in mind the European Commission initially laid before the Council of Ministers and the European Parliament a Directive containing a set of working practices that were intended to maintain the quality of the universal service offered to consumers.

Despite a core agreement both Council and Parliament were unable to agree on the powers of the committees (comprising representatives of the Member States) responsible for helping the Commission to implement the rules laid down in the Directive. Since this text is covered by the co-decision procedure introduced by the Treaty on European Union, Parliament invoked its right to reject the Directive during its July 1994 session.

The Directive which the Commission is now proposing incorporates the essential aspects of the provisions approved by the Council and by Parliament in 1994.

The proposal for a directive on the application of open network provision to voice telephony concerns harmonisation of access to public telephone networks and services, for both individual consumers and commercial companies. This means guaranteeing all European citizens access to basic, affordable telephone services, improving consumer protection, and paving the way for new telecommunications-based services in Europe by improving the conditions for access to the public telephone network infrastructure.

Once liberalised, public telecommunications networks and services will be owned and operated by various public and private organisations. The directive will provide a balanced development of the market, will set out in clear terms the scope of universal telephone services, and will provide a stable regulatory framework in advance of the full liberalisation of telephone services.

The directive covers issues such as:

• non-discriminatory services for all users, i.e. availability of technical access, tariffs, quality of service, availability of information to customers;

• the user's right to have a new telephone line installed within a public delivery period;
• the user's right to have itemised telephone bills, and access to independent settlement procedures for billing disputes;
• the need to guarantee that the cost of a telephone service remains affordable to all users, under supervision of the national regulatory authority;
• transparent and properly published tariffs and a transparent cost accounting system;
• discount schemes for certain uses, and reduced tariffs for particular groups of people, particular types of calls, or at particular times of day;
• ensuring the supply of telephone directories and directory services;
• provision and availability of public pay-telephones;
• promoting the creation of a single type of telephone payment card, which can be used in all Member States;
• support to groups of people with special needs, such as disabled persons;
• development of Europe-wide telephone numbering schemes, facilitating the use of freephone/green-number services;
• guaranteeing users the same rights and legal protection as when dealing with other goods and services.

# Council defines basic goals and principles for a future satellite communications policy

The Council of Ministers of the European Union approved a resolution on the development of a Community policy on satellite communications and provision of capacity. In this resolution, the Council defines the following as basic goals for a satellite communications policy:

• non-discriminatory access for all suppliers and users of satellite services throughout the Community to space segment capacity, in particular including space segment capacity provided by intergovernmental satellite organisations;

• urgent adjustment of the inter-governmental satellite organisations such as Intelsat, Inmarsat and in particular Eutelsat in the light of the Community regulatory framework and market requirements in accordance with the Treaty obligations and with

the interest of the Community satellite communications sector.

The following principles need to be taken into account amongst others:

• strict separation of all regulatory and operational aspects;
• separation or more flexibility in the linkage of investment shares and usage;
• non-discrimination and transparency, if both space segment capacity and satellite services are provided;
• comparable and effective access to third country markets, in parallel with the Community market liberalisation;
• effective management of orbit and frequency resources within the framework of the International Telecommunications Union, building on the co-operation within the European Conference of Postal and Telecommunications Administrations

(CEPT) and taking full account of Member States' sovereign rights, with the aim of improving the economic benefits, the market orientation, and of the efficiency of the current approach.

The Council invited the Member States to assist each other and to cooperate closely in implementing these basic goals. It asked the European Commission to monitor the access arrangements in third country market with a view to ensuring comparable and effective market access to third countries, in line with the GATT framework and other international obligations of Member States. The Council also stressed the need for the Commission to take due account, inter alia, of the advantages offered by satellite-based applications in its development of a coherent strategy for trans-European networks.

# Mobile and personal communications: Europe on the move

In a Communication adopted on 23 November 1994, the European Commission stressed that the mobile and personal communications sector should be widely open to competition by 1 January 1996.

Mobile telephony will be one of the main telecommunications growth areas over the next ten years and its liberalisation is thought to be vital for its development states the Commission. It proposes a comprehensive programme for action which includes: full application of competition rules; the development of a code of conduct for service providers; full access to the market for service providers; promotion of the availability of frequencies and numbers; promotion of targetted programmes to help emerging mobile technologies. Flanking measures are proposed to develop health and safety standards (e.g. exposure to electromagnetic rays) and to minimise the environmental impact of mobile communications (e.g. unnecessary proliferation of radio pylons or related installations), to protect privacy of personal data or to monitor the effect on employment (promoting staff retraining, if need be).

To achieve this, the Commission proposes a two-stage timetable:
- For the 1 January 1996: application of competition rules, presentation of a code of conduct, easier access to Digital European Cordless Telecommunications (DECT), various technology support programmes, amendment of 1991 Directive on approved mobile equipment, adoption of decisions on frequencies and satellite systems, guaranteed international coordination and action to promote access to a health and safety programme.
- For 1 January 1998: review of system of access for providers of services, access by licences to the DCSD 1800 Digital Communication Standard for Cellular Communications, scope for combining various mobile services, adoption of a decision on frequency bands for the Universal Mobile Telecommunication System, creation of a European number zone for pan-European services etc.

The Commission's paper is the result of extensive consultations initiated by the publication in April 1994 of the "Green paper on a common approach to mobile and personal communications" (see Spring 1994 issue of I&T News Review). The Commission received more than 70 written comments from European and national organisations, companies and individuals active in the communications field, both inside and outside the European Union. In addition, a series of consultation meetings involving fixed network and mobile operators, the service providers, users, equipment manufacturers, consumer groups and trade union were organised. General consensus was reached on a range of points, including the need for the abolition of exclusive and special rights and strategy for the personal communications environment. In other areas divergent views were expressed, especially where future development of regulatory policy was concerned. There was broad support for early action on liberalisation and direct interconnection, with the exception of a majority of existing fixed network operators.

# Council to set up guidelines to develop the ISDN as a trans-European network

At its meeting of 17 November, the Council of Telecommunications Ministers reached a common position on a draft proposal for a Decision about a set of guidelines for the development of the Integrated Service Digital Network (ISDN) as a trans-European network.

The Council took note that the Commission intends to submit an initial version of a global framework very shortly. The Decision should ensure effective coordination between Member States and the economic operators responsible for creating the basic infrastructure for the harmonised introduction of ISDN services.

According to the Decision, the development of Euro-ISDN will have two objectives:

• access to Euro-ISDN facilities, including basic services;
• full geographic coverage by Euro-ISDN in all Member States, with due regard to market needs, in particular to facilitate Euro-ISDN access for peripheral regions.

The priorities for achieving these objectives are:

• to promote the use of EURO-ISDN by small and medium-sized enterprises in particular and by public organisations;
• to contribute to the rapid availability of affordable testing equipment;
• to promote access to less expensive terminal equipment and application software.

In addition, the Decision identifies a series of projects of common interest, including teleworking and the promotion of interoperability, and a common interface for application programmes.

# Advanced television: Council's common position on standards for transmission

Meeting in Brussels on 17 November, the Ministers of Telecommunications of the European Union unanimously reached a common position on the amended proposal for a Directive about the use of standards for the transmission of television signals.

The purpose of this proposal is to repeal the 92 Directive (Directive 92/38/EEC) in the light of market developments and recent technical advances. The 1992 Directive provided for the switch from the current PAL and SECAM television systems to HDTV, using the D2-MAC and the HD-MAC transmission systems applicable to satellite and cable broadcasting. The new Directive provides for Member States to take measures to promote the accelerated development of advanced television services including wide screen (16:9) television services, high-definition television services, and those using fully digital transmission systems. To that end, the Directive lays down certain technical requirements which all television services transmitted to viewers, whether by cable, satellite or terrestrial means, will have to meet. The Directive also defines a series of rules for conditional access to digital pay-TV.

# Implementing European Telecommunications Law

More than 400 persons, from the countries of the EU, EFTA and Central and Eastern Europe attended the above conference organised by DG XIII on 21-22 November 1994 in Brussels. These were representatives of the TOs, industry, regulators, users, practitioners and academy.

The objectives of the conference were achieved, namely to increase awareness of the importance of EU law in telecoms, to show the Commission's determination to ensure the monitoring of implementation, and to analyse the main problems and their causes. The discussions were very open and constructive.

It was acknowledged that the state of implementation of EU law - which is crucial for achieving the goals of the EU telecom policy, especially in the perspective of the information society - is not on the whole satisfactory, although measures are being taken in order to tackle the situation. The infringement procedures of the Treaty must be used vigorously, but cooperation between Member States, the Commission and all the economic forces is essential. New developments, in particular the liberalisation of infrastructure, should be taken into account when implementing current legislation.

The interest raised by the conference led the Commission to announce the possibility of specific one-day workshops (with much more limited participation) for each main topic, in order to deal more in detail with the practical problems of implementation. This idea aroused great interest.

