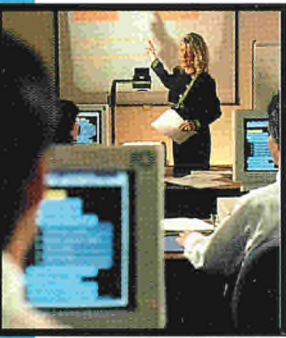## EDUCATION

BRINGING EDUCATION INTO THE INFORMATION SOCIETY

The challenges set by the Commission's "Learning in the Information Society" action plan

If Europe's young people are to be employable in tomorrow's (and even today's) job market and to fully participate in the Information Society, they must urgently learn to live and work in it. This learning process must start today; and it must begin in schools across Europe - for students of all ages.

To meet this educational challenge, the European Commission has set up an Action Plan, Learning in the Information Society, which is a joint effort of Commissioners Edith Cresson, responsible for research, education and training; Martin Bangemann, in charge of industrial affairs, telecommunications and information technologies; and with the agreement of Padraig Flynn, Commissioner for social affairs.

It builds on the work of a special Task Force on Educational Multimedia created by Commissioners Bangemann and Cresson in July 1995 to evaluate the current uses of educational multimedia and to draft guidelines, specifying what must be done to strengthen the European research and industrial effort in this field.

One practical application of the Task force recommendations was the launch of a joint Call for Proposals in December 1996 including six different Commission programmes: The Telematics applications; Information technologies; Targeted Socio-economic research programmes; The Socrates, Leonardo da Vinci programmes for education and training; and the trans-European telecommunications network activity. 837 pre-proposals were submitted in March, of which 107 were invited to apply for a second evaluation step due to take place in June 1997. The selected projects are expected to start at the end of 1997 or beginning of 1998.

Other recommendations of the Task Force are being put into practice through the Learning in the Information Society Action Plan, which specifies four priorities:

- **To encourage the interconnection of school networks across the European Union.**
  To create a "network of networks" that interconnects schools networks, based on the networks which are already well-established at the local and regional level.
- **To stimulate the development and dissemination of content of European interest which can be used for educational purposes.**
  A working group composed of multimedia and audiovisual producers and distributors is exploring opportunities for cooperation through public-private partnerships in the production of content which meets the needs of European education and training.
- **To promote training and support for teachers and trainers in the use of new technology in their teaching methods.**
  Training for teachers and trainers is at the top of the political agenda, as stressed at the recent Council of Educational Ministers in Amsterdam. Practical, on-the-job training appears to be the most promising way of training teachers. The Commission will encourage exchanges of teachers between European schools and promote the possibility to familiarise themselves with using multimedia tools in a classroom situation.
- **To build awareness of the educational opportunities afforded by new educational technologies.**
  With the help of Member States, the European Commission will help to create a platform for the exchange of information that is accessible on the Internet. The platform will offer a guide to the Internet sites that present projects currently underway and to relevant educational or multimedia databases. It will also be a forum for sharing ideas between educators, national authorities and the multimedia software sector. ∎

More information: Action plan "Learning in the Information Society":
http://europa.eu.int/en/comm/dg22/dg22.html
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Fax: +32 2 2967012
e-mail: alain.dumort@dg22.cec.be
Task force Educational Multimedia:
http://www2.echo.lu/mes/en/meshome.html
Contact: Luis Rodriguez Rosello,
Head of Unit DG XIII/C/3
e-mail: luis.rodriguez-rosello@bxl.dg13.cec.be

This newsletter is also available on the ISPO Web: http://www.ispo.cec.be

Editorial by John Gray, Principal Newark & Sherwood College Chairman of the working group "Lifelong Learning" of the IS Forum