Participants at the conference should receive a copy of all the speeches given during the conference and summaries of the round table discussions held in each session.

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# Training in the information society

"Knowledge and skills are the primary resource of the information and service society of tomorrow". This was the baseline of 20 talks and IC-technology demonstrations given at the seminar "Training in the Information Society". Organised by DG XIII, it took place in Brussels on 5 and 6 December, and its high-level European and US speakers attracted a large and informed audience.

The rapidly changing industrial scene and social world, new technological advances and demographic trends require related skills development for industrial training and the technological support to promote lifelong learning for the public. Several talks demonstrated how information and communication technology could be harnessed for education and training. The use of satellite as well as terrestrial communication lines in distance learning, and of broadband telematics for interactive video, video conferencing for professional training, and Internet as a global system in the virtual university were some of the highlights of the seminar.

The new technologies will enhance and transform existing educational systems and the learning process. The concept of the Community Learning Utility emerged, an institution similar to a public library offering digital educational resources on a pay-as-you-use basis to everyone: employers, administrations, universities, schools, and the general public. It will offer equality of access, and individualised, self-paced learning supported by educators and trainers, who are just a keystroke away, and will represent a transformation of today's education and training.

Carlo Ronca, for the Olivetti Group, and W. Schusser of Siemens, chairman of the IRDAC working group responsible for the report entitled "Quality and Relevance - The Challenge to European Education", presented their visions of education and training in the media city and flexible, effective quality industrial training. A panel representing most of the DGs which also deal with educational and training matters discussed possible synergies between Commission programmes.

# Copyright on electronic document delivery and multimedia products

"A comparative analysis of exemptions and limitations in copyright laws in the EU and EFTA countries" is the title of a study carried out by Dr P. Bernt Hugenholtz and Dirk J.G. Visser, Institute for Information Law, University of Amsterdam, for the European Commission, DG XIII/E-3, Library services and networks.

On the eve of the information superhighways, libraries and document suppliers are increasingly using digital technology to deliver information on demand to individual users. The rapid growth of electronic document delivery services is occurring in a legal vacuum, resulting in legal insecurity which has a negative effect on the further development of document supply in the digital network environment. Questions regarding the copyright status of electronic document delivery are manifold, both at national and the international level.

The study analyses and compares the copyright laws in the EU and the EFTA countries with respect to electronic document delivery. It also provides solutions and recommendations to legislators and policy-makers on restricting the right of reproduction, preserving exemptions in the digital environment and facilitating licensing.

This study is part of a series of studies carried out by the Legal Advisory Board, DG XIII/E-1, Legal Aspects of the Information Market, and DG XIII/E-3, Library networks and services. The other studies, which deal with copyright problems and electronic document delivery and multimedia in particular, are entitled:

"Current practices in copyright clearance" (Charles Clark)
"The impact of existing harmonised legislation in intellectual property" (Prof. Michel Vivant)
"Long-term solutions for copyright and multimedia products" (Prof. Thomas Hoeren).
From February 1995, these reports will be available from the address below.

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## RACE mobile project line unveils its vision of the 3rd generation mobile system

The assembly of RACE projects working towards the definition of the 3rd generation mobile system has presented its vision of the Universal Mobile Telecommunications System (UMTS), a system to be deployed around the year 2000.

From the user perspective, UMTS is unique: it will enable terminal mobility and fixed network personal mobility to converge. It will also have the capability to extend to the customer those services and features, requiring less than about 2Mb/s, that would otherwise be provided by the fixed network. It must therefore support on-demand, variable, bandwidth allocation. UMTS will combine a wide range of applications (cellular, cordless, mobile data, etc.) for personal business and residential uses. For power mobiles with excellent battery capabilities (high talk-time hours and long standby) and wireline quality of voice and data services.

UMTS, with its international counterpart FPLMTS, extends the vision of personal mobility to include a universal, mobile telecommunications dimension, including an integrated satellite component.

With UMTS exploiting its full capability as the integral mobile-access part of B-ISDN, telecommunications will make a major leap forward towards the provision of a technically integrated, comprehensive and consistent system of personal communications supported by both fixed and mobile terminals. As a result, mobile access networks will begin to offer services that have (or might have) traditionally been provided by fixed networks, including wideband services up to 2Mb/s. UMTS will also function as a stand-alone network implementation.

The European initiative to develop UMTS must therefore be seen to be a part of the policy to provide an advanced, transparent, fully interoperable and integrated personal communications service across the continent. UMTS provides the wireless component of this service.

The underlying theme of the document is to differentiate UMTS capability from that of 2nd-generation systems. It ends by noting that questions of system revolution, evolution or migration are not only technical problems but also issues of long-term European strategic telecommunications policy.

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## RACE projects demonstrations

On 30 November 1994, the final demo of the RACE project R2009, IPSNI II (Access to B-ISDN Services and Applications by People with Special Needs), was shown in Torino, Italy. It demonstrated that it is technically feasible for people with disabilities to use broadband telecommunications services and applications, and that these services greatly improve their capabilities. The framework included the removal of barriers on the level of the terminal, the network and the services. The target users are people with motor impairments, speech impairments, hearing impairments and partially sighted and blind people. The services included video phone, multimedia databases, multimedia interpersonal communication and multimedia co-operative working. The demo was based on a UNIX/X Windows ATM platform. These promising applications were demonstrated partly by two persons with speech/hearing disabilities and it was striking that several of these possibilities provide potential improvements for future services and applications to be used by a broader public.

On 2 December 1994, the final demo of the RACE project R2034, EDID (Environment for Distributed and Integrated Design), ran simultaneously in Paris, Cannes, Ipswich and Cranfield. EDID addresses the field of Distributed Collaborative Design in the European Aerospace Industry sector. The experiment was based on a scenario which considers a representation of a satellite design. The demo was built on several networking platforms. In the UK, SMDS is used by Cranfield University to access the ATM cross connect (XC) at BT (Ipswich). BT is directly connected to the London XC of the Pan-European ATM pilot.

In France, the National Institute for Aerospace Research and Studies, Onera, is connected to the Paris XC via a 34 Mbit/s link. Aerospatiale (Cannes) is connected to the Paris XC via Transrel, a Virtual Private Network. The Interface Control Document Server stores and provides interactive access to the complete technical data and contractual documents, including 3D CAD-CAM, 2D drawing and still image. Conferencing tools provide fully digital audio conferencing support, scheduling functions and window conferencing allowing graphical applications to be shared. The Intelligent Mismatch control allows a digital pre-assembly where parts are integrated and mismatches detected. The Modification Impact Analysis and Multi-Agent Approach shows the impact on other parts, and a negotiation took place through a Distributed Artificial Intelligence view. The Approval Security Function is important to provide the authentication and access control. The demonstration went through a scenario of detecting a mismatch and the whole system procedure to approve the modified document with a digital signature, using the smart-card technology. An impressive accumulation of new technologies was demonstrated, focussing on applications of advanced communication services.

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# RACE Mobile Telecommunications Summit

A new generation of mobile communication systems has been under development for a number of years within the framework of the RACE Programme, with the aim of supporting through seamless radio infrastructures not only the diverse service offerings of second generation systems (GSM, DCS-1800, etc.), but also a much wider range of wireless broadband services commensurate with the technological developments taking place in fixed telecommunications networks.

The RACE Programme, now coming to an end, will be followed by the ACTS Programme, which will provide a unique opportunity to reflect and adapt to new conditions and requirements. In particular a key role will be given to aspects such as system integration, service integration and demonstration of advanced services while maintaining close links with trans-European network developments. The RACE Mobile Telecommunications Summit, due to be held in Cascais, Portugal from 22-24 November 1995 aims to provide a major forum for disseminating the results of the RACE Programme on third generation mobile communications.

During the first morning of the conference there will be a plenary session which will centre on future mobile communications including market aspects, research and development worldwide, and progress in standardisation, followed by an afternoon session with overview presentations of the RACE Mobile/Personal Communications projects.

The remaining two days will consist of workshops with presentations and discussions on a wide range of technical issues.