LIFELONG LEARNING IN THE INFORMATION SOCIETY

There is a growing recognition that ICT developments are about to substantially change the ways in which Europeans learn. Our changing world demands that we meet the needs not only of those who are young and still in school but increasingly lots of others who are older and need to acquire new skills, but have little opportunity to do so through conventional education and training systems. A proactive approach is needed towards equipping our schools, and our vocational training systems, so that they have the capacity to play an active part in building the Information Society. We need to optimise the balance between Commission initiatives and those of our Member States - and to ensure we take advantage of the different contributions a community, its schools and colleges, and its businesses can make. The White Paper 'Teaching And Learning: Towards A Learning Society' drew our attention to certain "factors for upheaval" that educators should be preparing for - one of which is the arrival of the Global Information Society. Our first Information Society Forum Annual Report 'Networks for People and their Communities' talked of a "vicious cycle of barriers to change". Our working group believes synergy has to be derived from addressing all the elements in this vicious circle if the Information Society is to become the Learning Society we need. This means equipping educators with new skills, ensuring that useful multimedia materials are available, encouraging publishers and others to produce these materials, and, of course, providing real accessibility to them through schools, colleges, libraries and other public access points. The challenge is to intervene in ways that can turn the vicious circle into a virtuous one of self-sustaining development. The Fifth Framework Programme can undoubtedly play a part in helping the transition from the teacher-centred pedagogy of the past to genuinely learner-centred activity. The EU Action Plan 'Learning In The Information Society' has already begun to address some of the issues. An extension of the Action Plan's promotion of school network links to include schools in Central & Eastern Europe Countries would be an invaluable way of supporting this important aspect of European partnership. The energy that many Member States (and now some CEEC governments) are putting in to help get their schools 'on-line' is encouraging, but there's so very much to do! Perhaps it's a time for radical measures! Reform of the Structural Funds might bring appropriate levels of investment to the most important 'structure' of all, the infrastructure through which our people learn to cope with their changing world. High bandwidth multimedia networks will be as essential as roads and bridges. Whatever we do, it must be built on a fundamental awareness of the issues (and as much local ownership of the investment decisions needed) at the level of the individual school managers, teachers and parents. In any Information Society strategy that genuinely puts 'People First' it is their enthusiasm, and commitment to change, that is most needed if we are to make progress. ∎

LEARNING IN THE INFORMATION SOCIETY

Over the coming two years, the European Commission will promote a series of events and programmes aimed at encouraging interest in developing multimedia information tools for European schools and the creation of European content. Some of the activities running under this initiative are:

The conference on public/private Partnership for Education.
A workshop will be organised in September 1997 to examine the possibility of forming a non-profit European organisation or Foundation that brings together public and private players in the educational multimedia sector. Its task will be to encourage the creation of new partnerships in Member States and in the regions, and to bring together existing federations. The initiative has strong support from a group of companies set-up under the name "European Education Partnership". This group raises the interest of informatics providers, telecom operators, publishers, on-line services, broadcasters (France Télécom, Deutsche Telekom, AOL-Bertelsmann, BBC education, European Broadcasters Union, Hachette, Giunti multimedia, Xemplar education, Apple Computer, ICL, Research Machine, etc..

An Internet site for European schools. A range of Internet-based multimedia services is planned for September 97 to bring new educational information to schools. This project has the support of all EU Ministries of Education.
**Educational multimedia competition for schools.** An educational exercise where students and teachers from across the European Union are invited to propose their best ideas and examples for multimedia educational products. The aim is to encourage them to disseminate new content on-line and to introduce talented young people to multimedia producers.
Netd@ys. This pan-European information campaign, planned for October 1997, will develop awareness-raising and promotional activities around existing networks of schools in order to stimulate similar experiences in other countries, regions or cities within Europe. Futhermore, between 5 and 10 Internet-related educational projects will be chosen per country, and implemented by a public/educational/industry partnership. In addition to being a high-profile showcase for educational multimedia, Netd@ys will also be the starting point for many new and lasting public/private/educational partnerships. ■

More information on these last 2 events can be found at :
http://europa.eu.int/en/comm/dg22/netdays/home.html