## Call for papers

Papers are expected mainly from projects and organisations funded by the CEC, i.e. RACE, COST, ETSI and related bodies. Authors are invited to submit original papers on all aspects related to UMTS and MBS, including:

### Evolution & Migration.
Spectrum
Standards
Regulatory aspects
Market & commercial
Service migration (customer)
Technological developments (i.e. network aspects, manufacturers)

### Radio & System Aspects
Propagation
Access techniques
Cell structures
Architecture
Radio resource management
Intelligent base station
Environmental issues

### Network Aspects
Network architecture
Mobility management
Satellite integration scenarios
Security aspects
Interface & protocols
Call control
Service creation
Charging & accounting management

### Technology & Components
Antennas
Macro diversity
Intelligent terminals
Millimetre wave components
Radio integration
Multi-mode terminals
Speech & video codecs

### Services & Applications
User requirements
Broadband services
Multi-environment services
Fixed & mobile service integration
Quality & grade-of-service
Mobile applications

### Test beds
Simulation & channel modelling
Hardware
Field trials

Abstracts of papers (up to 500 words) should be sent to the following address before 3rd April 1995:

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A notification of acceptance will be sent to you before 2nd May 1995. Camera-ready papers should be sent to the above address before 16th June 1995:

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# Strong interest for the Advanced Communications Technologies and Services (ACTS) programme

The ACTS research programme responds to the call to support the development of a high speed communications network for Europe contained in the recent White Paper put forward by European Commission President Jacques Delors entitled "Growth, Competitiveness, Employment: The Challenges and Ways Forward into the 21st Century". It also follows recent recommendations made to the European Council in the report "Europe and the Global Information Society" sponsored by Commissioner Martin Bangemann. In its new programme the European Union will co-sponsor with industry more than 1 billion ECUs of advanced telecommunications research in innovative multimedia services, photonic technologies, high speed networking, mobility and personal communications networks, intelligence in networks and service engineering, and quality security and safety in communications services and systems.

The launch of ACTS was marked by a major international conference and proposers' day held October 19th and 20th in Madrid. This event attracted strong international interest, with more than 1700 people attending from 30 countries both in Europe and world-wide.

One of the most innovative features of the ACTS programme is the role of participating National Hosts - experimental networks and research facilities that could be made available to researchers participating in ACTS, providing access to advanced new telecommunications services and a network of innovative small and medium enterprises throughout Europe and beyond.

At the first National Host Conference, part of the events in Madrid, each Member State and other EEA countries gave a presentation of their proposed National Hosts. Presentations were also made by four international hosts, Canada, the European Space Agency, Japan and the USA. Though Japan and the USA are as yet unable to say in detail how they could participate in or support ACTS research, it was made clear that this would rapidly be clarified as a result of on-going consultations within their countries. Nine National Hosts also

brought working demonstrations of their facilities to Madrid, of which eight were connected to their home location using the facilities of the current European ATM Trial.

ACTS is one of several international initiatives to accelerate the deployment and take-up of the world-wide Global Information Infrastructure (GII), which the G7 group of leading industrial nations will be examining in depth early in 1995. As a result of the conference, it is clear that the Member States and their international partners have shown their readiness and capability to work together in making progress towards the Global Information Infrastructure in a practical and realistic way, based on exploiting past investment and new ideas.

In the first weeks that followed its publication, the call for proposals for ACTS research has secured the active interest of more than 4200 researchers

and their organisations, spanning the entire communications sector and including many SMEs and user groups that have not been so closely associated with such work in the past.

The submission date for proposals is 15 March 1995. Further information concerning the call and the workplan of research may be obtained from the address below:

Contact:

ACTS Central Office,
EC
DGXIII/B (BU9 4/82),
200 rue de la Loi,
B-1049 Brussels.
Internet: aco@postman.dg13.cec.be
CompuServe 100302,2607
Fax: +32-2-295-0654.

# ESPRIT NEWS

## European research project applies exciting invention which leads to cost savings

ESPRIT project 6146, a collaboration between Philips, Siemens, Thomson, KFA Jülich and the universities of Paris-Sud, Erlangen, Eindhoven Louis Pasteur-Strasbourg, concerns advanced studies and applications of the giant magneto-resistance (GMR) effect in selected types of thin-layer magnetic materials. This effect can be used to read magnetic information from various surfaces, be it digital video tape, digital audio tape (DCC), and hard or floppy disks. The application of GMR technology to DCC recording heads was recently demonstrated by Philips at the Intermag conference at Albuquerque, USA, in June 1994.

GMR devices can be also be used in products ranging from cars and aeroplanes to hearing aids, and wherever else magnetic field sensors

are used. They have a great commercial appeal because they are inexpensive, lightweight, reliable, have a high sensitivity and can be made very small. For example, GMR sensors are very attractive in automotive applications for anti-lock brake, suspension and engine control, in navigation systems, and a potential replacement for induction-coil sensors which are rather bulky and expensive.

International recognition of the exciting prospects of this new technology was formally made recently as two of the academic partners to this ESPRIT project, Professor Fert of the Université de Paris-Sud and Professor Grünberg of the Forschungszentrum Jülich, received the prestigious 1994 American Physics Society International Prize for New Materials, together with Dr. Parkin of IBM

Research. For these achievements, Prof. Fert and Prof. Grünberg also received the 1994 IUPAP Magnetism Award.

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# The European Software Process Improvement Training Initiative (ESPITI)

ESPITI was officially launched by Mr. George Metakides, Director of the ESPRIT programme, on 22 November 1994 in Belfast. It aims to maximise the benefits gained from European activities in the improvement and subsequent ISO9000 certification of the software development process through training. A sum of 8.5 million ECU for the period of 18 months has been allocated to the initiative to support actions which will:

• identify the true needs of European industry for training in software process improvement;
• increase the level of awareness of the benefits of ISO9000;
• provide training for trainers, managers and software engineers;
• encourage cooperation between organisations throughout Europe to share knowledge and experience and form links of mutual benefit.

The Initiative is part of the European Systems and Software Initiative (ESSI) and is being implemented through a network of 14 regional organisations addressing the local needs of 17 European Union and EFTA countries. In addition, two partner organisations, Kernforschungszentrum Karlsruhe and MARI (Northern Ireland) are coordinating and supporting cooperation at European level through the provision of services to the regional organisations.

For further information, including details of your local regional organisation:

Contacts:

Kernforschungszentrum Karlsruhe
Germany
Tel: +49 7247 82 4575
Fax: +49 7247 82 2891

MARI (Northern Ireland)
Tel: +44 1232 669500
Fax: +44 1232 669800

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# ESPRIT induces a revolution in compiler production

In the COMPARE project (5399) launched in 1991, ACE (NL), CWI (NL), GMD (D), Harlequin (UK), INRIA (F) and STERIA (F) aimed to produce a compiler construction system that allows the efficient production of competitive commercial compiler products in order to keep Europe at the leading edge in the areas of formal language and compiler technology.

Further work in the PREPARE project (6516) as well as intensive effort from ACE in computer-generated compiler technology allowed this Amsterdam-based company to unveil last October their new compiler construction technology through the release of the ACE EXPERT Compilers for the SPARC architecture.

Rather than using the traditional time-consuming and error-prone hand-crafting, the EXPERT SPARC code generator has been generated automatically from a concise architecture description. From processor descriptions which reflect the working, the parallelism and the timing of the architecture, the ACE systems produces optimal code selectors and optimisation strategies for each specific chip. Production effort is reduced to the creation of processor description. Optimising compilers can be available as soon as the processor specifications are stable. The robustness resulting from the use of such generators was proven using large industrial programmes.

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# TELEMATICS NEWS

## Open and distance learning projects launched

The results of the Joint Call (DG XIII, DG XII and THFR) for open and distance learning are now available. In total 126 proposals were received, 4 projects were accepted. The projects started on 1 December 1994 and will run for one year.

| Project | Prime Contractor | Overview |
|---------|------------------|----------|
| TELESCOPIA | Deutsche Telekom | Implementation of a service infrastructure for open and distance learning using the facilities of Deutsche Telekom and France Telecom and ARTE cultural channel |
| LOGOS | Silogia (France) | Production of adaptable ODL courseware for SMEs |
| EOUN | EADTU (NL) | An open university network for Europe |
| HUMANITIES | Scoimbra (B) | Integration of telematics-based training in traditional university curricula |

# First World Congress on application of transport telematics

The first World Congress on Applications of Transport Telematics was held from 30 November - 3 December 1994 in Paris. It was jointly organized by Ertico, the European Commission, ITS AMERICA (the U.S. programme) and VERTIS (the Japanese programme).

Mr Bangemann, European Commissioner and Messrs Bosson, Wissman, Mr Mawhinney and Downey, the French, German, UK and US ministers respectively, opened the congress in the Palais des Congrès, before an audience of more than 3,000 people , including over 2200 registered delegates, 450 exhibitors, 240 press representatives and more than 50 dignitaries.

During the Congress, more than 400 papers were presented in parallel sessions running in 12 conference rooms.

A sizeable exhibition was organized, with more than 130 stands including the European Commission's stand of 800 sq. metres and that of the ACEA (European Car Manufacturers). The stand presented general information on activities related to Transport Telematics applications (telecom - munications, information society, trans-European networks), and concrete results from 33 projects of the Transport Telematics RTD programme.

Despite the complexity of the subject, the media interest (numerous papers and TV stations related the event) and the positive speeches of decision-makers ("intelligent transport systems are now seen as necessities") ensured that the Congress was a great success. The Second World Congress will take place in September 1995 in Yokohama, Japan.

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# R&D action in the area of Information Engineering

Information Engineering (IE) is an individual area under the Fourth Framework Programme of research and technological development (RTD). It is a horizontal activity within the Telematics Applications Programme (1994-1998). The aim is to permit easier and more selective access to and better usability of electronic information in all its forms, and the driving force is user involvement. The primary activity will be the development of pilot applications integrating three main areas of the information chain: electronic publishing, information dissemination and information retrieval.

Following a call for proposals for exploratory actions in multimedia publishing, 22 feasibility projects were selected to run over a six-month period (see separate item). The results of these feasibility projects will contribute to the first major call for proposals in Information Engineering, to be published on 15 March 1995 with a closing date of 15 June 1995. A Proposers' Day related to this IE call will be held in Luxembourg on 5 April 1995.

Other exploratory actions undertaken include studies addressing the following issues:
• Europe-wide high capacity network
• what is available?
• Information transactions
• Project organisation, structure and management
• Telepublishing survey
• Usability study
• Status review of non-text based information retrieval
• Information Engineering 2001 - identifying influential technologies and their effects
• Corporate publishing.

IE pilot applications will also be accompanied by supporting actions in the following areas: IE research centres network, IE academic connection, standards and usability test centres.

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DG XIII/E
L-2920 Luxembourg
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# Distance Learning Publications

A catalogue of the Telematics for Flexible and Distance Learning programme (DELTA) is now available. It has been produced with the support of CORDIS and VALUE, and gives an overview of the 30 DELTA projects, the Concerted Actions and Studies; and lists all the key publications and public deliverables produced under this phase of the programme.  This catalogue and copies of all the documents are available on request from:

Contact:

ECOTEC Research and Consulting Limited
28-34 Albert Street
GB - Birmingham B4 7UD
Tel:  +44 21 616 1010
Fax: +44 21 616 1099

The TRIBUNE project has published several documents on behalf of the DELTA programme:

'DELTA in Perspective' which gives an overview of achievements under this phase of the programme (Price 20 ECU).

'Insights on Policy Impact' which aims to provide decision makers with relevant information on policy-making and policy assessment.  This report results from the DELTA working group on policy impact (Price 20 ECU).

'Steps Towards Good Practice'.  This report results from the DELTA working group on good practice in ODL (Price 20 ECU).

'European National Issues at Stake'. This report contains overviews of the situation regarding telematics for education and training in 15 European and Eastern European countries. It looks at the use of ODL in these countries and the key national issues or questions (Price 20 ECU).
For more information or to order any of the above documents, see below.

Contact:

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# Information engineering feasibility projects currently in progress

The following 22 feasibility projects were selected, following a call for proposals for exploratory actions in multimedia publishing, as preparatory activities for DG XIII/E's Information Engineering action (see previous item). The six-month pan-European projects started towards the end of 1994. Titles and coordinating proposers are as follows:

• Multimedia technologies for electronic newspapers (EDICHOLA): Rizzoli Corriere della Sera, Milan, Italy
• Multimedia aided transfer of technology (MATOT): Ericsson Radar Electronics AB, Mölndal, Sweden
• Multimedia broking: the development of the intermediary function for multimedia applications: WACE Imaging Network, London, England
• Electronic multimedia catalogues based on software agents: Itaca srl, Rome, Italy
• Geographical mediation systems: feasibility study (GEOMED-F): GMD, Sankt Augustin, Germany
• Corporate multimedia information systems - technical documentation (CMIS-Techdoc): Longman Cartermill Ltd, Fife, Scotland
• Study of an integrated multimedia electronic publishing environment (SIMPLE): Atlantide Grenat Logiciel, Rennes, France

• Music and multimedia publishing: Permanent Secretariat of Audio-Visual Eureka, Brussels, Belgium
• Telematic systems and services for the advertising industry: INTRACOM SA, Peania, Greece
• Sharing cultural heritage through multimedia telematics - feasibility study: ERCIM-GEIE, Le Chesnay, France
• Dynamic publishing with multimedia: information engineering in Risk Communication: Empirica GmbH, Bonn, Germany
• Efficient usage of remote and online publication of electronic-multimedia material (EUROPE-MMM): The Open University, Milton Keynes, England
• Interactive multimedia catalogue (IMC): DeTeBerkom GmbH, Berlin, Germany
• On-line commercial technical open publishing service (OCTOPUS): Aarhus University, Aarhus, Denmark
• Multimedia as business option for local newspapers (MBLN): Fraunhofer-IAO, Stuttgart, Germany
• Interactive multimedia tools and information systems for industrial product design: Stichting Centre for International Technology and Education (CITE), London, England
• Virtual project library (VPL): Matra Marconi Space France, Toulouse, France
• Towards a European electronic

medical information system (TEEMIS): PIRA International, Leatherhead, England
• Scientific, technical and medical publishing for electronic delivery (STAMPEDE): Macmillan Publisher Ltd (Nature), London, England
• Electronic publishing - multimedia consumer periodicals (FAMPUB): International Electronic Publishing Research Centre (IEPRC), Leatherhead, England
• Process industries multimedia system (PIMMS): SFK Technology, Cranfield, England
• Information engineering concepts applied to software engineering (IECASE): Télésystèmes, Nanterre, France

Fact sheets on the projects, including details of the other partners involved, are available from the address below.

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L-2920 Luxembourg
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e-mail: telematics@mhsg.cec.be

# Preparing for the global information society: launch of I'M-EUROPE WWW server on the Internet

Recent European initiatives have highlighted the importance of ensuring a role for Europe in the global information society. The need has been acknowledged for more pan-European information services and increased computer literacy, as well as greater awareness of the benefits of the new media. The IMPACT programme has introduced various tools and methods to create increased awareness, such as harnessing the power of the Internet by setting up I'M-EUROPE, a World Wide Web (WWW) server, which currently offers the following services:

• Information about the European Union. Full texts of key documents such as the Maastricht Treaty and the Bangemann Report.
• Fourth Framework Programme. Details of EU-supported R&D in a number of areas including ICT. Special focus on Telematics Applications.

• Other EU programmes related to the information market, including IMPACT.
• National Awareness Partners (NAPs). Activities of and news from the IMPACT network of organisations throughout the EEA.
• ECHO (European Commission Host Organisation). Access via Telnet sessions to approximately 20 databases available on ECHO.
• CORDIS (Community Research & Development Information Service).
• Directorate General XIII. Description of tasks and functions, contact persons and telephone numbers.
• User comments and queries can be left in the electronic mailbox.

To access I'M-EUROPE, in graphical mode, the user needs a PC with at least a 386 processor, Microsoft Windows with the appropriate winsock.DLL, and a copy of the WWW

client software Mosaic or Cello available free-of-charge from info.cern.ch and ftp.law.cornell.edu respectively. With a VT100 terminal or similar, the user may access I'M-EUROPE using the line mode browser Lynx, also available free-of-charge from info.cern.ch.

If using a WWW browser, open the URL http://www.echo.lu. For telnet users, the address is: www.echo.lu (login: www). Enquiries should be addressed to webmaster@echo.lu.

Contact:

ECHO
B.P. 2373
L-1023 Luxembourg
Tel: +352 3498 1200
Fax: +352 3498 1234
e-mail: echo@echo.lu

## Training trainers for the information society

Under the IMPACT programme, training actions have been initiated as initial projects on an experimental basis. These included the launching of a project on the training of trainers in 1993, which was in line with later statements in the Bangemann Report of 1994. Despite the efforts devoted to making information services and systems more user-friendly and easy to use, there is a clear need for more traditional training as a complement to what can be achieved through telematics applications for open and distance learning. Through the IMPACT TRAIN-TRAIN project, 154 people have been educated to act as trainers for users of electronic information services.

In addition to the training itself, the project established a Lecturer's Manual. Developed by a consortium of European Business Schools headed by SDA-Bocconi, Milan, the manual comprises 1000 pages divided into three sections:
i) Technical issues related to electronic information services
ii) SMEs and electronic information services
iii) Teaching/presentation methods.

Each section contains a number of two-hour modules, giving general explanations, paper copies of transparencies, teaching notes and lists of suggested reading.

The Lecturer's Manual therefore provides a comprehensive package for educators involved in planning training courses related to electronic information provision. It exists in five languages: English, Greek, Italian, Portuguese and Spanish.

For further information on content and how to obtain a copy of the manual, please contact the following address.

Contact:

IMPACT Central Office
European Commission
DG XIII/E
L-2920 Luxembourg
Tel: +352 3498 1222
Fax: +352 3498 1234
e-mail: impact@echo.lu

## IMPACT: Interactive multimedia projects

This information pack describes 22 interactive multimedia projects funded by the IMPACT 2 Programme of the European Commission. IMPACT 2 is the main phase of the Information Market Policy Actions (IMPACT) Programme. The first phase ran from 1988 to 1990 with a budget of 36 million ecu, and supported several multimedia projects. IMPACT 2 was approved by the Council of the European Union in December 1991, as a four-year programme with a budget of 64 million ecu.