EDUCATION AND 'IS': NEW PRIORITIES FOR 5TH FRAMEWORK PROGRAMME

The development of new information tools designed to help make Europe's schools and universities active players in the Information Society is one of the priorities of the European Commission's proposal for the Fifth Framework Programme for Research and Technological Development. After the proposal is reviewed and adopted by the European Parliament and Council, it will be put into action next year. This draft Framework Programme, which is the most extensive research and technology funding scheme available to European industry, has now put the development of Information Society tools at the top of its priorities list. The educational projects would be funded under the action 'Creating a user-friendly Information Society'. focused on four main areas:
Interactive electronic publishing with new methods for creating and structuring publications and for the personalised dissemination of information and accessing of cultural items through virtual libraries and museums.
Education and training, systems, services and software enabling the development and demonstration of new methods using multimedia, broadband communications, simulation and virtual reality.
New language technologies which help to make information and communications systems more user-friendly.
Advanced technologies for accessing, filtering and analysing information to help manage the information explosion and facilitate the use of multimedia contents. ■

For full details on the 5th Framework Programme proposal, point your browser to
http://www.cordis.lu/fifth/home.html
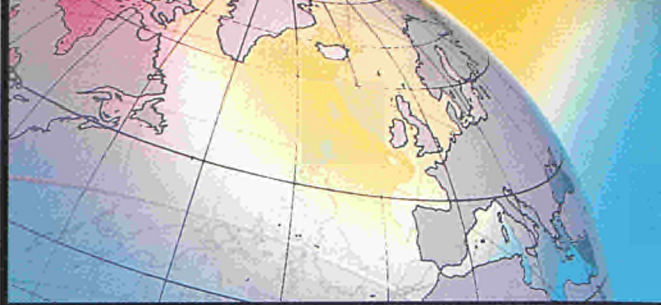
COMMISSION SETS PRIORITIES FOR 'IS' MARKET

EUROPEAN ICT IS PROGRESSING, BUT NOT FAST ENOUGH FOR GLOBAL COMPETITION

Over the past three years, the number of European companies being created to reap the benefits of the Information Society has grown steadily. But this progress compares very poorly with the monumental advances made in the United States and Asia over the same time period, concludes the European Commission in its recent Communication: *The Competitiveness of The European Information and Communication Technology Industries.*
Even though the Information and Communications Technologies (ICT) market is becoming an important and growing portion of Europe's manufacturing industry, the Communication says that the EU has cause for serious concern. The global figures tell the story: since 1990, Europe's share of the worldwide ICT market has declined from 35% to 28%. During the same period, the United States market has grown from a similar starting point to capture 41% of the worldwide ICT market. Added to this is Europe's worsening ICT trade balance - in some areas of Europe, imports total some 50% of local consumption of information products and services.
The IS Competitiveness Communication highlights several specific challenges that Europe's ICT industry must face:

• the need to adapt industrial structures, develop networks of competitive component suppliers and create the conditions for start-ups;
• the need to remain at the forefront of technological developments, increasing investments in R&D and ensuring timely and wide diffusion of ICT;
• the need to exploit ICTs as an opportunity for employment growth, making sure that ICT industries' restructuring and the development of new services results in a net gain of new jobs.

The Communication, presented by Martin Bangemann, the European Commissioner responsible for Industry and Information Society matters, follows the debate on the situation of the European ICT industries started at the Informal Industry Council in The Hague on 1-2 February 1997. It proposes a series of actions by the industry, the Member States and the Commission to improve Europe's position in the global ICT market.
These priority actions cover six key areas: abolishing trade barriers on all information technology (IT) products; improving the development of IT standards; using the potential of European Union enlargement to create a broader-based European ICT market; promoting industrial cooperation; supporting the emergence of SMEs; and upgrading workers' skills to improve industrial performance and employment opportunities.
The Commission proposes to work together with the Member States and industry to establish specific actions, a work programme for their execution and a mechanism for reviewing progress.
A number of EU-driven actions in this area are already underway. Among these are projects running under the Commission's Information Society Action Plan, and many electronic commerce initiatives. ■

To see the full text of the Communication on The Competitiveness of The European Information and Communication Technology Industries, point your browser to:
http://www.ispo.cec.be/infosoc/legreg/docs/ictcomp.html

Contact: DG III Information and Communications Office
Tel: +32 2 2966549
Fax: +32 2 2991926

EUROPEAN ELECTRONIC COMMERCE ASSOCIATION IS BORN

Helping define Europe's 'Internet policy'

Europe now has its own organisation to promote electronic commerce, encourage best practice, and influence policy and related issues. The Electronic Commerce Europe Association (ECE) brings together 11 national European electronic commerce organisations. The first meeting of this new organisation took place at the recent G7 Conference on Electronic Commerce in Bonn, which brought together represent-atives from some 90 different confederations with interests in electronic commerce. With the United States taking the lead in the areas of Internet policy, practice and market innovation, the ECE's role is clear, says Harald Summa, member of the ECE board: "Since the US has now formulated a clear Internet policy, it will also be important for Europe to collectively take action over the political, economic and legal aspects of the worldwide arrangements of 'Cyberspace Business.'" The ECE aims to act as a 'partner for change,' to help European Industry take advantage of the world's largest new industrial sector. "In a few short years the information industry will probably be the world's largest sector," said Mr Summa. "So Europeans must come to terms with what this means today - in terms of political, economic, social and technical development." ◼

More information on ECE:
Fax: +49 231448135
e-mail: summa@eco.de
http://www.ec-europe.de

COMMISSION TAKES STANCE ON ELECTRONIC COMMERCE

Four priorities to open EU to 200 billion ECU market

If European businesses and citizens are to fully benefit from electronic commerce and the advantages of the emerging worldwide electronic marketplace, progress must be made in four key areas by the year 2000. This is the conclusion of the European Commission's recently adopted Communication, 'A European Initiative on Electronic Commerce.'
The four priorities are: the availability of widespread and affordable access to the infrastructure and services needed for electronic commerce and secure electronic payment; a coherent regulatory structure across the European Union, based the principles of the Single European Market; a favourable business environment supported by relevant skills and awareness among the population; and a compatible and coherent worldwide regulatory framework.
The Communication stresses that the proven principles and benefits of the EU's Single Market must now be applied to electronic commerce, so that the EU can capitalise on the tremendous business opportunities offered by electronic commerce.
The global electronic commerce market is growing extremely fast and Internet commerce could be worth 200 billion ECU by the year 2000. Worldwide, 86 million people were connected to the Internet by the end of 1996 and this figure is expected to reach 250 million by 2000.
The Communication was adopted by the Commission on the initiative of Information Technology and Telecommunications Commissioner Martin Bangemann, Single Market Commissioner Mario Monti and Commissioner Christos Papoutis, in charge of Small Businesses policy.
Electronic commerce encompasses all the techniques and services used to enable businesses to interact electronically with suppliers, customers, and administrations. It can range from electronic ordering of goods and services and electronic payment, to commercial auctions, collaborative design and engineering, and after-sales service. ◼

For full text of the Communication and links to other relevant other sites, point your browser to
http://www.ispo.cec.be/Ecommerce

Contact: DG III Information and Communications Office
Tel: +32 2 2966549 - Fax: +32 2 2991926

TELEMATICS FOR TEACHER TRAINING

In the past year, some 2,300 teachers across Europe have learned how the Information Society can open their horizons and substantially improve the quality of education in Europe - thanks to T3 - the Telematics for Teacher Training project. The T3 project models appropriate use of communications and information technologies so that they will be passed as appropriate within an Information Society. The goal of T3 is to encourage primary and secondary teachers of mathematics, languages, science and technology, teacher educators, and library staff to adopt information technologies as part of their daily work. In a series of practical sessions, these teachers can see how telematics tools such as the World Wide Web, e-mail, virtual workshops and video conferencing can benefit the educational profession and its students.