The programme, which is concerned with the establishment of an internal information services market within Europe, has four action lines, organised specifically to improve understanding of the market, overcome legal and administrative barriers, increase user-friendliness and improve information literacy, and support strategic information initiatives.

The 22 projects described in the information pack are funded under action line 4 "supporting strategic information initiatives". Several other EC programmes have also been involved with aspects of multimedia technology and applications, including COMETT, DELTA, ESPRIT, MEDIA, RACE, STRIDE and STAR.

Contact:

CEC-DG XIII
Bâtiment Jean Monnet
Plateau du Kirchberg
L-2920 Luxembourg

## Keeping up-to-date with trends and developments in the information market

The Commission's Information Market Observatory (IMO), operating under the IMPACT programme, has produced its Fifth Annual Report on the main events and developments in the information market in 1993/1994.

The report, which is available on request, covers a broad range of issues and market sectors, taking into account the wider context in which the information services industry now operates. Issues highlighted include the following:

• The European Union, lagging behind the USA and Japan in the digitisation process, is trying to make up lost ground with a package of initiatives based on the White Paper "Growth, Competitiveness and Employment", the Bangemann Report and the "Action Plan: Europe's Way to the Information Society."

• Technology and market convergence have led to a re-grouping of the ICT industry and information content industry, which are now becoming increasingly intertwined to exploit the business opportunities created by the emerging information society.

• The availability of a high-quality infrastructure will necessitate a mass market for information products and services as a means of generating return on investment and long-term cost-effectiveness. The importance and value of the content industry are likely to increase as a result.

• The biggest challenge to the content industry in meeting the expectations of the information society will be its ability to invest in the development of innovative information products and services.

• The electronic information services industry has high added-value and strong growth potential, but the European market is still fragmented.

• Policies at national and European level will be required to guarantee the continued availability of diverse, multi-cultural information content, and to strengthen the competitiveness of small European companies.

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# Meeting on European Information Network Services (EINS)

**IMPACT**

On 2 December 1994, a first meeting was held, at the initiative of DG XIII/E's IMPACT programme, to present a new concept that promises a great improvement in access to information via online hosts. In contrast to the recent opening out of the non-specialist market for electronic information to a vast new public, the online hosts have a different problem when handling very large quantities of specialised information material. This needs highly developed search and retrieval methods to extract critical data for scientific and technical research and other exacting applications. The new concept, proposed for development by the European hosts Questel/Orbit, DIMDI and ESA, envisages a European Information Network Service (EINS) that will act as a backbone for the transparent supply across Europe of information from different sources held on different online hosts in different locations. Attending the meeting were representatives of publishers, online information providers, telecom operators, hardware and software producers and users.

ESA/IRS presented the concept as one allowing the user of services on any one host to access information easily on any other host on the network without having to change search language or enter into different contractual procedures. The development will therefore include command translation, single contracts and invoicing for users, and single licence agreements for information providers.

Also presented at the meeting was a new venture, Europe Online, which is being launched in Luxembourg by a group of publishers including Burda, Matra-Hachette and Pearson. This will provide a range of online information and communication services, with central billing for content providers and open access for users.

Mr R. F. de Bruïne, Director of DG XIII/E, presented the Commission's view of the growing importance of information content in the framework of the information society. This was followed by presentations of related Commission programmes (IMPACT, TEN, ACTS, Information Engineering and Basic Services) and a round-table survey which produced opinions generally supportive of the EINS initiative.

It was concluded that fast action and a market-driven approach are needed for European actors to survive in the emerging electronic information market. The EINS concept will be further clarified and a business strategy will be developed. EINS and Europe Online will examine areas of potential collaboration. Since the overall aim of all concerned is open access to the electronic information market, the Commission would facilitate developments wherever possible. A further meeting is envisaged in the first quarter of 1995.

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# Value Relay Centre Norfolk 'Good Practice' Meeting

The 1994 annual meeting of the Value Relay Centre Network took place in Brussels, from the 21-23 of September, hosted by the Commission at the Borchette Centre. More than 100 representatives of the 32 Value Relay Centres attended the three days of the event, including delegates from the new VRCs in Austria, Finland, Iceland, Norway and Sweden, for the first time participating in one annual meeting as full members of the network.

The first one and a half days of the meeting were dedicated to the presentation of good practice cases and exchange of experiences between the Relay Centres, on the subjects of dissemination of information of European R&TD, exploitation of research results at local level and promotion activities. By their comments during and after the event, delegates from all the VRCs showed a unanimous recognition of the importance of these sessions in improving the overall performance of the network and developing the network spirit.

This part of the event was concluded with a presentation from Giulio Cesare Grata, Director of DG XIII/D of the Commission, on the future of the Value Relay Centre Project under the Fourth Framework Programme. Mr. Grata expressed his convictions that during the next four years Relay Centres will improve their tasks of bringing the Community R&TD activities closer to local organisations all over Europe.

The remaining one and a half days of the event consisted of meetings between the VRC delegates and Commission representatives from the specific programmes that have already received approval from the European Council to launch their first calls for proposals under the Fourth Framework Programme: the Industrial and Materials Technologies, the Standards Measurements and Testing and the Advanced Communications Technologies and Services (ACTS).

During these sessions it was discussed how the collaboration between the Value Relay Centres and these programmes could be strengthened in order to improve the quantity and the quality of participation in the programmes, by providing assistance to motivated organisations, from the stage of elaboration of proposals until the exploitation of results. Six parallel workshops covering the different steps of this process were held with the participation of officers from the Industrial and Materials Technologies programme from the Value Relay Service Coordination unit and VRC delegates, in which the targeted actions to be carried out by the VRCs for this programme were debated.

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# Language engineering projects underway

November '94 saw the start of the first language engineering projects of the new Telematics Application programme. They resulted from a Call for Proposals for preparatory actions in the area of language engineering (LE) launched by DG XIII/E on 15 March 1994. This aimed to foster active user involvement in RTD projects and lay the foundations of future project clusters in the LE sector of the Telematics Applications Programme.

A total of 95 project proposals were submitted involving over 500 participants. The call attracted the interest of the private sector, including major IT companies, service/network operators and SMEs specialising in speech technology and natural language processing, as well as user organisations including administrations and public utilities, service and manufacturing industries, and publishing houses.

The proposals finally retained for funding (total EU contribution: 4.5 million ecu) address a number of relevant application domains. These include: voice response servers handling telephone enquiries, authoring workbenches for technical writers in the aerospace and automotive industries, document management and report generation for health-care operators, computer-aided foreign language learning, access to and navigation in large textual and multimedia repositories, etc., as well as inter-related preparatory actions in the area of re-usable language resources.

Thirteen projects started in November 1994 with an average duration of 11 months. A public workshop will be held in October 1995 to present and discuss the results obtained. Details of the projects may be obtained from the address below.

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# The Northern Ireland VALUE Relay Centre assists a local SME in the electronics field

The Northern Ireland VALUE Relay Centre has assisted a local SME in establishing two independent 'heads for agreement' contracts for further development of electronics products stemming from the EC RTD programmes DRIVE and Esprit.

The company concerned has a strong reputation in Northern Ireland for advanced electronic products and was looking for new products in order to become more heavily involved in the European markets.

The VRC initiated discussions with the company in order to understand their technology and the markets they wished to exploit. A search of CORDIS projects and results databases was then conducted, revealing a number of possibilities in the relevant areas, including a result from a DRIVE project owned by a Dutch firm.

Later, a complementary technology owned by a French firm (Esprit result) was disseminated through the network of VALUE Relay Centres and passed by the Northern Ireland VRC to their client.

The Northern Ireland VRC assisted the local SME in the negotiations with both the Dutch and French firms, culminating in the signature of two separate 'heads for agreement' contracts.

A joint venture between the Northern Ireland and French electronic companies is now likely to be launched for exploitation of the technology.

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# MLAP-6 and the EURAMIS project

The sixth action plan for the enhancement of information transfer between languages (MLAP-6) was adopted by the Commission on 18 November 1994 (E/94/1656 - C(94)3080). The plan covers development and combination of multilingual tools (machine translation, term banks, translation memories etc.) into new multilingual services. The plan primarily addresses Commission needs, but the services will also be made available to other EU institutions and to member state administrations. Special actions are foreseen to cope with the new official languages after the enlargement of the Union.

Within the framework of the sixth action plan, the EURAMIS project (EURopean Advanced Multilingual Information System) covers the development of an infrastructure for combining multilingual tools (translation memories, term bank, machine translation etc.) into new multilingual services. A first prototype was launched in January 1995 which combines the language analysis potential of machine translation (EC-Systran) with the retrieval functions of the Commission's term bank (EURODICAUTOM), enabling text-specific glossaries to be produced.

Further developments concern the build-up of a structured linguistic resources database for the Commission, combining existing resources (parallel texts, machine translation dictionaries, term banks, translation memories etc.) and enabling the definition of new combined services. A client-server architecture built around electronic mail is designed to put the services onto EC officials' desks.

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## A major breakthrough for pan-European wireless communication

A significant group of potential TETRA (Trans European Trunked Radio) users and manufacturers agreed in December 1994 on a Memorandum of Understanding (MoU) to support and govern this new radio standard.

The MoU has been drawn up at the initiative of a group of major users and manufacturers including the Netherlands police, the UK Home Office, Ericsson, Motorola, Nokia and Philips Telecom. The European Commission (DG XIII), the chairman of ETSI STC RES06 and the accredited testhouse, Telelaboriet (from Telecom-Denmark) also participated in the discussions. The European Commission supported the work with a financial contribution of some 2 million Ecu.

Some 20 organisations, users and manufacturers have already joined the MoU out of them: Ericsson, Italtel, Motorola, Nokia, OTE, Philips, Rohde & Schwarz, Telelaboriet , Wavelength-Regiocom, the UK Home Office and Dutch Public Safety. The MoU is open to all interested parties wishing to exploit the ETSI STC RES 06 TETRA standard.

TETRA is the new generation of digitally-based land mobile radio and is destined to meet the needs of private users who need to operate their own radio systems for security purposes or subscribe to an operator-provided service. TETRA offers the same benefits that are found in many public cellular systems such as multi-site coverage, cellular organisation, automatic location, roaming, advanced software design, etc. It will provide a cost-effective means to transmit voice and data information to remote units in the mobile and fixed operational area of an organisation or a company. Where GSM is the wireless extension of ISDN, TETRA is the wireless extension of ISPBXs. It is a set of two generic standards that allow speech and data communication within a closed user group, such as a vehicle fleet or emergency service.

From the beginning, TETRA was designed and engineered to transfer large amount of on-line data, e.g. between a company's computer and a trucks printer. By being digital, TETRA permits high-quality crypted transmissions for both voice and data and allows for new and attractive services such as telemetry, fax, fixed radio, data services etc. Where the GSM system is designed for mobile radio telephone communication, TETRA will cover the needs that GSM cannot fulfil. Some of the most obvious examples are: broadcast call, group call, priority call, direct mobile-to-mobile communication without any infrastructure, mobile used as a repeater, fast call set-up (0,3 sec).

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## EDIRA - A real step forward for EDI and electronic commerce

For centuries, trade and commerce have been founded on the production and exchange of paper documents.

This "paper world" is currently being replaced by EDI (Electronic Data Interchange), the interchange of standard formatted messages. Traditional commerce is steadily being replaced by electronic commerce.

Commerce is open and international by nature. Electronic commerce has to be the same.

However, EDI and electronic commerce in the open business environment will only achieve a real breakthrough if the reliability of business functions is fully supported. As for the "paper world" the identification of the sender and recipient remains the basis of any electronic commerce functions such as legal recognition, security measures and availability of directories.

The world of EDI and electronic commerce has made a significant step forward under the auspices of the TEDIS programme of DGIII of the CEC with the EDI Registration Authorities Project (EDIRA).

On 1st February 1995, the Memorandum of Understanding for the operation of EDI Registration Authorities was signed in Brussels by key organisations* committed to managing an EDIRA identification infrastructure for companies and government organisations involved in electronic data interchange.

The signatories of this Memorandum of Understanding are the founding members of the EDI Registration Authorities Steering Committee (ERSC), and the ERSC Chairman has been elected from these members.

Companies or organisations registering within an EDIRA scheme will benefit from unambiguous identification worldwide and unique commercial exposure through electronic trading directories.

* KEY ORGANISATIONS

- AFNOR Paris
- Athens Chamber of Commerce and Industry
- Finnish Data Communication Association Helsinki
- EDIFORUM ITALIA Milano
- National Federation of Belgian Chambers of Commerce, Brussels
- Zurich Chamber of Commerce
- EAN International Brussels,
- NHS (UK Healthcare)

## MOSCOW Business and Telecommunications Training Centre

On 30 November 1994 the Moscow Business and Telecommunications Training Centre (MBTTC) was formally opened by Mr. A. E. Krupnov, Deputy Minister of Telecommunications of Russia.

Supported by the Russian Ministry of Telecommunications, the centre has been created within the framework of the Tacis programme, a European Union initiative which provides grant finance for the transfer of know-how to foster the development of market economies and democratic societies in the New Independent States and Mongolia. Between 1991 and 1994, Tacis made available ECU 1,870 million to provide know-how and to cultivate links and relationships between organisations in partner countries and the European Union.

In the framework of the above telecommunications project, Tacis has provided ECU 840,000 to assist the Russian telecommunications sector in:

• the training of trainers at the MBTTC;

• the identification and purchase of computing, telecommunications and training equipment;

• the management of the MBTTC;

• the identification and obtaining of customers for the MBTTC.

The MBTTC is equipped to provide training to managers in the telecommunications industry, meeting the exact needs of the industry. In particular, training courses will include all management aspects of a telecommunications service company as well as specialist areas of technology and network planning. Experts have been selected from InterConnect Communications Ltd. to help implement the project.

The first course began on 28 November, attended by 12 managers from the Moscow City Telephone Company (MGTS). The course covered such topics as business planning, marketing, tariffs, costs and financial management, benchmarking and manpower planning.

Contact:

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## Continued legal protection of semiconductor topographies for certain territories proposed

A proposal for a Council Decision to continue legal protection of semiconductor topographies for creators from certain territories with links to the United Kingdom and the Netherlands has just been agreed by the European Commission, on a proposal from Internal Market Commissioner Raneiro Vanni d'Archirafi. The territories concerned include Hong Kong, the Channel Islands, the Isle of Man, Aruba and the Dutch Antilles.

Following previous Council Decisions, creators of semiconductor topographies from these territories already enjoy legal protection with the EU under the terms of the EU's Directive 87/54. In return, these countries ensure protection for EU creators in their territories. However, these Council Decisions expired on 31 December 1994.

The proposal for a Council Decision just agreed by the Commission extends this protection for one more year, until the end of 1995, as these territories are continuing to give protection to semiconductor topography creators from the EU. The Commission will review the situation at the end of 1995 in the light of the Uruguay Round Agreement of April 1994 on Trade Related Aspects of Intellectual Property Rights (TRIPs). Signatory countries of the TRIPS Agreement are due to offer each other, inter alia, protection for semiconductor topographies within one year of the coming into force of the Agreement on 1 January 1995).

Directive 87/54 ensures protection for EU creators of semiconductor topographies from counterfeiting throughout the EU, and in conjunction with the European Economic Area Agreement, other EEA countries as well. Without such protection, the semiconductor industry cannot afford the considerable investment required for new designs.

Thanks to the legislation in place in the overseas territories linked to the UK and the Netherlands, together with legislation in the United States and Canada (whose topography creators are covered within the EU by similar Council Decisions to those applying to the overseas territories), the EU semiconductor industry's topographies enjoy protection in a range of third countries and territories as well as in the EU and the rest of the EEA.

# European Union's cooperation with Central & Eastern Europe

Among the co-operation activities recently launched by the European Commission (DG XIII) with Central & Eastern European countries (CEEC), two are illustrated here: the teleworking projects Telserv and ESATT, and the Copernicus 94 call.

## The Teleserv and ESATT projects

The ESATT and Teleserv projects were selected during a call in 1993 in the area of teleworking in CEEC countries. The total budget covered by these projects in 1993 was 2.1 million ECU. Another commitment of 2.1 million ECU ensures the follow-up in 1994. The Strategic Objectives of Teleserv project is to stimulate collaboration in R&D with the CEEC by providing PC/modem equipment to connect 2000 scientists/researchers in the CEEC region and providing electronic and VAN Services available and used by their European colleagues. The scope of the project is together with National Agencies to identify users in a target list of 15 countries in the region, to purchase and deliver terminal equipment, to connect the user via existing networks to existing services, supply a common easily-used English language user terminal interface for automatic access of services, and provide for initial training and ongoing user support.

The European Science and Technology Transfer Network project (ESATT) aims to facilitate the mid-term development of co-operation between scientists, researchers and innovators in the EU and the CEEC countries, including the Newly Independent States (NIS) of the ex-USSR. It builds on the availability of adequate communications services, telework facilities and S&T information relay center. The objectives are to develop an S&T information supply concept for the European region specify the national and regional facilities and services desired, prove the feasibility of the regional information concept and help the national administrations and information providers concerned to adopt and implement a coherent concept.

## The Copernicus 94 call

The Copernicus 94 call for proposals is the second one to have taken place within the Copernicus scheme for S&T co-operation with CEEC countries. The first such scheme was issued in May 1992 and the response was overwhelming - 11,748 proposals were received with funding requested for over 1,600 million ECU. This represented an oversubscription by a factor of about 35 to the funding which was available. Therefore, the 1994 call has been more focused in order to find a better way of reaching the general objective of cooperation with CEEC countries to the mutual benefit of all parties. The Copernicus 94 call has a draft budget of 57 million ECU for 1994 and covers among its priority themes the sectors of communications technologies, telematics and language engineering which are under the responsibility of DG XIII.