T3 partners include seven teacher training organisations located across the European Union: Utrecht University (NL), Dublin City University (IRE), IUFM Grenoble (FR), Instituto Technologie Didattiche Genoa (IT), the University of Minho (PT) and the University of Oulu (FIN). The coordinating partner is the University of Exeter (UK). As a part of this effort, a range of strategies have been developed, and a special course is currently being created for librarians who work with teachers. This will be followed by a core curriculum for Telematics in Teacher Training which will be made available to teachers across Europe. Another innovative aspect of this project is that all courses are developed and revised regionally to create a unique European educational approach which can be used across the EU. The various components of the courses are developed by one of the partners. Each new course is submitted for review and feedback to all other partners, to ensure that it has a truly European perspective. A part of this process includes the cultural and linguistic adaptation of material to suit other regions.

Participants are reacting enthusiastically, and have already created new information tools such as World Wide Web learning environments to help teachers locate and discuss teaching materials and strategies, and the use of video conferencing to bring teachers into instant contact with experts in other locations. Probably the most important long term impact of the project is its 'multiplier effect'. Today's core of teachers that are now T3 initiates can spread the benefits of the Information Society through their enthusiasm, and especially their innovative new work techniques. T3 is a three year project supported by the European Commission's Telematics Application Programme. ◼

For further information about T3, please contact:
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Web site: http://www.ex.ac.uk/telematics/T3

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INFORMATION SOCIETY SURVEY - FIRST RESULTS ARE AVAILABLE

The first results from the European Survey of the Information Society (ESIS) launched in January by ISPO are now available. The ESIS Project main objective is gathering and analysing information on the IS (Information Society) related projects and actions in the EU.
More precisely, ESIS concentrated on gathering and presenting three categories of information:
- An inventory of all existing IS projects, especially those that make innovative use of ICT.
- The monitoring and regular analysis of new regulations as well as actions, initiatives and calls for proposals aimed at promoting both public and private initiatives in the field of the Information Society in each of the Member States. It also provides information on key indicators on the Information Society, both at country level as well as EU overviews.
- A navigation tool providing information on the key actors in IS in Member States (e.g. respon-sible ministries, contact names etc.). It also maps public and private network facilities offering Information Society infrastructure, services and applications (e.g. gas, railways, water supply, cable TV, etc.).

Full details of the structure and methodology of the survey and the complete background are located on the ISPO Internet site. To review the first round of results form the survey, point your browser to:
http://www.ispo.cec.be/esis/esis.html or contact Androulla Kaminara - e-mail: Androulla.Kaminara@ispo.cec.be
Fax: +32 2 2994170

INFORMATION SOCIETY
NEWS

From left to right:
Dr Paul Roach
(Infotoonment manager),
Christoph Heberer (ISPO
expert), Tony Barnes
(Managing director
Fairwater Films) and Tim
Robins (Infotoonment
coordinator).

ISPO CORNER

ISPO PROJECT PROFILE

FROM LOONEY TUNES TO 'INFOTOONS'

All singing, all dancing and 100% European

Move over Looney Tunes, the Infotoonment project is animated entertainment for kids ... and it's 100% European!

Try to lecture a young child on the wonders of the Information Society, and they'll be squirming in their seat after five minutes. Two Welsh partners, University of Glamorgan and Fairwater Films have solved this problem with their Infotoonment project which shows kids the challenges of the Information Society in an animated cartoon story. Infotoonment (INFOrmation, carTOONs and entertainMENT) is the result of a unique collaboration between academia and the animation industry in Wales, says Tony Barnes, Managing Director of Fairwater Films and creator of children's cartoons The Shoe People and Transylvania Pet Shop. "The animation market is dominated by American product, but Europe has a rich tradition of animation."
By bringing together the arts with