For the Copernicus 94 call, 1,647 proposals were received, of which 174 (131 joint research projects and 43 concerted actions) were in DGXIII's sectors of communications technologies, telematics and language engineering. The total funding requested for projects was 61 Mio ECU. Some 25 independent experts (of which nearly half were from CEEC countries) proceeded with evaluation of the proposals, and this resulted in the selection of 42.

One of them, the COPERNICUS #708 project aims at identifying and studying different possible integration scenarios between terrestrial and satellite mobile networks in the context of third-generation systems offering services in different environments, supporting different terminal types and providing world-wide interoperability and roaming of UMTS users.

Another project, the network project COPERNICUS 200 called "ELSNET goes East", aims to create an information infrastructure and to establish contacts by means of visits in order to improve access to information about hardware, software and "R&D-ware", as well as to allow access to expertise on interdisciplinary research, the language engineering market and cooperation between academic and industrial organisation.

The maximum Community allocation to these projects amounts to 10.6 million ECU committed in 1994 which will allow CEEC countries to prepare their full participation in the specific programmes of the Fourth Framework Programme for European research and technological development (1995-1998).

Copernicus is a programme for scientific and technological cooperation with Eastern and Central Europe, set up on the initiative of the European Parliament who decided in 1991 to reserve 55 million ECU for this action. The countries involved in Copernicus I (1992-1994) are: Albania, Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovenia, Slovak Republic and the Czech Republic.

The Copernicus programme is now part of the Action 2 of the Fourth Framework Programme of R&D international cooperation and will also cover the NIC.

# Cooperation with Asian countries

In 1994 the European Commission (DG XIII) launched several cooperation activities with dynamic countries of Asia notably China and India.

## Mobile communications in China

In the framework of the technical and economic co-operation of 1985 with the People's Republic of China, and after consultation of the MoU GSM Group, DG XIII has launched a programme aiming at the gradual introduction of GSM technology in China. The total budget allocated by the Commission to this project in 1994 was 5.9 million ECU. The programme is expected to run for 3 years starting at the end of 1994. It will fit into the Chinese schedule for the selection of the digital cellular standard, and will eventually lead to joint ventures with local partners as well as pave the way to industrial cooperation. The mobile market in China is indeed growing rapidly and thereby opens opportunities for European companies.

The cooperation programme will consists of three main components. The first component of the programme is a modular training programme for Chinese experts to achieve a satisfactory knowledge of the GSM and DCS 1800 standards and of their implementation. The second component is a type-approval

testhouse aligned with the existing European regime in order to promote a uniform world market using common equipment and interface specifications. Finally, the third component is a laboratory/trial network to enhance GSM know-how and to perform feasibility testing for the interworking of various GSM network elements delivered by different suppliers.

## Distance training programme in India

In the framework of the economic and commercial agreement of 1981 with India, and following the conclusions of the Joint Commission (10-11 October 1994), DG XIII launched a programme on "Telecom Long-Distance Training Network" in 1994. The budget committed in 1994 for this project was 0.3 million ECU. The project objective is to develop a distance learning system for India which is currently redefining its telecommunications policies. Distance training is very important in order to facilitate this policy change and to reduce the existing training gap in India.

The cooperation programme has three major objectives.

- First, to define and manage a a training programme for Indian engineers specialised in new telecommunications techniques. The target audience will include personnel from the industry and students from various streams of science and technology.
- Second, to install and manage a training network which will cover several cities. Visiocenters are envisaged in New Delhi, Bangalore, Bombay, Calcutta and Madras.
- Third, to define a research and development programme on new advanced training technologies.

# PUBLICATIONS

## Handbuch der Telekommunikation

Editor: Dr-Ing Franz Arnold, ISSN 0937-2822, ISBN 3-87156-096-0. Price: DM 248.-

Published by Deutscher Wirtschaftsdienst in three loose-leaf binders with approx 3,000 pages for the core edition, and approx 6 annual update sections.

A new version of a standard work listing and analysing new telecoms services, detailing current investments, tariffs and service-providers, equipment, legal and technical standards, market opportunities, significant commercial developments, and how best to exploit these.

Available (in German language only) from booksellers or direct from the publishers.

Contact:

Deutscher Wirtschaftsdienst
Marienburger Strasse 22
D-50968 Cologne
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tel: +49 221 37 69 50
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## EURO-ISDN Handbook

Launched at the Eurie 93 event in December 1993, Euro-ISDN is now a reality. Less than one year after the official launch of Euro-ISDN, nearly 50% of ISDN connections in Europe are Euro-ISDN. Growth in ISDN customers is impressive - basic access connections have grown by 100% in the last 12 months and primary access connections by over 90% in the same period.

Euro-ISDN is the common European implementation of ISDN which is now being introduced throughout Europe. It is based on the standards drawn up by the European Telecommunications Standards Institute (ETSI) and is rapidly replacing the separate national implementations of ISDN.

In order to ensure that information on Euro-ISDN is easily available to as many people as possible, Ovum has published a user's guide called the Euro-ISDN Handbook. In its 300 pages the handbook gives full details of:

• current availability of Euro-ISDN and the roll-out plans for all West European countries over the period 1994-1997

• availability and plans for international Euro-ISDN connections within Europe and between European countries and the USA, Japan, Hong Kong, Australia, Canada, New Zealand and Singapore

• tariffs for Euro-ISDN services in each of the 16 countries

• the lessons to be learnt from 12 case studies of successful ISDN implementations in companies both large and small across Europe

• over 800 current and planned Euro-ISDN products from over 160 suppliers complete with prices

• contract names for further details on Euro-ISDN services within all the public network operators (PNOs).

Ovum prepared the Euro-ISDN Handbook on behalf of the PNOs who signed the Euro-ISDN Memorandum of Understanding in 1989.

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Ovum Ltd.
1 Mortimer Street
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# Assessment and Evaluation of Information Technologies in Medicine

This book presents the main end product of the first phase of ATIM: the Accompanying Measure on Assessment of Information Technologies in Medicine in the AIM telematics programme.

ATIM activities were coordinated jointly by two institutes: BAZIS, the Central Development and Support Group Hospital Information System in Leiden, and the Department of Medical Informatics of the University of Limburg in Maastricht, the Netherlands.

Evidence of the effectiveness of Information Technology (IT) should provide an essential impulse for its spread in the health care market. However, present results of studies addressing this issue can hardly be said to provide this impulse. Studies tend to be ad-hoc site-specific. A major obstacle is the lack of agreement on methods and criteria for evaluation and assessment, or criteria for the evaluation and assessment of IT in healthcare.

This ATIM handbook provides first guidelines which may help users assess the effects of new and existing IT for healthcare, as well as interpret assessment reports. More specifically, the book aims to provide support in validation processes which will take place in the Telematics Programme of the Fourth Framework Programme. It combines methodological background information with practical examples from various AIM projects, and is addressed to the potential users of information technology and people who are essential for the evaluation and assessment process.

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Fax: +31 206203419
e-mail: iospress@sara.nl

# RACE 94: Rethinking work

**New concepts of work in a knowledge society: the telework option reviewed**

F.E.K. Britton - EcoPlan International - The Centre for Technology & Systems Studies - Paris. European Commission - DG XIII - CD-85-94-696-EN-C

One of the most pressing dilemmas of post-industrial society is that of work. Unemployment rates are inexorably moving up, creating impossible situations for individuals, families and institutions alike. In 1992 EcoPlan decided to launch an independent public interest project for collaborative problem definition, exploratory research, information gathering, analysis and networking: this was dubbed the Rethinking Work Program. Inputs were solicited and secured from a broad range of organisational types, disciplines, nationalities and philosophical points of view, in attempt to ensure results rich in application potential.

Based on the early return of this preparatory work, representatives of European Commission's DG XIII agreed in 1993 to support two brainstorming sessions exploring a wide range of ideas about the changing nature of work in post-industrial society. Their aim was to have access to some independent views which might help to orient EC policy on the development of new communications This report builds on these findings and should be considered as a "thinking exercise" and a contribution to the debate on telework and new flexibility in employment.

Contact:

Office for Official Publications of the European Communities (Eur-OP)
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L-2985 Luxembourg

# Library Economics in Europe: an update 1981/90

The above study has been carried out by P. Ramsdale, Institute of Public Finance Ltd, for the European Commission.

Overall library expenditure has remained static throughout the decade for the European Union. The library industry employed approximately 237,000 persons in the latter half of the 1980s and consumed 6.6 billion ECU per annum, equivalent to some 8014 million ECU when repriced to 1993 constant prices.