industry, the two-year Infotoonment project, which is funded by ISPO, will develop character designs and other pilot material for the media. Speaking as the recent ISPO Information Day in Brussels, ISPO expert Christoph Heberer highlighted the project as an example of exactly the kind of high profile project that ISPO is interested in funding.
Explaining the concepts of the Information Society to children in plain English (or later French, Italian, Dutch, Spanish, etc.) is one of the 'technical' challenges for this team, according to Dr. Paul Roach, Infotoonment Project Manager and Tim Robins, Project Coordinator. At the partnership level, this project has generated much enthusiasm and hopes of further work between the University of Glamorgan's Schools of Humanities and Social Sciences, Mathematics and Computing and the Business School, who have provided the fourth team member, educational psychologist Teresa Berrow.

From the European Union, that's all (for now) folks! ■

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EVENTS UPDATE

EUROPEAN INFORMATION SOCIETY AWARENESS WEEK 1997

If you don't know IT, you don't know that you need IT

To show the practical uses of new electronic information tools to Small and Medium-sized Enterprises (SMEs) in all sectors of industry is the primary goal of the 3rd European Information Society Awareness Week (EISAW), to be held on 6-11 October 1997 in more than 25 locations across Europe. The possibilities and advantages for SMEs will be shown by practical presentations, demonstrations of products, services and applications.

There will also be several hands-on sessions where owners and employees of SMEs will be able to try new Information and Communication Technologies (ICT) for themselves.
EISAW is organised by ISPO in collaboration with the Euro Info Centre network of European Commission Directorate-General XXIII (Enterprise Policy) together with national, regional and local associations. ■

For updates on the programme keep you eye on:
http://www.ispo.cec.be over the coming months.
Contact Nic Morris, DG XXIII
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peter.johansson@bxl.dg13.cec.be

CALENDAR

Telework in Europe: the bridge between social and societal needs and new technology opportunities
Brussels (B)
5 June 1997
European Commission, DG XIII-B
Maarten Botterman
Fax: +32 2 2962980
e-mail: telework@postman.dg13.cec.be
http://www.eto.org.uk/twork/ec970605.htm

The Social Quality of Europe Social Balance: a Common Interest
Amsterdam (NL)
8-10 June 1997
Dr. Jan Steyaert
Fax: +31 40 2435274
e-mail: J.Steyaert@fontys.nl

Bled Electronic Commerce Conference
Bled (Slovenia)
9-11 June 1997
University of Maribor
Fax: +386 64 221424
e-mail: Belinda.Skofic@fov.uni-mb.si
http://ecom.fovref.uni-mb.si

EEMA '97 Electronic Commerce and Messaging in Europe
Maastricht (NL)
15-18 June 1997
Fax: +44 1386 793268
e-mail: cgibson2@attmail.com
http://www.eema.org

21st century: "The Communications Age"
Brussels (B)
18 June 1997
European Commission (DG XIII-B) and European Parliament
(Proceedings broadcasted by satellite)
Fax: +32 2 2306929
e-mail: conference-info@epri.org
http://www.epri.org/21st_century

Online Cooperation International Conferences on Teleworking
Berlin (D) 23-24 June 1997

Singapore, 28 August 1997
ICEF
Fax: +49 30 3249833
e-mail: 100770.3137@compuserve.com

ETIS '97 Conference: IT on the Move
25-27 June 1997
The Hague (NL)
Ian Clark - ETIS
Fax: +32 2 2192628
http://www.belgacom.be/etis/etis97.htm

Electronic Commerce in the framework of Mediterranean Countries Development
EUROMED Working Conference
Metsovo (GR)
4-6 July 1997
Deborah Nute
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ISPO SECRETARIAT

Free phone service

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Germany	0130 821943
Greece	00800 3212635
Ireland	1800 553224
Italy	1678 76790
Luxembourg	0800 2929
Netherlands	060 222086
Portugal	0505 329635
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