Maintenance of libraries continues to be a central element in the cultural programmes of member states of the European Union. However, there has been a marked change in the relative focus of libraries' investment during the past decade. Although public libraries remain the principal source of library services, accounting for just under one half of gross library expenditure (49%), the main areas of investment growth have been in the higher education sector. This reflects an implicit policy to employ the resources of the library services in education programmes, and to some extent illustrates the switch in public sector resources from secondary to tertiary education.

These are some of the findings of the study, which provides statistical information on library economics in the EU and EFTA countries for the years 1986-1990. The study (EUR 15903 EN) may be purchased from the address below.

Contact:

Eur-OP
2 rue Mercier
L-2985 Luxembourg
Fax: +352 407585

# Telematics in Primary Care in Europe

In all member states of the EC, increasing pressure on the limited resources for health care has lead to greater emphasis on cost effectiveness and to a shift from hospital care to primary healthcare. Therefore adequate data-gathering and data-flow is essential. Telematics (information and communication technology) provide us with the tools for accessing valuable information held in the medical records of general practitioners (GPs).

Moreover, increasing mobility of inhabitants requires a European effort towards standardisation. Much work has already been done in this field, mainly in relation to secondary care (hospitals). It is clear that this is also required for primary health care.

This book identifies how the applications of telematics general practice can be further developed to improve the primary quality of healthcare in Europe.

The scope of the research presented in this volume covers:

• State of the art telematics in primary healthcare, focusing on the GPs' need for horizontal and vertical data transmission and support.

• The contextual basis for the development of telematics in primary healthcare with regard to ethical, social and organisational impact and consumer perspectives.

• The areas where telematics may be further developed to meet the common needs of Europe.

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# PACE 94: Perspectives on advanced communications for Europe
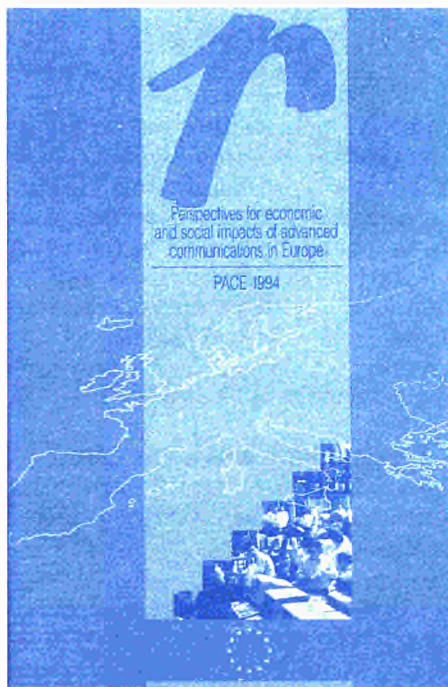


Socio-economic and technology impact assessment and forecast - RACE project R-2086 - Executive summary and synthesis report
European Commission - DG XIII
CD-83-94-175-EN-C

Race project R-2086 aimed to assess potential socio-economic impacts associated with the deployment of advanced telecommunication services including broadband for high-speed data and/or video transmission, personal (mobile) voice and data communication, and network intelligence functions that are expected to facilitate access to and use of the services.

The purpose of this report is not so much to summarize the substance and conclusions of specific analysis that were conducted on the economic and social impacts resulting from the deployment of advanced communication infrastructures and services, but rather particularly to put them in perspective. It expands on their findings, integrating developments taking place outside Europe, particularly in the United States, which are expected to be significant for the development of future policies and business strategies.

Contact:

Office for Official Publications of the European Communities (Eur-OP)
2, rue Mercier
L-2985 Luxembourg

# Telematics applications programmes - Report 1993/94

The first Telematics Programme began under the Third Framework programme in 1992 with an initial budget of 376.2 million ecus which was extended to 425.7 millions ecus to cover the years 1992-1994. In 1993 a mid-term review of the programme recommended a substantial increase in funding, based on the extremely promising results already achieved. It was also the time when plans for the new telematics applications programme were drawn up. The new programme, to be implemented under the Fourth Framework Programme, has a considerably wider scope and has shifted its focus from data to multimedia telematics, in line with technological advances and the development of new markets and users expectations. It is covered by a budget of 843 million ecus over 4 years (1994-1998).

This report presents the objectives and projects of the first telematics programme as well as the objectives for the new telematics applications programme.

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or

Office for Official Publications of the European Communities
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## ETHICOMP '95

International conference on the ethical issues of Information Technology, 28-30 March 1995

ETHICOMP '95 provides an excellent forum for stimulating debate on fundamental issues relating to the development and use of Information Systems and Information Technology. It is tailored to the needs of educators, researchers and practitioners of IS/IT, and decision-makers in industry and commerce responsible for IS/IT. Various approaches based on the different cultures and countries of both conference presenters and conference delegates will be under consideration. The three-day event consists of three parallel themes, with a series of papers and workshops on each one.

### 1. Ethical Development
The use of development methodologies and the consideration of ethical dilemmas, user education and professionalism .

### 2. Ethical Technology
Advances in technologies and the ethical issues they are likely to raise when applied to business and social problems.

### 3.Ethical Applications
Developing ethical strategies which allow technology to be exploited in an ethically acceptable way.

Key benefits include:

• An update of the current and future ethical dilemmas facing IS/IT
• An opportunity to exchange ideas on ethical practices with colleagues from different work environments and cultures
• Guidance on how to develop and implement more acceptable systems
• Research-oriented and practically-oriented sessions providing a unique opportunity for knowledge dissemination.

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## Health Telematics '95

The Associazione Italiana di Ingegneria Medica e Biologica (A.I.I.M.B.) is organising Health Telematics '95, an international conference due to be held in Naples on 2-6 July 1995. Discussions will be heard on health in the information society.

The main topics to be discussed:

### 1. Primary care and home care:
Telematics for home care; the community doctor; integrated health emergency systems.

### 2. Telemedicine:
Teleconsulting; telediagnosis; teleimaging; remote monitoring; distance training and teaching; telemedicine for the under-served community.

### 3.Hospital information systems
Medical records; integration platforms; specialised medical applications; image-based applications; portability and multimedia in healthcare needs.

**4. Local, national, and transnational healthcare telematics:** networks and services: Regional networks; information services to citizens; continuity across levels of care; telematics for quality of care, health promotion and prevention; televideoconferences; teaching applications; international collaboration outside the European Union.

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## Joint European conference and exhibition on geographical information

"From Research to Application through Cooperation" has been chosen as the theme of the above event, to be held from 26-31 March 1995 at the Netherlands Congress Centre, the Hague. A major exhibition, plenary events on topical issues, a series of "Progress in Geographical Information" (GI) seminars and various business workshops, technical tours and presentations will provide a comprehensive overview of the status of geographical information in Europe.

The co-organisers of the Joint European Conference (JEC) are AMFM, EGIS and UDMS, all members of EUROGI, the European Umbrella Organisation for Geographical Information, established during 1993 with support from the European Commission, DG XIII/E, under the IMPACT programme. A EUROGI progress seminar on 29 March will report on awareness and education in GI.

The keynote address at the Conference will be given by Mr R. F. de Bruïne, Director of DG XIII/E, who will outline European Union policy in the area of Geographical Information.

Full details of the JEC programme and registration information may be obtained from the address below.

Contact:

JEC Secretariat
AKM Congress Service
Clarastrasse 57
4005 Basel
Switzerland
Tel:  +41 61 6915111
Fax:  +41 61 6918189

# Flexible vocational education and training: meeting the needs of local industry

The British Council is organising an international seminar on flexible vocational education to be held in Edinburgh on 12-25 March 1995. The aim of the seminar is to give participants a framework for networking and developing quality responses to the needs of local industry for the provision of vocational education and training. It will identify and examine models by which such training institutions can develop such provision. The programme will be of particular interest to decision-makers in industry and education, as well as policy-makers in local and national governments.

The seminar will include the following topics:

• the development of vocational education and training in the UK

• the nature of the education/employer partnership

• identifying training needs and increasing the flexibility of provision

• certification

• application of modern technologies

• special needs groups

• funding vocational education.

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# ITALICS '95 conference on global business communication

The companies which will succeed in the highly competitive markets of the 21st century will be the companies which are information-efficient. ITALICS '95, a conference and exhibition designed to alert and inform European industry about the major developments in global business communication, will take place at the Doelen Conference Centre in Rotterdam from 28-30 May 1995. Supported by DG XIII of the European Commission and by a number of European communication companies, it will bring together business leaders and users who will talk about how they are meeting the challenge.

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# European conference on electronic directories

Within the framework of the IDA Programme, a conference on electronic directories is to be held at the beginning of May 1995. The target audience is both EU institutions and Member State public administrations.

Electronic directories have the tremendous benefit of enabling users to locate and obtain useful contact details about people and organisations, such as their fax and phone numbers, and e-mail as well as their postal addresses.

If you are in a government department or EU institution that uses or plans to use electronic mail, then you almost certainly need to know about directories.

Contact:

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